

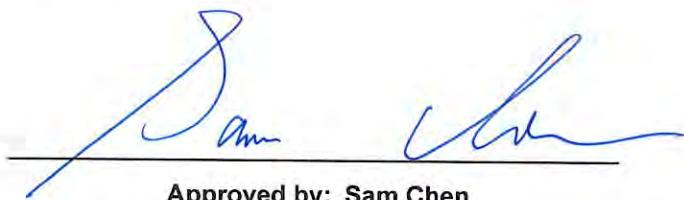


# RADIO TEST REPORT

**FCC ID** : 2AV57GS1LTE1  
**Equipment** : Video Telematics Sensor  
**Brand Name** : Geotab Inc.  
**Model Name** : GS1-LTE1  
**Applicant** : Geotab Inc.  
2440 Winston Park Drive, Oakville, Ontario, L6H 7V2, Canada  
**Manufacturer** : Geotab Inc.  
2440 Winston Park Drive, Oakville, Ontario, L6H 7V2, Canada  
**Standard** : 47 CFR FCC Part 15.247

The product was received on Jan. 29, 2024, and testing was started from Feb. 22, 2024 and completed on Jun. 27, 2024. 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

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



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**Appendix A. Test Results of DTS Bandwidth****Appendix B. Test Results of Maximum Conducted Output Power****Appendix C. Test Results of Power Spectral Density****Appendix D. Test Results of Emissions in Non-restricted Frequency Bands****Appendix E. Test Results of Emissions in Restricted Frequency Bands****Appendix F. Test Photos****Photographs of EUT v01**



## History of this test report



## Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
1.1.2	15.203	Antenna Requirement	PASS	-
-	15.207	AC Power-line Conducted Emissions	N/A	Note 1
3.1	15.247(a)	DTS Bandwidth	PASS	-
3.2	15.247(b)	Maximum Conducted Output Power	PASS	-
3.3	15.247(e)	Power Spectral Density	PASS	-
3.4	15.247(d)	Emissions in Non-restricted Frequency Bands	PASS	-
3.5	15.247(d)	Emissions in Restricted Frequency Bands	PASS	-

Note 1: The EUT was supplied power by DC-Powered (vehicle battery); it's not necessary to apply to AC Power-line Conducted Emissions test.

Note 2: Reference to Sporton Project No.: 411919

### Conformity Assessment Condition:

1. The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacturer who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.
2. The measurement uncertainty please refer to each test result in the chapter "Measurement Uncertainty".

### Disclaimer:

The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.

Reviewed by: Sam Chen

Report Producer: Muse Chan



## 1 General Description

### 1.1 Information

#### 1.1.1 RF General Information

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

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

Note:

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

#### 1.1.2 Antenna Information

Ant.	Port	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	1	WNC	UCD-LI80	Monopole	N/A	2.55

Note 1: The WLAN 2.4GHz and Bluetooth cannot function at the same time.

Note 2: The above information was declared by manufacturer.

Note 3: For 2.4GHz function:

For IEEE 802.11 b/g/n (1TX/1RX):

Only Port 1 can be used as transmitting/receiving antenna.

For Bluetooth function (1TX/1RX):

Only Port 1 can be used as transmitting/receiving antenna.

#### 1.1.3 Mode Test Duty Cycle

Mode	DC	DCF (dB)	T (s)	VBW (Hz)_1/T
802.11b_Nss 1,(1D)	0.988	0.05	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11g_Nss 1,(6D)	0.936	0.29	1.432m	1k
802.11n HT20_Nss 1,(M0)	0.933	0.3	1.342m	1k

Note:

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



#### 1.1.4 EUT Operational Condition

EUT Power Type	From host vehicle (12/24V)		
EUT Power Type for Testing	From DC power supply (24V)		
Beamforming Function	<input type="checkbox"/>	With beamforming	<input checked="" type="checkbox"/> Without beamforming
Function	<input checked="" type="checkbox"/>	Point-to-multipoint	<input type="checkbox"/> Point-to-point
Test Software Version	DOS V6.1.7601		

Note: The above information was declared by manufacturer.

#### 1.1.5 Table of WWAN Module Function

Brand Name	Model Name	Function
Quectel	EG91-NAXD	LTE Band: 2 / 4 / 5 / 12 / 13 / 25 / 26

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 (TAF: 3787)	ADD: No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302010, Taiwan (R.O.C.) 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	TH02-CB	Mason Chan	20.6~22 / 66~71	Feb. 26, 2024~ Mar. 07, 2024
Radiated < 1GHz	03CH05-CB	Young Yang	21.6~22.7 / 55~58	Jun. 27, 2024
Radiated > 1GHz	03CH04-CB		22.7~23.8 / 56~59	Feb. 22, 2024~ Mar. 05, 2024

Note: The tested sample of the Radiated below 1GHz test item was received on Jun. 27, 2024.

## 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
Radiated Emission (9kHz ~ 30MHz)	4.1 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	4.2 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	4.1 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	4.2 dB	Confidence levels of 95%
Conducted Emission	3.1 dB	Confidence levels of 95%
Output Power Measurement	0.8 dB	Confidence levels of 95%
Power Density Measurement	3.1 dB	Confidence levels of 95%
Bandwidth Measurement	2.2%	Confidence levels of 95%



## 2 Test Configuration of EUT

### 2.1 Test Channel Mode

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



## 2.2 The Worst Case Measurement Configuration

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

The Worst Case Mode for Following Conformance Tests	
<b>Tests Item</b>	Emissions in Restricted Frequency Bands
<b>Test Condition</b>	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.
<b>Operating Mode &lt; 1GHz</b>	CTX "EUT in X axis" generated the worst case at Radiated measurement > 1GHz. Consequently, the measurement will follow this same test mode.
1	EUT in X axis_Bluetooth
2	EUT in X axis_WLAN 2.4GHz
For operating, mode 1 is the worst case and it was record in this test report.	
<b>Operating Mode &gt; 1GHz</b>	CTX After evaluating, EUT in X axis was the worst case, so the measurement will follow this same test configuration.
1	EUT in X axis

The Worst Case Mode for Following Conformance Tests	
<b>Tests Item</b>	Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation
<b>Operating Mode</b>	
1	WWAN + WLAN 2.4GHz
2	WWAN + Bluetooth

Refer to Sporton Test Report No.: FA411919-01 for Co-location RF Exposure Evaluation.

