



# FCC RADIO TEST REPORT

**FCC ID** : UXX-S5A950A  
**Equipment** : Advanced Edge Router with 4x4 dual-band AP  
**Brand Name** : Cradlepoint  
**Model Name** : S5A950A  
**Applicant** : Cradlepoint, Inc.  
1111 West Jefferson Street ,Boise ,Idaho,United States 83702  
**Manufacturer** : Cradlepoint, Inc.  
1111 West Jefferson Street ,Boise ,Idaho,United States 83702  
**Standard** : 47 CFR FCC Part 15.247

The product was received on Oct. 23, 2019, and testing was started from Nov. 07, 2019 and completed on Jan. 07, 2020. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

The 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: Cliff Chang

**SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory**

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



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### **Photographs of EUT v01**



TEL : 886-3-656-9065  
FAX : 886-3-656-9085  
Report Template No.: CB-A10\_10 Ver1.0



## 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: Sandy Chuang**



# 1 General Description

## 1.1 Information

### 1.1.1 RF General Information

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
2400-2483.5	b, g, n (HT20), VHT20, ax (HEW20)	2412-2462	1-11 [11]
2400-2483.5	n (HT40), VHT40, ax (HEW40)	2422-2452	3-9 [7]

Band	Mode	BWch (MHz)	Nant
2.4-2.4835GHz	802.11b	20	4TX
2.4-2.4835GHz	802.11g	20	4TX
2.4-2.4835GHz	802.11n HT20	20	4TX
2.4-2.4835GHz	VHT20	20	4TX
2.4-2.4835GHz	VHT20-BF	20	4TX
2.4-2.4835GHz	802.11ax HEW20	20	4TX
2.4-2.4835GHz	802.11ax HEW20-BF	20	4TX
2.4-2.4835GHz	802.11n HT40	40	4TX
2.4-2.4835GHz	VHT40	40	4TX
2.4-2.4835GHz	VHT40-BF	40	4TX
2.4-2.4835GHz	802.11ax HEW40	40	4TX
2.4-2.4835GHz	802.11ax HEW40-BF	40	4TX

**Note:**

- 11b mode uses a combination of DSSS-DBPSK, DQPSK, CCK modulation.
- 11g, HT20 and HT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
- VHT20, VHT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM modulation.
- HEW20, HEW40 use a combination of OFDMA-BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM modulation.
- BWch is the nominal channel bandwidth.
- 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****<WLAN antenna gain>**

Ant.	Port	Brand	P/N	Antenna Type	Connector	Antenna Gain (dBi)		Cable Loss (dB)		True Gain (dBi)	
						2.4G	5G	2.4G	5G	2.4G	5G
1~4	1~4	WNC	08.22100.011	Dipole	RP SMA Plug	2.47	2.47	0.9	1.5	1.57	0.97

**<WWAN antenna gain>**

Ant.	Port	Brand	P/N	Antenna Type	Connector	Gain (dBi)
1~4	1~4	Cradlepoint	170760-000	Dipole	SMA Male	Note 1 (WCDMA) Note 2 (LTE)

**Note 1**

Ant.	Port	Band 2	Band 4	Band 5
1~4	1~4	1.34	0.86	-0.57

**Note 2**

Ant.	Port	Band 2	Band 4	Band 5	Band 7	Band 12	Band 13	Band 14	Band 17	Band 18
1~4	1~4	1.34	0.86	-0.57	2.19	0.57	0.57	0.57	0.57	-0.57

Ant.	Port	Band 19	Band 25	Band 26	Band 30	Band 38	Band 41	Band 66	Band 71
1~4	1~4	-0.57	1.34	-0.57	2.67	2.19	2.19	0.86	0.57

Note 2: The above information was declared by manufacturer.

**For 2.4GHz function:****For IEEE 802.11b/g/n/VHT/ax (4TX/4RX):**

Port 1, Port 2, Port 3 and Port 4 can be used as transmitting/receiving antenna.

Port 1, Port 2, Port 3 and Port 4 could transmit/receive simultaneously.

**For 5GHz function:****For IEEE 802.11a/n/ac/ax (4TX/4RX):**

Port 1, Port 2, Port 3 and Port 4 can be used as transmitting/receiving antenna.

Port 1, Port 2, Port 3 and Port 4 could transmit/receive simultaneously.

**1.1.3 Table of WWAN module**

Module	Brand Name	Model Name	FCC ID	Function	Remark
1	Telit	LM960	RI7LM960	WCDMA Band 2, 4, 5 / LTE Band 2, 4, 5, 7, 12, 13, 14, 17, 18, 19, 25, 26, 30, 38, 41, 66, 71	Internal module (would be marketed)
2	Cradlepoint	MC400-1200M	Contain FCC ID: RI7LM960		External module (would not be marketed)

**1.1.4 Mode Test Duty Cycle****<For Non-Beamforming Mode>**

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
802.11b	0.65	1.87	690u	3k
802.11g	0.951	0.22	1.978m	1k
802.11ax HEW20	0.96	0.18	5.452m	300
802.11ax HEW20-BF	0.918	0.37	1.766m	1k
802.11ax HEW40	0.942	0.26	5.448m	300
802.11ax HEW40-BF	0.916	0.38	1.764m	1k

**<For Beamforming Mode>**

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
802.11ax HEW20-BF	0.969	0.14	1.765m	1k
802.11ax HEW40-BF	0.955	0.2	1.764m	1k

Note:

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

**1.1.5 EUT Operational Condition**

<b>EUT Power Type</b>	From Power Adapter			
<b>Beamforming Function</b>	<input checked="" type="checkbox"/>	With beamforming	<input type="checkbox"/>	Without beamforming
	The product has beamforming function for VHT/ax in 2.4GHz and ac/ax in 5GHz.			
<b>Function</b>	<input checked="" type="checkbox"/>	Point-to-multipoint	<input type="checkbox"/>	Point-to-point
<b>Test Software Version</b>	<For Non-Beamforming Mode> QSPR V5.0-00161			
	<For Beamforming Mode> 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	TH01-CB	Owen Hsu	23.7-24.7°C / 57-61%	Nov. 07, 2019~ Nov. 08, 2019
Radiated <Below 1GHz>	03CH05-CB	KJ Chang	18.1-19.1°C / 66-71%	Dec. 09, 2019~ Jan. 02, 2020
Radiated <Radiated Emission Co-location>	03CH01-CB	KJ Chang	20.9-22.2°C / 53-56%	Jan. 07, 2020
Radiated <Above 1GHz>	03CH01-CB	KJ Chang	20.9-22.2°C / 53-56%	Dec. 09, 2019~ Jan. 02, 2020
AC Conduction	CO01-CB	GN Hou	22-24°C / 59-63%	Dec. 05, 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

**<For Non-Beamforming Mode>**

Mode	Power Setting
802.11b_Nss1,(1Mbps)_4TX	-
2412MHz	19
2437MHz	20.5
2462MHz	19.5
802.11g_Nss1,(6Mbps)_4TX	-
2412MHz	15.5
2417MHz	18.5
2437MHz	19.5
2457MHz	16.5
2462MHz	15.5
802.11ax HEW20_Nss1,(MCS0)_4TX	-
2412MHz	14
2417MHz	17.5
2437MHz	19.5
2457MHz	17
2462MHz	16
802.11ax HEW40_Nss1,(MCS0)_4TX	-
2422MHz	15.5
2437MHz	15.5
2452MHz	14.5

**<For Beamforming Mode>**

Mode	Power Setting
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	-
2412MHz	22
2437MHz	23
2457MHz	23
2462MHz	20
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	-
2422MHz	21
2437MHz	21
2452MHz	19

**Note:**

- ♦ There are two modes of EUT, one is beamforming mode, and the other is Non-beamforming mode for VHT/ax in 2.4GHz and ac/ax in 5GHz. Beamforming mode and Non-beamforming mode has been test and record in this test report.

## 2.2 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
<b>Tests Item</b>	AC power-line conducted emissions
<b>Condition</b>	AC power-line conducted measurement for line and neutral
<b>Operating Mode</b>	Normal Link
1	EUT + Adapter 1 (Testing internal module - LTE B2)
2	EUT + Adapter 2 (Testing internal module - LTE B2)
Mode 1 has been evaluated to be the worst case among Mode 1~2, thus measurement for Mode 3~5 will follow this same test mode.	
3	EUT + Adapter 1 (Testing internal module - WCDMA B2)
4	EUT + Adapter 1 + External module (Testing external module - LTE B2)
5	EUT + Adapter 1 + External module (Testing external module - WCDMA B2)
For operating mode 4 is the worst case and it was record in this test report.	

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



<b>The Worst Case Mode for Following Conformance Tests</b>	
<b>Tests Item</b>	Emissions in Restricted Frequency Bands
<b>Test Condition</b>	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.
<b>Operating Mode &lt; 1GHz</b>	CTX
The EUT can be placed in X-axis, Y-axis and Z-axis. EUT X axis has been evaluated to be the worst case at Emissions in Emissions in Restricted Frequency Bands <Above 1GHz>; thus, the measurement will follow this same test configuration.	
1	EUT in X axis + 2.4GHz + Adapter 1
2	EUT in X axis + 2.4GHz + Adapter 2
Mode 2 has been evaluated to be the worst case among Mode 1~2, thus measurement for Mode 3 will follow this same test mod	
3	EUT in X axis + 5GHz + Adapter 2
For operating mode 2 is the worst case and it was record in this test report.	
<b>Operating Mode &gt; 1GHz</b>	CTX
1	EUT in X axis
The EUT can be placed in X-axis, Y-axis and Z-axis. After evaluating, X-axis was the worst case, so the test will follow this same test configuration.	

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

<b>The Worst Case Mode for Following Conformance Tests</b>	
<b>Tests Item</b>	Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation
<b>Operating Mode</b>	
1	WLAN 2.4GHz + WLAN 5GHz + external module
2	WLAN 2.4GHz + WLAN 5GHz + internal module
Refer to Sporton Test Report No.: FA902202 for Co-location RF Exposure Evaluation.	



## **2.3 EUT Operation during Test**

For CTX Mode:

<non-beamforming mode>

The EUT was programmed to be in continuously transmitting mode.

<beamforming mode>

During the test, the following programs under WIN XP were executed.

The program was executed as follows:

1. During the test, the EUT operation to normal function.
2. Executed command fixed test channel under DOS.
3. Executed "Lantest.exe" to link with the remote workstation to transmit and receive packet by RX Device and transmit duty cycle no less than 98%.

For Normal Link:

During the test, the EUT operation to normal function.



## 2.4 Accessories

Accessories				
Equipment Name	Brand Name	Model Name	Rating	Remark
Adapter 1	FSP	FSP180-AWAN3	Input: 100-240Vac, 2.3A, 50-60Hz Output: 54Vdc, 3.34A	With the cable: Non-shielded, 1.6m
Adapter 2	DELTA	ADP-180AR B	Input: 100-240Vac, 2.6A, 50-60Hz Output: 54Vdc, 3.33A	With the cable: Non-shielded, 1.6m
Battery	maxell	CR2032	DC 3V	-
Other				
Power cable*1: Non-shielded, 0.4m				



## 2.5 Support Equipment

For AC Conduction:

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	Flash disk3.0	Transcend	639205 7755	N/A
B	2.5G WAN NB	DELL	E6430	N/A
C	1G PoE LAN NB	DELL	E6430	N/A
D	1G LAN NB	DELL	E6430	N/A
E	2.4G NB	SAMPO	HT-B 907WL	N/A
F	5G NB	SAMPO	HT-B 907WL	N/A
G	Nu stream	X TRAMUS	NuStreams-600	N/A
H	Nu stream NB	DELL	E6430	N/A
I	GPS antenna	taoglas	AA.162	N/A
J	GPS simulator	WELNAVIGATE	GS-100	N/A
K	Base station	Anritsu	MT8820C	N/A
L	SIM card	N/A	N/A	N/A
M	External module	Cradlepoint	MC400-1200M	Contain FCC ID:RI7LM960

For Radiated (below 1GHz):

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

For Radiated (above 1GHz) and RF Conducted:  
<For Non-Beamforming Mode>

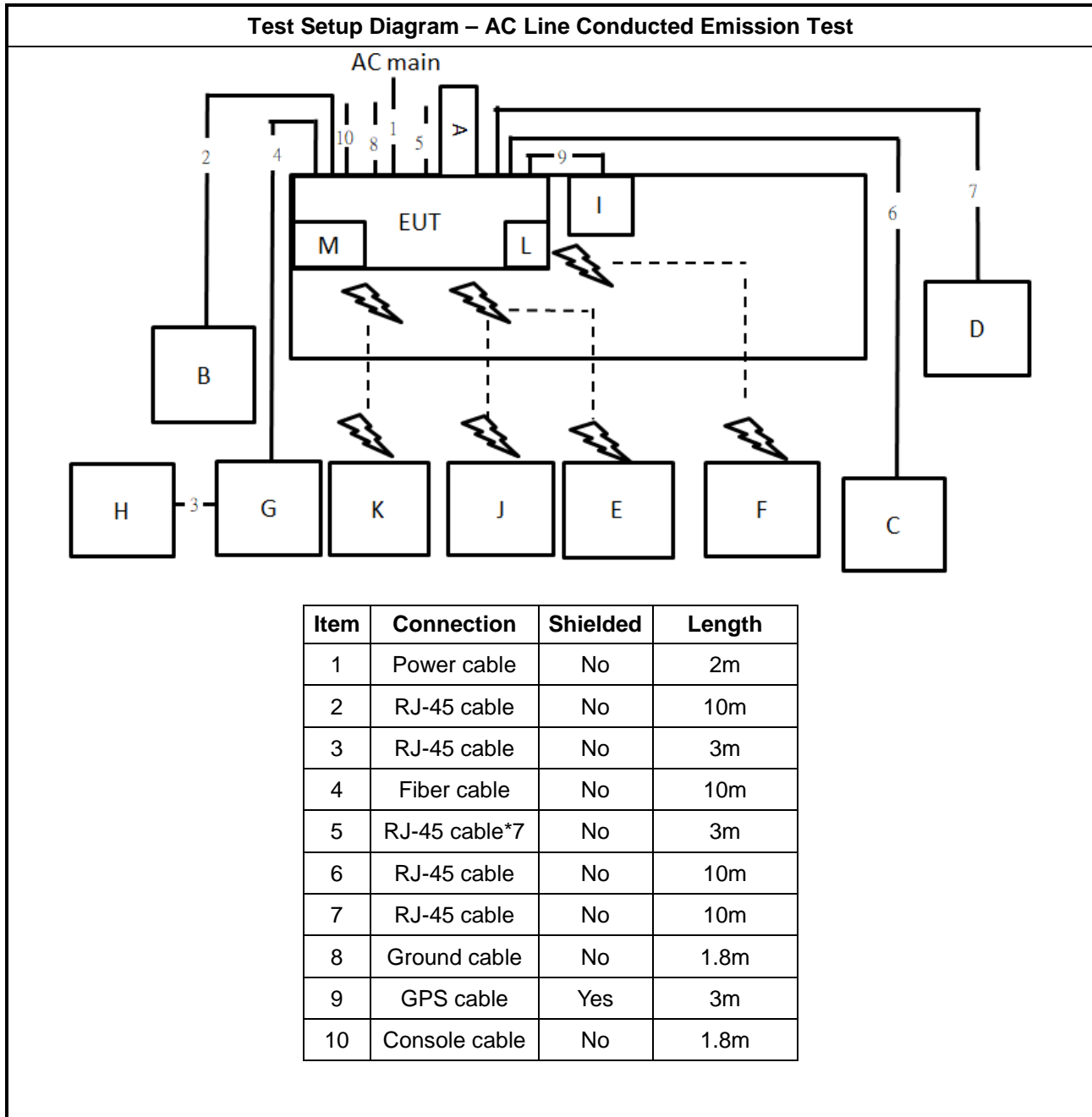
Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	Notebook	DELL	E4300	N/A

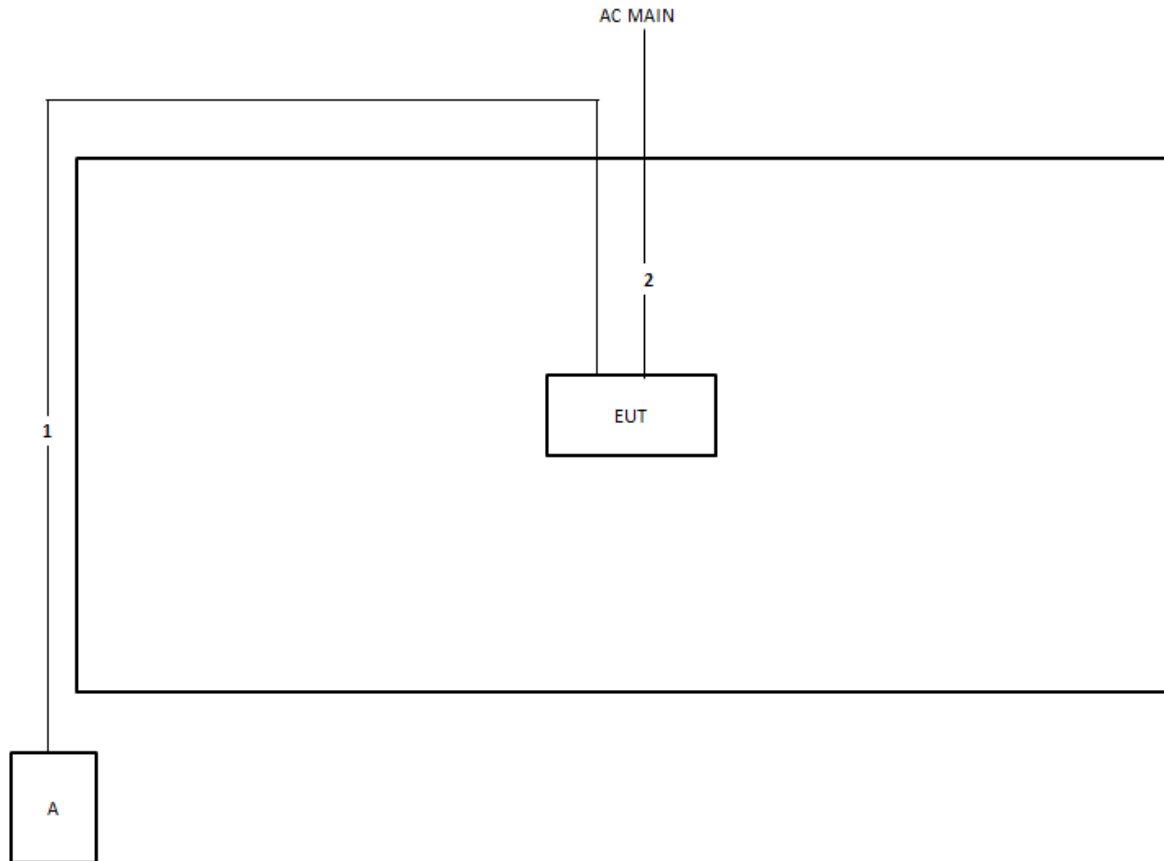
<For Beamforming Mode>

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	Notebook	DELL	E4300	N/A
B	Notebook	DELL	E4300	N/A
C	RX Device	WNC	SEQC-D1 / S5A950A	N/A

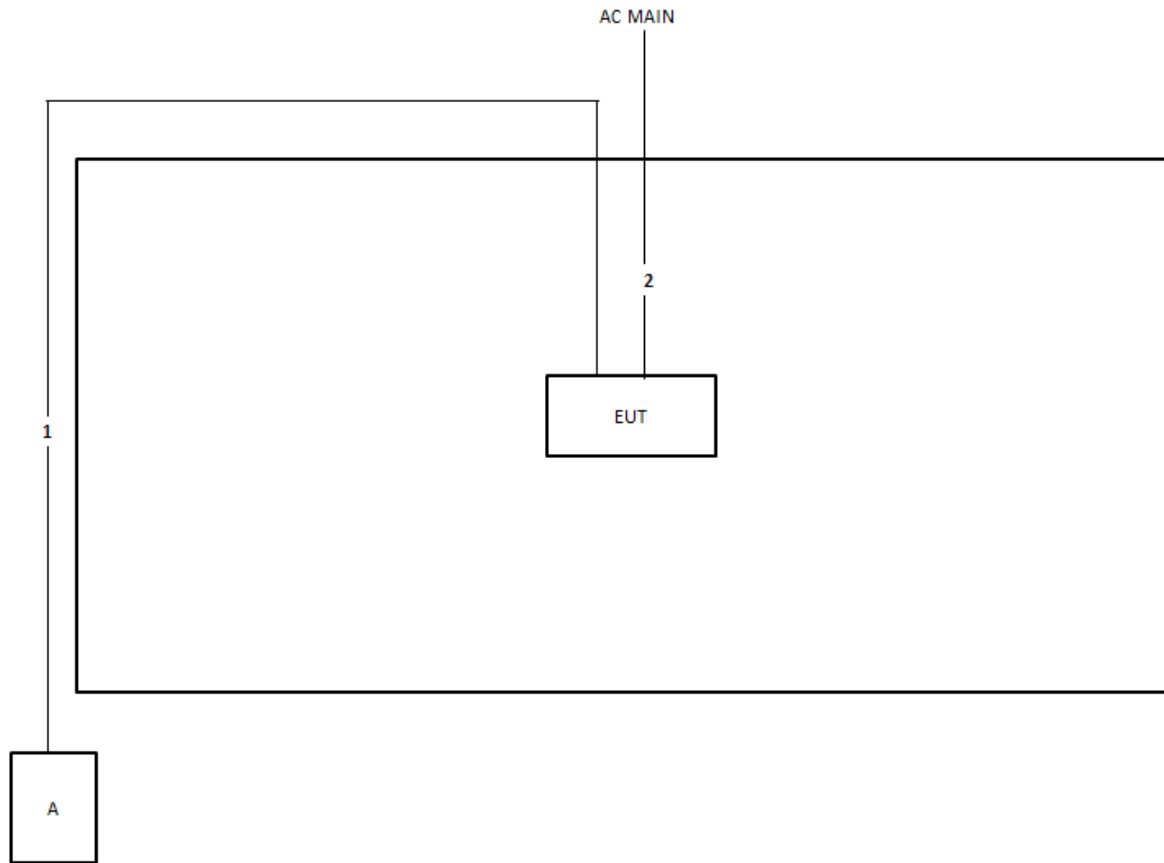


## 2.6 Test Setup Diagram

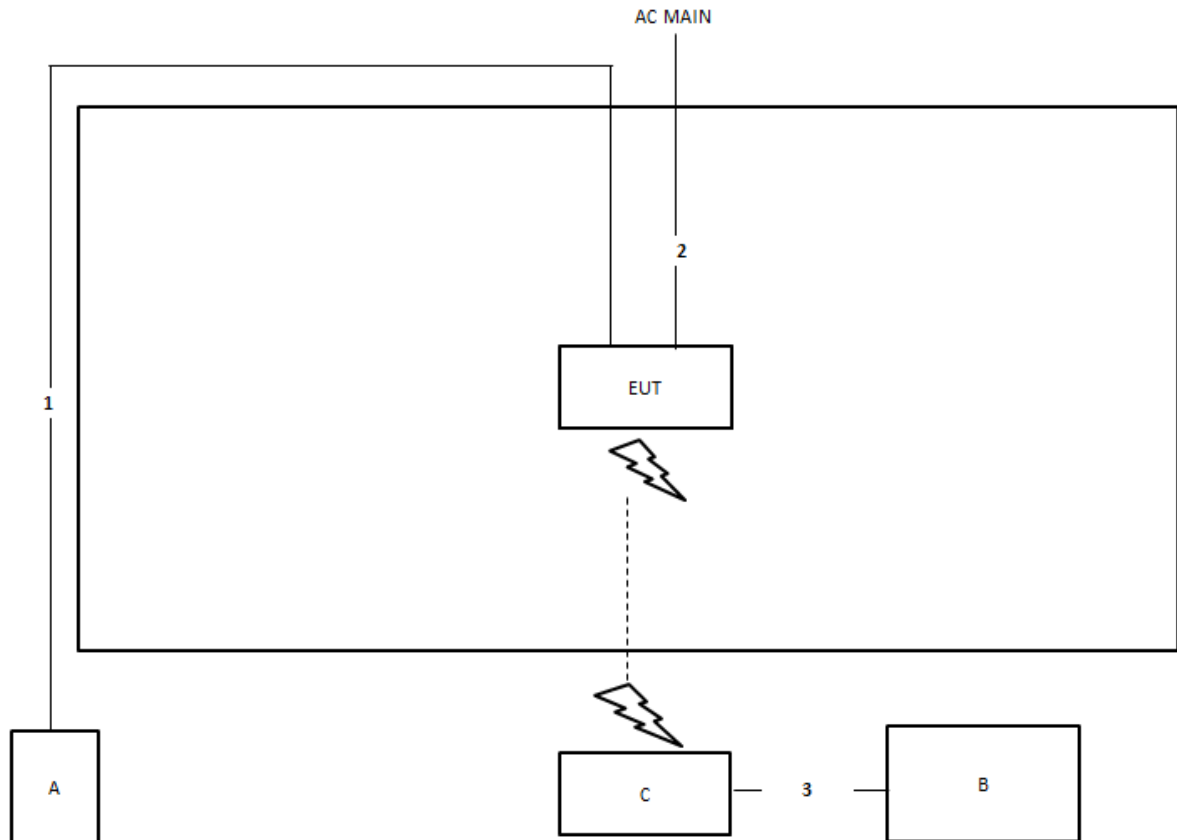


**Test Setup Diagram - Radiated Test < 1GHz**


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

**Test Setup Diagram - Radiated Test > 1GHz**
**<For Non-Beamforming Mode>**


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

**Test Setup Diagram - Radiated Test > 1GHz**
**<For Beamforming Mode>**


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

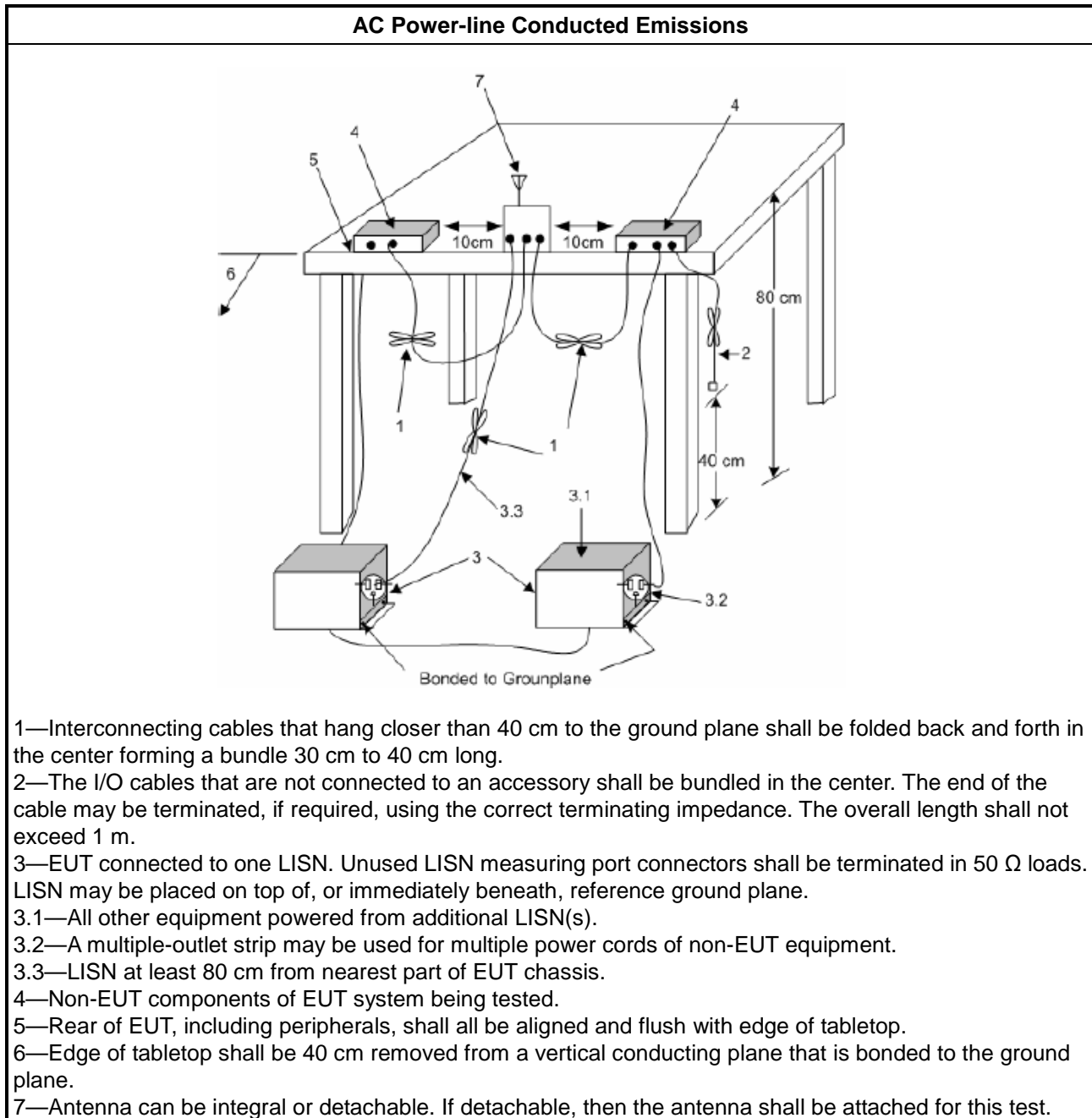
##### 3.1.2 Measuring Instruments

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>	
▪	6 dB bandwidth $\geq$ 500 kHz.

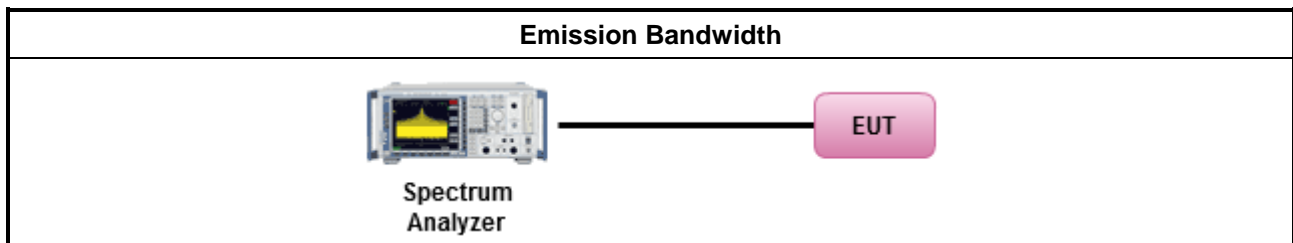
### 3.2.2 Measuring Instruments

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

### 3.2.3 Test Procedures

Test Method	
▪	For the emission bandwidth shall be measured using one of the options below:
<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	
	▪ If $G_{TX} \leq 6$ dBi, then $P_{Out} \leq 30$ dBm (1 W)
	▪ Point-to-multipoint systems (P2M): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$ dBm
	▪ Point-to-point systems (P2P): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	▪ Smart antenna system (SAS):
	- Single beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	- Overlap beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	- Aggregate power on all beams: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3 + 8$ dB dBm
$P_{Out}$ = maximum peak conducted output power or maximum conducted output power in dBm, $G_{TX}$ = the maximum transmitting antenna directional gain in dBi.	

#### 3.3.2 Measuring Instruments

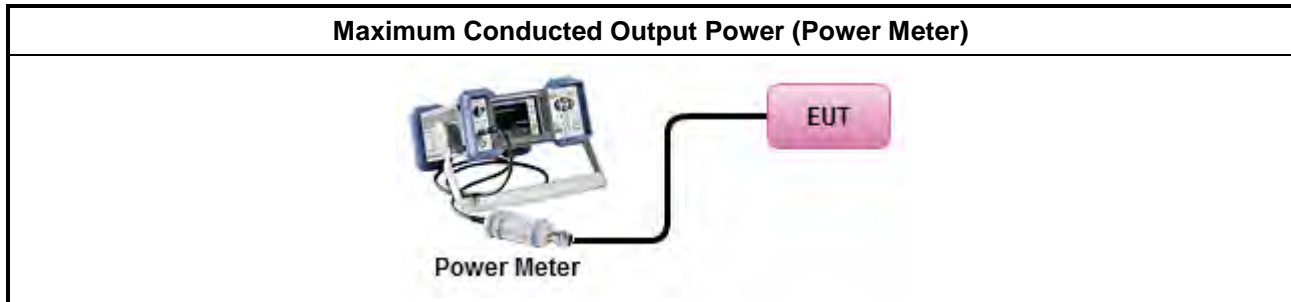
Refer a test equipment and calibration data table in this test report.



### 3.3.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> <li>Maximum Peak Conducted Output Power</li> </ul>	
<input type="checkbox"/>	Refer as FCC KDB 558074, clause 8.3.1.1 & C63.10 clause 11.9.1.1 (RBW ≥ EBW method).
<input type="checkbox"/>	Refer as FCC KDB 558074, clause 8.3.1.3 & C63.10 clause 11.9.1.3 (peak power meter).
<ul style="list-style-type: none"> <li>Maximum Conducted Output Power</li> </ul>	
[duty cycle ≥ 98% or external video / power trigger]	
<input type="checkbox"/>	Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.2 Method AVGSA-1.
<input type="checkbox"/>	Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.3 Method AVGSA-1A. (alternative)
duty cycle < 98% and average over on/off periods with duty factor	
<input type="checkbox"/>	Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.4 Method AVGSA-2.
<input type="checkbox"/>	Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.5 Method AVGSA-2A (alternative)
<input type="checkbox"/>	Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.6 Method AVGSA-3
<input type="checkbox"/>	Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.7 Method AVGSA-3A (alternative)
Measurement using a power meter (PM)	
<input type="checkbox"/>	Refer as FCC KDB 558074, clause 8.3.2.3 & C63.10 clause 11.9.2.3.1 Method AVGPM (using an RF average power meter).
<input checked="" type="checkbox"/>	Refer as FCC KDB 558074, clause 8.3.2.3 & C63.10 clause 11.9.2.3.2 Method AVGPM-G (using an gate RF average power meter).
<ul style="list-style-type: none"> <li>For conducted measurement.</li> </ul>	
<ul style="list-style-type: none"> <li>If the EUT supports multiple transmit chains using options given below: Refer as FCC KDB 662911, In-band power measurements. Using the measure-and-sum approach, measured all transmit ports individually. Sum the power (in linear power units e.g., mW) of all ports for each individual sample and save them.</li> </ul>	
<ul style="list-style-type: none"> <li>If multiple transmit chains, EIRP calculation could be following as methods:  <math display="block">P_{total} = P_1 + P_2 + \dots + P_n</math>                     (calculated in linear unit [mW] and transfer to log unit [dBm])  <math display="block">EIRP_{total} = P_{total} + DG</math> </li> </ul>	

### 3.3.4 Test Setup



### 3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C



### 3.4 Power Spectral Density

#### 3.4.1 Power Spectral Density Limit

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

#### 3.4.2 Measuring Instruments

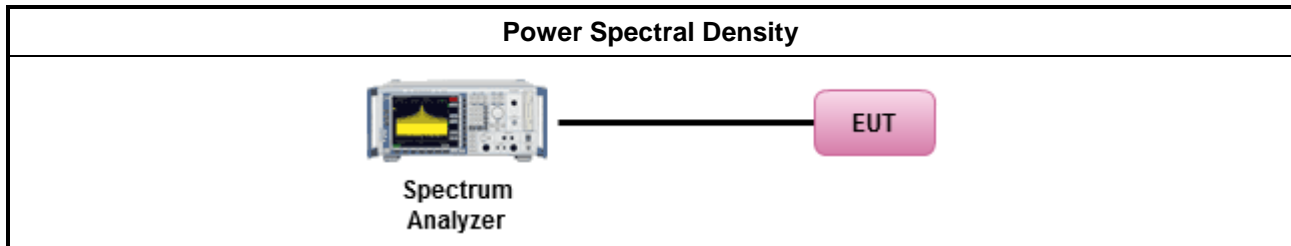
Refer a test equipment and calibration data table in this test report.

#### 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 AVGPS-1.
<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.4 & C63.10 clause 11.10.5 Method AVGPS-2.
<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.4 & C63.10 clause 11.10.7 Method AVGPS-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 AVGPS-1A. (alternative).
<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.4 & C63.10 clause 11.10.6 Method AVGPS-2A. (alternative)
<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.4 & C63.10 clause 11.10.8 Method AVGPS-3A. (alternative)
<ul style="list-style-type: none"> <li>For conducted measurement.</li> </ul>
<ul style="list-style-type: none"> <li>If The EUT supports multiple transmit chains using options given below:</li> </ul>
<input checked="" type="checkbox"/> Option 1: Measure and sum the spectra across the outputs. Refer as FCC KDB 662911, In-band power spectral density (PSD). Sample all transmit ports simultaneously using a spectrum analyzer for each transmit port. Where the trace bin-by-bin of each transmit port summing can be performed. (i.e., in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and that from the first spectral bin of output 3, and so on up to the NTX output to obtain the value for the first frequency bin of the summed spectrum.). Add up the amplitude (power) values for the different transmit chains and use this as the new data trace.
<input type="checkbox"/> Option 2: Measure and sum spectral maxima across the outputs. With this technique, spectra are measured at each output of the device at the required resolution bandwidth. The maximum value (peak) of each spectrum is determined. These maximum values are then summed mathematically in linear power units across the outputs. These operations shall be performed separately over frequency spans that have different out-of-band or spurious emission limits,

- |  |  |
|--|--|
|  | <input type="checkbox"/> Option 3: Measure and add $10 \log(N)$ dB, where N is the number of transmit chains. Refer as FCC KDB 662911, In-band power spectral density (PSD). Performed at each transmit chains and each transmit chains shall be compared with the limit have been reduced with $10 \log(N)$ . Or each transmit chains shall be add $10 \log(N)$ to compared with the limit. |
|--|--|

### 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
<p>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.</p> <p>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.</p>	

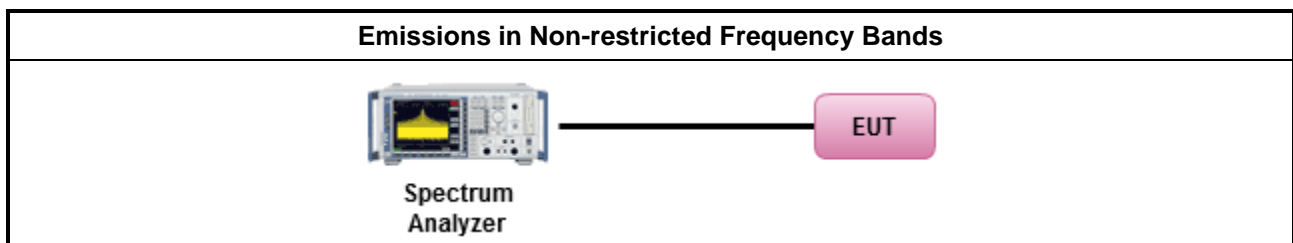
#### 3.5.2 Measuring Instruments

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.

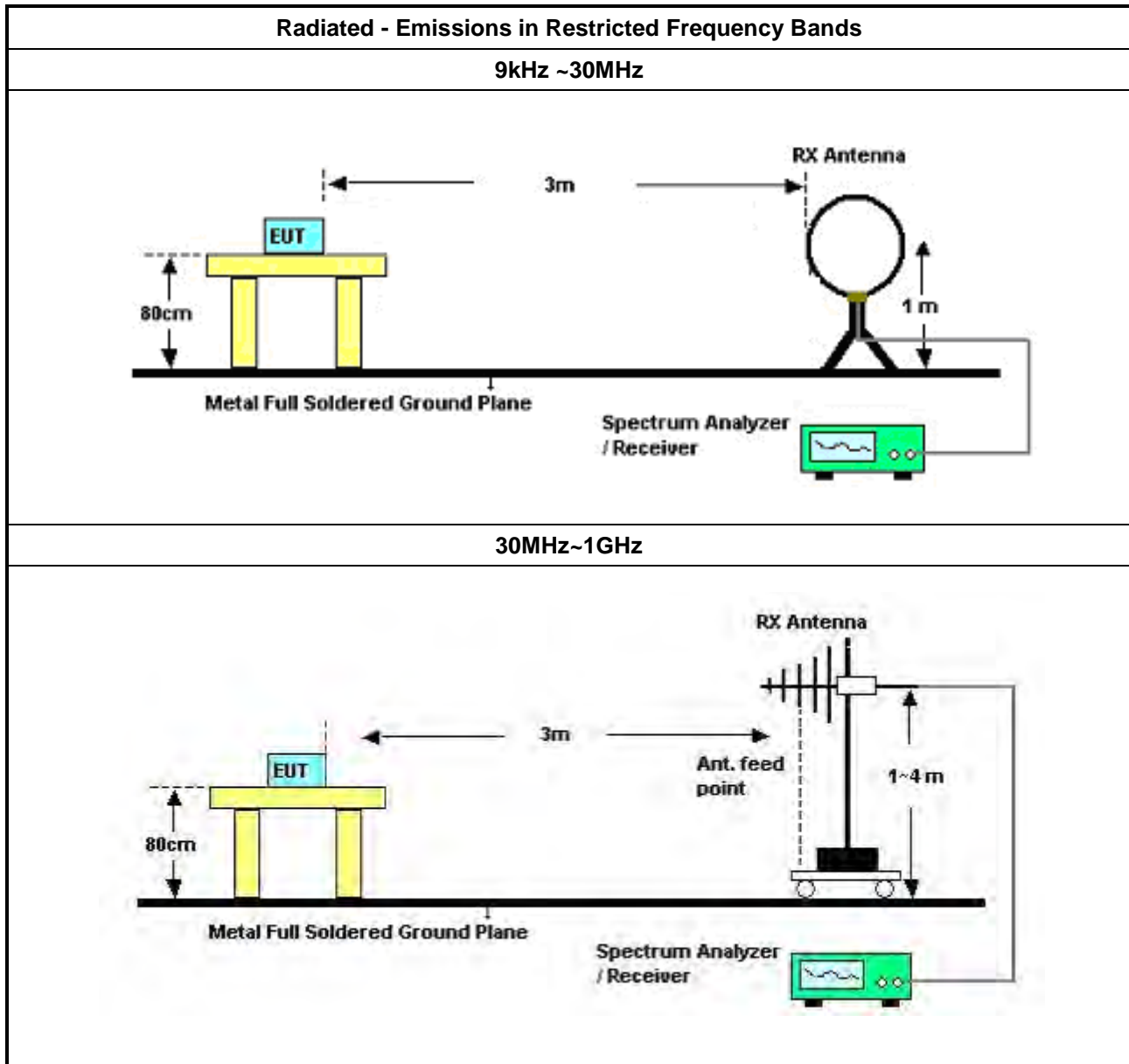


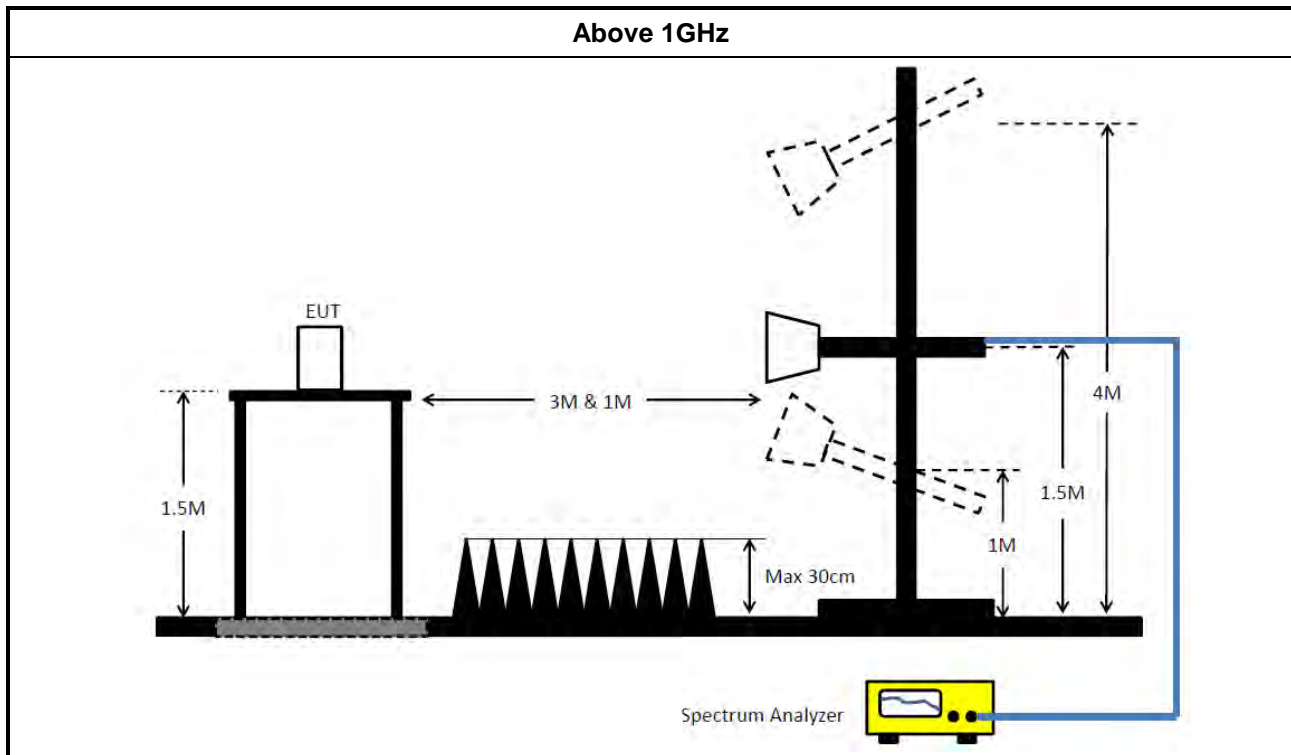


### 3.6.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> <li>The average emission levels shall be measured in [duty cycle <math>\geq 98</math> 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 01, 2019	Apr. 30, 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	ETS-LINDGREN	3115	00075790	750MHz ~ 18GHz	Nov. 04, 2019	Nov. 03, 2020	Radiation (03CH01-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Jun. 27, 2019	Jun. 26, 2020	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02310	1GHz ~ 26.5GHz	Jan. 08, 2019	Jan. 07, 2020	Radiation (03CH01-CB)
Spectrum Analyzer	R&S	FSP40	100056	9kHz ~ 40GHz	Jan. 31, 2019	Jan. 30, 2020	Radiation (03CH01-CB)
RF Cable-high	Woken	RG402	High Cable-16	1 GHz ~ 18 GHz	Oct. 07, 2019	Oct. 06, 2020	Radiation (03CH01-CB)
RF Cable-high	Woken	RG402	High Cable-16+17	1 GHz ~ 18 GHz	Oct. 07, 2019	Oct. 06, 2020	Radiation (03CH01-CB)
RF Cable-high	Woken	RG402	High Cable-40G#1	18GHz ~ 40 GHz	Jul. 24, 2019	Jul. 23, 2020	Radiation (03CH01-CB)



Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
RF Cable-high	Woken	RG402	High Cable-40G#2	18GHz ~ 40 GHz	Jul. 24, 2019	Jul. 23, 2020	Radiation (03CH01-CB)
Spectrum analyzer	R&S	FSV40	100979	9kHz~40GHz	Feb. 25, 2019	Feb. 24, 2020	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-06	1 GHz – 26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-07	1 GHz –26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-08	1 GHz –26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-09	1 GHz –26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-10	1 GHz –26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-28	1 GHz –26.5 GHz	Nov. 19, 2018	Nov. 18, 2019	Conducted (TH01-CB)
Power Sensor	Agilent	E9327A	US40442088	50MHz~18GHz	Jan. 15, 2019	Jan. 14, 2020	Conducted (TH01-CB)
Power Meter	Agilent	E4416A	GB41291199	50MHz~18GHz	Jan. 15, 2019	Jan. 14, 2020	Conducted (TH01-CB)

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

NCR means Non-Calibration required.

