

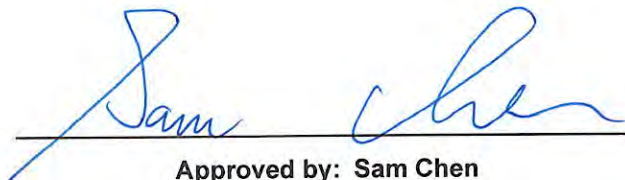


# RADIO TEST REPORT

FCC ID : XHG-CG770  
Equipment : CPE  
Brand Name : Jextream  
Model Name : CG770  
Applicant : Franklin Technology Inc.  
906 JEI Platz, 186, Gasan digital 1-ro,  
Gumcheon-Gu, Seoul, South Korea, 08502  
Manufacturer : Franklin Technology Inc.  
906 JEI Platz, 186, Gasan digital 1-ro,  
Gumcheon-Gu, Seoul, South Korea, 08502  
Standard : 47 CFR FCC Part 15.247

The product was received on Feb. 25, 2022, and testing was started from Mar. 08, 2022 and completed on May 05, 2022. We, Sporton International Inc. Hsinchu Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. Hsinchu Laboratory, the test report shall not be reproduced except in full.



Approved by: Sam Chen

**Sporton International Inc. Hsinchu Laboratory**

No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302010, Taiwan (R.O.C.)



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**Photographs of EUT v01**





### 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:**

1. The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers. It's means measurement values may risk exceeding the limit of regulation standards, if measurement uncertainty is include in test results.
2. The measurement uncertainty please refer to report "Measurement Uncertainty".

**Comments and Explanations:**

1. The test configuration, test mode and test software were written in this test report are declared by the manufacturer.
2. 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: **Penny Kao**



# 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), ax (HEW20)	2412-2462	1-11 [11]

Band	Mode	BWch (MHz)	Nant
2.4-2.4835GHz	802.11b	20	2TX
2.4-2.4835GHz	802.11g	20	2TX
2.4-2.4835GHz	802.11n HT20	20	2TX
2.4-2.4835GHz	802.11ax HEW20	20	2TX

**Note:**

- 11b mode uses a combination of DSSS-DBPSK, DQPSK, CCK modulation.
- 11g, HT20 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
- HEW20 use a combination of OFDMA-BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM modulation.
- BWch is the nominal channel bandwidth.



**1.1.2 Antenna Information**

For WWAN Function

Ant.	Brand	Model Name	Antenna Type	Connector	TX/RX Function	Gain (dBi)
1	Partron	APCMA1CG770	PCB Antenna	I-PEX	TX/RX	Note1
2	Partron	APCMA2CG770	PCB Antenna	I-PEX	RX	
3	Partron	APCMA3CG770	PCB Antenna	I-PEX	RX	
4	Partron	APCMA4CG770	PCB Antenna	I-PEX	TX/RX	
5	Partron	APCSB1CG770	PCB Antenna	I-PEX	RX	
6	Partron	APCSB2CG770	PCB Antenna	I-PEX	RX	

Note1:

Band	Uplink(UL) Frequency Range (MHz)	Downlink(DL) Frequency Range (MHz)	Ant. 1 Gain (dBi)	Ant. 2 Gain (dBi)	Ant. 3 Gain (dBi)	Ant. 4 Gain (dBi)	Ant. 5 Gain (dBi)	Ant. 6 Gain (dBi)
WCDMA Band 2	1850-1910	1930-1990	-4.68	-	-5.07	-	-	-
WCDMA Band 4	1710-1755	2110-2155	-2.09	-	-2.33	-	-	-
WCDMA Band 5	824-849	869-894	-2.51	-	-2.49	-	-	-
LTE Band 4	1710-1755	2110-2155	-2.09	-2.22	-2.33	-2.78	-	-
LTE Band 5	824-849	869-894	-2.51	-	-2.49	-	-	-
LTE Band 12	699-716	729-746	-	-3.94	-	-3.22	-	-
LTE Band 41	2496-2690		-2.77	-3.41	-3.33	-2.94	-	-
LTE Band 48 and 5G NR n48	3550-3700		-3.99	-4.44	-5.16	-4.55	-	-
LTE Band 66 and 5G NR n66	1710-1780	2110-2200	-2.09	-2.22	-2.33	-2.78	-	-

Note2: The above information was declared by manufacturer.

Note3:

**For 1TX/2RX (WCDMA Band 2, 4 and 5 / 4G Band 5):**

Only Ant. 1 can be used as transmitting functions.

Ant. 1 and Ant. 3 could receive simultaneously.

**For 1TX/2RX (4G Band 12):**

Only Ant. 4 can be used as transmitting functions.

Ant. 2 and Ant. 4 could receive simultaneously

**For 1TX/4RX (4G Band 41 and 48 / 5G Band n48,n66):**

Only Ant. 1 can be used as transmitting functions.

Ant. 1, 2, 3 and Ant. 4 could receive simultaneously.

**For 1TX/4RX (4G Band 4, 66):**

The EUT supports the Ant. 1 and Ant. 4 with TX diversity function.

At once time there is only one antenna port can transmitting RF signal

Ant. 1, 2, 3 and Ant. 4 could receive simultaneously.



For WLAN Function

Ant.	Port	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
7	1	Partron	APCBWCG770	PCB Antenna	I-PEX	Note1
8	2	Partron	APCBWCG770	PCB Antenna	I-PEX	

Note1:

Band	Ant. 7 Gain (dBi)	Ant. 8 Gain (dBi)
WLAN-2.4GHz	-2.2	-4.08
WLAN-5GHz	-4.28	-3.0

Note2: The above information was declared by manufacturer.

Note3:

**For 2.4GHz function:**

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

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

Port 1 and Port 2 could transmit/receive simultaneously.

**For 5GHz function:**

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

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

Port 1 and Port 2 could transmit/receive simultaneously.

Note4: Directional gain information

Type	Maximum Output Power	Power Spectral Density
Non-BF	Directional gain = Max.gain + array gain. For power measurements on IEEE 802.11 devices Array Gain = 0 dB (i.e., no array gain) for N ANT ≤ 4	$Directional\ Gain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{ANT}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right]$

Ex.

Directional Gain (NSS1) formula :

$$Directional\ Gain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{ANT}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right]$$

$$NSS1(g1,1) = 10^{G1/20} ; NSS1(g1,2) = 10^{G2/20} ; NSS1(g1,3) = 10^{G3/20} ; NSS1(g1,4) = 10^{G4/20}$$

$$g_{j,k} = (NSS1(g1,1) + NSS1(g1,2) + NSS1(g1,3) + NSS1(g1,4))^2$$

$$DG = 10 \log[(NSS1(g1,1) + NSS1(g1,2) + NSS1(g1,3) + NSS1(g1,4))^2 / N_{ANT}] => 10$$

$$\log[(10^{G1/20} + 10^{G2/20} + 10^{G3/20} + 10^{G4/20})^2 / N_{ANT}]$$

Where ;

$$2.4G = G1 = -2.2 ; G2 = -4.08$$

$$5G = G1 = -4.28 ; G2 = -3$$

$$2.4G\ DG = -0.08\ dBi$$

$$5\ GHz\ U-NII-1\ DG = -0.61\ dBi$$

$$5\ GHz\ U-NII-3\ DG = -0.61\ dBi$$



**1.1.3 Mode Test Duty Cycle**

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11b	0.979	0.09	690u	3k
802.11g	0.991	0.04	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11n HT20	0.996	0.02	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11ax HEW20	0.995	0.02	n/a (DC>=0.98)	n/a (DC>=0.98)

Note:

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

**1.1.4 EUT Operational Condition**

<b>EUT Power Type</b>	Form power adapter or battery		
<b>Beamforming Function</b>	<input type="checkbox"/> With beamforming	<input checked="" type="checkbox"/>	Without beamforming
<b>Function</b>	<input checked="" type="checkbox"/> Point-to-multipoint	<input type="checkbox"/>	Point-to-point
<b>Test Software Version</b>	QRCT v4.0.00189.0		

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 15.247
- ◆ ANSI C63.10-2013

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

- ◆ FCC KDB 558074 D01 v05r02
- ◆ FCC KDB 662911 D01 v02r01
- ◆ FCC KDB 414788 D01 v01r01

### 1.3 Testing Location Information

Testing Location Information	
Test Lab. : Sporton International Inc. Hsinchu Laboratory	
Hsinchu	ADD: No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302010, Taiwan (R.O.C.)
(TAF: 3787)	TEL: 886-3-656-9065      FAX: 886-3-656-9085
	Test site Designation No. TW3787 with FCC.
	Conformity Assessment Body Identifier (CABID) TW3787 with ISED.

Test Condition	Test Site No.	Test Engineer	Test Environment (°C / %)	Test Date
RF Conducted	TH03-CB	Lucas Huang	23.9-24.4 / 63-65	Mar. 08, 2022~ Apr. 13, 2022
Radiated Above 1GHz (Other test items)	03CH02-CB	Kevin Huang	23.8-24.9 / 55-58	Mar. 08, 2022~ May 05, 2022
Radiated Above 1GHz (Other test items), below 1GHz and Co-location	03CH05-CB		24.5-25.6 / 56-59	
AC Conduction	CO01-CB	Joe Chu	20~22 / 60~62	Mar. 25, 2022



## 1.4 Measurement Uncertainty

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2))

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	3.4 dB	Confidence levels of 95%
Radiated Emission (9kHz ~ 30MHz)	4.2 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	5.5 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	4.7 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	4.2 dB	Confidence levels of 95%
Conducted Emission	2.5 dB	Confidence levels of 95%
Output Power Measurement	1.3 dB	Confidence levels of 95%
Power Density Measurement	2.5 dB	Confidence levels of 95%
Bandwidth Measurement	0.9%	Confidence levels of 95%



## 2 Test Configuration of EUT

### 2.1 Test Channel Mode

Mode	Power Setting
802.11b_Nss1,(1Mbps)_2TX	-
2412MHz	18
2437MHz	18
2462MHz	18
802.11g_Nss1,(6Mbps)_2TX	-
2412MHz	16.5
2437MHz	16
2462MHz	16.5
802.11n HT20_Nss1,(MCS0)_2TX	-
2412MHz	14.5
2437MHz	14.5
2462MHz	14.5
802.11ax HEW20_Nss1,(MCS0)_2TX	-
2412MHz	13.5
2437MHz	13.5
2462MHz	14



## 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 Test Voltage: 120Vac / 60Hz
<b>Operating Mode</b>	Normal Link
1	EUT+WLAN 2.4GHz/5GHz+WAN+battery-powered from adapter
2	EUT+WLAN 2.4GHz/5GHz+WWAN-3G Band 2+battery-powered from adapter
3	EUT+WLAN 2.4GHz/5GHz+WWAN-4G Band 4+battery-powered from adapter
4	EUT+WLAN 2.4GHz/5GHz+WWAN-5G Band n66+battery-powered from adapter
For operating mode 1 is the worst case and it was record in this test report.	

The Worst Case Mode for Following Conformance Tests	
<b>Tests Item</b>	DTS Bandwidth Maximum Conducted Output Power Power Spectral Density
<b>Test Condition</b>	Conducted measurement at transmit chains

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



<b>Operating Mode &gt; 1GHz</b>	CTX
	The EUT was performed at X axis, Y axis and Z axis position. The worst case as below:
1	EUT in Z axis (Bandedge)
2	EUT in Y axis (Harmonic)

<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
	The EUT can be placed in X axis, Y axis and Z axis. EUT in Y axis has been evaluated to be the worst case at Emissions in Radiated measurement above 1GHz ; thus, the measurement will follow this same test
1	EUT in Y axis + WLAN 2.4GHz + WLAN 5GHz

Refer to Appendix G for Radiated Emission Co-location.

Note: The micro USB port can not be used by the end-user. It is generally used for debugging by engineers.

### **2.3 EUT Operation during Test**

For CTX Mode:

The EUT was programmed to be in continuously transmitting mode.

For Normal Link Mode:

During the test, the EUT operation to normal function.



## 2.4 Accessories

Accessories				
No.	Equipment Name	Brand Name	Model Name	Rating
1	Adapter	Franklin	APS-M024120200W-G	INPUT: 100-240V~50-60Hz, 0.6A Max. OUTPUT: 12V, 2.0A
2	Lithium Ion Polymer(LIP) battery	AE- Tech.	941-A05053-011	3.8V, 15.01Wh, 3950m4Ah

## 2.5 Support Equipment

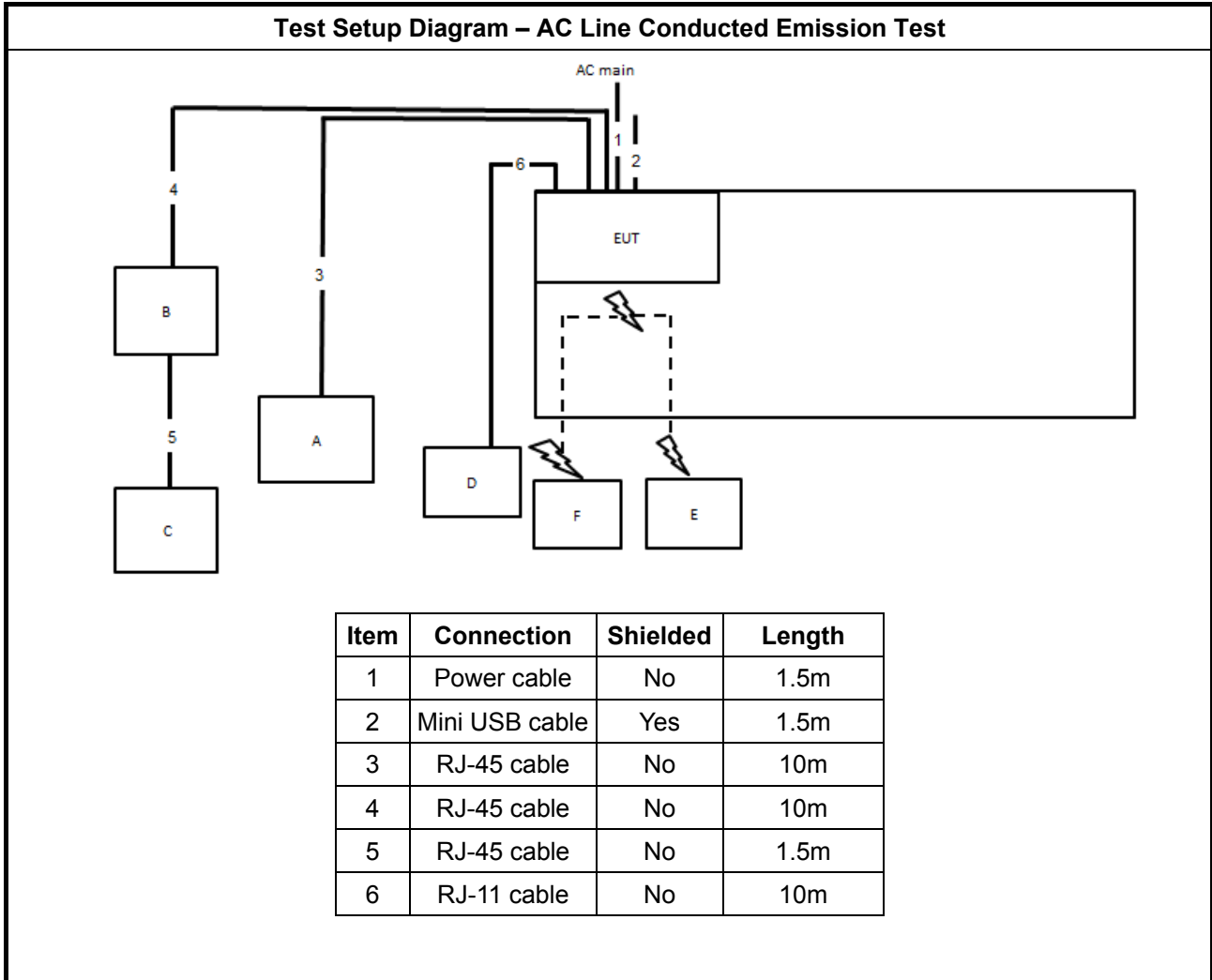
### For AC Conduction:

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	LAN NB	DELL	E6430	N/A
B	AP Router	ASUS	RP-N53	MSQ-RPN53
C	WAN NB	DELL	E6430	N/A
D	Phone	SAMPO	HT-B 907WL	N/A
E	5G NB	DELL	E6430	N/A
F	2.4G NB	DELL	E6430	N/A

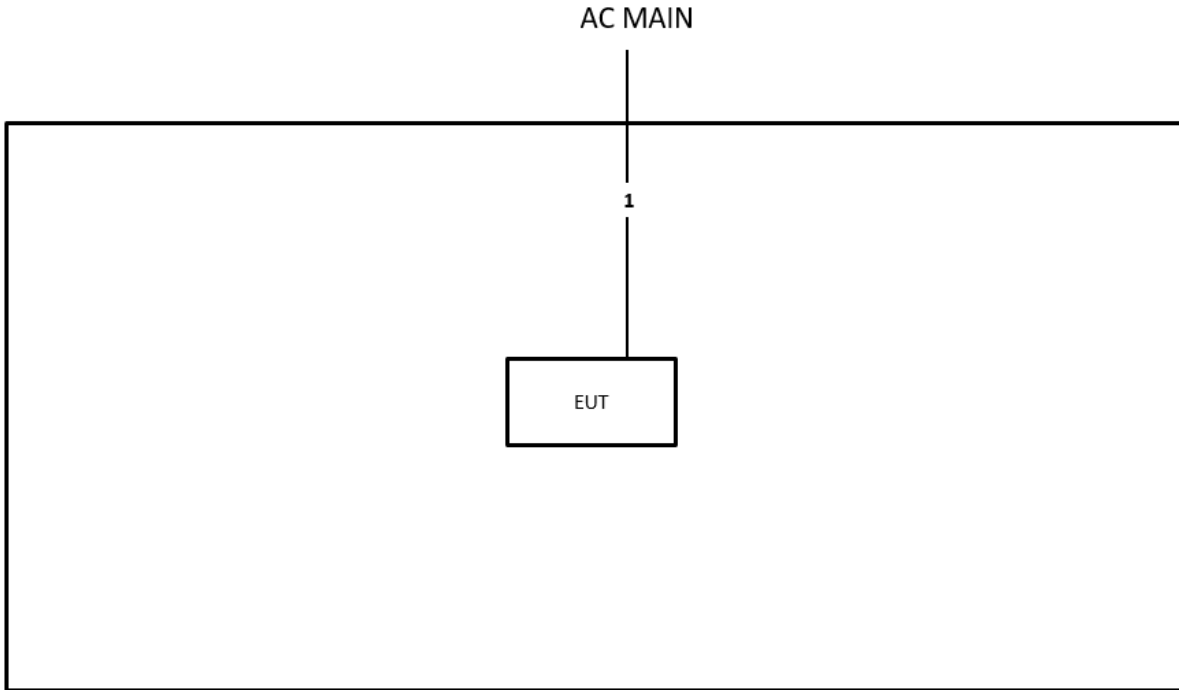
### For Radiated and RF Conducted:

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

## 2.6 Test Setup Diagram



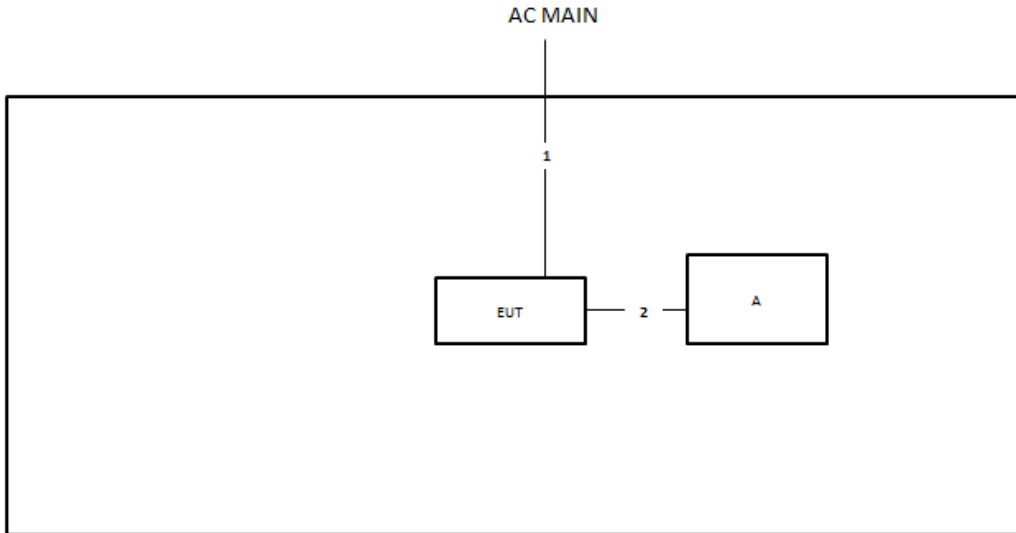
**Test Setup Diagram - Radiated Test <1GHz**



Item	Connection	Shielded	Length
1	Power cable	No	1.5m



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



Item	Connection	Shielded	Length
1	Power cable	No	1.5m
2	USB cable	No	1m



### 3 Transmitter Test Result

#### 3.1 AC Power-line Conducted Emissions

##### 3.1.1 AC Power-line Conducted Emissions Limit

AC Power-line Conducted Emissions Limit		
Frequency Emission (MHz)	Quasi-Peak	Average
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50

Note 1: \* Decreases with the logarithm of the frequency.

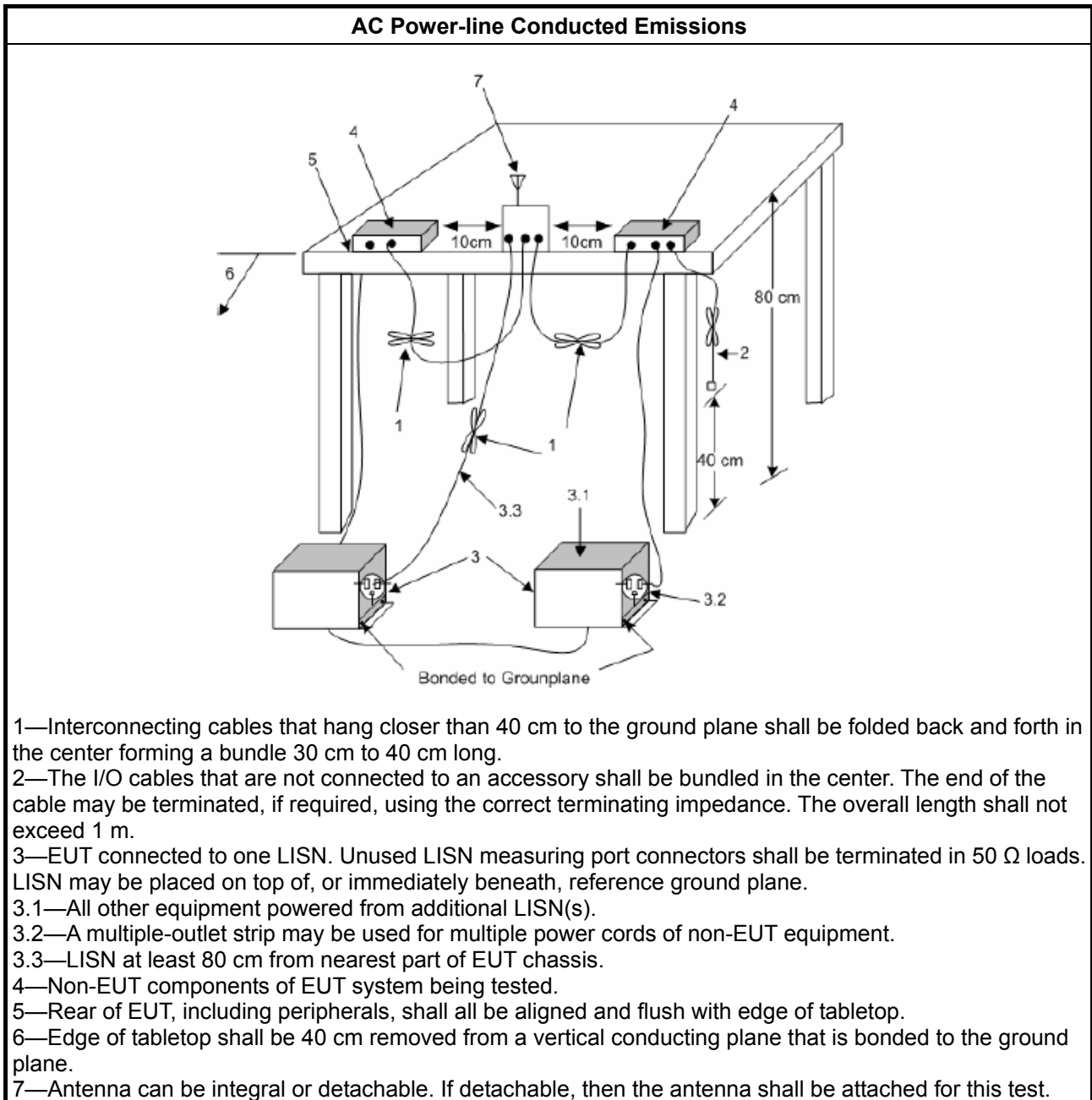
##### 3.1.2 Measuring Instruments

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

##### 3.1.3 Test Procedures

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

### 3.1.4 Test Setup



### 3.1.5 Measurement Results Calculation

The measured Level is calculated using:

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

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

Refer as Appendix A

### 3.2 DTS Bandwidth

#### 3.2.1 6dB Bandwidth Limit

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

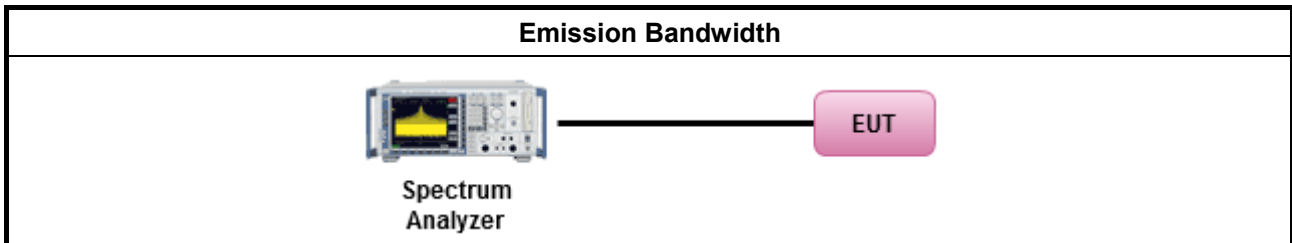
#### 3.2.2 Measuring Instruments

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

#### 3.2.3 Test Procedures

Test Method
<ul style="list-style-type: none"> <li>▪ For the emission bandwidth shall be measured using one of the options below:</li> </ul>
<input checked="" type="checkbox"/> Refer as FCC KDB 558074, clause 8.2 & C63.10 clause 11.8.1 Option 1 for 6 dB bandwidth measurement.
<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.2 & C63.10 clause 11.8.2 Option 2 for 6 dB bandwidth measurement.
<input type="checkbox"/> Refer as ANSI C63.10, clause 6.9.1 for occupied bandwidth testing.

#### 3.2.4 Test Setup



#### 3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B



### 3.3 Maximum Conducted Output Power

#### 3.3.1 Maximum Conducted Output Power Limit

Maximum Conducted Output Power Limit	
	<ul style="list-style-type: none"><li>▪ If <math>G_{TX} \leq 6</math> dBi, then <math>P_{Out} \leq 30</math> dBm (1 W)</li></ul>
	<ul style="list-style-type: none"><li>▪ Point-to-multipoint systems (P2M): If <math>G_{TX} &gt; 6</math> dBi, then <math>P_{Out} = 30 - (G_{TX} - 6)</math> dBm</li></ul>
	<ul style="list-style-type: none"><li>▪ Point-to-point systems (P2P): If <math>G_{TX} &gt; 6</math> dBi, then <math>P_{Out} = 30 - (G_{TX} - 6)/3</math> dBm</li></ul>
	<ul style="list-style-type: none"><li>▪ Smart antenna system (SAS):</li></ul>
	<ul style="list-style-type: none"><li>- Single beam: If <math>G_{TX} &gt; 6</math> dBi, then <math>P_{Out} = 30 - (G_{TX} - 6)/3</math> dBm</li></ul>
	<ul style="list-style-type: none"><li>- Overlap beam: If <math>G_{TX} &gt; 6</math> dBi, then <math>P_{Out} = 30 - (G_{TX} - 6)/3</math> dBm</li></ul>
	<ul style="list-style-type: none"><li>- Aggregate power on all beams: If <math>G_{TX} &gt; 6</math> dBi, then <math>P_{Out} = 30 - (G_{TX} - 6)/3 + 8</math> dB dBm</li></ul>
$P_{Out}$ = maximum peak conducted output power or maximum conducted output power in dBm, $G_{TX}$ = the maximum transmitting antenna directional gain in dBi.	

#### 3.3.2 Measuring Instruments

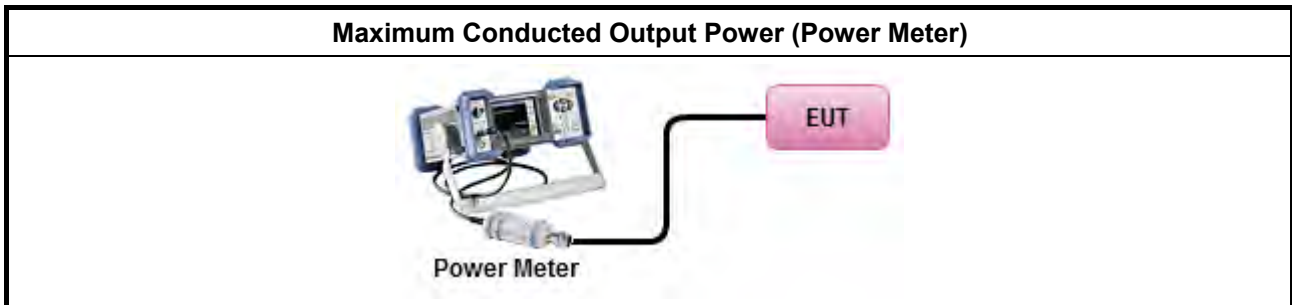
Refer a test equipment and calibration data table in this test report.



**3.3.3 Test Procedures**

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

### 3.3.4 Test Setup



### 3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C



### 3.4 Power Spectral Density

#### 3.4.1 Power Spectral Density Limit

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

#### 3.4.2 Measuring Instruments

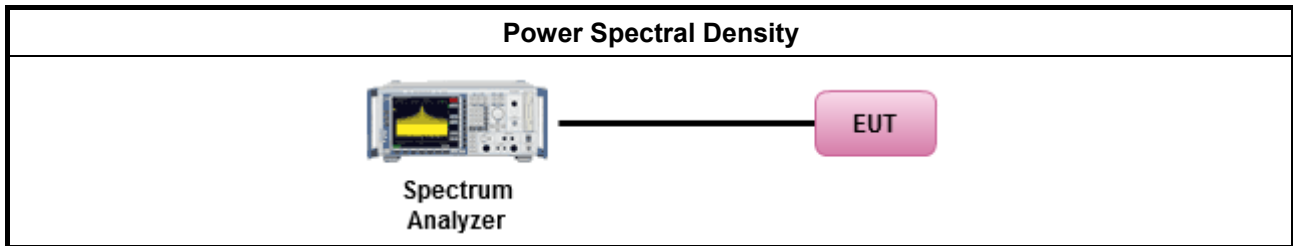
Refer a test equipment and calibration data table in this test report.

#### 3.4.3 Test Procedures

Test Method			
<ul style="list-style-type: none"> <li>Peak power spectral density procedures that the same method as used to determine the conducted output power. If maximum peak conducted output power was measured to demonstrate compliance to the output power limit, then the peak PSD procedure below (Method PKPSD) shall be used. If maximum conducted output power was measured to demonstrate compliance to the output power limit, then one of the average PSD procedures shall be used, as applicable based on the following criteria (the peak PSD procedure is also an acceptable option).</li> </ul>			
<input checked="" type="checkbox"/> Refer as FCC KDB 558074, clause 8.4 & C63.10 clause 11.10 Method Max. PSD.			
<ul style="list-style-type: none"> <li>For conducted measurement.             <ul style="list-style-type: none"> <li>If The EUT supports multiple transmit chains using options given below:                 <table border="1"> <tbody> <tr> <td> <input checked="" type="checkbox"/> Option 1: Measure and sum the spectra across the outputs. Refer as FCC KDB 662911, In-band power spectral density (PSD). Sample all transmit ports simultaneously using a spectrum analyzer for each transmit port. Where the trace bin-by-bin of each transmit port summing can be performed. (i.e., in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and that from the first spectral bin of output 3, and so on up to the NTX output to obtain the value for the first frequency bin of the summed spectrum.). Add up the amplitude (power) values for the different transmit chains and use this as the new data trace.                 </td> </tr> <tr> <td> <input type="checkbox"/> Option 2: Measure and sum spectral maxima across the outputs. With this technique, spectra are measured at each output of the device at the required resolution bandwidth. The maximum value (peak) of each spectrum is determined. These maximum values are then summed mathematically in linear power units across the outputs. These operations shall be performed separately over frequency spans that have different out-of-band or spurious emission limits,                 </td> </tr> <tr> <td> <input type="checkbox"/> Option 3: Measure and add 10 log(N) dB, where N is the number of transmit chains. Refer as FCC KDB 662911, In-band power spectral density (PSD). Performed at each transmit chains and each transmit chains shall be compared with the limit have been reduced with 10 log(N). Or each transmit chains shall be add 10 log(N) to compared with the limit.                 </td> </tr> </tbody> </table> </li> </ul> </li> </ul>	<input checked="" type="checkbox"/> Option 1: Measure and sum the spectra across the outputs. Refer as FCC KDB 662911, In-band power spectral density (PSD). Sample all transmit ports simultaneously using a spectrum analyzer for each transmit port. Where the trace bin-by-bin of each transmit port summing can be performed. (i.e., in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and that from the first spectral bin of output 3, and so on up to the NTX output to obtain the value for the first frequency bin of the summed spectrum.). Add up the amplitude (power) values for the different transmit chains and use this as the new data trace.	<input type="checkbox"/> Option 2: Measure and sum spectral maxima across the outputs. With this technique, spectra are measured at each output of the device at the required resolution bandwidth. The maximum value (peak) of each spectrum is determined. These maximum values are then summed mathematically in linear power units across the outputs. These operations shall be performed separately over frequency spans that have different out-of-band or spurious emission limits,	<input type="checkbox"/> Option 3: Measure and add 10 log(N) dB, where N is the number of transmit chains. Refer as FCC KDB 662911, In-band power spectral density (PSD). Performed at each transmit chains and each transmit chains shall be compared with the limit have been reduced with 10 log(N). Or each transmit chains shall be add 10 log(N) to compared with the limit.
<input checked="" type="checkbox"/> Option 1: Measure and sum the spectra across the outputs. Refer as FCC KDB 662911, In-band power spectral density (PSD). Sample all transmit ports simultaneously using a spectrum analyzer for each transmit port. Where the trace bin-by-bin of each transmit port summing can be performed. (i.e., in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and that from the first spectral bin of output 3, and so on up to the NTX output to obtain the value for the first frequency bin of the summed spectrum.). Add up the amplitude (power) values for the different transmit chains and use this as the new data trace.			
<input type="checkbox"/> Option 2: Measure and sum spectral maxima across the outputs. With this technique, spectra are measured at each output of the device at the required resolution bandwidth. The maximum value (peak) of each spectrum is determined. These maximum values are then summed mathematically in linear power units across the outputs. These operations shall be performed separately over frequency spans that have different out-of-band or spurious emission limits,			
<input type="checkbox"/> Option 3: Measure and add 10 log(N) dB, where N is the number of transmit chains. Refer as FCC KDB 662911, In-band power spectral density (PSD). Performed at each transmit chains and each transmit chains shall be compared with the limit have been reduced with 10 log(N). Or each transmit chains shall be add 10 log(N) to compared with the limit.			