## 2.3 EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

## 2.4 Accessories

N/A

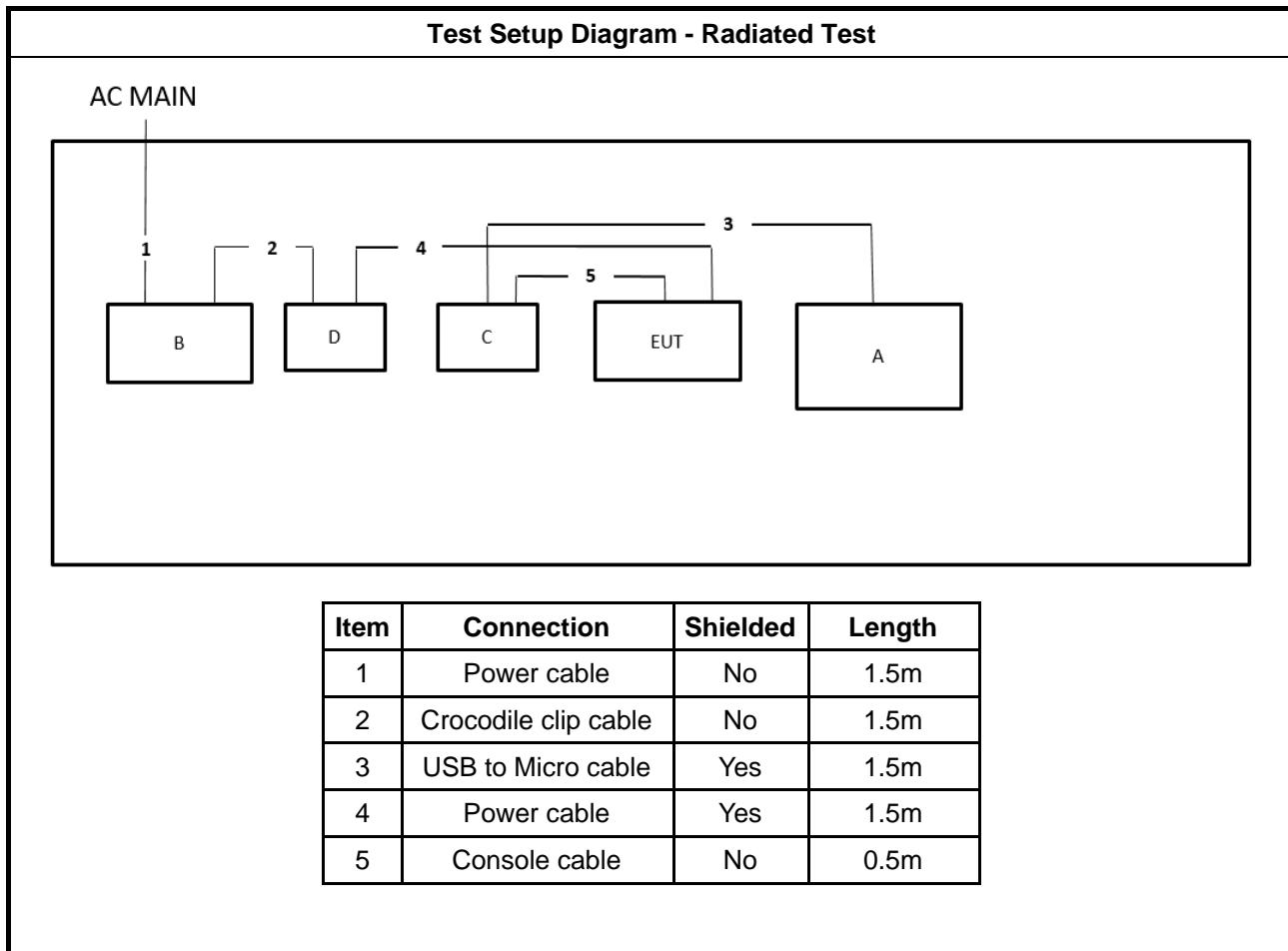


## 2.5 Support Equipment

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	Notebook	DELL	E4300	N/A
B	DC Power Supply	MOTECH	LPS-305	N/A
C	Fixture	WNC	E24447	N/A
D	Power fixture	SHIG YANG	USB-02	N/A



## 2.6 Test Setup Diagram





## 3 Transmitter Test Result

### 3.1 DTS Bandwidth

#### 3.1.1 6dB Bandwidth Limit

6dB Bandwidth Limit
<b>Systems using digital modulation techniques:</b>
▪ 6 dB bandwidth $\geq$ 500 kHz.

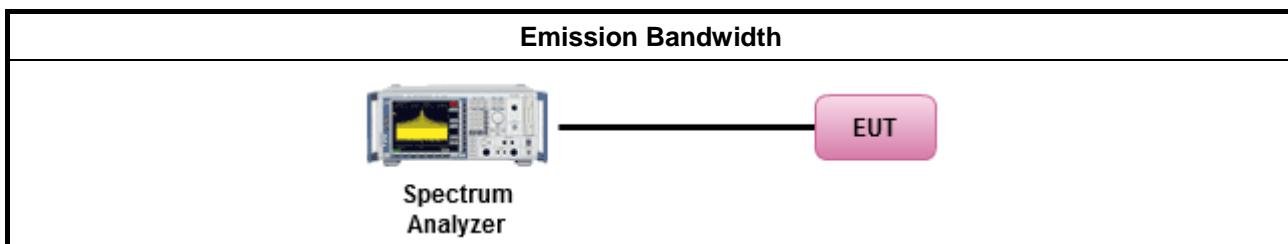
#### 3.1.2 Measuring Instruments

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

#### 3.1.3 Test Procedures

Test Method
▪ For the emission bandwidth shall be measured using one of the options below:
<input checked="" type="checkbox"/> Refer as FCC KDB 558074, clause 8.2 & C63.10 clause 11.8.1 Option 1 for 6 dB bandwidth measurement.
<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.2 & C63.10 clause 11.8.2 Option 2 for 6 dB bandwidth measurement.
<input type="checkbox"/> Refer as ANSI C63.10, clause 6.9.1 for occupied bandwidth testing.

#### 3.1.4 Test Setup



#### 3.1.5 Test Result of Emission Bandwidth

Refer as Appendix A



## 3.2 Maximum Conducted Output Power

### 3.2.1 Maximum Conducted Output Power Limit

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

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

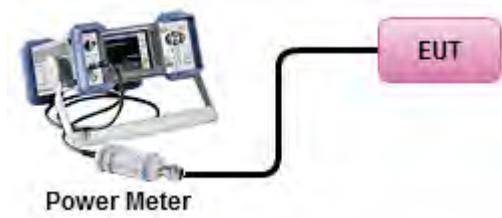


- For conducted measurement.

	<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><li>If multiple transmit chains, EIRP calculation could be following as methods: <math>P_{total} = P_1 + P_2 + \dots + P_n</math> (calculated in linear unit [mW] and transfer to log unit [dBm]) <math>EIRP_{total} = P_{total} + DG</math></li></ul>
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### 3.2.4 Test Setup

#### Maximum Conducted Output Power (Power Meter)



### 3.2.5 Test Result of Maximum Conducted Output Power

Refer as Appendix B



### 3.3 Power Spectral Density

#### 3.3.1 Power Spectral Density Limit

Power Spectral Density Limit
▪ Power Spectral Density (PSD) $\leq$ 8 dBm/3kHz

#### 3.3.2 Measuring Instruments

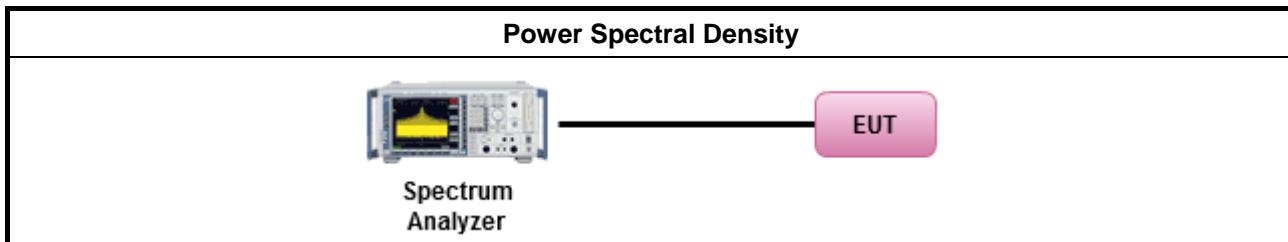
Refer a test equipment and calibration data table in this test report.

#### 3.3.3 Test Procedures

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



### 3.3.4 Test Setup



### 3.3.5 Test Result of Power Spectral Density

Refer as Appendix C



### 3.4 Emissions in Non-restricted Frequency Bands

#### 3.4.1 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.

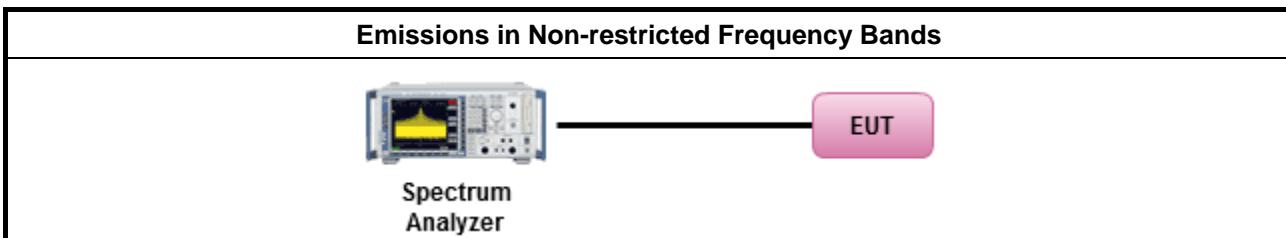
#### 3.4.2 Measuring Instruments

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

#### 3.4.3 Test Procedures

Test Method
▪ Refer as FCC KDB 558074, clause 8.5 for unwanted emissions into non-restricted bands.