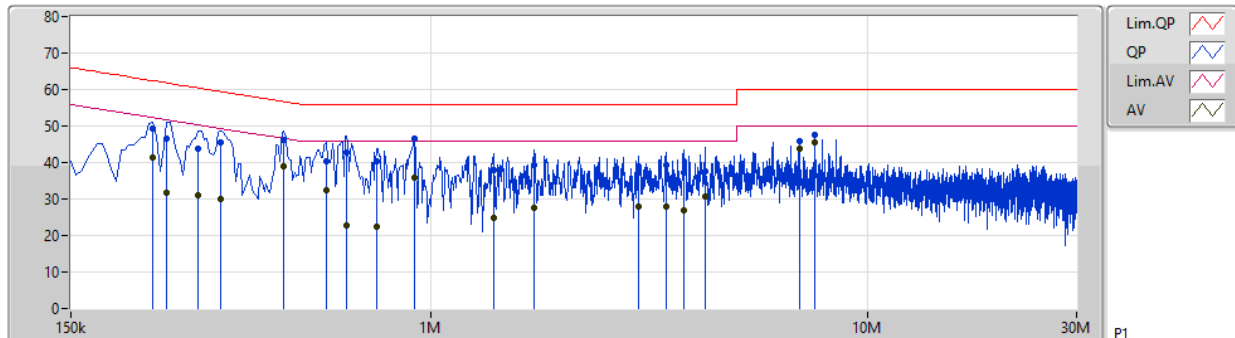


## AC Power-line Conducted Emissions Result

Appendix A

### AC Power-line Conducted Emissions Result

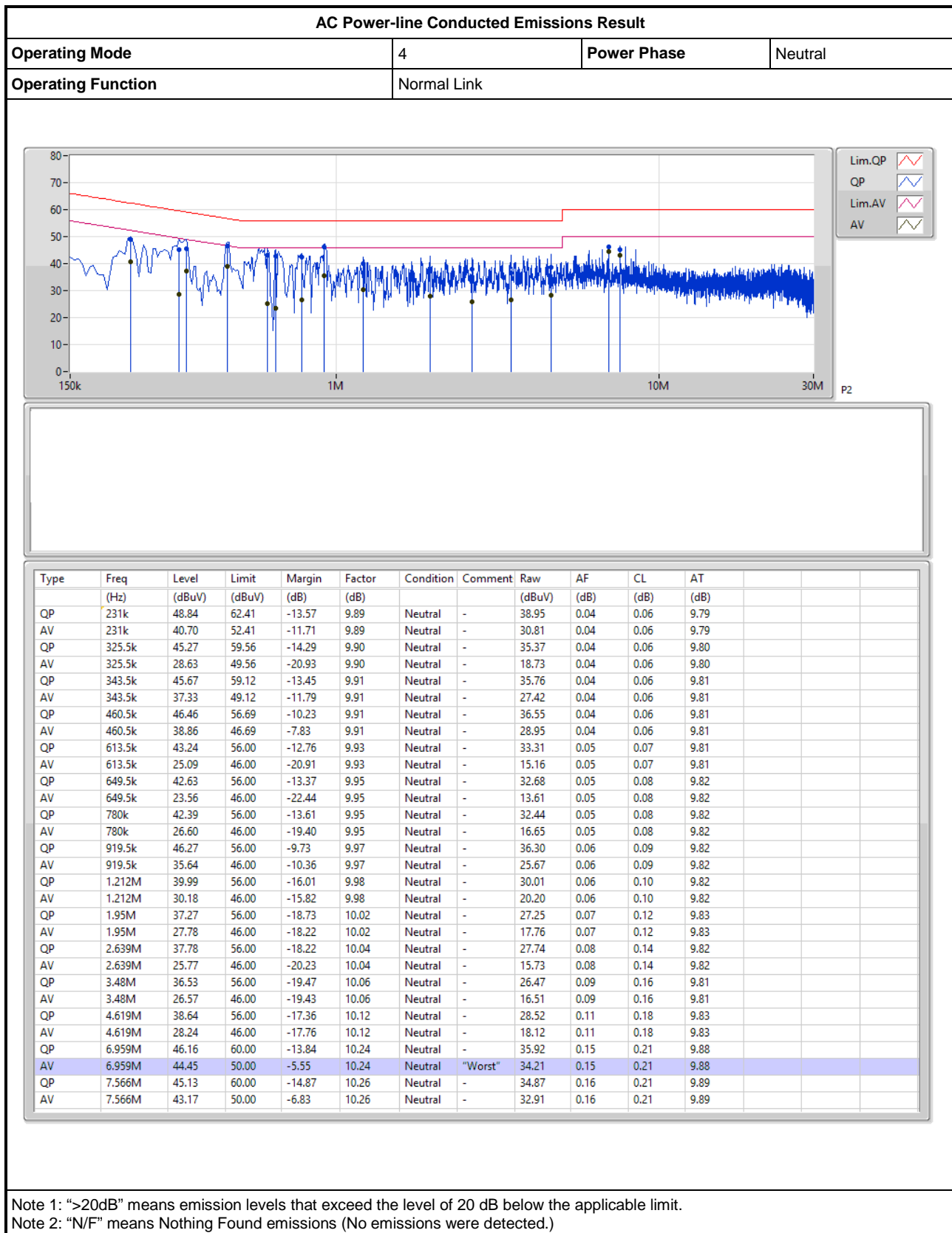
Operating Mode	4	Power Phase	Line
Operating Function	Normal Link		



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	AF (dB)	CL (dB)	AT (dB)			
QP	231k	49.15	62.41	-13.26	9.91	Line	-	39.24	0.06	0.06	9.79			
AV	231k	41.26	52.41	-11.15	9.91	Line	-	31.35	0.06	0.06	9.79			
QP	249k	46.67	61.79	-15.12	9.92	Line	-	36.75	0.06	0.06	9.80			
AV	249k	31.74	51.79	-20.05	9.92	Line	-	21.82	0.06	0.06	9.80			
QP	294k	43.94	60.42	-16.48	9.92	Line	-	34.02	0.06	0.06	9.80			
AV	294k	31.10	50.42	-19.32	9.92	Line	-	21.18	0.06	0.06	9.80			
QP	330k	45.61	59.44	-13.83	9.92	Line	-	35.69	0.06	0.06	9.80			
AV	330k	30.08	49.44	-19.36	9.92	Line	-	20.16	0.06	0.06	9.80			
QP	460.5k	46.37	56.69	-10.32	9.93	Line	-	36.44	0.06	0.06	9.81			
AV	460.5k	38.82	46.69	-7.87	9.93	Line	-	28.89	0.06	0.06	9.81			
QP	577.5k	40.49	56.00	-15.51	9.94	Line	-	30.55	0.06	0.07	9.81			
AV	577.5k	32.58	46.00	-13.42	9.94	Line	-	22.64	0.06	0.07	9.81			
QP	640.5k	42.59	56.00	-13.41	9.97	Line	-	32.62	0.07	0.08	9.82			
AV	640.5k	22.71	46.00	-23.29	9.97	Line	-	12.74	0.07	0.08	9.82			
QP	753k	40.39	56.00	-15.61	9.97	Line	-	30.42	0.07	0.08	9.82			
AV	753k	22.36	46.00	-23.64	9.97	Line	-	12.39	0.07	0.08	9.82			
QP	919.5k	46.42	56.00	-9.58	9.98	Line	-	36.44	0.07	0.09	9.82			
AV	919.5k	35.74	46.00	-10.26	9.98	Line	-	25.76	0.07	0.09	9.82			
QP	1.392M	37.80	56.00	-18.20	10.00	Line	-	27.80	0.08	0.10	9.82			
AV	1.392M	24.83	46.00	-21.17	10.00	Line	-	14.83	0.08	0.10	9.82			
QP	1.725M	39.19	56.00	-16.81	10.03	Line	-	29.16	0.09	0.11	9.83			
AV	1.725M	27.53	46.00	-18.47	10.03	Line	-	17.50	0.09	0.11	9.83			
QP	2.981M	38.96	56.00	-17.04	10.08	Line	-	28.88	0.11	0.15	9.82			
AV	2.981M	27.91	46.00	-18.09	10.08	Line	-	17.83	0.11	0.15	9.82			
QP	3.444M	39.32	56.00	-16.68	10.08	Line	-	29.24	0.11	0.16	9.81			
AV	3.444M	27.92	46.00	-18.08	10.08	Line	-	17.84	0.11	0.16	9.81			
QP	3.782M	37.40	56.00	-18.60	10.10	Line	-	27.30	0.12	0.17	9.81			
AV	3.782M	27.06	46.00	-18.94	10.10	Line	-	16.96	0.12	0.17	9.81			
QP	4.232M	37.51	56.00	-18.49	10.12	Line	-	27.39	0.13	0.17	9.82			
AV	4.232M	30.80	46.00	-15.20	10.12	Line	-	20.68	0.13	0.17	9.82			
QP	6.959M	45.88	60.00	-14.12	10.26	Line	-	35.62	0.17	0.21	9.88			
AV	6.959M	43.90	50.00	-6.10	10.26	Line	-	33.64	0.17	0.21	9.88			
QP	7.562M	47.43	60.00	-12.57	10.28	Line	-	37.15	0.18	0.21	9.89			
AV	7.562M	45.62	50.00	-4.38	10.28	Line	"Worst"	35.34	0.18	0.21	9.89			

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.)





**<For Non-Beamforming Mode>**
**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)_4TX	11.025M	32.609M	32M6G1D	7.025M	13.143M
802.11g_Nss1,(6Mbps)_4TX	16.3M	25.487M	25M5D1D	15.05M	16.342M
802.11ax HEW20_Nss1,(MCS0)_4TX	18.975M	25.537M	25M5D1D	16.9M	18.816M
802.11ax HEW40_Nss1,(MCS0)_4TX	38.1M	37.881M	37M9D1D	31.2M	37.531M

**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;

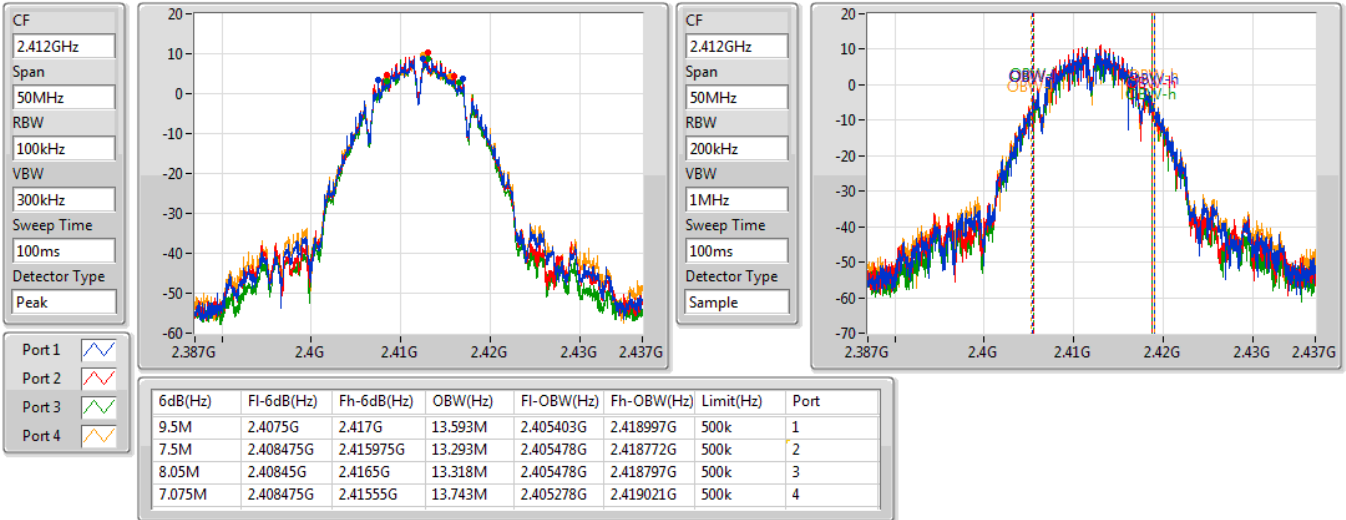
**Result**

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)	Port 4-N dB (Hz)	Port 4-OBW (Hz)
802.11b_Nss1,(1Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	9.5M	13.593M	7.5M	13.293M	8.05M	13.318M	7.075M	13.743M
2437MHz	Pass	500k	10.525M	25.812M	11.025M	26.562M	8.575M	16.442M	11.025M	32.609M
2462MHz	Pass	500k	7.55M	13.168M	7.025M	13.518M	8.05M	13.143M	7.075M	13.493M
802.11g_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	15.925M	16.442M	16.3M	16.417M	15.9M	16.392M	16.3M	16.417M
2437MHz	Pass	500k	16.275M	22.814M	15.7M	24.663M	15.05M	21.839M	15.7M	25.487M
2462MHz	Pass	500k	16.3M	16.392M	15.9M	16.342M	15.6M	16.342M	16.025M	16.367M
802.11ax HEW20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	18.75M	18.916M	18.475M	18.966M	18.975M	18.991M	18.85M	18.941M
2437MHz	Pass	500k	16.9M	22.089M	18.775M	24.788M	18.9M	22.289M	18.775M	25.537M
2462MHz	Pass	500k	18.375M	18.816M	18.875M	18.916M	18.625M	18.891M	18.65M	18.866M
802.11ax HEW40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	500k	36.5M	37.581M	34.65M	37.531M	36.8M	37.631M	31.2M	37.731M
2437MHz	Pass	500k	37.6M	37.781M	38M	37.831M	38.1M	37.881M	38M	37.881M
2452MHz	Pass	500k	35.3M	37.731M	35.75M	37.631M	37.8M	37.731M	36.8M	37.731M

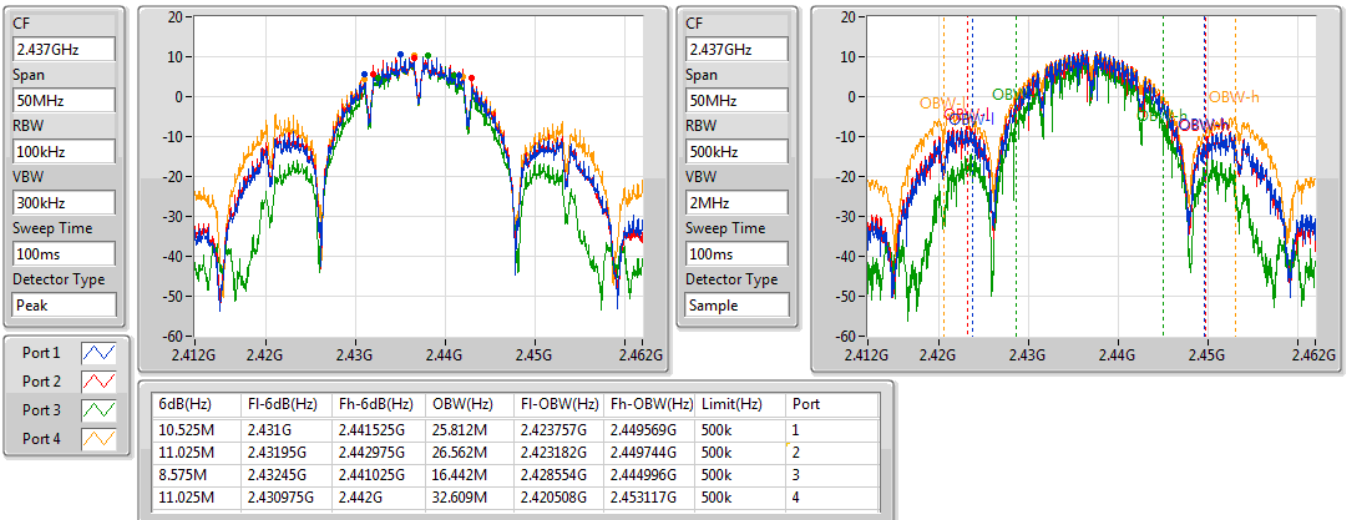
**Port X-N dB** = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;

**802.11b\_Nss1,(1Mbps)\_4TX**
**EBW**
**2412MHz**

07/11/2019

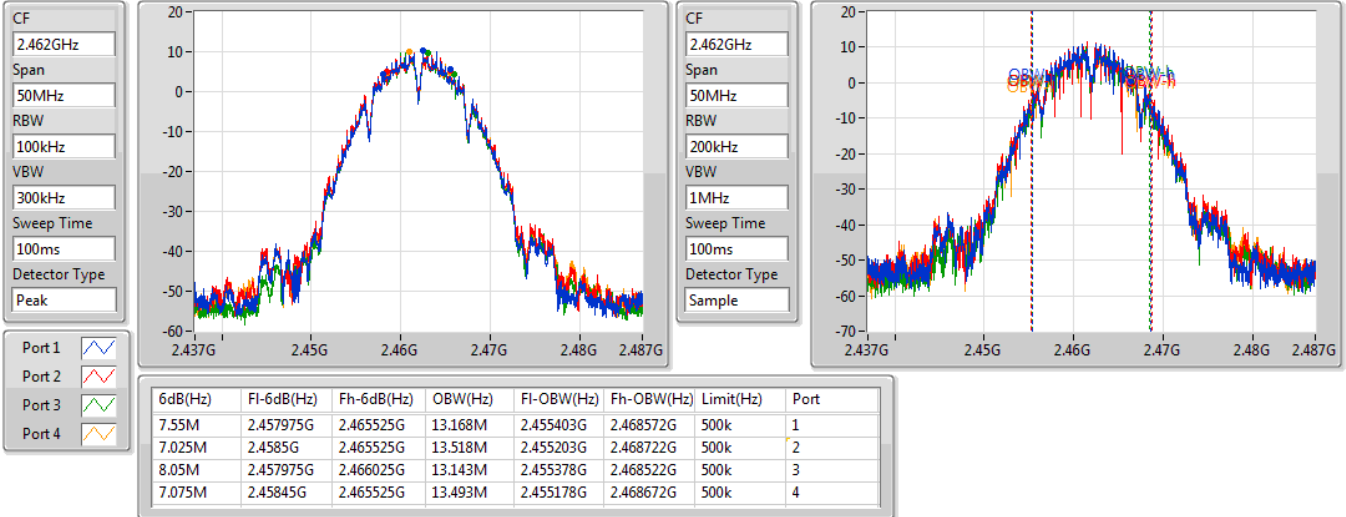

**802.11b\_Nss1,(1Mbps)\_4TX**
**EBW**
**2437MHz**

07/11/2019

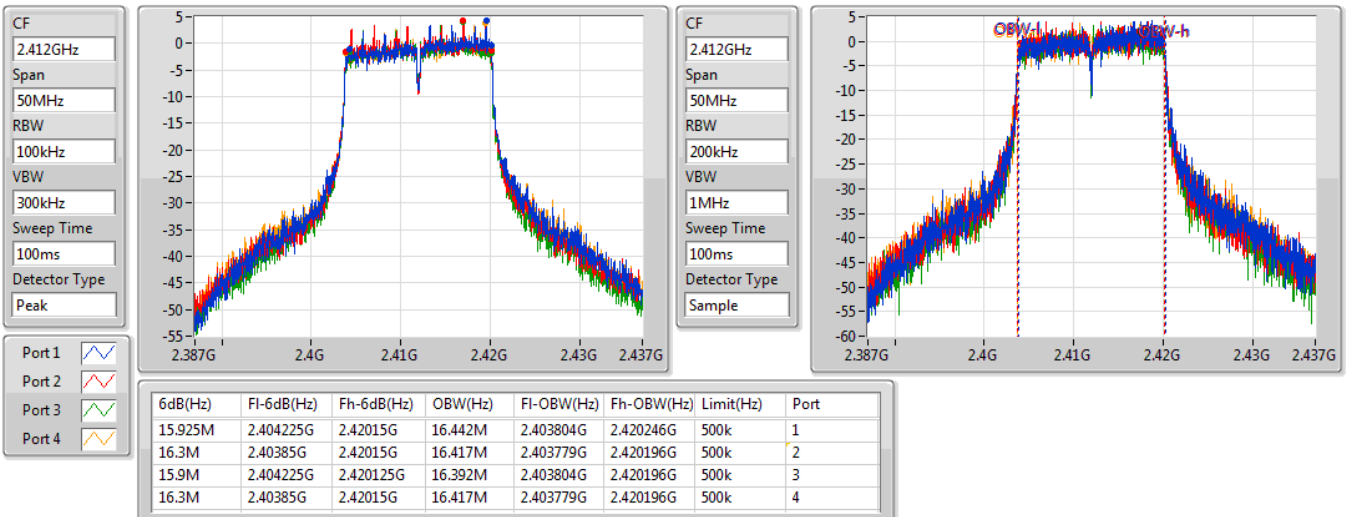


**802.11b\_Nss1,(1Mbps)\_4TX**
**EBW**
**2462MHz**

07/11/2019

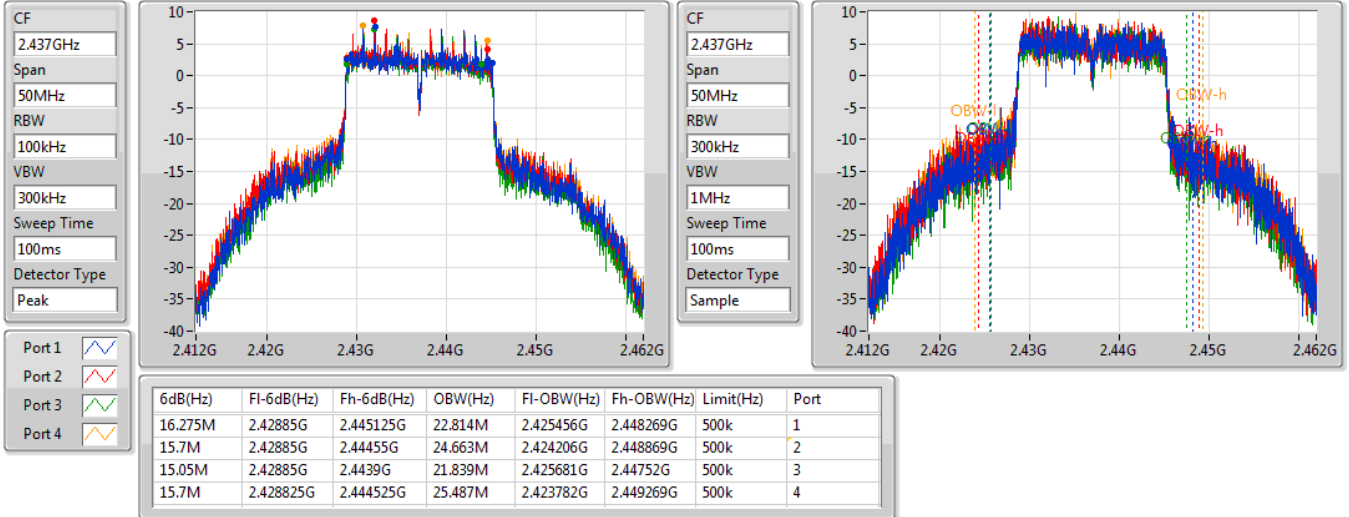

**802.11g\_Nss1,(6Mbps)\_4TX**
**EBW**
**2412MHz**

07/11/2019

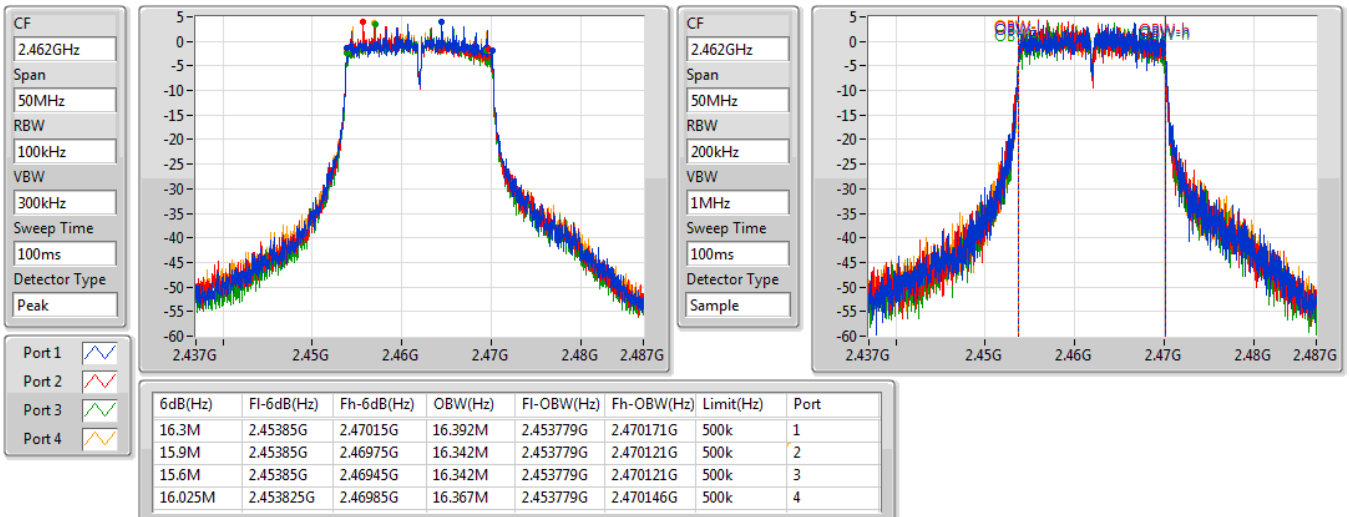


**802.11g\_Nss1,(6Mbps)\_4TX**
**EBW**
**2437MHz**

07/11/2019

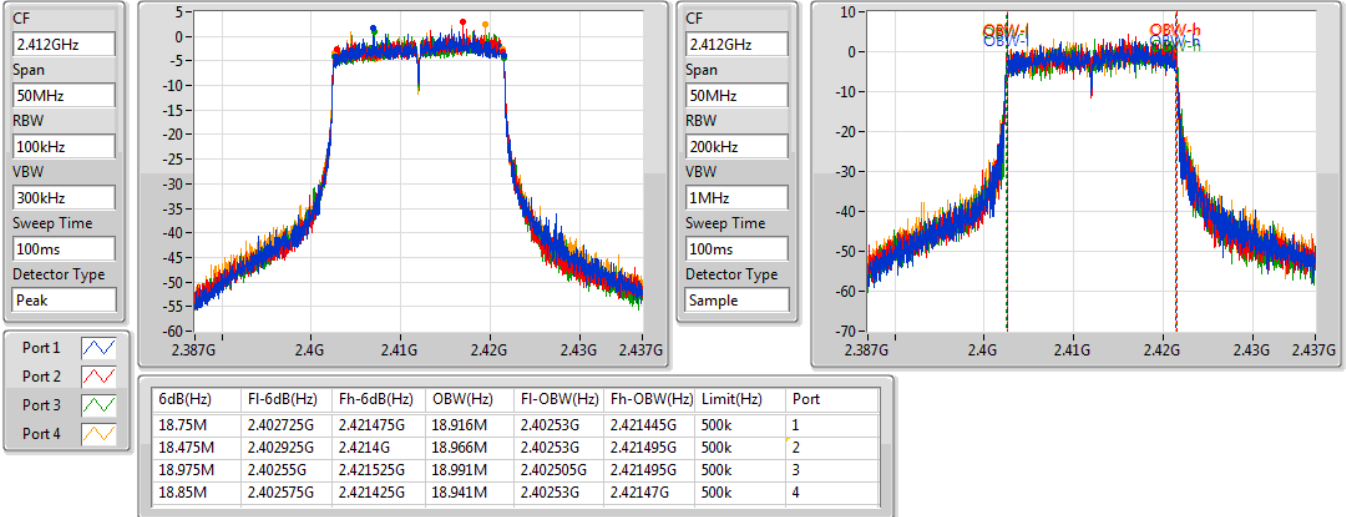

**802.11g\_Nss1,(6Mbps)\_4TX**
**EBW**
**2462MHz**

07/11/2019

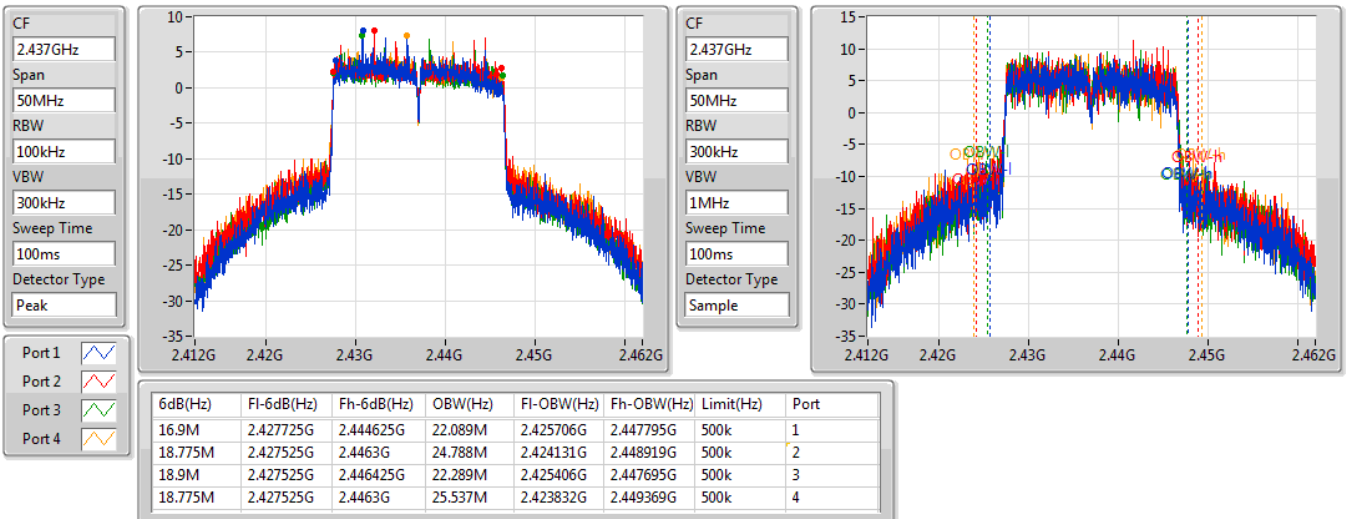


**802.11ax HEW20\_Nss1,(MCS0)\_4TX**
**EBW**
**2412MHz**

07/11/2019

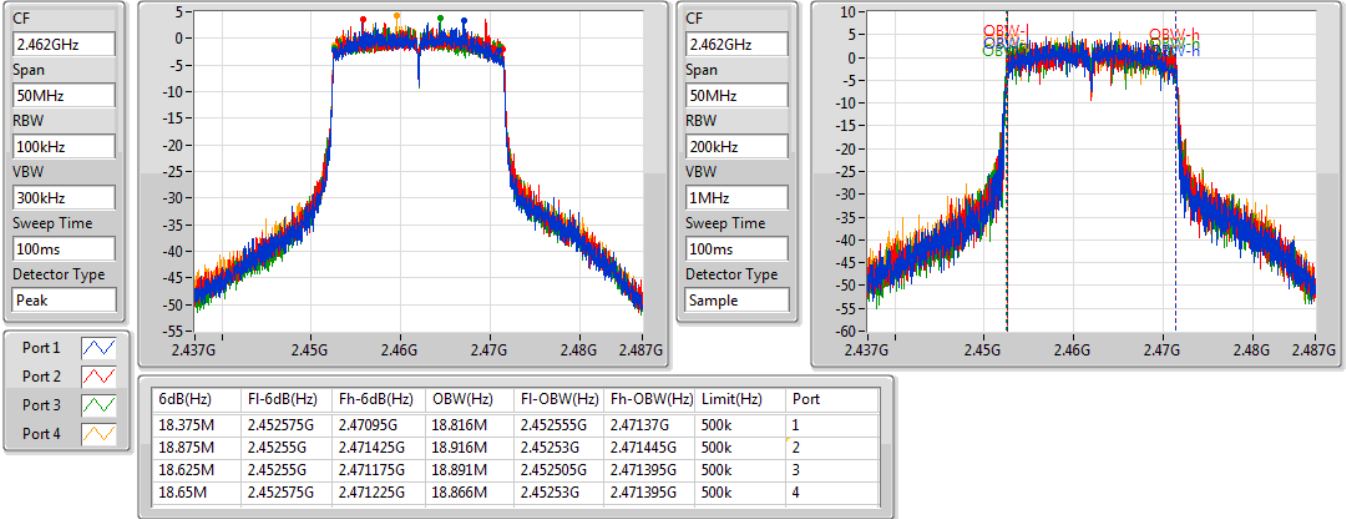

**802.11ax HEW20\_Nss1,(MCS0)\_4TX**
**EBW**
**2437MHz**

07/11/2019

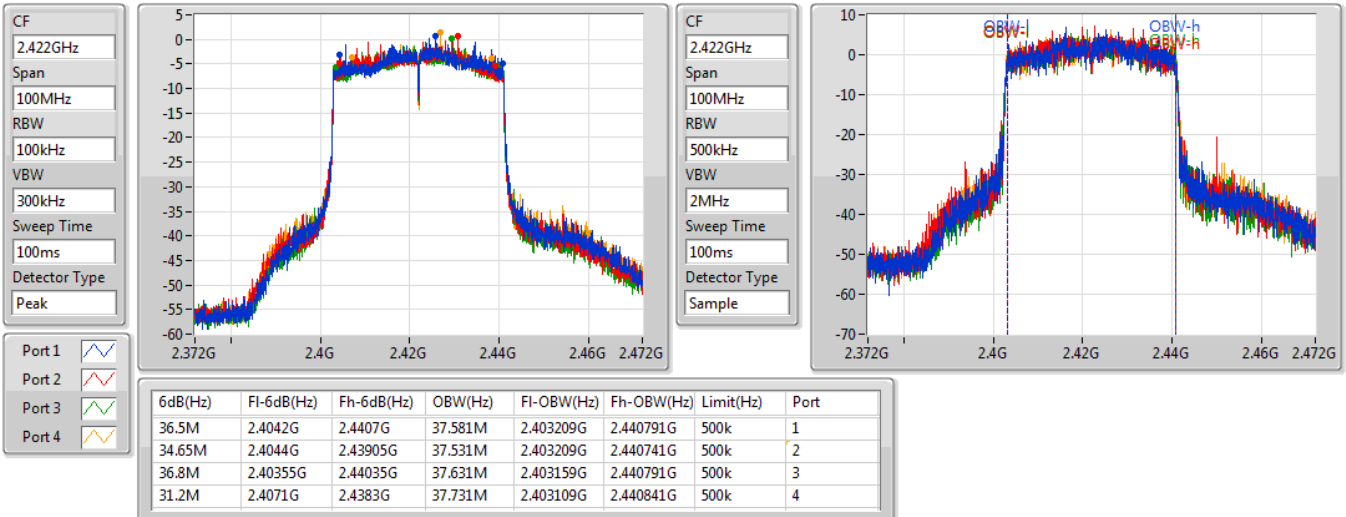


**802.11ax HEW20\_Nss1,(MCS0)\_4TX**
**EBW**
**2462MHz**

07/11/2019

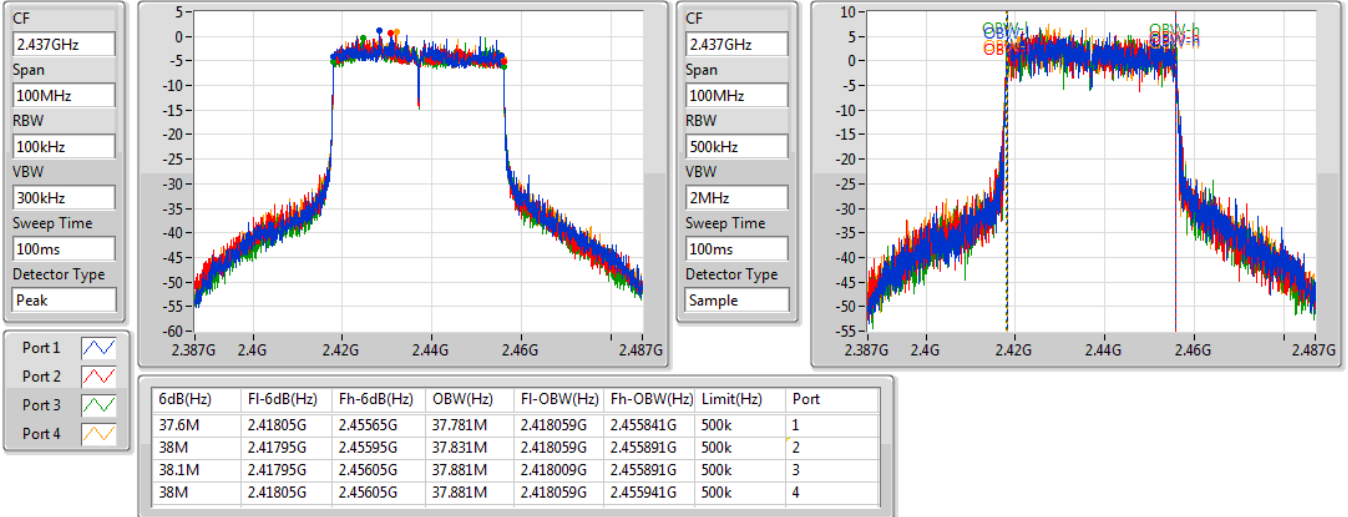

**802.11ax HEW40\_Nss1,(MCS0)\_4TX**
**EBW**
**2422MHz**

07/11/2019

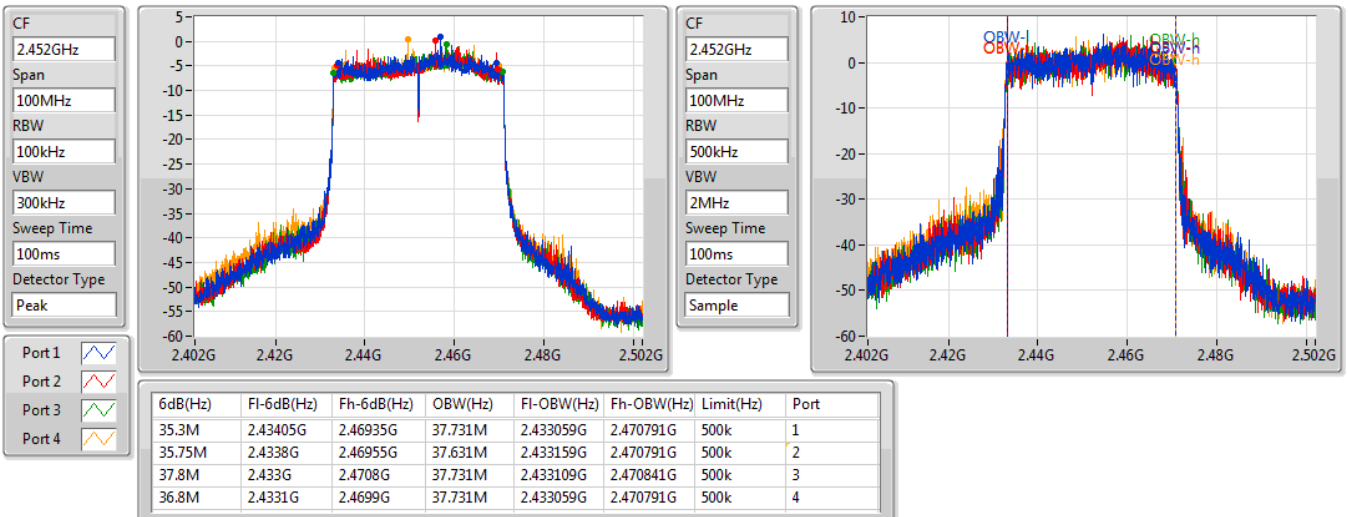


**802.11ax HEW40\_Nss1,(MCS0)\_4TX**
**EBW**
**2437MHz**

07/11/2019


**802.11ax HEW40\_Nss1,(MCS0)\_4TX**
**EBW**
**2452MHz**

07/11/2019





**<For Beamforming Mode>**
**Summary**

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
2.4-2.4835GHz	-	-	-	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	18.9M	19.152M	19M2D1D	13.775M	18.821M
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	37.3M	38.22M	38M2D1D	4.3M	37.584M

**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;

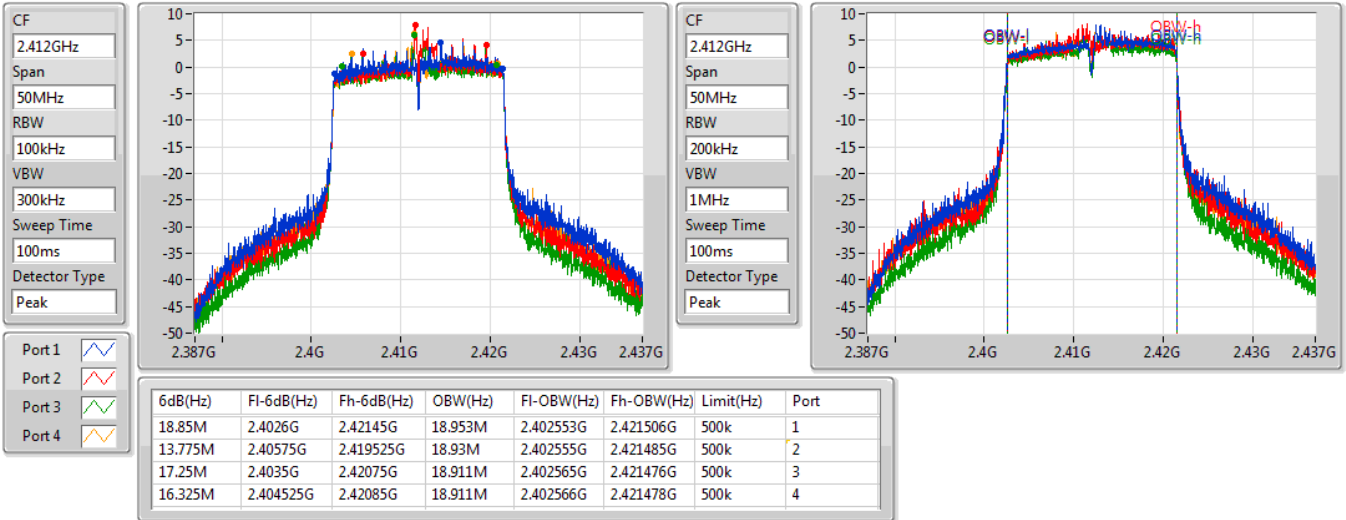
**Result**

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)	Port 4-N dB (Hz)	Port 4-OBW (Hz)
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	18.85M	18.953M	13.775M	18.93M	17.25M	18.911M	16.325M	18.911M
2437MHz	Pass	500k	18.9M	19.152M	16.7M	19.076M	16.85M	18.972M	16.175M	19.078M
2457MHz										
2462MHz	Pass	500k	17.55M	18.859M	15.875M	18.821M	15.475M	18.855M	15.25M	18.851M
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	500k	28.05M	37.61M	37.3M	37.584M	33.75M	37.64M	35M	37.622M
2437MHz	Pass	500k	31.25M	37.86M	4.3M	37.868M	6.55M	37.861M	6.05M	37.823M
2452MHz	Pass	500k	36.55M	38.197M	34.05M	37.737M	32.45M	38.22M	26.2M	38.136M

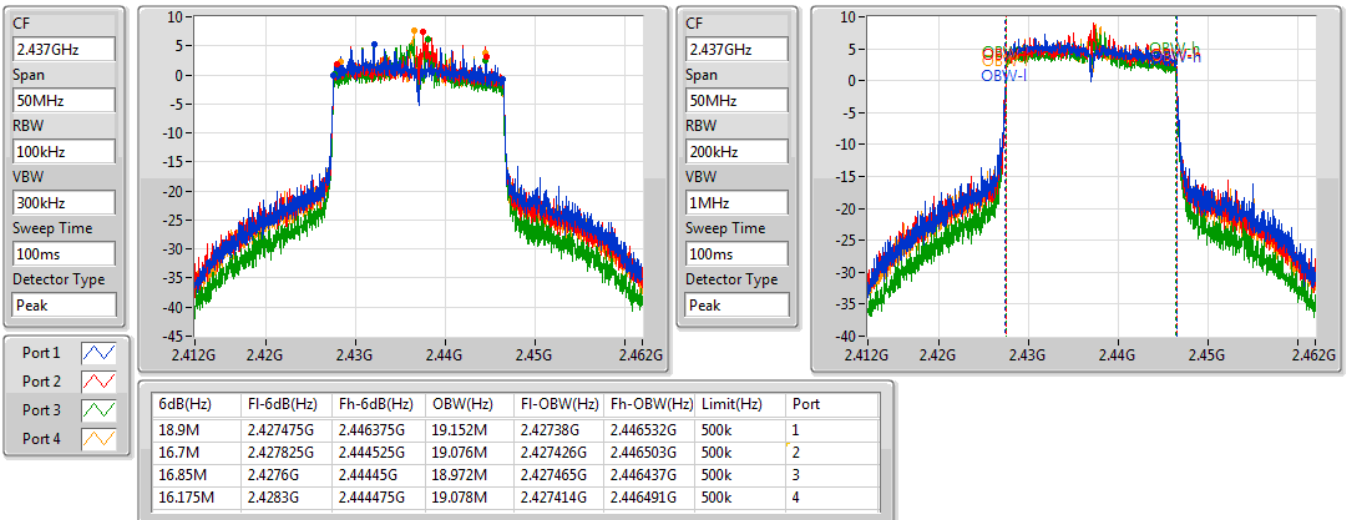
**Port X-N dB** = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;