### 3.4.4 Test Setup



### 3.4.5 Test Result of Power Spectral Density

Refer as Appendix D

### 3.5 Emissions in Non-restricted Frequency Bands

#### 3.5.1 Emissions in Non-restricted Frequency Bands Limit

Un-restricted Band Emissions Limit	
RF output power procedure	Limit (dBc)
Peak output power procedure	20
Average output power procedure	30

Note 1: If the peak output power procedure is used to measure the fundamental emission power to demonstrate compliance to requirements, then the peak conducted output power measured within any 100 kHz outside the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum measured in-band peak PSD level.

Note 2: If the average output power procedure is used to measure the fundamental emission power to demonstrate compliance to requirements, then the power in any 100 kHz outside of the authorized frequency band shall be attenuated by at least 30 dB relative to the maximum measured in-band average PSD level.

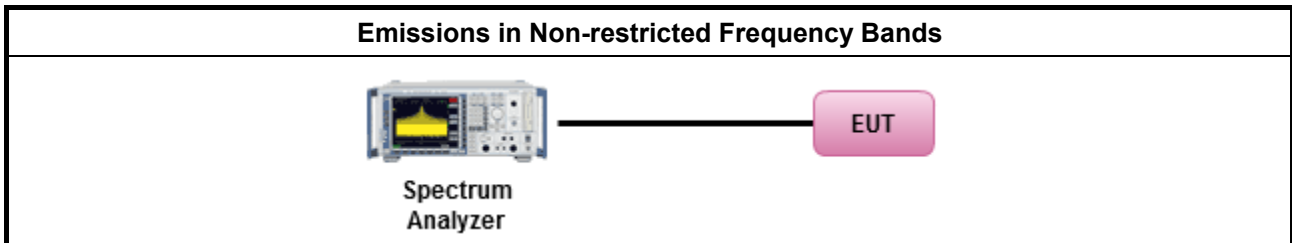
#### 3.5.2 Measuring Instruments

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

#### 3.5.3 Test Procedures

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

#### 3.5.4 Test Setup



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

Refer as Appendix E



### 3.6 Emissions in Restricted Frequency Bands

#### 3.6.1 Emissions in Restricted Frequency Bands Limit

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

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

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

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

#### 3.6.2 Measuring Instruments

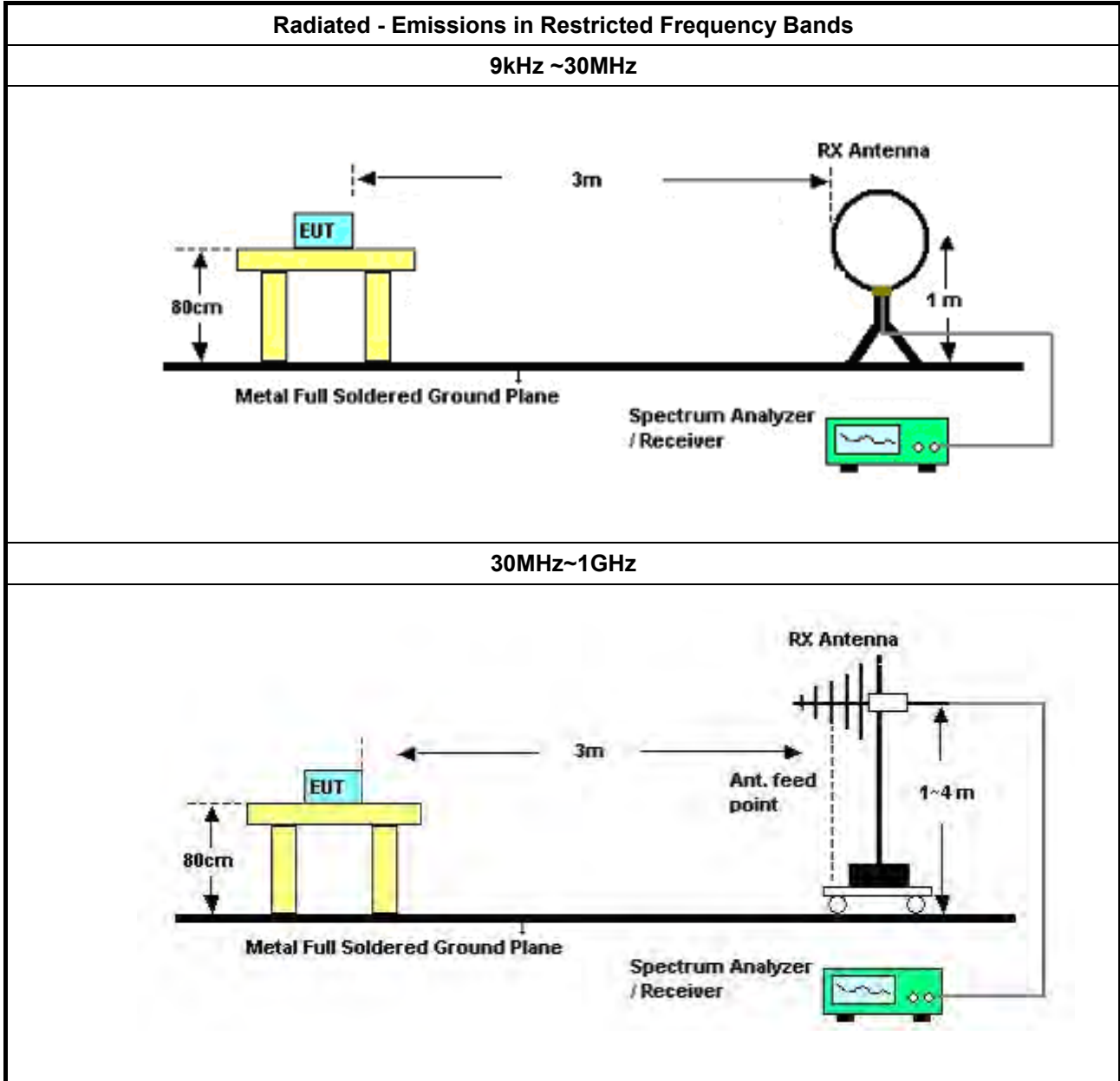
Refer a test equipment and calibration data table in this test report.

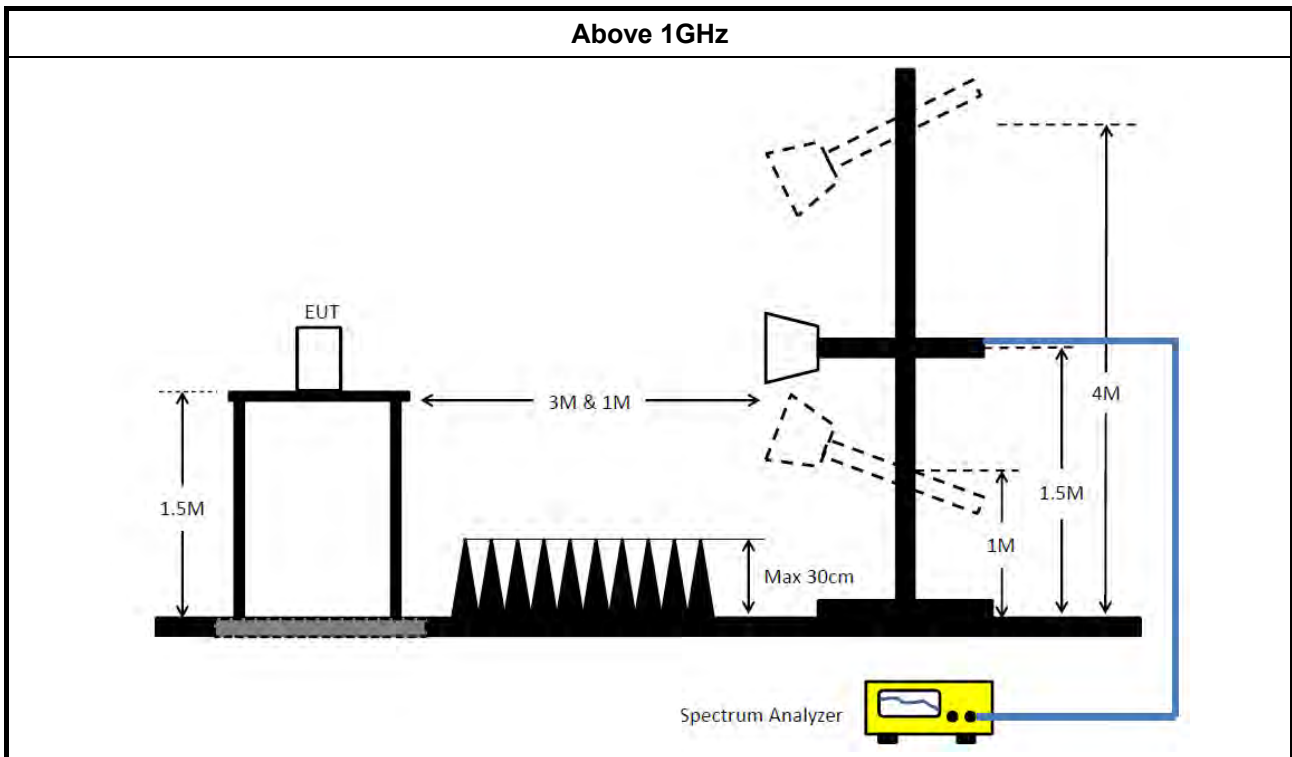


**3.6.3 Test Procedures**

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

**3.6.4 Test Setup**





**3.6.5 Measurement Results Calculation**

The measured Level is calculated using:

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

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

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

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

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

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

Refer as Appendix F



## 4 Test Equipment and Calibration Data

Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
EMI Receiver	Agilent	N9038A	My52260123	9kHz ~ 8.4GHz	Feb. 22, 2022	Feb. 21, 2023	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-50-16-2	04083	150kHz ~ 100MHz	Feb. 09, 2022	Feb. 08, 2023	Conduction (CO01-CB)
LISN	Schwarzbeck	NSLK 8127	8127650	9kHz ~ 30MHz	Jan. 07, 2022	Jan. 06, 2023	Conduction (CO01-CB)
Pulse Limiter	Rohde&Schwarz	ESH3-Z2	100430	9kHz ~ 30MHz	Feb. 10, 2022	Feb. 09, 2023	Conduction (CO01-CB)
COND Cable	Woken	Cable	Low cable-CO01	9kHz ~ 30MHz	May 19, 2021	May 18, 2022	Conduction (CO01-CB)
Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conduction (CO01-CB)
3m Semi Anechoic Chamber (NSA)	RIKEN	SAC-3M	03CH02-CB	30 MHz ~ 1 GHz	Mar. 27, 2021	Mar. 26, 2022	Radiation (03CH02-CB)
3m Semi Anechoic Chamber NSA	RIKEN	SAC-3M	03CH02-CB	30 MHz ~ 1 GHz	Mar. 26, 2022	Mar. 25, 2023	Radiation (03CH02-CB)
3m Semi Anechoic Chamber VSWR	RIKEN	SAC-3M	03CH02-CB	1GHz ~18GHz 3m	Mar. 27, 2021	Mar. 26, 2022	Radiation (03CH02-CB)
3m Semi Anechoic Chamber VSWR	RIKEN	SAC-3M	03CH02-CB	1GHz ~18GHz	Mar. 26, 2022	Mar. 25, 2023	Radiation (03CH02-CB)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1370	1GHz~18GHz	Sep. 14, 2021	Sep. 13, 2022	Radiation (03CH02-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Aug. 05, 2021	Aug. 04, 2022	Radiation (03CH02-CB)
Pre-Amplifier	Agilent	83017A	MY39501305	1GHz ~ 26.5GHz	Jul. 12, 2021	Jul. 11, 2022	Radiation (03CH02-CB)
Pre-Amplifier	MITEQ	TTA1840-35-HG	1864479	18GHz ~ 40GHz	Jul. 13, 2021	Jul. 12, 2022	Radiation (03CH02-CB)
Spectrum analyzer	R&S	FSU	100015	9kHz~26GHz	Oct. 25, 2021	Oct. 24, 2022	Radiation (03CH02-CB)
RF Cable-high	Woken	RG402	High Cable-18	1GHz ~ 18GHz	Oct. 04, 2021	Oct. 03, 2022	Radiation (03CH02-CB)
RF Cable-high	Woken	RG402	High Cable-18+19	1GHz ~ 18GHz	Oct. 04, 2021	Oct. 03, 2022	Radiation (03CH02-CB)
High Cable	Woken	WCA0929M	40G#5+7	1GHz ~ 40 GHz	Dec. 14, 2021	Dec. 13, 2022	Radiation (03CH02-CB)
High Cable	Woken	WCA0929M	40G#5	1GHz ~ 40 GHz	Dec. 08, 2021	Dec. 07, 2022	Radiation (03CH02-CB)
High Cable	Woken	WCA0929M	40G#7	1GHz ~ 40 GHz	Dec. 14, 2021	Dec. 13, 2022	Radiation (03CH02-CB)



Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH02-CB)
3m Semi Anechoic Chamber NSA	TDK	SAC-3M	03CH05-CB	30 MHz ~ 1 GHz	Aug. 09, 2021	Aug. 08, 2022	Radiation (03CH05-CB)
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH05-CB	1GHz ~18GHz 3m	Nov. 07, 2021	Nov. 06, 2022	Radiation (03CH05-CB)
Bilog Antenna with 6dB Attenuator	TESEQ & EMC	CBL 6112D & N-6-06	35236 & AT-N0610	30MHz ~ 2GHz	Mar. 26, 2021	Mar. 25, 2022	Radiation (03CH05-CB)
Bilog Antenna with 6dB Attenuator	TESEQ & EMC	CBL 6112D & N-6-06	35236 & AT-N0610	30MHz ~ 2GHz	Mar. 25, 2022	Mar. 24, 2023	Radiation (03CH05-CB)
Horn Antenna	SCHWARZBECK	BBHA9120D	BBHA 9120 D-1291	1GHz~18GHz	Oct. 14, 2021	Oct. 13, 2022	Radiation (03CH05-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Aug. 05, 2021	Aug. 04, 2022	Radiation (03CH05-CB)
Pre-Amplifier	EMCI	EMC330N	980331	20MHz ~ 3GHz	Apr. 27, 2021	Apr. 26, 2022	Radiation (03CH05-CB)
Pre-Amplifier	EMCI	EMC330N	980331	20MHz ~ 3GHz	Apr. 26, 2022	Apr. 25, 2023	Radiation (03CH05-CB)
Pre-Amplifier	EMCI	EMC12630SE	980287	1GHz ~ 26.5GHz	Jul. 02, 2021	Jul. 01, 2022	Radiation (03CH05-CB)
Pre-Amplifier	MITEQ	TTA1840-35-HG	1864479	18GHz ~ 40GHz	Jul. 13, 2021	Jul. 12, 2022	Radiation (03CH05-CB)
Signal Analyzer	R&S	FSV40	101903	9kHz ~ 40GHz	Mar. 22, 2021	Mar. 21, 2022	Radiation (03CH05-CB)
Spectrum Analyzer	R&S	FSP40	100304	9kHz ~ 40GHz	Mar. 14, 2022	Mar. 13, 2023	Radiation (03CH05-CB)
EMI Test Receiver	R&S	ESCS	826547/017	9kHz ~ 2.75GHz	Jun. 21, 2021	Jun. 20, 2022	Radiation (03CH05-CB)
RF Cable-low	Woken	RG402	Low Cable-04+23	30MHz~1GHz	Oct. 13, 2021	Oct. 12, 2022	Radiation (03CH05-CB)
RF Cable-high	Woken	RG402	High Cable-28	1GHz~18GHz	Oct. 13, 2021	Oct. 12, 2022	Radiation (03CH05-CB)
RF Cable-high	Woken	RG402	High Cable-04+28	1GHz~18GHz	Oct. 13, 2021	Oct. 12, 2022	Radiation (03CH05-CB)
High Cable	Woken	WCA0929M	40G#5+7	1GHz ~ 40 GHz	Dec. 14, 2021	Dec. 13, 2022	Radiation (03CH05-CB)
High Cable	Woken	WCA0929M	40G#5	1GHz ~ 40 GHz	Dec. 08, 2021	Dec. 07, 2022	Radiation (03CH05-CB)
High Cable	Woken	WCA0929M	40G#7	1GHz ~ 40 GHz	Dec. 14, 2021	Dec. 13, 2022	Radiation (03CH05-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH05-CB)
Spectrum analyzer	R&S	FSV40	101028	9kHz~40GHz	Jan. 07, 2022	Jan. 06, 2023	Conducted (TH03-CB)





Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
Power Sensor	Anritsu	MA2411B	1726195	300MHz~40GHz	Aug. 22, 2021	Aug. 21, 2022	Conducted (TH03-CB)
Power Meter	Anritsu	ML2495A	1035008	300MHz~40GHz	Aug. 22, 2021	Aug. 21, 2022	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-11	1 GHz –18 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-12	1 GHz –18 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-13	1 GHz –18 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-14	1 GHz –18 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-15	1 GHz –18 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH03-CB)
Switch	SPTCB	SP-SWI	SWI-03	1 GHz –26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	SWI-03-P1	1 GHz –26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	SWI-03-P2	1 GHz –26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	SWI-03-P3	1 GHz –26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	SWI-03-P4	1 GHz –26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	SWI-03-P5	1 GHz –26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH03-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conducted (TH03-CB)

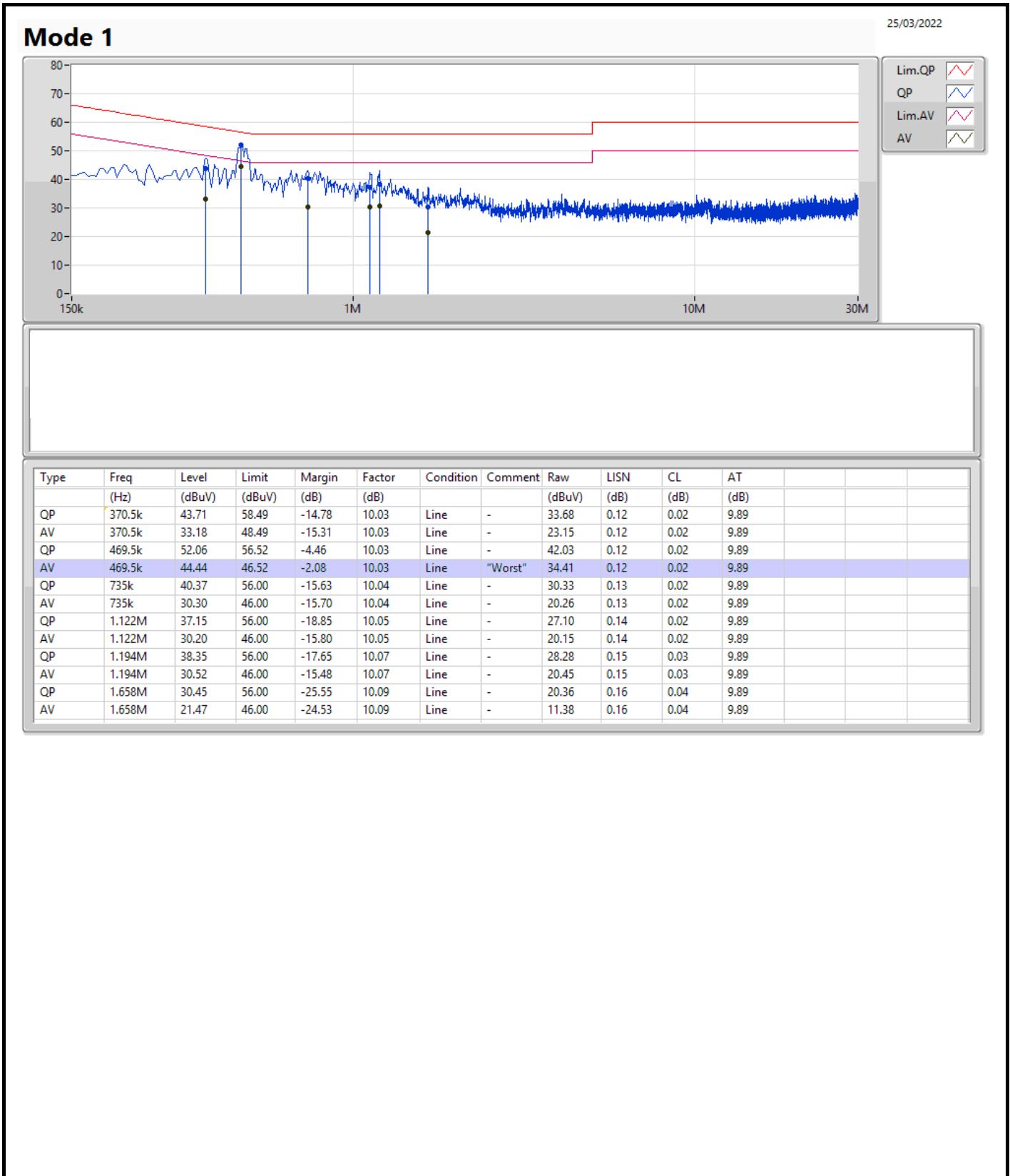
Note: Calibration Interval of instruments listed above is one year.

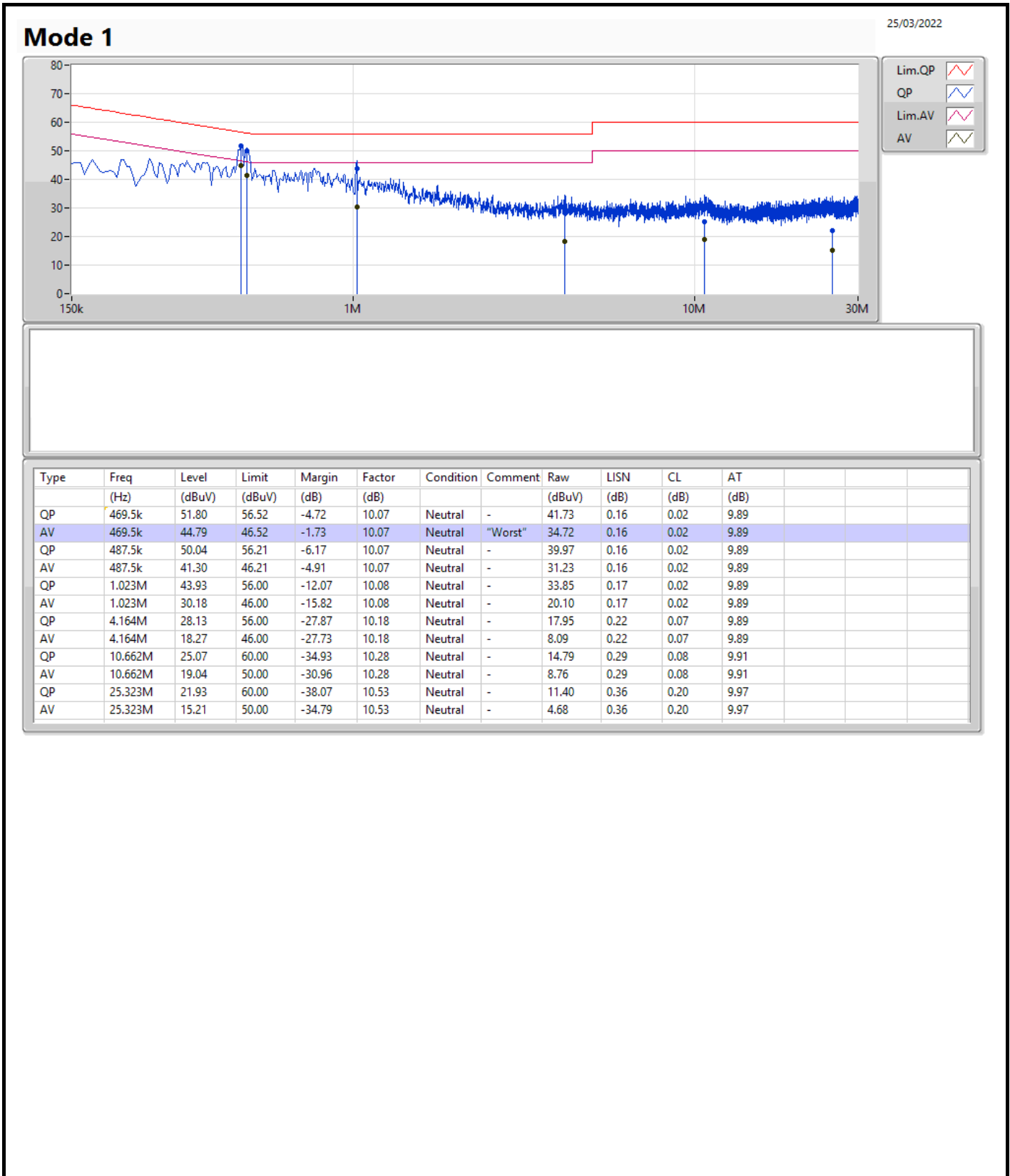
NCR means Non-Calibration required.



**Summary**

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	AV	469.5k	44.79	46.52	-1.73	Neutral





**Summary**

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
2.4-2.4835GHz	-	-	-	-	-
802.11b_Nss1,(1Mbps)_2TX	8.075M	13.093M	13M1G1D	7.55M	12.744M
802.11g_Nss1,(6Mbps)_2TX	16.3M	16.442M	16M4D1D	15.45M	16.367M
802.11n HT20_Nss1,(MCS0)_2TX	17.3M	17.675M	17M7D1D	15.025M	17.55M
802.11ax HEW20_Nss1,(MCS0)_2TX	18.925M	18.966M	19M0D1D	17.95M	18.866M

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

Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	8.075M	13.068M	8.05M	13.093M
2437MHz	Pass	500k	8.025M	12.994M	7.55M	12.969M
2462MHz	Pass	500k	8.05M	12.744M	8.05M	12.869M
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	16.275M	16.417M	16.3M	16.442M
2437MHz	Pass	500k	15.675M	16.392M	16.3M	16.417M
2462MHz	Pass	500k	15.45M	16.367M	16.275M	16.367M
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	17.3M	17.625M	16.9M	17.675M
2437MHz	Pass	500k	16.5M	17.65M	17.125M	17.65M
2462MHz	Pass	500k	15.025M	17.55M	17.15M	17.55M
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	18.325M	18.891M	17.95M	18.891M
2437MHz	Pass	500k	18.925M	18.916M	18.775M	18.966M
2462MHz	Pass	500k	18.2M	18.866M	18.1M	18.866M

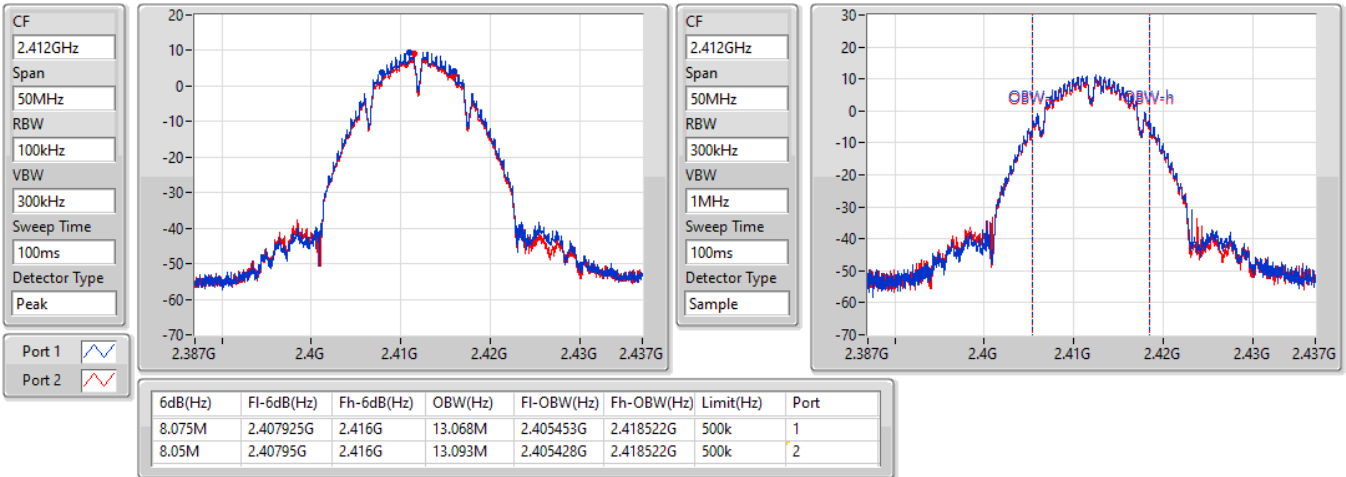
Port X-N dB = Port X 6dB down bandwidth;  
 Port X-OBW = Port X 99% occupied bandwidth