#### 3.4.4 Test Setup



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

Refer as Appendix D



### 3.5 Emissions in Restricted Frequency Bands

#### 3.5.1 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.

#### 3.5.2 Measuring Instruments

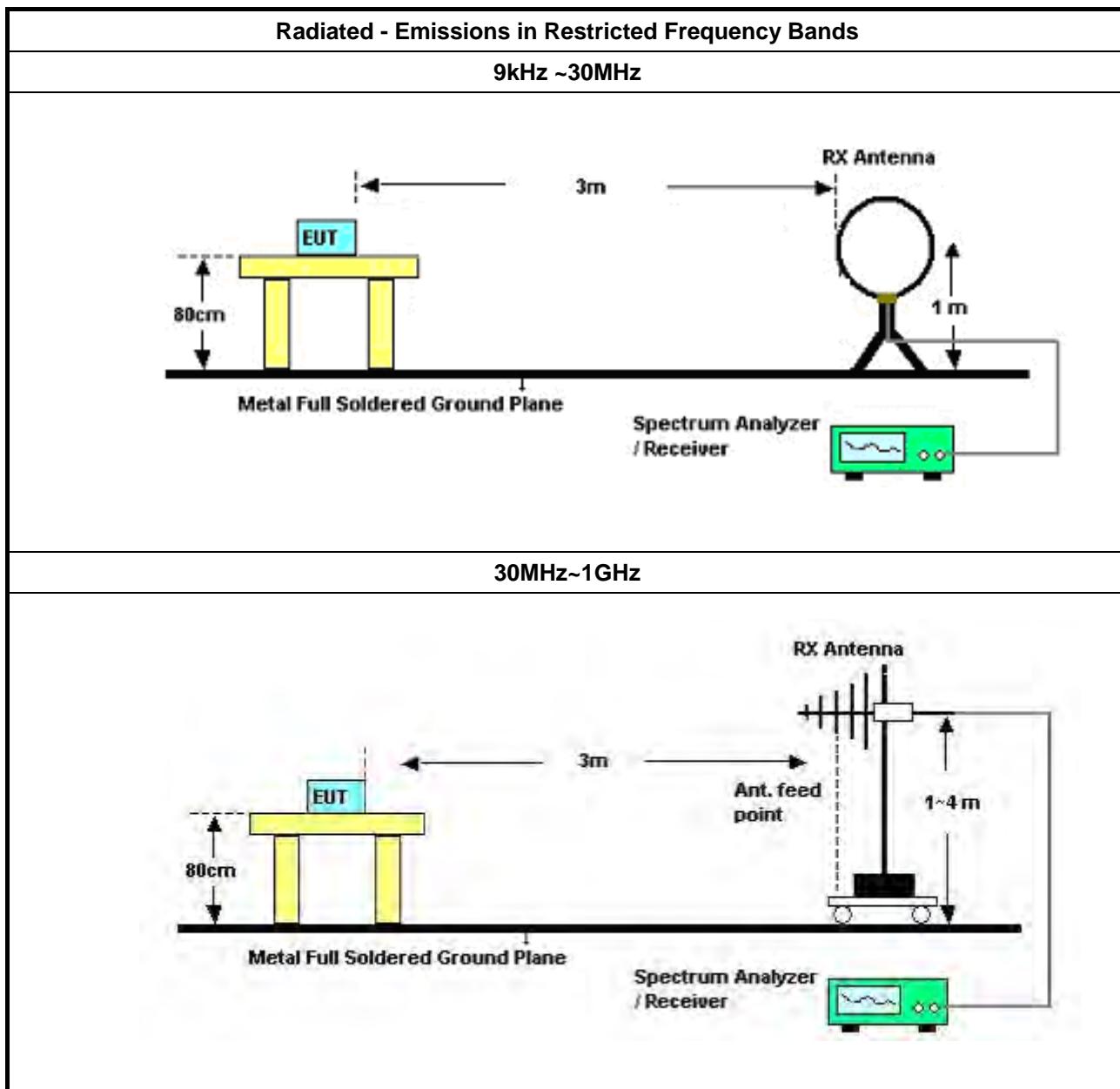
Refer a test equipment and calibration data table in this test report.

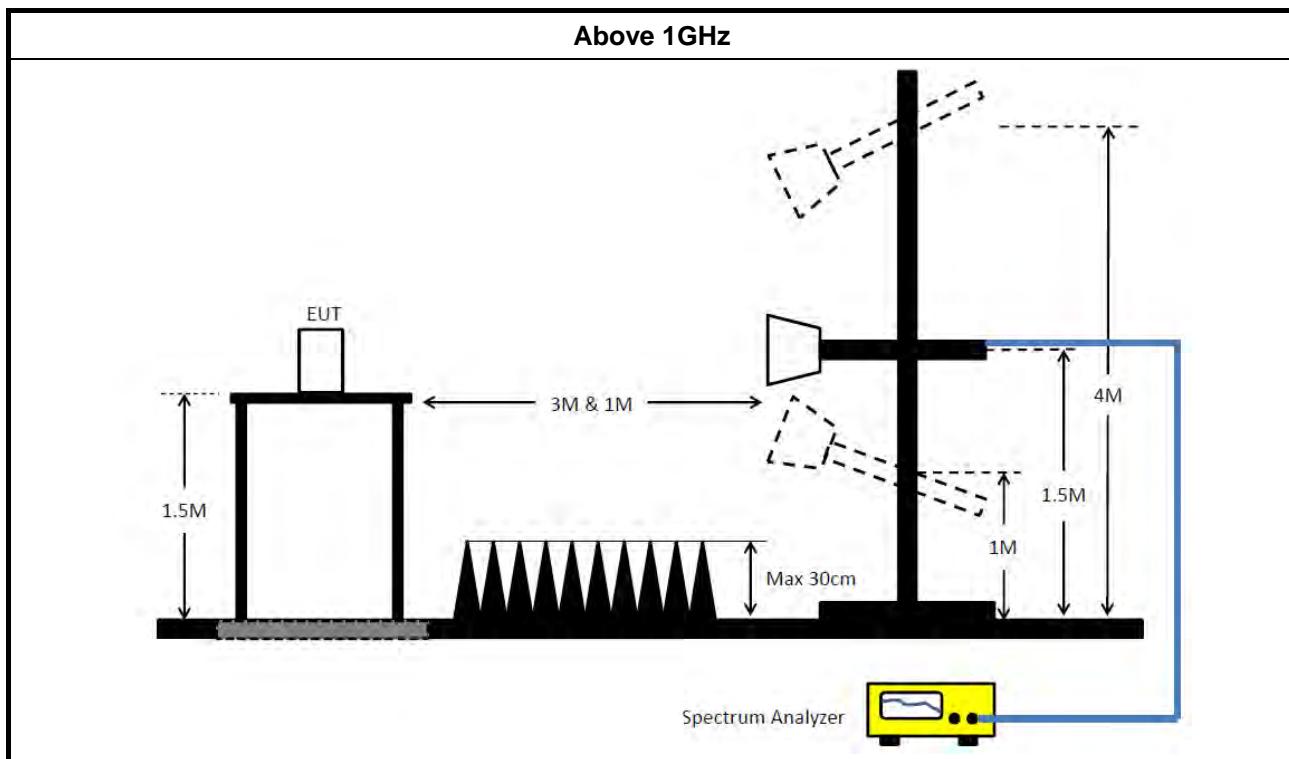


### 3.5.3 Test Procedures

Test Method	
<ul style="list-style-type: none"><li>▪ 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>	<ul style="list-style-type: none"><li><input type="checkbox"/> Refer as FCC KDB 558074, clause 8.6 &amp; C63.10 clause 11.12.2.5.1(trace averaging for duty cycle <math>\geq</math>98%).</li></ul>
	<ul style="list-style-type: none"><li><input type="checkbox"/> Refer as FCC KDB 558074, clause 8.6 &amp; C63.10 clause 11.12.2.5.2(trace averaging + duty factor).</li></ul>
	<ul style="list-style-type: none"><li><input checked="" type="checkbox"/> Refer as FCC KDB 558074, clause 8.6 &amp; C63.10 clause 11.12.2.5.3(Reduced <math>VBW \geq 1/T</math>).</li></ul>
	<ul style="list-style-type: none"><li><input type="checkbox"/> Refer as ANSI C63.10, clause 11.12.2.5.3 (Reduced <math>VBW</math>). <math>VBW \geq 1/T</math>, where <math>T</math> is pulse time.</li></ul>
	<ul style="list-style-type: none"><li><input type="checkbox"/> Refer as ANSI C63.10, clause 7.5 average value of pulsed emissions.</li></ul>
	<ul style="list-style-type: none"><li><input checked="" type="checkbox"/> Refer as FCC KDB 558074, clause 8.6 &amp; C63.10 clause 11.12.2.4 measurement procedure peak limit.</li></ul>
	<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><input type="checkbox"/> 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><input type="checkbox"/> 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 <math>10 \log(N)</math> 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>	