**802.11ax HEW20-BF\_Nss1,(MCS0)\_4TX**
**EBW**
**2412MHz**

10/12/2019

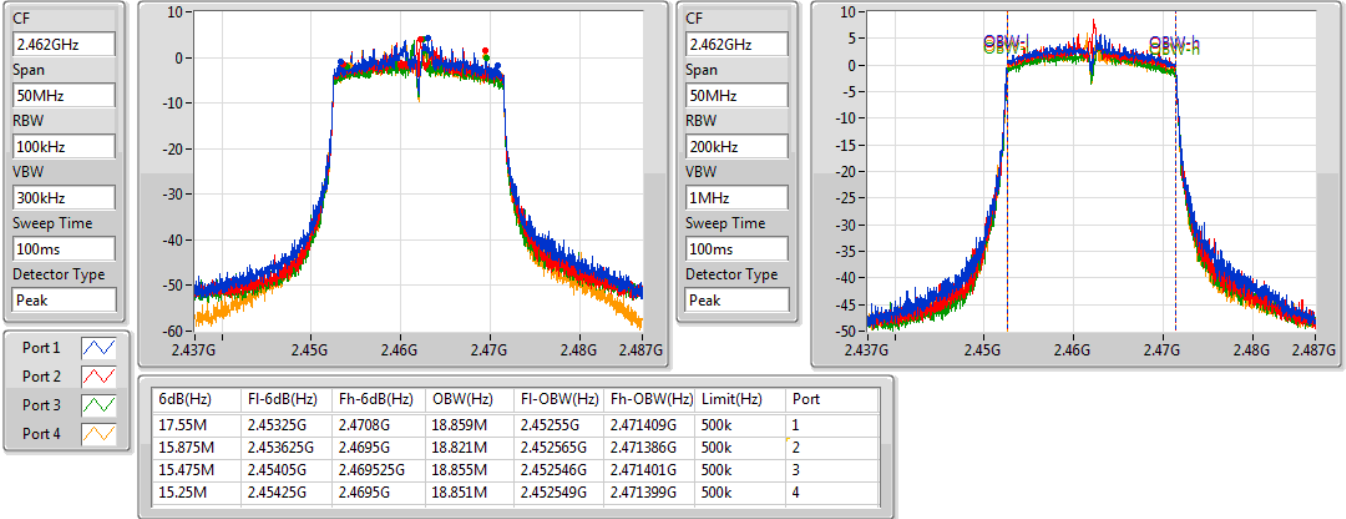

**802.11ax HEW20-BF\_Nss1,(MCS0)\_4TX**
**EBW**
**2437MHz**

10/12/2019

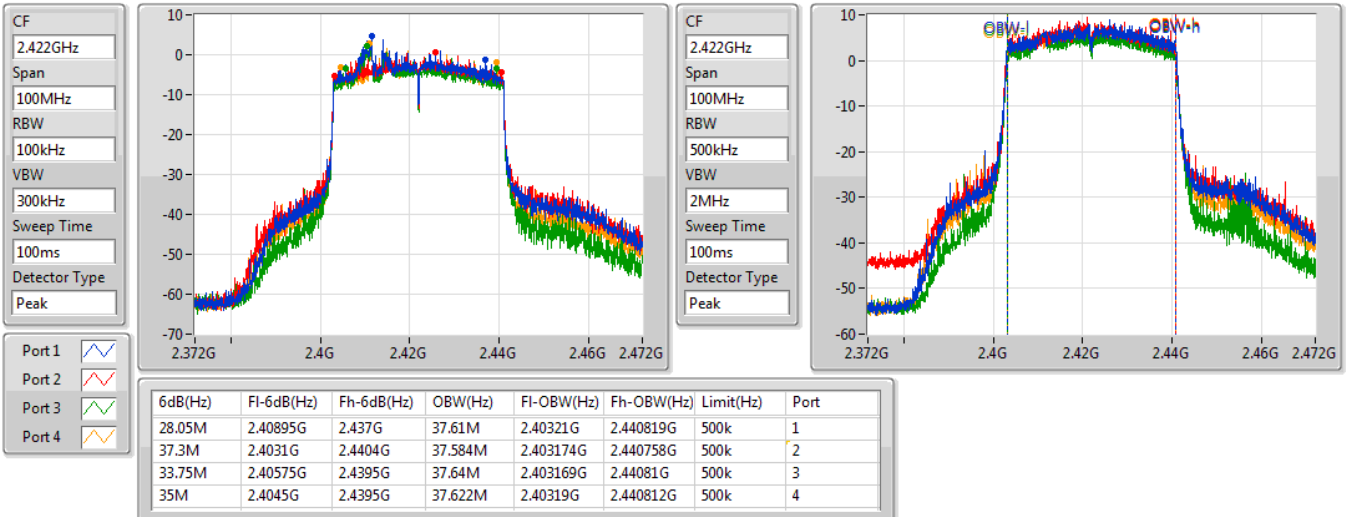


**802.11ax HEW20-BF\_Nss1,(MCS0)\_4TX**
**EBW**
**2462MHz**

10/12/2019

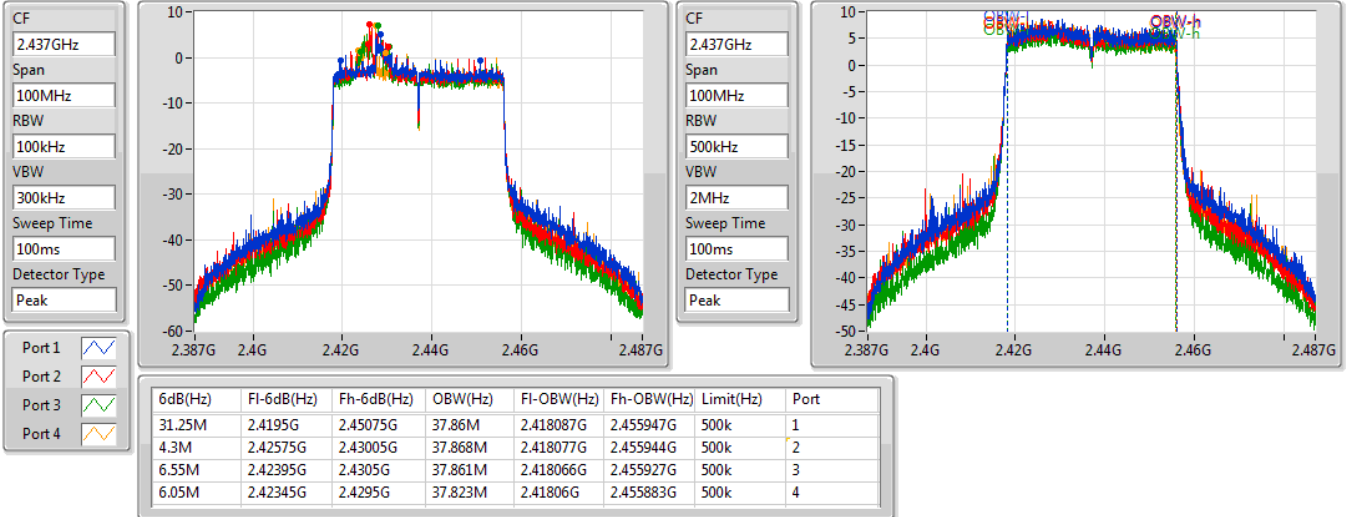

**802.11ax HEW40-BF\_Nss1,(MCS0)\_4TX**
**EBW**
**2422MHz**

10/12/2019

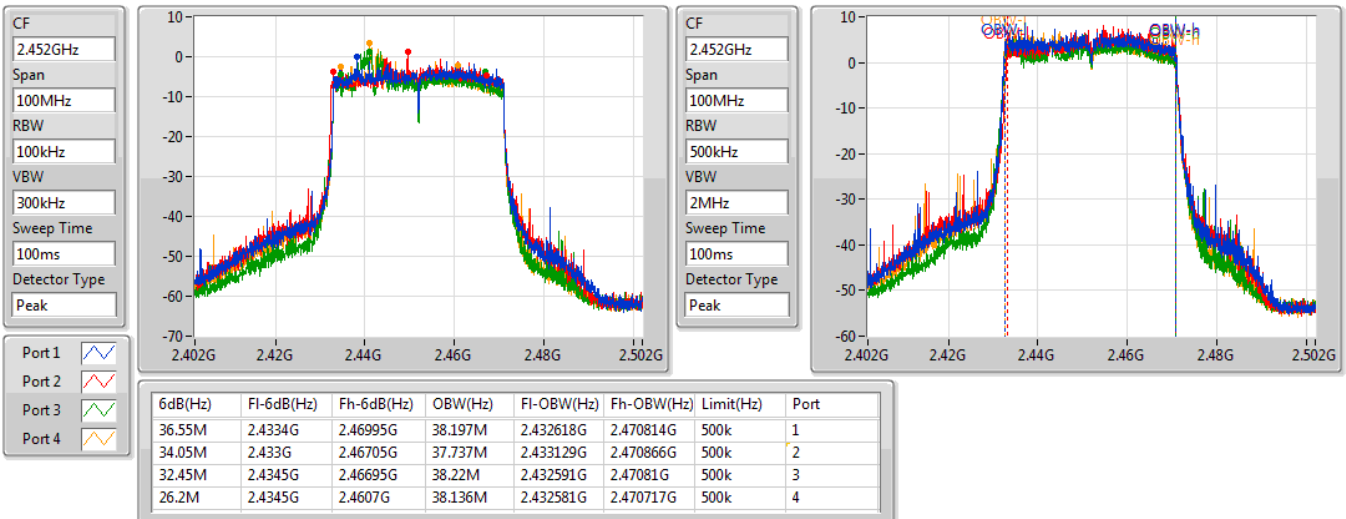


**802.11ax HEW40-BF\_Nss1,(MCS0)\_4TX**
**EBW**
**2437MHz**

10/12/2019


**802.11ax HEW40-BF\_Nss1,(MCS0)\_4TX**
**EBW**
**2452MHz**

10/12/2019





**<For Non-Beamforming Mode>**

**Summary**

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11b_Nss1,(1Mbps)_4TX	26.22	0.41879
802.11g_Nss1,(6Mbps)_4TX	24.33	0.27102
802.11ax HEW20_Nss1,(MCS0)_4TX	24.55	0.28510
802.11ax HEW40_Nss1,(MCS0)_4TX	21.66	0.14655

**Result**

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_Nss1,(1Mbps)_4TX	-	-	-	-	-	-	-	-
2412MHz	Pass	1.57	18.47	19.05	18.17	18.32	24.54	30.00
2437MHz	Pass	1.57	20.35	20.58	19.62	20.21	26.22	30.00
2462MHz	Pass	1.57	18.97	19.35	18.87	18.85	25.04	30.00
802.11g_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-
2412MHz	Pass	1.57	15.16	15.28	14.84	15.04	21.10	30.00
2417MHz	Pass	1.57	17.93	18.16	17.76	18.06	24.00	30.00
2437MHz	Pass	1.57	18.35	18.56	18.03	18.29	24.33	30.00
2457MHz	Pass	1.57	16.30	16.18	15.95	16.39	22.23	30.00
2462MHz	Pass	1.57	15.23	15.10	14.89	15.25	21.14	30.00
802.11ax HEW20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
2412MHz	Pass	1.57	13.82	14.16	13.79	13.97	19.96	30.00
2417MHz	Pass	1.57	17.16	17.36	17.06	17.37	23.26	30.00
2437MHz	Pass	1.57	18.44	18.71	18.33	18.62	24.55	30.00
2457MHz	Pass	1.57	16.67	16.38	16.65	16.90	22.67	30.00
2462MHz	Pass	1.57	15.62	15.69	15.52	15.91	21.71	30.00
802.11ax HEW40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
2422MHz	Pass	1.57	15.08	15.13	14.73	15.05	21.02	30.00
2437MHz	Pass	1.57	15.58	15.64	15.55	15.77	21.66	30.00
2452MHz	Pass	1.57	14.38	14.29	14.23	14.61	20.40	30.00

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

**<For Beamforming Mode>****Summary**

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	22.67	0.18493
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	21.07	0.12794

**Result**

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
2412MHz	Pass	7.59	16.12	15.83	15.05	15.49	21.66	28.41
2437MHz	Pass	7.59	16.69	16.41	15.52	16.32	22.28	28.41
2457MHz	Pass	7.59	17.23	16.93	16.02	16.31	22.67	28.41
2462MHz	Pass	7.59	14.35	13.70	12.89	13.06	19.56	28.41
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
2422MHz	Pass	7.59	15.03	14.45	13.57	14.30	20.39	28.41
2437MHz	Pass	7.59	15.57	15.13	14.32	15.09	21.07	28.41
2452MHz	Pass	7.59	13.46	12.90	13.54	12.67	19.18	28.41

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

**<For Non-Beamforming Mode>****Summary**

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
802.11b_Nss1,(1Mbps)_4TX	1.43
802.11g_Nss1,(6Mbps)_4TX	-4.17
802.11ax HEW20_Nss1,(MCS0)_4TX	-3.59
802.11ax HEW40_Nss1,(MCS0)_4TX	-9.19

RBW=3 kHz.



**Result**

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	Port 3 (dBm/RBW)	Port 4 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11b_Nss1,(1Mbps)_4TX	-	-	-	-	-	-	-	-
2412MHz	Pass	7.59	-5.06	-3.09	-5.07	-4.20	0.89	6.41
2437MHz	Pass	7.59	-4.35	-3.90	0.01	-0.61	1.28	6.41
2462MHz	Pass	7.59	-3.83	-4.28	-3.94	-0.21	1.43	6.41
802.11g_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-
2412MHz	Pass	7.59	-12.11	-12.25	-12.58	-12.32	-7.38	6.41
2437MHz	Pass	7.59	-7.23	-8.46	-8.76	-7.81	-4.17	6.41
2462MHz	Pass	7.59	-12.60	-12.72	-13.05	-11.73	-7.31	6.41
802.11ax HEW20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
2412MHz	Pass	7.59	-12.51	-12.15	-12.47	-12.00	-8.91	6.41
2437MHz	Pass	7.59	-7.99	-7.12	-8.18	-7.33	-3.59	6.41
2462MHz	Pass	7.59	-10.92	-10.19	-10.53	-10.17	-6.92	6.41
802.11ax HEW40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
2422MHz	Pass	7.59	-12.73	-13.82	-12.51	-12.92	-9.19	6.41
2437MHz	Pass	7.59	-12.59	-12.62	-12.71	-12.83	-9.38	6.41
2452MHz	Pass	7.59	-14.08	-13.48	-14.02	-13.83	-10.41	6.41

**DG** = Directional Gain; RBW=3 kHz;

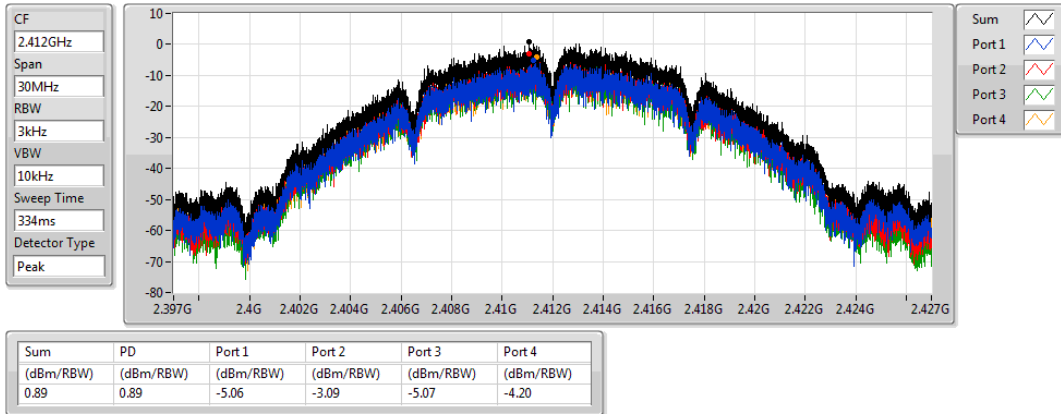
**PD** = trace bin-by-bin of each transmits port summing can be performed maximum power density; **Port X** = Port X power density;

## 802.11b\_Nss1,(1Mbps)\_4TX

## PSD

2412MHz

07/11/2019

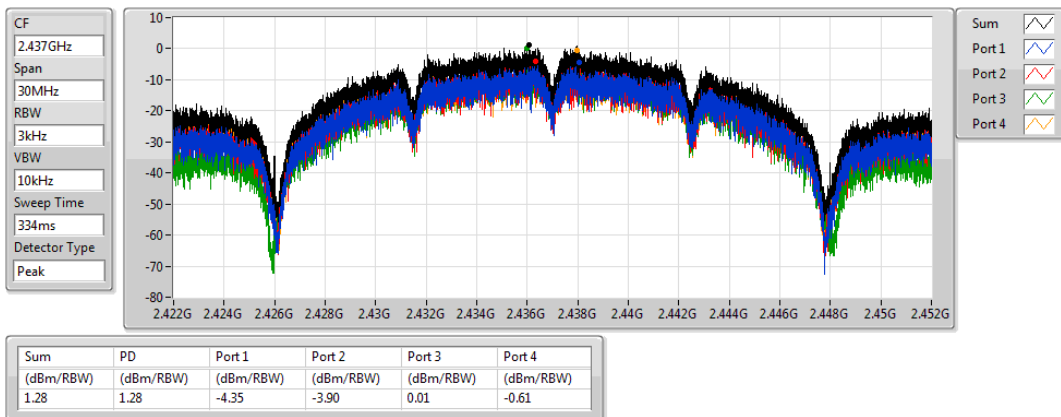


## 802.11b\_Nss1,(1Mbps)\_4TX

## PSD

2437MHz

07/11/2019

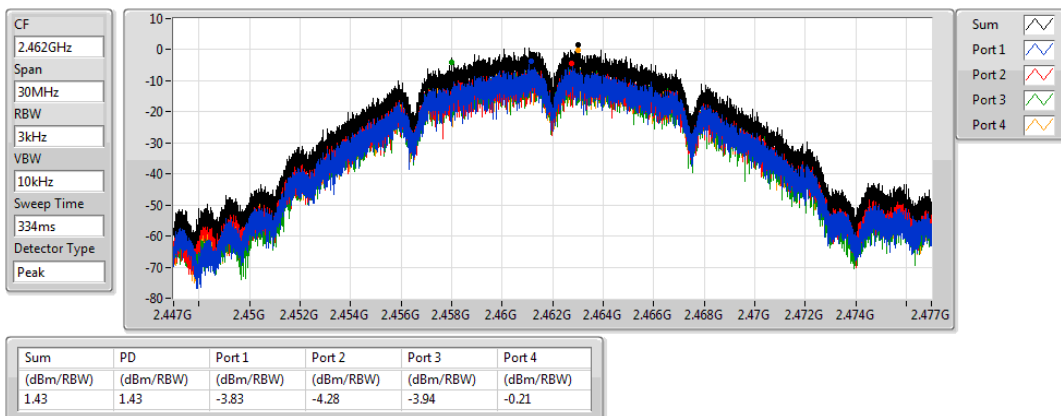


## 802.11b\_Nss1,(1Mbps)\_4TX

## PSD

2462MHz

07/11/2019

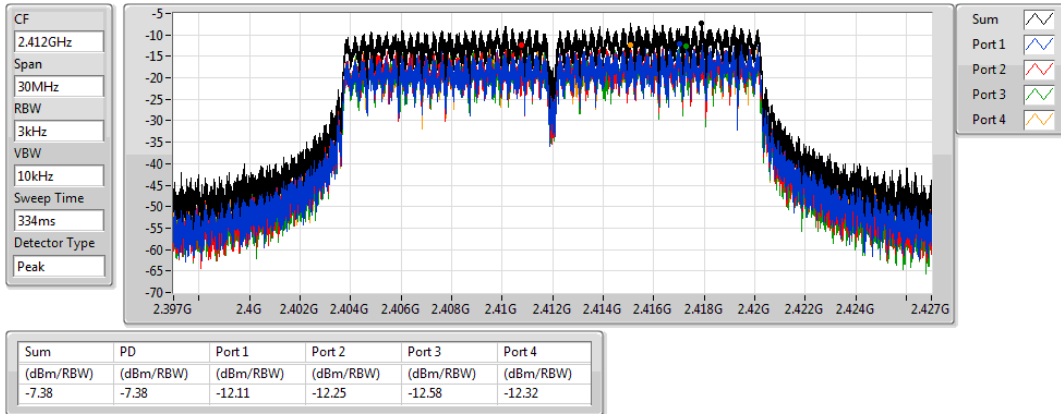


## 802.11g\_Nss1,(6Mbps)\_4TX

PSD

2412MHz

07/11/2019

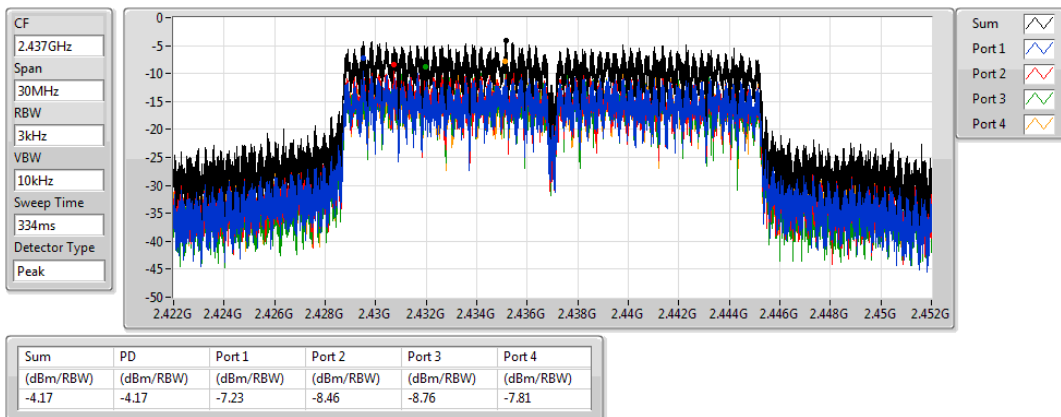


## 802.11g\_Nss1,(6Mbps)\_4TX

PSD

2437MHz

07/11/2019

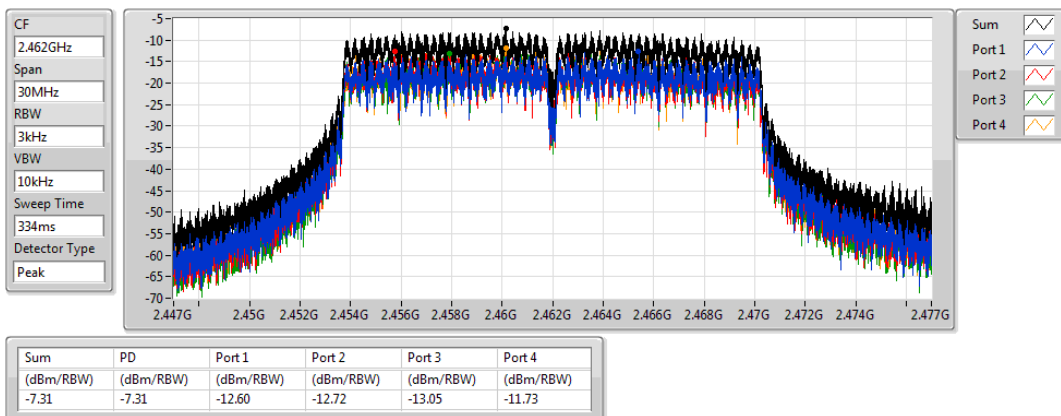


## 802.11g\_Nss1,(6Mbps)\_4TX

PSD

2462MHz

07/11/2019

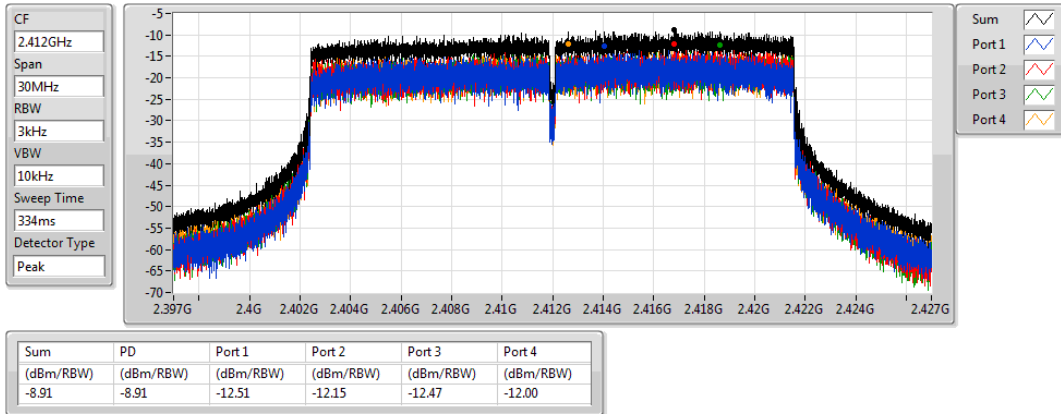


## 802.11ax HEW20\_Nss1,(MCS0)\_4TX

PSD

2412MHz

07/11/2019

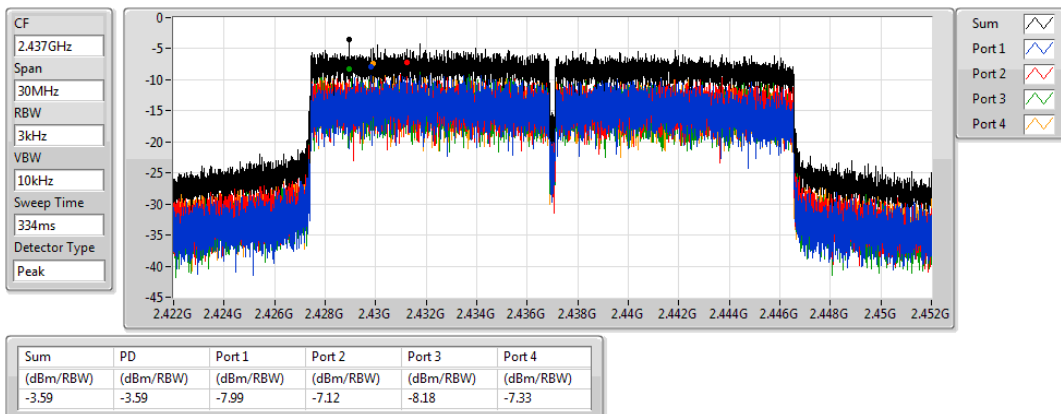


## 802.11ax HEW20\_Nss1,(MCS0)\_4TX

PSD

2437MHz

07/11/2019

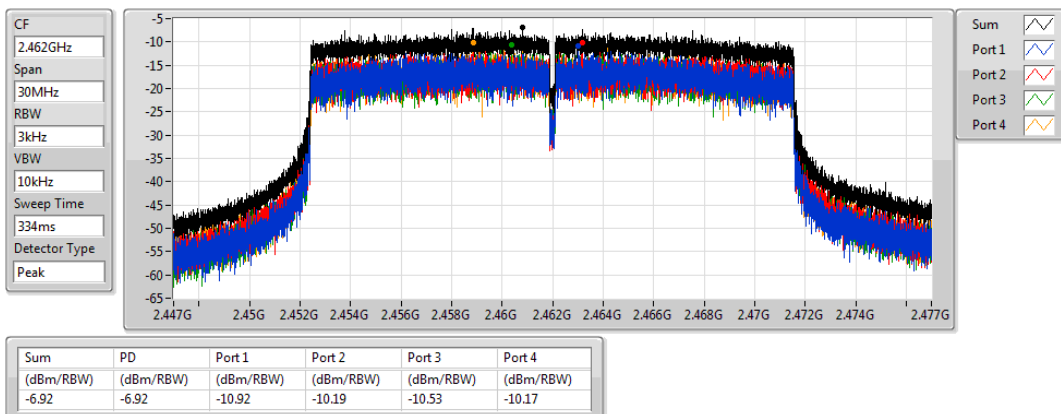


## 802.11ax HEW20\_Nss1,(MCS0)\_4TX

PSD

2462MHz

07/11/2019

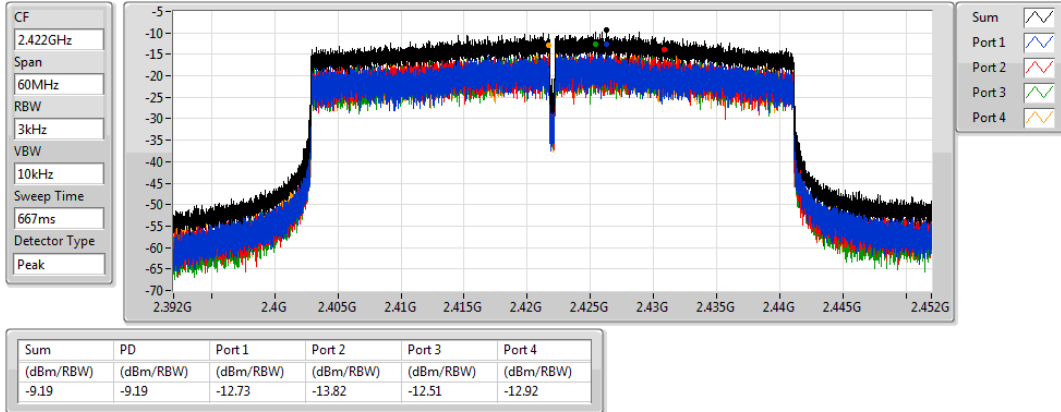


### 802.11ax HEW40\_Nss1,(MCS0)\_4TX

PSD

2422MHz

07/11/2019

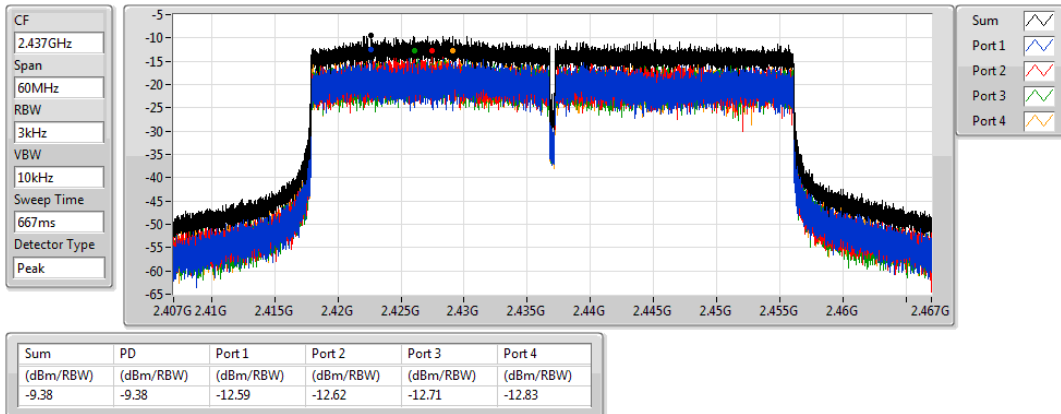


### 802.11ax HEW40\_Nss1,(MCS0)\_4TX

PSD

2437MHz

07/11/2019

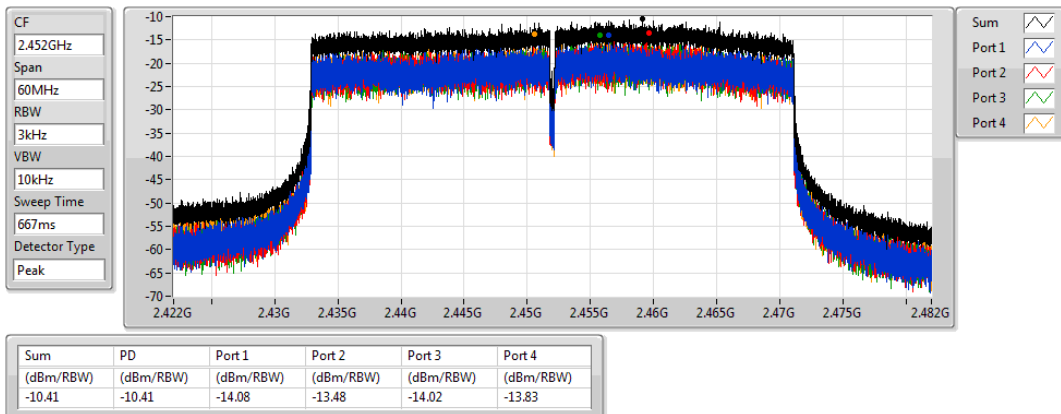


### 802.11ax HEW40\_Nss1,(MCS0)\_4TX

PSD

2452MHz

07/11/2019



**<For Beamforming Mode>**
**Summary**

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	-4.98
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	-6.94

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

**Result**

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	Port 3 (dBm/RBW)	Port 4 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
2412MHz	Pass	7.59	-8.82	-8.94	-9.09	-10.38	-5.76	6.41
2437MHz	Pass	7.59	-7.59	-10.04	-10.23	-7.02	-4.98	6.41
2457MHz								
2462MHz	Pass	7.59	-10.21	-9.60	-11.84	-8.48	-7.93	6.41
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
2422MHz	Pass	7.59	-9.20	-10.14	-11.25	-7.02	-6.94	6.41
2437MHz	Pass	7.59	-10.47	-9.00	-8.66	-9.08	-7.36	6.41
2452MHz	Pass	7.59	-11.43	-13.14	-13.44	-12.75	-10.91	6.41

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

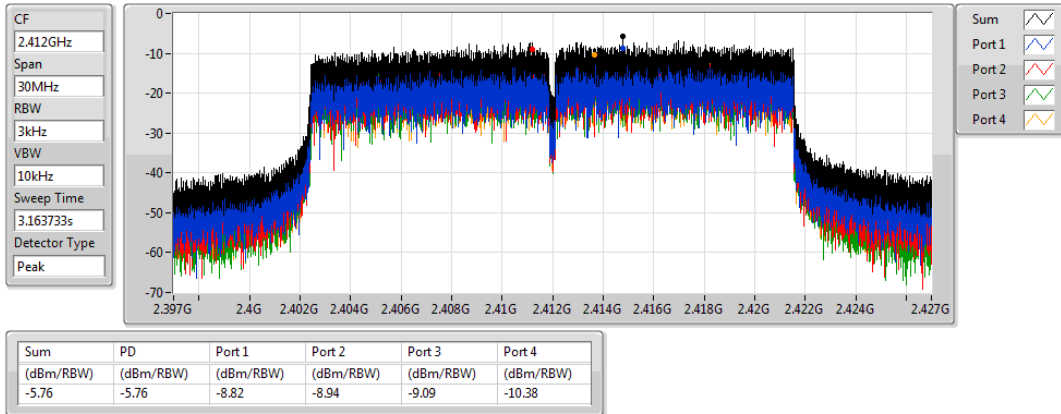
**PD** = trace bin-by-bin of each transmits port summing can be performed maximum power density; **Port X** = Port X power density;

## 802.11ax HEW20-BF\_Nss1,(MCS0)\_4TX

PSD

2412MHz

10/12/2019

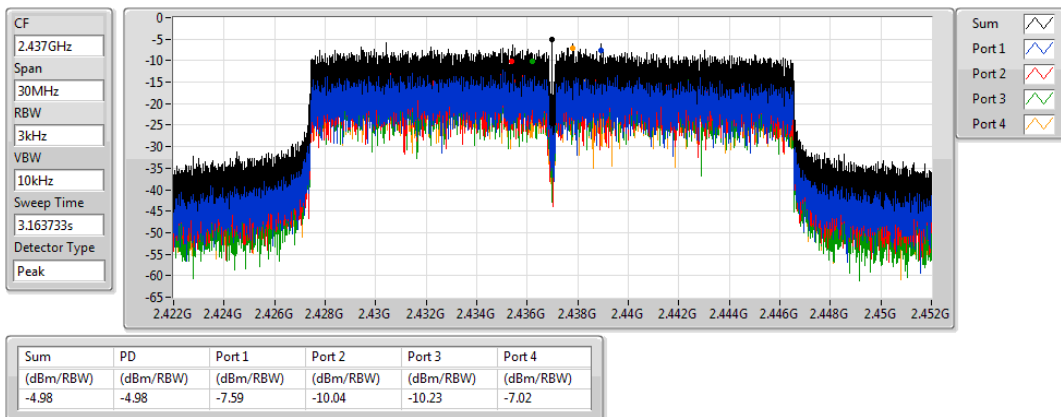


## 802.11ax HEW20-BF\_Nss1,(MCS0)\_4TX

PSD

2437MHz

10/12/2019

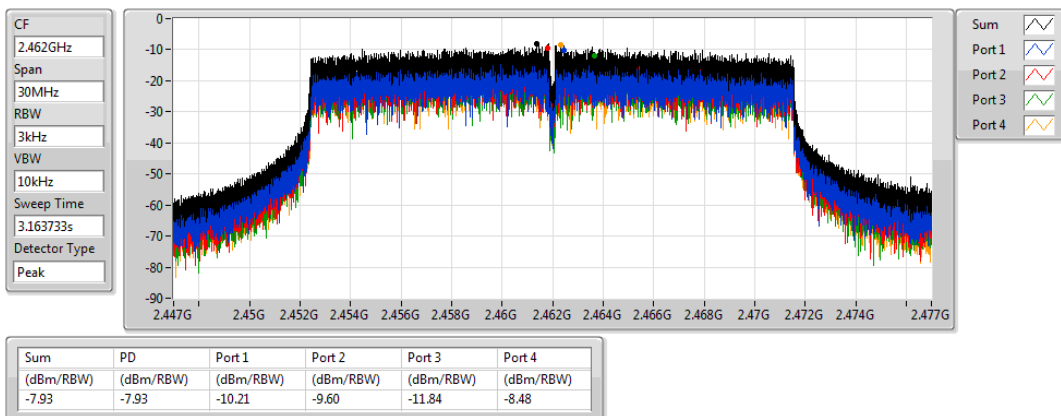


## 802.11ax HEW20-BF\_Nss1,(MCS0)\_4TX

PSD

2462MHz

10/12/2019

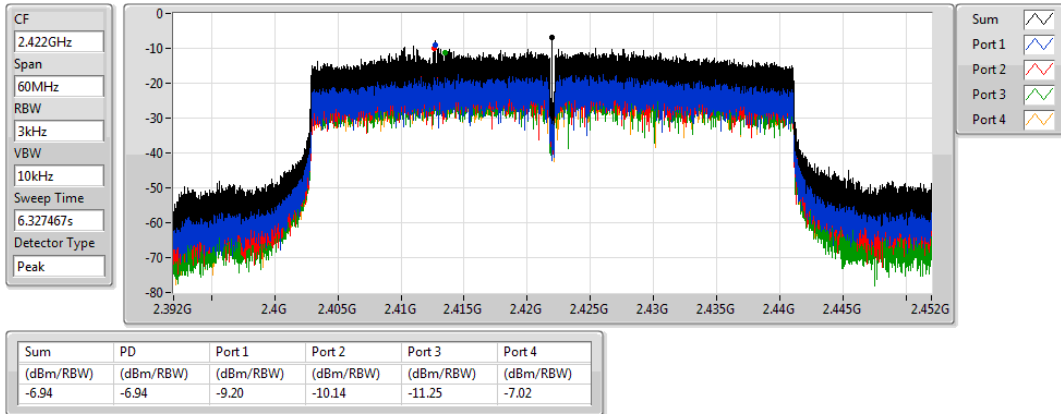


## 802.11ax HEW40-BF\_Nss1,(MCS0)\_4TX

PSD

2422MHz

10/12/2019

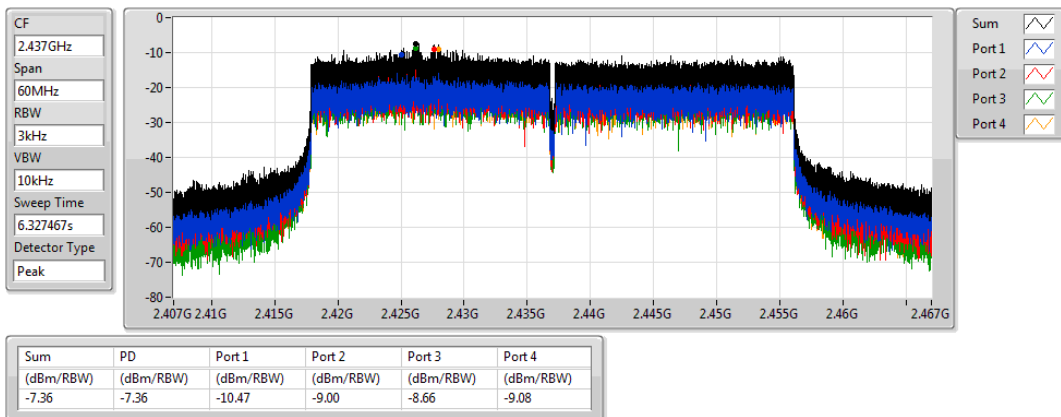


## 802.11ax HEW40-BF\_Nss1,(MCS0)\_4TX

PSD

2437MHz

10/12/2019

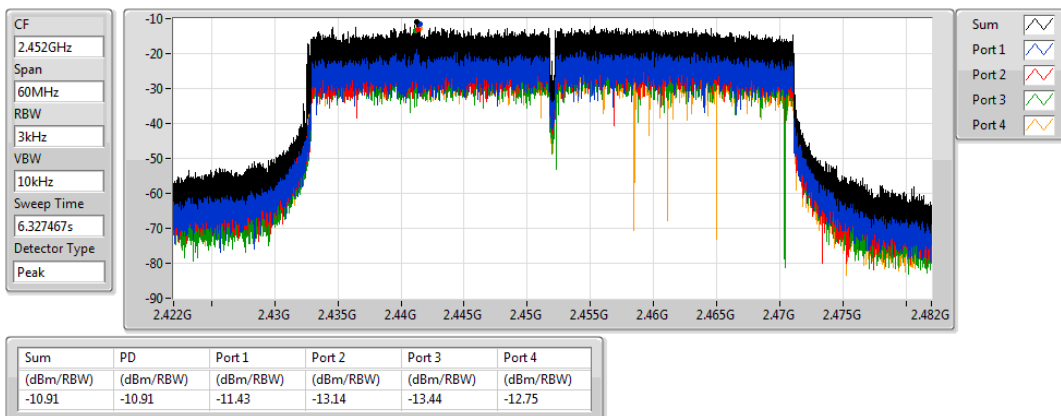


## 802.11ax HEW40-BF\_Nss1,(MCS0)\_4TX

PSD

2452MHz

10/12/2019





**<For Non-Beamforming Mode>**
**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)_4TX	Pass	2.43758G	26.48	-3.52	308.44M	-46.46	2.39704G	-16.36	2.4855G	-29.17	24.48866G	-39.83	2
802.11g_Nss1,(6Mbps)_4TX	Pass	2.44192G	24.51	-5.49	1.8474G	-46.10	2.39976G	-12.62	2.48518G	-44.27	24.41842G	-39.30	4
802.11ax HEW20_Nss1,(MCS0)_4TX	Pass	2.42956G	23.78	-6.22	1.88701G	-46.23	2.3996G	-17.70	2.48406G	-44.88	15.26206G	-39.77	4
802.11ax HEW40_Nss1,(MCS0)_4TX	Pass	2.42572G	17.34	-12.66	2.30741G	-46.30	2.3984G	-16.69	2.48382G	-34.57	17.51462G	-39.56	4

**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)_4TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43758G	26.48	-3.52	2.09671G	-46.47	2.39904G	-19.05	2.48526G	-44.75	6.74065G	-40.04	1
2412MHz	Pass	2.43758G	26.48	-3.52	1.89051G	-46.32	2.39952G	-21.88	2.48438G	-44.84	7.23514G	-36.66	2
2412MHz	Pass	2.43758G	26.48	-3.52	751.14M	-46.16	2.39896G	-20.80	2.48662G	-45.15	16.4505G	-40.02	3
2412MHz	Pass	2.43758G	26.48	-3.52	1.99303G	-45.44	2.39904G	-17.42	2.4847G	-45.27	24.87919G	-39.59	4
2437MHz	Pass	2.43758G	26.48	-3.52	910.74M	-46.41	2.39752G	-16.81	2.48598G	-28.21	16.74831G	-39.27	1
2437MHz	Pass	2.43758G	26.48	-3.52	308.44M	-46.46	2.39704G	-16.36	2.4855G	-29.17	24.48866G	-39.83	2
2437MHz	Pass	2.43758G	26.48	-3.52	769.78M	-46.06	2.39952G	-31.08	2.4871G	-39.57	16.83822G	-40.07	3
2437MHz	Pass	2.43758G	26.48	-3.52	830.36M	-44.44	2.39696G	-19.68	2.48798G	-23.39	16.42522G	-40.32	4
2462MHz	Pass	2.43758G	26.48	-3.52	951.52M	-46.14	2.39992G	-42.91	2.48494G	-35.14	16.6865G	-39.91	1
2462MHz	Pass	2.43758G	26.48	-3.52	1.96973G	-45.94	2.3976G	-42.61	2.4847G	-36.30	17.50409G	-39.39	2
2462MHz	Pass	2.43758G	26.48	-3.52	748.81M	-45.57	2.39856G	-43.39	2.48358G	-36.78	16.81013G	-38.63	3
2462MHz	Pass	2.43758G	26.48	-3.52	1.86022G	-45.95	2.39792G	-42.81	2.4859G	-35.55	15.15248G	-39.56	4
802.11g_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.44192G	24.51	-5.49	2.14331G	-45.97	2.39984G	-14.09	2.48414G	-43.63	16.85789G	-40.20	1
2412MHz	Pass	2.44192G	24.51	-5.49	2.12467G	-45.46	2.39992G	-14.34	2.48374G	-44.66	16.41679G	-39.75	2
2412MHz	Pass	2.44192G	24.51	-5.49	731.33M	-46.75	2.39992G	-14.46	2.48542G	-44.27	6.74346G	-39.22	3
2412MHz	Pass	2.44192G	24.51	-5.49	1.8474G	-46.10	2.39976G	-12.62	2.48518G	-44.27	24.41842G	-39.30	4
2437MHz	Pass	2.44192G	24.51	-5.49	1.81245G	-46.42	2.39976G	-23.41	2.48358G	-28.53	24.81176G	-40.35	1
2437MHz	Pass	2.44192G	24.51	-5.49	2.12118G	-46.89	2.39992G	-21.85	2.4839G	-31.74	16.75112G	-39.58	2
2437MHz	Pass	2.44192G	24.51	-5.49	2.17127G	-46.58	2.39704G	-23.40	2.4839G	-34.81	16.26226G	-39.89	3
2437MHz	Pass	2.44192G	24.51	-5.49	2.14681G	-46.28	2.39704G	-21.26	2.48446G	-31.23	17.16975G	-39.24	4
2462MHz	Pass	2.44192G	24.51	-5.49	769.78M	-45.84	2.39344G	-43.34	2.48382G	-30.61	16.68089G	-40.18	1
2462MHz	Pass	2.44192G	24.51	-5.49	1.82294G	-45.99	2.39776G	-42.52	2.48438G	-32.62	16.81855G	-40.24	2
2462MHz	Pass	2.44192G	24.51	-5.49	836.18M	-46.38	2.39792G	-43.37	2.48358G	-32.31	6.61984G	-40.06	3
2462MHz	Pass	2.44192G	24.51	-5.49	1.8043G	-46.03	2.39616G	-42.43	2.48406G	-31.13	16.74551G	-40.14	4
802.11ax HEW20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.42956G	23.78	-6.22	857.15M	-46.42	2.39992G	-19.79	2.48374G	-43.95	16.43926G	-39.98	1
2412MHz	Pass	2.42956G	23.78	-6.22	946.86M	-45.98	2.39984G	-18.94	2.48518G	-44.02	16.49264G	-39.33	2
2412MHz	Pass	2.42956G	23.78	-6.22	582.21M	-46.70	2.39968G	-19.97	2.48558G	-44.94	16.51231G	-39.29	3
2412MHz	Pass	2.42956G	23.78	-6.22	1.88701G	-46.23	2.3996G	-17.70	2.48406G	-44.88	15.26206G	-39.77	4
2437MHz	Pass	2.42956G	23.78	-6.22	1.98138G	-46.53	2.39912G	-21.53	2.4839G	-26.93	6.82775G	-39.76	1
2437MHz	Pass	2.42956G	23.78	-6.22	955.01M	-46.27	2.39992G	-21.37	2.48398G	-27.17	17.06299G	-40.00	2
2437MHz	Pass	2.42956G	23.78	-6.22	948.02M	-45.75	2.39448G	-22.58	2.48398G	-29.56	16.46455G	-40.20	3
2437MHz	Pass	2.42956G	23.78	-6.22	818.71M	-45.74	2.3992G	-22.18	2.48382G	-28.58	16.77922G	-39.77	4
2462MHz	Pass	2.42956G	23.78	-6.22	2.127G	-46.29	2.39248G	-42.01	2.48374G	-24.03	16.33531G	-39.71	1
2462MHz	Pass	2.42956G	23.78	-6.22	2.07458G	-45.60	2.39944G	-43.07	2.48358G	-24.63	16.47017G	-40.02	2
2462MHz	Pass	2.42956G	23.78	-6.22	818.71M	-45.48	2.3976G	-42.44	2.48366G	-25.78	6.83899G	-39.21	3
2462MHz	Pass	2.42956G	23.78	-6.22	1.93361G	-46.13	2.39408G	-40.90	2.48358G	-26.16	16.8326G	-39.32	4
802.11ax HEW40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	2.42572G	17.34	-12.66	2.19405G	-46.23	2.39696G	-18.98	2.48382G	-34.51	24.61017G	-39.65	1
2422MHz	Pass	2.42572G	17.34	-12.66	2.14138G	-45.33	2.39904G	-19.54	2.48366G	-36.75	16.90603G	-40.25	2
2422MHz	Pass	2.42572G	17.34	-12.66	1.79903G	-46.20	2.39984G	-20.81	2.48462G	-39.26	16.44608G	-39.75	3
2422MHz	Pass	2.42572G	17.34	-12.66	2.30741G	-46.30	2.3984G	-16.69	2.48382G	-34.57	17.51462G	-39.56	4
2437MHz	Pass	2.42572G	17.34	-12.66	875.01M	-45.21	2.39888G	-23.57	2.48366G	-29.13	16.35073G	-40.04	1
2437MHz	Pass	2.42572G	17.34	-12.66	951.73M	-45.78	2.39984G	-22.93	2.4843G	-30.57	17.44451G	-39.94	2
2437MHz	Pass	2.42572G	17.34	-12.66	1.87574G	-46.28	2.39568G	-24.25	2.48366G	-32.83	24.15583G	-39.93	3
2437MHz	Pass	2.42572G	17.34	-12.66	2.13222G	-45.96	2.39472G	-22.45	2.48398G	-30.30	15.09148G	-39.61	4