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

EBW

2412MHz

10/03/2022

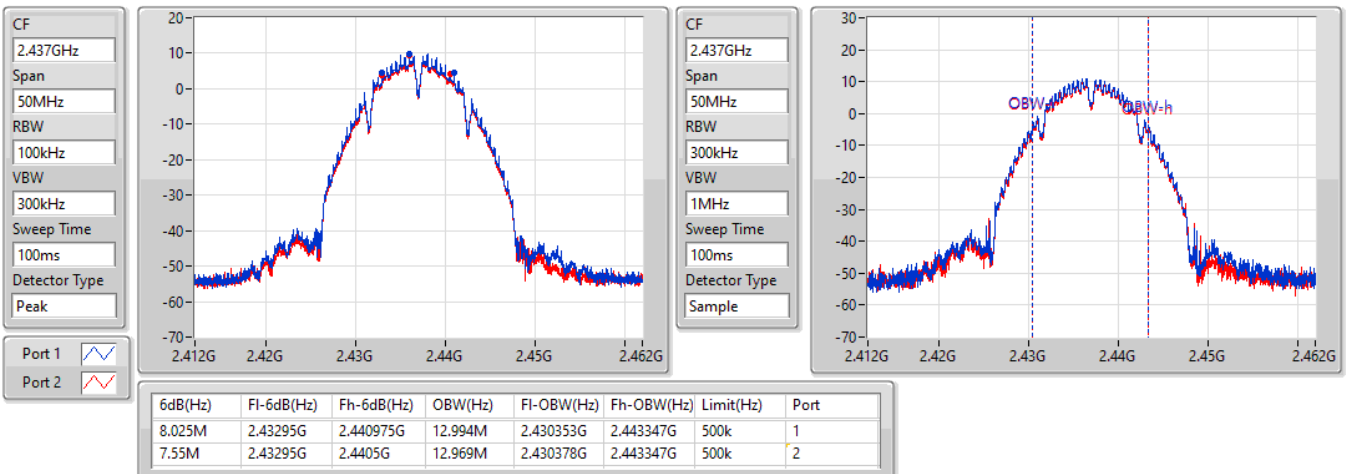


### 802.11b\_Nss1,(1Mbps)\_2TX

EBW

2437MHz

10/03/2022

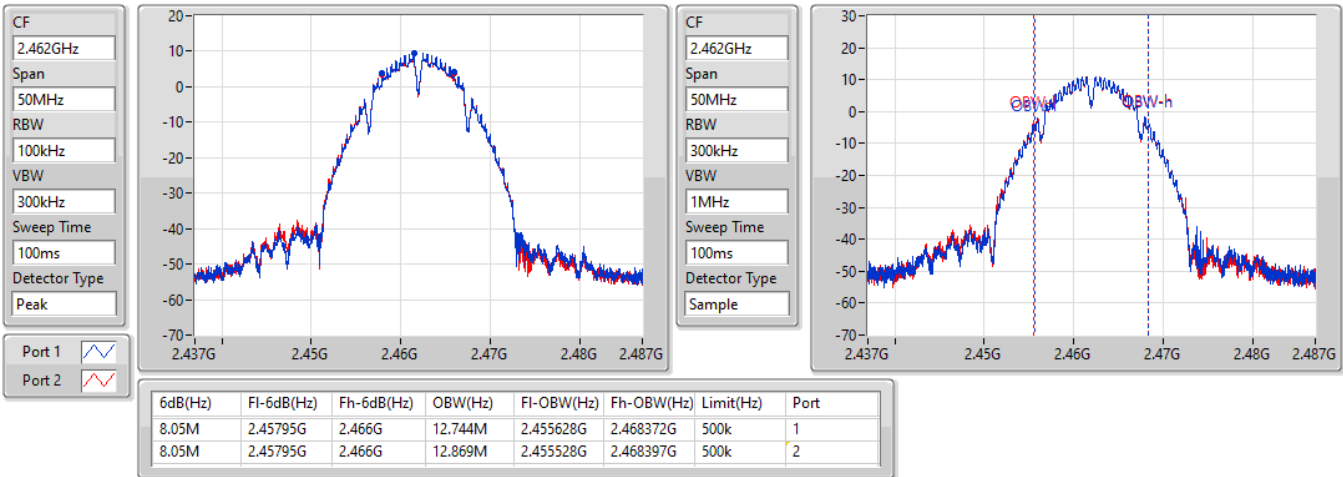


### 802.11b\_Nss1,(1Mbps)\_2TX

EBW

2462MHz

10/03/2022

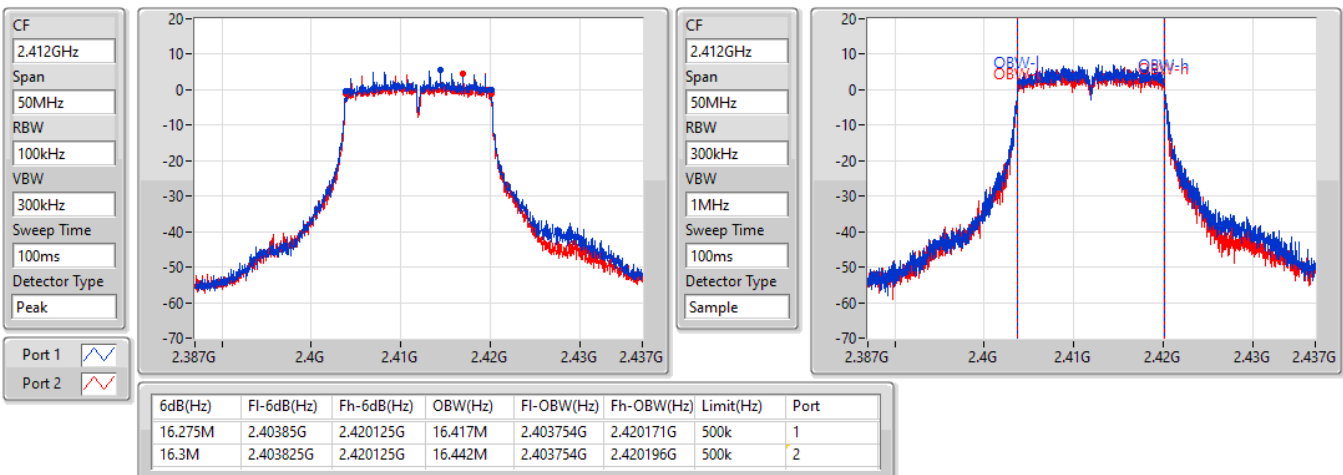


### 802.11g\_Nss1,(6Mbps)\_2TX

EBW

2412MHz

10/03/2022



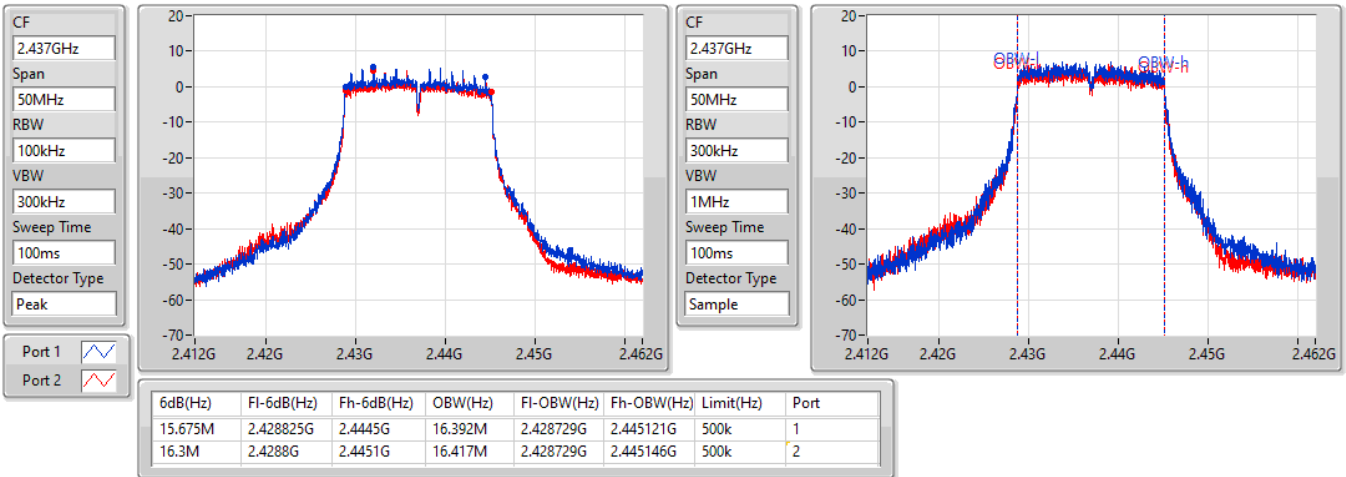


802.11g\_Nss1,(6Mbps)\_2TX

EBW

2437MHz

10/03/2022

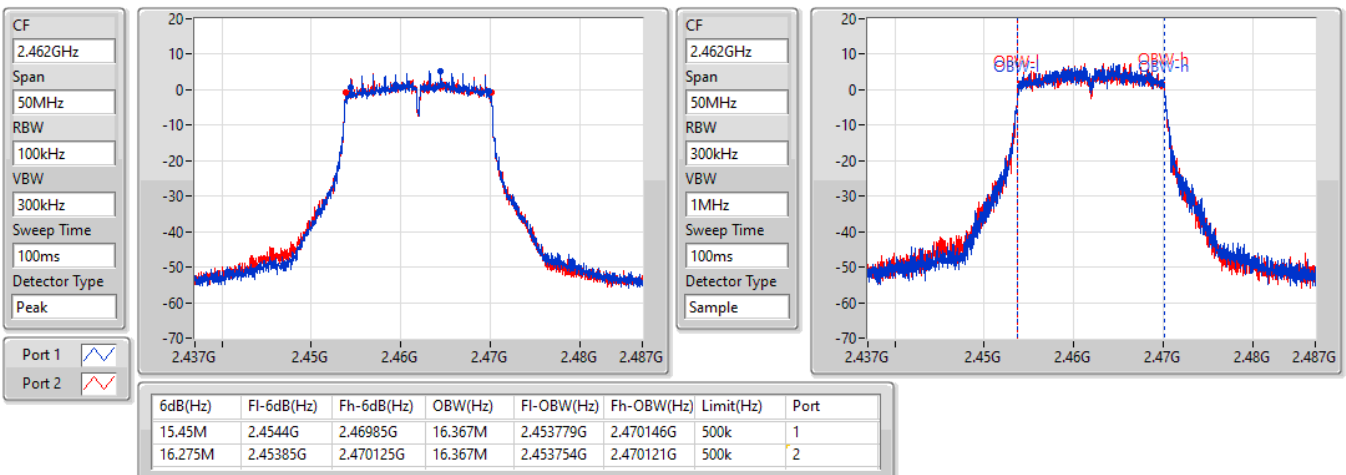


802.11g\_Nss1,(6Mbps)\_2TX

EBW

2462MHz

10/03/2022

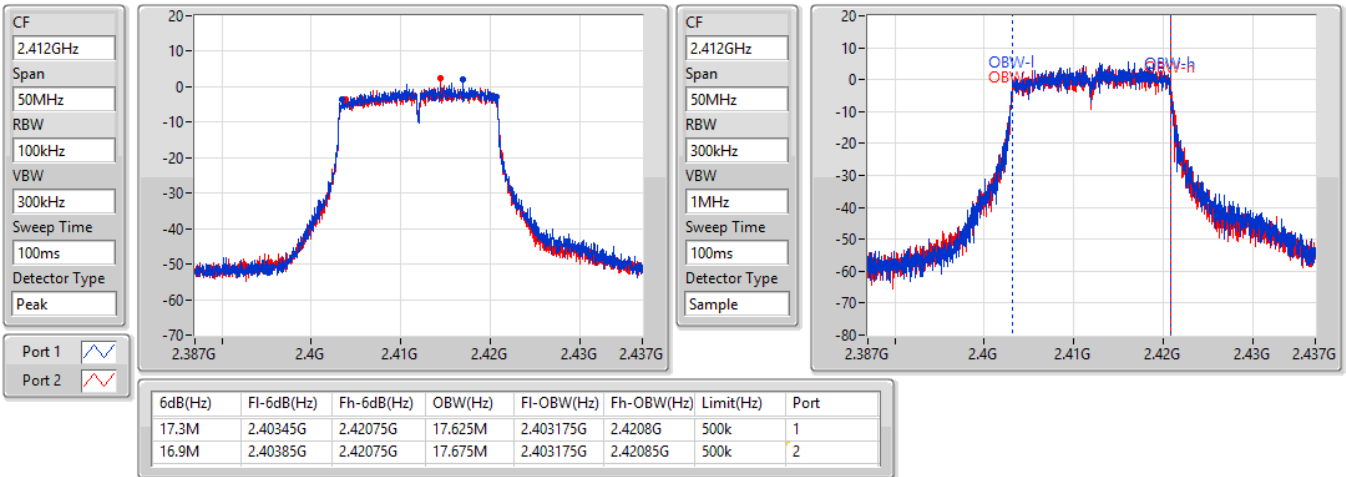


802.11n HT20\_Nss1,(MCS0)\_2TX

EBW

2412MHz

13/04/2022

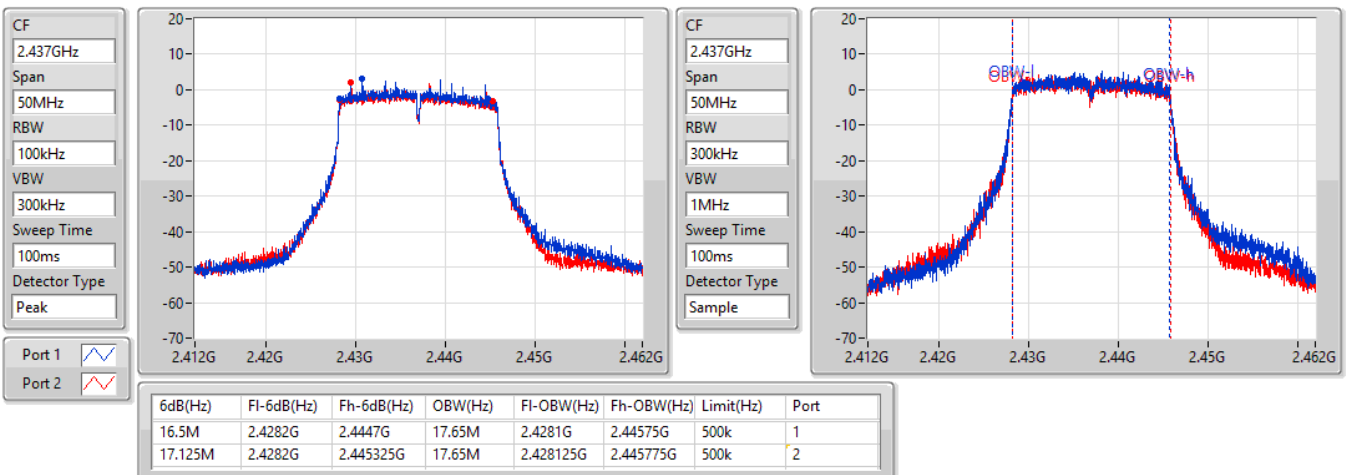


802.11n HT20\_Nss1,(MCS0)\_2TX

EBW

2437MHz

13/04/2022

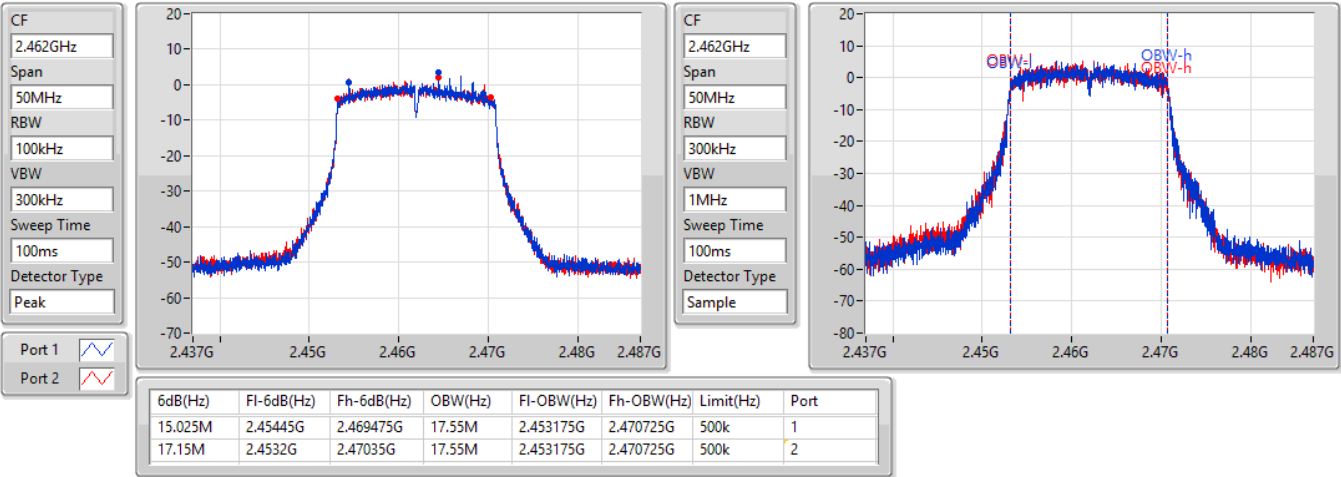


802.11n HT20\_Nss1,(MCS0)\_2TX

EBW

2462MHz

13/04/2022

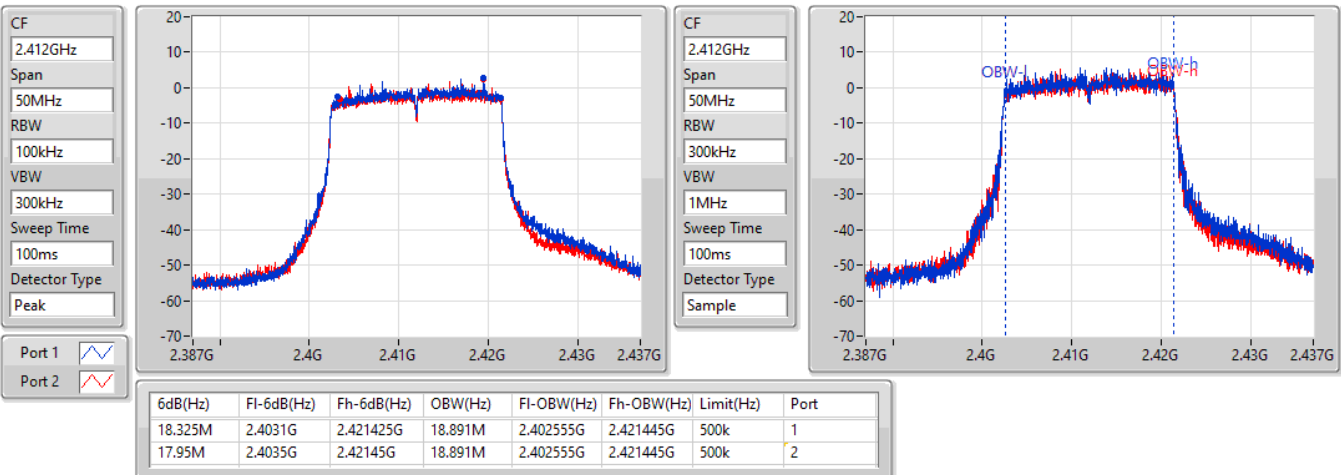


802.11ax HEW20\_Nss1,(MCS0)\_2TX

EBW

2412MHz

10/03/2022

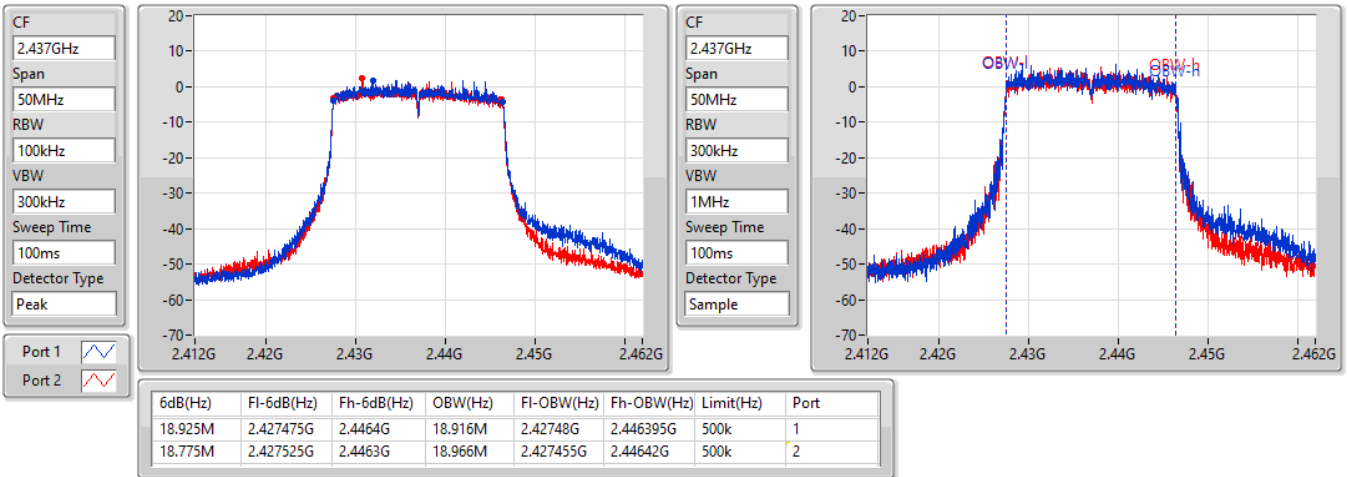


802.11ax HEW20\_Nss1,(MCS0)\_2TX

EBW

2437MHz

10/03/2022

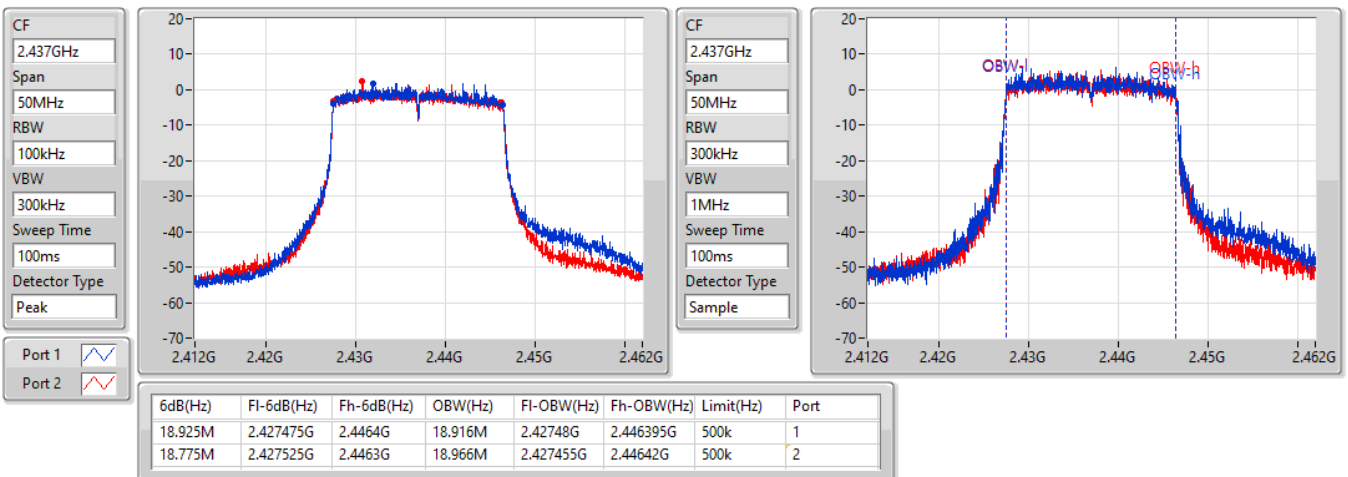


802.11ax HEW20\_Nss1,(MCS0)\_2TX

EBW

2437MHz

10/03/2022

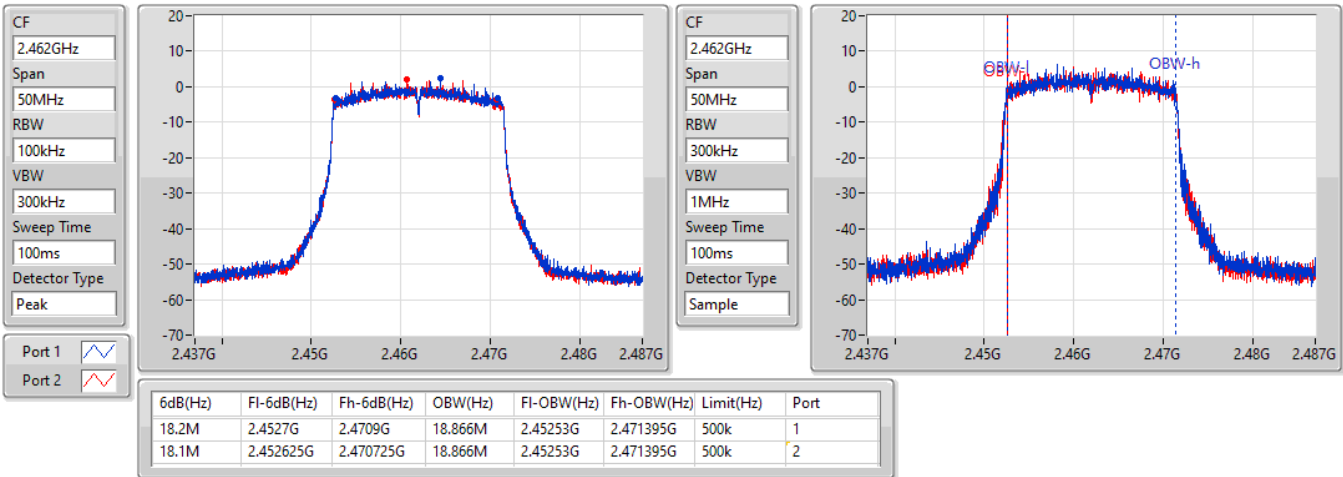


802.11ax HEW20\_Nss1,(MCS0)\_2TX

EBW

2462MHz

10/03/2022





**Summary**

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11b_Nss1,(1Mbps)_2TX	21.26	0.13366
802.11g_Nss1,(6Mbps)_2TX	19.25	0.08414
802.11n HT20_Nss1,(MCS0)_2TX	17.27	0.05333
802.11ax HEW20_Nss1,(MCS0)_2TX	16.48	0.04446



**Result**

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	-2.20	18.46	17.84	21.17	30.00
2437MHz	Pass	-2.20	18.64	17.82	21.26	30.00
2462MHz	Pass	-2.20	18.19	18.10	21.16	30.00
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	-2.20	16.55	15.79	19.20	30.00
2437MHz	Pass	-2.20	16.57	15.53	19.09	30.00
2462MHz	Pass	-2.20	16.26	16.22	19.25	30.00
802.11n_HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	-2.20	14.48	13.71	17.12	30.00
2437MHz	Pass	-2.20	14.72	13.75	17.27	30.00
2462MHz	Pass	-2.20	13.97	13.82	16.91	30.00
802.11ax_HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	-2.20	13.45	12.83	16.16	30.00
2437MHz	Pass	-2.20	13.60	12.86	16.26	30.00
2462MHz	Pass	-2.20	13.50	13.44	16.48	30.00

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



Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
802.11b_Nss1,(1Mbps)_2TX	-2.96
802.11g_Nss1,(6Mbps)_2TX	-9.02
802.11n HT20_Nss1,(MCS0)_2TX	-8.16
802.11ax HEW20_Nss1,(MCS0)_2TX	-10.08

RBW = 3kHz;



Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	-0.08	-5.65	-6.43	-3.01	8.00
2437MHz	Pass	-0.08	-5.77	-5.97	-2.97	8.00
2462MHz	Pass	-0.08	-5.89	-4.52	-2.96	8.00
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	-0.08	-9.90	-12.23	-9.27	8.00
2437MHz	Pass	-0.08	-10.37	-11.69	-9.26	8.00
2462MHz	Pass	-0.08	-11.20	-11.03	-9.02	8.00
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	-0.08	-10.78	-10.07	-8.26	8.00
2437MHz	Pass	-0.08	-10.34	-10.26	-8.16	8.00
2462MHz	Pass	-0.08	-9.71	-10.02	-8.70	8.00
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	-0.08	-12.98	-13.16	-11.07	8.00
2437MHz	Pass	-0.08	-12.39	-12.92	-10.08	8.00
2462MHz	Pass	-0.08	-12.81	-12.78	-10.44	8.00

DG = Directional Gain; RBW = 3kHz;  
 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)\_2TX