### 3.5.4 Test Setup





### 3.5.5 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.

### 3.5.6 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.

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

Refer as Appendix E



## 4 Test Equipment and Calibration Data

Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
Loop Antenna	Teseq	HLA 6121	65417	9kHz - 30 MHz	Oct. 13, 2023	Oct. 12, 2024	Radiation (03CH05-CB)
3m Semi Anechoic Chamber NSA	TDK	SAC-3M	03CH05-CB	30 MHz ~ 1 GHz	Aug. 02, 2023	Aug. 01, 2024	Radiation (03CH05-CB)
Bilog Antenna with 6dB Attenuator	TESEQ & EMCI	CBL 6112D & N-6-06	35236 & AT-N0610	30MHz ~ 2GHz	Mar. 23, 2024	Mar. 22, 2025	Radiation (03CH05-CB)
Amplifier	EMCI	EMC330N	980331	20MHz ~ 3GHz	May 02, 2024	May 01, 2025	Radiation (03CH05-CB)
Spectrum Analyzer	R&S	FSP40	100304	9kHz ~ 40GHz	Apr. 17, 2024	Apr. 16, 2025	Radiation (03CH05-CB)
EMI Test Receiver	R&S	ESR7	102172	9kHz ~ 7GHz	Oct. 20, 2023	Oct. 19, 2024	Radiation (03CH05-CB)
RF Cable-low	Woken	RG402	Low Cable-04+23	30MHz~1GHz	Dec. 06, 2023	Dec. 05, 2024	Radiation (03CH05-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH05-CB)
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH04-CB	1GHz ~18GHz 3m	Feb. 24, 2022	Feb. 23, 2023	Radiation (03CH04-CB)
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH04-CB	1GHz ~18GHz 3m	Feb. 23, 2023	Feb. 22, 2024	Radiation (03CH04-CB)
Horn Antenna	ETS • Lindgren	3115	00143147	750MHz~18GHz	Oct. 12, 2022	Oct. 11, 2023	Radiation (03CH04-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Sep. 04, 2023	Sep. 03, 2024	Radiation (03CH04-CB)
Pre-Amplifier	Agilent	83017A	MY53270063	0.5GHz ~ 26.5GHz	Jul. 01, 2022	Jun. 30, 2023	Radiation (03CH04-CB)
Pre-Amplifier	SGH	SGH184	20221107-3	18GHz ~ 40GHz	Nov. 24, 2023	Nov. 23, 2024	Radiation (03CH04-CB)
Spectrum Analyzer	R&S	FSP40	100142	9kHz~40GHz	Mar. 28, 2022	Mar. 27, 2023	Radiation (03CH04-CB)
RF Cable-high	Woken	RG402	High Cable-21	1GHz - 18GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH04-CB)
RF Cable-high	Woken	RG402	High Cable-21+67	1GHz - 18GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH04-CB)
High Cable	Woken	WCA0929M	40G#5+6	1GHz ~ 40GHz	Jan. 11, 2024	Jan. 10, 2025	Radiation (03CH04-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH04-CB)
Spectrum analyzer	R&S	FSV40	101027	9kHz~40GHz	Aug. 14, 2023	Aug. 13, 2024	Conducted (TH02-CB)



Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
Power Sensor	Anritsu	MA2411B	1126203	300MHz~40GHz	Oct. 19, 2023	Oct. 18, 2024	Conducted (TH02-CB)
Power Meter	Anritsu	ML2495A	1210004	300MHz~40GHz	Oct. 19, 2023	Oct. 18, 2024	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-01	1GHz – 18GHz	Oct. 02, 2023	Oct. 01, 2024	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-02	1GHz – 18GHz	Oct. 02, 2023	Oct. 01, 2024	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-03	1GHz – 18GHz	Oct. 02, 2023	Oct. 01, 2024	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-04	1GHz – 18GHz	Oct. 02, 2023	Oct. 01, 2024	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-05	1GHz – 18GHz	Oct. 02, 2023	Oct. 01, 2024	Conducted (TH02-CB)
Switch	SPTCB	SP-SWI	SWI-02	1–26.5GHz	Oct. 03, 2023	Oct. 02, 2024	Conducted (TH02-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conducted (TH02-CB)

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

NCR means Non-Calibration required.

**Summary**

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
2.4-2.4835GHz	-	-	-	-	-
802.11b_Nss1,(1Mbps)_1TX	7.525M	12.774M	12M8G1D	6.55M	12.715M
802.11g_Nss1,(6Mbps)_1TX	16.275M	16.939M	16M9D1D	14.45M	16.303M
802.11n HT20_Nss1,(MCS0)_1TX	17.525M	17.584M	17M6D1D	12.575M	17.35M

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

**Result**

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	7.525M	12.756M
2437MHz	Pass	500k	6.6M	12.715M
2462MHz	Pass	500k	6.55M	12.774M
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	14.45M	16.33M
2437MHz	Pass	500k	16.1M	16.939M
2462MHz	Pass	500k	16.275M	16.303M
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-
2412MHz	Pass	500k	13.8M	17.35M
2437MHz	Pass	500k	12.575M	17.584M
2462MHz	Pass	500k	17.525M	17.477M

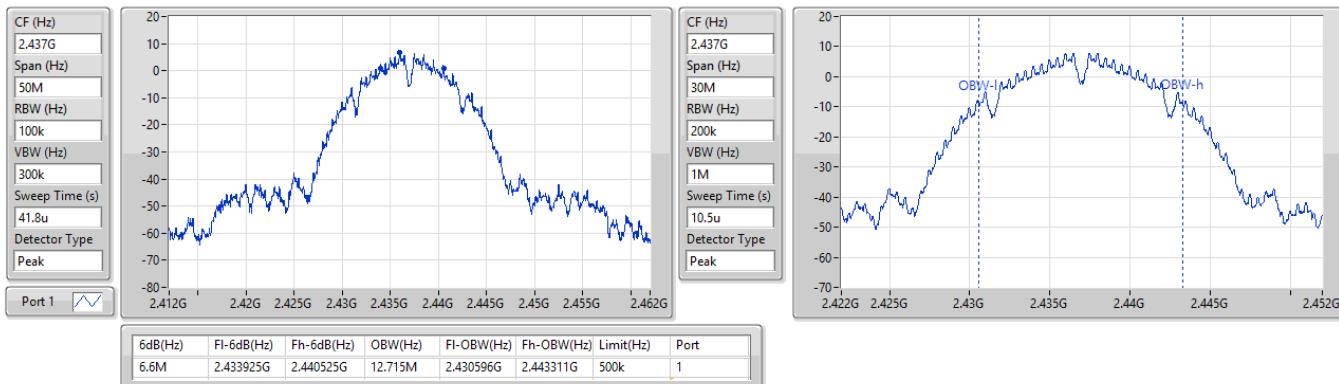
Port X-N dB = Port X 6dB down bandwidth;  
Port X-OBW = Port X 99% occupied bandwidth

**2.4-2.4835GHz\_802.11b\_Nss1,(1Mbps)\_1TX**
**EBW**
**2412MHz**

26/02/2024

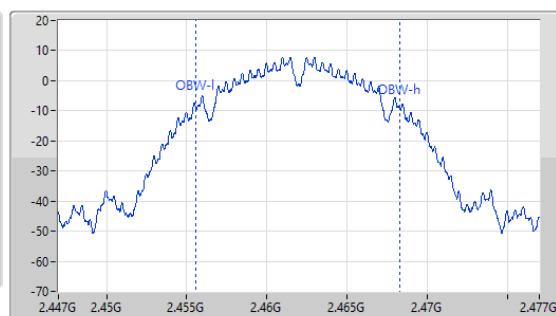
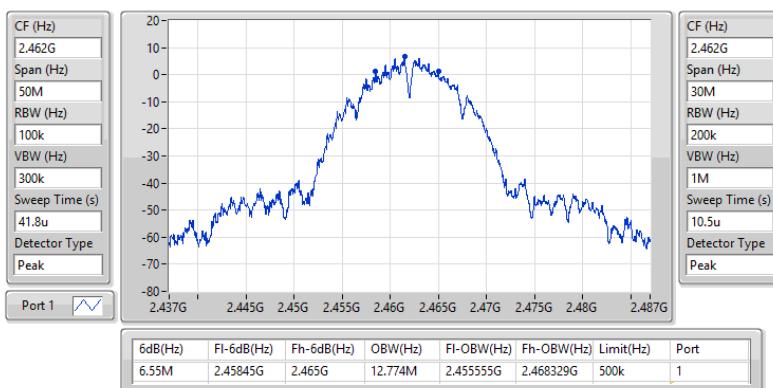