## CSE(Non-restricted Band)

## Appendix E.1

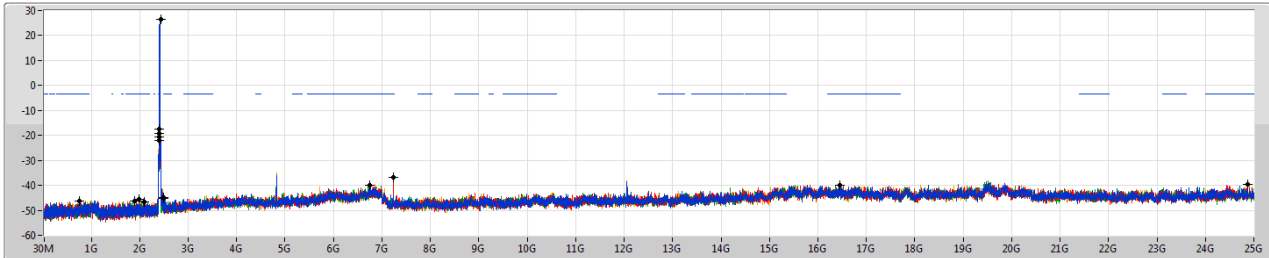
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2452MHz	Pass	2.42572G	17.34	-12.66	644.87M	-45.48	2.39728G	-36.39	2.48462G	-23.79	24.95232G	-40.35	1
2452MHz	Pass	2.42572G	17.34	-12.66	2.16199G	-46.11	2.39936G	-36.14	2.48462G	-26.81	16.45169G	-40.15	2
2452MHz	Pass	2.42572G	17.34	-12.66	366.63M	-46.27	2.39984G	-36.23	2.4843G	-30.19	16.3928G	-38.90	3
2452MHz	Pass	2.42572G	17.34	-12.66	529.22M	-46.19	2.3968G	-35.17	2.48382G	-27.09	15.21488G	-38.99	4

## 802.11b\_Nss1,(1Mbps)\_4TX

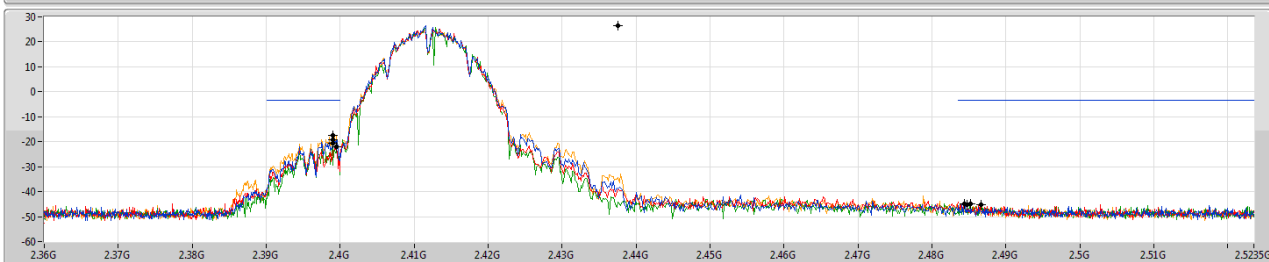
CSE NdB

2412MHz

07/11/2019



Port 1  
Port 2  
Port 3  
Port 4



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

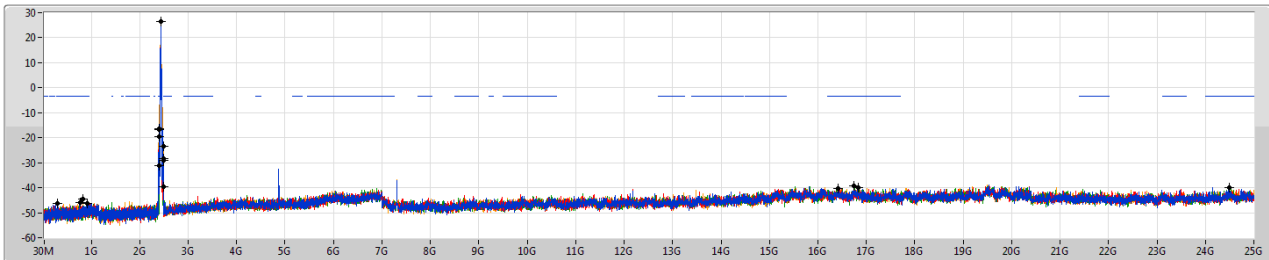
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43758G	26.48	-3.52	2.09671G	-46.47	2.39904G	-19.05	2.48526G	-44.75	6.74065G	-40.04	1
2.43758G	26.48	-3.52	1.89051G	-46.32	2.39952G	-21.88	2.48438G	-44.84	7.23514G	-36.66	2
2.43758G	26.48	-3.52	751.14M	-46.16	2.39896G	-20.80	2.48662G	-45.15	16.4505G	-40.02	3
2.43758G	26.48	-3.52	1.99303G	-45.44	2.39904G	-17.42	2.4847G	-45.27	24.87919G	-39.59	4

## 802.11b\_Nss1,(1Mbps)\_4TX

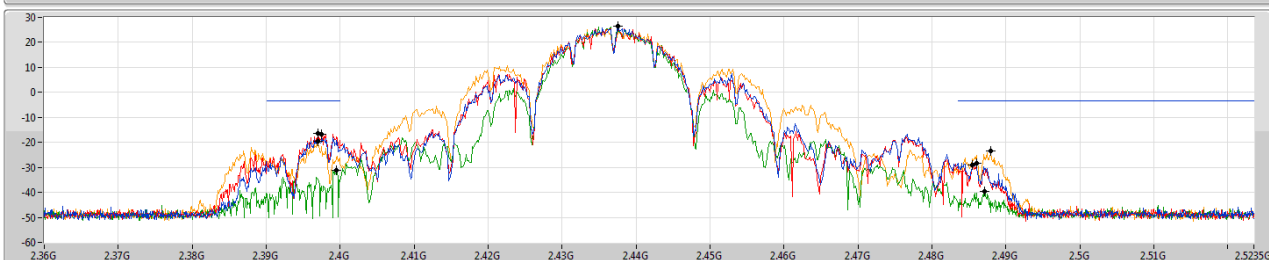
CSE NdB

2437MHz

07/11/2019



Port 1  
Port 2  
Port 3  
Port 4



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

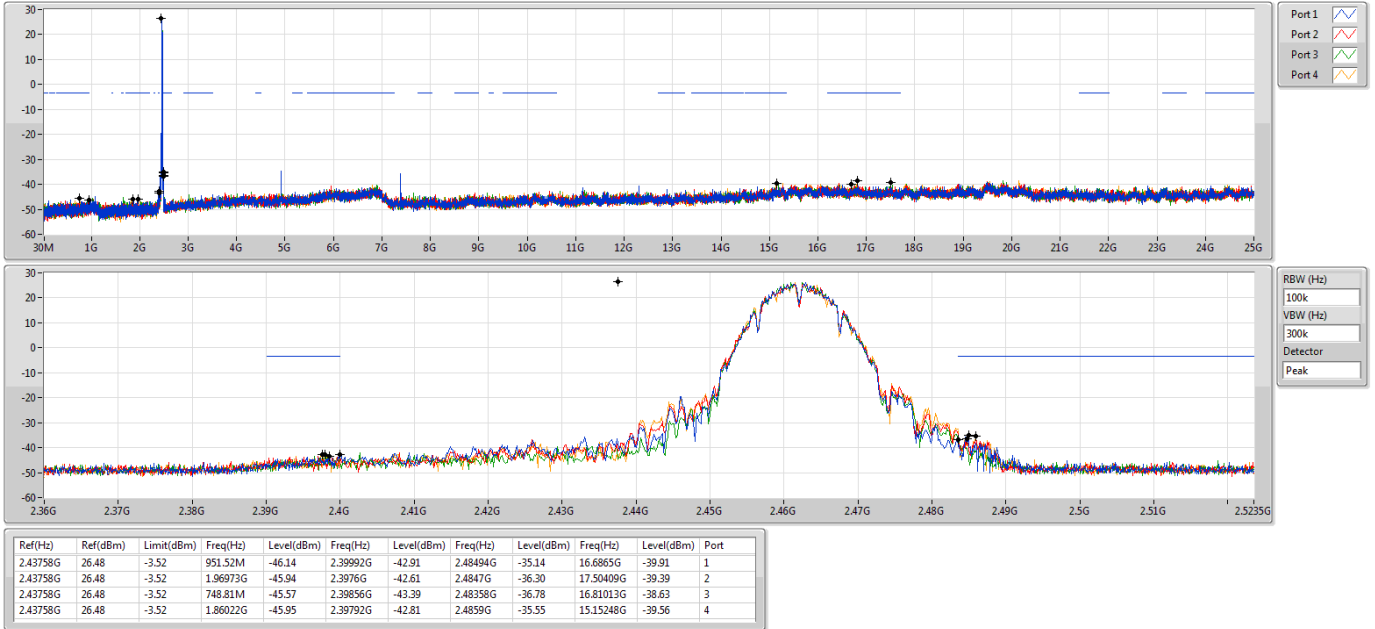
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43758G	26.48	-3.52	910.74M	-46.41	2.39752G	-16.81	2.48598G	-28.21	16.74831G	-39.27	1
2.43758G	26.48	-3.52	308.44M	-46.46	2.39704G	-16.36	2.4855G	-29.17	24.48866G	-39.83	2
2.43758G	26.48	-3.52	769.78M	-46.06	2.39952G	-31.08	2.4871G	-39.57	16.83822G	-40.07	3
2.43758G	26.48	-3.52	830.36M	-44.44	2.39696G	-19.68	2.48798G	-23.39	16.42522G	-40.32	4

## 802.11b\_Nss1,(1Mbps)\_4TX

CSE NdB

2462MHz

07/11/2019

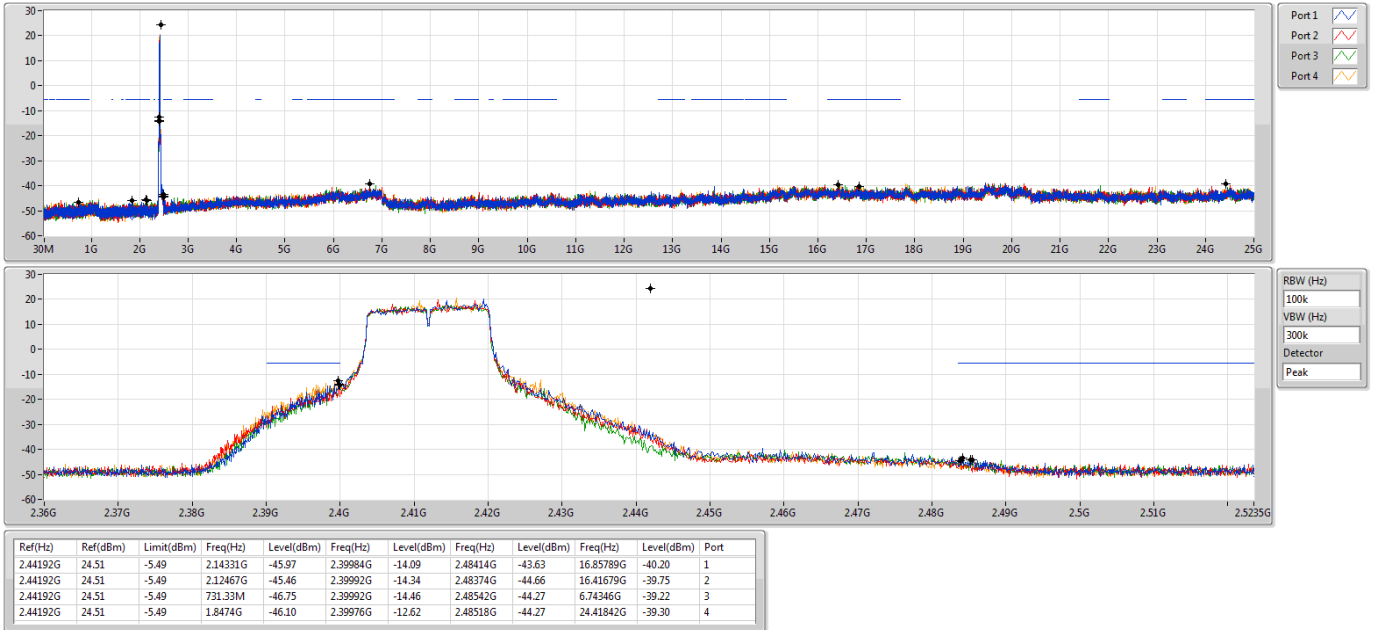


## 802.11g\_Nss1,(6Mbps)\_4TX

CSE NdB

2412MHz

07/11/2019

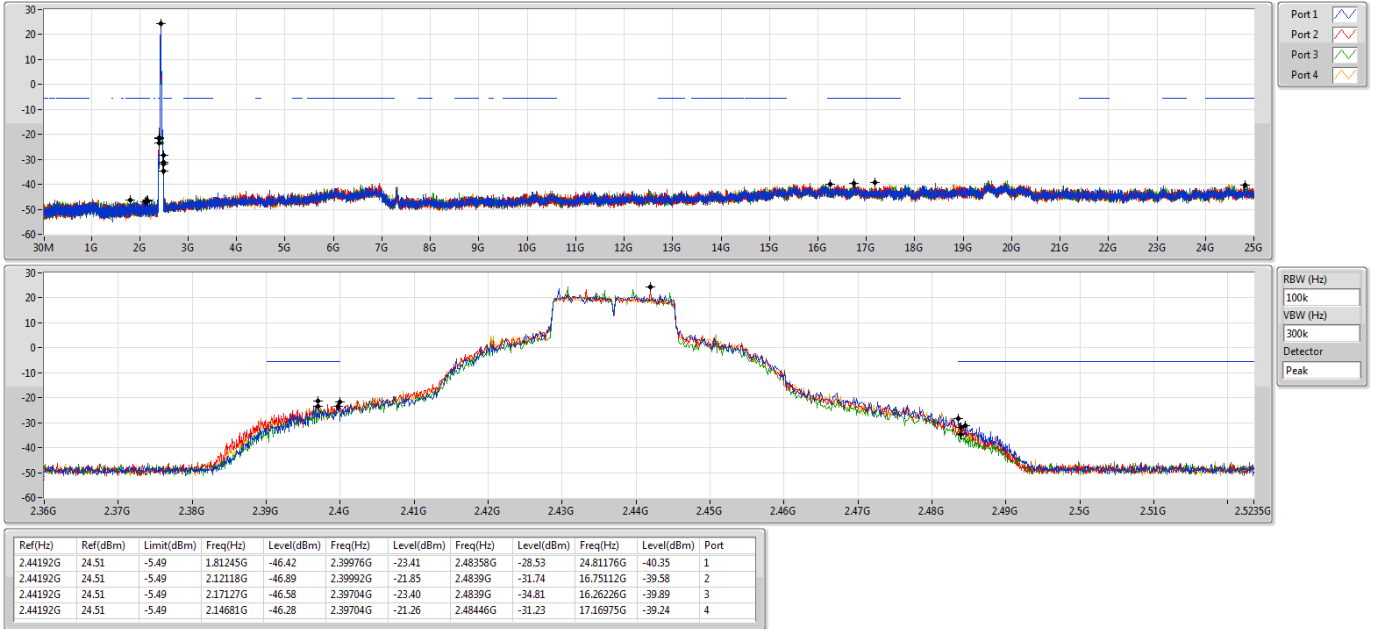


## 802.11g\_Nss1,(6Mbps)\_4TX

CSE NdB

2437MHz

07/11/2019

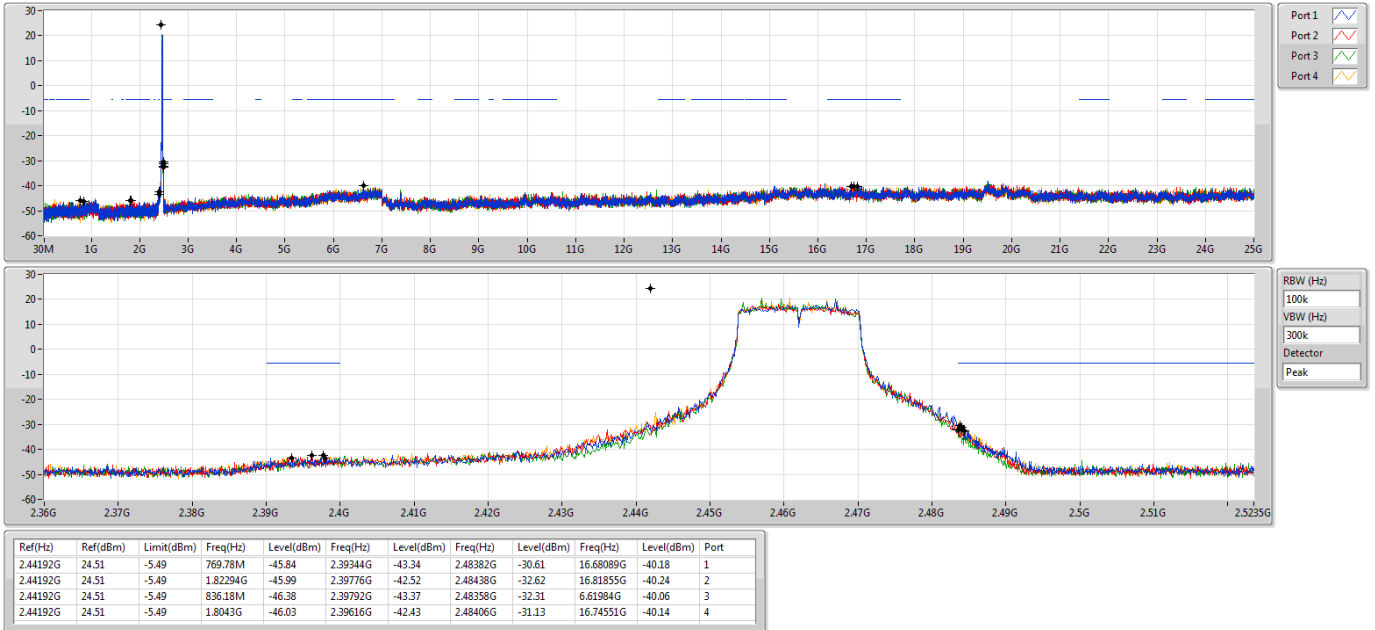


## 802.11g\_Nss1,(6Mbps)\_4TX

CSE NdB

2462MHz

07/11/2019

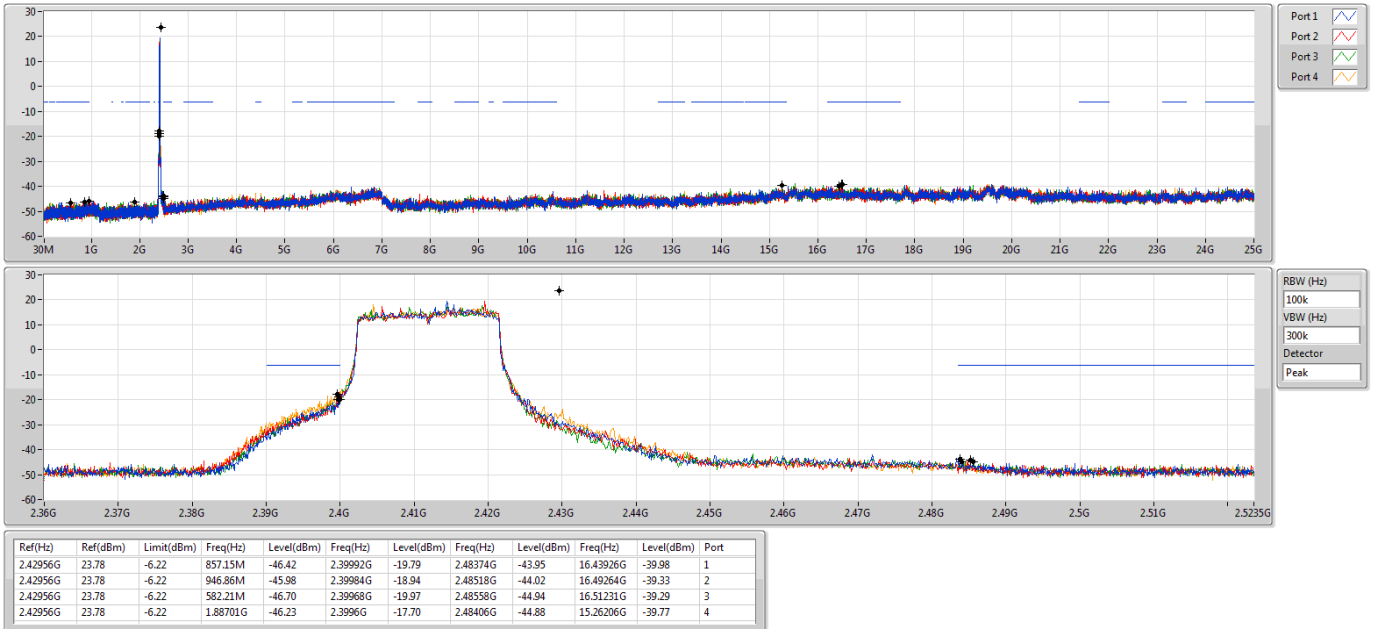


## 802.11ax HEW20\_Nss1,(MCS0)\_4TX

CSE NdB

2412MHz

07/11/2019

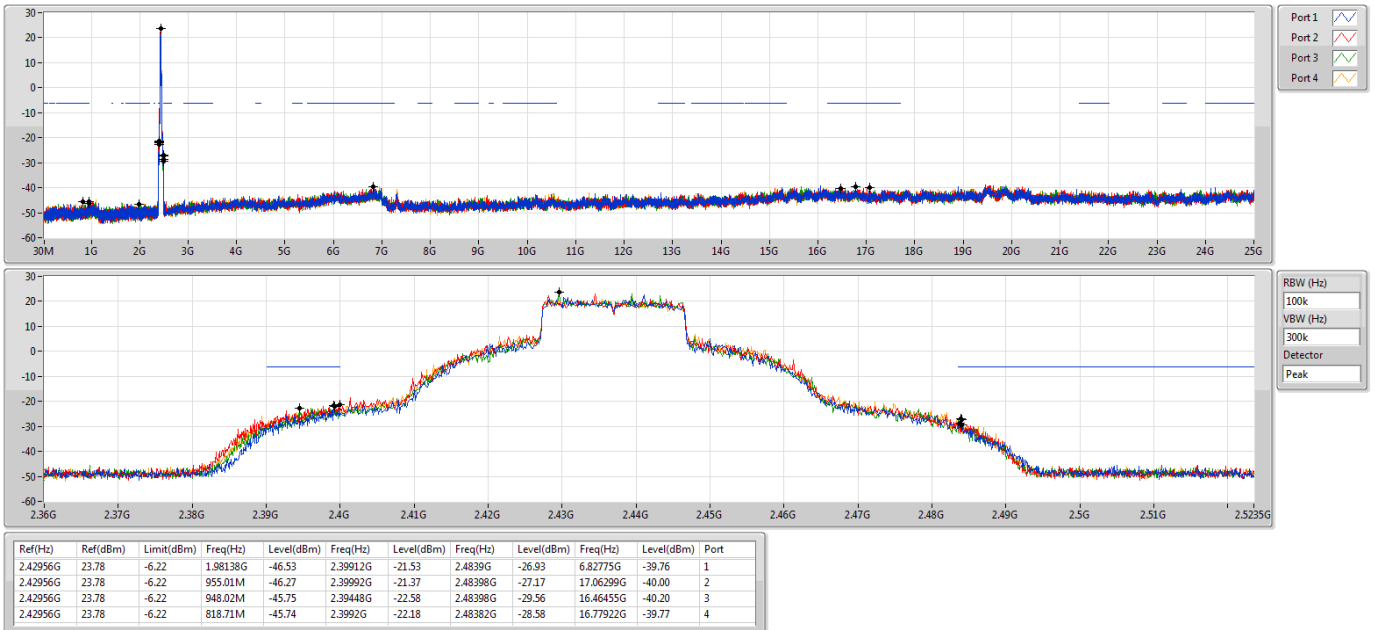


## 802.11ax HEW20\_Nss1,(MCS0)\_4TX

CSE NdB

2437MHz

07/11/2019

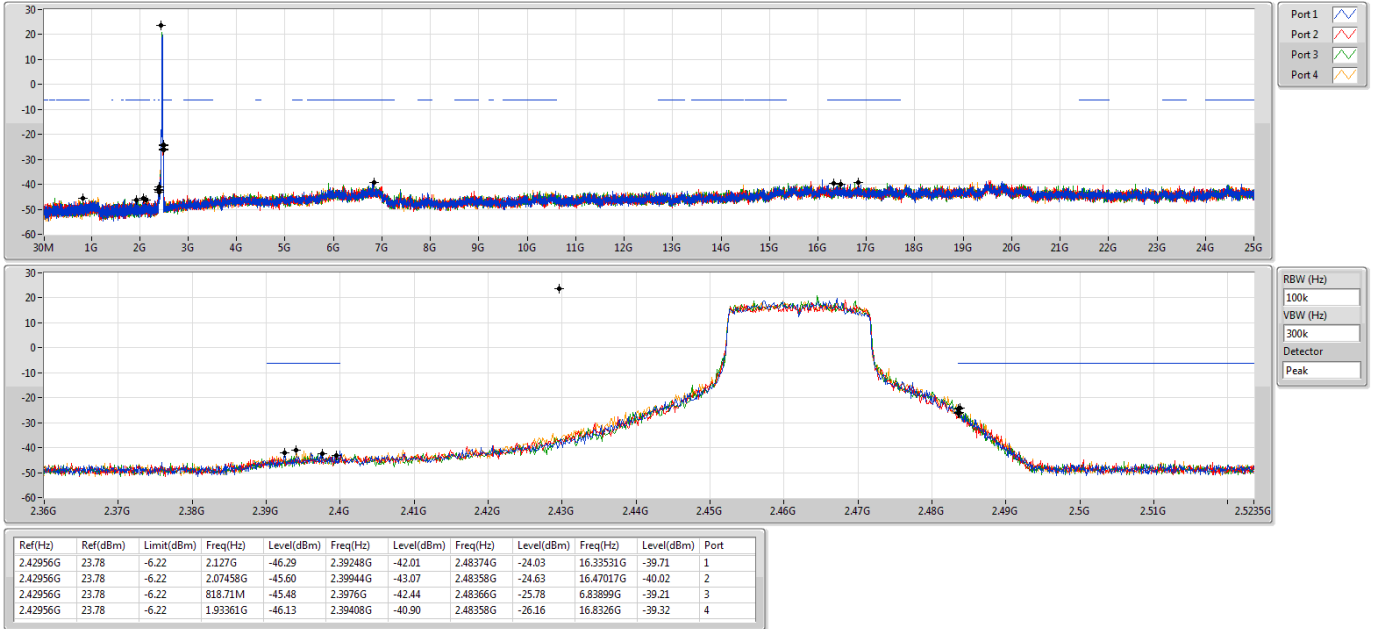


## 802.11ax HEW20\_Nss1,(MCS0)\_4TX

2462MHz

CSE NdB

07/11/2019

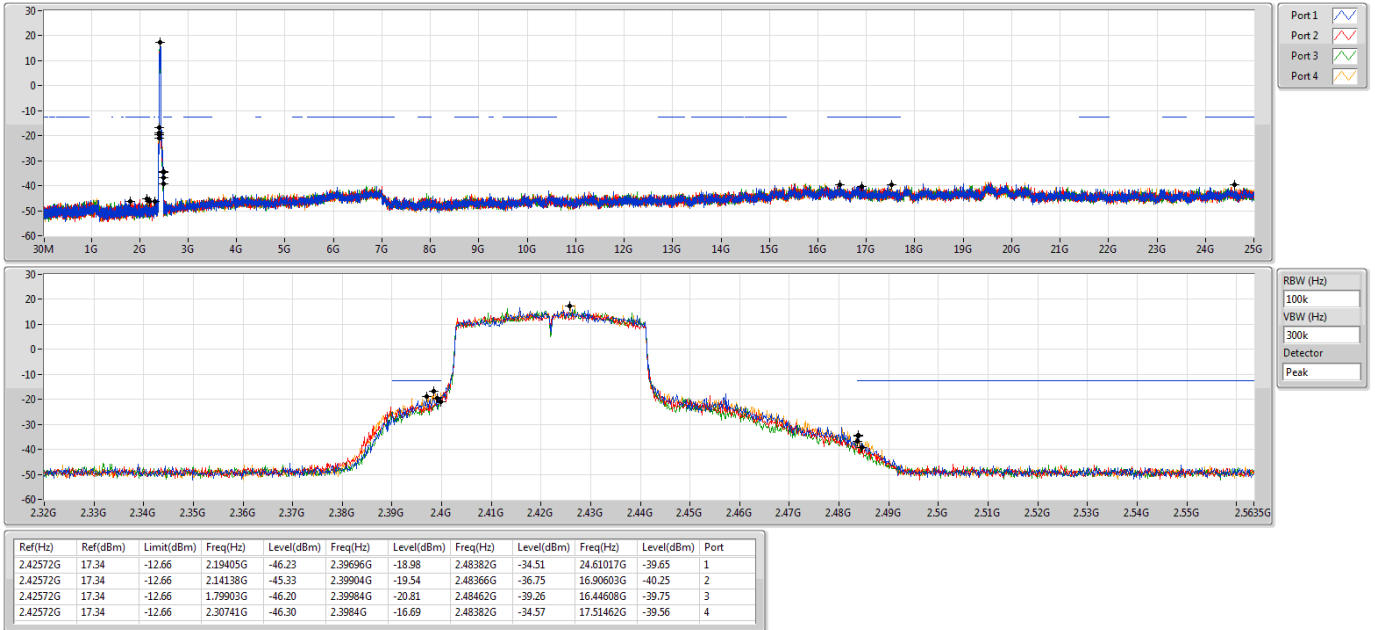


## 802.11ax HEW40\_Nss1,(MCS0)\_4TX

2422MHz

CSE NdB

07/11/2019



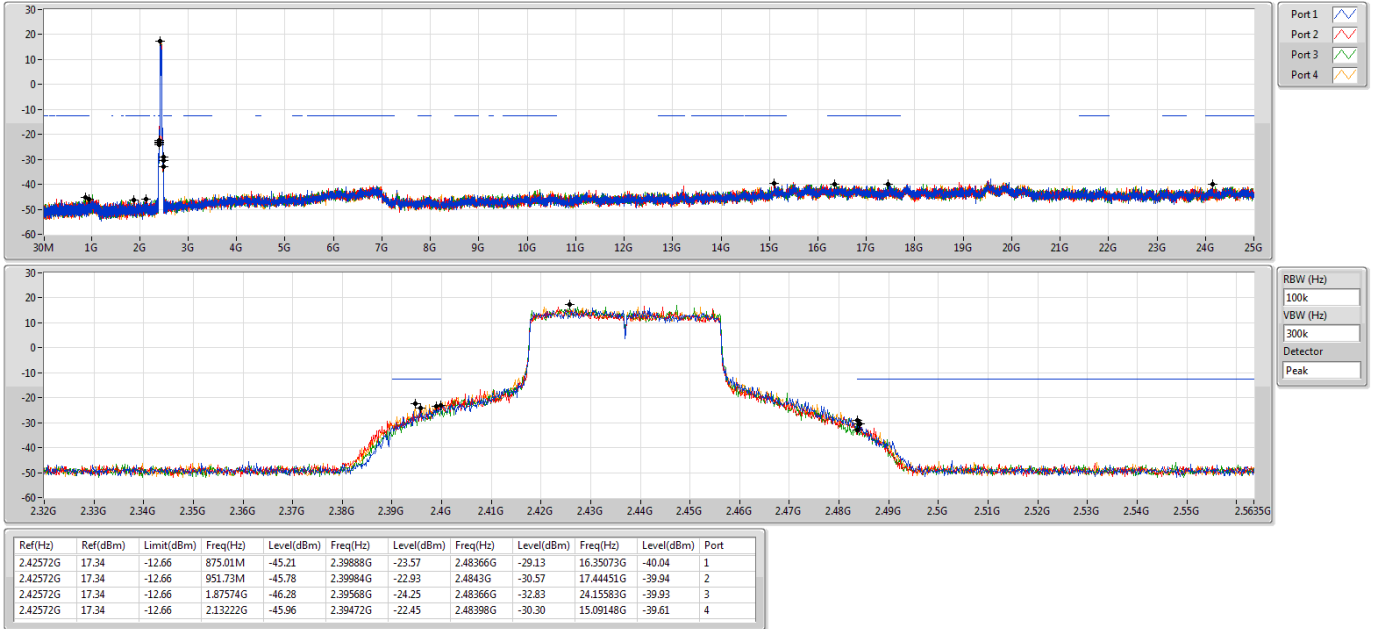


802.11ax HEW40\_Nss1,(MCS0)\_4TX

CSE NdB

2437MHz

07/11/2019

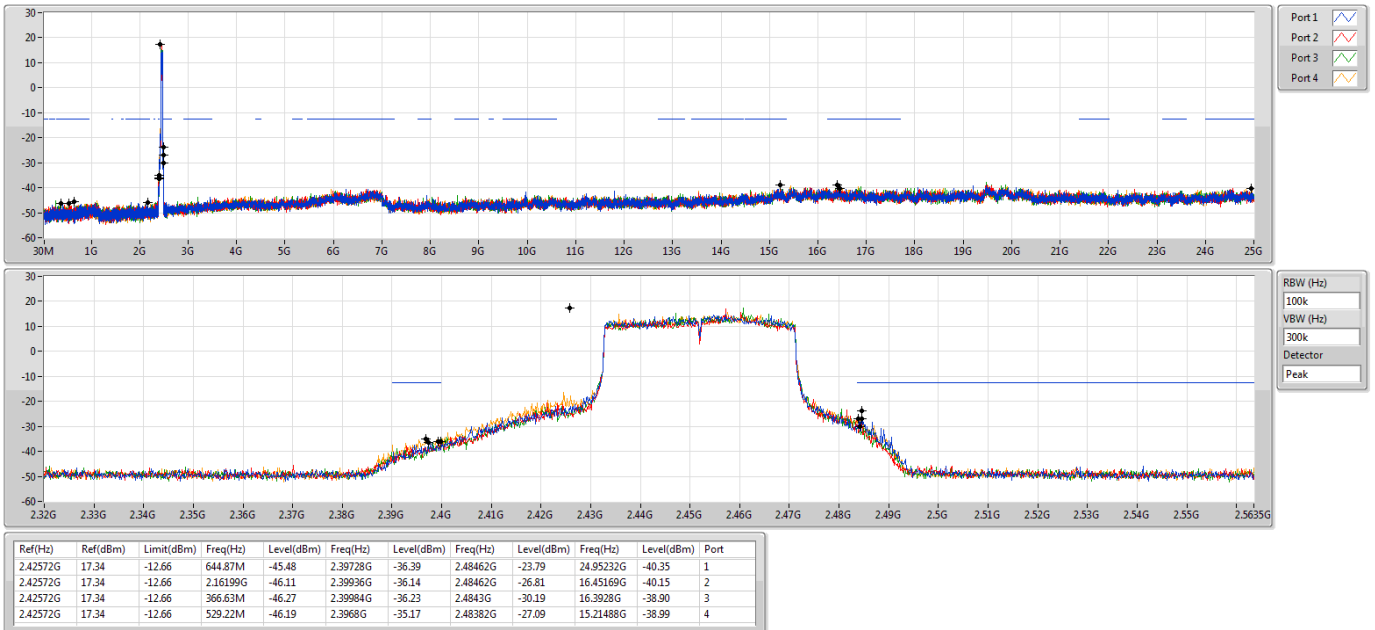


802.11ax HEW40\_Nss1,(MCS0)\_4TX

CSE NdB

2452MHz

07/11/2019



**Summary**

Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	Pass	2.43649G	4.58	-25.42	2.30466G	-50.44	2.4G	-27.18	2.4G	-27.91	2.50026G	-50.85	23.54184G	-44.89	1
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	Pass	2.42547G	2.79	-27.21	2.02001G	-50.60	2.39968G	-33.42	2.4G	-36.14	2.48362G	-50.48	24.02401G	-44.79	1

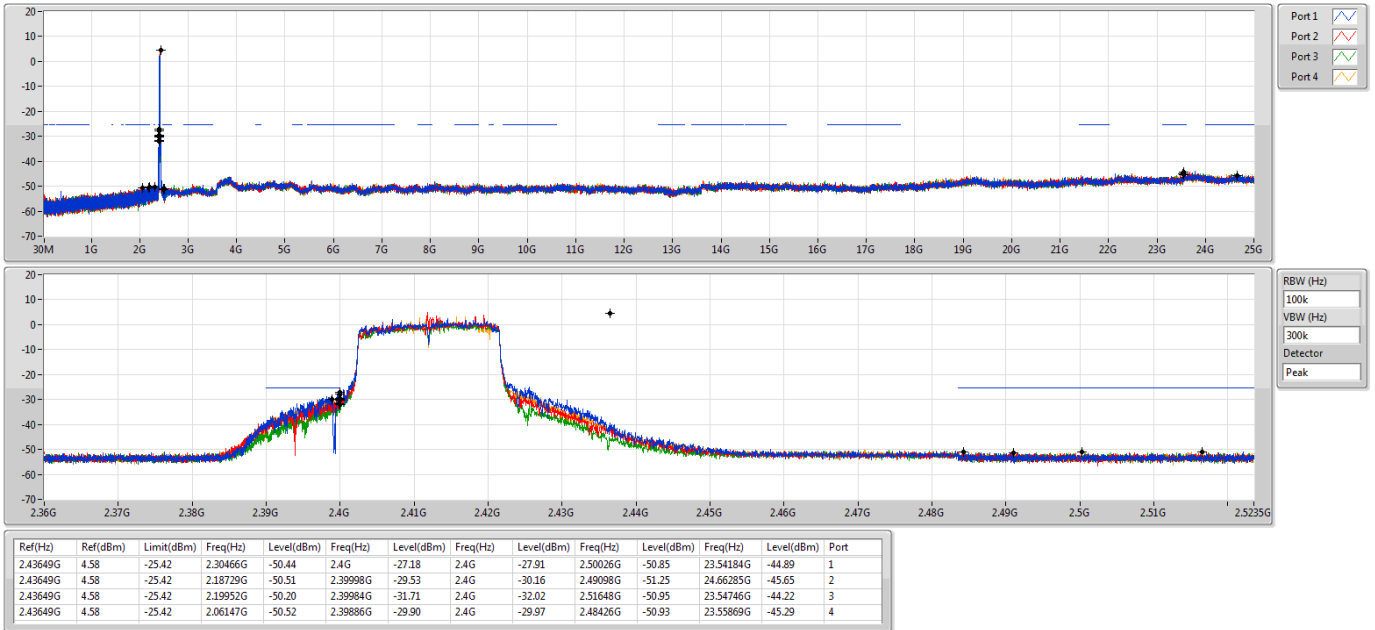
**Result**

Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43649G	4.58	-25.42	2.30466G	-50.44	2.4G	-27.18	2.4G	-27.91	2.50026G	-50.85	23.54184G	-44.89	1
2412MHz	Pass	2.43649G	4.58	-25.42	2.18729G	-50.51	2.39998G	-29.53	2.4G	-30.16	2.49098G	-51.25	24.66285G	-45.65	2
2412MHz	Pass	2.43649G	4.58	-25.42	2.19952G	-50.20	2.39984G	-31.71	2.4G	-32.02	2.51648G	-50.95	23.54746G	-44.22	3
2412MHz	Pass	2.43649G	4.58	-25.42	2.06147G	-50.52	2.39886G	-29.90	2.4G	-29.97	2.48426G	-50.93	23.55869G	-45.29	4
2437MHz	Pass	2.43649G	4.58	-25.42	2.0839G	-50.52	2.39988G	-45.93	2.4G	-46.55	2.4842G	-50.35	24.97471G	-44.57	1
2437MHz	Pass	2.43649G	4.58	-25.42	2.30612G	-50.09	2.3997G	-46.25	2.4G	-46.29	2.48442G	-51.00	24.65161G	-45.47	2
2437MHz	Pass	2.43649G	4.58	-25.42	2.19574G	-50.52	2.39994G	-47.99	2.4G	-50.29	2.48514G	-50.43	23.53622G	-44.91	3
2437MHz	Pass	2.43649G	4.58	-25.42	2.19952G	-49.91	2.3992G	-46.84	2.4G	-48.28	2.51006G	-51.21	24.65161G	-45.57	4
2462MHz	Pass	2.43649G	4.58	-25.42	2.30728G	-50.38	2.3916G	-51.11	2.4835G	-49.47	2.48378G	-48.47	24.8539G	-45.49	1
2462MHz	Pass	2.43649G	4.58	-25.42	2.30292G	-50.11	2.39716G	-51.38	2.4835G	-50.53	2.4836G	-49.38	24.11499G	-45.09	2
2462MHz	Pass	2.43649G	4.58	-25.42	2.30816G	-50.95	2.3953G	-51.33	2.4835G	-50.85	2.4845G	-50.51	23.59803G	-45.55	3
2462MHz	Pass	2.43649G	4.58	-25.42	2.06001G	-50.80	2.39998G	-51.64	2.4835G	-50.63	2.48412G	-49.41	24.78366G	-45.22	4
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	2.42547G	2.79	-27.21	2.02001G	-50.60	2.39968G	-33.42	2.4G	-36.14	2.48362G	-50.48	24.02401G	-44.79	1
2422MHz	Pass	2.42547G	2.79	-27.21	2.0243G	-50.83	2.39992G	-35.68	2.4G	-35.59	2.48362G	-50.51	24.90184G	-44.80	2
2422MHz	Pass	2.42547G	2.79	-27.21	2.01743G	-50.90	2.4G	-41.74	2.4G	-45.45	2.48562G	-50.91	23.59491G	-45.17	3
2422MHz	Pass	2.42547G	2.79	-27.21	2.30254G	-50.85	2.39352G	-37.11	2.4G	-37.04	2.48402G	-50.98	24.79527G	-45.20	4
2437MHz	Pass	2.42547G	2.79	-27.21	2.30655G	-50.77	2.39888G	-35.87	2.4G	-40.64	2.4839G	-47.08	24.63541G	-45.07	1
2437MHz	Pass	2.42547G	2.79	-27.21	2.19291G	-49.99	2.39964G	-39.11	2.4G	-43.87	2.48434G	-48.81	24.80649G	-45.35	2
2437MHz	Pass	2.42547G	2.79	-27.21	2.19434G	-50.78	2.39968G	-45.85	2.4G	-45.24	2.48374G	-49.69	24.55968G	-45.35	3
2437MHz	Pass	2.42547G	2.79	-27.21	1.95618G	-50.17	2.39584G	-40.66	2.4G	-43.25	2.4843G	-48.37	23.58089G	-45.28	4
2452MHz	Pass	2.42547G	2.79	-27.21	2.30769G	-50.44	2.39832G	-50.60	2.4835G	-49.31	2.4835G	-49.38	24.63821G	-45.48	1
2452MHz	Pass	2.42547G	2.79	-27.21	2.10961G	-50.57	2.397G	-50.84	2.4835G	-50.29	2.48526G	-49.80	24.0156G	-45.07	2
2452MHz	Pass	2.42547G	2.79	-27.21	2.04262G	-50.77	2.3916G	-51.53	2.4835G	-51.49	2.48486G	-50.39	24.03523G	-45.29	3
2452MHz	Pass	2.42547G	2.79	-27.21	2.3097G	-51.03	2.3982G	-50.76	2.4835G	-51.95	2.48394G	-48.31	24.65784G	-45.40	4