### PSD

2412MHz

10/03/2022

CF  
2.412GHz

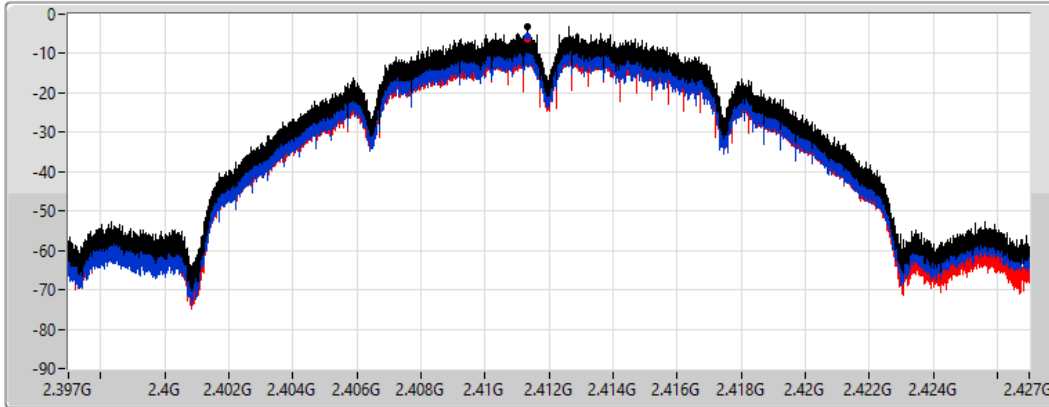
Span  
30MHz

RBW  
3kHz

VBW  
10kHz

Sweep Time  
4.424357ms

Detector Type  
Peak



Sum

Port 1

Port 2

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-3.01	-3.01	-5.65	-6.43

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

### PSD

2437MHz

10/03/2022

CF  
2.437GHz

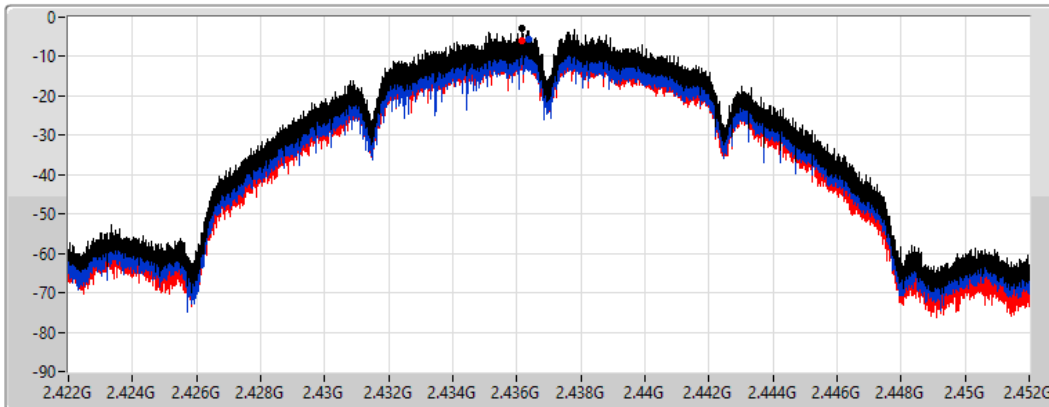
Span  
30MHz

RBW  
3kHz

VBW  
10kHz

Sweep Time  
4.424357ms

Detector Type  
Peak



Sum

Port 1

Port 2

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-2.97	-2.97	-5.77	-5.97

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

### PSD

2462MHz

10/03/2022

CF  
2.462GHz

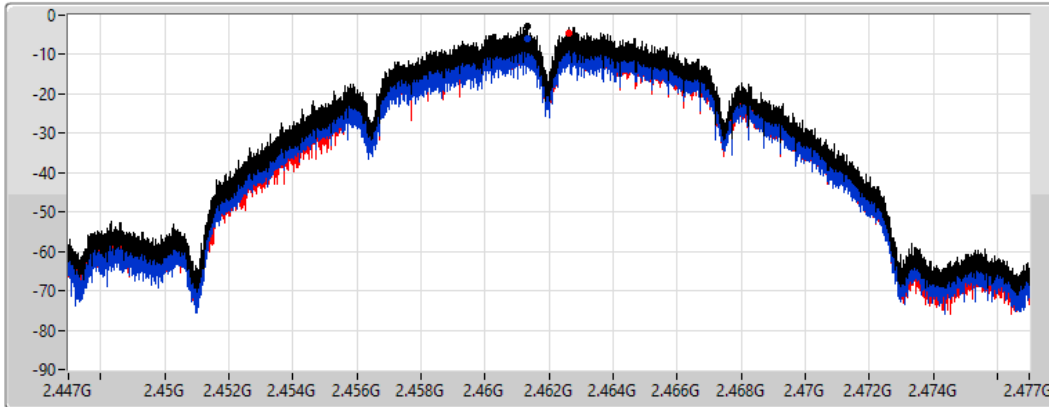
Span  
30MHz


RBW  
3kHz


VBW  
10kHz


Sweep Time  
4.424357ms

Detector Type  
Peak



Sum 

Port 1 

Port 2 

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-2.96	-2.96	-5.89	-4.52

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

### PSD

2412MHz

10/03/2022

CF  
2.412GHz

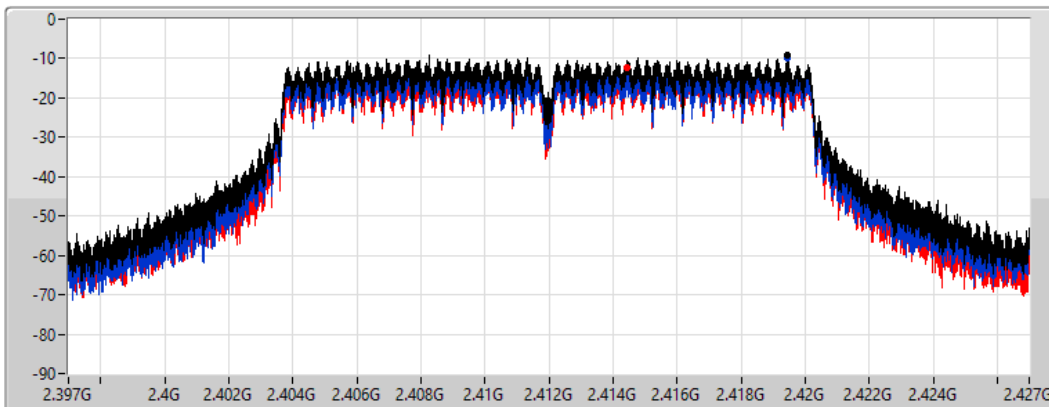
Span  
30MHz


RBW  
3kHz


VBW  
10kHz


Sweep Time  
4.424357ms

Detector Type  
Peak



Sum 

Port 1 

Port 2 

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-9.27	-9.27	-9.90	-12.23

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

### PSD

2437MHz

10/03/2022

CF  
2.437GHz

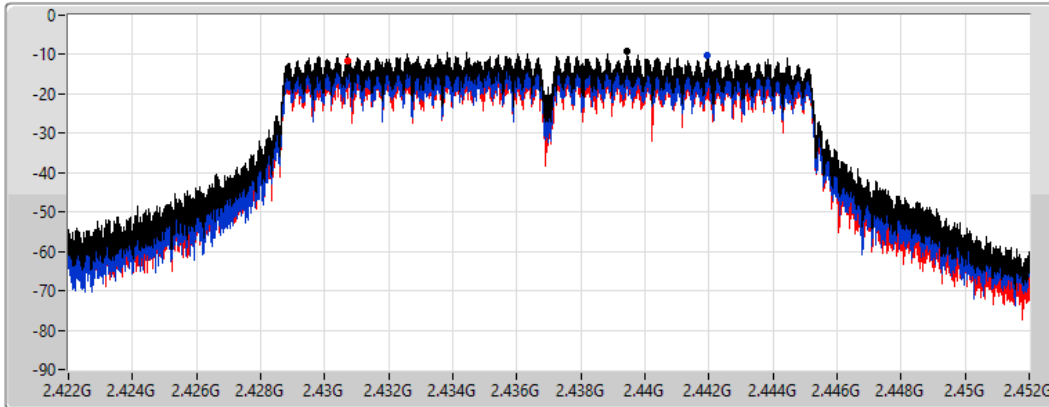
Span  
30MHz


RBW  
3kHz


VBW  
10kHz


Sweep Time  
4.424357ms

Detector Type  
Peak



Sum 

Port 1 

Port 2 

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-9.26	-9.26	-10.37	-11.69

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

### PSD

2462MHz

10/03/2022

CF  
2.462GHz

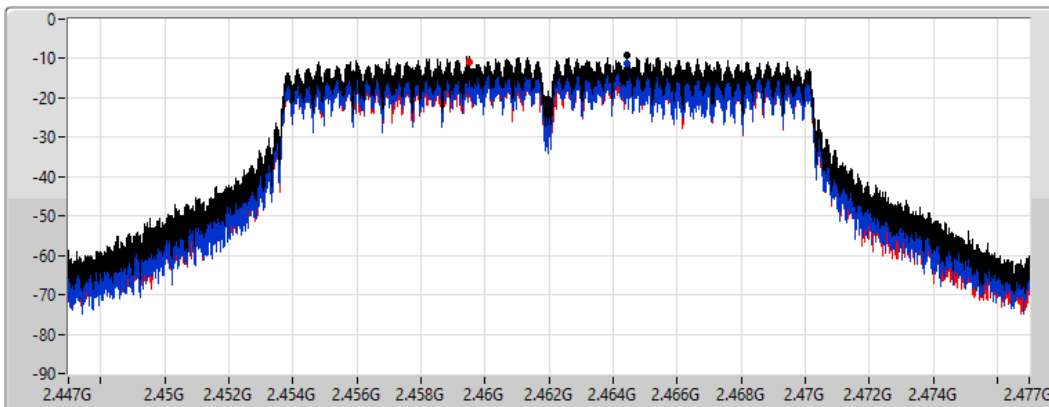
Span  
30MHz


RBW  
3kHz


VBW  
10kHz


Sweep Time  
4.424357ms

Detector Type  
Peak



Sum 

Port 1 

Port 2 

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-9.02	-9.02	-11.20	-11.03

### 802.11n HT20\_Nss1,(MCS0)\_2TX

### PSD

#### 2412MHz

13/04/2022

CF  
2.412GHz

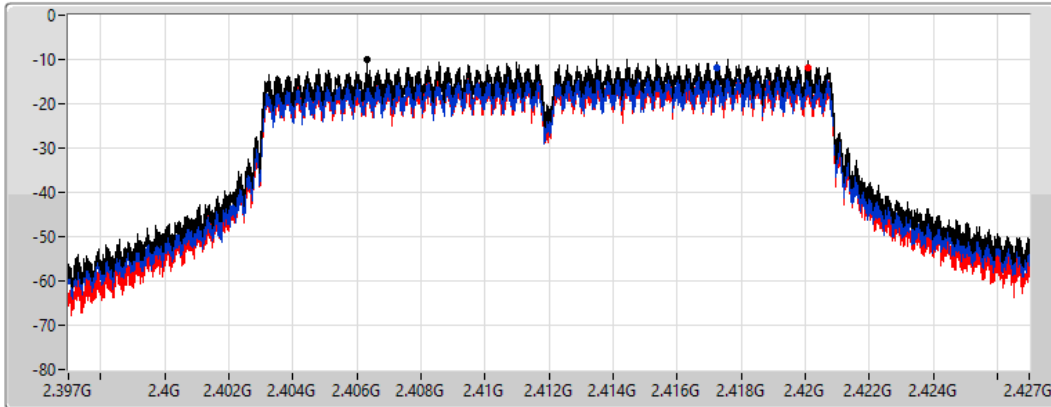
Span  
30MHz


RBW  
3kHz


VBW  
10kHz


Sweep Time  
3.4s

Detector Type  
Peak



Sum 

Port 1 

Port 2 

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-9.85	-9.85	-11.79	-11.84

### 802.11n HT20\_Nss1,(MCS0)\_2TX

### PSD

#### 2437MHz

13/04/2022

CF  
2.437GHz

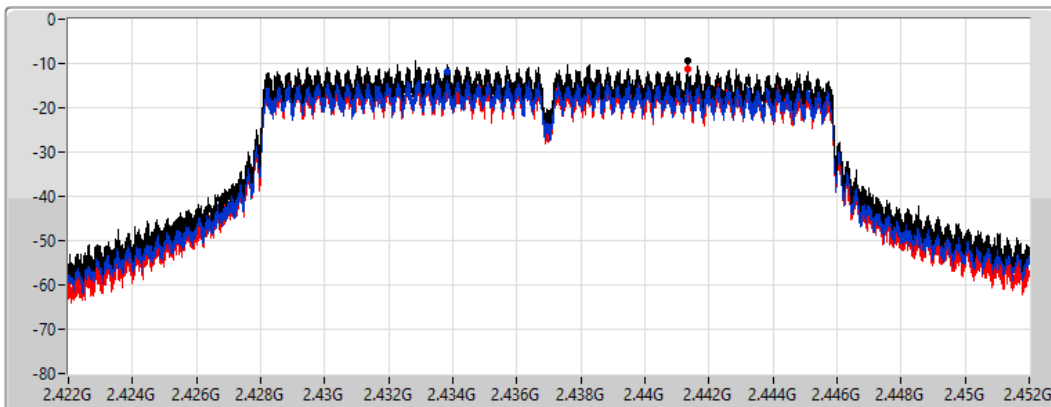
Span  
30MHz


RBW  
3kHz


VBW  
10kHz


Sweep Time  
3.4s

Detector Type  
Peak



Sum 

Port 1 

Port 2 

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-9.44	-9.44	-11.96	-11.21

### 802.11n HT20\_Nss1,(MCS0)\_2TX

### PSD

2462MHz

13/04/2022

CF  
2.462GHz

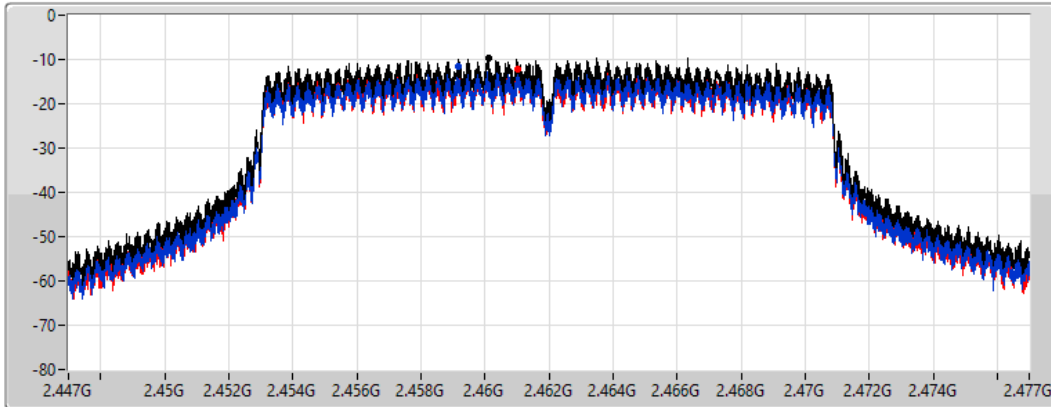
Span  
30MHz


RBW  
3kHz


VBW  
10kHz


Sweep Time  
3.4s

Detector Type  
Peak



Sum 

Port 1 

Port 2 

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-9.62	-9.62	-11.65	-12.05

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

### PSD

2412MHz

10/03/2022

CF  
2.412GHz

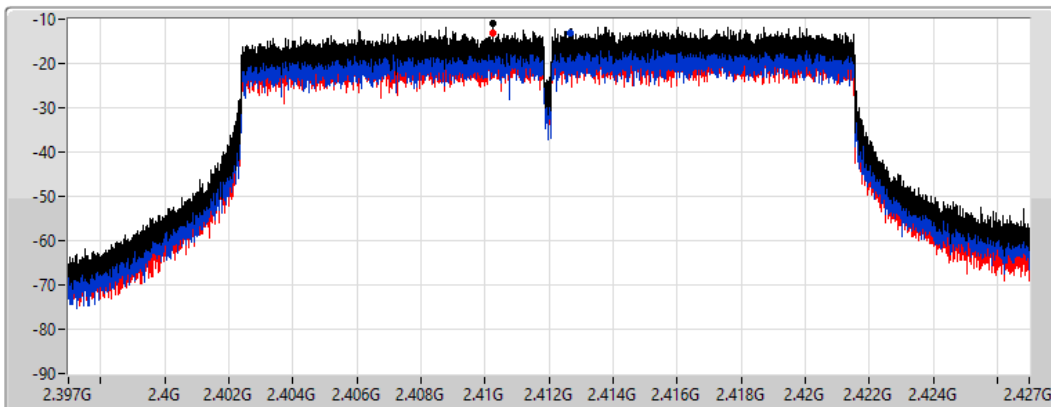
Span  
30MHz


RBW  
3kHz


VBW  
10kHz


Sweep Time  
4.424357ms

Detector Type  
Peak



Sum 

Port 1 

Port 2 

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-11.07	-11.07	-12.98	-13.16

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

### PSD

2437MHz

10/03/2022

CF  
2.437GHz

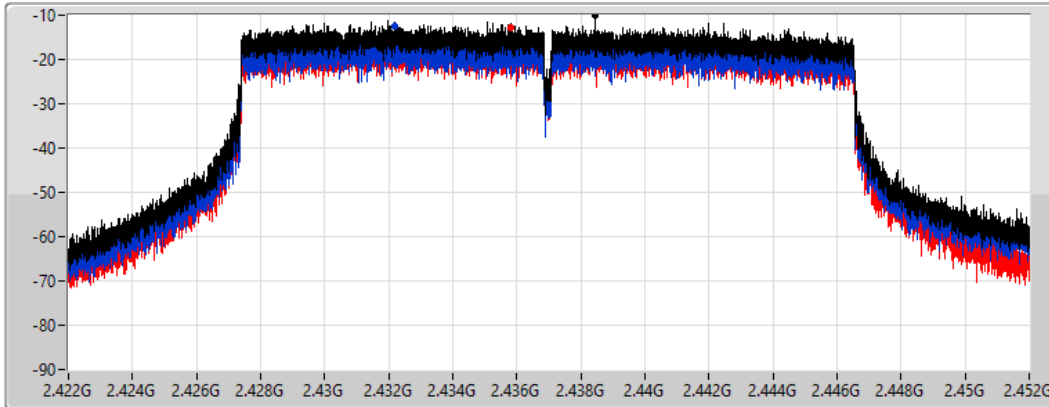
Span  
30MHz


RBW  
3kHz


VBW  
10kHz


Sweep Time  
4.424357ms

Detector Type  
Peak



Sum 

Port 1 

Port 2 

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-10.08	-10.08	-12.39	-12.92

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

### PSD

2462MHz

10/03/2022

CF  
2.462GHz

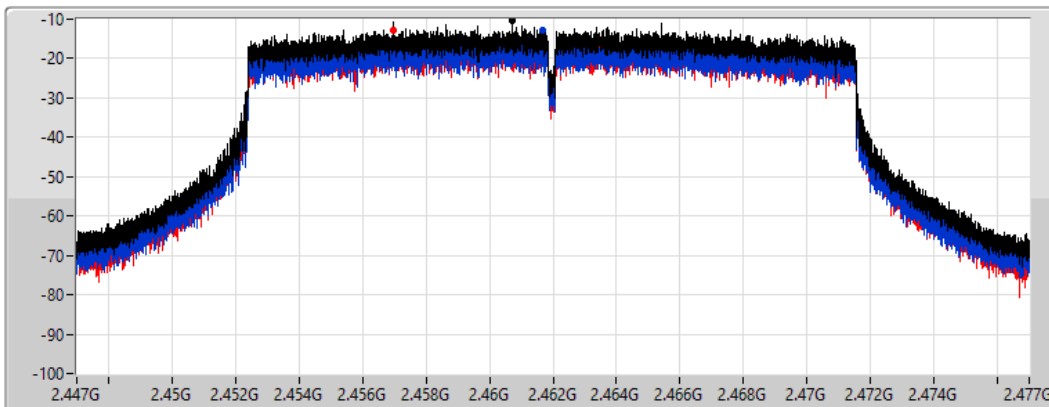
Span  
30MHz


RBW  
3kHz


VBW  
10kHz


Sweep Time  
4.424357ms

Detector Type  
Peak



Sum 

Port 1 

Port 2 

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-10.44	-10.44	-12.81	-12.78



Summary

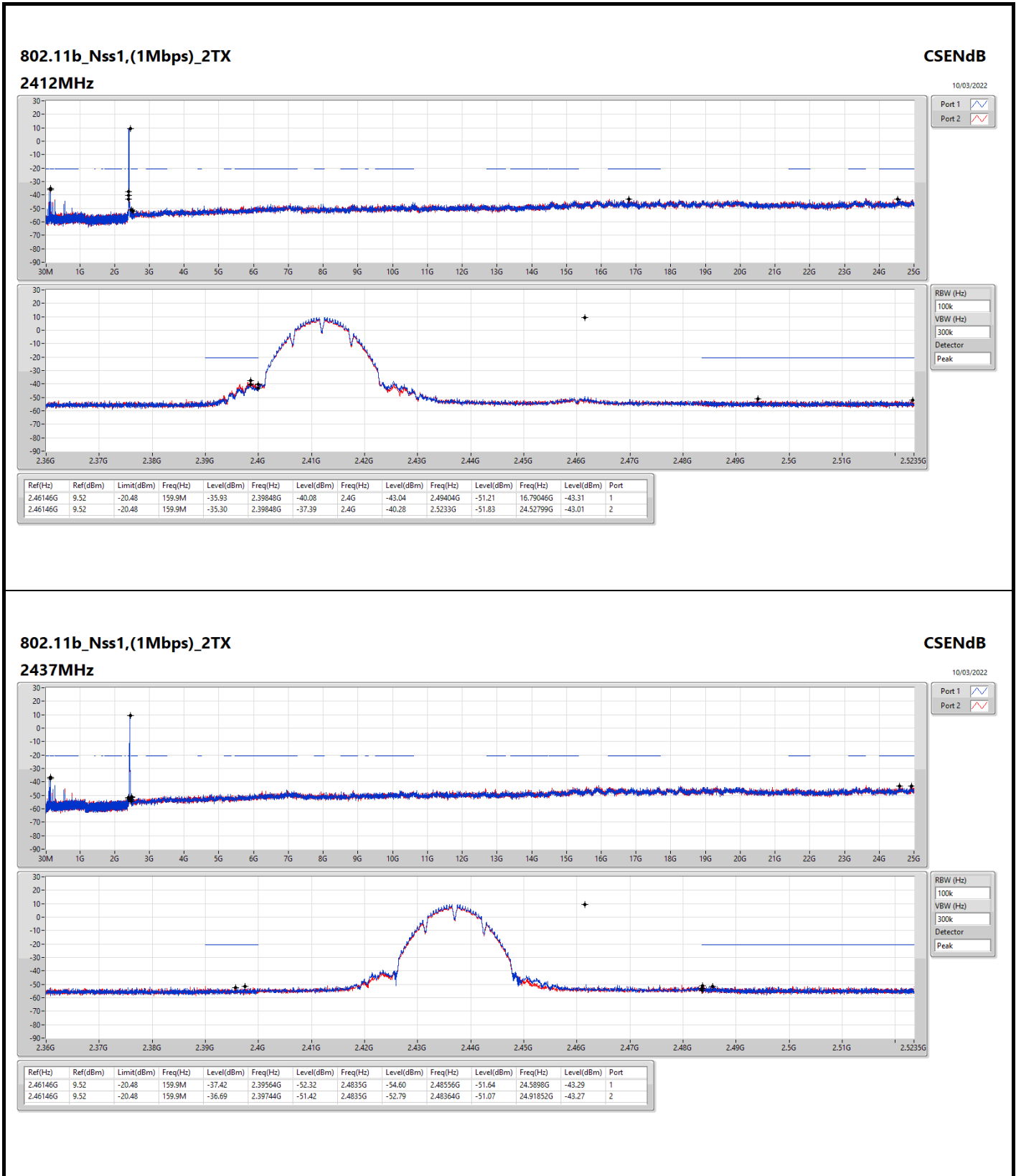
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
802.11b_Nss1,(1Mbps)_2TX	Pass	2.46146G	9.52	-20.48	159.9M	-35.30	2.39848G	-37.39	2.4G	-40.28	2.5233G	-51.83	24.52799G	-43.01	2
802.11g_Nss1,(6Mbps)_2TX	Pass	2.4645G	4.87	-25.13	159.9M	-38.05	2.39986G	-35.62	2.4G	-37.57	2.48422G	-51.35	23.59803G	-43.06	1
802.11n HT20_Nss1,(MCS0)_2TX	Pass	2.43319G	4.15	-25.85	861.23M	-51.75	2.39988G	-36.49	2.4G	-36.68	2.50348G	-50.08	24.87357G	-43.93	1
802.11ax HEW20_Nss1,(MCS0)_2TX	Pass	2.43073G	3.23	-26.77	159.9M	-36.14	2.39152G	-52.98	2.4G	-53.83	2.48468G	-50.22	16.61065G	-43.92	1

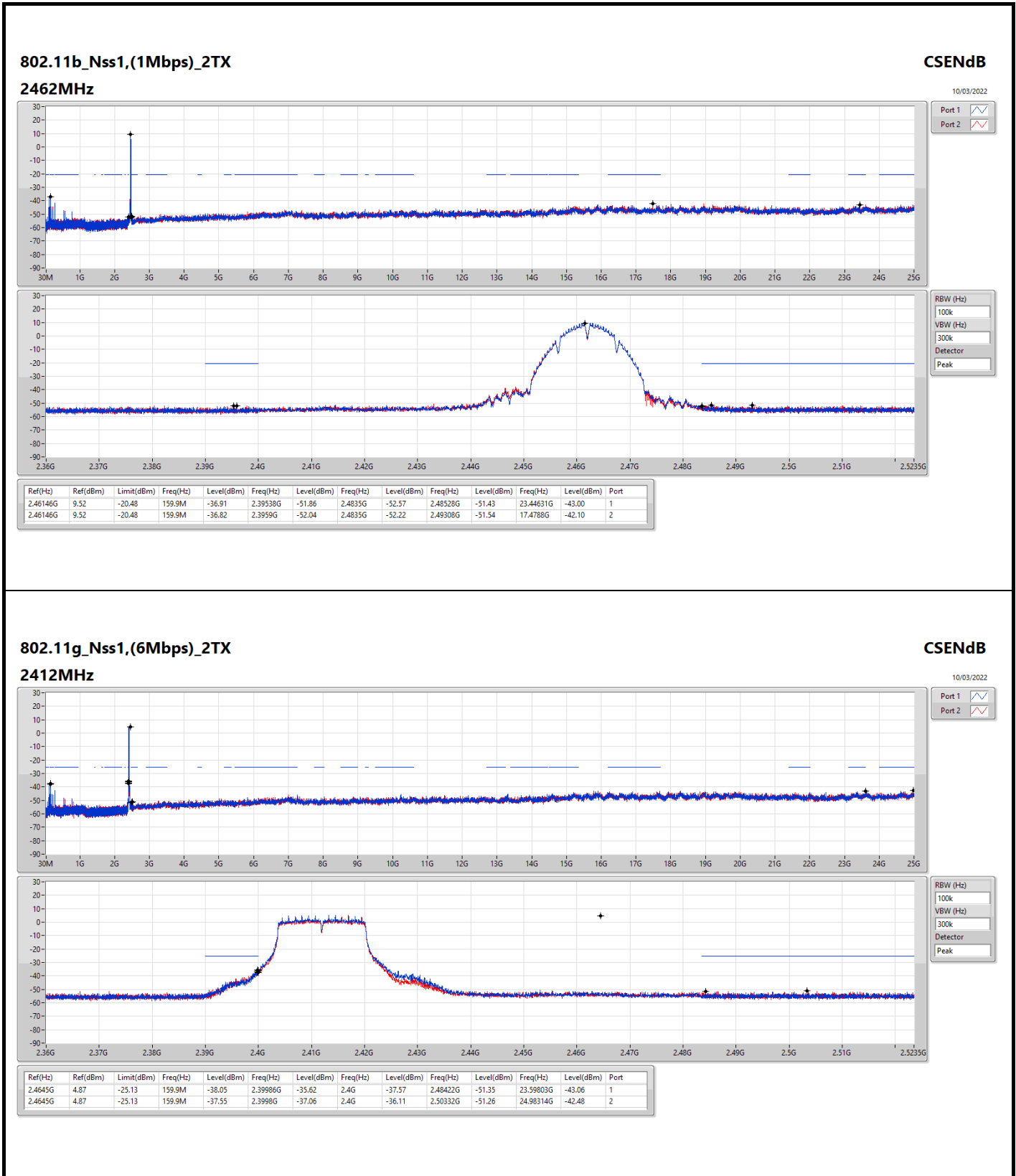


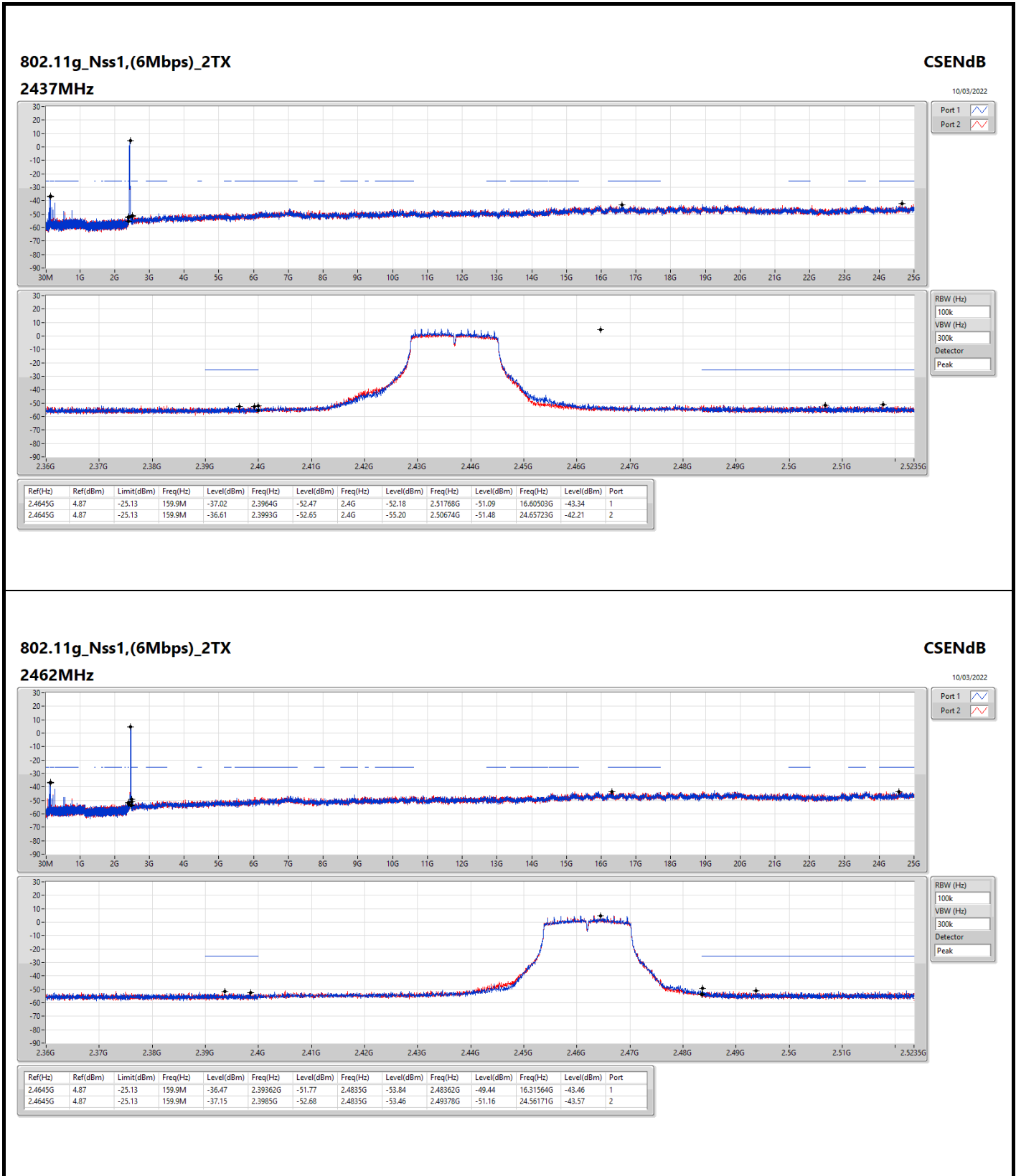


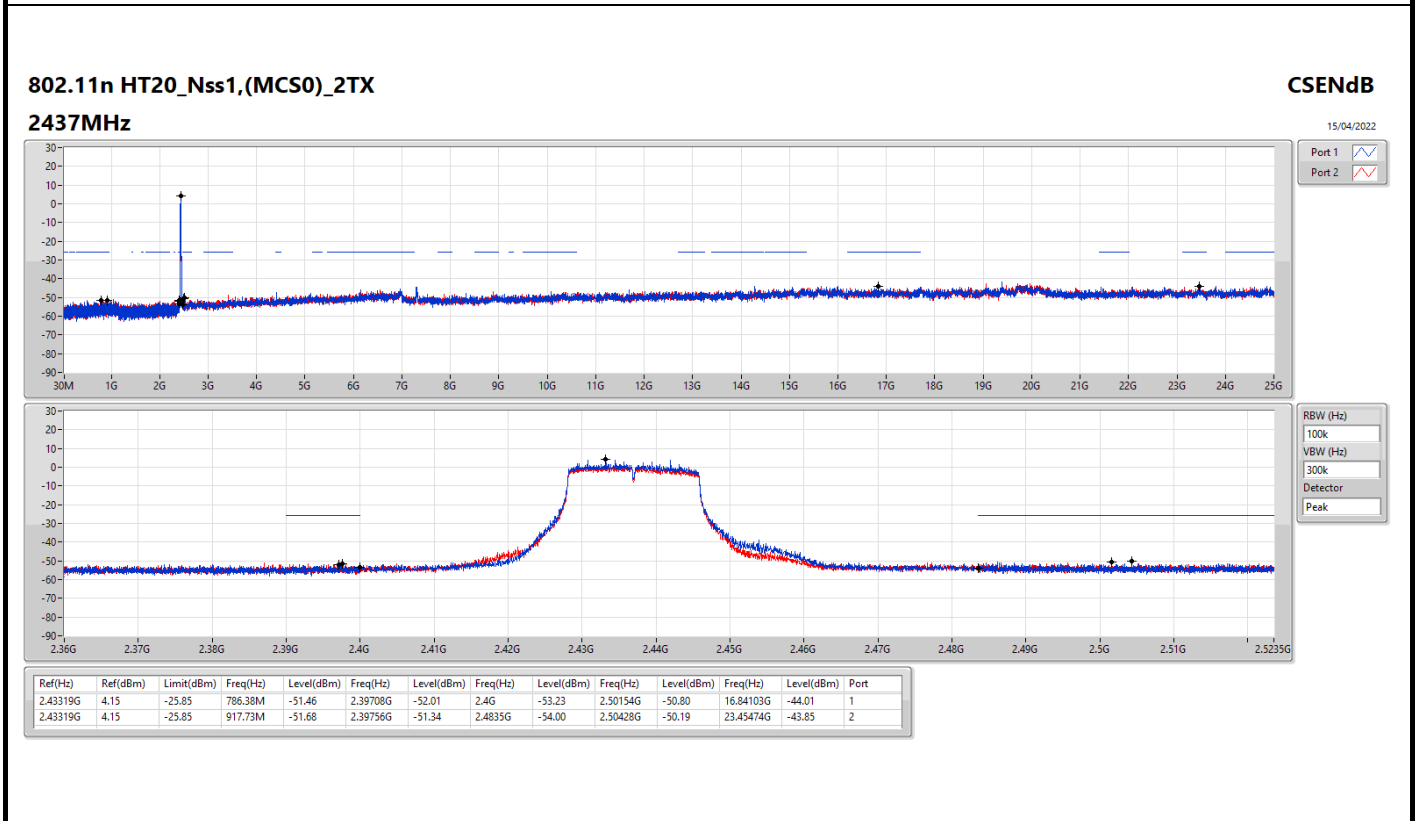
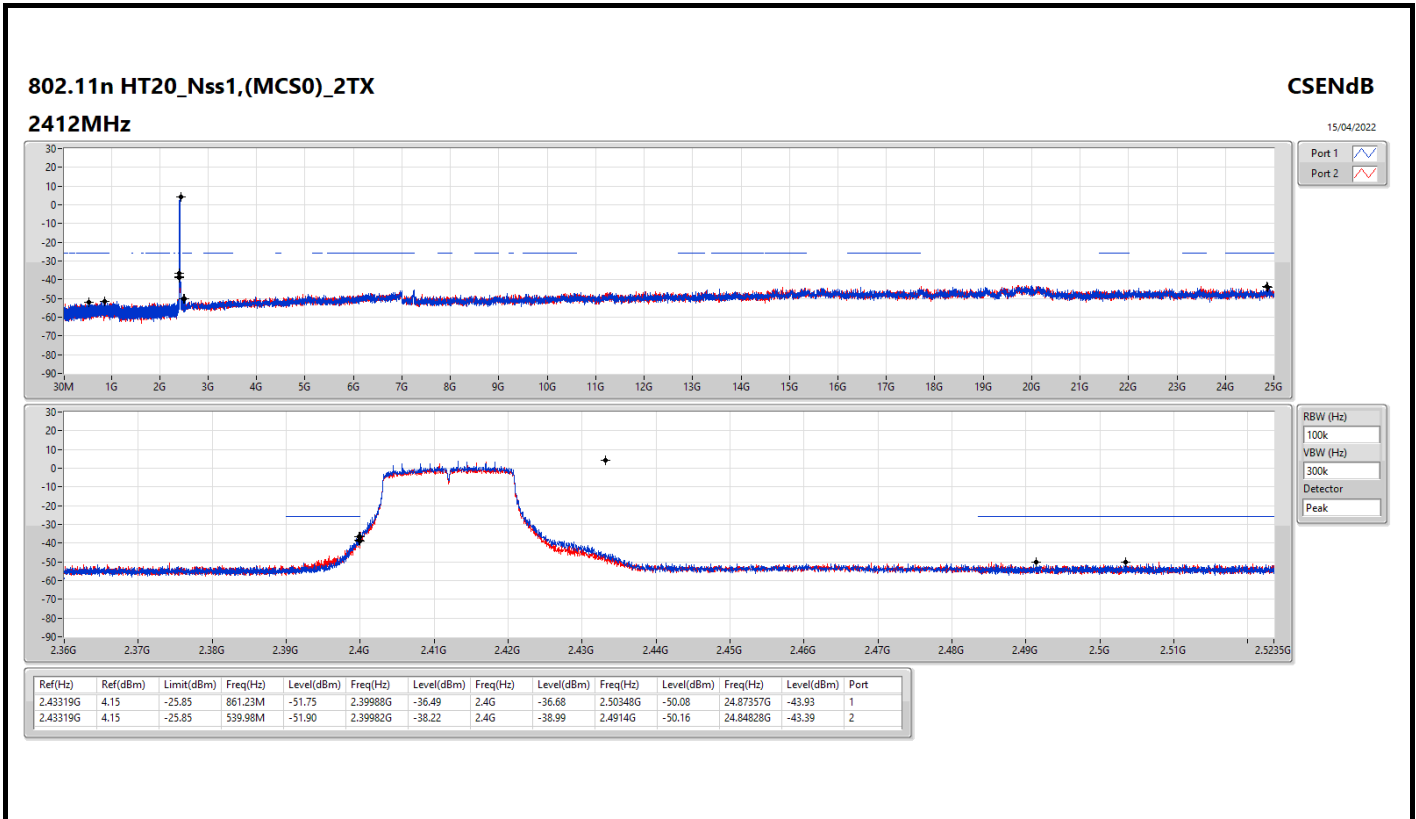
Result