**2.4-2.4835GHz\_802.11b\_Nss1,(1Mbps)\_1TX**
**EBW**
**2437MHz**

07/03/2024

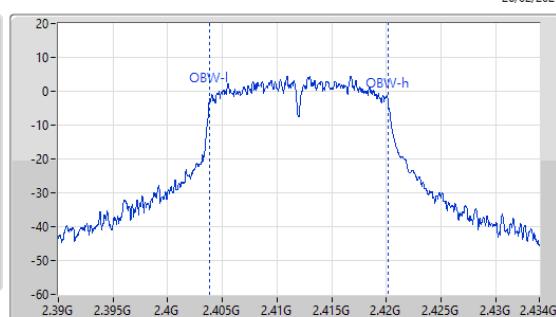
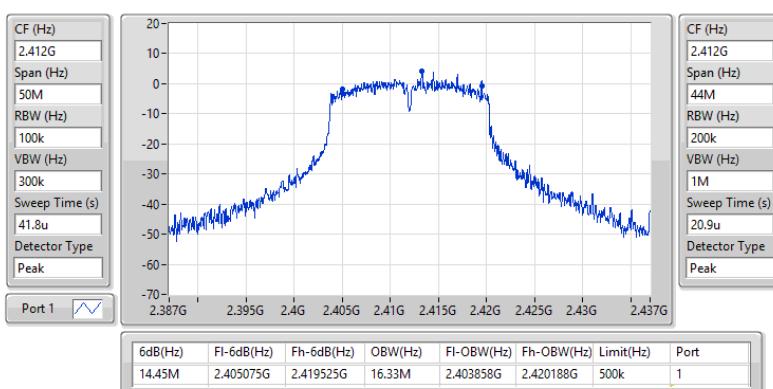


**2.4-2.4835GHz\_802.11b\_Nss1,(1Mbps)\_1TX**
**EBW**
**2462MHz**

07/03/2024

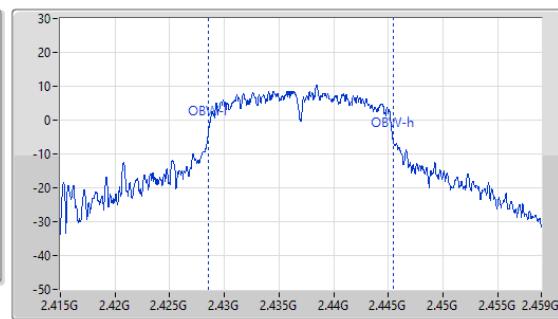
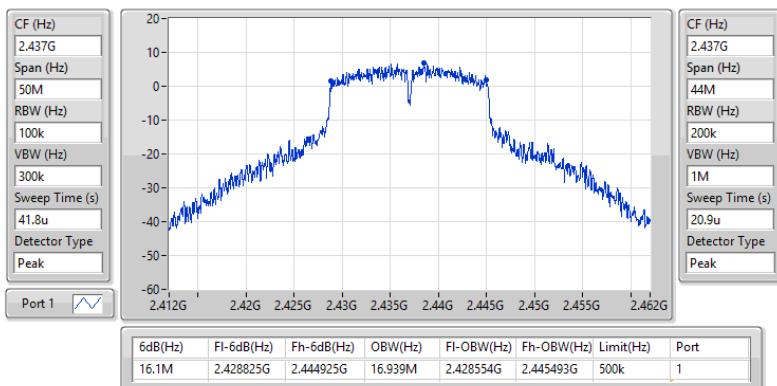

**2.4-2.4835GHz\_802.11g\_Nss1,(6Mbps)\_1TX**
**EBW**
**2412MHz**

26/02/2024

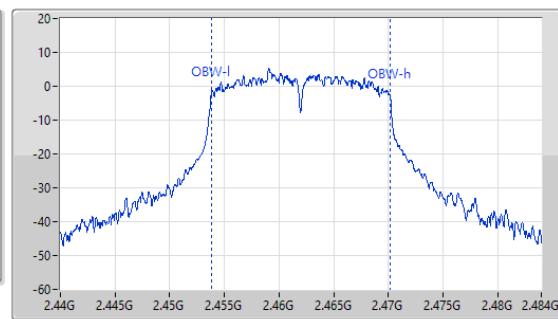
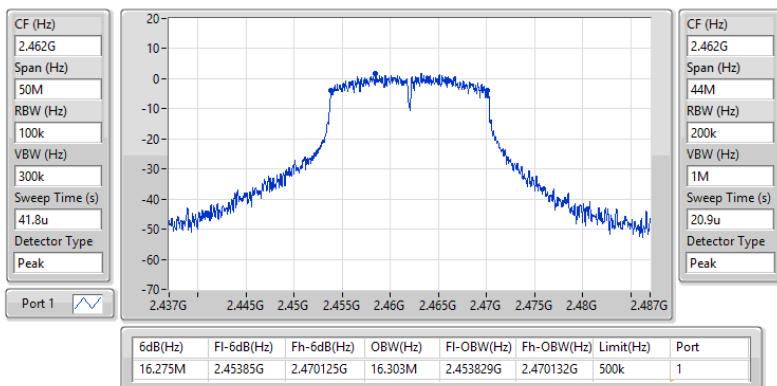


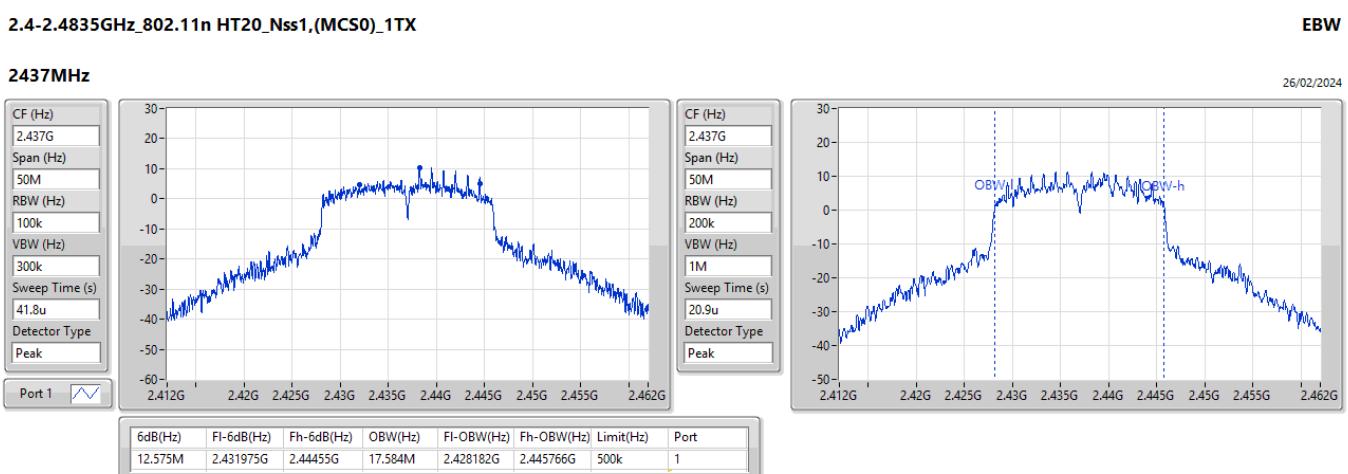
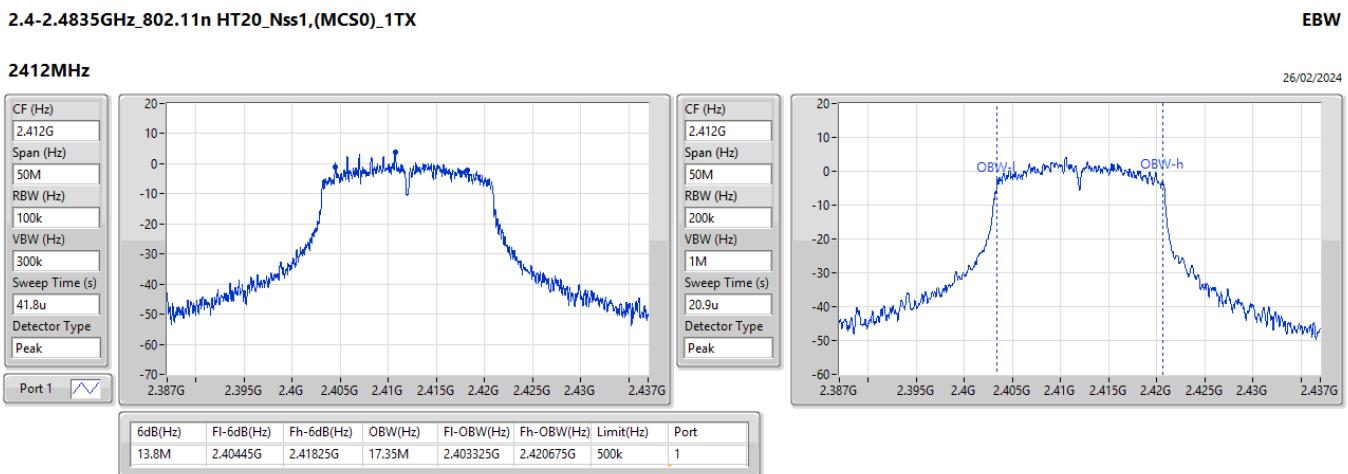
**2.4-2.4835GHz\_802.11g\_Nss1,(6Mbps)\_1TX**
**EBW**
**2437MHz**