## 802.11ax HEW20-BF\_Nss1,(MCS0)\_4TX

CSE NdB

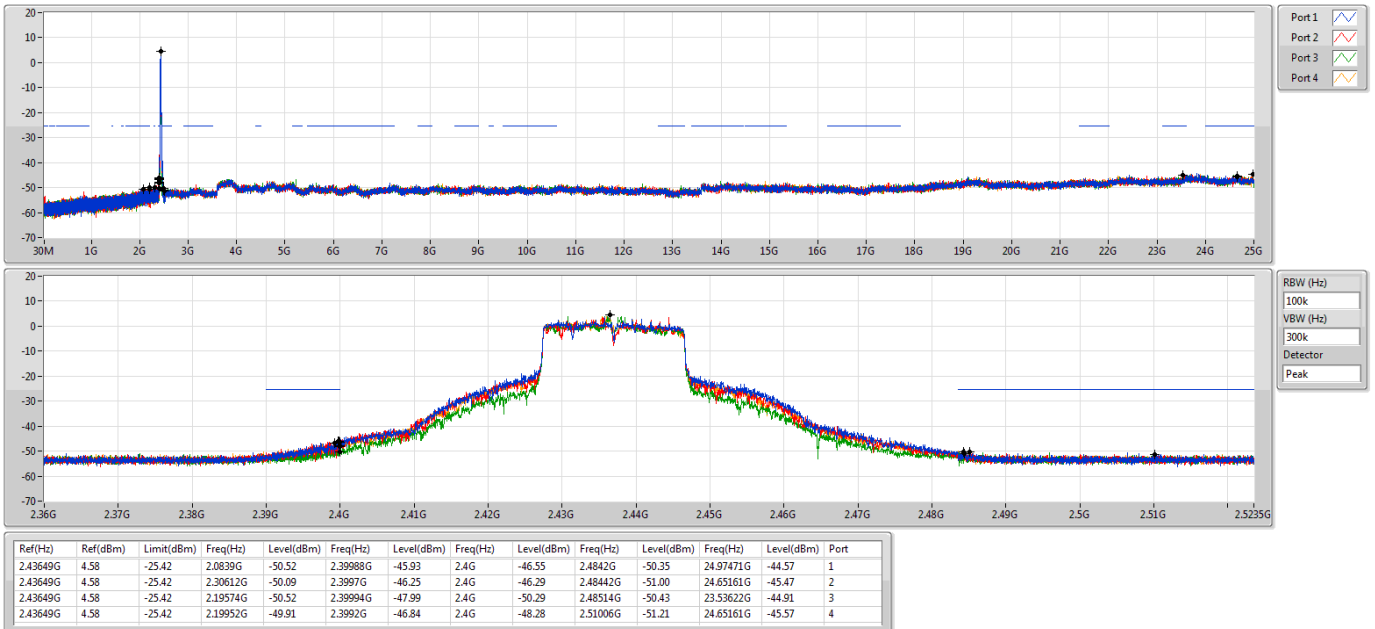
2412MHz



## 802.11ax HEW20-BF\_Nss1,(MCS0)\_4TX

CSE NdB

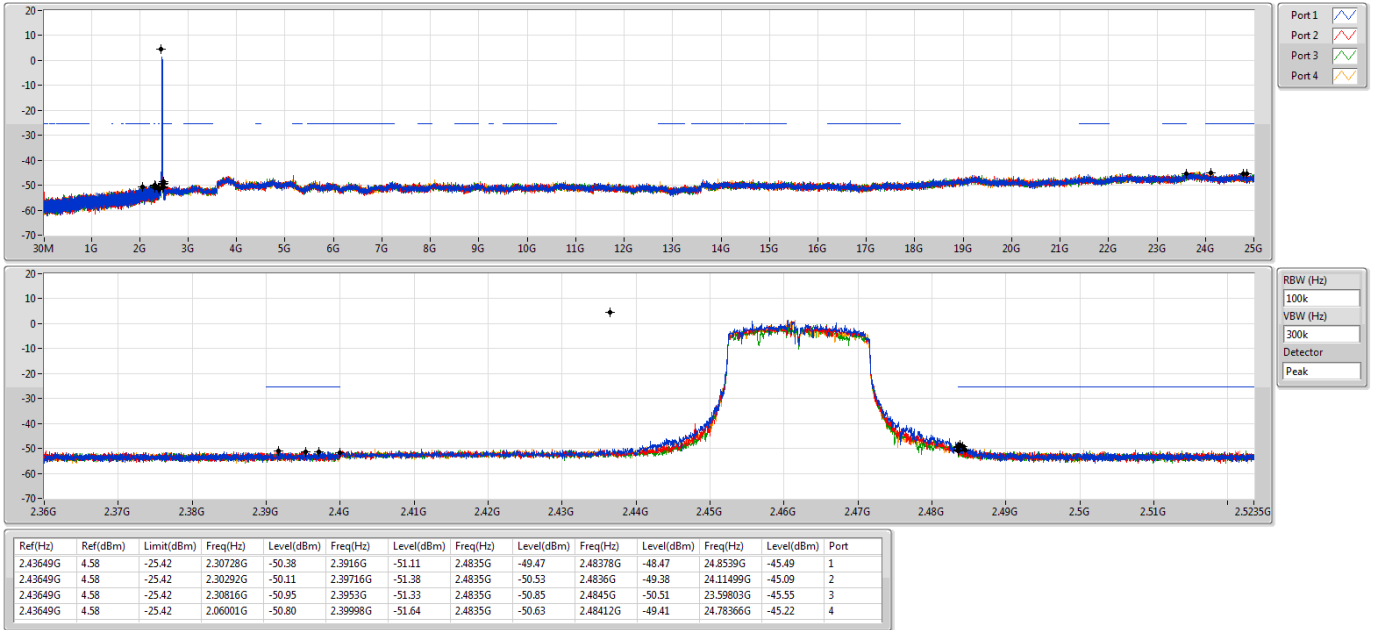
2437MHz



## 802.11ax HEW20-BF\_Nss1,(MCS0)\_4TX

CSE NdB

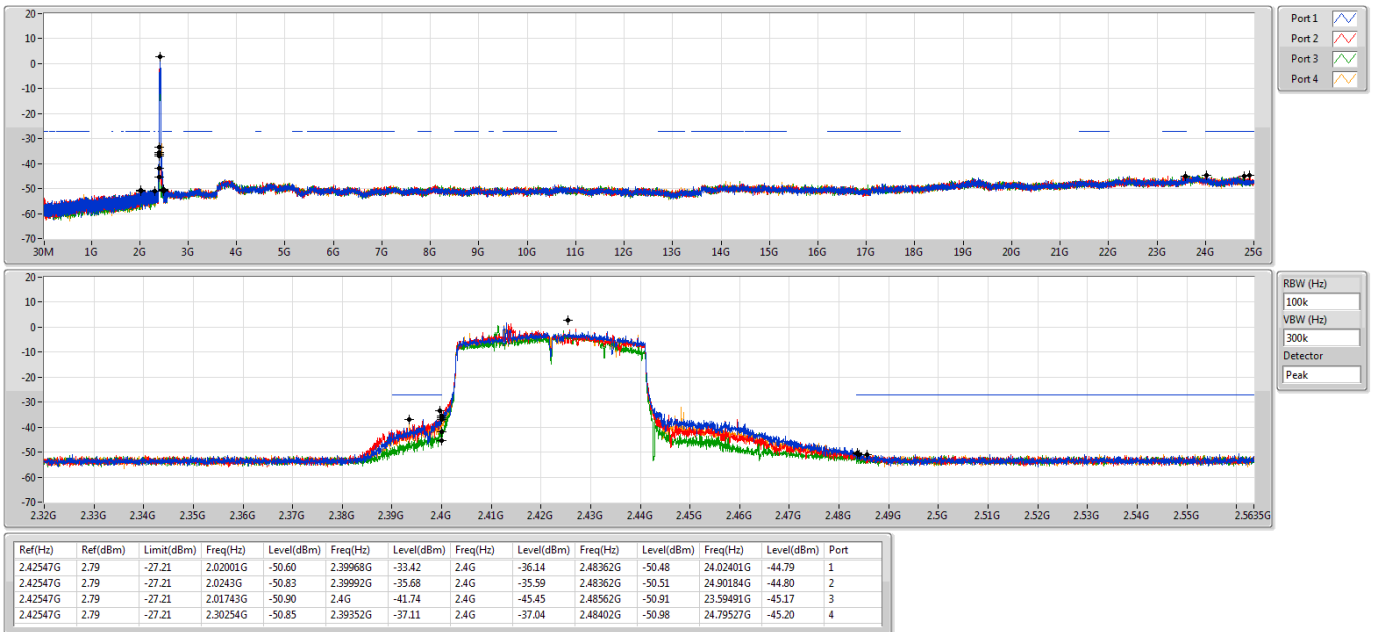
2462MHz



## 802.11ax HEW40-BF\_Nss1,(MCS0)\_4TX

CSE NdB

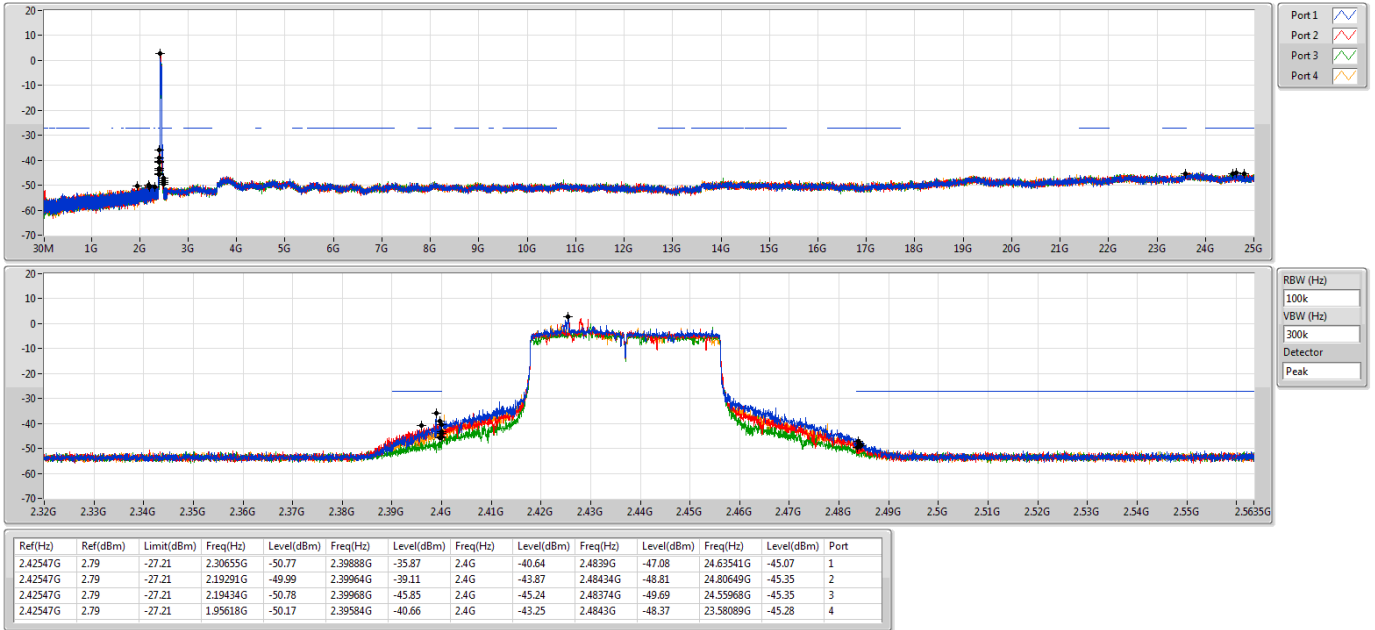
2422MHz



## 802.11ax HEW40-BF\_Nss1,(MCS0)\_4TX

CSE NdB

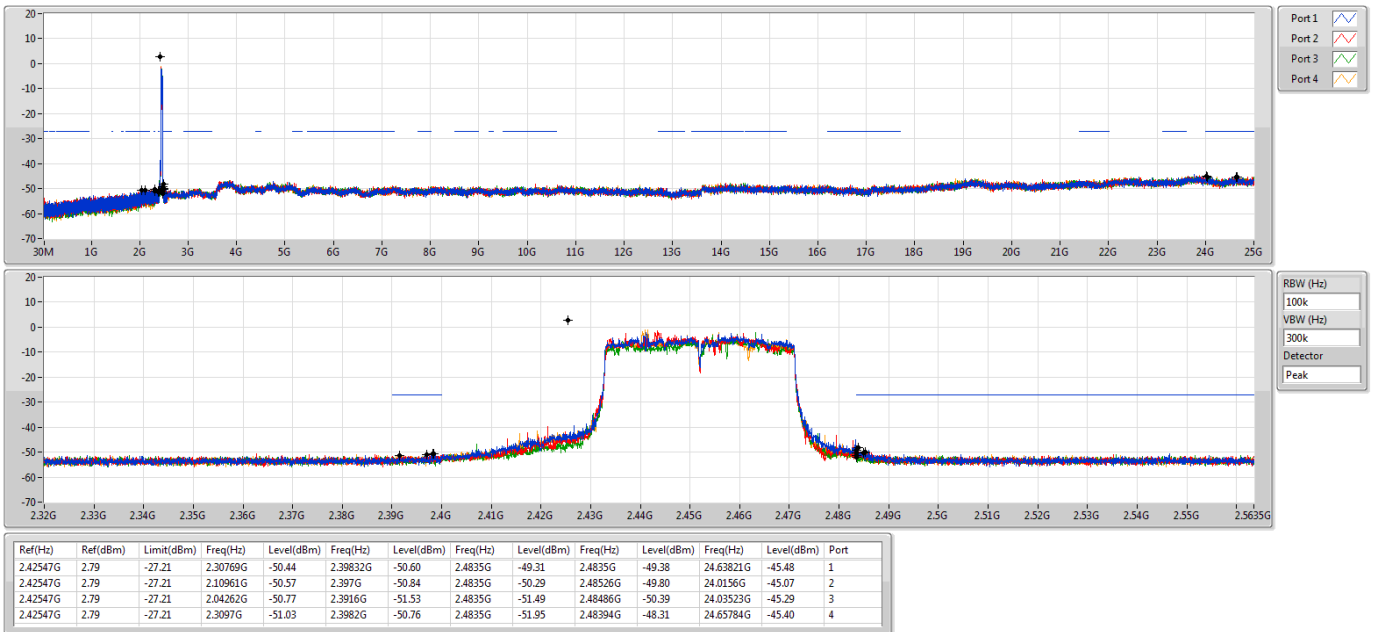
2437MHz

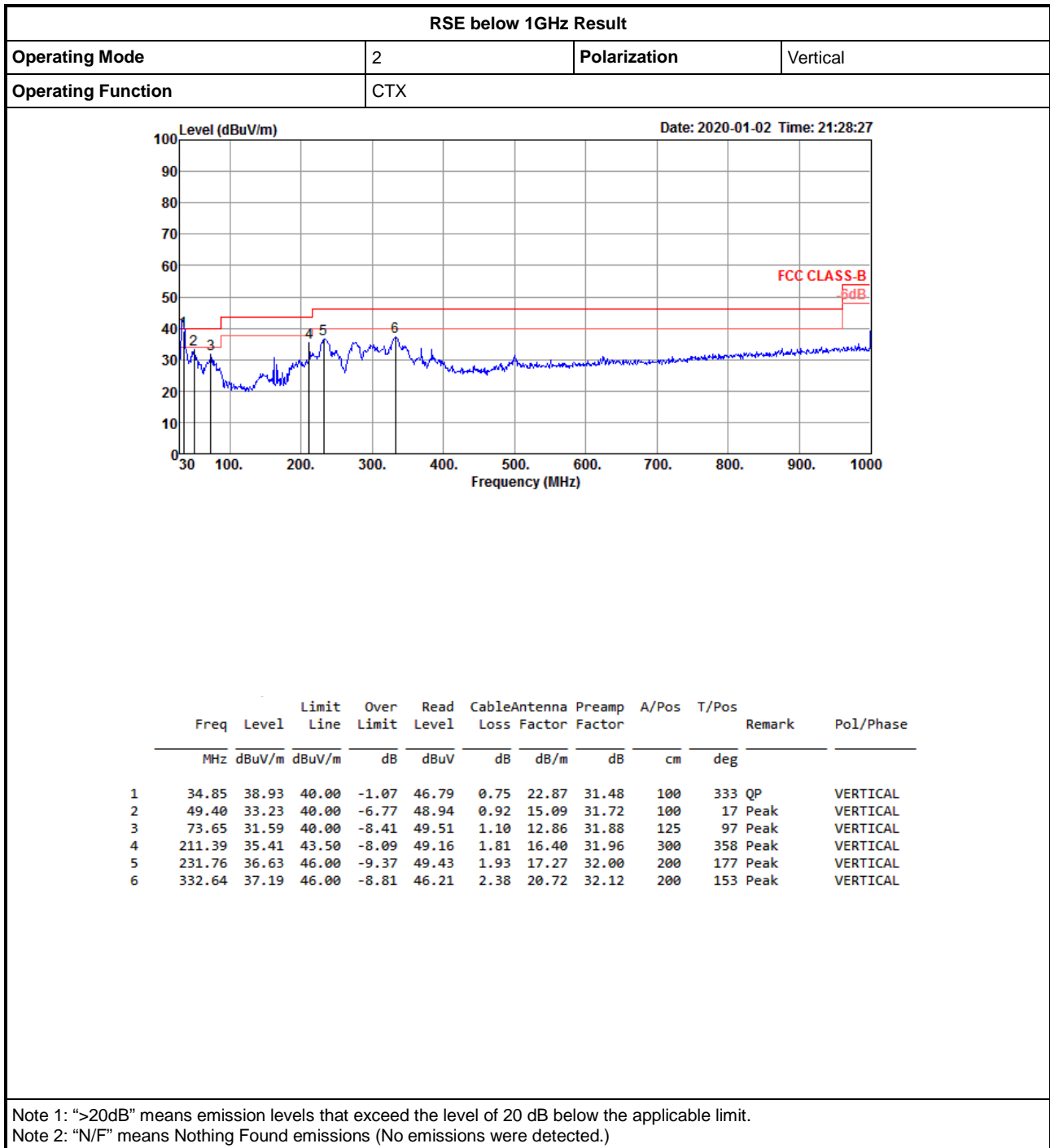


## 802.11ax HEW40-BF\_Nss1,(MCS0)\_4TX

CSE NdB

2452MHz

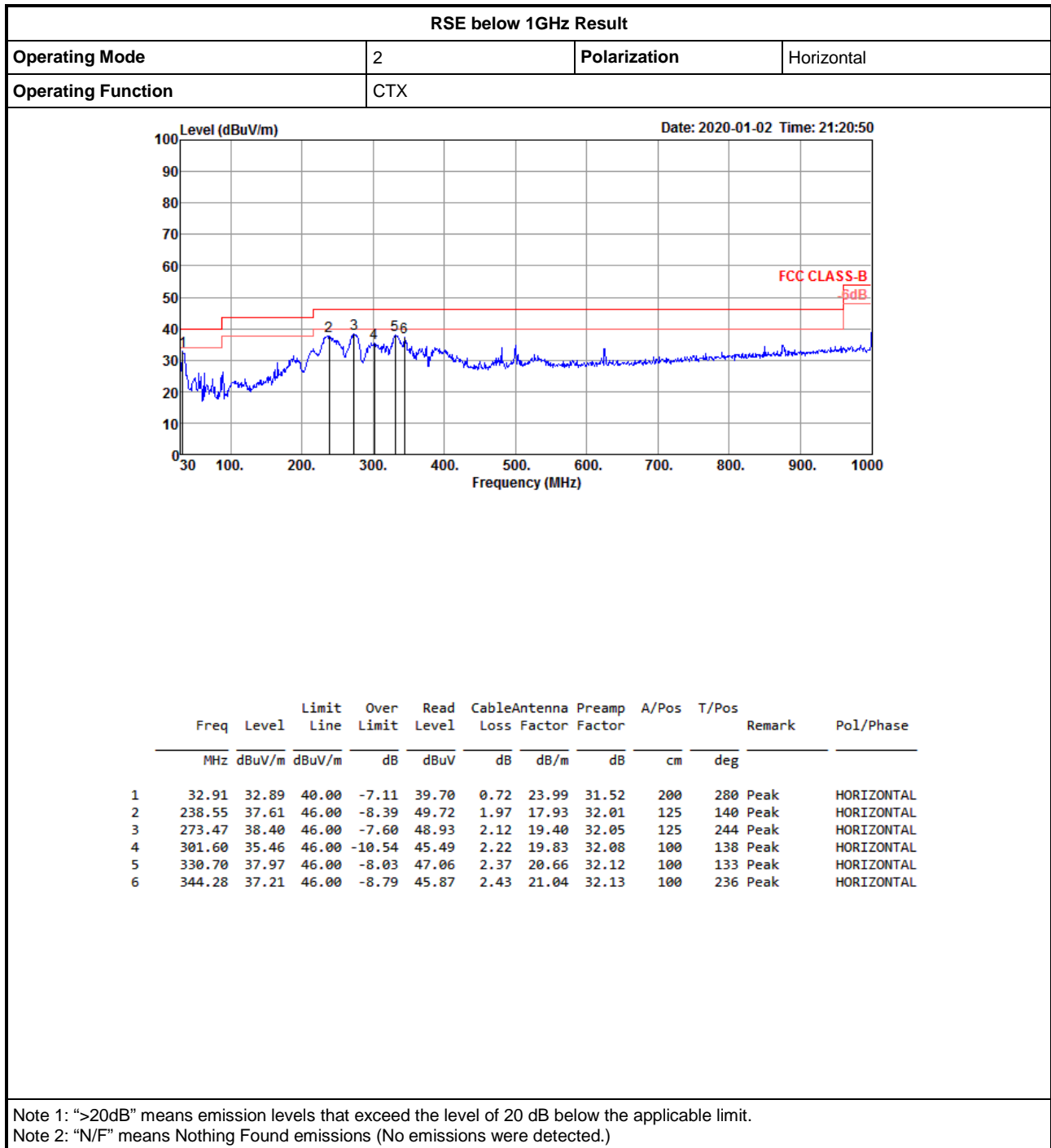






## RSE below 1GHz Result

Appendix F.1





**<Non-beamforming mode>**

**Summary**

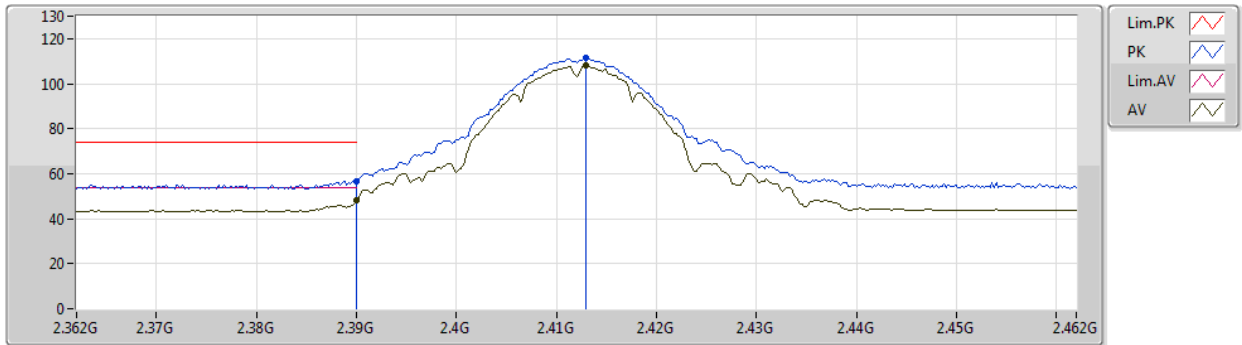
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-
802.11ax HEW20_Nss1,(MCS0)_4TX	Pass	AV	2.4835G	53.96	54.00	-0.04	32.25	3	Horizontal	75	2.11	-



# 802.11b\_Nss1,(1Mbps)\_4TX

24/12/2019

## 2412MHz\_TX



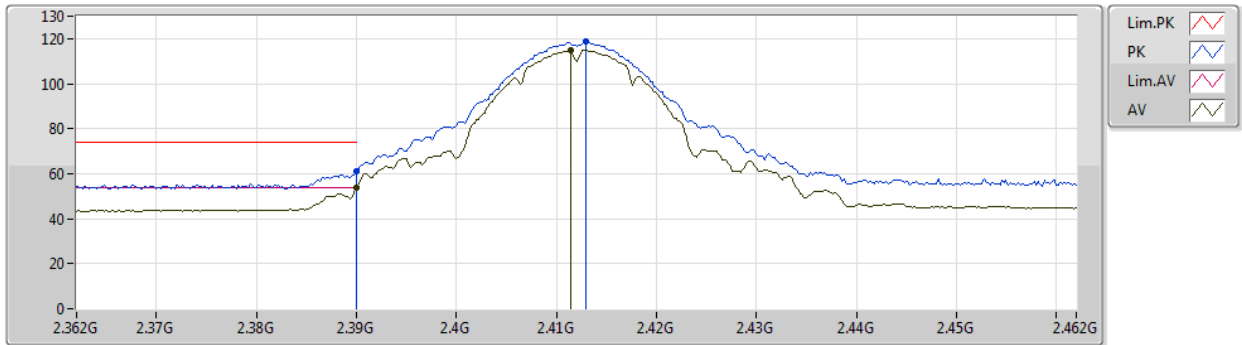
EUT X\_4TX\_Dipole  
Setting 19  
01-J-5  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.39G	56.75	74.00	-17.25	25.95	3	Vertical	19	2.99	-	27.67	3.13	-
AV	2.39G	47.92	54.00	-6.08	17.12	3	Vertical	19	2.99	-	27.67	3.13	-
PK	2.413G	111.27	Inf	-Inf	80.41	3	Vertical	19	2.99	-	27.71	3.15	-
AV	2.413G	108.06	Inf	-Inf	77.20	3	Vertical	19	2.99	-	27.71	3.15	-

# 802.11b\_Nss1,(1Mbps)\_4TX

24/12/2019

## 2412MHz\_TX



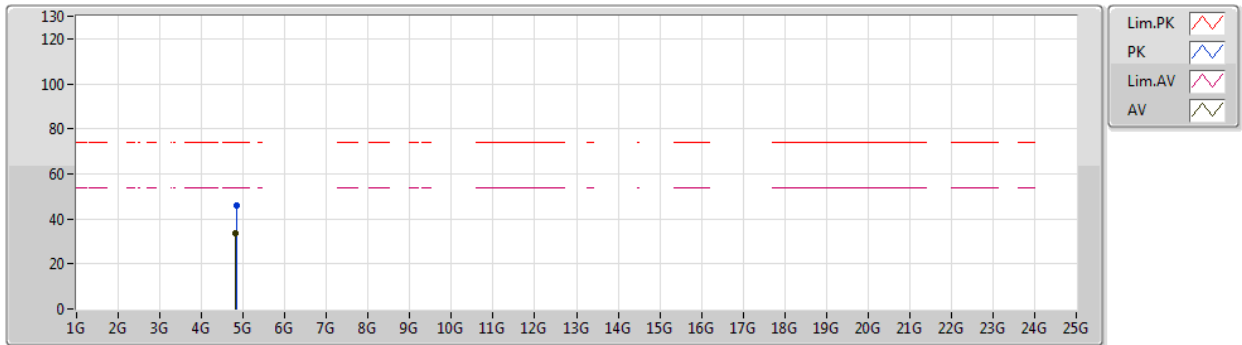
EUT X\_4TX\_Dipole  
Setting 19  
01-J-5  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.39G	60.96	74.00	-13.04	30.16	3	Horizontal	69	2.77	-	27.67	3.13	-
AV	2.39G	53.63	54.00	-0.37	22.83	3	Horizontal	69	2.77	-	27.67	3.13	-
PK	2.413G	118.52	Inf	-Inf	87.66	3	Horizontal	69	2.77	-	27.71	3.15	-
AV	2.4114G	115.01	Inf	-Inf	84.15	3	Horizontal	69	2.77	-	27.71	3.15	-

# 802.11b\_Nss1,(1Mbps)\_4TX

24/12/2019

## 2412MHz\_TX



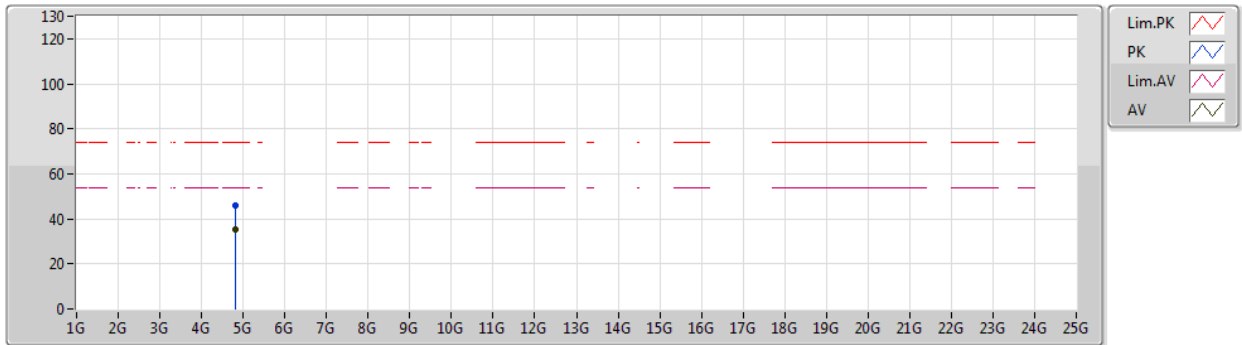
EUT X\_4TX\_Dipole  
Setting 19  
03-J-5  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.83184G	45.92	74.00	-28.08	41.20	3	Vertical	181	2.70	-	33.56	6.13	34.97
AV	4.8222G	33.67	54.00	-20.33	28.97	3	Vertical	181	2.70	-	33.54	6.13	34.97

# 802.11b\_Nss1,(1Mbps)\_4TX

24/12/2019

## 2412MHz\_TX



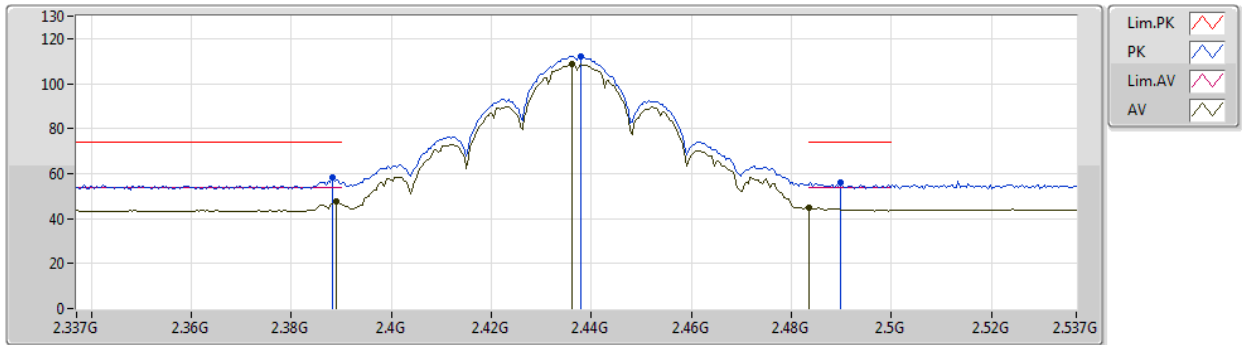
EUT X\_4TX\_Dipole  
Setting 19  
03-J-5  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.82796G	46.00	74.00	-28.00	41.28	3	Horizontal	61	1.46	-	33.56	6.13	34.97
AV	4.82404G	35.27	54.00	-18.73	30.56	3	Horizontal	61	1.46	-	33.55	6.13	34.97

# 802.11b\_Nss1,(1Mbps)\_4TX

24/12/2019

## 2437MHz\_TX



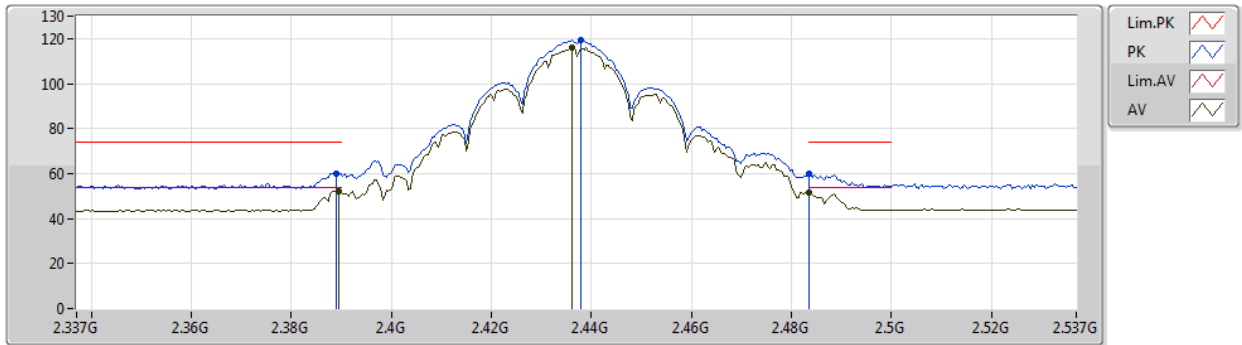
EUT X\_4TX\_Dipole  
Setting 20.5  
01-J-5  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3882G	58.09	74.00	-15.91	27.30	3	Vertical	21	2.99	-	27.66	3.13	-
AV	2.389G	47.58	54.00	-6.42	16.78	3	Vertical	21	2.99	-	27.67	3.13	-
PK	2.4378G	112.31	Inf	-Inf	81.41	3	Vertical	21	2.99	-	27.74	3.16	-
AV	2.4362G	108.67	Inf	-Inf	77.77	3	Vertical	21	2.99	-	27.74	3.16	-
PK	2.4898G	55.89	74.00	-18.11	24.92	3	Vertical	21	2.99	-	27.79	3.18	-
AV	2.4835G	44.69	54.00	-9.31	13.73	3	Vertical	21	2.99	-	27.78	3.18	-

## 802.11b\_Nss1,(1Mbps)\_4TX

24/12/2019

## 2437MHz\_TX



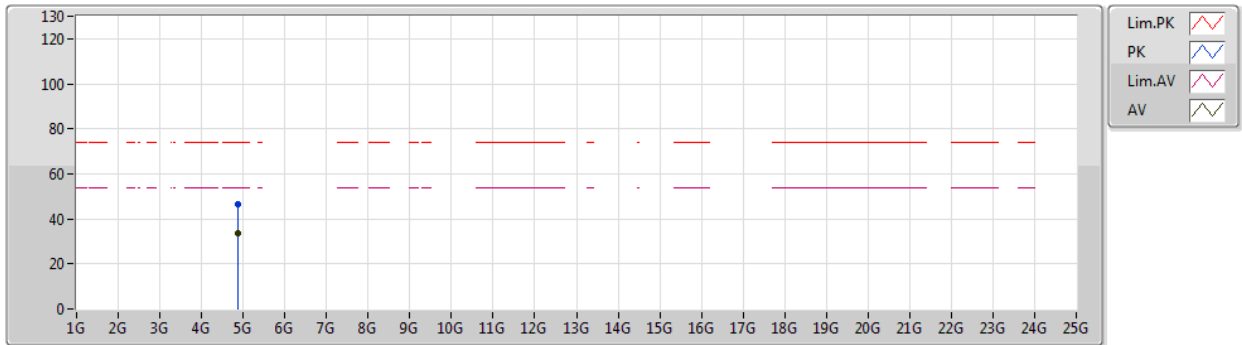
EUT X\_4TX\_Dipole  
Setting 20.5  
01-J-5  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.389G	60.10	74.00	-13.90	29.30	3	Horizontal	72	2.99	-	27.67	3.13	-
AV	2.3894G	52.37	54.00	-1.63	21.57	3	Horizontal	72	2.99	-	27.67	3.13	-
PK	2.4378G	119.32	Inf	-Inf	88.42	3	Horizontal	72	2.99	-	27.74	3.16	-
AV	2.4362G	115.80	Inf	-Inf	84.90	3	Horizontal	72	2.99	-	27.74	3.16	-
PK	2.4835G	60.11	74.00	-13.89	29.15	3	Horizontal	72	2.99	-	27.78	3.18	-
AV	2.4835G	51.78	54.00	-2.22	20.82	3	Horizontal	72	2.99	-	27.78	3.18	-

# 802.11b\_Nss1,(1Mbps)\_4TX

24/12/2019

## 2437MHz\_TX



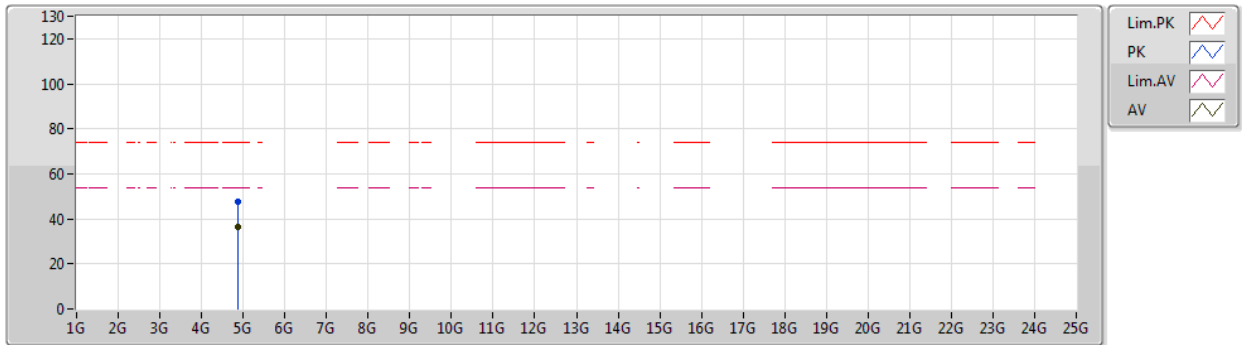
EUT X\_4TX\_Dipole  
Setting 20.5  
03-J-5  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.8746G	46.25	74.00	-27.75	41.45	3	Vertical	42	1.99	-	33.65	6.12	34.97
AV	4.87428G	33.35	54.00	-20.65	28.55	3	Vertical	42	1.99	-	33.65	6.12	34.97

# 802.11b\_Nss1,(1Mbps)\_4TX

24/12/2019

## 2437MHz\_TX



EUT X\_4TX\_Dipole  
Setting 20.5  
03-J-5  
FSP(100019)

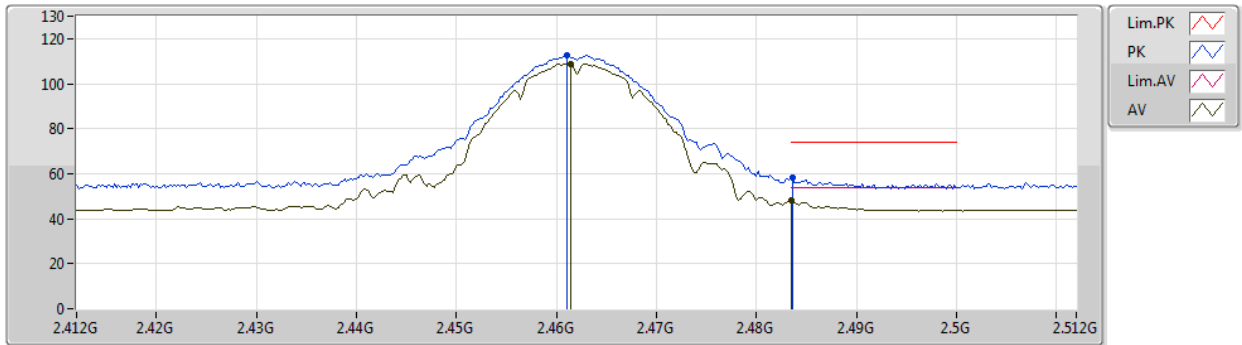
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.874G	47.58	74.00	-26.42	42.78	3	Horizontal	58	1.64	-	33.65	6.12	34.97
AV	4.87388G	36.67	54.00	-17.33	31.87	3	Horizontal	58	1.64	-	33.65	6.12	34.97



# 802.11b\_Nss1,(1Mbps)\_4TX

24/12/2019

## 2462MHz\_TX



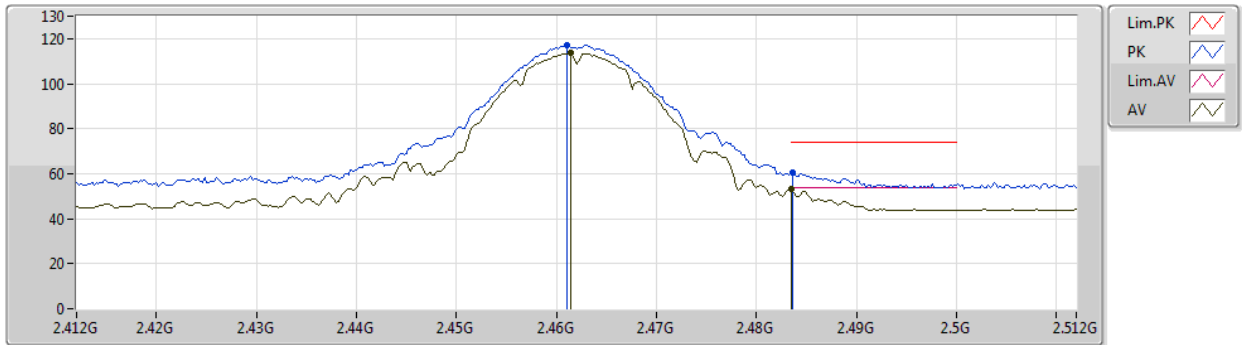
EUT X\_4TX\_Dipole  
Setting 19.5  
01-J-5  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.461G	112.50	Inf	-Inf	81.57	3	Vertical	10	2.92	-	27.76	3.17	-
AV	2.4614G	108.98	Inf	-Inf	78.05	3	Vertical	10	2.92	-	27.76	3.17	-
PK	2.4836G	58.16	74.00	-15.84	27.20	3	Vertical	10	2.92	-	27.78	3.18	-
AV	2.4835G	48.26	54.00	-5.74	17.30	3	Vertical	10	2.92	-	27.78	3.18	-

## 802.11b\_Nss1,(1Mbps)\_4TX

24/12/2019

## 2462MHz\_TX



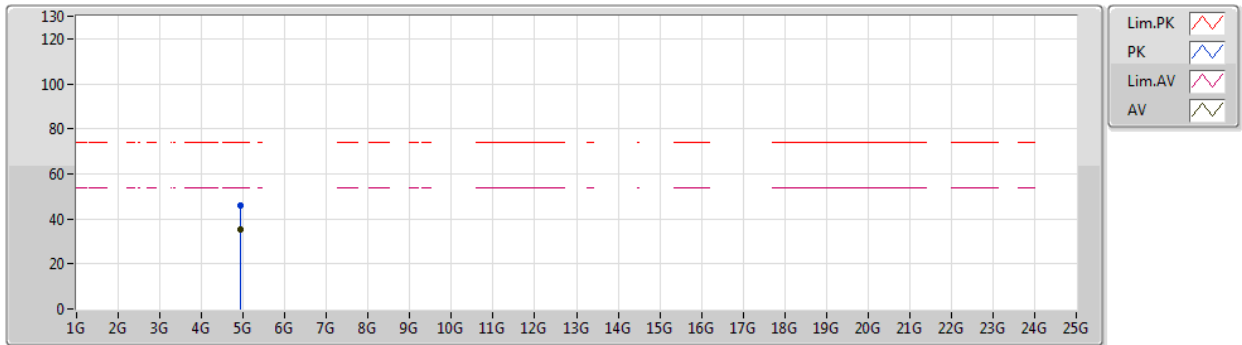
EUT X\_4TX\_Dipole  
Setting 19.5  
01-J-5  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.461G	117.12	Inf	-Inf	86.19	3	Horizontal	318	2.71	-	27.76	3.17	-
AV	2.4614G	113.75	Inf	-Inf	82.82	3	Horizontal	318	2.71	-	27.76	3.17	-
PK	2.4836G	60.57	74.00	-13.43	29.61	3	Horizontal	318	2.71	-	27.78	3.18	-
AV	2.4835G	53.06	54.00	-0.94	22.10	3	Horizontal	318	2.71	-	27.78	3.18	-

# 802.11b\_Nss1,(1Mbps)\_4TX

24/12/2019

## 2462MHz\_TX



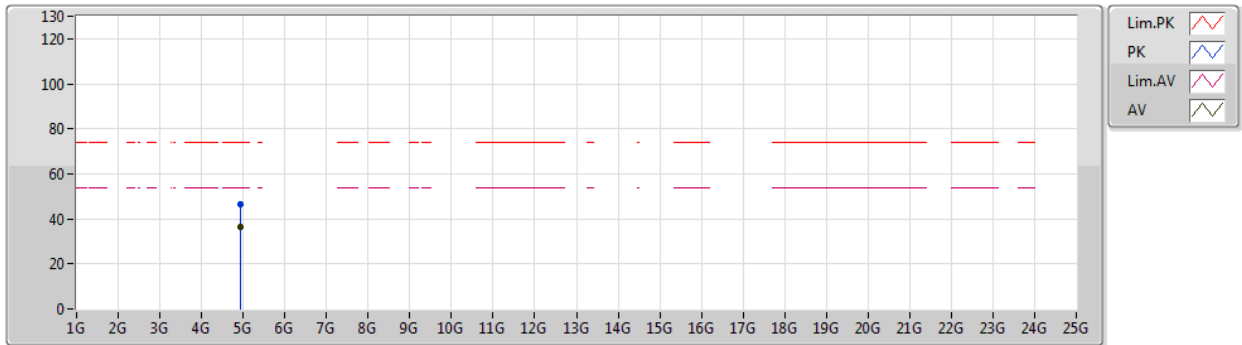
EUT\_X\_4TX\_Dipole  
Setting 19.5  
01-J-5  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.924G	45.68	74.00	-28.32	41.64	3	Vertical	253	1.84	-	32.87	5.63	34.46
AV	4.92396G	35.33	54.00	-18.67	31.29	3	Vertical	253	1.84	-	32.87	5.63	34.46

# 802.11b\_Nss1,(1Mbps)\_4TX

24/12/2019

## 2462MHz\_TX



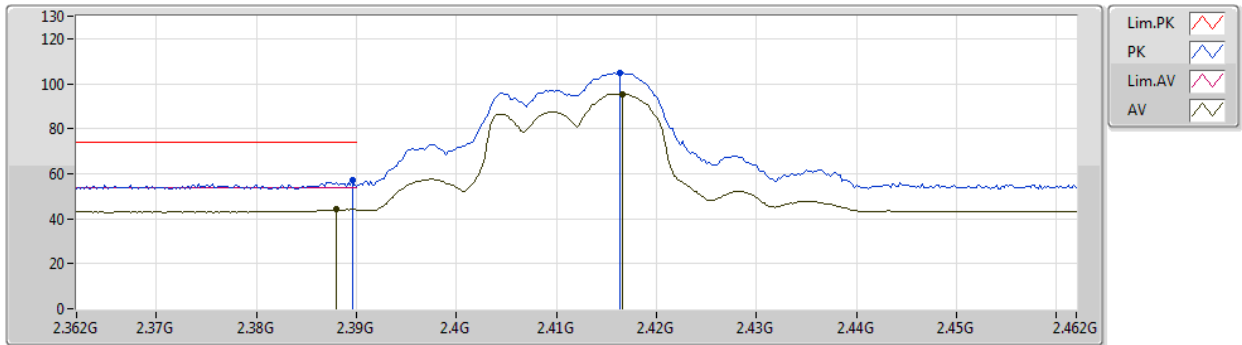
EUT X\_4TX\_Dipole  
Setting 19.5  
01-J-5  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.9224G	46.35	74.00	-27.65	41.46	3	Horizontal	66	1.98	-	33.74	6.12	34.97
AV	4.92388G	36.24	54.00	-17.76	31.34	3	Horizontal	66	1.98	-	33.75	6.12	34.97

# 802.11g\_Nss1,(6Mbps)\_4TX

24/12/2019

## 2412MHz\_TX



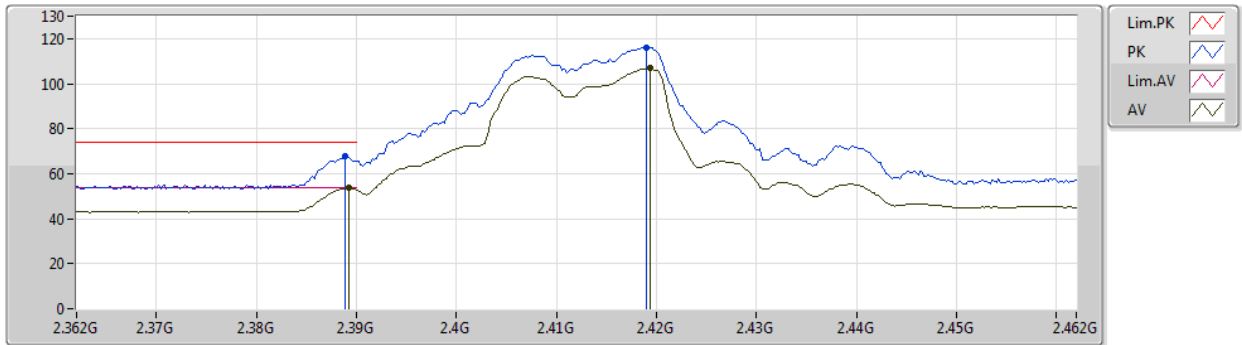
EUT X\_4TX\_Dipole  
Setting 15.5  
01-J-5  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3896G	57.14	74.00	-16.86	26.34	3	Vertical	151	1.87	-	27.67	3.13	-
AV	2.388G	44.07	54.00	-9.93	13.28	3	Vertical	151	1.87	-	27.66	3.13	-
PK	2.4164G	104.88	Inf	-Inf	74.01	3	Vertical	151	1.87	-	27.72	3.15	-
AV	2.4166G	95.50	Inf	-Inf	64.63	3	Vertical	151	1.87	-	27.72	3.15	-

# 802.11g\_Nss1,(6Mbps)\_4TX

24/12/2019

## 2412MHz\_TX



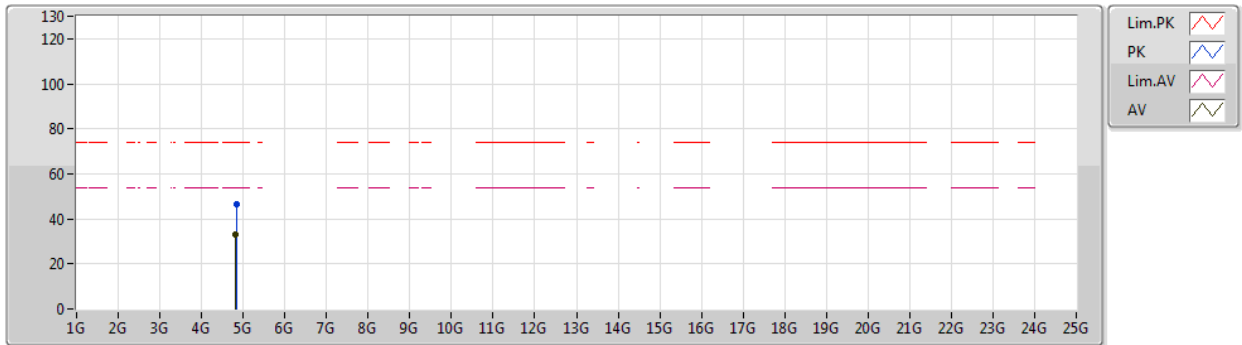
EUT X\_4TX\_Dipole  
Setting 15.5  
01-J-5  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3888G	67.69	74.00	-6.31	36.89	3	Horizontal	74	1.22	-	27.67	3.13	-
AV	2.3892G	53.63	54.00	-0.37	22.83	3	Horizontal	74	1.22	-	27.67	3.13	-
PK	2.419G	116.16	Inf	-Inf	85.29	3	Horizontal	74	1.22	-	27.72	3.15	-
AV	2.4194G	106.79	Inf	-Inf	75.92	3	Horizontal	74	1.22	-	27.72	3.15	-