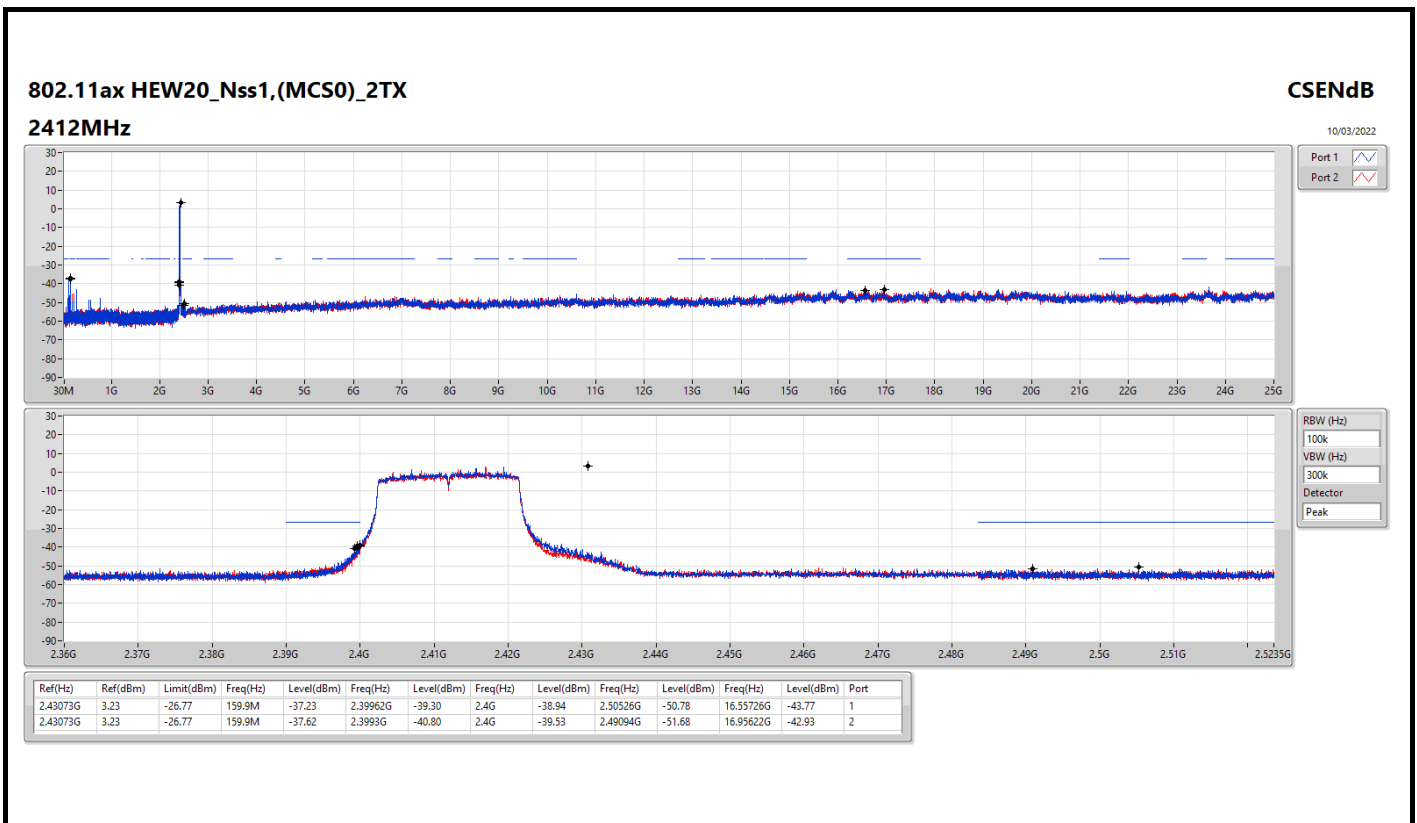
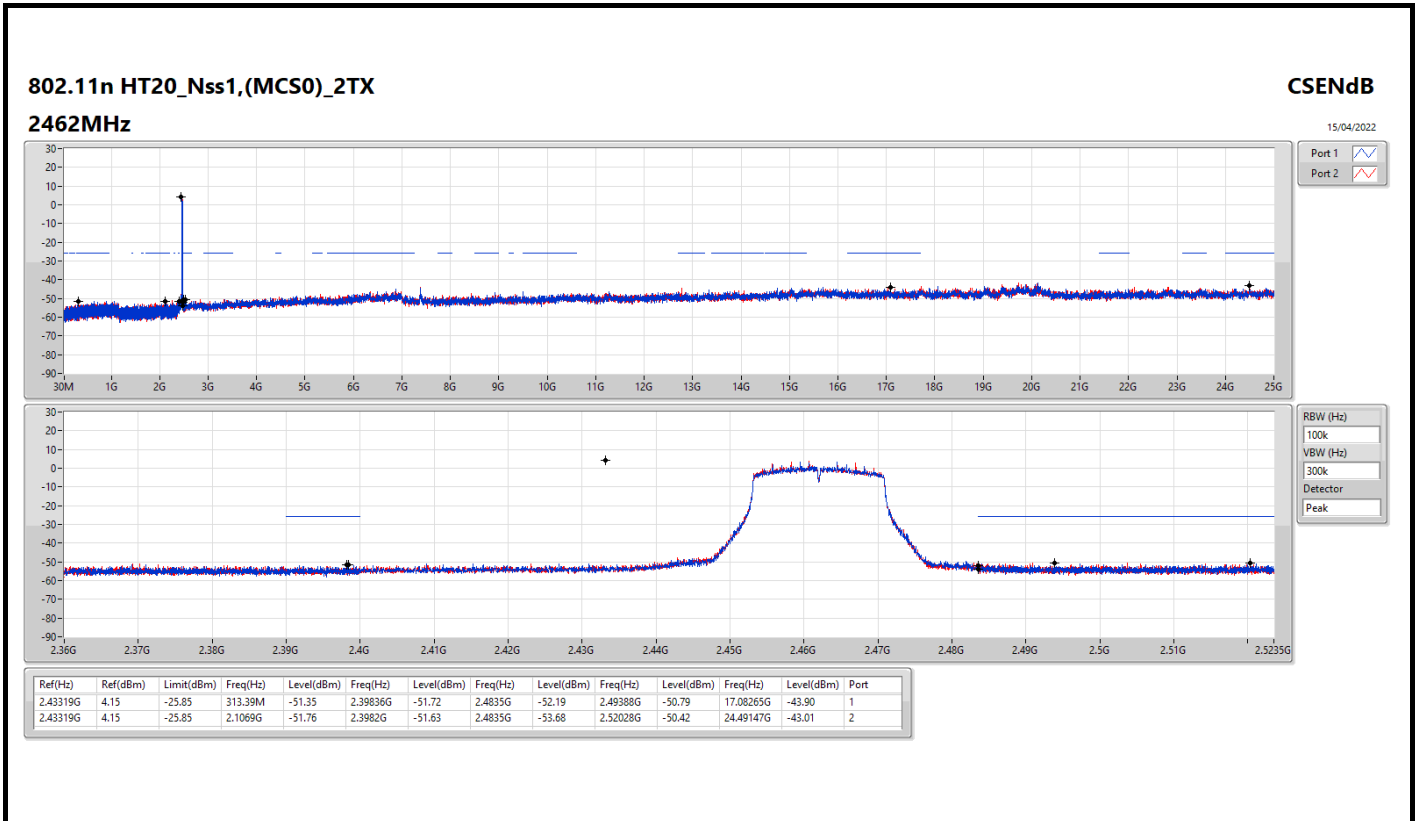
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.46146G	9.52	-20.48	159.9M	-35.93	2.39848G	-40.08	2.4G	-43.04	2.49404G	-51.21	16.79046G	-43.31	1
2412MHz	Pass	2.46146G	9.52	-20.48	159.9M	-35.30	2.39848G	-37.39	2.4G	-40.28	2.5233G	-51.83	24.52799G	-43.01	2
2437MHz	Pass	2.46146G	9.52	-20.48	159.9M	-37.42	2.39564G	-52.32	2.4835G	-54.60	2.48556G	-51.64	24.5898G	-43.29	1
2437MHz	Pass	2.46146G	9.52	-20.48	159.9M	-36.69	2.39744G	-51.42	2.4835G	-52.79	2.48364G	-51.07	24.91852G	-43.27	2
2462MHz	Pass	2.46146G	9.52	-20.48	159.9M	-36.91	2.39538G	-51.86	2.4835G	-52.57	2.48528G	-51.43	23.44631G	-43.00	1
2462MHz	Pass	2.46146G	9.52	-20.48	159.9M	-36.82	2.3959G	-52.04	2.4835G	-52.22	2.49308G	-51.54	17.4788G	-42.10	2
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.4645G	4.87	-25.13	159.9M	-38.05	2.39986G	-35.62	2.4G	-37.57	2.48422G	-51.35	23.59803G	-43.06	1
2412MHz	Pass	2.4645G	4.87	-25.13	159.9M	-37.55	2.3998G	-37.06	2.4G	-36.11	2.50332G	-51.26	24.98314G	-42.48	2
2437MHz	Pass	2.4645G	4.87	-25.13	159.9M	-37.02	2.3964G	-52.47	2.4G	-52.18	2.51768G	-51.09	16.60503G	-43.34	1
2437MHz	Pass	2.4645G	4.87	-25.13	159.9M	-36.61	2.3993G	-52.65	2.4G	-55.20	2.50674G	-51.48	24.65723G	-42.21	2
2462MHz	Pass	2.4645G	4.87	-25.13	159.9M	-36.47	2.39362G	-51.77	2.4835G	-53.84	2.48362G	-49.44	16.31564G	-43.46	1
2462MHz	Pass	2.4645G	4.87	-25.13	159.9M	-37.15	2.3985G	-52.68	2.4835G	-53.46	2.49378G	-51.16	24.56171G	-43.57	2
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43319G	4.15	-25.85	861.23M	-51.75	2.39988G	-36.49	2.4G	-36.68	2.50348G	-50.08	24.87357G	-43.93	1
2412MHz	Pass	2.43319G	4.15	-25.85	539.98M	-51.90	2.39982G	-38.22	2.4G	-38.99	2.4914G	-50.16	24.84828G	-43.39	2
2437MHz	Pass	2.43319G	4.15	-25.85	786.38M	-51.46	2.39708G	-52.01	2.4G	-53.23	2.50154G	-50.80	16.84103G	-44.01	1
2437MHz	Pass	2.43319G	4.15	-25.85	917.73M	-51.68	2.39756G	-51.34	2.4835G	-54.00	2.50428G	-50.19	23.45474G	-43.85	2
2462MHz	Pass	2.43319G	4.15	-25.85	313.39M	-51.35	2.39836G	-51.72	2.4835G	-52.19	2.49388G	-50.79	17.08265G	-43.90	1
2462MHz	Pass	2.43319G	4.15	-25.85	2.1069G	-51.76	2.3982G	-51.63	2.4835G	-53.68	2.52028G	-50.42	24.49147G	-43.01	2
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43073G	3.23	-26.77	159.9M	-37.23	2.39962G	-39.30	2.4G	-38.94	2.50526G	-50.78	16.55726G	-43.77	1
2412MHz	Pass	2.43073G	3.23	-26.77	159.9M	-37.62	2.3993G	-40.80	2.4G	-39.53	2.49094G	-51.68	16.95622G	-42.93	2
2437MHz	Pass	2.43073G	3.23	-26.77	159.9M	-36.86	2.3986G	-52.99	2.4835G	-54.60	2.50182G	-50.34	24.63195G	-42.60	1
2437MHz	Pass	2.43073G	3.23	-26.77	159.9M	-36.40	2.3923G	-51.80	2.4835G	-55.19	2.5205G	-51.68	16.59941G	-43.25	2
2462MHz	Pass	2.43073G	3.23	-26.77	159.9M	-36.14	2.39152G	-52.98	2.4G	-53.83	2.48468G	-50.22	16.61065G	-43.92	1
2462MHz	Pass	2.43073G	3.23	-26.77	159.9M	-36.97	2.39722G	-52.03	2.4835G	-52.96	2.51174G	-50.94	24.60666G	-43.33	2

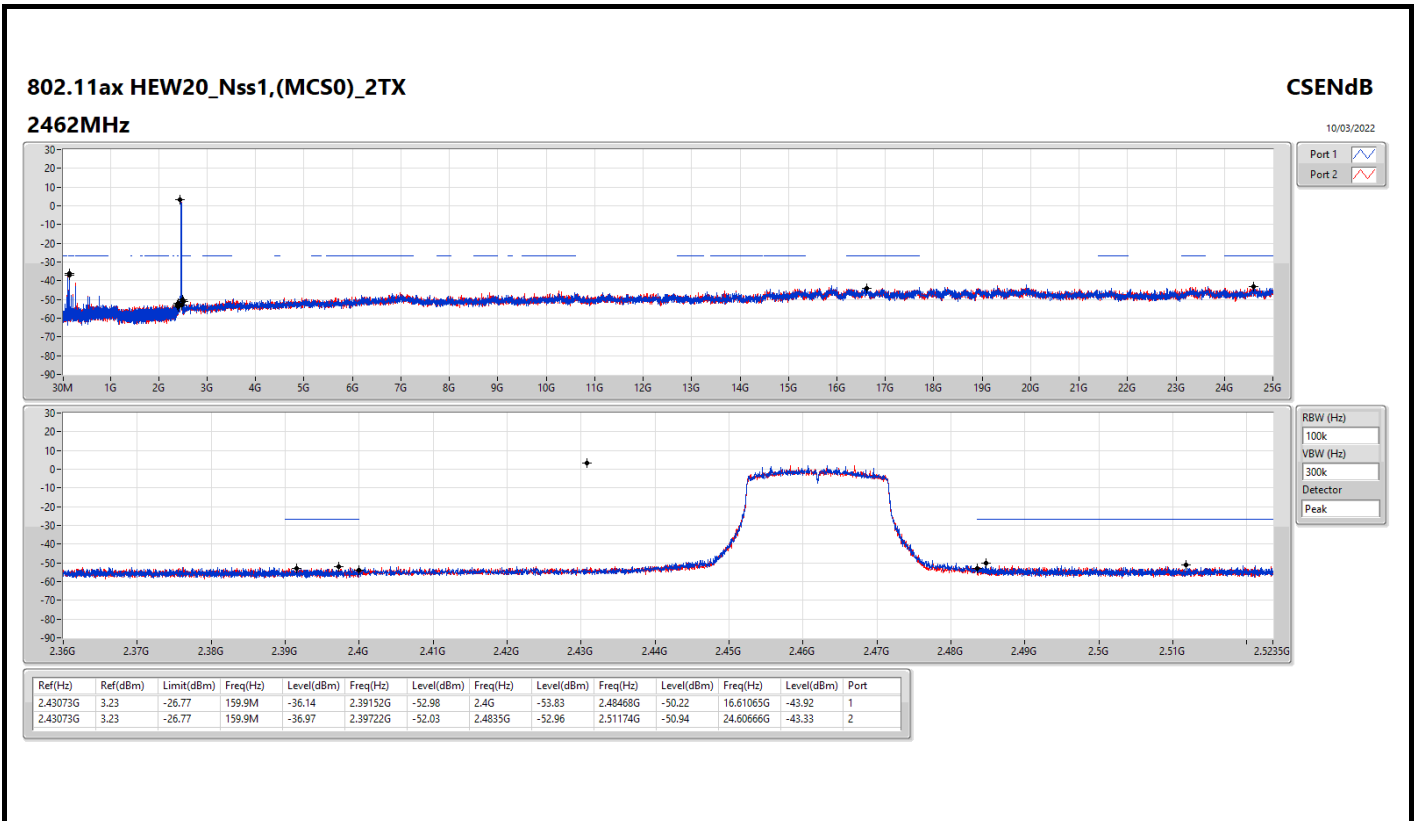
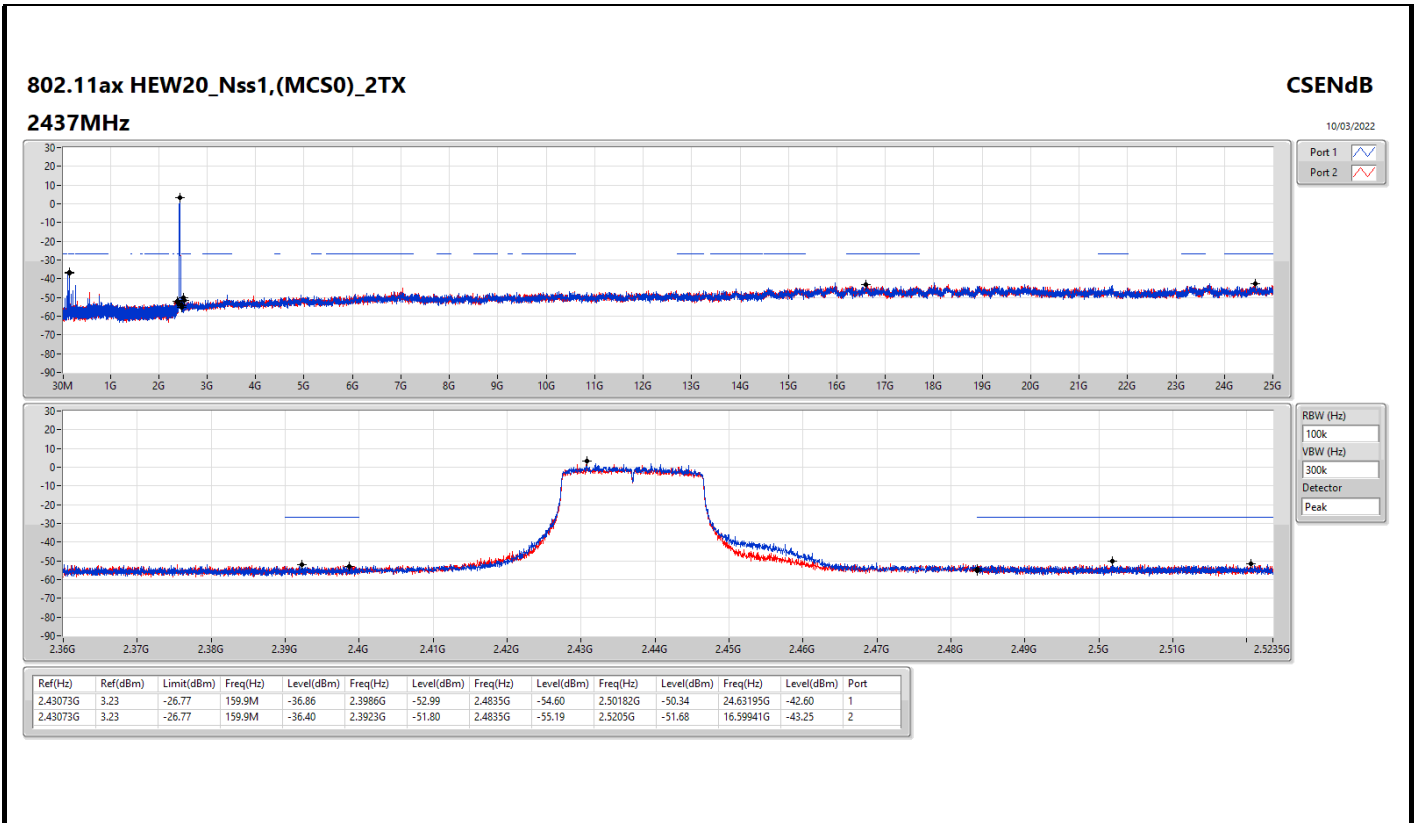












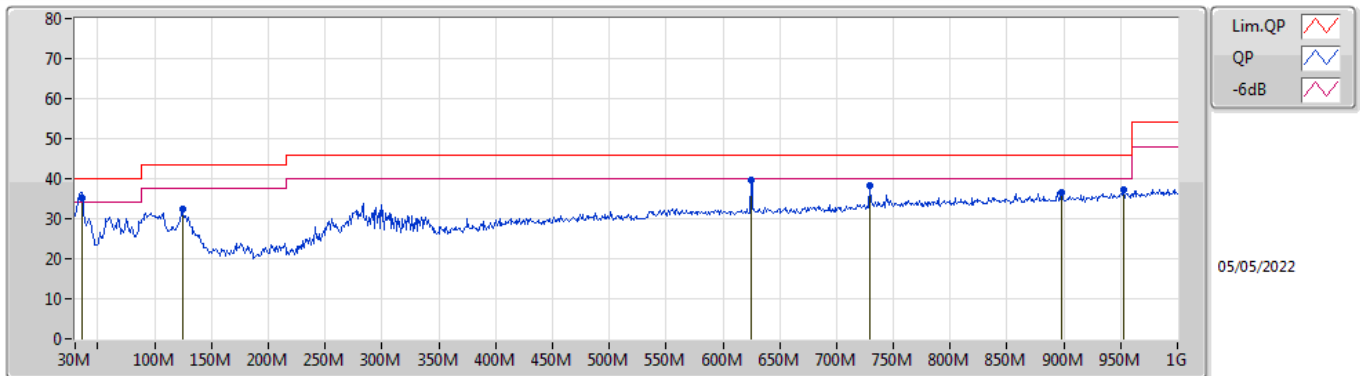


**Summary**

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition
Mode 3	Pass	QP	624.61M	44.15	46.00	-1.85	Horizontal

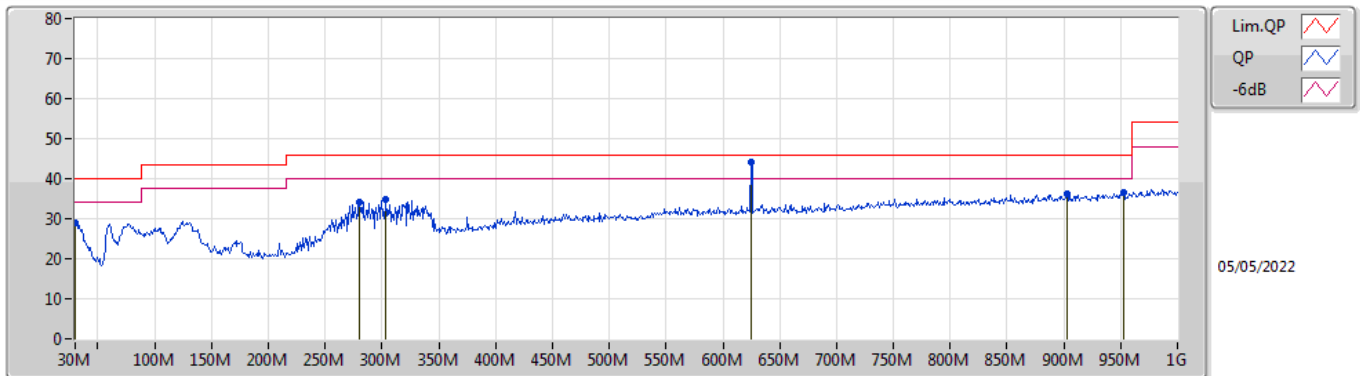


Mode 3



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB/m)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV/m)	AF (dB/m)	CL (dB)	PA (dB)
QP	35.82M	35.17	40.00	-4.83	-9.88	3	Vertical	237	1.00	"Worst"	45.05	20.92	0.90	31.70
PK	124.09M	32.47	43.50	-11.03	-12.41	3	Vertical	254	1.00	-	44.88	17.93	1.64	31.98
PK	624.61M	39.49	46.00	-6.51	-3.90	3	Vertical	128	1.00	-	43.39	24.51	4.10	32.51
PK	729.37M	38.38	46.00	-7.62	-3.02	3	Vertical	277	2.00	-	41.40	24.95	4.62	32.59
PK	898.15M	36.56	46.00	-9.44	-1.00	3	Vertical	51	1.25	-	37.56	26.20	5.29	32.49
PK	952.47M	37.07	46.00	-8.93	-0.34	3	Vertical	60	1.25	-	37.41	26.53	5.60	32.47

Mode 3



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB/m)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV/m)	AF (dB/m)	CL (dB)	PA (dB)
PK	30M	28.97	40.00	-11.03	-6.76	3	Horizontal	90	2.00	-	35.73	23.99	0.80	31.55
PK	280.26M	34.25	46.00	-11.75	-10.76	3	Horizontal	243	1.25	-	45.01	18.69	2.62	32.07
PK	303.54M	34.93	46.00	-11.07	-10.18	3	Horizontal	125	1.00	-	45.11	19.21	2.72	32.11
QP	624.61M	44.15	46.00	-1.85	-3.90	3	Horizontal	180	1.25	"Worst"	48.05	24.51	4.10	32.51
PK	903M	36.36	46.00	-9.64	-0.97	3	Horizontal	187	2.00	-	37.33	26.20	5.32	32.49
PK	952.47M	36.48	46.00	-9.52	-0.34	3	Horizontal	214	1.50	-	36.82	26.53	5.60	32.47

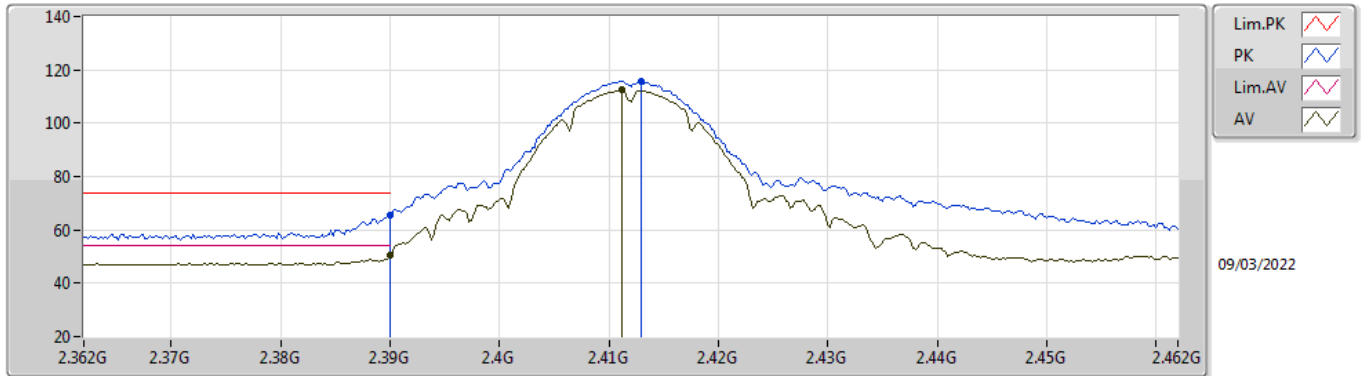


Summary

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 HEW20_Nss1,(MCS0)_2TX	Pass	AV	2.39G	53.96	54.00	-0.04	3	Vertical	38	1.65	-

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

### 2412MHz\_TX

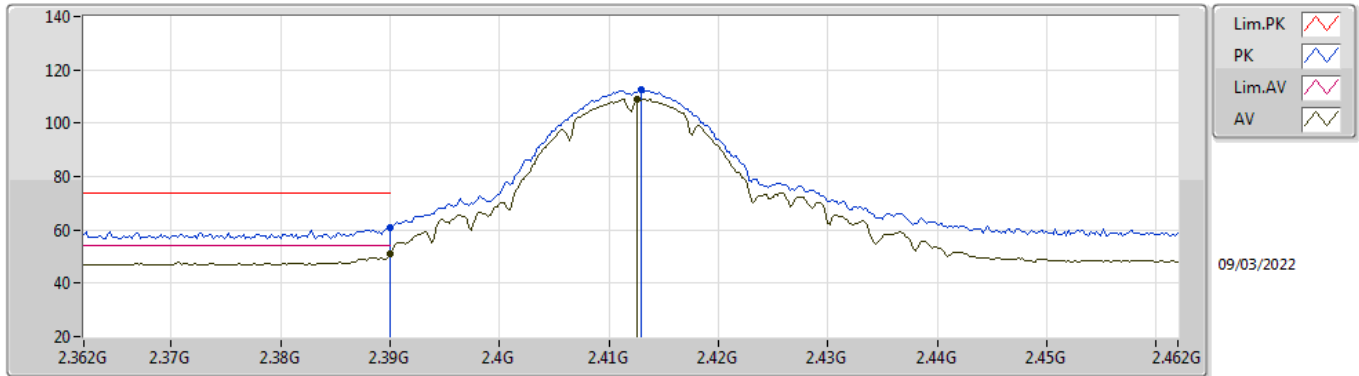


EUT\_Z\_2TX  
Setting 20.5  
02-B-R-5

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	65.60	74.00	-8.40	34.43	3	Vertical	38	1.67	-	28.38	2.79	-
AV	2.39G	50.45	54.00	-3.55	19.28	3	Vertical	38	1.67	-	28.38	2.79	-
PK	2.413G	115.77	Inf	-Inf	84.56	3	Vertical	38	1.67	-	28.40	2.81	-
AV	2.4112G	112.43	Inf	-Inf	81.22	3	Vertical	38	1.67	-	28.40	2.81	-

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

### 2412MHz\_TX

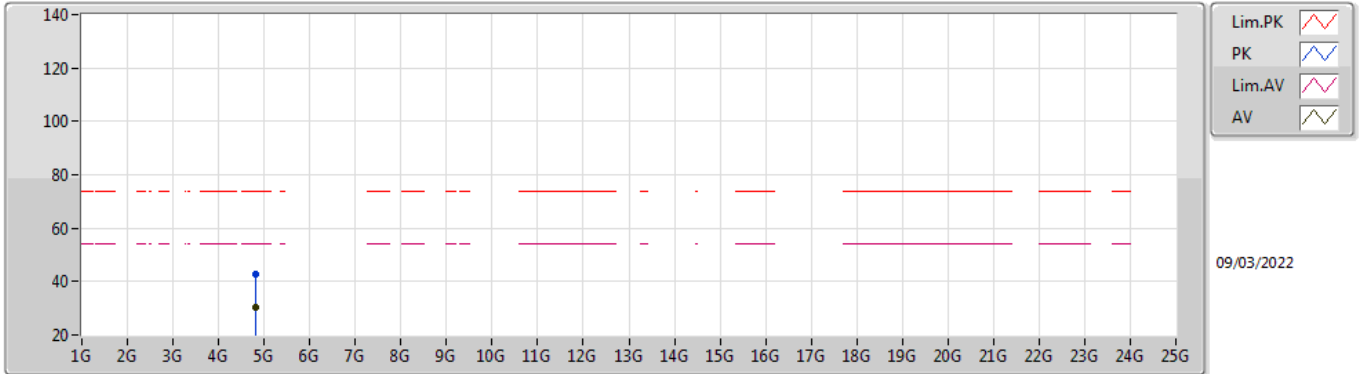


EUT\_Z\_2TX  
Setting 20.5  
02-B-R-5

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	60.95	74.00	-13.05	29.78	3	Horizontal	132	2.04	-	28.38	2.79	-
AV	2.39G	50.78	54.00	-3.22	19.61	3	Horizontal	132	2.04	-	28.38	2.79	-
PK	2.413G	112.64	Inf	-Inf	81.43	3	Horizontal	132	2.04	-	28.40	2.81	-
AV	2.4126G	108.96	Inf	-Inf	77.75	3	Horizontal	132	2.04	-	28.40	2.81	-

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

### 2412MHz\_TX

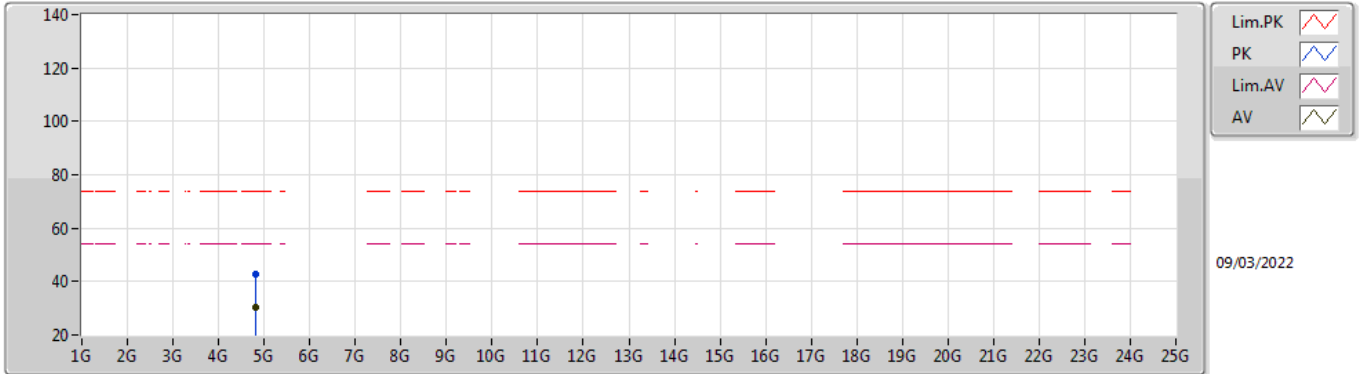


EUT Y\_2TX  
Setting 20.5  
02-B-R-5

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	4.82396G	42.75	74.00	-31.25	37.07	3	Vertical	13	1.66	-	32.80	5.10	32.22
AV	4.81704G	30.30	54.00	-23.70	24.66	3	Vertical	13	1.66	-	32.77	5.10	32.23

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

### 2412MHz\_TX

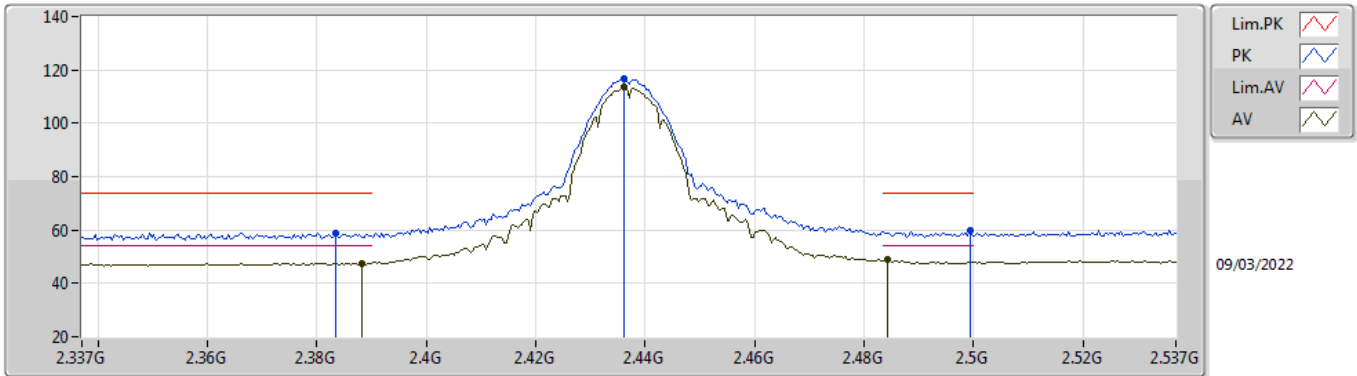


EUT Y\_2TX  
Setting 20.5  
02-B-R-5

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	4.81936G	42.54	74.00	-31.46	36.89	3	Horizontal	233	2.38	-	32.78	5.10	32.23
AV	4.81464G	30.44	54.00	-23.56	24.81	3	Horizontal	233	2.38	-	32.76	5.10	32.23

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

### 2437MHz\_TX



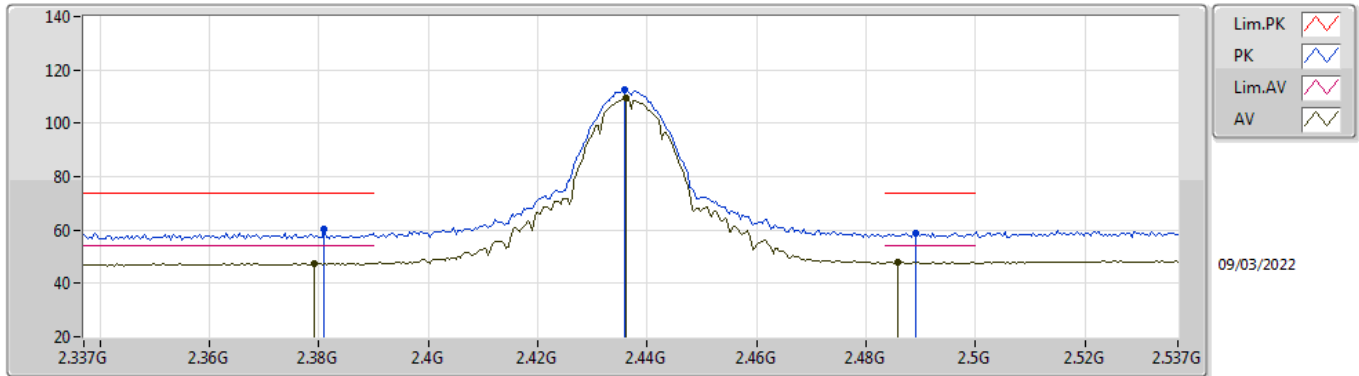
EUT\_Z\_2TX  
Setting 20.5  
02-B-R-5

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	2.3834G	58.95	74.00	-15.05	27.79	3	Vertical	39	1.75	-	28.37	2.79	-
AV	2.3882G	47.64	54.00	-6.36	16.47	3	Vertical	39	1.75	-	28.38	2.79	-
PK	2.4362G	116.69	Inf	-Inf	85.45	3	Vertical	39	1.75	-	28.40	2.84	-
AV	2.4362G	113.38	Inf	-Inf	82.14	3	Vertical	39	1.75	-	28.40	2.84	-
PK	2.4994G	59.59	74.00	-14.41	28.09	3	Vertical	39	1.75	-	28.60	2.90	-
AV	2.4842G	48.85	54.00	-5.15	17.43	3	Vertical	39	1.75	-	28.54	2.88	-