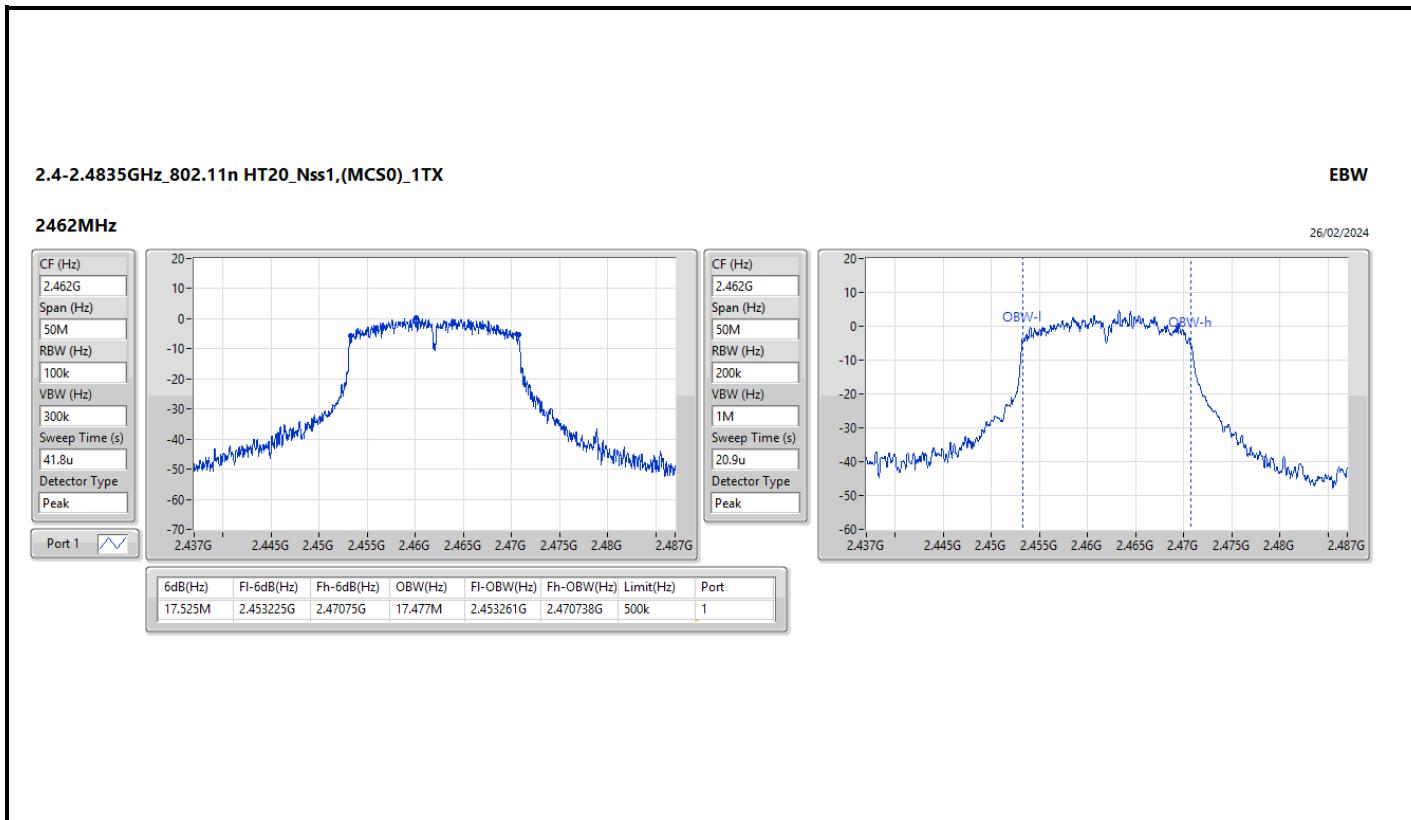
26/02/2024


**2.4-2.4835GHz\_802.11g\_Nss1,(6Mbps)\_1TX**
**EBW**
**2462MHz**

26/02/2024







**Summary**

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11b_Nss1,(1Mbps)_1TX	17.69	0.05875
802.11g_Nss1,(6Mbps)_1TX	19.90	0.09772
802.11n HT20_Nss1,(MCS0)_1TX	19.76	0.09462

**Result**

Mode	Result	DG (dBi)	Port 1 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	2.55	17.69	17.69	30.00
2437MHz	Pass	2.55	15.37	15.37	30.00
2462MHz	Pass	2.55	15.61	15.61	30.00
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	2.55	13.65	13.65	30.00
2417MHz	Pass	2.55	16.62	16.62	30.00
2437MHz	Pass	2.55	19.90	19.90	30.00
2457MHz	Pass	2.55	16.64	16.64	30.00
2462MHz	Pass	2.55	14.00	14.00	30.00
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-	-
2412MHz	Pass	2.55	13.01	13.01	30.00
2417MHz	Pass	2.55	16.37	16.37	30.00
2437MHz	Pass	2.55	19.76	19.76	30.00
2457MHz	Pass	2.55	16.52	16.52	30.00
2462MHz	Pass	2.55	13.81	13.81	30.00

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

**Summary**

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
802.11b_Nss1,(1Mbps)_1TX	-5.13
802.11g_Nss1,(6Mbps)_1TX	-6.57
802.11n HT20_Nss1,(MCS0)_1TX	-5.40

RBW = 3kHz;



## Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	2.55	-5.13	-5.13	8.00
2437MHz	Pass	2.55	-6.38	-6.38	8.00
2462MHz	Pass	2.55	-5.72	-5.72	8.00
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	2.55	-11.68	-11.68	8.00
2437MHz	Pass	2.55	-6.57	-6.57	8.00
2462MHz	Pass	2.55	-11.91	-11.91	8.00
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-	-
2412MHz	Pass	2.55	-13.04	-13.04	8.00
2437MHz	Pass	2.55	-5.40	-5.40	8.00
2462MHz	Pass	2.55	-12.04	-12.04	8.00

DG = Directional Gain; RBW = 3kHz;

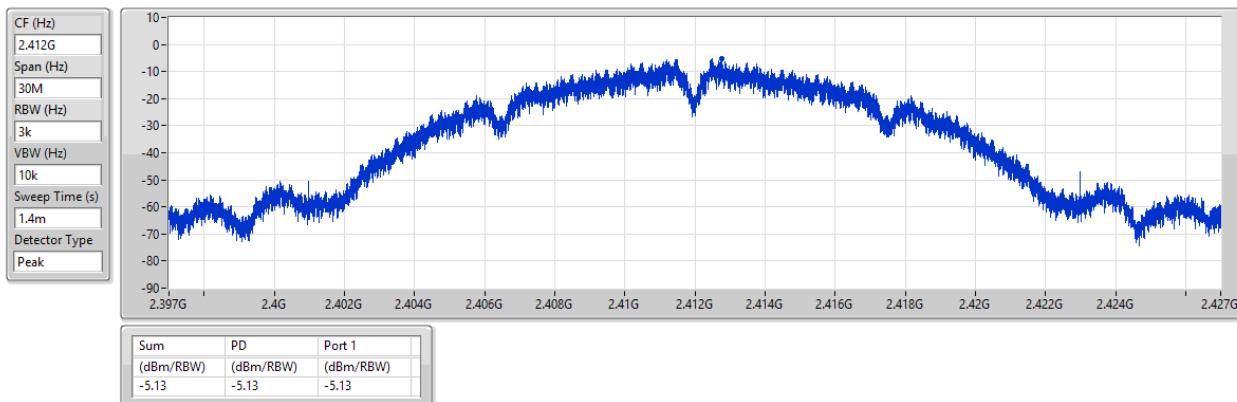
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; Port X = Port X Power Density;