# 802.11g\_Nss1,(6Mbps)\_4TX

24/12/2019

## 2412MHz\_TX



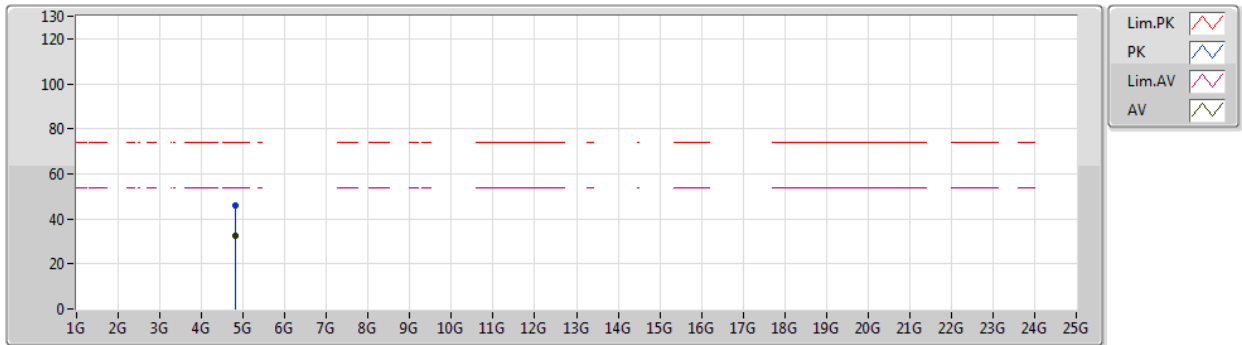
EUT X\_4TX\_Dipole  
Setting 15.5  
01-J-5  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.8304G	46.56	74.00	-27.44	41.84	3	Vertical	219	2.40	-	33.56	6.13	34.97
AV	4.81492G	32.89	54.00	-21.11	28.20	3	Vertical	219	2.40	-	33.53	6.13	34.97

# 802.11g\_Nss1,(6Mbps)\_4TX

24/12/2019

## 2412MHz\_TX



EUT X\_4TX\_Dipole  
Setting 15.5  
01-J-5  
FSP(100019)

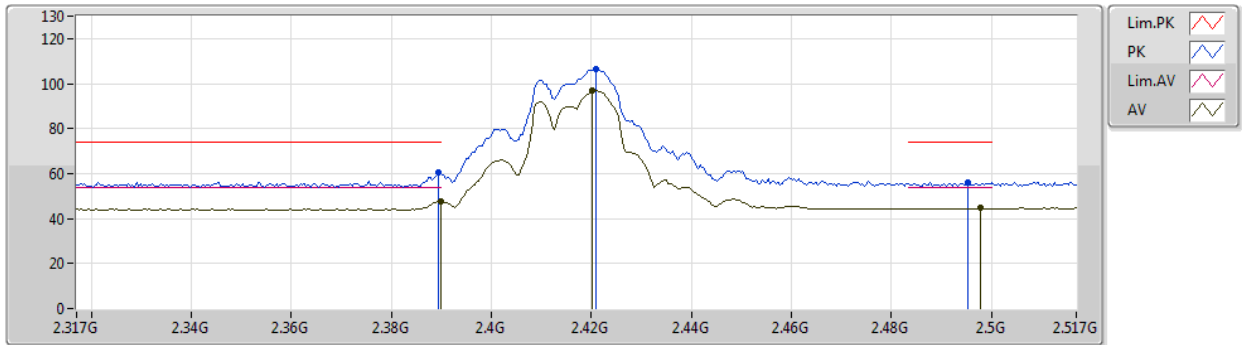
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.8184G	46.00	74.00	-28.00	41.30	3	Horizontal	81	1.74	-	33.54	6.13	34.97
AV	4.81496G	32.62	54.00	-21.38	27.93	3	Horizontal	81	1.74	-	33.53	6.13	34.97



# 802.11g\_Nss1,(6Mbps)\_4TX

24/12/2019

## 2417MHz\_TX



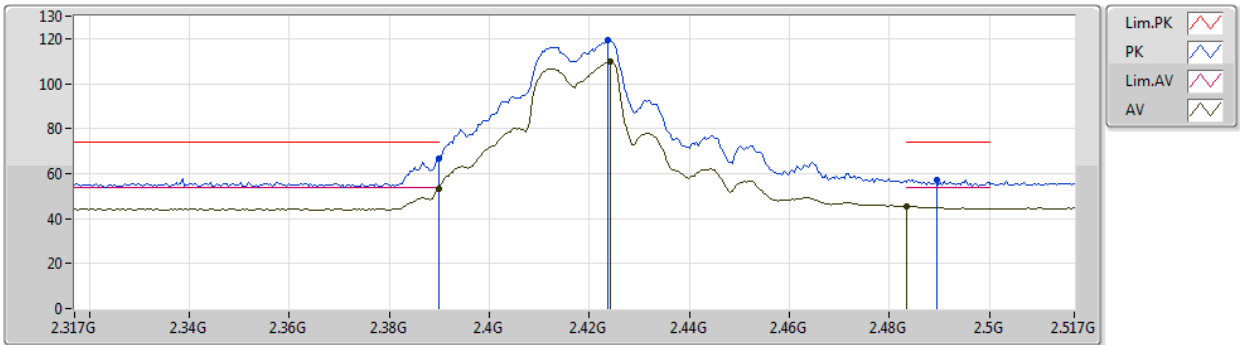
EUT X\_4TX\_Dipole  
Setting 18.5  
03-J-5  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3894G	60.53	74.00	-13.47	28.60	3	Vertical	103	1.46	-	28.28	3.65	-
AV	2.3898G	47.51	54.00	-6.49	15.58	3	Vertical	103	1.46	-	28.28	3.65	-
PK	2.421G	106.23	Inf	-Inf	74.20	3	Vertical	103	1.46	-	28.36	3.67	-
AV	2.4202G	96.88	Inf	-Inf	64.85	3	Vertical	103	1.46	-	28.36	3.67	-
PK	2.4954G	56.05	74.00	-17.95	23.75	3	Vertical	103	1.46	-	28.59	3.71	-
AV	2.4978G	44.55	54.00	-9.45	12.25	3	Vertical	103	1.46	-	28.59	3.71	-

## 802.11g\_Nss1,(6Mbps)\_4TX

24/12/2019

### 2417MHz\_TX



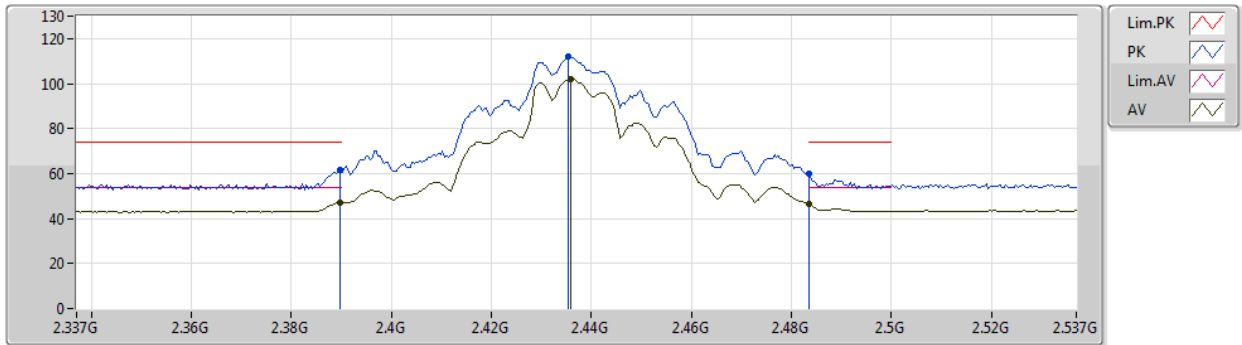
EUT X\_4TX\_Dipole  
Setting 18.5  
03-J-5  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3898G	66.44	74.00	-7.56	34.51	3	Horizontal	77	1.34	-	28.28	3.65	-
AV	2.3898G	53.37	54.00	-0.63	21.44	3	Horizontal	77	1.34	-	28.28	3.65	-
PK	2.4238G	119.10	Inf	-Inf	87.06	3	Horizontal	77	1.34	-	28.37	3.67	-
AV	2.4242G	109.62	Inf	-Inf	77.58	3	Horizontal	77	1.34	-	28.37	3.67	-
PK	2.4894G	57.34	74.00	-16.66	25.07	3	Horizontal	77	1.34	-	28.57	3.70	-
AV	2.4835G	45.36	54.00	-8.64	13.11	3	Horizontal	77	1.34	-	28.55	3.70	-

# 802.11g\_Nss1,(6Mbps)\_4TX

24/12/2019

## 2437MHz\_TX



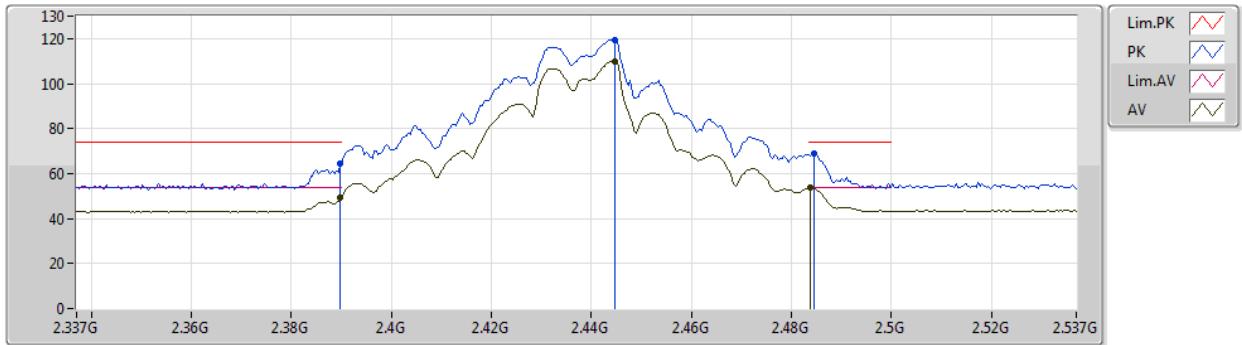
EUT X\_4TX\_Dipole  
Setting 19.5  
01-J-5  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3898G	61.40	74.00	-12.60	30.60	3	Vertical	19	2.95	-	27.67	3.13	-
AV	2.3898G	47.20	54.00	-6.80	16.40	3	Vertical	19	2.95	-	27.67	3.13	-
PK	2.4354G	111.79	Inf	-Inf	80.89	3	Vertical	19	2.95	-	27.74	3.16	-
AV	2.4358G	102.26	Inf	-Inf	71.36	3	Vertical	19	2.95	-	27.74	3.16	-
PK	2.4835G	59.95	74.00	-14.05	28.99	3	Vertical	19	2.95	-	27.78	3.18	-
AV	2.4835G	46.42	54.00	-7.58	15.46	3	Vertical	19	2.95	-	27.78	3.18	-

## 802.11g\_Nss1,(6Mbps)\_4TX

24/12/2019

### 2437MHz\_TX



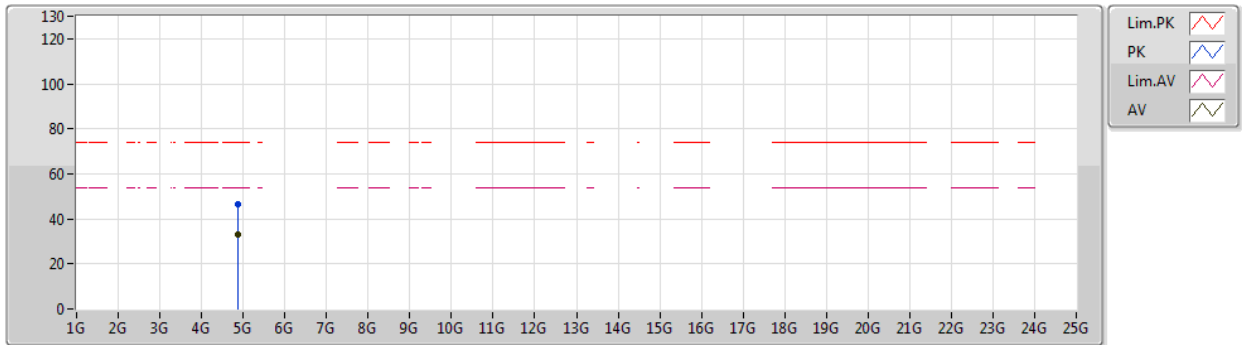
EUT X\_4TX\_Dipole  
Setting 19.5  
01-J-5  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3898G	64.36	74.00	-9.64	33.56	3	Horizontal	75	1.18	-	27.67	3.13	-
AV	2.3898G	49.27	54.00	-4.73	18.47	3	Horizontal	75	1.18	-	27.67	3.13	-
PK	2.4446G	119.63	Inf	-Inf	88.73	3	Horizontal	75	1.18	-	27.74	3.16	-
AV	2.4446G	109.93	Inf	-Inf	79.03	3	Horizontal	75	1.18	-	27.74	3.16	-
PK	2.4846G	68.67	74.00	-5.33	37.71	3	Horizontal	75	1.18	-	27.78	3.18	-
AV	2.4838G	53.75	54.00	-0.25	22.79	3	Horizontal	75	1.18	-	27.78	3.18	-

# 802.11g\_Nss1,(6Mbps)\_4TX

24/12/2019

## 2437MHz\_TX



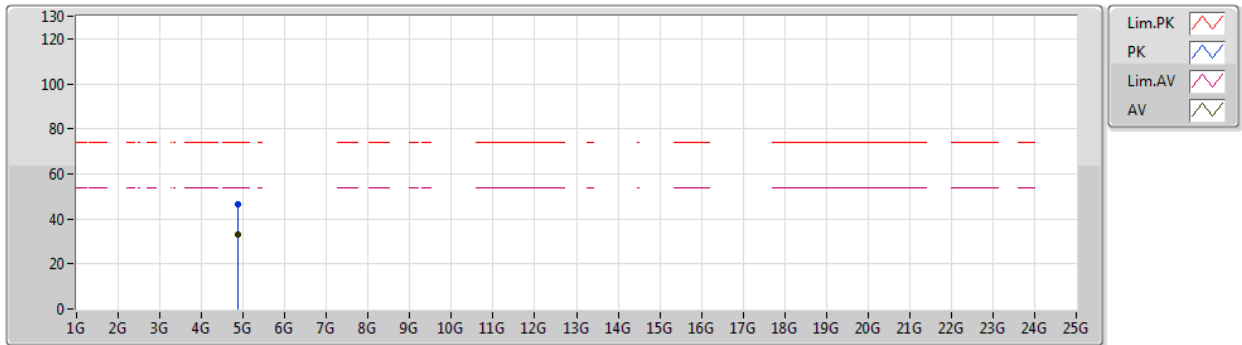
EUT X\_4TX\_Dipole  
Setting 19.5  
01-J-5  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.867G	46.30	74.00	-27.70	41.52	3	Vertical	193	1.12	-	33.63	6.12	34.97
AV	4.8816G	33.14	54.00	-20.86	28.33	3	Vertical	193	1.12	-	33.66	6.12	34.97

# 802.11g\_Nss1,(6Mbps)\_4TX

24/12/2019

## 2437MHz\_TX



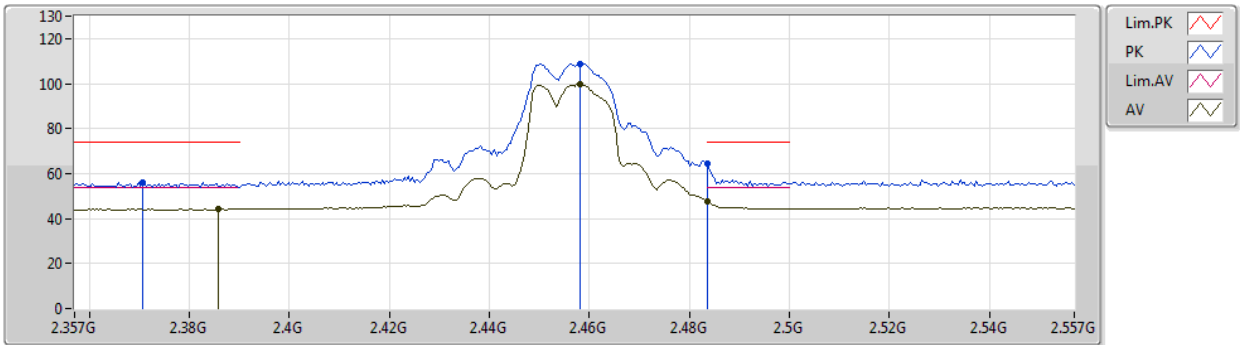
EUT X\_4TX\_Dipole  
Setting 19.5  
01-J-5  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.88276G	46.62	74.00	-27.38	41.80	3	Horizontal	289	2.73	-	33.67	6.12	34.97
AV	4.88028G	33.04	54.00	-20.96	28.23	3	Horizontal	289	2.73	-	33.66	6.12	34.97

# 802.11g\_Nss1,(6Mbps)\_4TX

24/12/2019

## 2457MHz\_TX



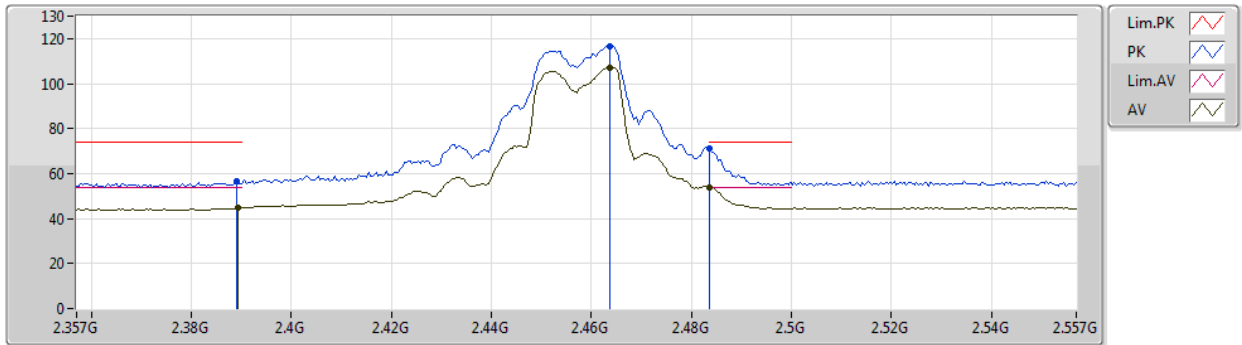
EUT X\_4TX\_Dipole  
Setting 16.5  
03-J-5  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3706G	56.23	74.00	-17.77	24.35	3	Vertical	16	2.99	-	28.24	3.64	-
AV	2.3858G	44.33	54.00	-9.67	12.41	3	Vertical	16	2.99	-	28.27	3.65	-
PK	2.4582G	108.88	Inf	-Inf	76.72	3	Vertical	16	2.99	-	28.47	3.69	-
AV	2.4582G	99.87	Inf	-Inf	67.71	3	Vertical	16	2.99	-	28.47	3.69	-
PK	2.4835G	64.43	74.00	-9.57	32.18	3	Vertical	16	2.99	-	28.55	3.70	-
AV	2.4835G	47.82	54.00	-6.18	15.57	3	Vertical	16	2.99	-	28.55	3.70	-

## 802.11g\_Nss1,(6Mbps)\_4TX

24/12/2019

## 2457MHz\_TX



EUT X\_4TX\_Dipole  
Setting 16.5  
03-J-5  
FSP(100019)

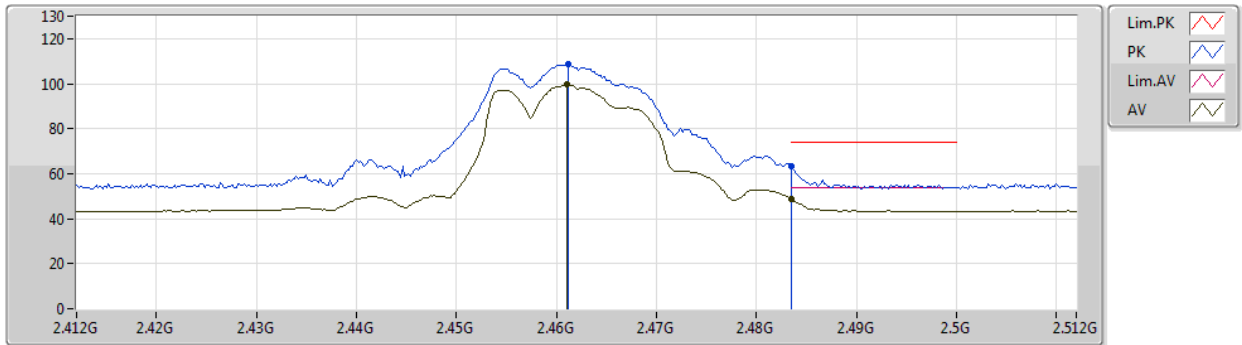
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.389G	56.37	74.00	-17.63	24.44	3	Horizontal	77	1.18	-	28.28	3.65	-
AV	2.3894G	44.76	54.00	-9.24	12.83	3	Horizontal	77	1.18	-	28.28	3.65	-
PK	2.4638G	116.74	Inf	-Inf	84.56	3	Horizontal	77	1.18	-	28.49	3.69	-
AV	2.4638G	107.16	Inf	-Inf	74.98	3	Horizontal	77	1.18	-	28.49	3.69	-
PK	2.4835G	71.35	74.00	-2.65	39.10	3	Horizontal	77	1.18	-	28.55	3.70	-
AV	2.4835G	53.74	54.00	-0.26	21.49	3	Horizontal	77	1.18	-	28.55	3.70	-



# 802.11g\_Nss1,(6Mbps)\_4TX

24/12/2019

## 2462MHz\_TX



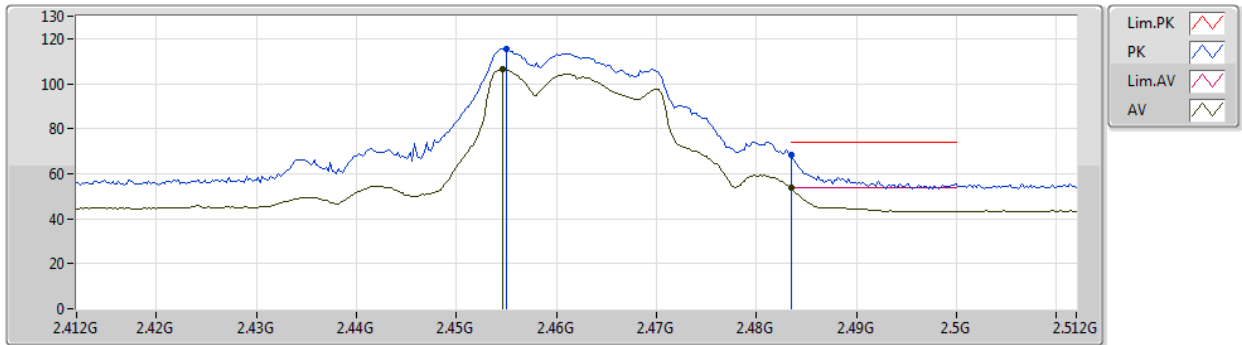
EUT X\_4TX\_Dipole  
Setting 15.5  
01-J-5  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.4612G	108.66	Inf	-Inf	77.73	3	Vertical	10	2.93	-	27.76	3.17	-
AV	2.461G	99.48	Inf	-Inf	68.55	3	Vertical	10	2.93	-	27.76	3.17	-
PK	2.4835G	63.13	74.00	-10.87	32.17	3	Vertical	10	2.93	-	27.78	3.18	-
AV	2.4835G	48.95	54.00	-5.05	17.99	3	Vertical	10	2.93	-	27.78	3.18	-

# 802.11g\_Nss1,(6Mbps)\_4TX

24/12/2019

## 2462MHz\_TX



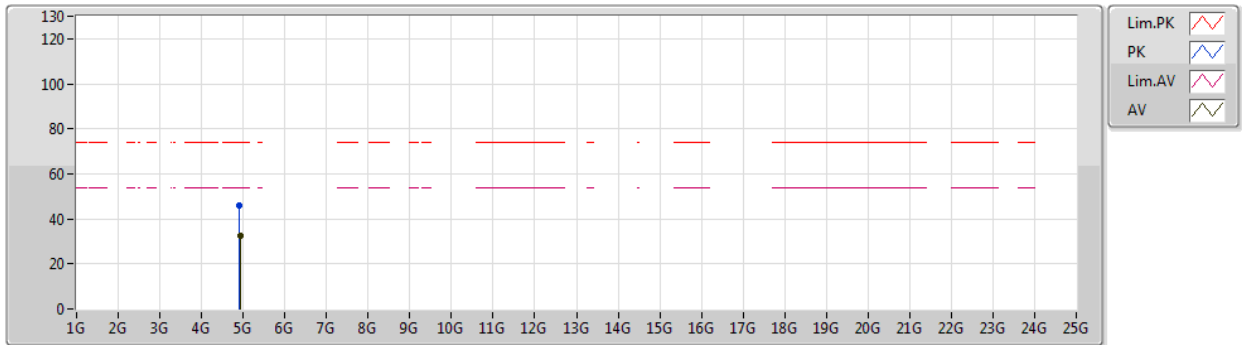
EUT X\_4TX\_Dipole  
Setting 15.5  
01-J-5  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.455G	115.46	Inf	-Inf	84.54	3	Horizontal	73	2.84	-	27.75	3.17	-
AV	2.4546G	106.26	Inf	-Inf	75.34	3	Horizontal	73	2.84	-	27.75	3.17	-
PK	2.4835G	68.28	74.00	-5.72	37.32	3	Horizontal	73	2.84	-	27.78	3.18	-
AV	2.4835G	53.71	54.00	-0.29	22.75	3	Horizontal	73	2.84	-	27.78	3.18	-

# 802.11g\_Nss1,(6Mbps)\_4TX

24/12/2019

## 2462MHz\_TX



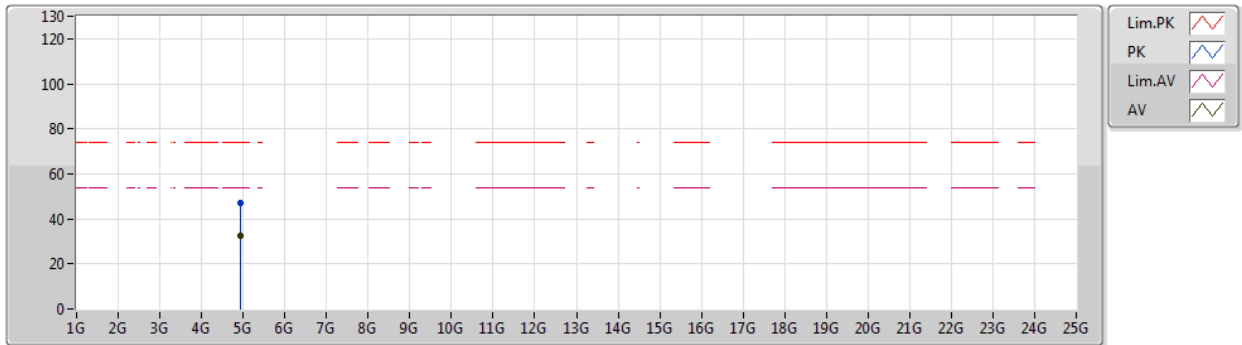
EUT\_X\_4TX\_Dipole  
Setting 15.5  
01-J-5  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)	
PK	4.91668G	46.21	74.00	-27.79	41.33	3	Vertical	314	2.72	-	33.73	6.12	34.97	
AV	4.91988G	32.56	54.00	-21.44	27.67	3	Vertical	314	2.72	-	33.74	6.12	34.97	

# 802.11g\_Nss1,(6Mbps)\_4TX

24/12/2019

## 2462MHz\_TX



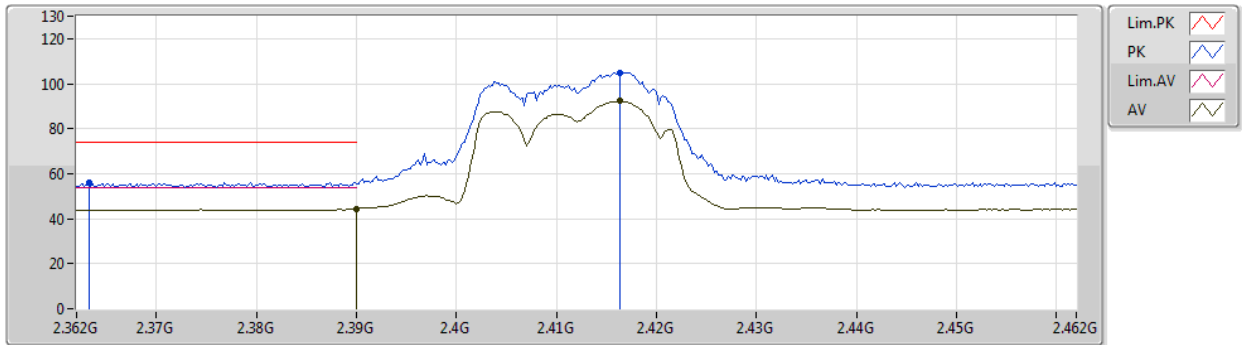
EUT X\_4TX\_Dipole  
Setting 15.5  
01-J-5  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.925G	47.29	74.00	-26.71	42.39	3	Horizontal	274	1.19	-	33.75	6.12	34.97
AV	4.93092G	32.65	54.00	-21.35	27.75	3	Horizontal	274	1.19	-	33.76	6.11	34.97

# 802.11ax HEW20\_Nss1,(MCS0)\_4TX

24/12/2019

## 2412MHz\_TX



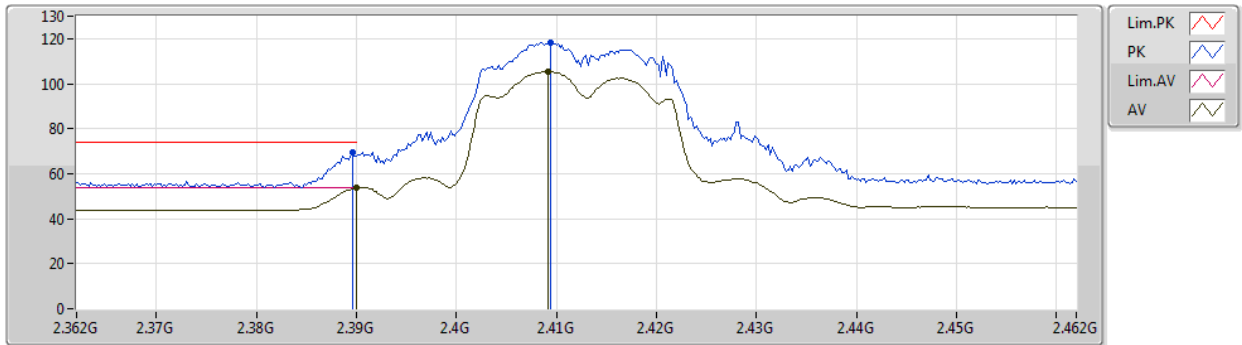
EUT X\_4TX\_Dipole  
Setting 14  
03-J-5  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3632G	56.30	74.00	-17.70	24.44	3	Vertical	73	1.55	-	28.23	3.63	-
AV	2.39G	44.49	54.00	-9.51	12.56	3	Vertical	73	1.55	-	28.28	3.65	-
PK	2.4164G	105.03	Inf	-Inf	73.01	3	Vertical	73	1.55	-	28.35	3.67	-
AV	2.4164G	92.22	Inf	-Inf	60.20	3	Vertical	73	1.55	-	28.35	3.67	-

# 802.11ax HEW20\_Nss1,(MCS0)\_4TX

24/12/2019

## 2412MHz\_TX



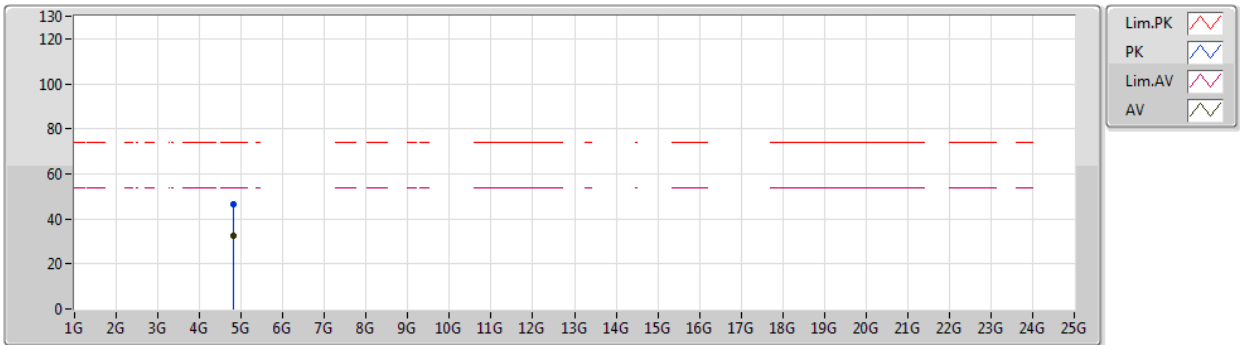
EUT X\_4TX\_Dipole  
Setting 14  
03-J-5  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3896G	69.22	74.00	-4.78	37.29	3	Horizontal	76	2.16	-	28.28	3.65	-
AV	2.39G	53.63	54.00	-0.37	21.70	3	Horizontal	76	2.16	-	28.28	3.65	-
PK	2.4094G	118.04	Inf	-Inf	86.05	3	Horizontal	76	2.16	-	28.33	3.66	-
AV	2.4092G	105.37	Inf	-Inf	73.38	3	Horizontal	76	2.16	-	28.33	3.66	-

# 802.11ax HEW20\_Nss1,(MCS0)\_4TX

24/12/2019

## 2412MHz\_TX



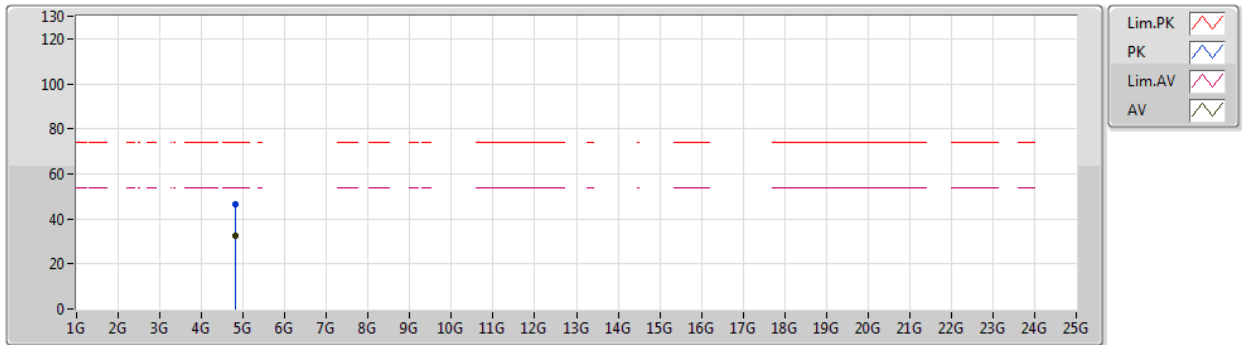
EUT X\_4TX\_Dipole  
Setting 14  
03-J-5  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.82572G	46.65	74.00	-27.35	41.94	3	Vertical	78	1.06	-	33.55	6.13	34.97
AV	4.81468G	32.24	54.00	-21.76	27.55	3	Vertical	78	1.06	-	33.53	6.13	34.97

# 802.11ax HEW20\_Nss1,(MCS0)\_4TX

24/12/2019

## 2412MHz\_TX



EUT X\_4TX\_Dipole  
Setting 14  
03-J-5  
FSP(100019)

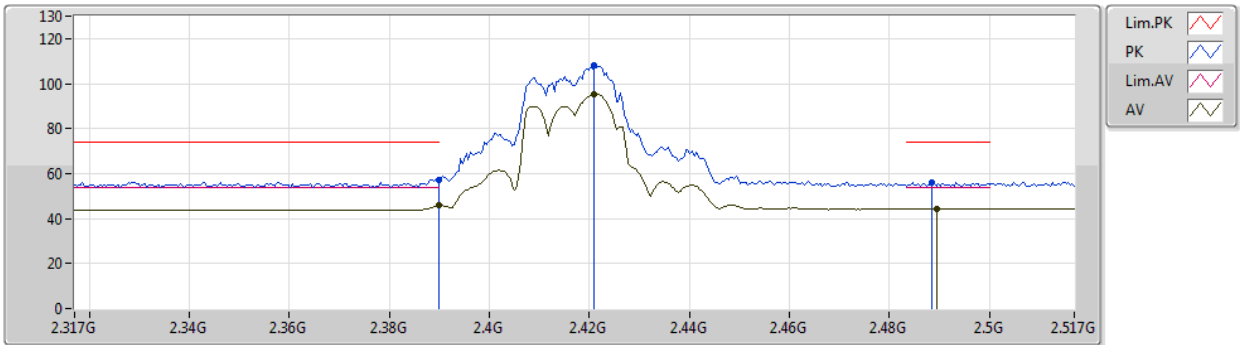
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.81484G	46.33	74.00	-27.67	41.64	3	Horizontal	143	2.77	-	33.53	6.13	34.97
AV	4.81428G	32.37	54.00	-21.63	27.68	3	Horizontal	143	2.77	-	33.53	6.13	34.97



# 802.11ax HEW20\_Nss1,(MCS0)\_4TX

24/12/2019

## 2417MHz\_TX



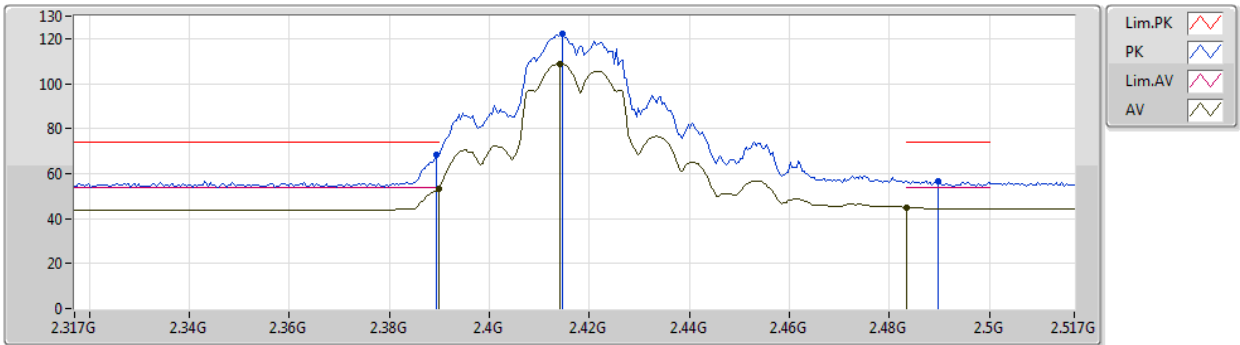
EUT X\_4TX\_Dipole  
Setting 17.5  
03-J-5  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3898G	57.37	74.00	-16.63	25.44	3	Vertical	73	1.55	-	28.28	3.65	-
AV	2.3898G	45.74	54.00	-8.26	13.81	3	Vertical	73	1.55	-	28.28	3.65	-
PK	2.421G	108.08	Inf	-Inf	76.05	3	Vertical	73	1.55	-	28.36	3.67	-
AV	2.421G	95.21	Inf	-Inf	63.18	3	Vertical	73	1.55	-	28.36	3.67	-
PK	2.4886G	56.18	74.00	-17.82	23.91	3	Vertical	73	1.55	-	28.57	3.70	-
AV	2.4894G	44.22	54.00	-9.78	11.95	3	Vertical	73	1.55	-	28.57	3.70	-

# 802.11ax HEW20\_Nss1,(MCS0)\_4TX

24/12/2019

## 2417MHz\_TX



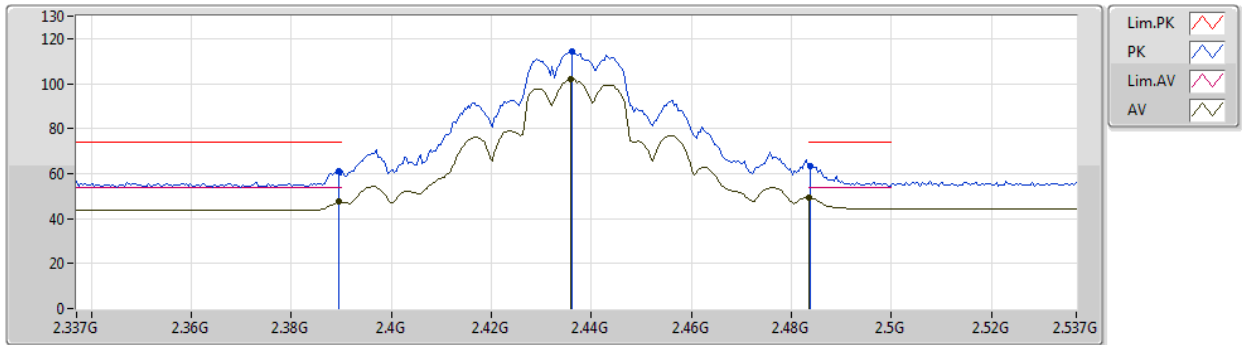
EUT X\_4TX\_Dipole  
Setting 17.5  
03-J-5  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3894G	68.61	74.00	-5.39	36.68	3	Horizontal	76	2.17	-	28.28	3.65	-
AV	2.3898G	52.97	54.00	-1.03	21.04	3	Horizontal	76	2.17	-	28.28	3.65	-
PK	2.4146G	122.09	Inf	-Inf	90.08	3	Horizontal	76	2.17	-	28.34	3.67	-
AV	2.4142G	108.96	Inf	-Inf	76.95	3	Horizontal	76	2.17	-	28.34	3.67	-
PK	2.4898G	56.54	74.00	-17.46	24.27	3	Horizontal	76	2.17	-	28.57	3.70	-
AV	2.4835G	45.03	54.00	-8.97	12.78	3	Horizontal	76	2.17	-	28.55	3.70	-

# 802.11ax HEW20\_Nss1,(MCS0)\_4TX

24/12/2019

## 2437MHz\_TX



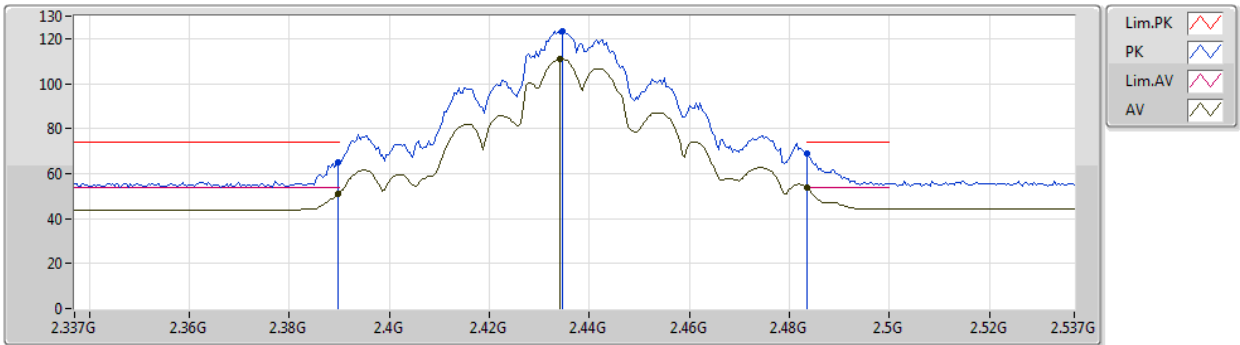
EUT X\_4TX\_Dipole  
Setting 19.5  
03-J-5  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3894G	61.11	74.00	-12.89	29.18	3	Vertical	14	2.96	-	28.28	3.65	-
AV	2.3894G	47.36	54.00	-6.64	15.43	3	Vertical	14	2.96	-	28.28	3.65	-
PK	2.4362G	114.48	Inf	-Inf	82.39	3	Vertical	14	2.96	-	28.41	3.68	-
AV	2.4358G	102.08	Inf	-Inf	69.99	3	Vertical	14	2.96	-	28.41	3.68	-
PK	2.4838G	63.38	74.00	-10.62	31.13	3	Vertical	14	2.96	-	28.55	3.70	-
AV	2.4835G	49.28	54.00	-4.72	17.03	3	Vertical	14	2.96	-	28.55	3.70	-

# 802.11ax HEW20\_Nss1,(MCS0)\_4TX

24/12/2019

## 2437MHz\_TX



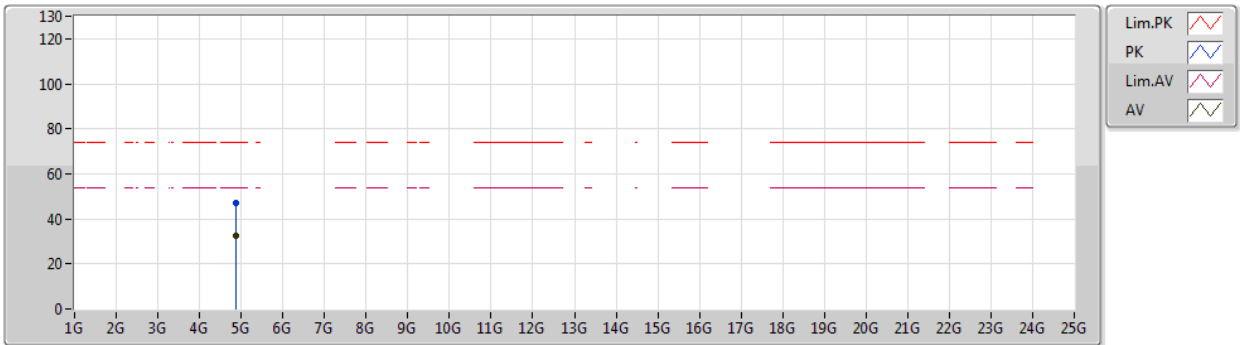
EUT X\_4TX\_Dipole  
Setting 19.5  
03-J-5  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3898G	64.75	74.00	-9.25	32.82	3	Horizontal	75	2.33	-	28.28	3.65	-
AV	2.3898G	50.84	54.00	-3.16	18.91	3	Horizontal	75	2.33	-	28.28	3.65	-
PK	2.4346G	123.21	Inf	-Inf	91.13	3	Horizontal	75	2.33	-	28.40	3.68	-
AV	2.4342G	110.84	Inf	-Inf	78.76	3	Horizontal	75	2.33	-	28.40	3.68	-
PK	2.4835G	68.96	74.00	-5.04	36.71	3	Horizontal	75	2.33	-	28.55	3.70	-
AV	2.4835G	53.81	54.00	-0.19	21.56	3	Horizontal	75	2.33	-	28.55	3.70	-

# 802.11ax HEW20\_Nss1,(MCS0)\_4TX

24/12/2019

## 2437MHz\_TX



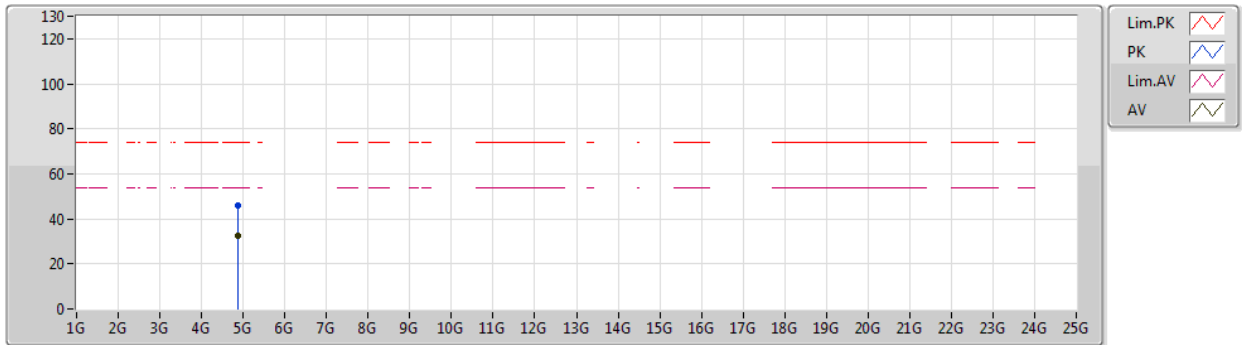
EUT X\_4TX\_Dipole  
Setting 19.5  
03-J-5  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)	
PK	4.88096G	47.01	74.00	-26.99	42.20	3	Vertical	333	2.47	-	33.66	6.12	34.97	
AV	4.88108G	32.41	54.00	-21.59	27.60	3	Vertical	333	2.47	-	33.66	6.12	34.97	