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

### 2437MHz\_TX

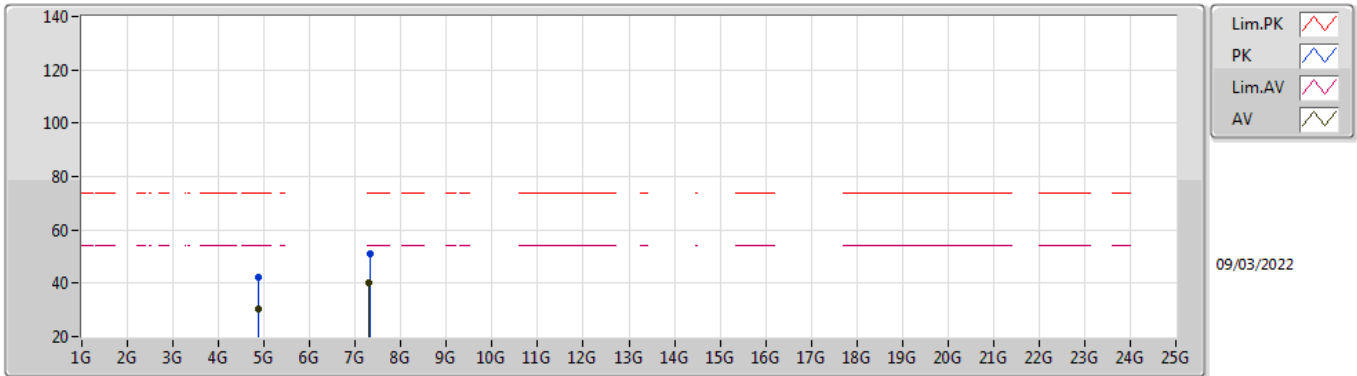


EUT\_Z\_2TX  
Setting 20.5  
02-B-R-5

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	2.381G	60.22	74.00	-13.78	29.07	3	Horizontal	131	2.27	-	28.36	2.79	-
AV	2.379G	47.59	54.00	-6.41	16.44	3	Horizontal	131	2.27	-	28.36	2.79	-
PK	2.4358G	112.74	Inf	-Inf	81.50	3	Horizontal	131	2.27	-	28.40	2.84	-
AV	2.4362G	109.25	Inf	-Inf	78.01	3	Horizontal	131	2.27	-	28.40	2.84	-
PK	2.489G	58.94	74.00	-15.06	27.49	3	Horizontal	131	2.27	-	28.56	2.89	-
AV	2.4858G	47.95	54.00	-6.05	16.52	3	Horizontal	131	2.27	-	28.54	2.89	-

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

### 2437MHz\_TX

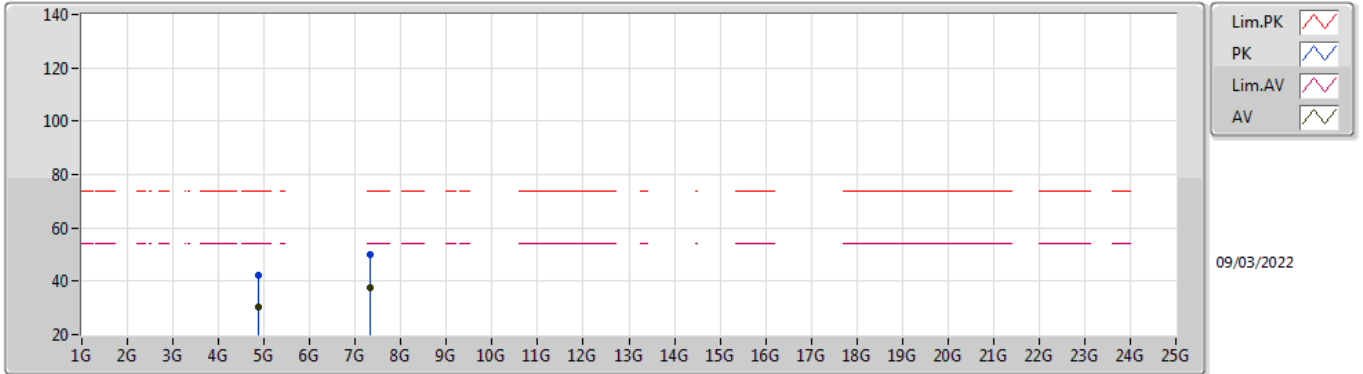


EUT Y\_2TX  
Setting 20.5  
02-B-R-5

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	4.87652G	42.34	74.00	-31.66	36.49	3	Vertical	230	2.54	-	32.95	5.10	32.20
AV	4.88108G	30.32	54.00	-23.68	24.46	3	Vertical	230	2.54	-	32.96	5.10	32.20
PK	7.31024G	50.98	74.00	-23.02	41.22	3	Vertical	189	1.98	-	36.42	6.16	32.82
AV	7.30992G	39.98	54.00	-14.02	30.23	3	Vertical	189	1.98	-	36.42	6.15	32.82

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

### 2437MHz\_TX

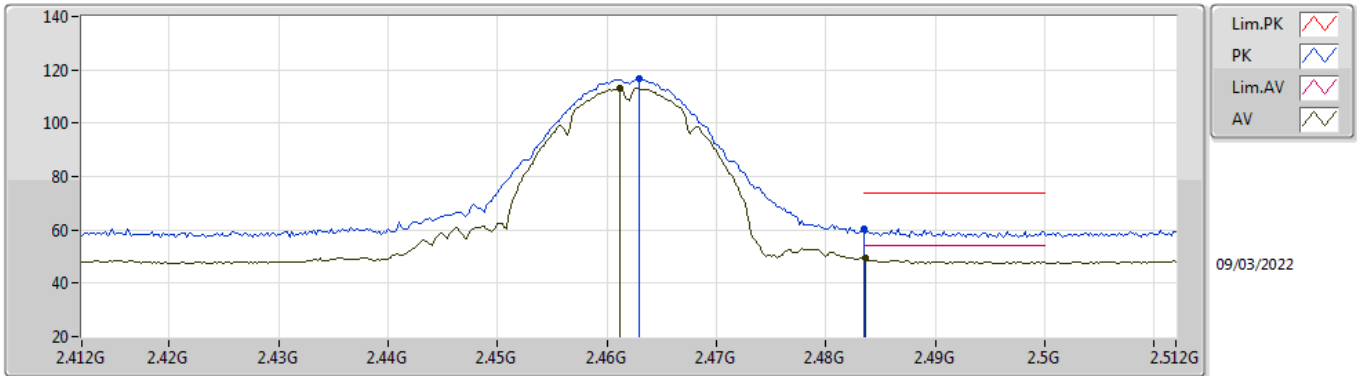


EUT Y\_2TX  
Setting 20.5  
02-B-R-5

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	4.86424G	42.50	74.00	-31.50	36.68	3	Horizontal	335	2.13	-	32.93	5.10	32.21
AV	4.87712G	30.26	54.00	-23.74	24.41	3	Horizontal	335	2.13	-	32.95	5.10	32.20
PK	7.31832G	50.09	74.00	-23.91	40.32	3	Horizontal	210	1.80	-	36.44	6.16	32.83
AV	7.31192G	37.73	54.00	-16.27	27.97	3	Horizontal	210	1.80	-	36.42	6.16	32.82

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

### 2462MHz\_TX

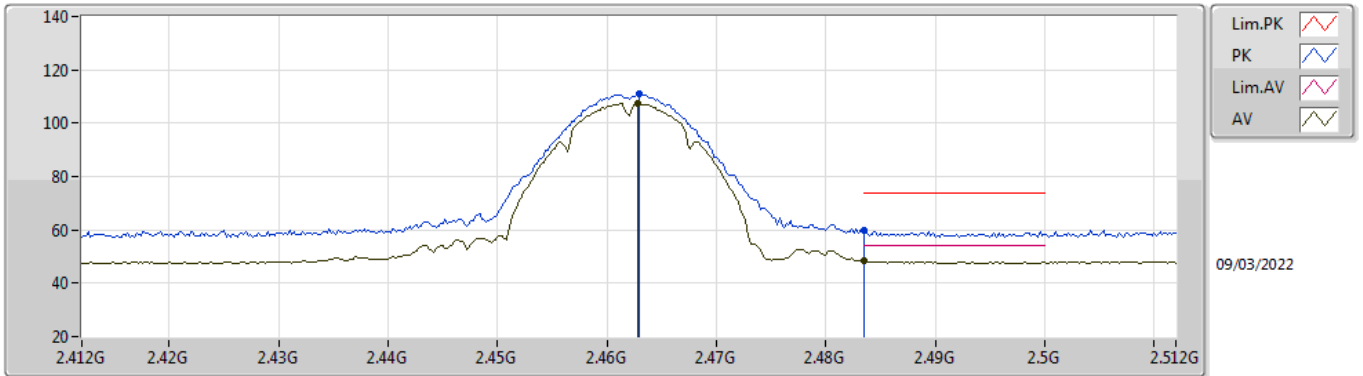


EUT\_Z\_2TX  
Setting 21  
02-B-R-5

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	2.463G	116.57	Inf	-Inf	85.26	3	Vertical	35	1.22	-	28.45	2.86	-
AV	2.4612G	113.08	Inf	-Inf	81.78	3	Vertical	35	1.22	-	28.44	2.86	-
PK	2.4835G	60.24	74.00	-13.76	28.83	3	Vertical	35	1.22	-	28.53	2.88	-
AV	2.4836G	49.54	54.00	-4.46	18.13	3	Vertical	35	1.22	-	28.53	2.88	-

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

### 2462MHz\_TX

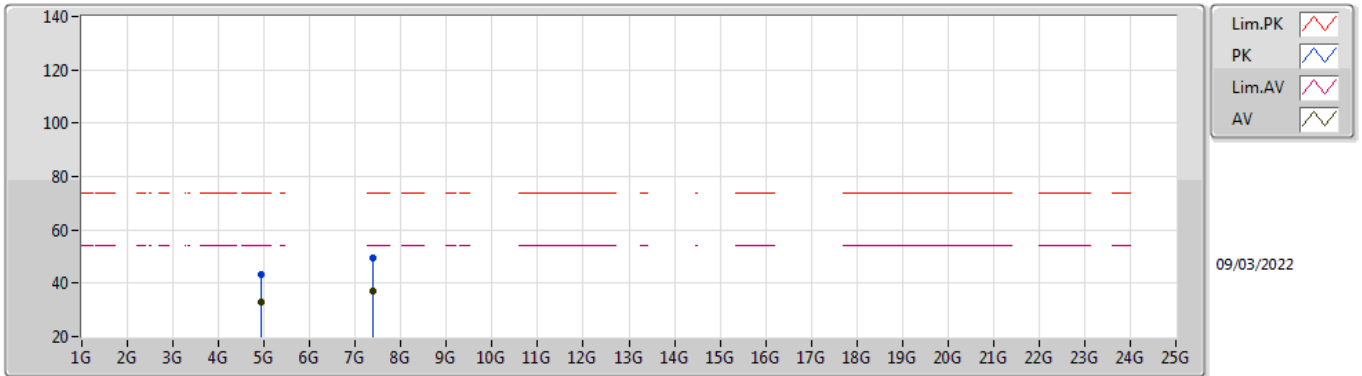


EUT\_Z\_2TX  
Setting 21  
02-B-R-5

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	2.463G	110.96	Inf	-Inf	79.65	3	Horizontal	56	2.46	-	28.45	2.86	-
AV	2.4628G	107.39	Inf	-Inf	76.08	3	Horizontal	56	2.46	-	28.45	2.86	-
PK	2.4835G	60.08	74.00	-13.92	28.67	3	Horizontal	56	2.46	-	28.53	2.88	-
AV	2.4835G	48.30	54.00	-5.70	16.89	3	Horizontal	56	2.46	-	28.53	2.88	-

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

### 2462MHz\_TX

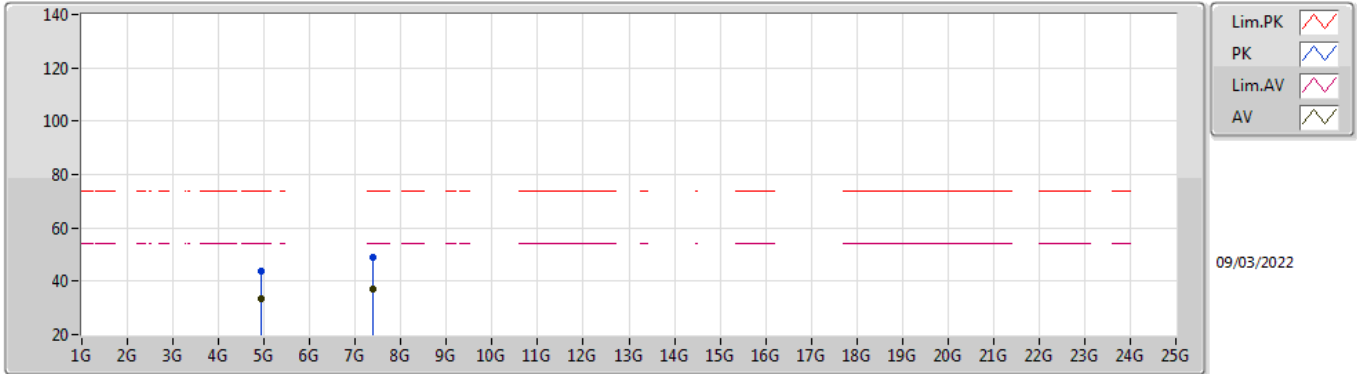


EUT Y\_2TX  
Setting 21  
02-B-R-5

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	4.92496G	43.46	74.00	-30.54	37.40	3	Vertical	20	2.60	-	33.15	5.10	32.19
AV	4.92392G	32.85	54.00	-21.15	26.80	3	Vertical	20	2.60	-	33.14	5.10	32.19
PK	7.37804G	49.43	74.00	-24.57	39.62	3	Vertical	82	1.80	-	36.56	6.19	32.94
AV	7.3836G	36.95	54.00	-17.05	27.14	3	Vertical	82	1.80	-	36.57	6.19	32.95

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

### 2462MHz\_TX

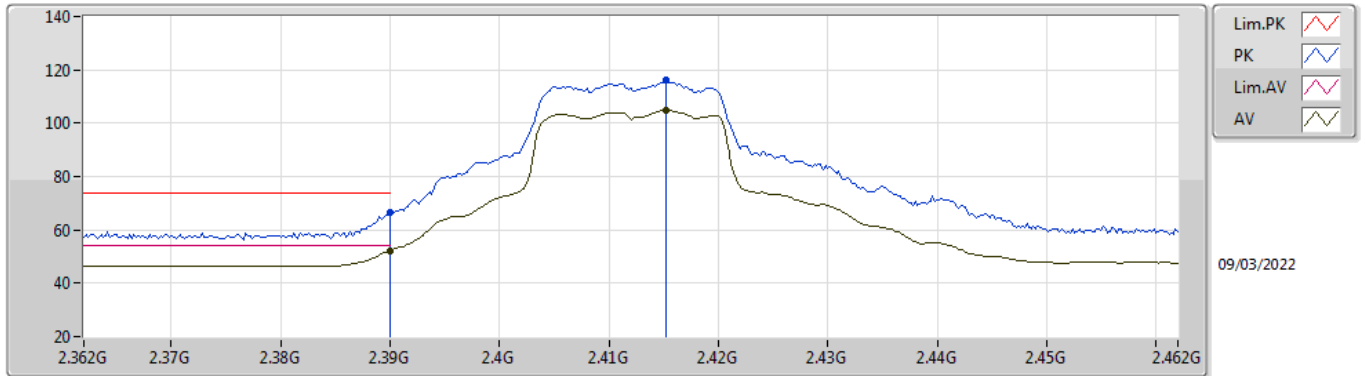


EUT Y\_2TX  
Setting 21  
02-B-R-5

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	4.9242G	43.98	74.00	-30.02	37.92	3	Horizontal	205	1.10	-	33.15	5.10	32.19
AV	4.924G	33.34	54.00	-20.66	27.29	3	Horizontal	205	1.10	-	33.14	5.10	32.19
PK	7.38436G	49.15	74.00	-24.85	39.34	3	Horizontal	213	1.29	-	36.57	6.19	32.95
AV	7.37944G	36.94	54.00	-17.06	27.13	3	Horizontal	213	1.29	-	36.56	6.19	32.94

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

### 2412MHz\_TX



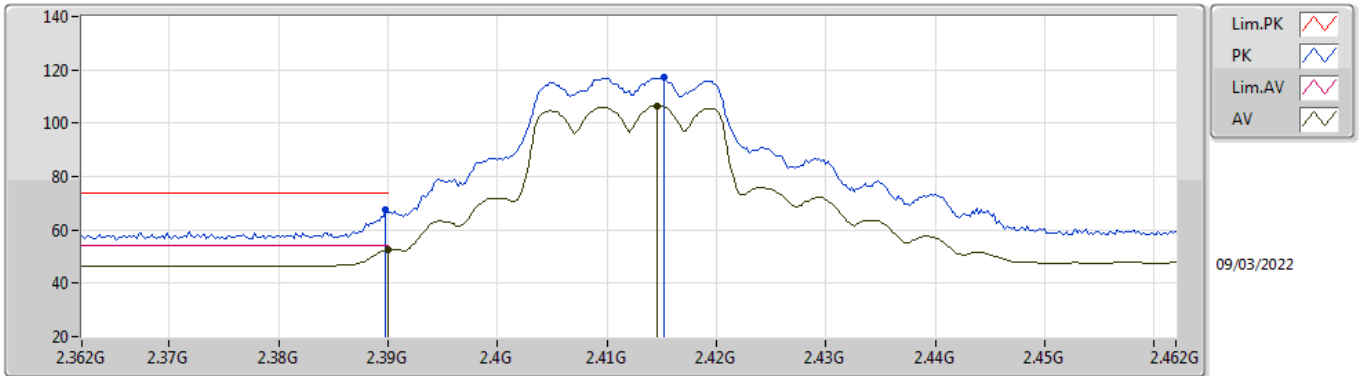
EUT\_Z\_2TX  
Setting 20.5  
02-B-R-5

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	66.78	74.00	-7.22	35.61	3	Vertical	22	2.08	-	28.38	2.79	-
AV	2.39G	52.31	54.00	-1.69	21.14	3	Vertical	22	2.08	-	28.38	2.79	-
PK	2.4152G	116.03	Inf	-Inf	84.81	3	Vertical	22	2.08	-	28.40	2.82	-
AV	2.4152G	104.81	Inf	-Inf	73.59	3	Vertical	22	2.08	-	28.40	2.82	-



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

### 2412MHz\_TX

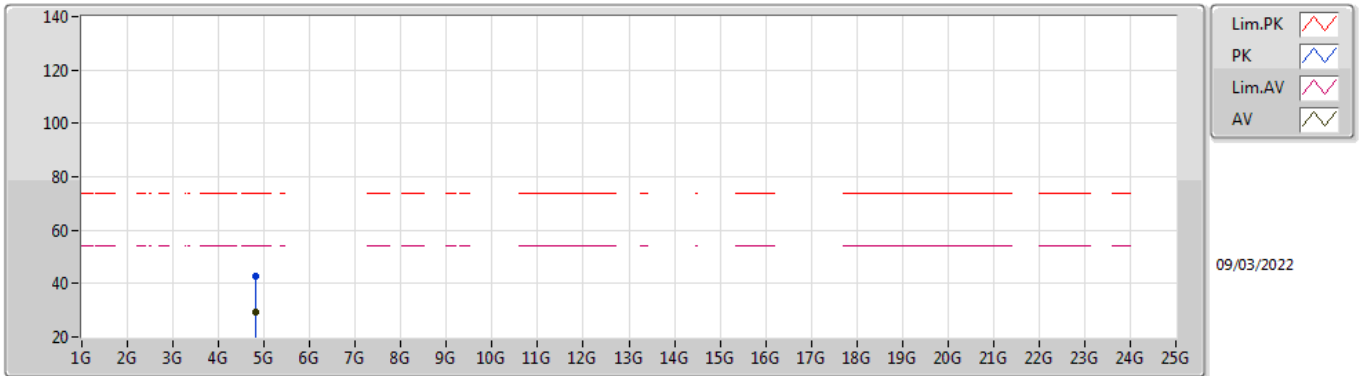


EUT\_Z\_2TX  
Setting 20.5  
02-B-R-5

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	2.3898G	67.47	74.00	-6.53	36.30	3	Horizontal	105	1.72	-	28.38	2.79	-
AV	2.39G	52.46	54.00	-1.54	21.29	3	Horizontal	105	1.72	-	28.38	2.79	-
PK	2.4152G	117.03	Inf	-Inf	85.81	3	Horizontal	105	1.72	-	28.40	2.82	-
AV	2.4146G	106.59	Inf	-Inf	75.38	3	Horizontal	105	1.72	-	28.40	2.81	-

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

### 2412MHz\_TX

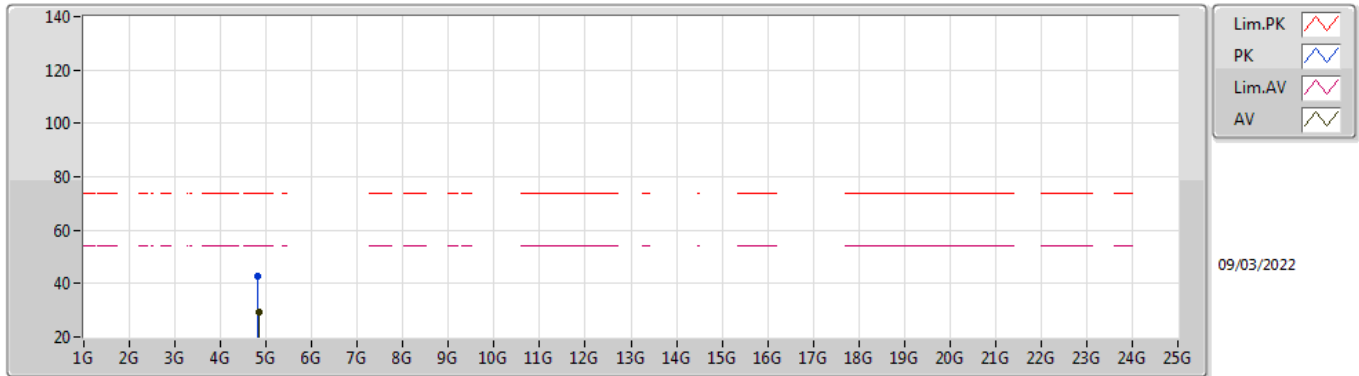


EUT Y\_2TX  
Setting 20.5  
02-B-R-5

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	4.82464G	42.57	74.00	-31.43	36.89	3	Vertical	44	1.67	-	32.80	5.10	32.22
AV	4.82436G	29.20	54.00	-24.80	23.52	3	Vertical	44	1.67	-	32.80	5.10	32.22

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

### 2412MHz\_TX

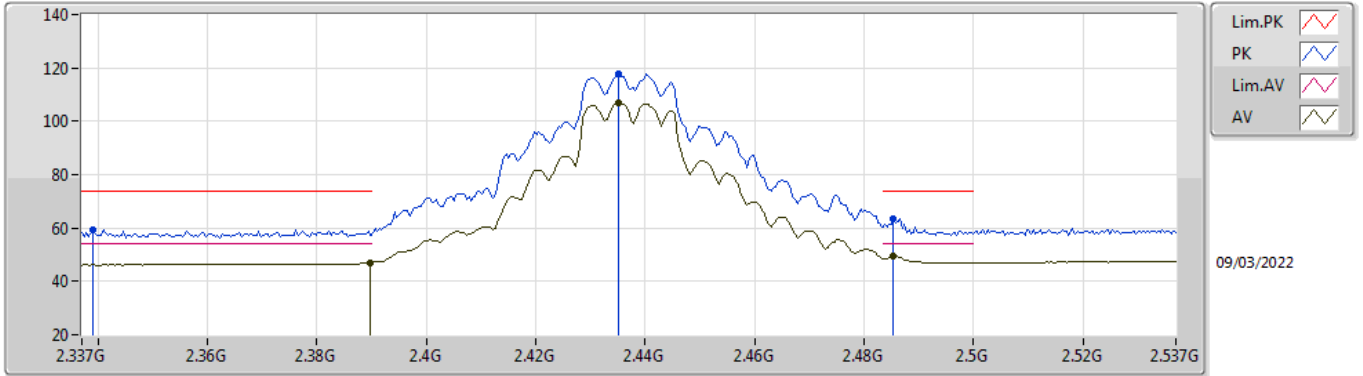


EUT Y\_2TX  
Setting 20.5  
02-B-R-5

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	4.82472G	42.92	74.00	-31.08	37.24	3	Horizontal	94	1.21	-	32.80	5.10	32.22
AV	4.8332G	29.17	54.00	-24.83	23.46	3	Horizontal	94	1.21	-	32.83	5.10	32.22

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

### 2437MHz\_TX

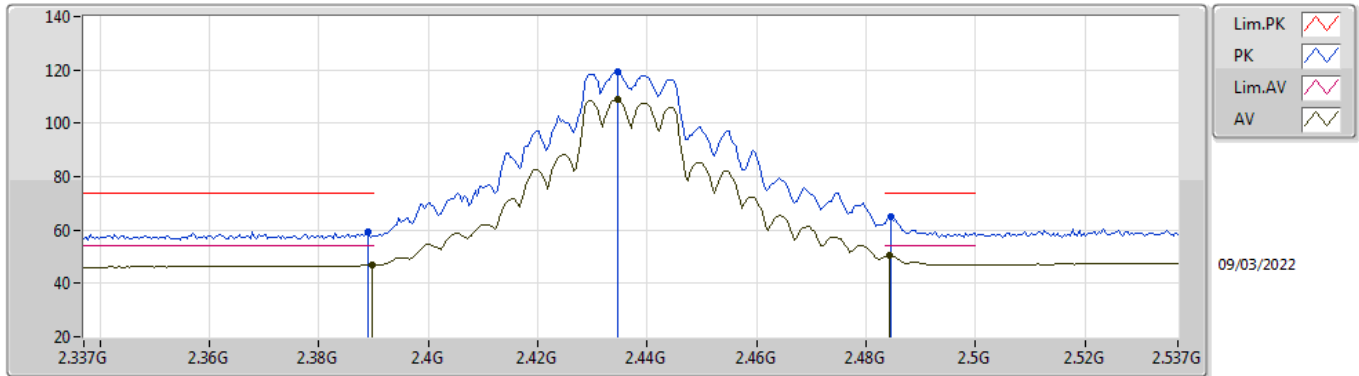


EUT\_Z\_2TX  
Setting 23  
02-B-R-5

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	2.339G	59.37	74.00	-14.63	28.34	3	Vertical	26	2.73	-	28.26	2.77	-
AV	2.3898G	47.03	54.00	-6.97	15.86	3	Vertical	26	2.73	-	28.38	2.79	-
PK	2.435G	117.83	Inf	-Inf	86.60	3	Vertical	26	2.73	-	28.40	2.83	-
AV	2.435G	106.84	Inf	-Inf	75.61	3	Vertical	26	2.73	-	28.40	2.83	-
PK	2.4854G	63.41	74.00	-10.59	31.98	3	Vertical	26	2.73	-	28.54	2.89	-
AV	2.4854G	49.37	54.00	-4.63	17.94	3	Vertical	26	2.73	-	28.54	2.89	-

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

### 2437MHz\_TX

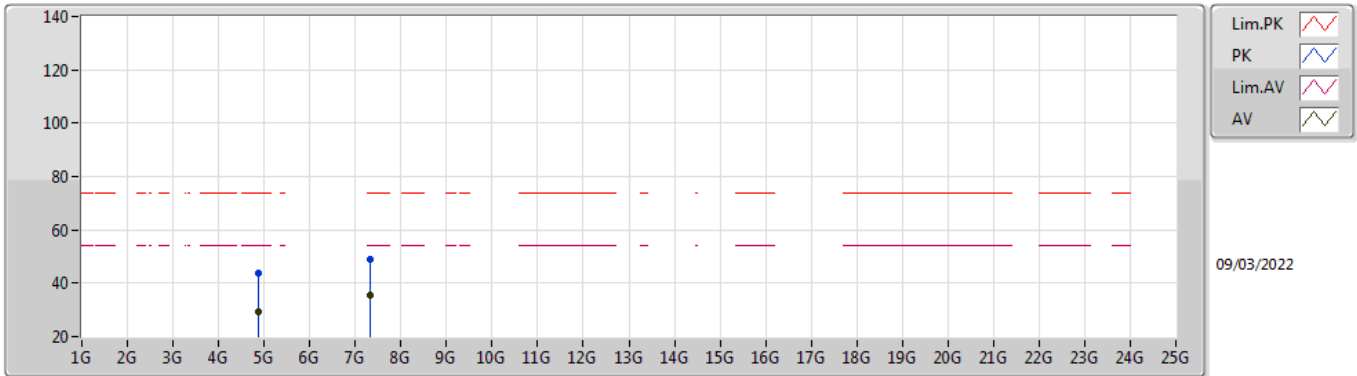


EUT\_Z\_2TX  
Setting 23  
02-B-R-5

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	59.27	74.00	-14.73	28.10	3	Horizontal	104	1.67	-	28.38	2.79	-
AV	2.3898G	46.88	54.00	-7.12	15.71	3	Horizontal	104	1.67	-	28.38	2.79	-
PK	2.4346G	119.50	Inf	-Inf	88.27	3	Horizontal	104	1.67	-	28.40	2.83	-
AV	2.4346G	109.00	Inf	-Inf	77.77	3	Horizontal	104	1.67	-	28.40	2.83	-
PK	2.4846G	65.02	74.00	-8.98	33.60	3	Horizontal	104	1.67	-	28.54	2.88	-
AV	2.4842G	50.34	54.00	-3.66	18.92	3	Horizontal	104	1.67	-	28.54	2.88	-

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

### 2437MHz\_TX

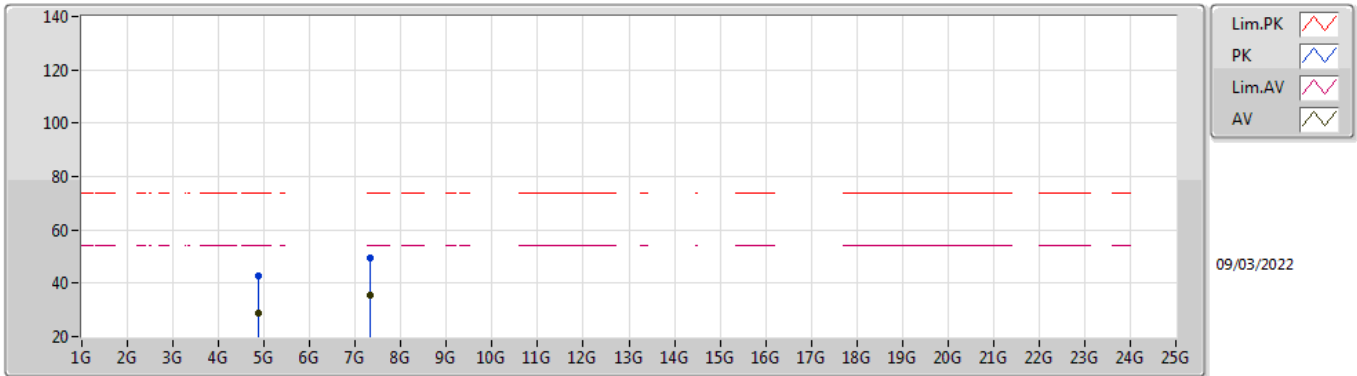


EUT Y\_2TX  
Setting 23  
02-B-R-5

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	4.868G	43.72	74.00	-30.28	37.89	3	Vertical	146	1.01	-	32.94	5.10	32.21
AV	4.86604G	29.55	54.00	-24.45	23.73	3	Vertical	146	1.01	-	32.93	5.10	32.21
PK	7.31544G	49.09	74.00	-24.91	39.33	3	Vertical	115	2.26	-	36.43	6.16	32.83
AV	7.31732G	35.59	54.00	-18.41	25.83	3	Vertical	115	2.26	-	36.43	6.16	32.83

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

### 2437MHz\_TX

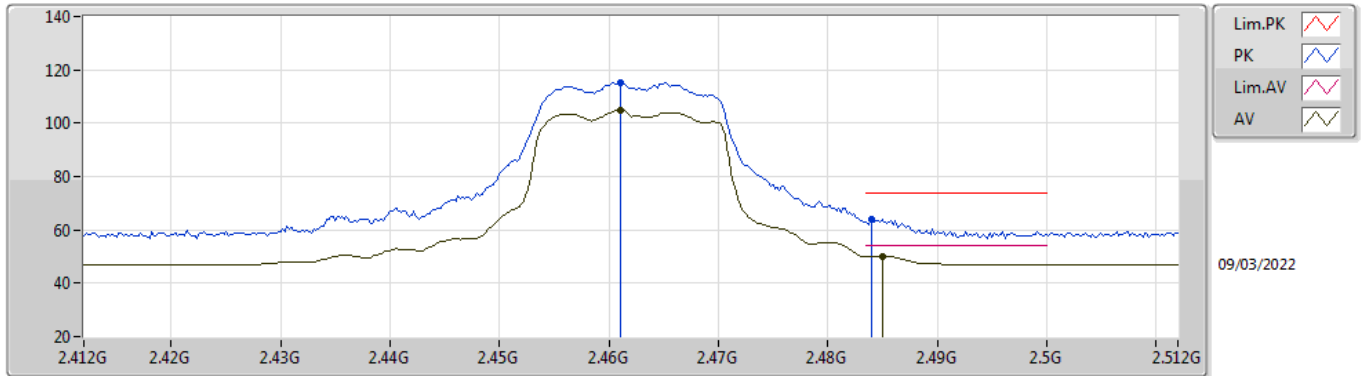


EUT Y\_2TX  
Setting 23  
02-B-R-5

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	4.86932G	42.88	74.00	-31.12	37.05	3	Horizontal	134	1.54	-	32.94	5.10	32.21
AV	4.87344G	28.96	54.00	-25.04	23.12	3	Horizontal	134	1.54	-	32.95	5.10	32.21
PK	7.32032G	49.36	74.00	-24.64	39.60	3	Horizontal	301	1.03	-	36.44	6.16	32.84
AV	7.31864G	35.59	54.00	-18.41	25.82	3	Horizontal	301	1.03	-	36.44	6.16	32.83