**2.4-2.4835GHz\_802.11b\_Nss1,(1Mbps)\_1TX**

**PSD**

**2412MHz**

26/02/2024

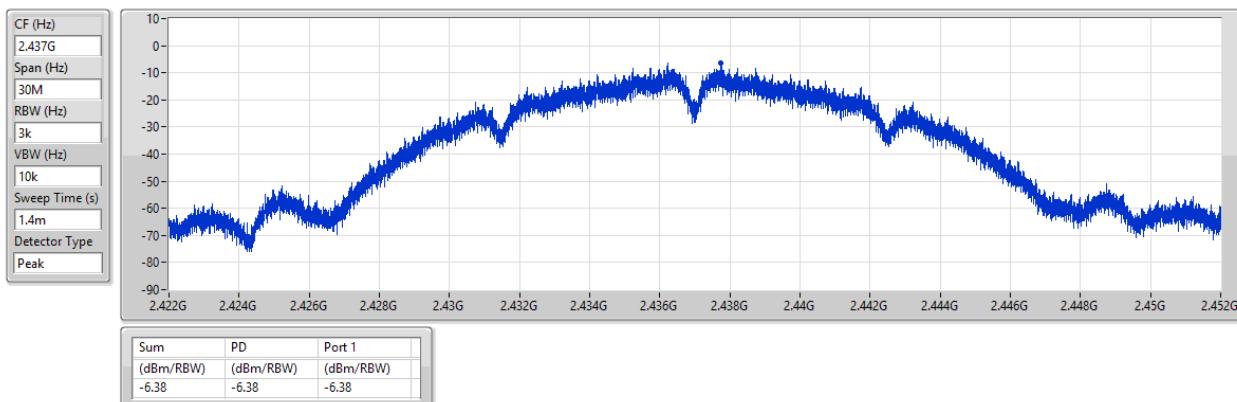


**2.4-2.4835GHz\_802.11b\_Nss1,(1Mbps)\_1TX**

**PSD**

**2437MHz**

07/03/2024



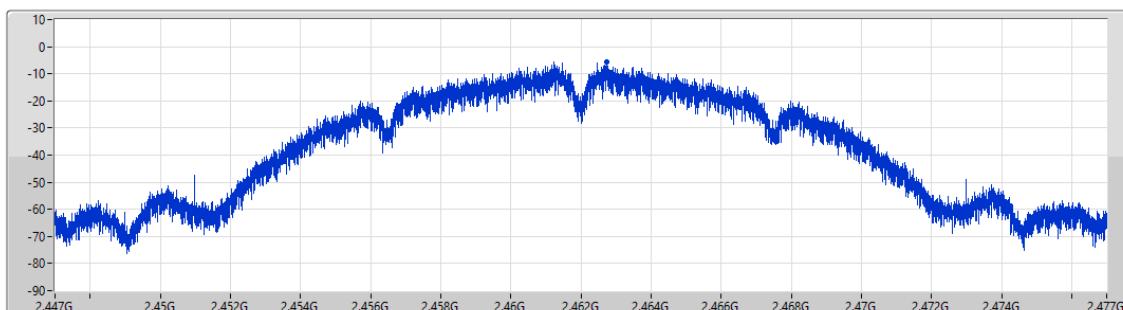
**2.4-2.4835GHz\_802.11b\_Nss1,(1Mbps)\_1TX**

**PSD**

**2462MHz**

26/02/2024

CF (Hz)  
2.462G  
Span (Hz)  
30M  
RBW (Hz)  
3k  
VBW (Hz)  
10k  
Sweep Time (s)  
1.4m  
Detector Type  
Peak



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-5.72	-5.72	-5.72

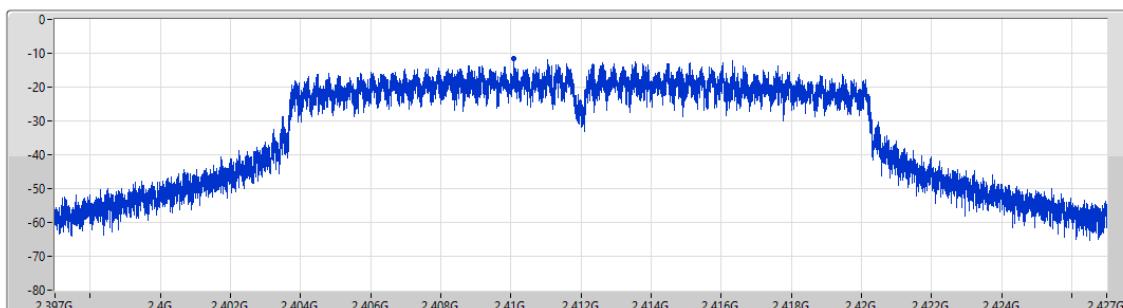
**2.4-2.4835GHz\_802.11g\_Nss1,(6Mbps)\_1TX**

**PSD**

**2412MHz**

07/03/2024

CF (Hz)  
2.412G  
Span (Hz)  
30M  
RBW (Hz)  
3k  
VBW (Hz)  
10k  
Sweep Time (s)  
1.4m  
Detector Type  
Peak



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-11.68	-11.68	-11.68

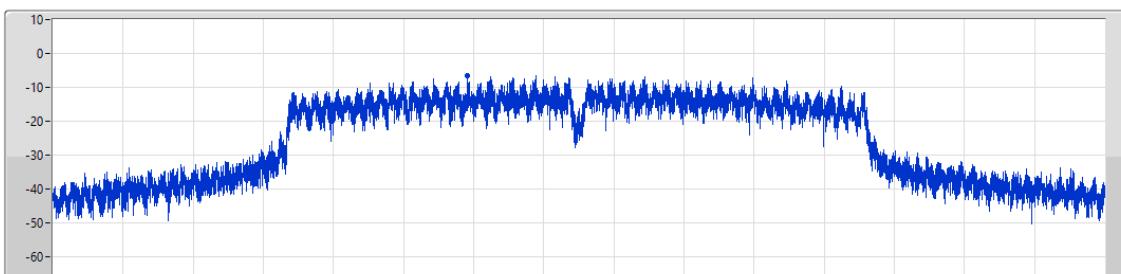
2.4-2.4835GHz\_802.11g\_Nss1,(6Mbps)\_1TX

**PSD**

**2437MHz**

07/03/2024

CF (Hz)
2.437G
Span (Hz)
30M
RBW (Hz)
3k
VBW (Hz)
10k
Sweep Time (s)
1.4m
Detector Type
Peak



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-11.91	-11.91	-11.91

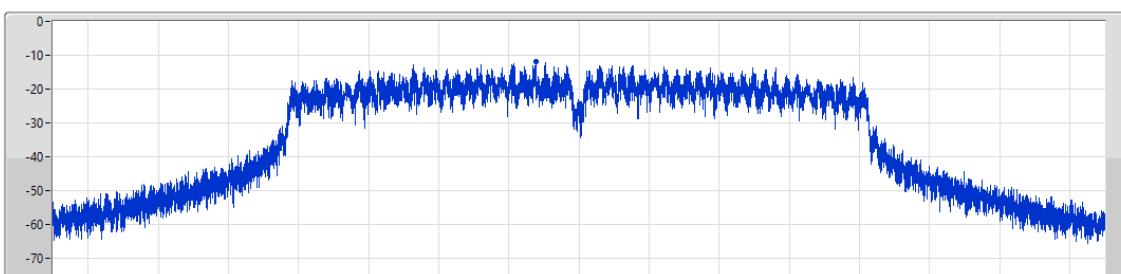
2.4-2.4835GHz\_802.11g\_Nss1,(6Mbps)\_1TX

**PSD**

**2462MHz**

07/03/2024

CF (Hz)
2.462G
Span (Hz)
30M
RBW (Hz)
3k
VBW (Hz)
10k
Sweep Time (s)
1.4m
Detector Type
Peak



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-11.91	-11.91	-11.91

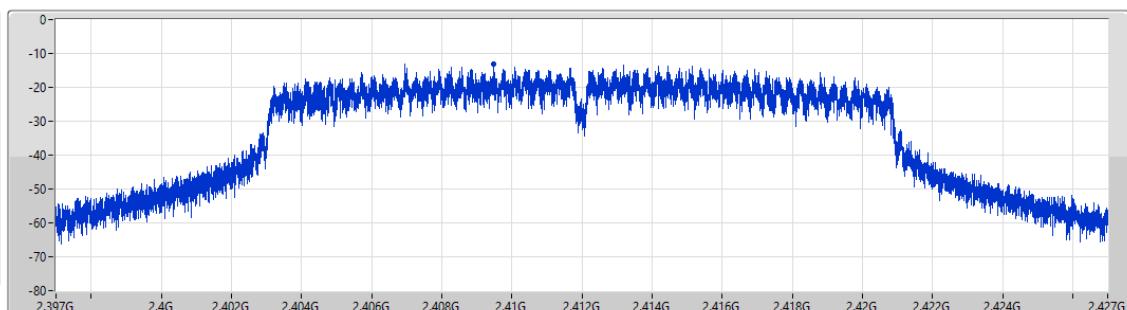
2.4-2.4835GHz\_802.11n HT20\_Nss1,(MCS0)\_1TX