# 802.11ax HEW20\_Nss1,(MCS0)\_4TX

24/12/2019

## 2437MHz\_TX



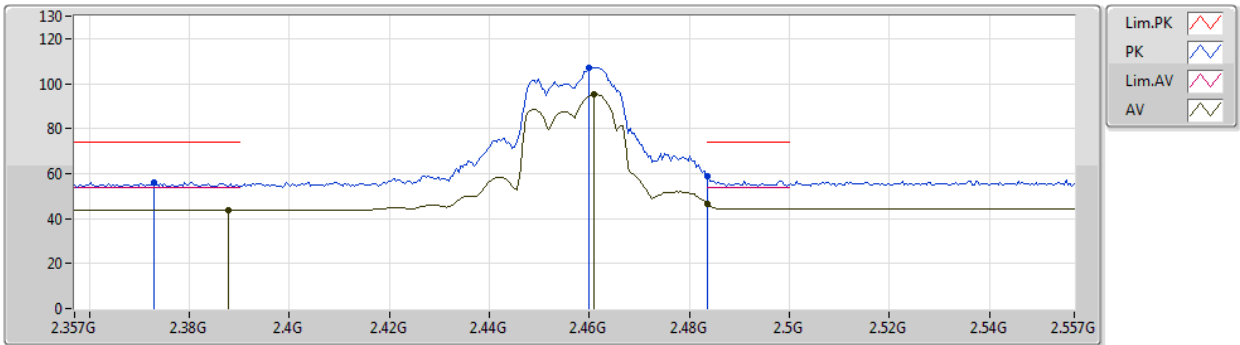
EUT X\_4TX\_Dipole  
Setting 19.5  
03-J-5  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.87256G	46.14	74.00	-27.86	41.34	3	Horizontal	185	1.50	-	33.65	6.12	34.97
AV	4.88304G	32.43	54.00	-21.57	27.61	3	Horizontal	185	1.50	-	33.67	6.12	34.97

# 802.11ax HEW20\_Nss1,(MCS0)\_4TX

24/12/2019

## 2457MHz\_TX



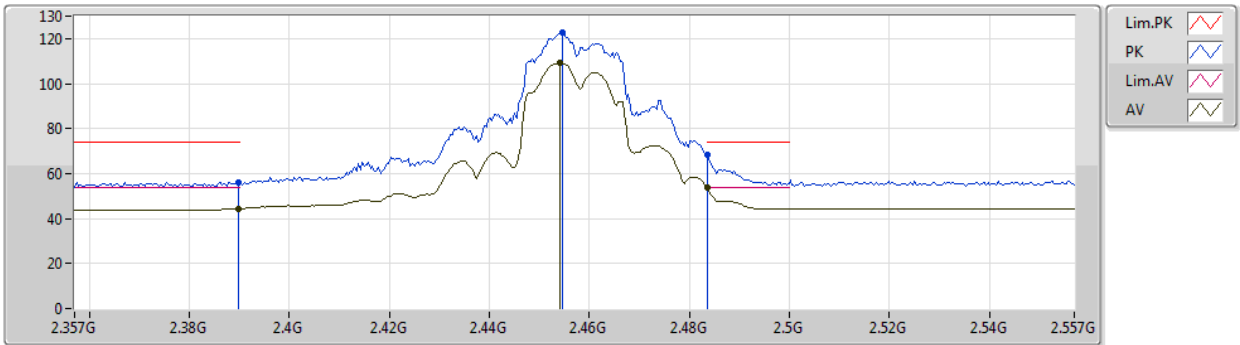
EUT X\_4TX\_Dipole  
Setting 17  
03-J-5  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.373G	55.92	74.00	-18.08	24.03	3	Vertical	76	1.58	-	28.25	3.64	-
AV	2.3878G	43.83	54.00	-10.17	11.90	3	Vertical	76	1.58	-	28.28	3.65	-
PK	2.4598G	107.10	Inf	-Inf	74.93	3	Vertical	76	1.58	-	28.48	3.69	-
AV	2.461G	95.27	Inf	-Inf	63.10	3	Vertical	76	1.58	-	28.48	3.69	-
PK	2.4835G	58.90	74.00	-15.10	26.65	3	Vertical	76	1.58	-	28.55	3.70	-
AV	2.4835G	46.67	54.00	-7.33	14.42	3	Vertical	76	1.58	-	28.55	3.70	-

# 802.11ax HEW20\_Nss1,(MCS0)\_4TX

24/12/2019

## 2457MHz\_TX



EUT X\_4TX\_Dipole  
Setting 17  
03-J-5  
FSP(100019)

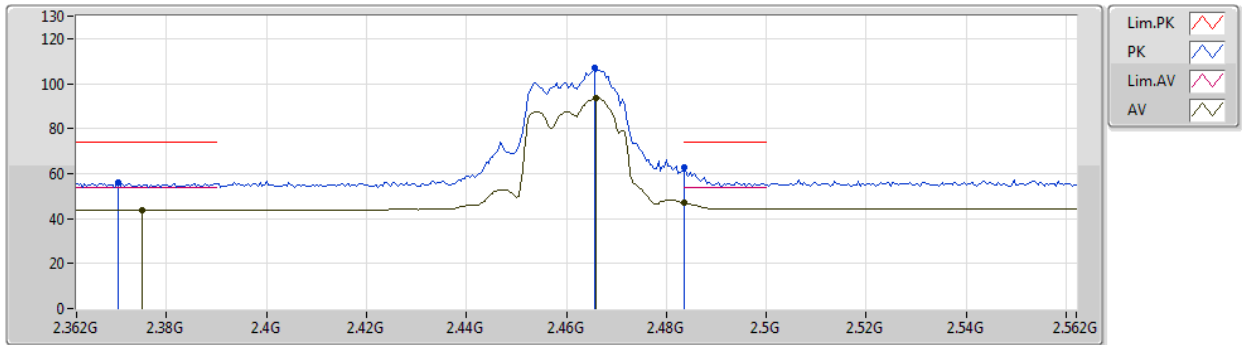
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3898G	56.14	74.00	-17.86	24.21	3	Horizontal	75	2.11	-	28.28	3.65	-
AV	2.3898G	44.50	54.00	-9.50	12.57	3	Horizontal	75	2.11	-	28.28	3.65	-
PK	2.4546G	122.87	Inf	-Inf	90.72	3	Horizontal	75	2.11	-	28.46	3.69	-
AV	2.4542G	109.20	Inf	-Inf	77.05	3	Horizontal	75	2.11	-	28.46	3.69	-
PK	2.4835G	68.44	74.00	-5.56	36.19	3	Horizontal	75	2.11	-	28.55	3.70	-
AV	2.4835G	53.96	54.00	-0.04	21.71	3	Horizontal	75	2.11	-	28.55	3.70	-



# 802.11ax HEW20\_Nss1,(MCS0)\_4TX

24/12/2019

## 2462MHz\_TX



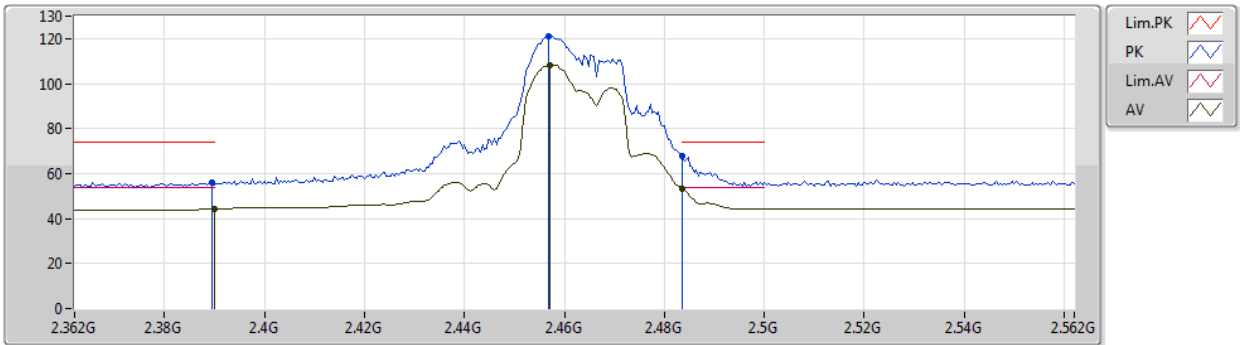
EUT X\_4TX\_Dipole  
Setting 16  
03-J-5  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3704G	56.02	74.00	-17.98	24.14	3	Vertical	75	1.58	-	28.24	3.64	-
AV	2.3752G	43.82	54.00	-10.18	11.93	3	Vertical	75	1.58	-	28.25	3.64	-
PK	2.4656G	107.13	Inf	-Inf	74.94	3	Vertical	75	1.58	-	28.50	3.69	-
AV	2.466G	93.46	Inf	-Inf	61.27	3	Vertical	75	1.58	-	28.50	3.69	-
PK	2.4835G	62.51	74.00	-11.49	30.26	3	Vertical	75	1.58	-	28.55	3.70	-
AV	2.4835G	46.96	54.00	-7.04	14.71	3	Vertical	75	1.58	-	28.55	3.70	-

# 802.11ax HEW20\_Nss1,(MCS0)\_4TX

24/12/2019

## 2462MHz\_TX



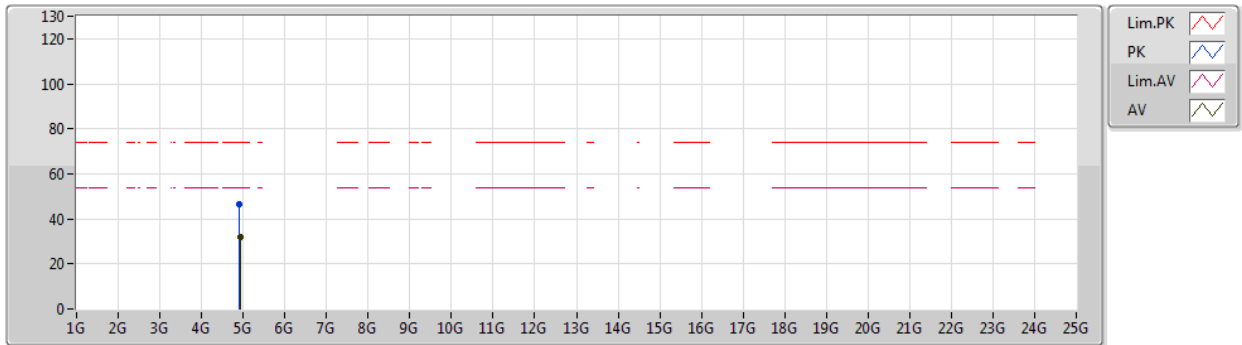
EUT X\_4TX\_Dipole  
Setting 16  
03-J-5  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3896G	56.09	74.00	-17.91	24.16	3	Horizontal	78	1.42	-	28.28	3.65	-
AV	2.39G	44.31	54.00	-9.69	12.38	3	Horizontal	78	1.42	-	28.28	3.65	-
PK	2.4568G	121.26	Inf	-Inf	89.10	3	Horizontal	78	1.42	-	28.47	3.69	-
AV	2.4572G	108.30	Inf	-Inf	76.14	3	Horizontal	78	1.42	-	28.47	3.69	-
PK	2.4835G	67.83	74.00	-6.17	35.58	3	Horizontal	78	1.42	-	28.55	3.70	-
AV	2.4835G	53.27	54.00	-0.73	21.02	3	Horizontal	78	1.42	-	28.55	3.70	-

# 802.11ax HEW20\_Nss1,(MCS0)\_4TX

24/12/2019

## 2462MHz\_TX



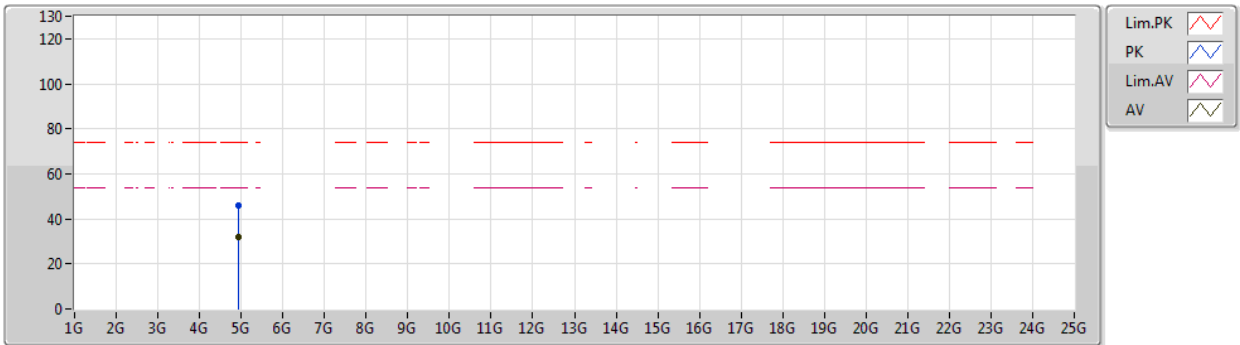
EUT X\_4TX\_Dipole  
Setting 16  
03-J-5  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.91536G	46.37	74.00	-27.63	41.49	3	Vertical	314	2.23	-	33.73	6.12	34.97
AV	4.92048G	32.05	54.00	-21.95	27.16	3	Vertical	314	2.23	-	33.74	6.12	34.97

# 802.11ax HEW20\_Nss1,(MCS0)\_4TX

24/12/2019

## 2462MHz\_TX



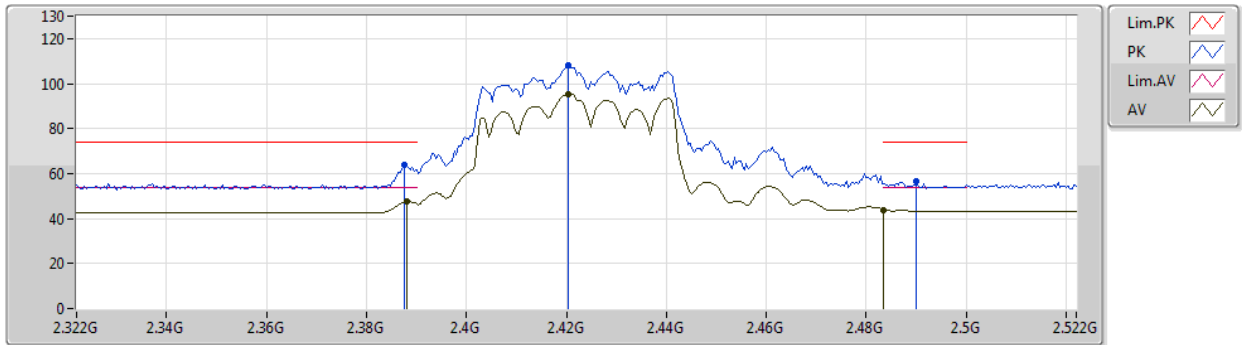
EUT X\_4TX\_Dipole  
Setting 16  
03-J-5  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.93012G	46.06	74.00	-27.94	41.16	3	Horizontal	259	1.06	-	33.76	6.11	34.97
AV	4.93228G	32.06	54.00	-21.94	27.16	3	Horizontal	259	1.06	-	33.76	6.11	34.97

# 802.11ax HEW40\_Nss1,(MCS0)\_4TX

24/12/2019

## 2422MHz\_TX



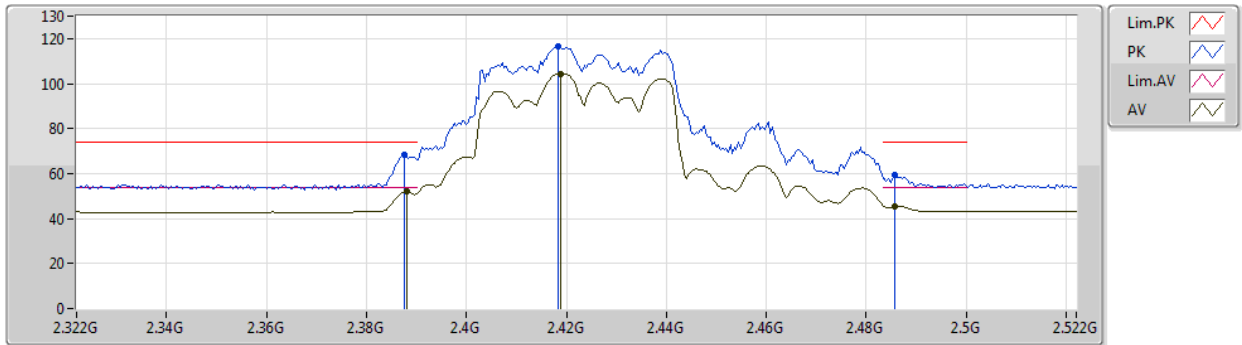
EUT X\_4TX\_Dipole  
Setting 15.5  
01-J-5  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3876G	64.01	74.00	-9.99	33.22	3	Vertical	0	2.99	-	27.66	3.13	-
AV	2.388G	47.70	54.00	-6.30	16.91	3	Vertical	0	2.99	-	27.66	3.13	-
PK	2.4204G	108.02	Inf	-Inf	77.15	3	Vertical	0	2.99	-	27.72	3.15	-
AV	2.4204G	95.44	Inf	-Inf	64.57	3	Vertical	0	2.99	-	27.72	3.15	-
PK	2.49G	56.40	74.00	-17.60	25.42	3	Vertical	0	2.99	-	27.79	3.19	-
AV	2.4835G	43.82	54.00	-10.18	12.86	3	Vertical	0	2.99	-	27.78	3.18	-

# 802.11ax HEW40\_Nss1,(MCS0)\_4TX

24/12/2019

## 2422MHz\_TX



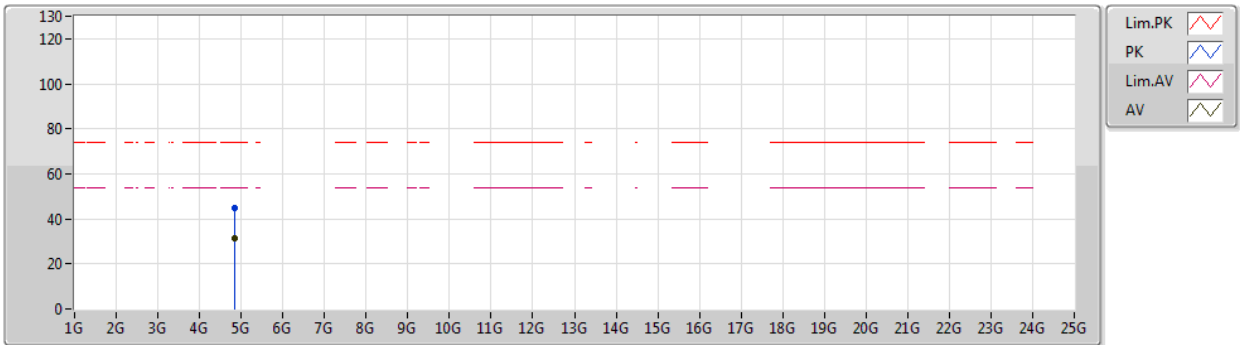
EUT X\_4TX\_Dipole  
Setting 15.5  
01-J-5  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3876G	68.35	74.00	-5.65	37.56	3	Horizontal	76	2.12	-	27.66	3.13	-
AV	2.388G	51.96	54.00	-2.04	21.17	3	Horizontal	76	2.12	-	27.66	3.13	-
PK	2.4184G	116.50	Inf	-Inf	85.63	3	Horizontal	76	2.12	-	27.72	3.15	-
AV	2.4188G	104.48	Inf	-Inf	73.61	3	Horizontal	76	2.12	-	27.72	3.15	-
PK	2.4856G	59.67	74.00	-14.33	28.70	3	Horizontal	76	2.12	-	27.79	3.18	-
AV	2.4856G	45.62	54.00	-8.38	14.65	3	Horizontal	76	2.12	-	27.79	3.18	-

# 802.11ax HEW40\_Nss1,(MCS0)\_4TX

24/12/2019

## 2422MHz\_TX



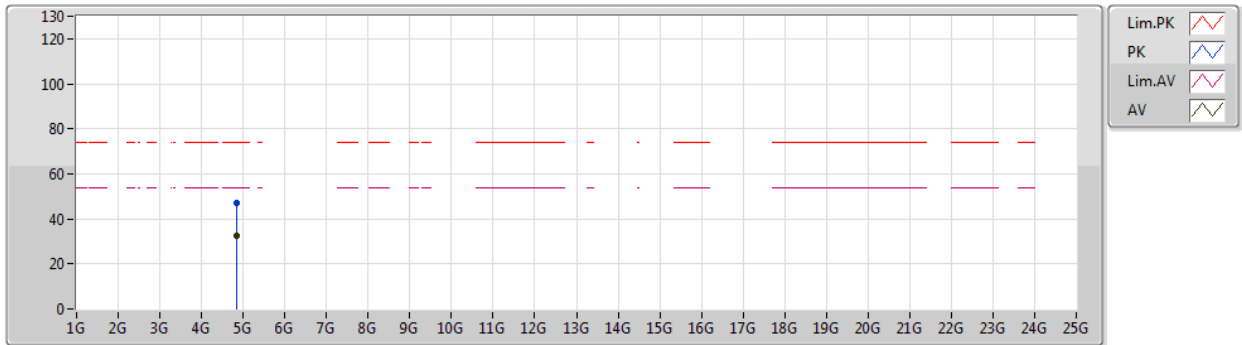
EUT X\_4TX\_Dipole  
Setting 15.5  
01-J-5  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)	
PK	4.84856G	44.95	74.00	-29.05	41.25	3	Vertical	322	2.89	-	32.65	5.54	34.49	
AV	4.85376G	31.17	54.00	-22.83	27.45	3	Vertical	322	2.89	-	32.66	5.54	34.48	

# 802.11ax HEW40\_Nss1,(MCS0)\_4TX

24/12/2019

## 2422MHz\_TX



EUT X\_4TX\_Dipole  
Setting 15.5  
01-J-5  
FSP(100019)

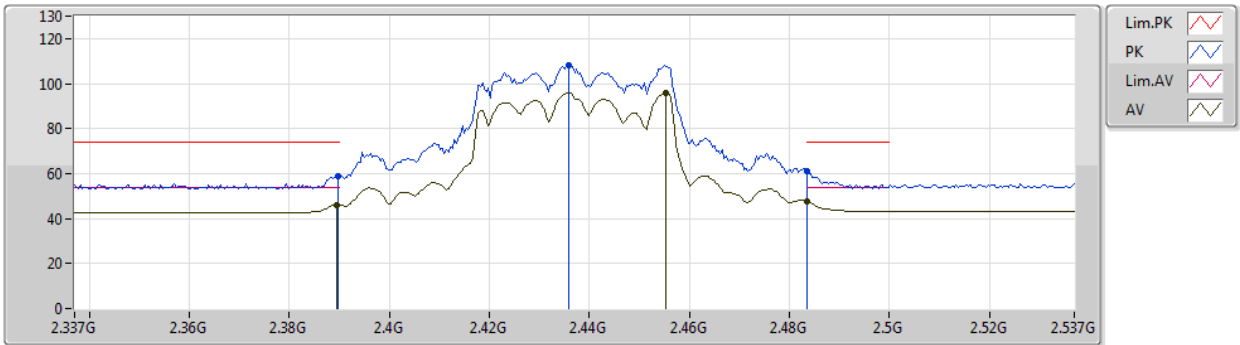
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.85228G	46.86	74.00	-27.14	42.11	3	Horizontal	182	1.00	-	33.60	6.12	34.97
AV	4.85032G	32.25	54.00	-21.75	27.50	3	Horizontal	182	1.00	-	33.60	6.12	34.97



# 802.11ax HEW40\_Nss1,(MCS0)\_4TX

24/12/2019

## 2437MHz\_TX



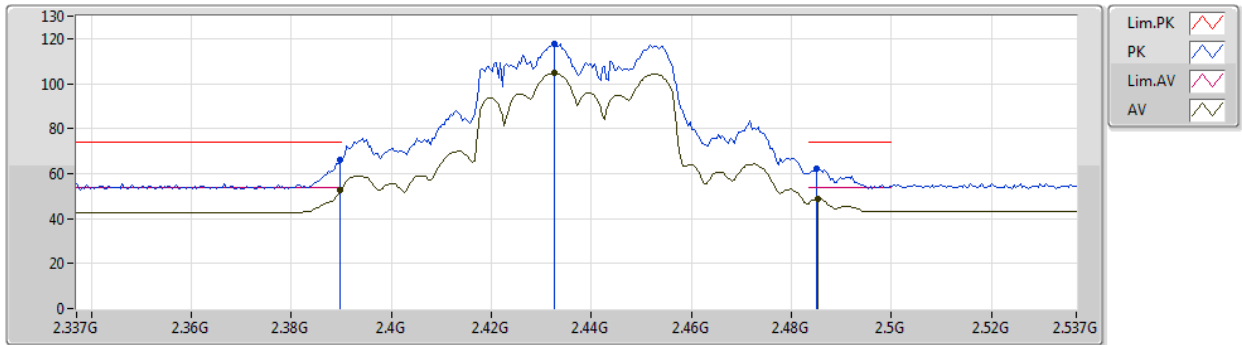
EUT X\_4TX\_Dipole  
Setting 15.5  
01-J-5  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3898G	58.81	74.00	-15.19	28.01	3	Vertical	11	2.99	-	27.67	3.13	-
AV	2.3894G	46.18	54.00	-7.82	15.38	3	Vertical	11	2.99	-	27.67	3.13	-
PK	2.4358G	108.12	Inf	-Inf	77.22	3	Vertical	11	2.99	-	27.74	3.16	-
AV	2.4554G	95.95	Inf	-Inf	65.02	3	Vertical	11	2.99	-	27.76	3.17	-
PK	2.4835G	61.05	74.00	-12.95	30.09	3	Vertical	11	2.99	-	27.78	3.18	-
AV	2.4835G	47.61	54.00	-6.39	16.65	3	Vertical	11	2.99	-	27.78	3.18	-

# 802.11ax HEW40\_Nss1,(MCS0)\_4TX

24/12/2019

## 2437MHz\_TX



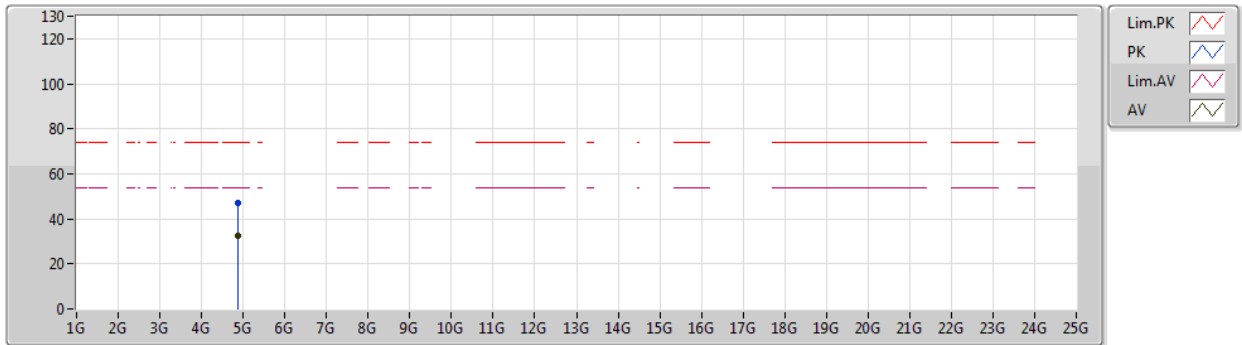
EUT X\_4TX\_Dipole  
Setting 15.5  
01-J-5  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3898G	66.19	74.00	-7.81	35.39	3	Horizontal	76	1.48	-	27.67	3.13	-
AV	2.3898G	52.66	54.00	-1.34	21.86	3	Horizontal	76	1.48	-	27.67	3.13	-
PK	2.4326G	117.75	Inf	-Inf	86.86	3	Horizontal	76	1.48	-	27.73	3.16	-
AV	2.4326G	104.59	Inf	-Inf	73.70	3	Horizontal	76	1.48	-	27.73	3.16	-
PK	2.485G	62.13	74.00	-11.87	31.16	3	Horizontal	76	1.48	-	27.79	3.18	-
AV	2.4854G	48.98	54.00	-5.02	18.01	3	Horizontal	76	1.48	-	27.79	3.18	-

# 802.11ax HEW40\_Nss1,(MCS0)\_4TX

24/12/2019

## 2437MHz\_TX



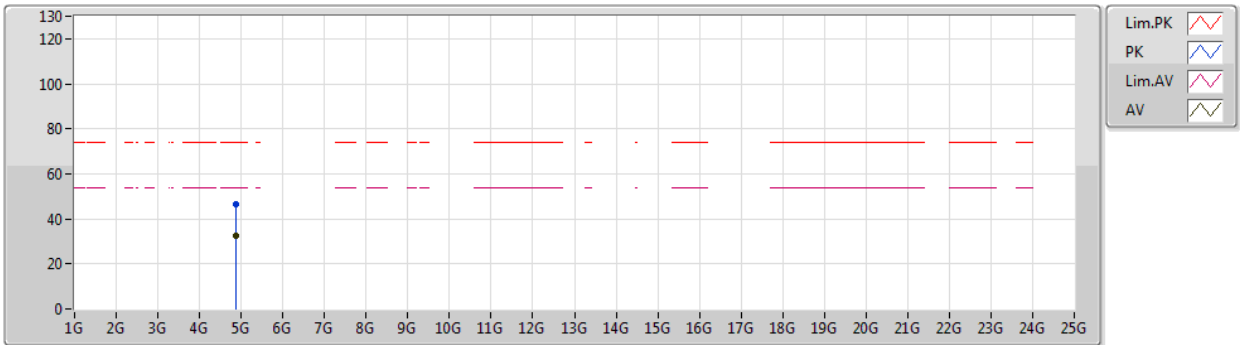
EUT X\_4TX\_Dipole  
Setting 15.5  
01-J-5  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.86692G	46.87	74.00	-27.13	42.09	3	Vertical	225	1.78	-	33.63	6.12	34.97
AV	4.88072G	32.45	54.00	-21.55	27.64	3	Vertical	225	1.78	-	33.66	6.12	34.97

# 802.11ax HEW40\_Nss1,(MCS0)\_4TX

24/12/2019

## 2437MHz\_TX



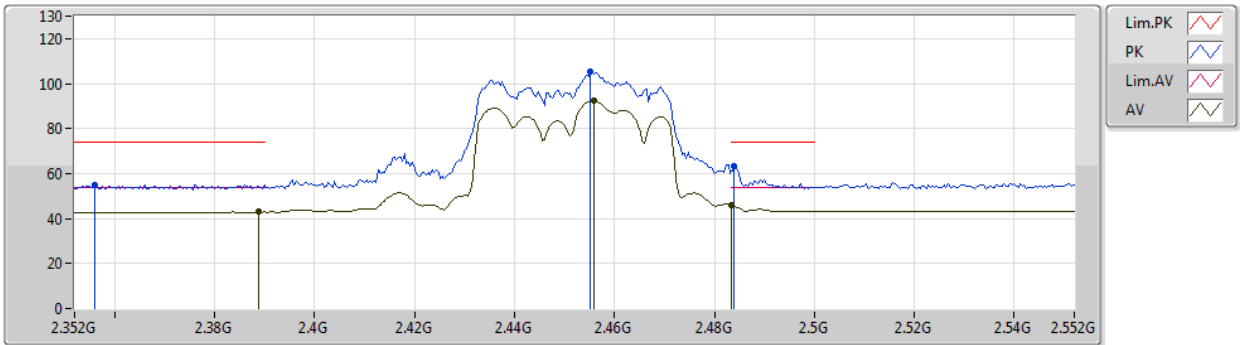
EUT X\_4TX\_Dipole  
Setting 15.5  
01-J-5  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.87056G	46.30	74.00	-27.70	41.51	3	Horizontal	110	2.02	-	33.64	6.12	34.97
AV	4.87012G	32.41	54.00	-21.59	27.62	3	Horizontal	110	2.02	-	33.64	6.12	34.97

# 802.11ax HEW40\_Nss1,(MCS0)\_4TX

24/12/2019

## 2452MHz\_TX



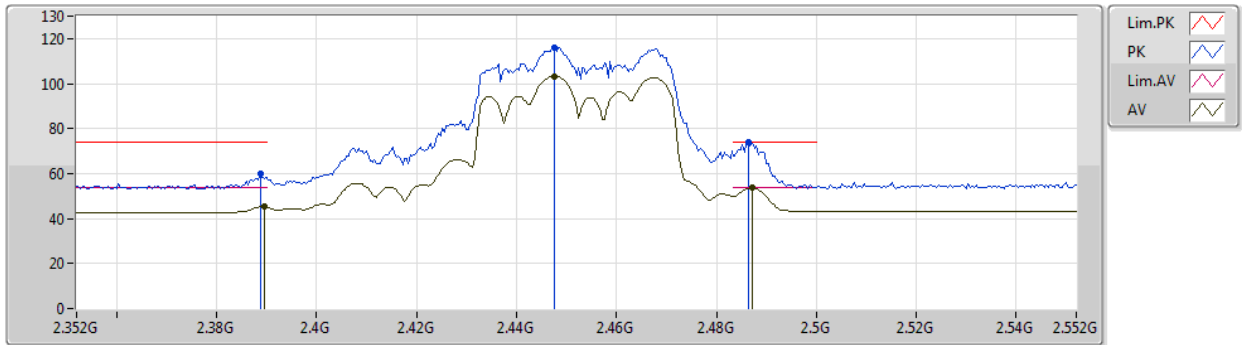
EUT X\_4TX\_Dipole  
Setting 14.5  
01-J-5  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.356G	54.92	74.00	-19.08	24.25	3	Vertical	151	2.91	-	27.57	3.10	-
AV	2.3888G	42.90	54.00	-11.10	12.10	3	Vertical	151	2.91	-	27.67	3.13	-
PK	2.4552G	105.10	Inf	-Inf	74.17	3	Vertical	151	2.91	-	27.76	3.17	-
AV	2.456G	92.24	Inf	-Inf	61.31	3	Vertical	151	2.91	-	27.76	3.17	-
PK	2.484G	63.14	74.00	-10.86	32.18	3	Vertical	151	2.91	-	27.78	3.18	-
AV	2.4835G	46.07	54.00	-7.93	15.11	3	Vertical	151	2.91	-	27.78	3.18	-

# 802.11ax HEW40\_Nss1,(MCS0)\_4TX

24/12/2019

## 2452MHz\_TX



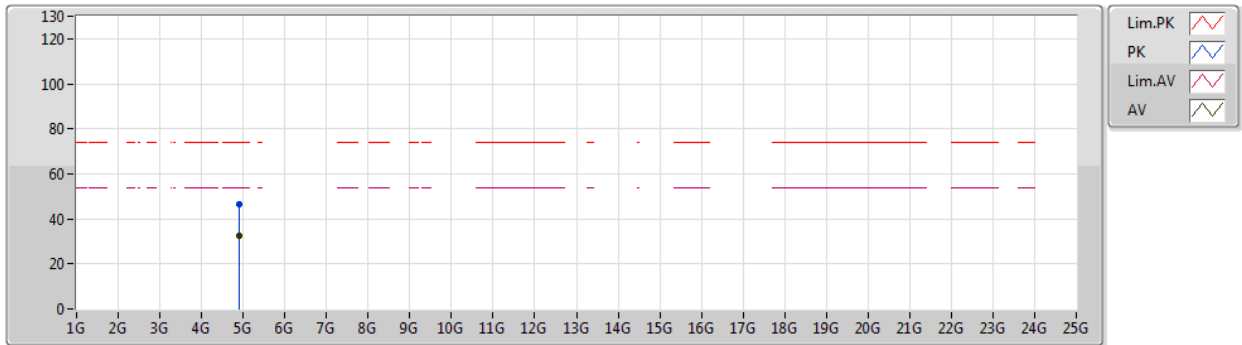
EUT X\_4TX\_Dipole  
Setting 14.5  
01-J-5  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3888G	60.22	74.00	-13.78	29.42	3	Horizontal	75	1.47	-	27.67	3.13	-
AV	2.3896G	45.25	54.00	-8.75	14.45	3	Horizontal	75	1.47	-	27.67	3.13	-
PK	2.4476G	116.09	Inf	-Inf	85.18	3	Horizontal	75	1.47	-	27.75	3.16	-
AV	2.4476G	103.23	Inf	-Inf	72.32	3	Horizontal	75	1.47	-	27.75	3.16	-
PK	2.4864G	73.84	74.00	-0.16	42.87	3	Horizontal	75	1.47	-	27.79	3.18	-
AV	2.4872G	53.77	54.00	-0.23	22.80	3	Horizontal	75	1.47	-	27.79	3.18	-

# 802.11ax HEW40\_Nss1,(MCS0)\_4TX

24/12/2019

## 2452MHz\_TX



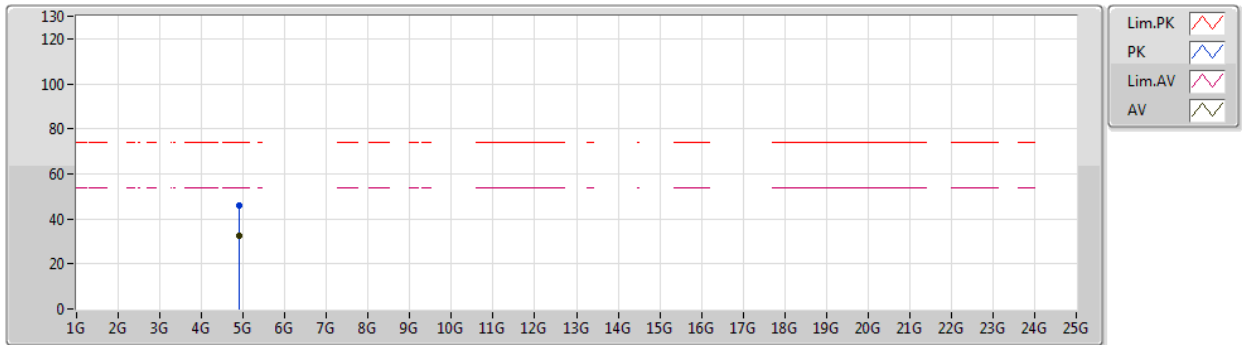
EUT X\_4TX\_Dipole  
Setting 14.5  
01-J-5  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.9084G	46.44	74.00	-27.56	41.57	3	Vertical	230	1.14	-	33.72	6.12	34.97
AV	4.89792G	32.39	54.00	-21.61	27.54	3	Vertical	230	1.14	-	33.70	6.12	34.97

# 802.11ax HEW40\_Nss1,(MCS0)\_4TX

24/12/2019

## 2452MHz\_TX



EUT\_X\_4TX\_Dipole  
Setting 14.5  
01-J-5  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.90412G	45.97	74.00	-28.03	41.11	3	Horizontal	226	2.62	-	33.71	6.12	34.97
AV	4.89844G	32.32	54.00	-21.68	27.47	3	Horizontal	226	2.62	-	33.70	6.12	34.97





**<beamforming mode>**

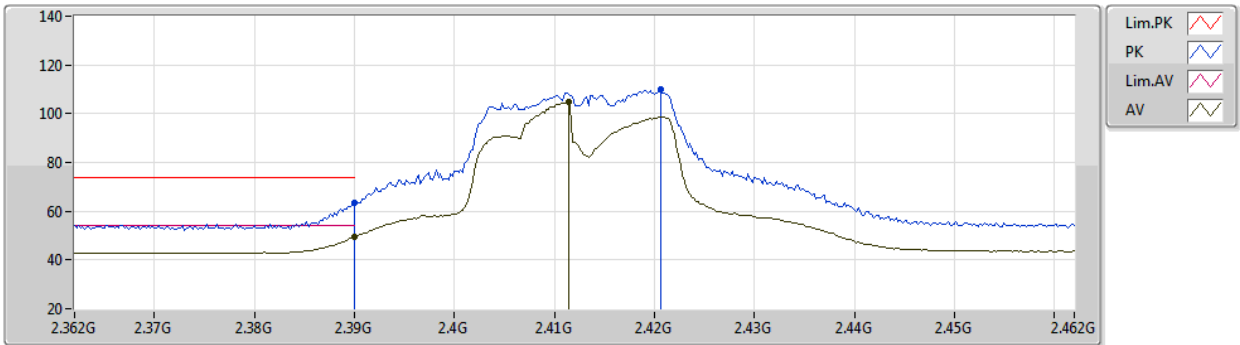
**Summary**

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	Pass	AV	2.39G	52.69	54.00	-1.31	3	Horizontal	321	2.75	-

# 802.11ax HEW20-BF\_Nss1,(MCS0)\_4TX

09/12/2019

## 2412MHz\_TX



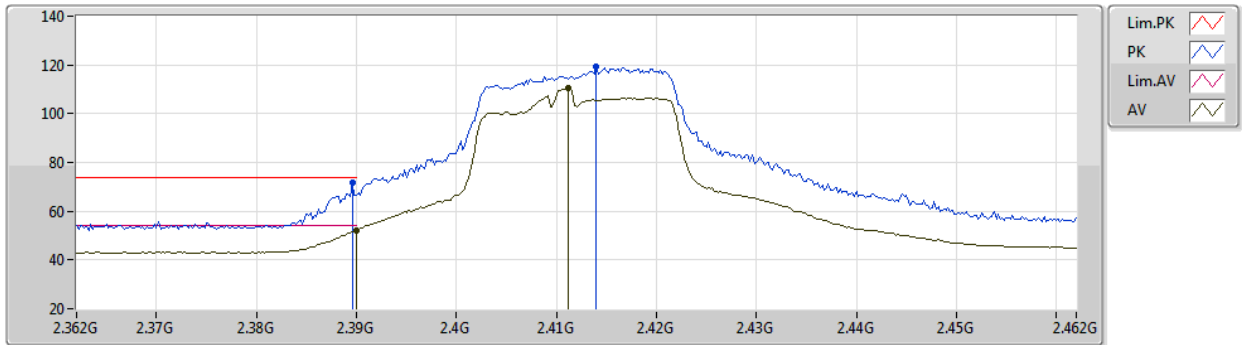
EUT X\_4TX  
Setting 22  
04-F-C-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.39G	63.61	74.00	-10.39	33.40	3	Vertical	1	2.90	-	27.51	2.70	-
AV	2.39G	49.45	54.00	-4.55	19.24	3	Vertical	1	2.90	-	27.51	2.70	-
PK	2.4206G	109.89	Inf	-Inf	79.61	3	Vertical	1	2.90	-	27.58	2.70	-
AV	2.4114G	104.75	Inf	-Inf	74.50	3	Vertical	1	2.90	-	27.55	2.70	-

# 802.11ax HEW20-BF\_Nss1,(MCS0)\_4TX

09/12/2019

## 2412MHz\_TX



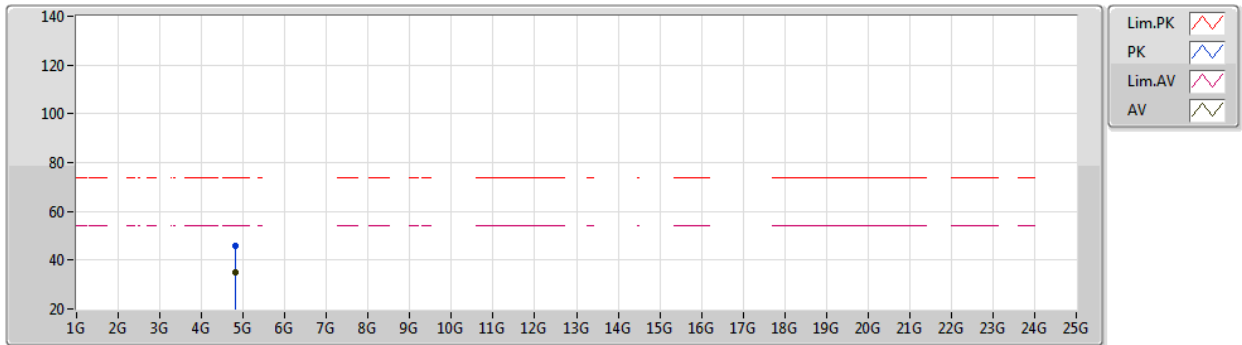
EUT X\_4TX  
Setting 22  
04-F-C-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3896G	71.93	74.00	-2.07	41.72	3	Horizontal	317	2.59	-	27.51	2.70	-
AV	2.39G	52.26	54.00	-1.74	22.05	3	Horizontal	317	2.59	-	27.51	2.70	-
PK	2.414G	119.22	Inf	-Inf	88.96	3	Horizontal	317	2.59	-	27.56	2.70	-
AV	2.4112G	110.46	Inf	-Inf	80.22	3	Horizontal	317	2.59	-	27.54	2.70	-

# 802.11ax HEW20-BF\_Nss1,(MCS0)\_4TX

09/12/2019

## 2412MHz\_TX



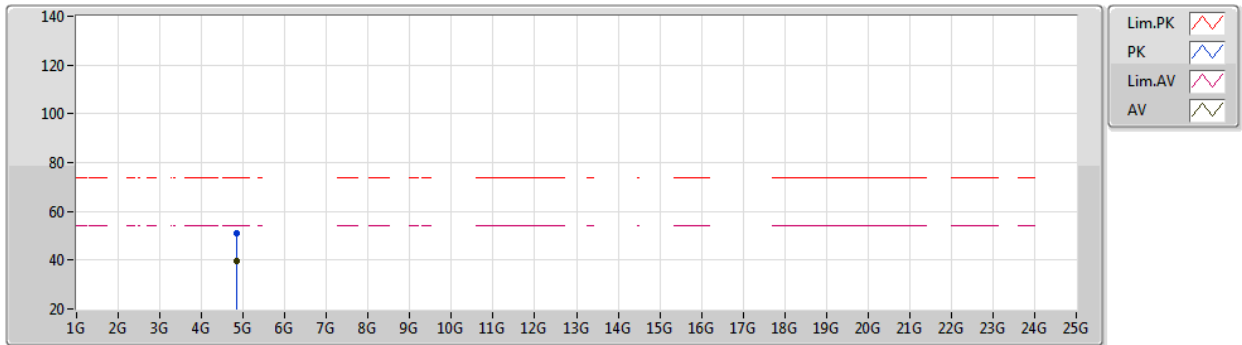
EUT X\_4TX  
Setting 22  
04-F-C-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.802G	45.71	74.00	-28.29	42.34	3	Vertical	187	3.00	-	32.51	4.50	33.64
AV	4.7999G	34.92	54.00	-19.08	31.56	3	Vertical	187	3.00	-	32.50	4.50	33.64

# 802.11ax HEW20-BF\_Nss1,(MCS0)\_4TX

09/12/2019

## 2412MHz\_TX



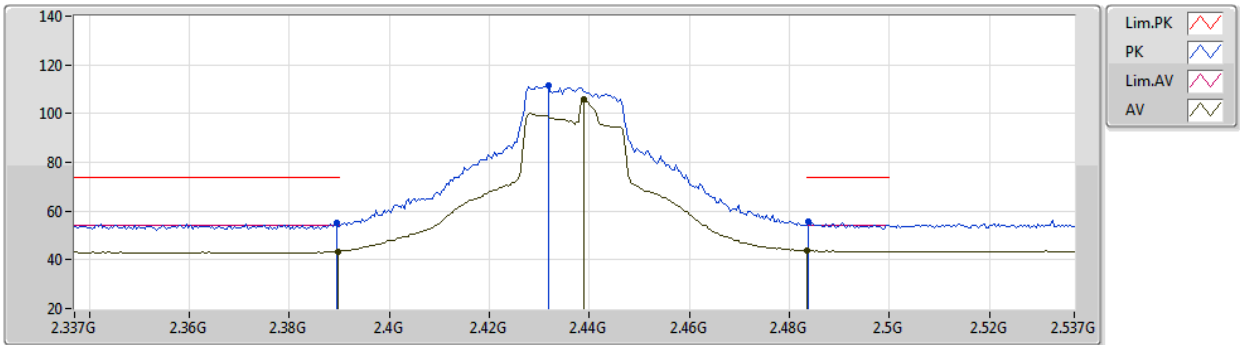
EUT X\_4TX  
Setting 22  
04-F-C-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)	
PK	4.8434G	51.14	74.00	-22.86	47.52	3	Horizontal	57	1.25	-	32.67	4.57	33.62	
AV	4.8475G	39.56	54.00	-14.44	35.92	3	Horizontal	57	1.25	-	32.69	4.57	33.62	