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

### 2462MHz\_TX



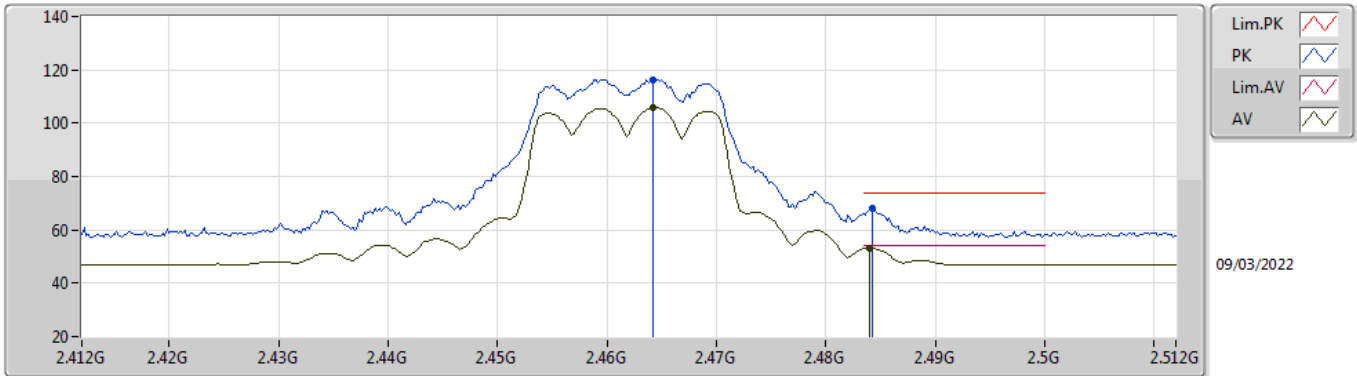
EUT\_Z\_2TX  
Setting 20.5  
02-B-R-5

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	2.461G	115.21	Inf	-Inf	83.91	3	Vertical	25	2.01	-	28.44	2.86	-
AV	2.461G	104.90	Inf	-Inf	73.60	3	Vertical	25	2.01	-	28.44	2.86	-
PK	2.484G	63.97	74.00	-10.03	32.55	3	Vertical	25	2.01	-	28.54	2.88	-
AV	2.485G	50.10	54.00	-3.90	18.67	3	Vertical	25	2.01	-	28.54	2.89	-



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

### 2462MHz\_TX

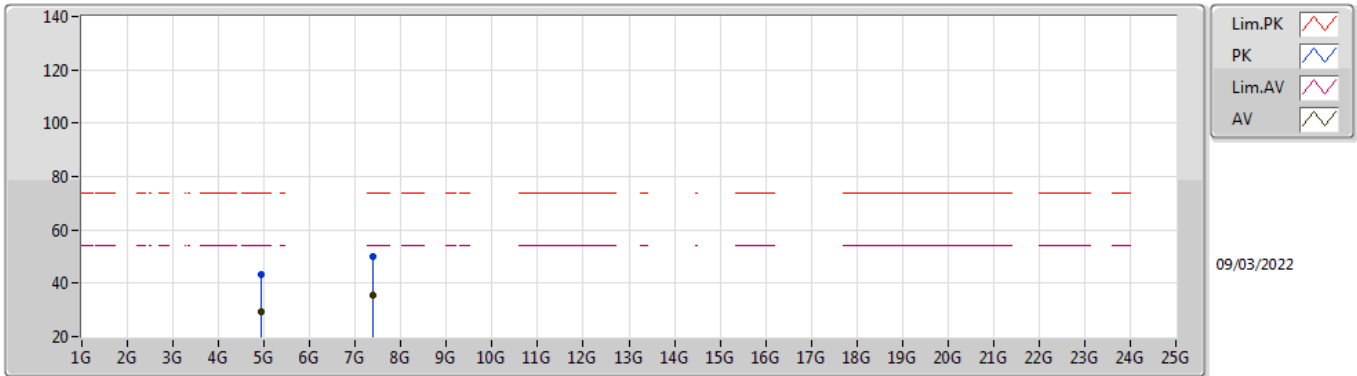


EUT\_Z\_2TX  
Setting 20.5  
02-B-R-5

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	116.33	Inf	-Inf	85.01	3	Horizontal	107	1.82	-	28.46	2.86	-
AV	2.4642G	105.80	Inf	-Inf	74.48	3	Horizontal	107	1.82	-	28.46	2.86	-
PK	2.4842G	68.19	74.00	-5.81	36.77	3	Horizontal	107	1.82	-	28.54	2.88	-
AV	2.484G	53.16	54.00	-0.84	21.74	3	Horizontal	107	1.82	-	28.54	2.88	-

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

### 2462MHz\_TX

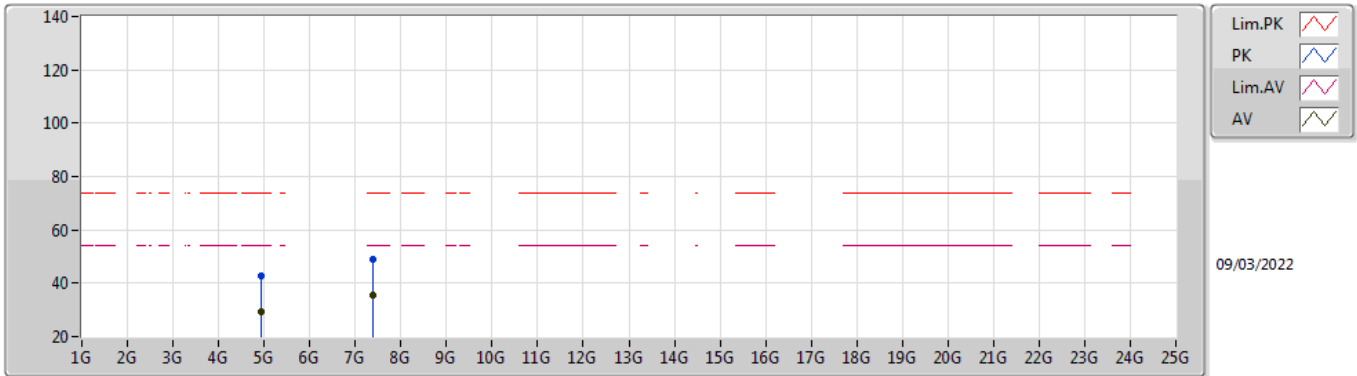


EUT Y\_2TX  
Setting 20.5  
02-B-R-5

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	4.93316G	43.11	74.00	-30.89	36.99	3	Vertical	84	1.03	-	33.20	5.10	32.18
AV	4.92672G	29.44	54.00	-24.56	23.37	3	Vertical	84	1.03	-	33.16	5.10	32.19
PK	7.38692G	49.86	74.00	-24.14	40.05	3	Vertical	252	2.32	-	36.57	6.19	32.95
AV	7.37716G	35.56	54.00	-18.44	25.76	3	Vertical	252	2.32	-	36.55	6.19	32.94

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

### 2462MHz\_TX

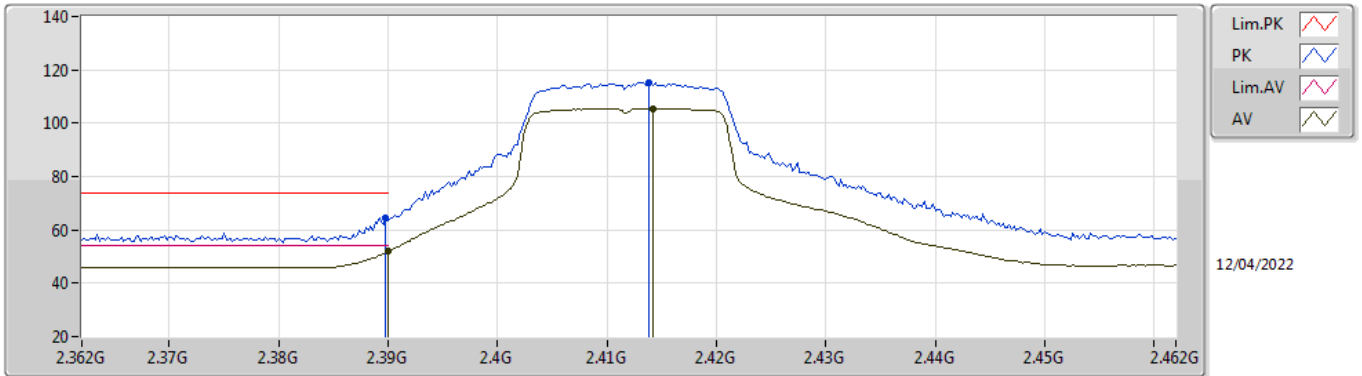


EUT Y\_2TX  
Setting 20.5  
02-B-R-5

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	4.93012G	42.91	74.00	-31.09	36.82	3	Horizontal	335	2.49	-	33.18	5.10	32.19
AV	4.9288G	29.35	54.00	-24.65	23.27	3	Horizontal	335	2.49	-	33.17	5.10	32.19
PK	7.37656G	49.06	74.00	-24.94	39.26	3	Horizontal	353	1.41	-	36.55	6.19	32.94
AV	7.37928G	35.48	54.00	-18.52	25.67	3	Horizontal	353	1.41	-	36.56	6.19	32.94

802.11n HT20\_Nss1,(MCS0)\_2TX

2412MHz\_TX

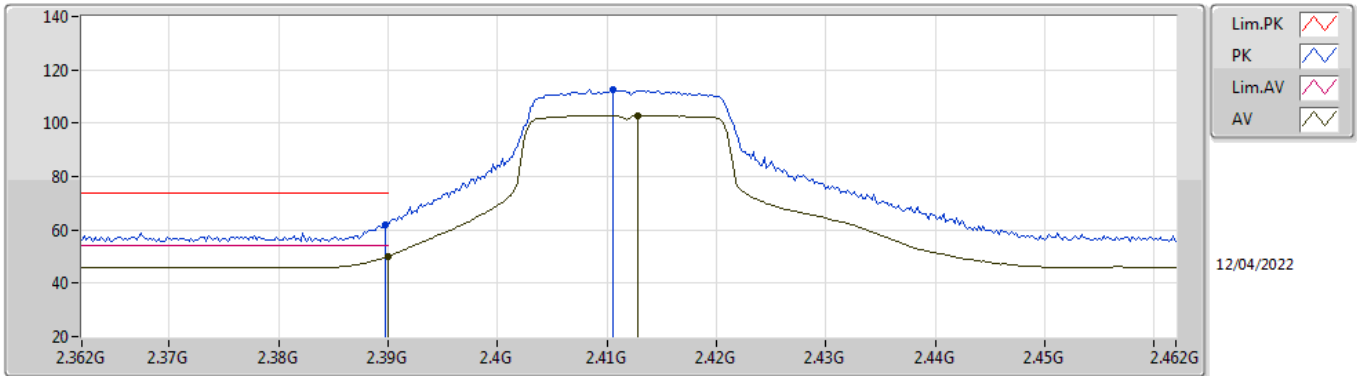


EUT Z\_2TX  
Setting 20.5  
05-M-K-3

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	64.41	74.00	-9.59	33.28	3	Vertical	46	1.02	-	27.84	3.29	-
AV	2.39G	51.93	54.00	-2.07	20.80	3	Vertical	46	1.02	-	27.84	3.29	-
PK	2.4138G	115.16	Inf	-Inf	84.13	3	Vertical	46	1.02	-	27.72	3.31	-
AV	2.4142G	105.59	Inf	-Inf	74.57	3	Vertical	46	1.02	-	27.71	3.31	-

802.11n HT20\_Nss1,(MCS0)\_2TX

2412MHz\_TX

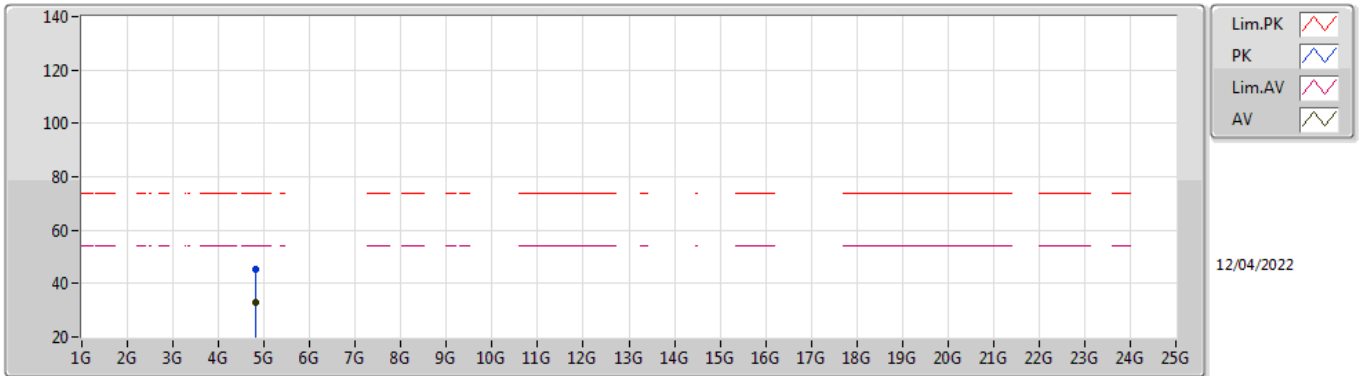


EUT\_Z\_2TX  
Setting 20.5  
05-M-K-3

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	62.03	74.00	-11.97	30.90	3	Horizontal	188	1.78	-	27.84	3.29	-
AV	2.39G	50.02	54.00	-3.98	18.89	3	Horizontal	188	1.78	-	27.84	3.29	-
PK	2.4106G	112.77	Inf	-Inf	81.72	3	Horizontal	188	1.78	-	27.74	3.31	-
AV	2.4128G	102.85	Inf	-Inf	71.82	3	Horizontal	188	1.78	-	27.72	3.31	-

802.11n HT20\_Nss1,(MCS0)\_2TX

2412MHz\_TX

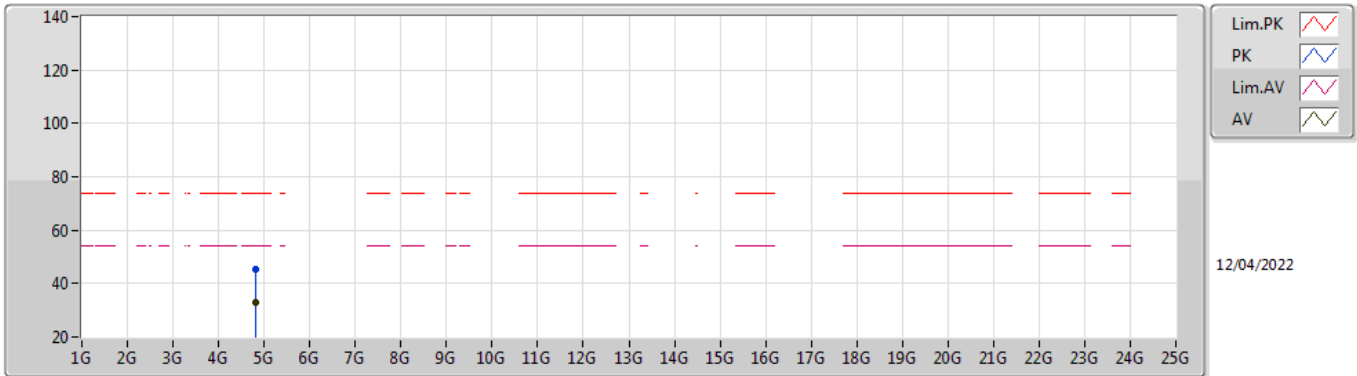


EUT Y\_2TX  
Setting 20.5  
05-M-K-3

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	4.81296G	45.21	74.00	-28.79	43.49	3	Vertical	72	1.80	-	31.10	6.51	35.89
AV	4.82256G	32.84	54.00	-21.16	31.11	3	Vertical	72	1.80	-	31.10	6.51	35.88

### 802.11n HT20\_Nss1,(MCS0)\_2TX

### 2412MHz\_TX

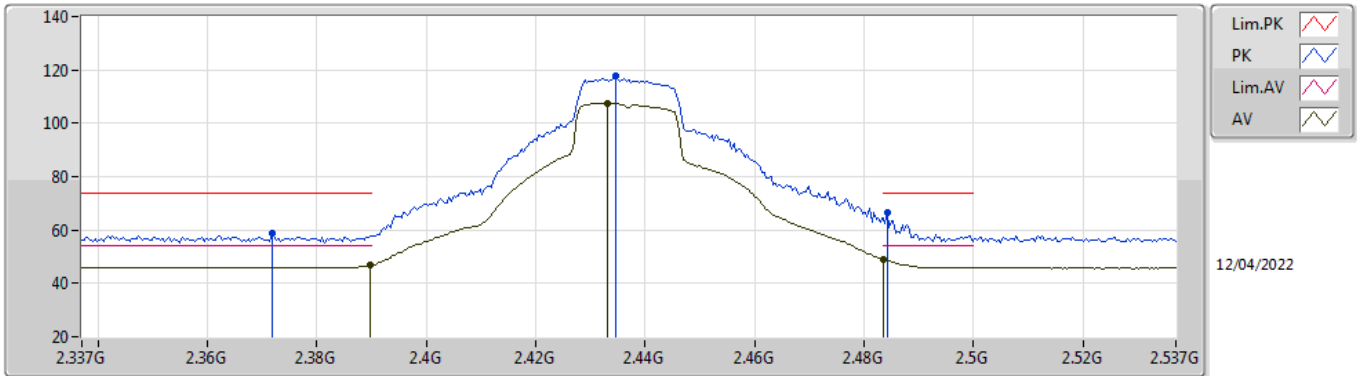


EUT Y\_2TX  
Setting 20.5  
05-M-K-3

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.81926G	45.44	74.00	-28.56	43.72	3	Horizontal	231	1.80	-	31.10	6.51	35.89
AV	4.82244G	32.78	54.00	-21.22	31.05	3	Horizontal	231	1.80	-	31.10	6.51	35.88

802.11n HT20\_Nss1,(MCS0)\_2TX

2437MHz\_TX



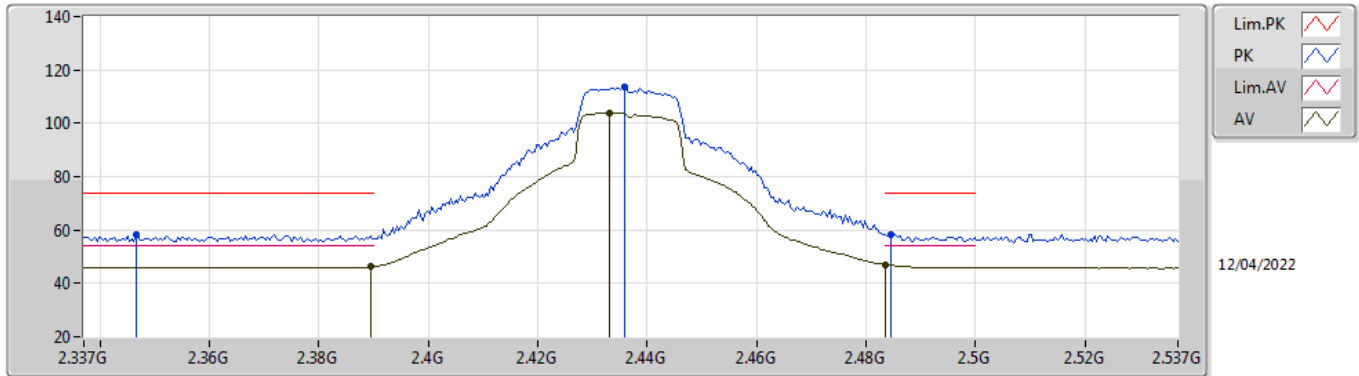
EUT\_Z\_2TX  
Setting 23  
05-M-K-3

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	2.3718G	58.62	74.00	-15.38	27.42	3	Vertical	49	1.30	-	27.91	3.29	-
AV	2.3898G	46.66	54.00	-7.34	15.53	3	Vertical	49	1.30	-	27.84	3.29	-
PK	2.4346G	117.70	Inf	-Inf	86.78	3	Vertical	49	1.30	-	27.59	3.33	-
AV	2.433G	107.52	Inf	-Inf	76.59	3	Vertical	49	1.30	-	27.60	3.33	-
PK	2.4842G	66.57	74.00	-7.43	35.76	3	Vertical	49	1.30	-	27.43	3.38	-
AV	2.4835G	48.80	54.00	-5.20	17.99	3	Vertical	49	1.30	-	27.43	3.38	-



### 802.11n HT20\_Nss1,(MCS0)\_2TX

### 2437MHz\_TX

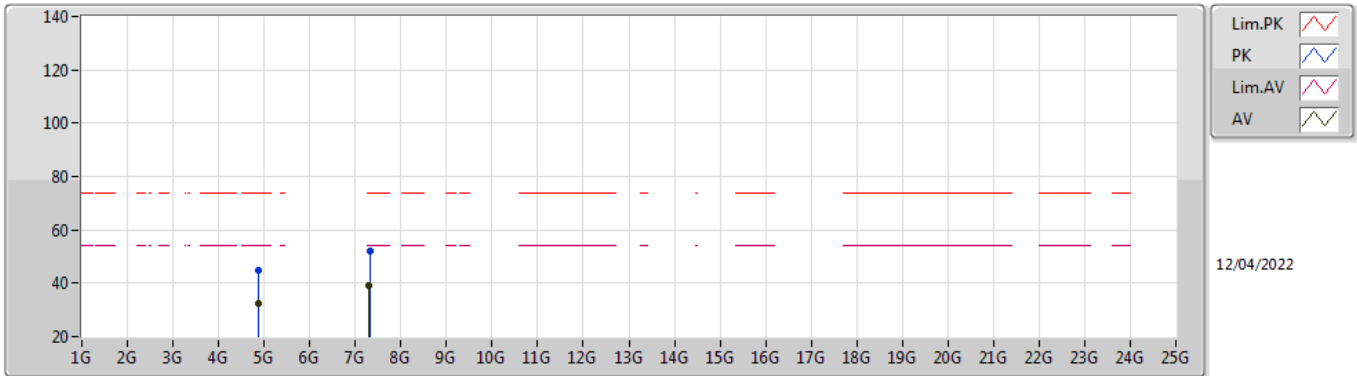


EUT\_Z\_2TX  
Setting 23  
05-M-K-3

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	2.3466G	58.37	74.00	-15.63	27.10	3	Horizontal	189	1.57	-	28.00	3.27	-
AV	2.3894G	46.17	54.00	-7.83	15.04	3	Horizontal	189	1.57	-	27.84	3.29	-
PK	2.4358G	113.60	Inf	-Inf	82.67	3	Horizontal	189	1.57	-	27.59	3.34	-
AV	2.433G	104.02	Inf	-Inf	73.09	3	Horizontal	189	1.57	-	27.60	3.33	-
PK	2.4846G	58.31	74.00	-15.69	27.50	3	Horizontal	189	1.57	-	27.43	3.38	-
AV	2.4835G	46.91	54.00	-7.09	16.10	3	Horizontal	189	1.57	-	27.43	3.38	-

802.11n HT20\_Nss1,(MCS0)\_2TX

2437MHz\_TX

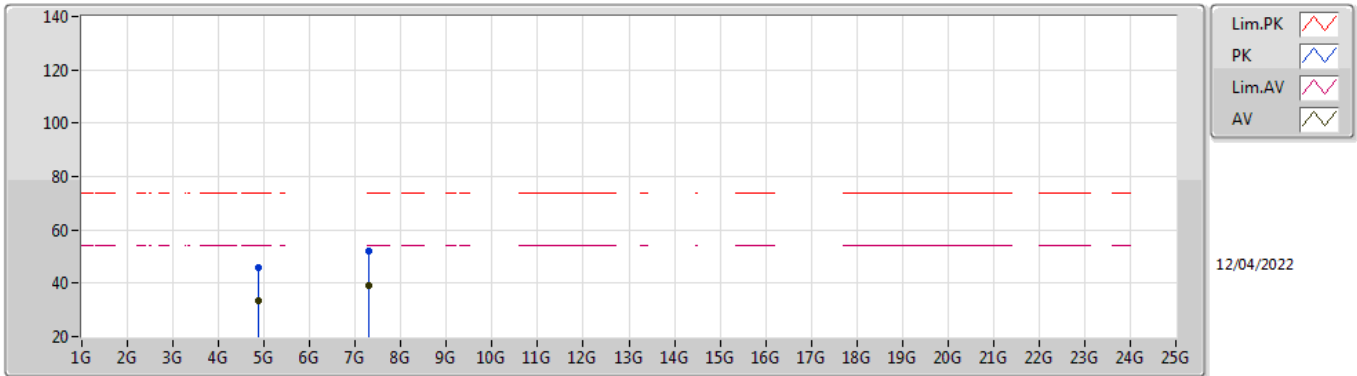


EUT Y\_2TX  
Setting 23  
05-M-K-3

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	4.87328G	45.06	74.00	-28.94	43.24	3	Vertical	239	1.53	-	31.15	6.54	35.87
AV	4.87448G	32.54	54.00	-21.46	30.72	3	Vertical	239	1.53	-	31.15	6.54	35.87
PK	7.31442G	51.97	74.00	-22.03	42.39	3	Vertical	36	1.26	-	36.68	7.51	34.61
AV	7.3026G	38.99	54.00	-15.01	29.33	3	Vertical	36	1.26	-	36.78	7.50	34.62

802.11n HT20\_Nss1,(MCS0)\_2TX

2437MHz\_TX

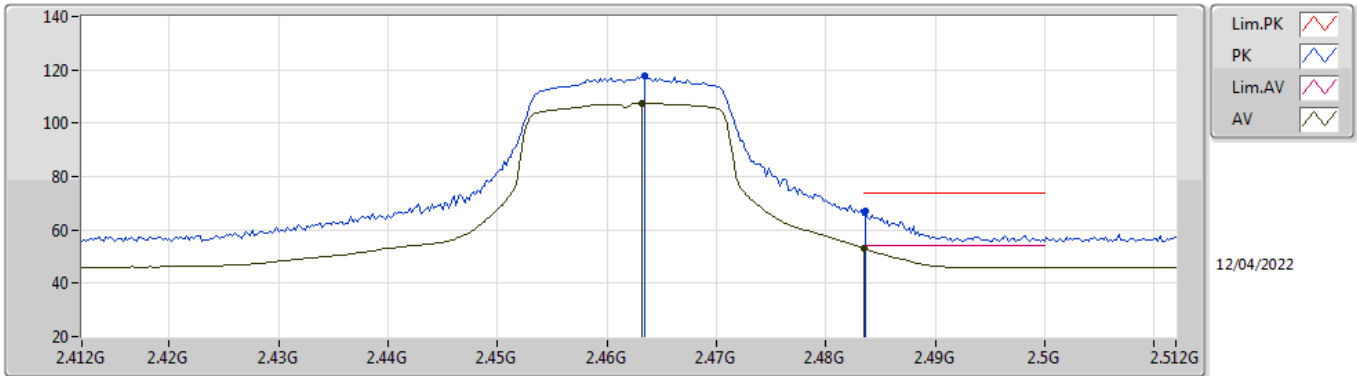


EUT Y\_2TX  
Setting 23  
05-M-K-3

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	4.8761G	45.77	74.00	-28.23	43.94	3	Horizontal	325	1.78	-	31.15	6.54	35.86
AV	4.87496G	33.30	54.00	-20.70	31.48	3	Horizontal	325	1.78	-	31.15	6.54	35.87
PK	7.30578G	51.82	74.00	-22.18	42.18	3	Horizontal	146	1.80	-	36.75	7.51	34.62
AV	7.30224G	39.13	54.00	-14.87	29.47	3	Horizontal	146	1.80	-	36.78	7.50	34.62

802.11n HT20\_Nss1,(MCS0)\_2TX

2462MHz\_TX

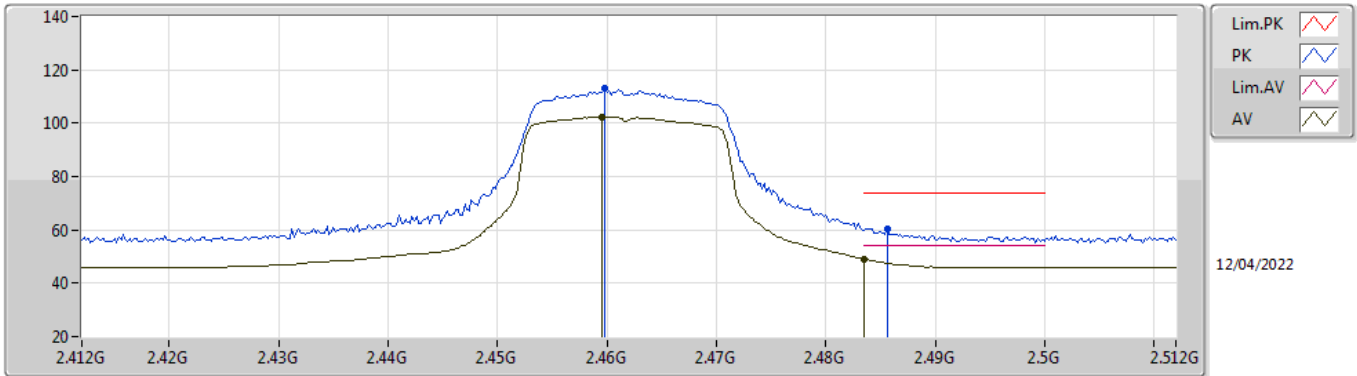


EUT\_Z\_2TX  
Setting 20.5  
05-M-K-3

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.4634G	117.82	Inf	-Inf	86.99	3	Vertical	128	2.12	-	27.47	3.36	-
AV	2.4632G	107.52	Inf	-Inf	76.69	3	Vertical	128	2.12	-	27.47	3.36	-
PK	2.4836G	66.83	74.00	-7.17	36.02	3	Vertical	128	2.12	-	27.43	3.38	-
AV	2.4835G	53.05	54.00	-0.95	22.24	3	Vertical	128	2.12	-	27.43	3.38	-

802.11n HT20\_Nss1,(MCS0)\_2TX

2462MHz\_TX

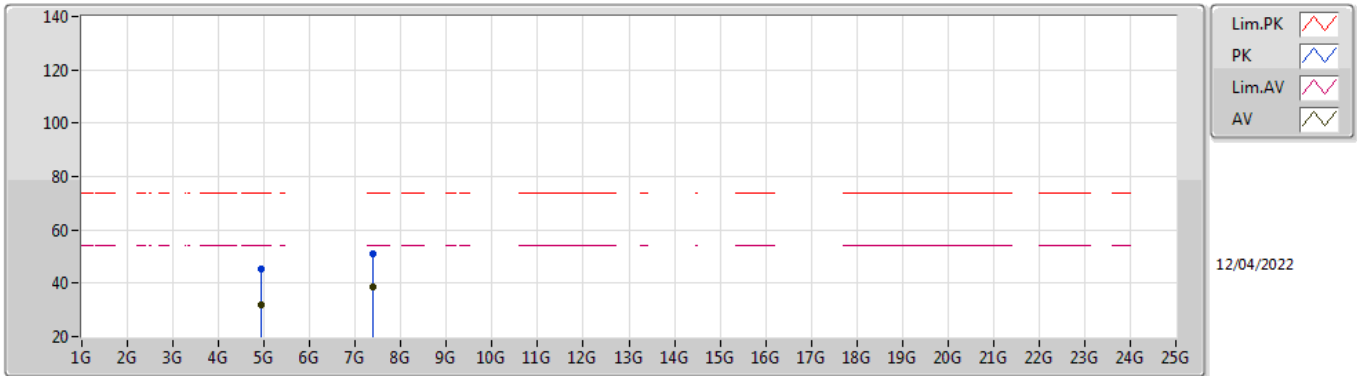


EUT\_Z\_2TX  
Setting 20.5  
05-M-K-3

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.4598G	113.13	Inf	-Inf	82.29	3	Horizontal	231	2.14	-	27.48	3.36	-
AV	2.4596G	102.26	Inf	-Inf	71.42	3	Horizontal	231	2.14	-	27.48	3.36	-
PK	2.4856G	60.43	74.00	-13.57	29.61	3	Horizontal	231	2.14	-	27.43	3.39	-
AV	2.4835G	49.17	54.00	-4.83	18.36	3	Horizontal	231	2.14	-	27.43	3.38	-

802.11n HT20\_Nss1,(MCS0)\_2TX

2462MHz\_TX

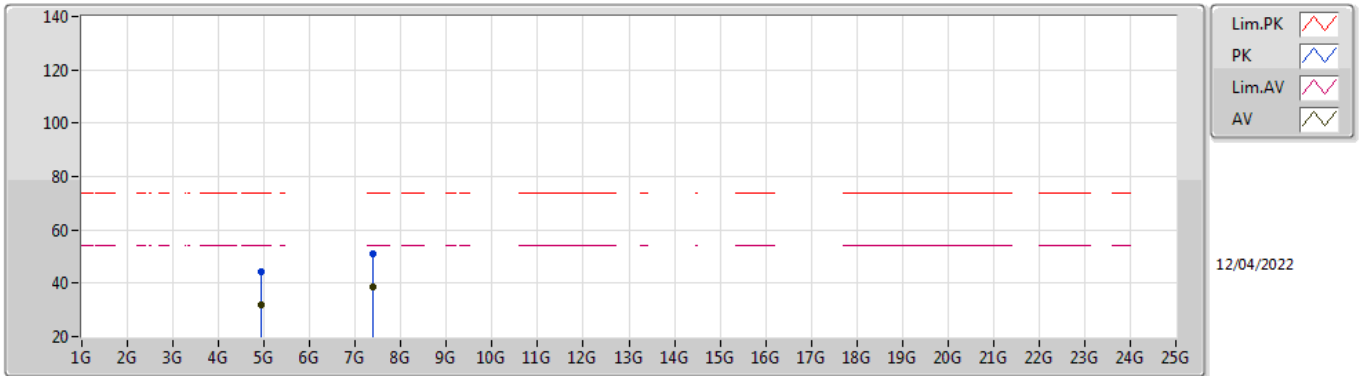


EUT Y\_2TX  
Setting 20.5  
05-M-K-3

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	4.92533G	45.53	74.00	-28.47	43.42	3	Vertical	289	1.48	-	31.40	6.56	35.85
AV	4.92486G	32.15	54.00	-21.85	30.04	3	Vertical	289	1.48	-	31.40	6.56	35.85
PK	7.3846G	51.26	74.00	-22.74	41.90	3	Vertical	120	2.78	-	36.33	7.58	34.55
AV	7.38517G	38.46	54.00	-15.54	29.09	3	Vertical	120	2.78	-	36.33	7.59	34.55

### 802.11n HT20\_Nss1,(MCS0)\_2TX

### 2462MHz\_TX

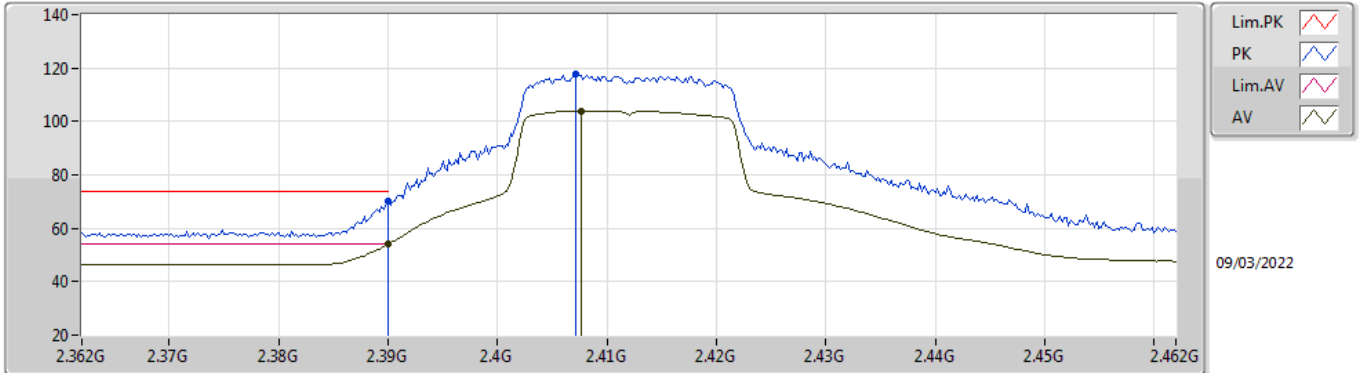


EUT Y\_2TX  
Setting 20.5  
05-M-K-3

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	4.92464G	44.46	74.00	-29.54	42.35	3	Horizontal	300	1.46	-	31.40	6.56	35.85
AV	4.92472G	32.15	54.00	-21.85	30.04	3	Horizontal	300	1.46	-	31.40	6.56	35.85
PK	7.38604G	50.79	74.00	-23.21	41.42	3	Horizontal	98	2.41	-	36.33	7.59	34.55
AV	7.38471G	38.52	54.00	-15.48	29.16	3	Horizontal	98	2.41	-	36.33	7.58	34.55

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

### 2412MHz\_TX



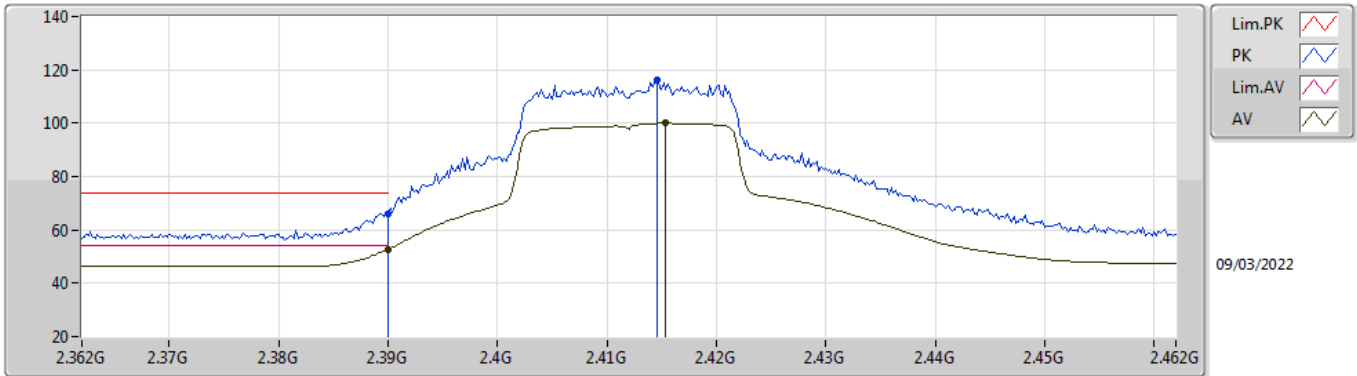
EUT\_Z\_2TX  
Setting 20.5  
02-B-R-5

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	70.15	74.00	-3.85	38.98	3	Vertical	38	1.65	-	28.38	2.79	-
AV	2.39G	53.96	54.00	-0.04	22.79	3	Vertical	38	1.65	-	28.38	2.79	-
PK	2.4072G	117.61	Inf	-Inf	86.40	3	Vertical	38	1.65	-	28.40	2.81	-
AV	2.4076G	104.05	Inf	-Inf	72.84	3	Vertical	38	1.65	-	28.40	2.81	-



802.11ax HEW20\_Nss1,(MCS0)\_2TX

2412MHz\_TX

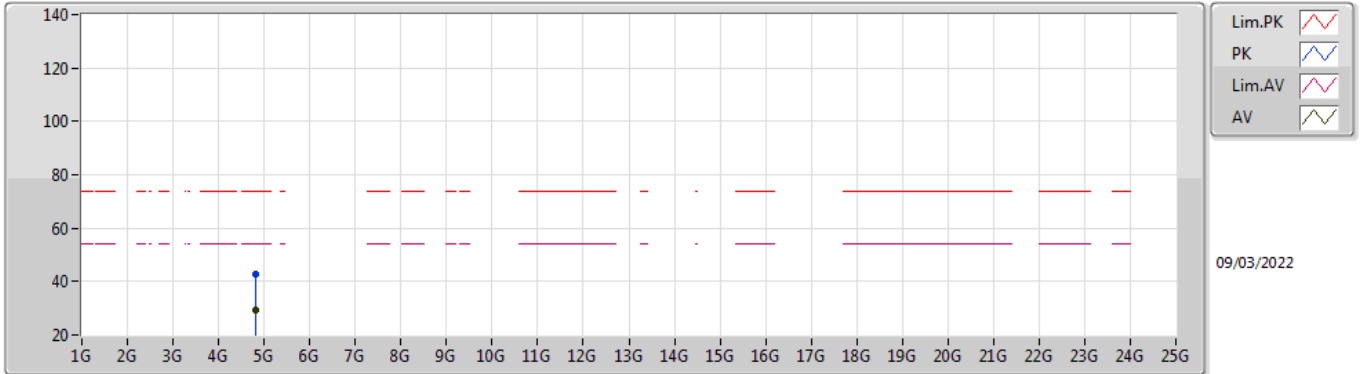


EUT\_Z\_2TX  
Setting 20.5  
02-B-R-5

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	66.06	74.00	-7.94	34.89	3	Horizontal	130	2.05	-	28.38	2.79	-
AV	2.39G	52.65	54.00	-1.35	21.48	3	Horizontal	130	2.05	-	28.38	2.79	-
PK	2.4146G	116.01	Inf	-Inf	84.80	3	Horizontal	130	2.05	-	28.40	2.81	-
AV	2.4154G	100.01	Inf	-Inf	68.79	3	Horizontal	130	2.05	-	28.40	2.82	-

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

### 2412MHz\_TX

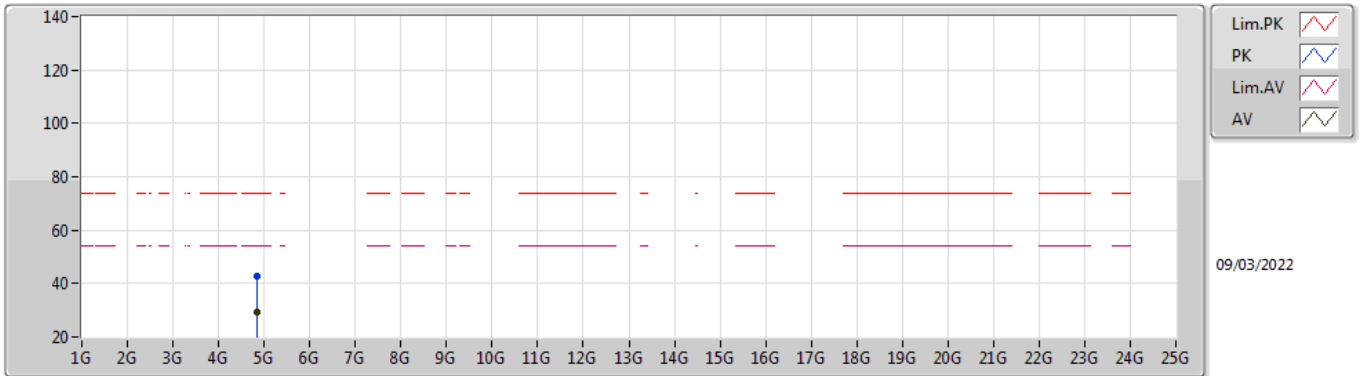


EUT Y\_2TX  
Setting 20.5  
02-B-R-5

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	4.8274G	42.51	74.00	-31.49	36.82	3	Vertical	324	2.04	-	32.81	5.10	32.22
AV	4.82372G	29.25	54.00	-24.75	23.58	3	Vertical	324	2.04	-	32.79	5.10	32.22

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

### 2412MHz\_TX

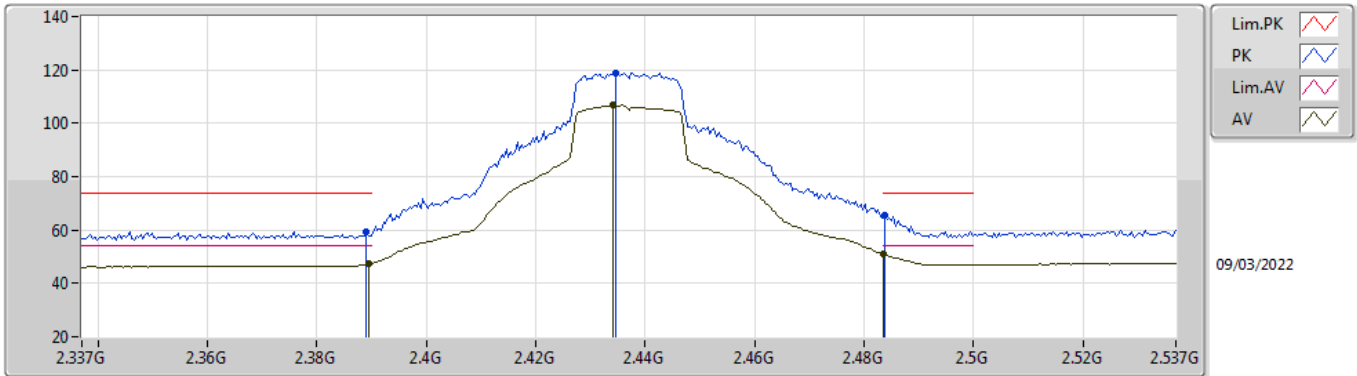


EUT Y\_2TX  
Setting 20.5  
02-B-R-5

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	4.8294G	42.73	74.00	-31.27	37.03	3	Horizontal	303	2.67	-	32.82	5.10	32.22
AV	4.83348G	29.17	54.00	-24.83	23.46	3	Horizontal	303	2.67	-	32.83	5.10	32.22

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

### 2437MHz\_TX

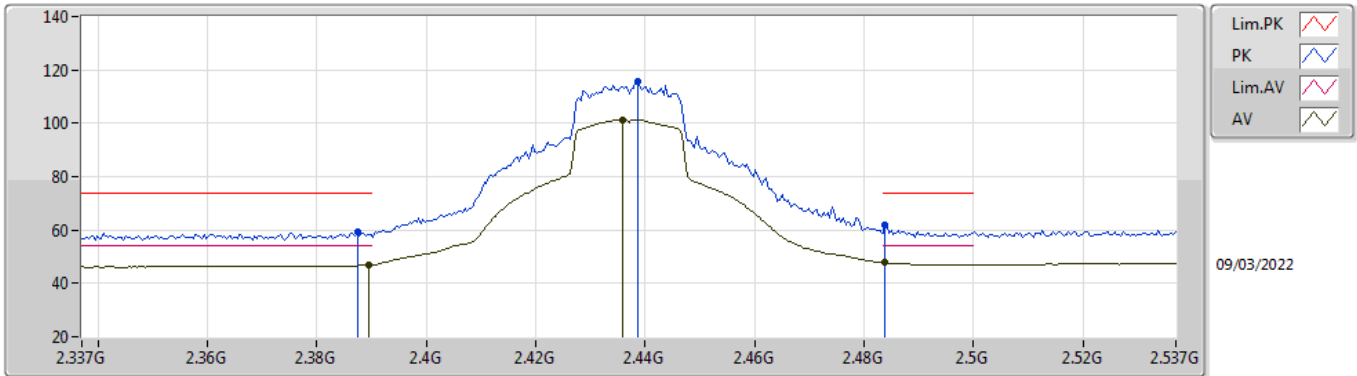


EUT\_Z\_2TX  
Setting 23  
02-B-R-5

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	59.19	74.00	-14.81	28.02	3	Vertical	41	1.44	-	28.38	2.79	-
AV	2.3894G	47.21	54.00	-6.79	16.04	3	Vertical	41	1.44	-	28.38	2.79	-
PK	2.4346G	118.78	Inf	-Inf	87.55	3	Vertical	41	1.44	-	28.40	2.83	-
AV	2.4342G	106.69	Inf	-Inf	75.46	3	Vertical	41	1.44	-	28.40	2.83	-
PK	2.4838G	65.45	74.00	-8.55	34.03	3	Vertical	41	1.44	-	28.54	2.88	-
AV	2.4835G	50.89	54.00	-3.11	19.48	3	Vertical	41	1.44	-	28.53	2.88	-

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

### 2437MHz\_TX

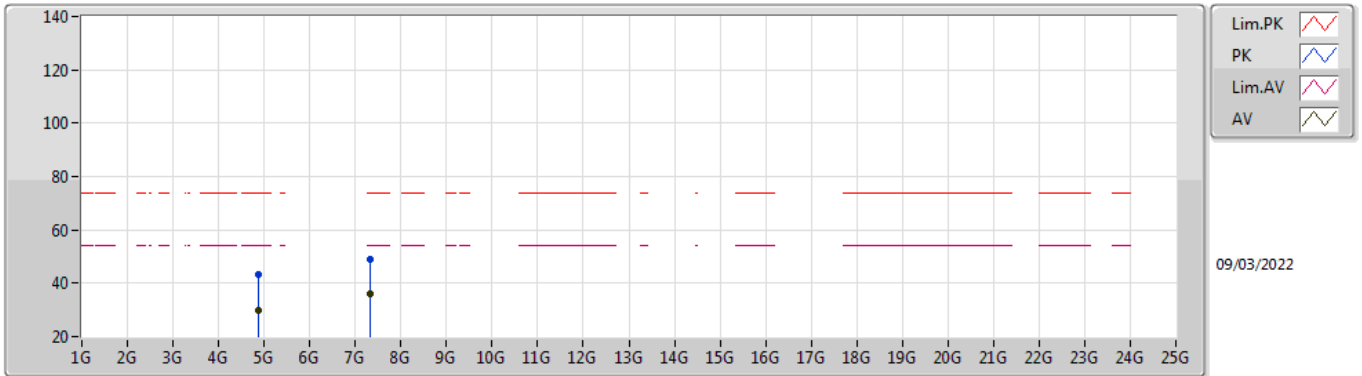


EUT\_Z\_2TX  
Setting 23  
02-B-R-5

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	2.3874G	59.25	74.00	-14.75	28.09	3	Horizontal	49	1.85	-	28.37	2.79	-
AV	2.3894G	46.87	54.00	-7.13	15.70	3	Horizontal	49	1.85	-	28.38	2.79	-
PK	2.4386G	115.91	Inf	-Inf	84.67	3	Horizontal	49	1.85	-	28.40	2.84	-
AV	2.4358G	101.44	Inf	-Inf	70.20	3	Horizontal	49	1.85	-	28.40	2.84	-
PK	2.4838G	61.87	74.00	-12.13	30.45	3	Horizontal	49	1.85	-	28.54	2.88	-
AV	2.4838G	47.90	54.00	-6.10	16.48	3	Horizontal	49	1.85	-	28.54	2.88	-

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

### 2437MHz\_TX

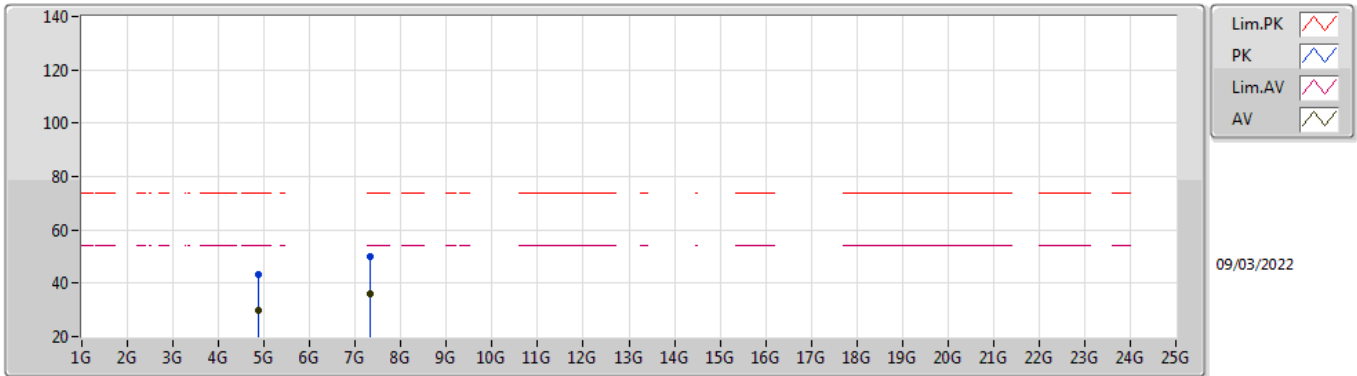


EUT Y\_2TX  
Setting 23  
02-B-R-5

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	4.8736G	43.18	74.00	-30.82	37.34	3	Vertical	316	2.09	-	32.95	5.10	32.21
AV	4.87528G	29.57	54.00	-24.43	23.72	3	Vertical	316	2.09	-	32.95	5.10	32.20
PK	7.31576G	49.14	74.00	-24.86	39.38	3	Vertical	323	2.50	-	36.43	6.16	32.83
AV	7.31676G	35.91	54.00	-18.09	26.15	3	Vertical	323	2.50	-	36.43	6.16	32.83

802.11ax HEW20\_Nss1,(MCS0)\_2TX

2437MHz\_TX

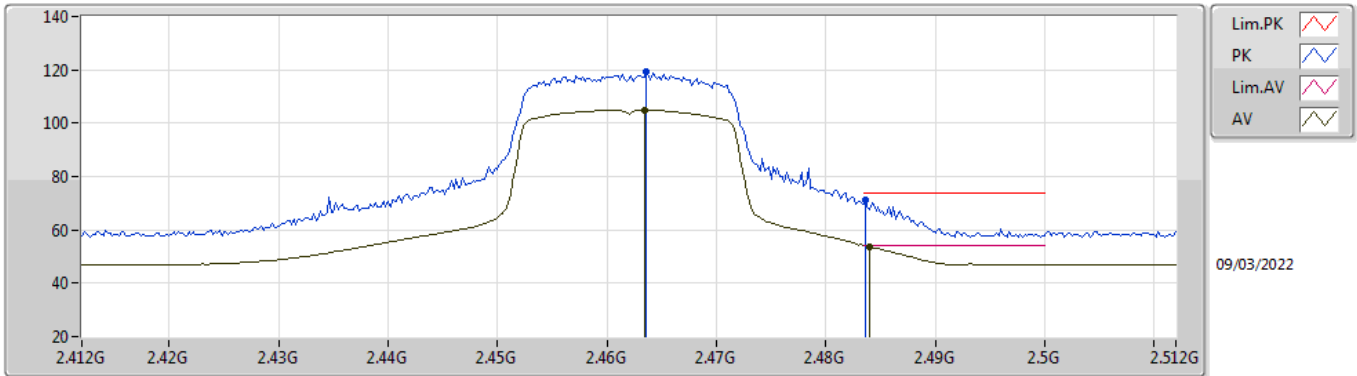


EUT Y\_2TX  
Setting 23  
02-B-R-5

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	4.86704G	43.02	74.00	-30.98	37.20	3	Horizontal	266	2.58	-	32.93	5.10	32.21
AV	4.87544G	29.64	54.00	-24.36	23.79	3	Horizontal	266	2.58	-	32.95	5.10	32.20
PK	7.316G	49.82	74.00	-24.18	40.06	3	Horizontal	51	2.71	-	36.43	6.16	32.83
AV	7.31764G	35.87	54.00	-18.13	26.10	3	Horizontal	51	2.71	-	36.44	6.16	32.83

802.11ax HEW20\_Nss1,(MCS0)\_2TX

2462MHz\_TX



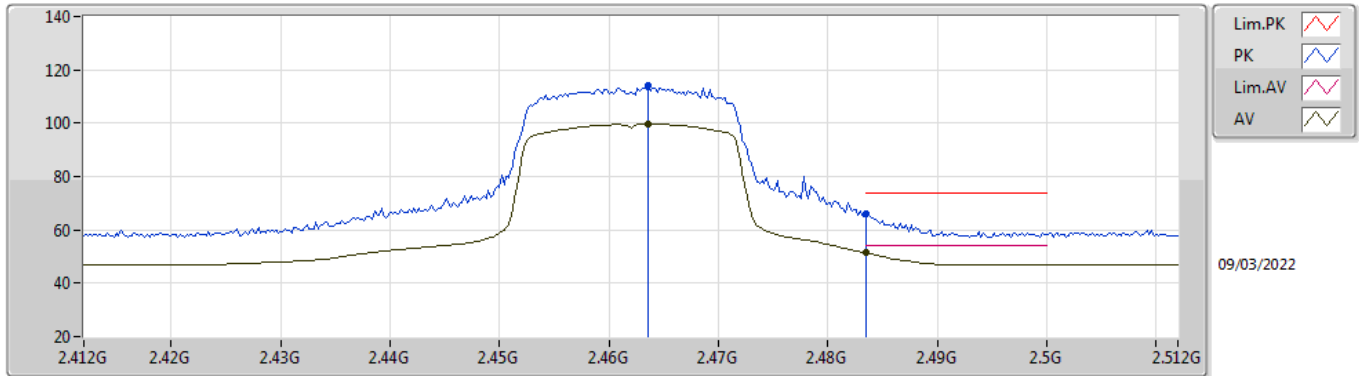
EUT\_Z\_2TX  
Setting 20.5  
02-B-R-5

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	2.4636G	119.16	Inf	-Inf	87.85	3	Vertical	34	1.22	-	28.45	2.86	-
AV	2.4634G	104.92	Inf	-Inf	73.61	3	Vertical	34	1.22	-	28.45	2.86	-
PK	2.4836G	71.10	74.00	-2.90	39.69	3	Vertical	34	1.22	-	28.53	2.88	-
AV	2.484G	53.64	54.00	-0.36	22.22	3	Vertical	34	1.22	-	28.54	2.88	-



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

### 2462MHz\_TX

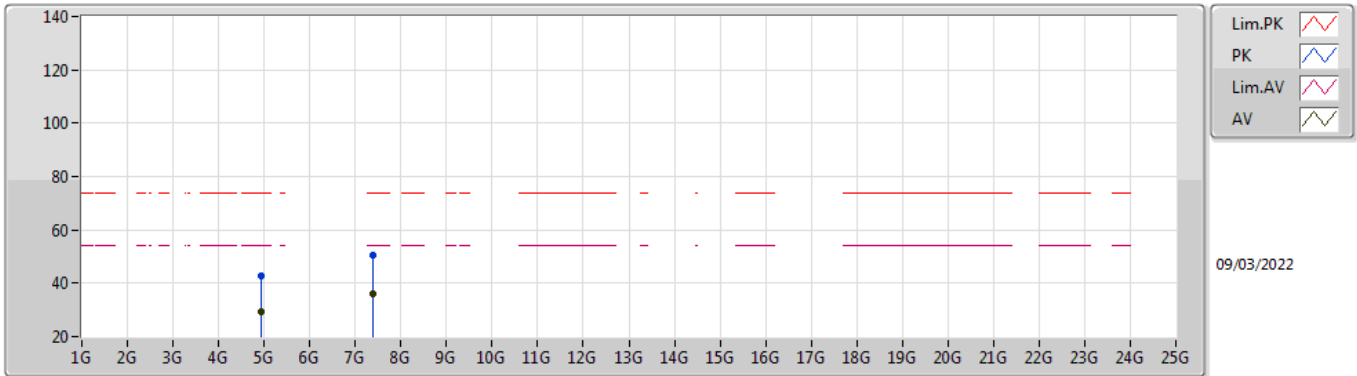


EUT\_Z\_2TX  
Setting 20.5  
02-B-R-5

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	2.4636G	113.99	Inf	-Inf	82.68	3	Horizontal	57	2.46	-	28.45	2.86	-
AV	2.4636G	99.79	Inf	-Inf	68.48	3	Horizontal	57	2.46	-	28.45	2.86	-
PK	2.4835G	65.85	74.00	-8.15	34.44	3	Horizontal	57	2.46	-	28.53	2.88	-
AV	2.4835G	51.40	54.00	-2.60	19.99	3	Horizontal	57	2.46	-	28.53	2.88	-

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

### 2462MHz\_TX

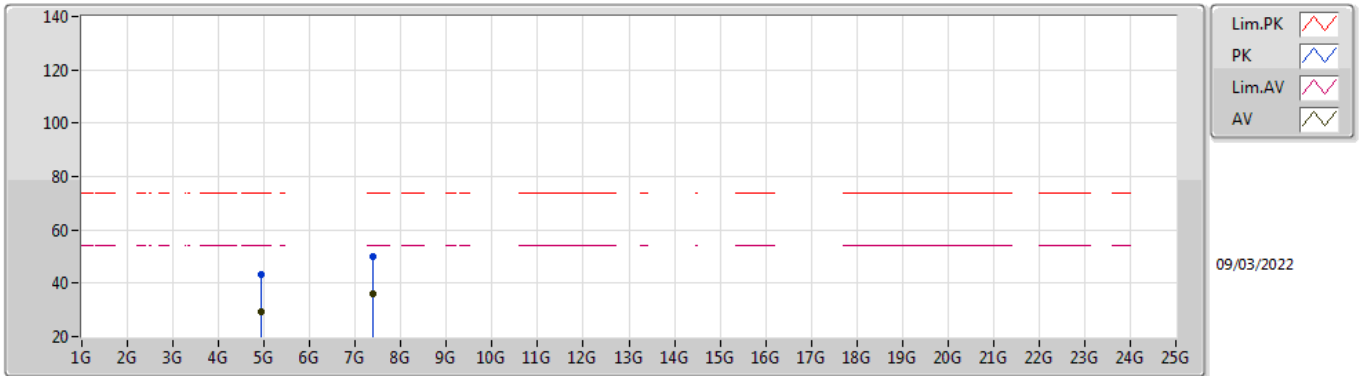


EUT Y\_2TX  
Setting 20.5  
02-B-R-5

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	4.92588G	42.96	74.00	-31.04	36.89	3	Vertical	119	2.26	-	33.16	5.10	32.19
AV	4.92508G	29.46	54.00	-24.54	23.40	3	Vertical	119	2.26	-	33.15	5.10	32.19
PK	7.37672G	50.55	74.00	-23.45	40.75	3	Vertical	75	2.35	-	36.55	6.19	32.94
AV	7.37732G	35.97	54.00	-18.03	26.17	3	Vertical	75	2.35	-	36.55	6.19	32.94

802.11ax HEW20\_Nss1,(MCS0)\_2TX

2462MHz\_TX



EUT Y\_2TX  
Setting 20.5  
02-B-R-5

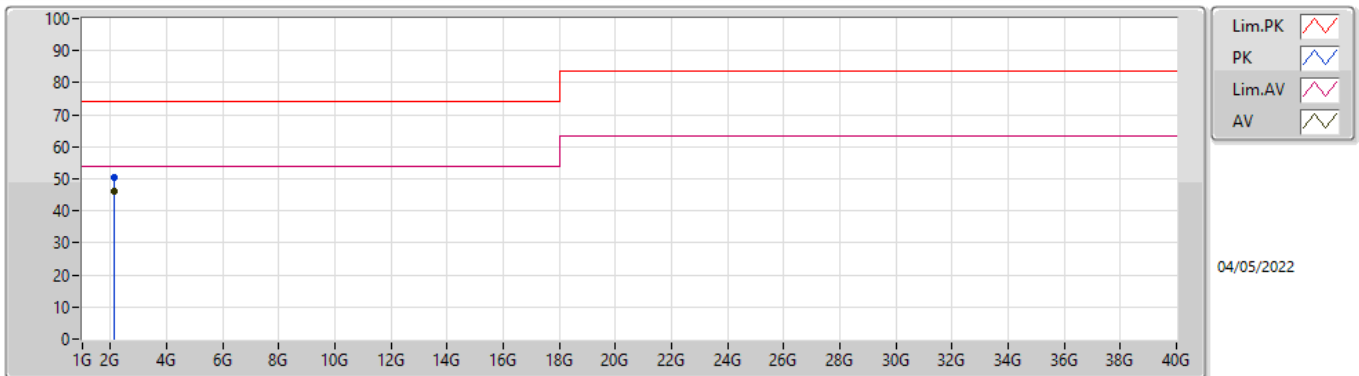
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.92972G	43.33	74.00	-30.67	37.24	3	Horizontal	265	1.50	-	33.18	5.10	32.19
AV	4.92904G	29.43	54.00	-24.57	23.35	3	Horizontal	265	1.50	-	33.17	5.10	32.19
PK	7.38964G	49.75	74.00	-24.25	39.94	3	Horizontal	18	2.90	-	36.58	6.19	32.96
AV	7.376G	35.97	54.00	-18.03	26.16	3	Horizontal	18	2.90	-	36.55	6.19	32.93



**Summary**

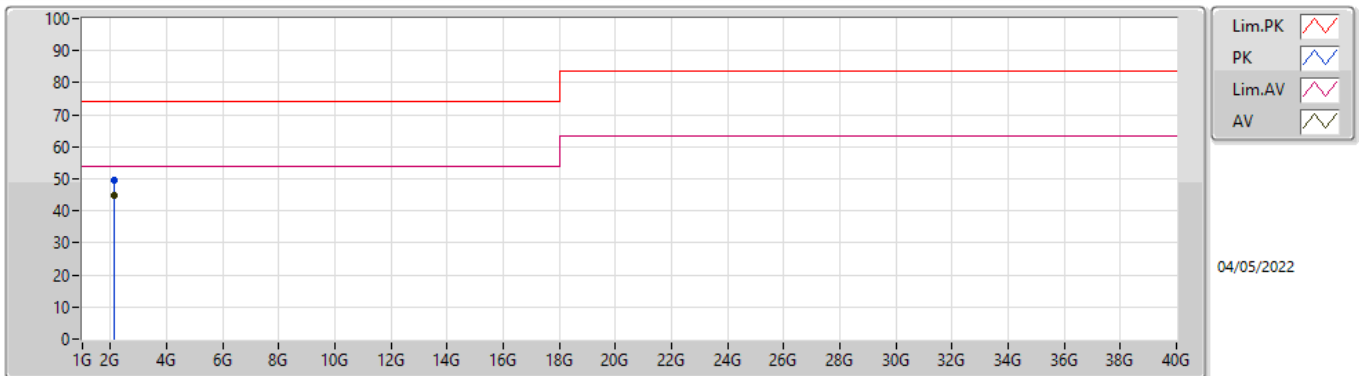
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition
Mode 1	Pass	AV	2.1248G	46.28	54.00	-7.72	Vertical

Mode 1



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB/m)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV/m)	AF (dB/m)	CL (dB)	PA (dB)
PK	2.12509G	50.48	74.00	-23.52	-4.94	3	Vertical	120	1.00	-	55.42	27.30	4.89	37.13
AV	2.1248G	46.28	54.00	-7.72	-4.94	3	Vertical	120	1.00	"Worst"	51.22	27.30	4.89	37.13

Mode 1



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB/m)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV/m)	AF (dB/m)	CL (dB)	PA (dB)
PK	2.12464G	49.44	74.00	-24.56	-4.94	3	Horizontal	167	1.00	-	54.38	27.30	4.89	37.13
AV	2.12475G	44.83	54.00	-9.17	-4.94	3	Horizontal	167	1.00	"Worst"	49.77	27.30	4.89	37.13