# 802.11ax HEW20-BF\_Nss1,(MCS0)\_4TX

09/12/2019

## 2437MHz\_TX



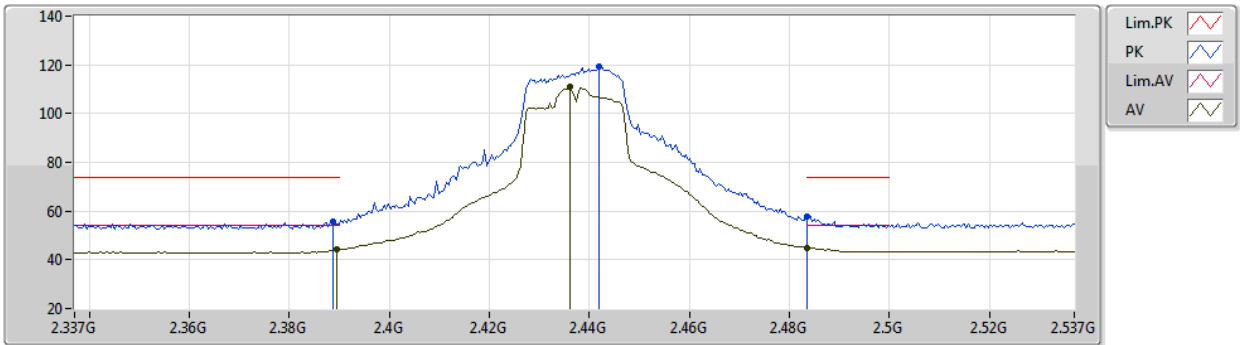
EUT X\_4TX  
Setting 23  
04-F-C-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3894G	55.25	74.00	-18.75	25.04	3	Vertical	23	2.95	-	27.51	2.70	-
AV	2.3898G	43.49	54.00	-10.51	13.28	3	Vertical	23	2.95	-	27.51	2.70	-
PK	2.4318G	111.78	Inf	-Inf	81.45	3	Vertical	23	2.95	-	27.63	2.70	-
AV	2.439G	105.88	Inf	-Inf	75.52	3	Vertical	23	2.95	-	27.66	2.70	-
PK	2.4838G	55.74	74.00	-18.26	25.20	3	Vertical	23	2.95	-	27.84	2.70	-
AV	2.4835G	43.83	54.00	-10.17	13.30	3	Vertical	23	2.95	-	27.83	2.70	-

# 802.11ax HEW20-BF\_Nss1,(MCS0)\_4TX

09/12/2019

## 2437MHz\_TX



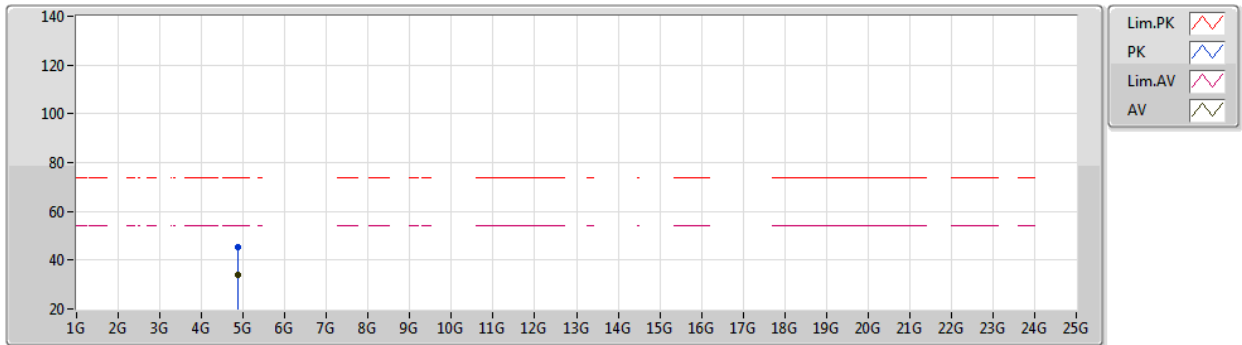
EUT X\_4TX  
Setting 23  
04-F-C-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3886G	55.63	74.00	-18.37	25.42	3	Horizontal	318	2.53	-	27.51	2.70	-
AV	2.3894G	44.18	54.00	-9.82	13.97	3	Horizontal	318	2.53	-	27.51	2.70	-
PK	2.4418G	119.10	Inf	-Inf	88.73	3	Horizontal	318	2.53	-	27.67	2.70	-
AV	2.4362G	110.82	Inf	-Inf	80.48	3	Horizontal	318	2.53	-	27.64	2.70	-
PK	2.4835G	57.83	74.00	-16.17	27.30	3	Horizontal	318	2.53	-	27.83	2.70	-
AV	2.4835G	45.04	54.00	-8.96	14.51	3	Horizontal	318	2.53	-	27.83	2.70	-

# 802.11ax HEW20-BF\_Nss1,(MCS0)\_4TX

09/12/2019

## 2437MHz\_TX



EUT X\_4TX  
Setting 23  
04-F-C-5

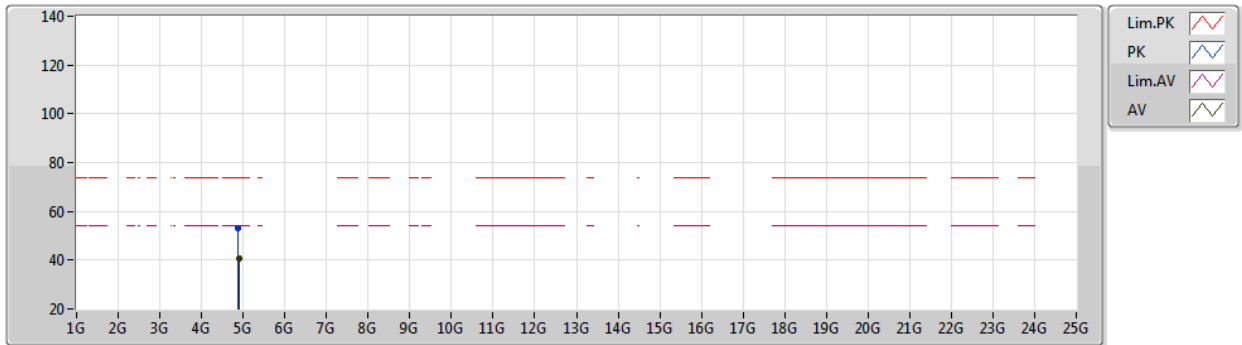
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)	
PK	4.8697G	45.55	74.00	-28.45	41.78	3	Vertical	53	2.89	-	32.78	4.60	33.61	
AV	4.8888G	33.71	54.00	-20.29	29.82	3	Vertical	53	2.89	-	32.86	4.63	33.60	



# 802.11ax HEW20-BF\_Nss1,(MCS0)\_4TX

09/12/2019

## 2437MHz\_TX



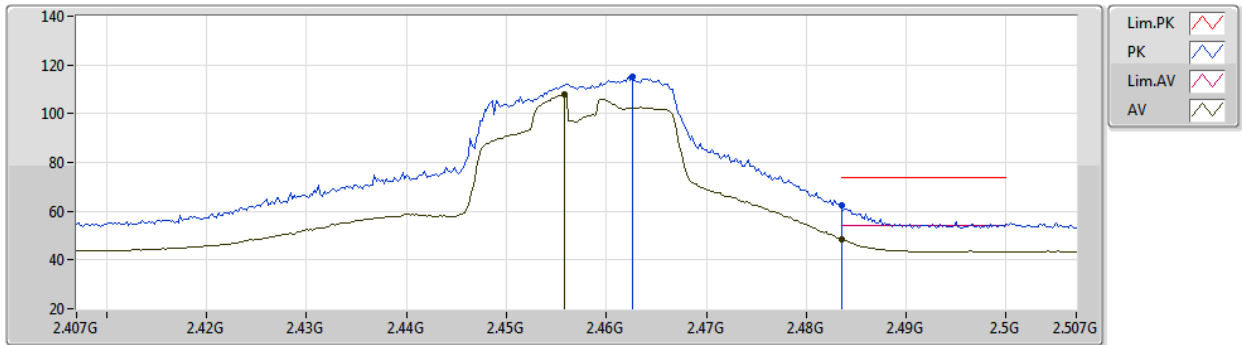
EUT X\_4TX  
Setting 23  
04-F-C-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.8721G	52.93	74.00	-21.07	49.14	3	Horizontal	261	1.80	-	32.79	4.61	33.61
AV	4.8935G	40.79	54.00	-13.21	36.88	3	Horizontal	261	1.80	-	32.87	4.64	33.60

# 802.11ax HEW20-BF\_Nss1,(MCS0)\_4TX

09/12/2019

## 2457MHz\_TX



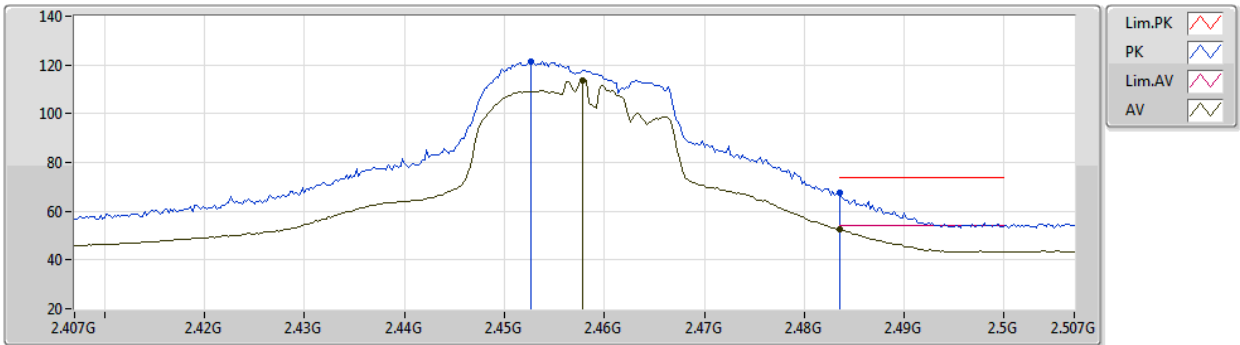
EUT X\_4TX  
Setting 23  
04-F-C-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.4626G	115.04	Inf	-Inf	84.59	3	Vertical	18	2.87	-	27.75	2.70	-
AV	2.4558G	107.75	Inf	-Inf	77.33	3	Vertical	18	2.87	-	27.72	2.70	-
PK	2.4835G	62.38	74.00	-11.62	31.85	3	Vertical	18	2.87	-	27.83	2.70	-
AV	2.4835G	48.62	54.00	-5.38	18.09	3	Vertical	18	2.87	-	27.83	2.70	-

# 802.11ax HEW20-BF\_Nss1,(MCS0)\_4TX

09/12/2019

## 2457MHz\_TX



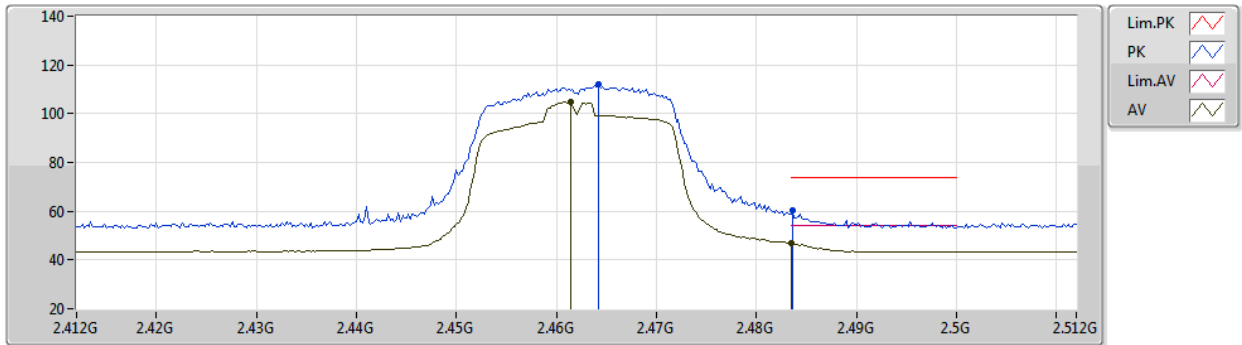
EUT X\_4TX  
Setting 23  
04-F-C-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.4526G	121.38	Inf	-Inf	90.97	3	Horizontal	70	3.00	-	27.71	2.70	-
AV	2.4578G	113.71	Inf	-Inf	83.28	3	Horizontal	70	3.00	-	27.73	2.70	-
PK	2.4836G	67.39	74.00	-6.61	36.86	3	Horizontal	70	3.00	-	27.83	2.70	-
AV	2.4835G	52.51	54.00	-1.49	21.98	3	Horizontal	70	3.00	-	27.83	2.70	-

# 802.11ax HEW20-BF\_Nss1,(MCS0)\_4TX

09/12/2019

## 2462MHz\_TX



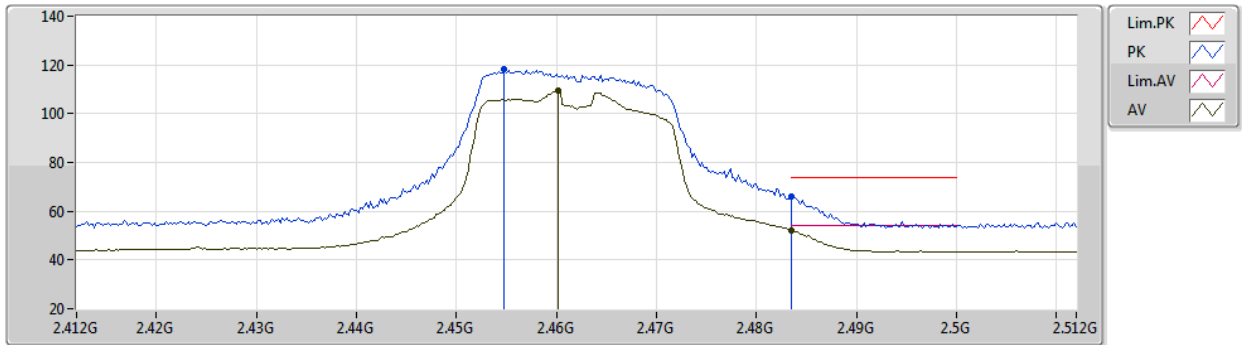
EUT X\_4TX  
Setting 20  
04-F-C-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.4642G	112.05	Inf	-Inf	81.59	3	Vertical	20	2.87	-	27.76	2.70	-
AV	2.4614G	104.93	Inf	-Inf	74.48	3	Vertical	20	2.87	-	27.75	2.70	-
PK	2.4836G	60.25	74.00	-13.75	29.72	3	Vertical	20	2.87	-	27.83	2.70	-
AV	2.4835G	46.91	54.00	-7.09	16.38	3	Vertical	20	2.87	-	27.83	2.70	-

# 802.11ax HEW20-BF\_Nss1,(MCS0)\_4TX

09/12/2019

## 2462MHz\_TX



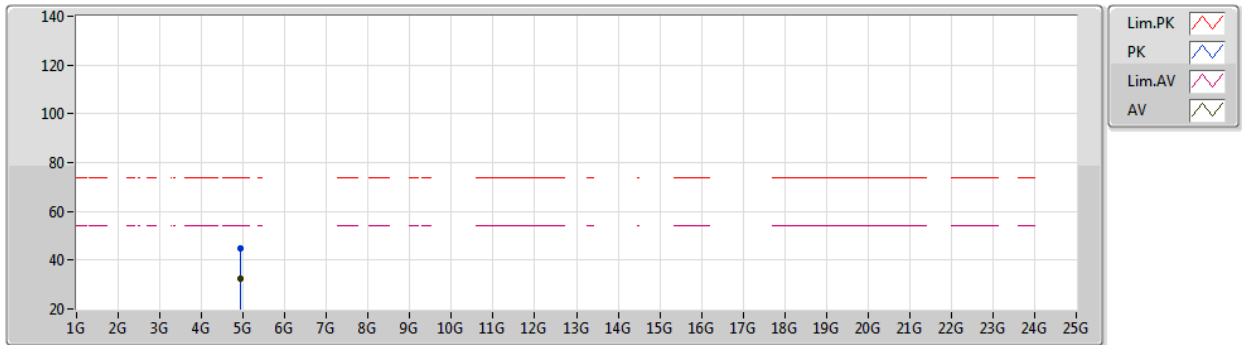
EUT X\_4TX  
Setting 20  
04-F-C-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.4548G	118.47	Inf	-Inf	88.05	3	Horizontal	78	2.95	-	27.72	2.70	-
AV	2.4602G	109.73	Inf	-Inf	79.29	3	Horizontal	78	2.95	-	27.74	2.70	-
PK	2.4835G	66.01	74.00	-7.99	35.48	3	Horizontal	78	2.95	-	27.83	2.70	-
AV	2.4835G	52.16	54.00	-1.84	21.63	3	Horizontal	78	2.95	-	27.83	2.70	-

# 802.11ax HEW20-BF\_Nss1,(MCS0)\_4TX

09/12/2019

## 2462MHz\_TX



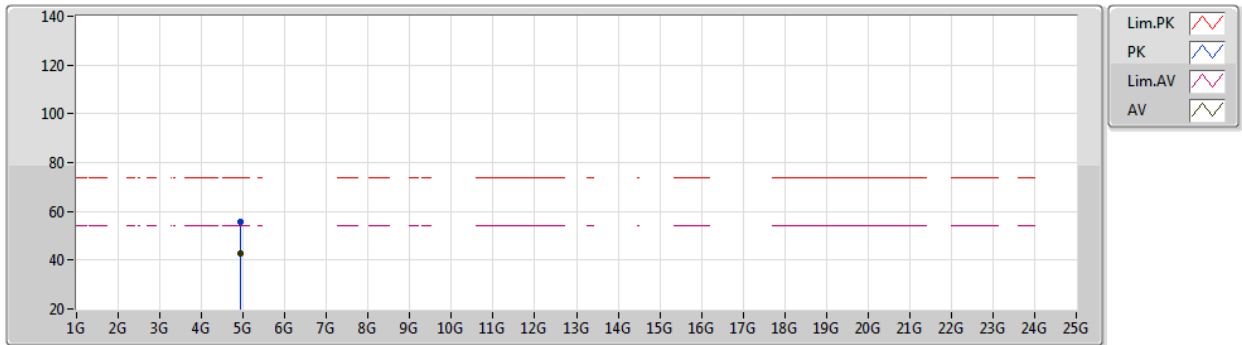
EUT X\_4TX  
Setting 20  
04-F-C-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)	
PK	4.922G	44.80	74.00	-29.20	40.77	3	Vertical	269	1.80	-	32.94	4.68	33.59	
AV	4.9453G	32.27	54.00	-21.73	28.14	3	Vertical	269	1.80	-	32.99	4.72	33.58	

# 802.11ax HEW20-BF\_Nss1,(MCS0)\_4TX

09/12/2019

## 2462MHz\_TX



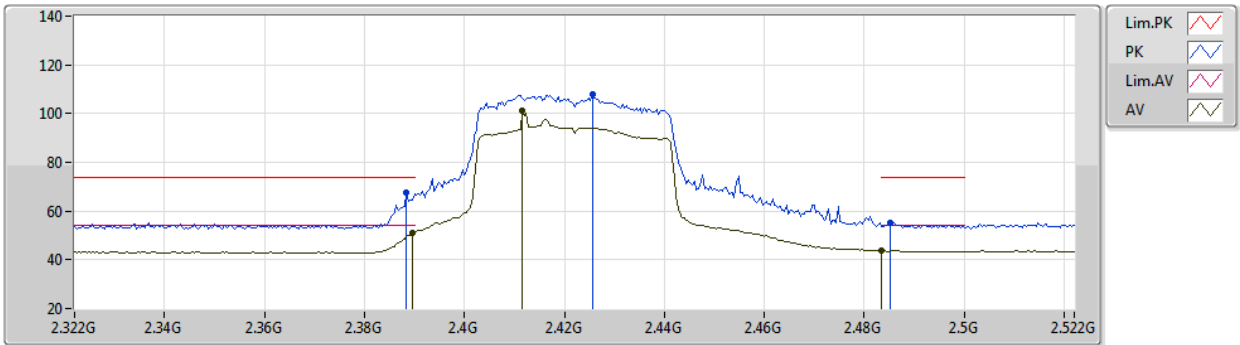
EUT X\_4TX  
Setting 20  
04-F-C-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.9381G	55.57	74.00	-18.43	51.46	3	Horizontal	55	2.01	-	32.98	4.71	33.58
AV	4.9421G	42.79	54.00	-11.21	38.68	3	Horizontal	55	2.01	-	32.98	4.71	33.58

# 802.11ax HEW40-BF\_Nss1,(MCS0)\_4TX

09/12/2019

## 2422MHz\_TX



EUT X\_4TX  
Setting 21  
04-F-C-5

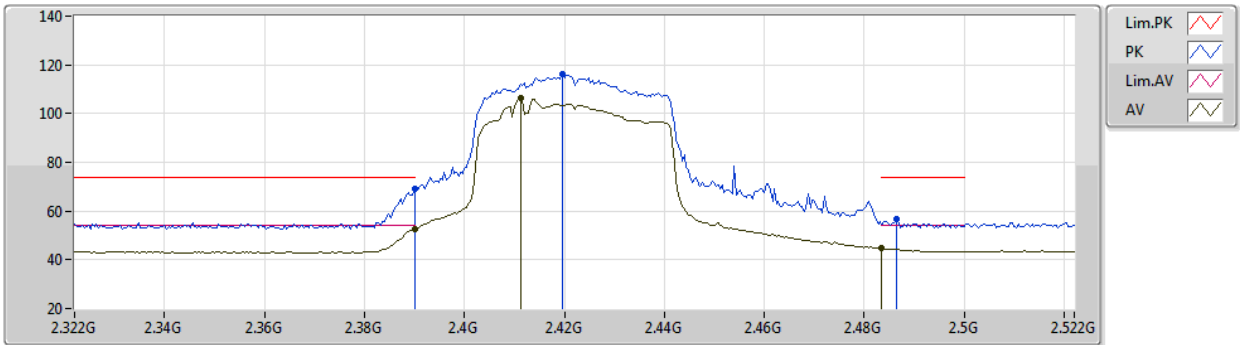
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3884G	67.46	74.00	-6.54	37.25	3	Vertical	29	2.94	-	27.51	2.70	-
AV	2.3896G	51.20	54.00	-2.80	20.99	3	Vertical	29	2.94	-	27.51	2.70	-
PK	2.4256G	107.82	Inf	-Inf	77.52	3	Vertical	29	2.94	-	27.60	2.70	-
AV	2.4116G	101.34	Inf	-Inf	71.09	3	Vertical	29	2.94	-	27.55	2.70	-
PK	2.4852G	55.02	74.00	-18.98	24.48	3	Vertical	29	2.94	-	27.84	2.70	-
AV	2.4835G	43.68	54.00	-10.32	13.15	3	Vertical	29	2.94	-	27.83	2.70	-



# 802.11ax HEW40-BF\_Nss1,(MCS0)\_4TX

09/12/2019

## 2422MHz\_TX



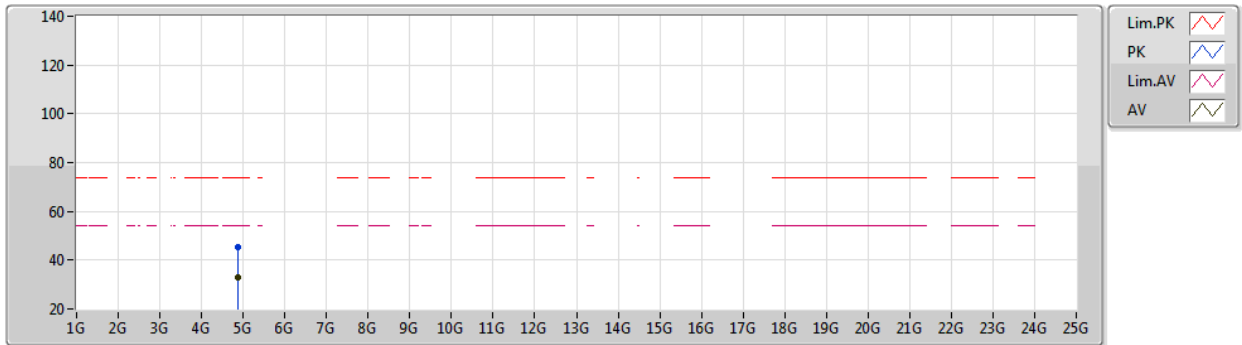
EUT X\_4TX  
Setting 21  
04-F-C-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.39G	68.98	74.00	-5.02	38.77	3	Horizontal	321	2.75	-	27.51	2.70	-
AV	2.39G	52.69	54.00	-1.31	22.48	3	Horizontal	321	2.75	-	27.51	2.70	-
PK	2.4196G	116.43	Inf	-Inf	86.15	3	Horizontal	321	2.75	-	27.58	2.70	-
AV	2.4112G	106.47	Inf	-Inf	76.23	3	Horizontal	321	2.75	-	27.54	2.70	-
PK	2.4864G	56.73	74.00	-17.27	26.18	3	Horizontal	321	2.75	-	27.85	2.70	-
AV	2.4835G	44.59	54.00	-9.41	14.06	3	Horizontal	321	2.75	-	27.83	2.70	-

# 802.11ax HEW40-BF\_Nss1,(MCS0)\_4TX

09/12/2019

## 2422MHz\_TX



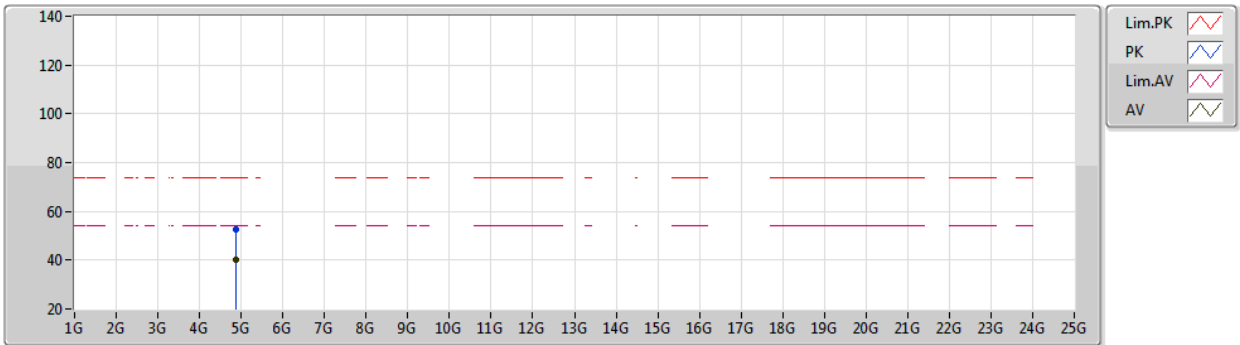
EUT X\_4TX  
Setting 21  
04-F-C-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.8642G	45.23	74.00	-28.77	41.48	3	Vertical	109	1.25	-	32.76	4.60	33.61
AV	4.869G	32.69	54.00	-21.31	28.92	3	Vertical	109	1.25	-	32.78	4.60	33.61

# 802.11ax HEW40-BF\_Nss1,(MCS0)\_4TX

09/12/2019

## 2422MHz\_TX



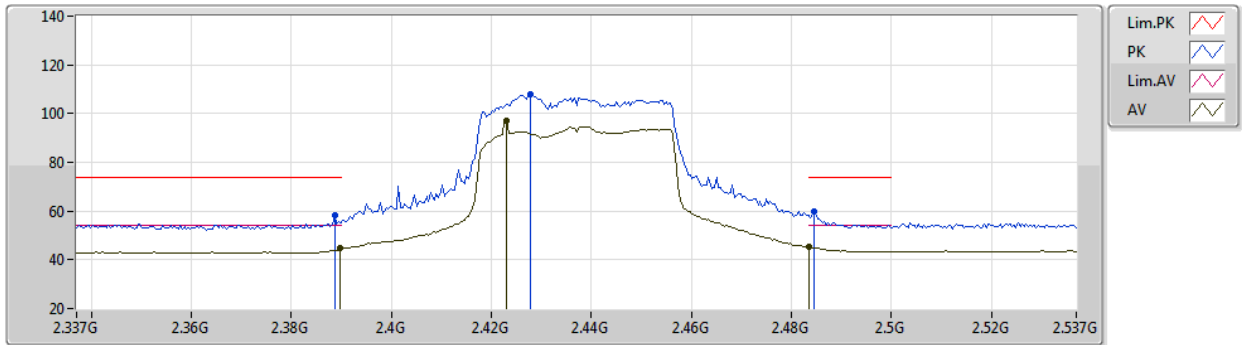
EUT X\_4TX  
Setting 21  
04-F-C-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.8604G	52.39	74.00	-21.61	48.68	3	Horizontal	58	1.80	-	32.74	4.59	33.62
AV	4.8675G	40.38	54.00	-13.62	36.62	3	Horizontal	58	1.80	-	32.77	4.60	33.61

# 802.11ax HEW40-BF\_Nss1,(MCS0)\_4TX

09/12/2019

## 2437MHz\_TX



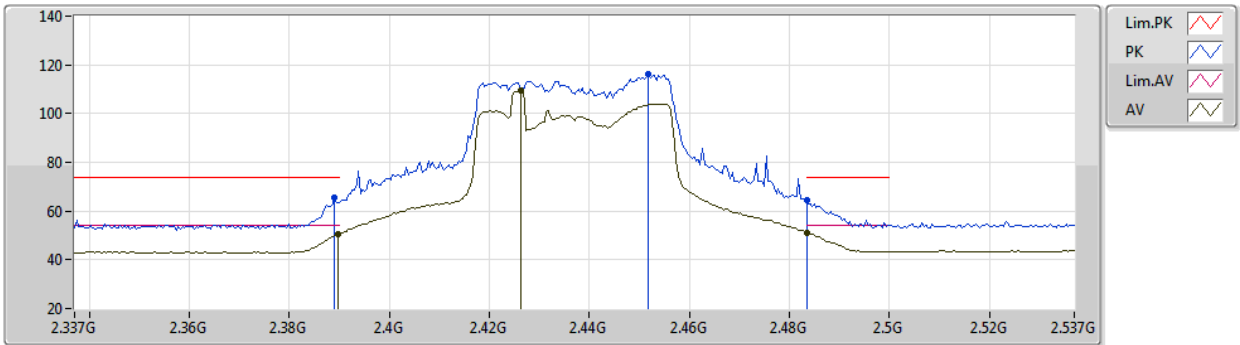
EUT X\_4TX  
Setting 21  
04-F-C-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3886G	58.26	74.00	-15.74	28.05	3	Vertical	0	2.82	-	27.51	2.70	-
AV	2.3898G	44.84	54.00	-9.16	14.63	3	Vertical	0	2.82	-	27.51	2.70	-
PK	2.4278G	107.85	Inf	-Inf	77.54	3	Vertical	0	2.82	-	27.61	2.70	-
AV	2.423G	97.09	Inf	-Inf	66.80	3	Vertical	0	2.82	-	27.59	2.70	-
PK	2.4846G	60.01	74.00	-13.99	29.47	3	Vertical	0	2.82	-	27.84	2.70	-
AV	2.4835G	45.24	54.00	-8.76	14.71	3	Vertical	0	2.82	-	27.83	2.70	-

# 802.11ax HEW40-BF\_Nss1,(MCS0)\_4TX

09/12/2019

## 2437MHz\_TX



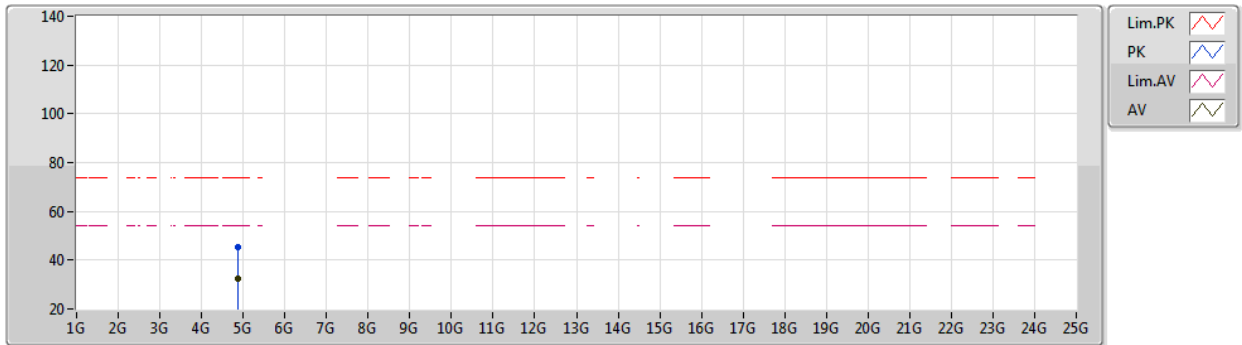
EUT X\_4TX  
Setting 21  
04-F-C-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.389G	65.36	74.00	-8.64	35.15	3	Horizontal	77	2.38	-	27.51	2.70	-
AV	2.3898G	50.67	54.00	-3.33	20.46	3	Horizontal	77	2.38	-	27.51	2.70	-
PK	2.4518G	116.07	Inf	-Inf	85.66	3	Horizontal	77	2.38	-	27.71	2.70	-
AV	2.4262G	109.69	Inf	-Inf	79.39	3	Horizontal	77	2.38	-	27.60	2.70	-
PK	2.4835G	64.27	74.00	-9.73	33.74	3	Horizontal	77	2.38	-	27.83	2.70	-
AV	2.4835G	51.12	54.00	-2.88	20.59	3	Horizontal	77	2.38	-	27.83	2.70	-

# 802.11ax HEW40-BF\_Nss1,(MCS0)\_4TX

09/12/2019

## 2437MHz\_TX



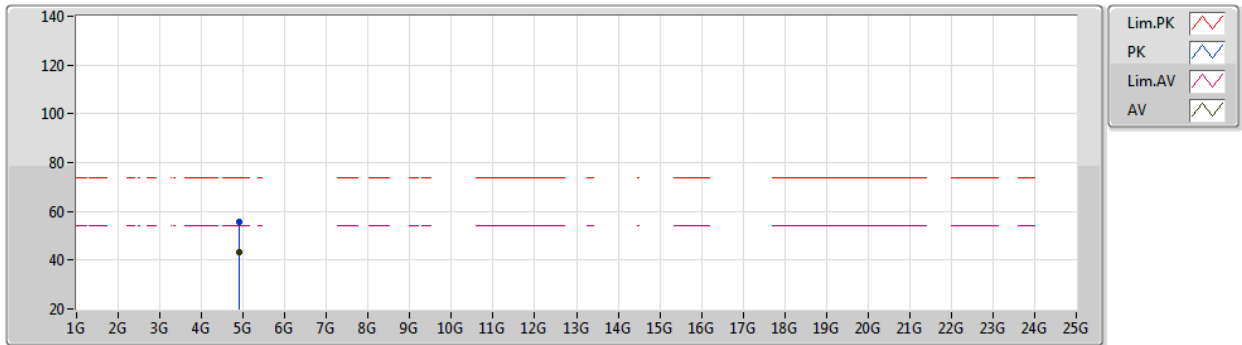
EUT X\_4TX  
Setting 21  
04-F-C-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.8803G	45.26	74.00	-28.74	41.43	3	Vertical	136	1.35	-	32.82	4.62	33.61
AV	4.8725G	32.29	54.00	-21.71	28.50	3	Vertical	136	1.35	-	32.79	4.61	33.61

# 802.11ax HEW40-BF\_Nss1,(MCS0)\_4TX

09/12/2019

## 2437MHz\_TX



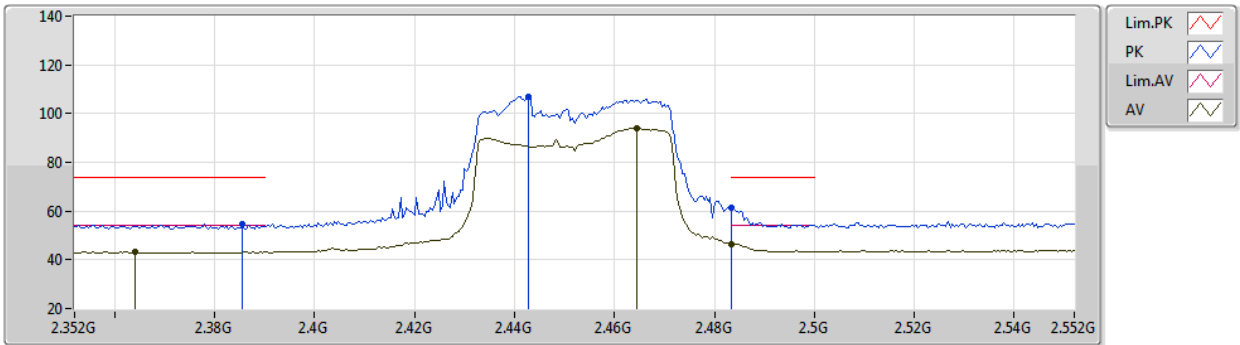
EUT X\_4TX  
Setting 21  
04-F-C-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.899G	55.68	74.00	-18.32	51.73	3	Horizontal	56	2.11	-	32.90	4.65	33.60
AV	4.8963G	43.27	54.00	-10.73	39.34	3	Horizontal	56	2.11	-	32.89	4.64	33.60

# 802.11ax HEW40-BF\_Nss1,(MCS0)\_4TX

09/12/2019

## 2452MHz\_TX



EUT X\_4TX  
Setting 19  
04-F-C-5

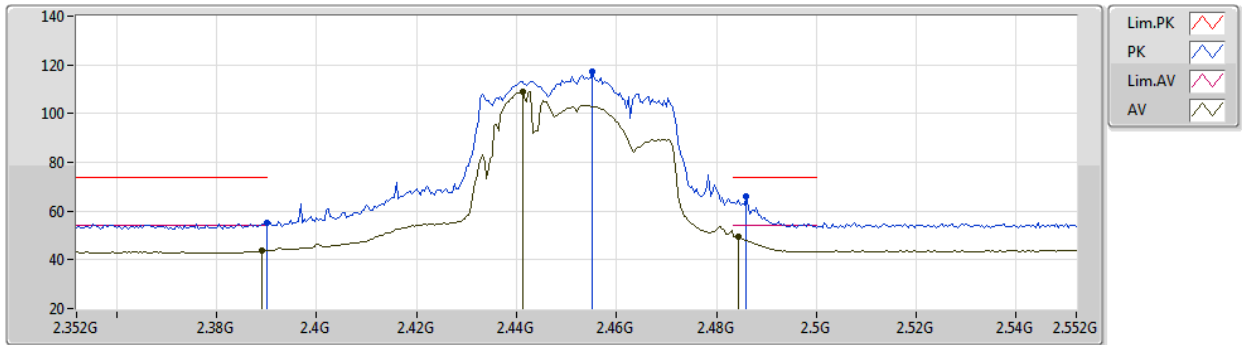
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3856G	54.53	74.00	-19.47	24.32	3	Vertical	15	2.94	-	27.51	2.70	-
AV	2.364G	43.18	54.00	-10.82	12.94	3	Vertical	15	2.94	-	27.54	2.70	-
PK	2.4428G	106.94	Inf	-Inf	76.57	3	Vertical	15	2.94	-	27.67	2.70	-
AV	2.4644G	94.05	Inf	-Inf	63.59	3	Vertical	15	2.94	-	27.76	2.70	-
PK	2.4835G	61.15	74.00	-12.85	30.62	3	Vertical	15	2.94	-	27.83	2.70	-
AV	2.4835G	46.63	54.00	-7.37	16.10	3	Vertical	15	2.94	-	27.83	2.70	-



# 802.11ax HEW40-BF\_Nss1,(MCS0)\_4TX

09/12/2019

## 2452MHz\_TX



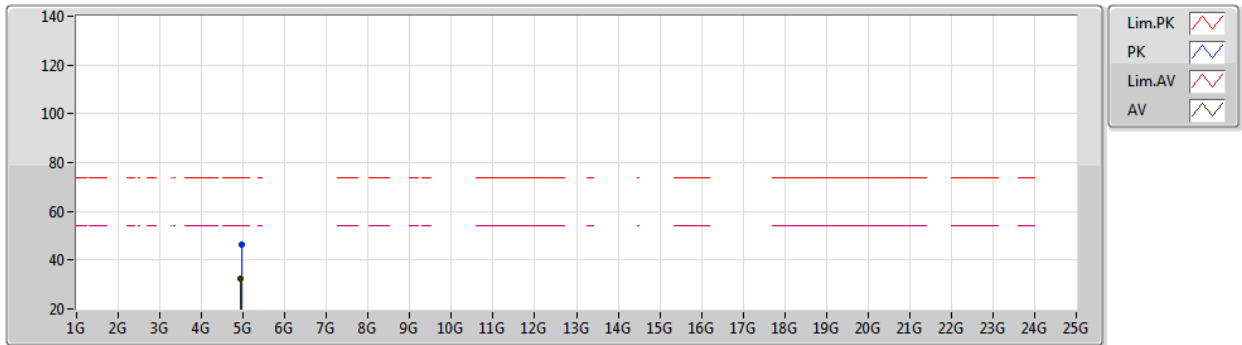
EUT X\_4TX  
Setting 19  
04-F-C-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.39G	55.33	74.00	-18.67	25.12	3	Horizontal	74	3.00	-	27.51	2.70	-
AV	2.3892G	43.83	54.00	-10.17	13.62	3	Horizontal	74	3.00	-	27.51	2.70	-
PK	2.4552G	117.05	Inf	-Inf	86.63	3	Horizontal	74	3.00	-	27.72	2.70	-
AV	2.4412G	109.22	Inf	-Inf	78.86	3	Horizontal	74	3.00	-	27.66	2.70	-
PK	2.486G	65.90	74.00	-8.10	35.36	3	Horizontal	74	3.00	-	27.84	2.70	-
AV	2.4844G	49.73	54.00	-4.27	19.19	3	Horizontal	74	3.00	-	27.84	2.70	-

# 802.11ax HEW40-BF\_Nss1,(MCS0)\_4TX

09/12/2019

## 2452MHz\_TX



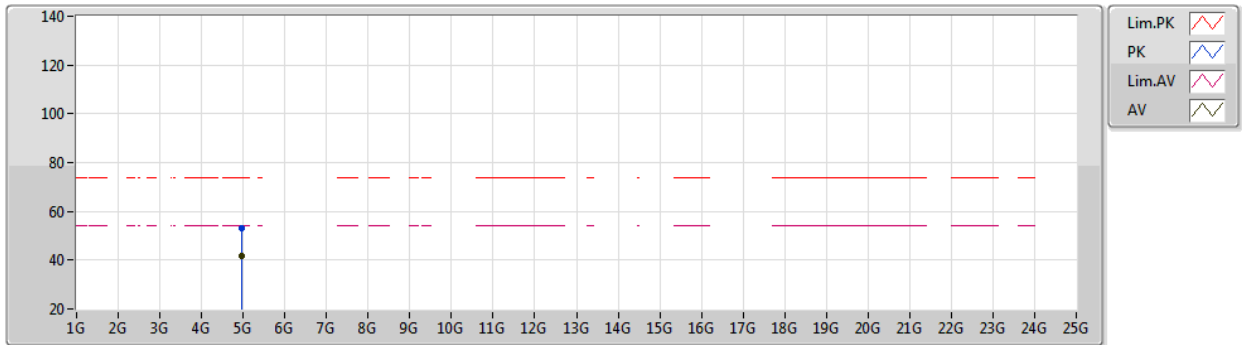
EUT X\_4TX  
Setting 19  
04-F-C-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)	
PK	4.9568G	46.31	74.00	-27.69	42.13	3	Vertical	79	1.00	-	33.01	4.74	33.57	
AV	4.9476G	32.58	54.00	-21.42	28.44	3	Vertical	79	1.00	-	33.00	4.72	33.58	

# 802.11ax HEW40-BF\_Nss1,(MCS0)\_4TX

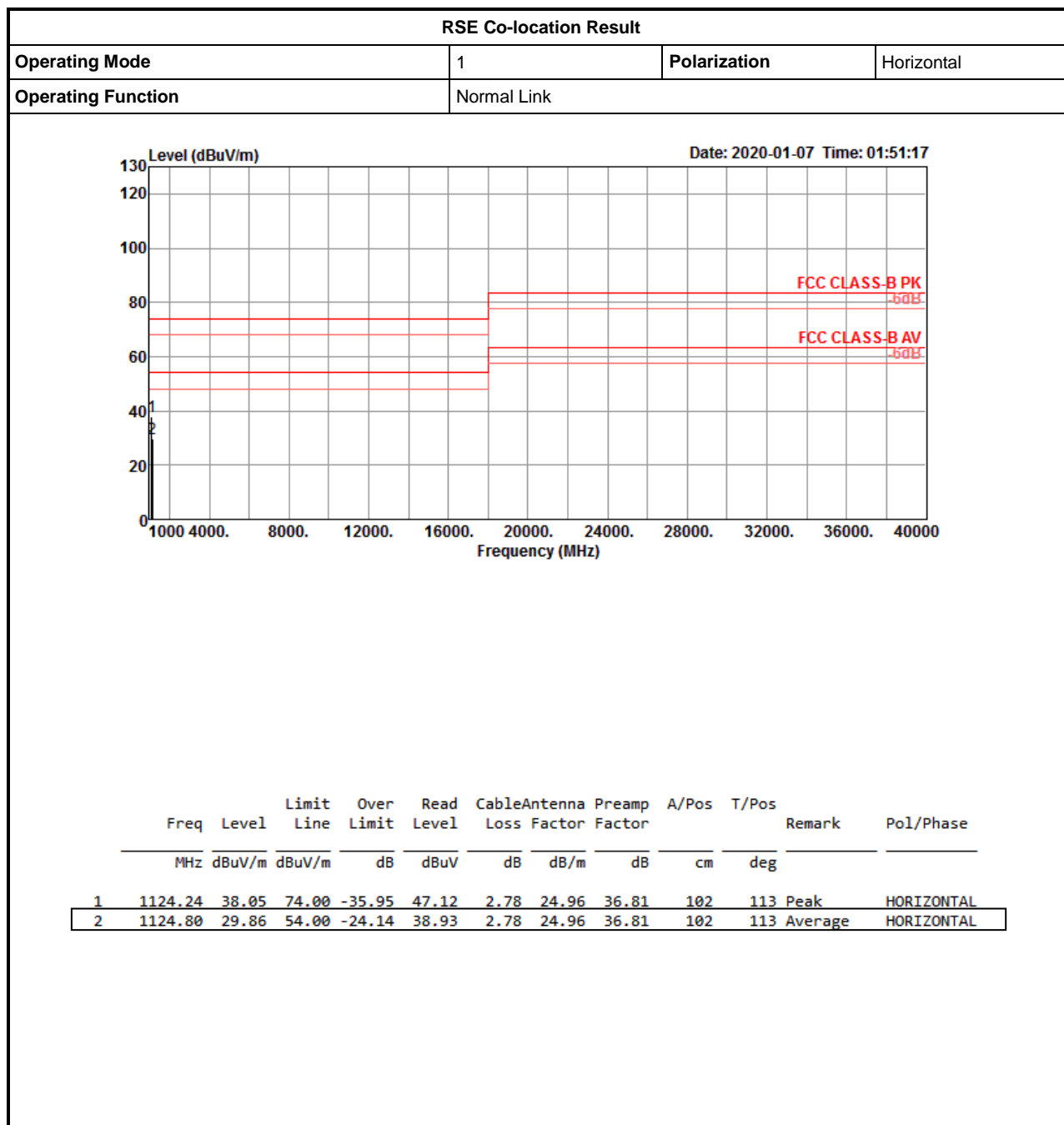
09/12/2019

## 2452MHz\_TX



EUT X\_4TX  
Setting 19  
04-F-C-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)	
PK	4.9608G	53.10	74.00	-20.90	48.91	3	Horizontal	265	1.85	-	33.02	4.74	33.57	
AV	4.9612G	41.96	54.00	-12.04	37.77	3	Horizontal	265	1.85	-	33.02	4.74	33.57	





## RSE Co-location Result

Appendix G