**PSD**

**2412MHz**

07/03/2024

CF (Hz)  
2.412G  
Span (Hz)  
30M  
RBW (Hz)  
3k  
VBW (Hz)  
10k  
Sweep Time (s)  
1.4m  
Detector Type  
Peak



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-13.04	-13.04	-13.04

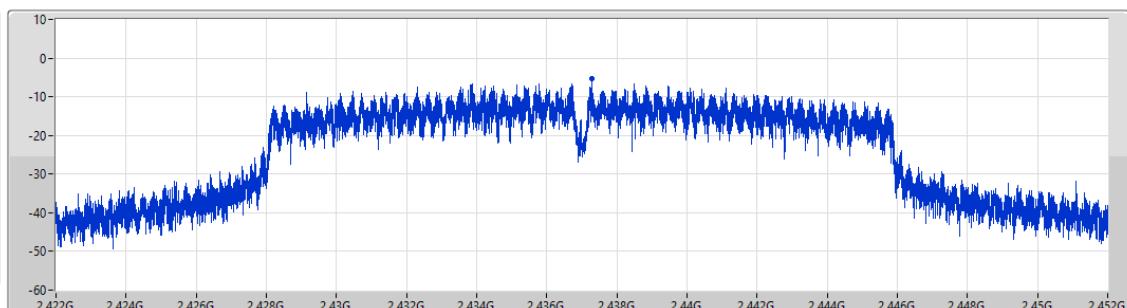
2.4-2.4835GHz\_802.11n HT20\_Nss1,(MCS0)\_1TX

**PSD**

**2437MHz**

07/03/2024

CF (Hz)  
2.437G  
Span (Hz)  
30M  
RBW (Hz)  
3k  
VBW (Hz)  
10k  
Sweep Time (s)  
1.4m  
Detector Type  
Peak



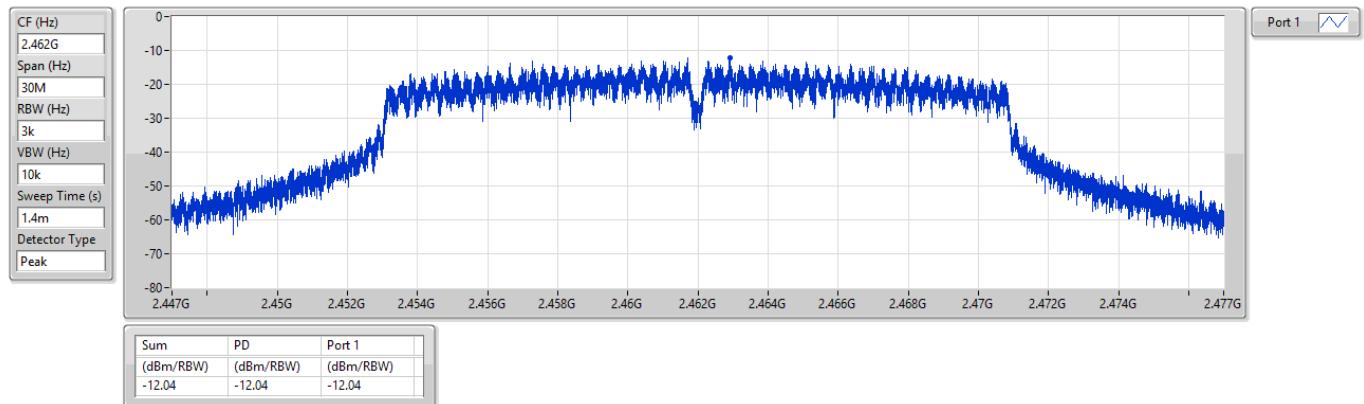
Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-5.40	-5.40	-5.40

2.4-2.4835GHz\_802.11n HT20\_Nss1,(MCS0)\_1TX

**PSD**

**2462MHz**

07/03/2024



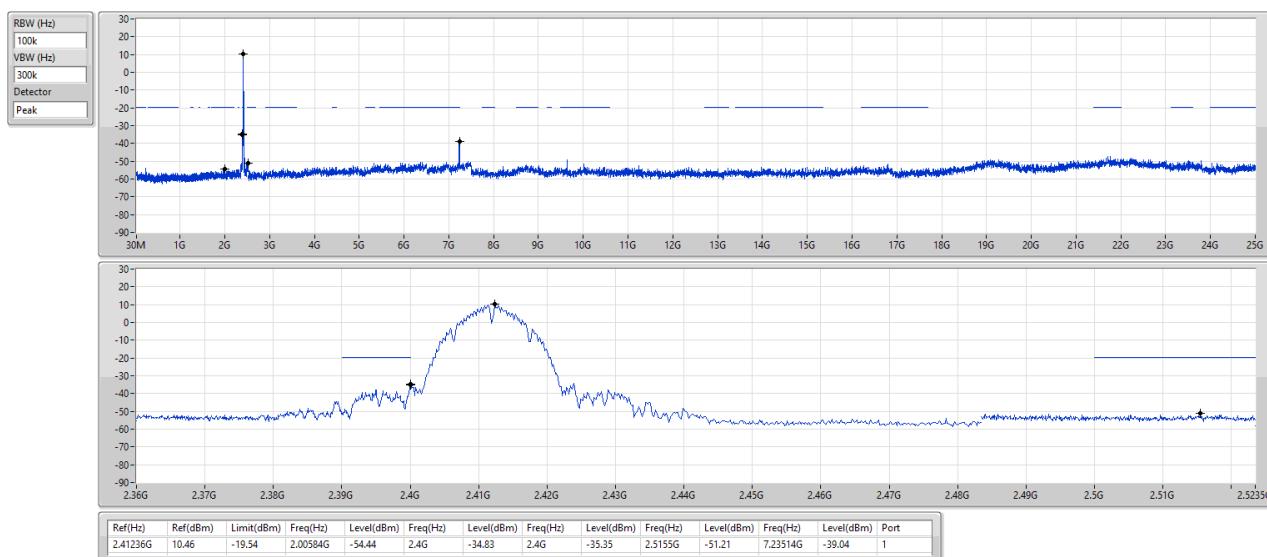
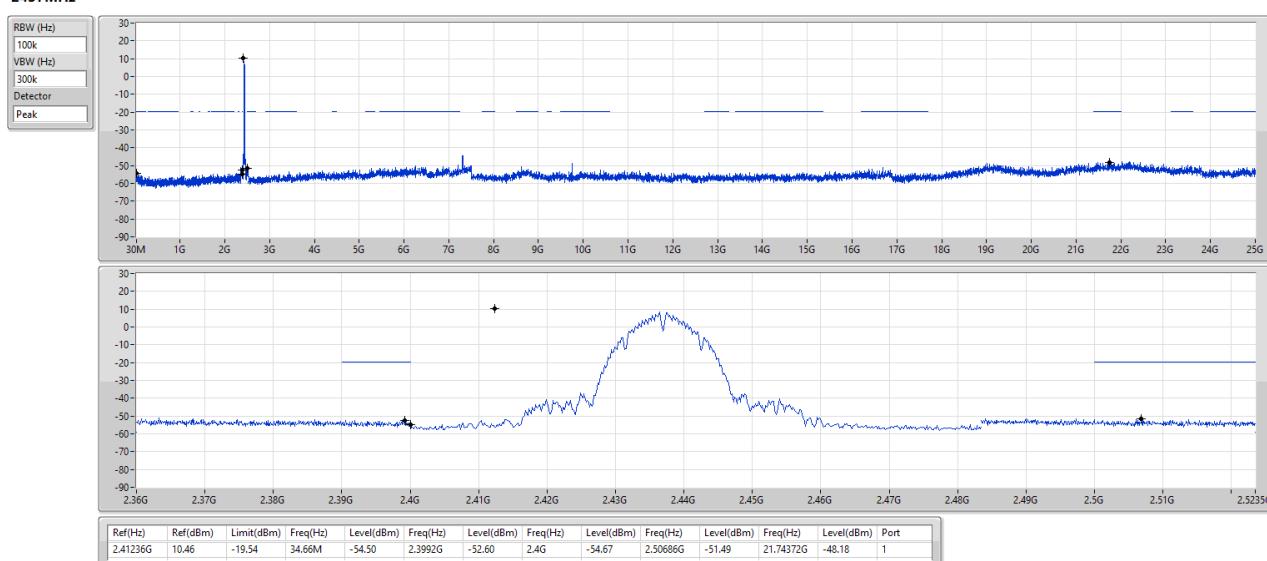
**Summary**

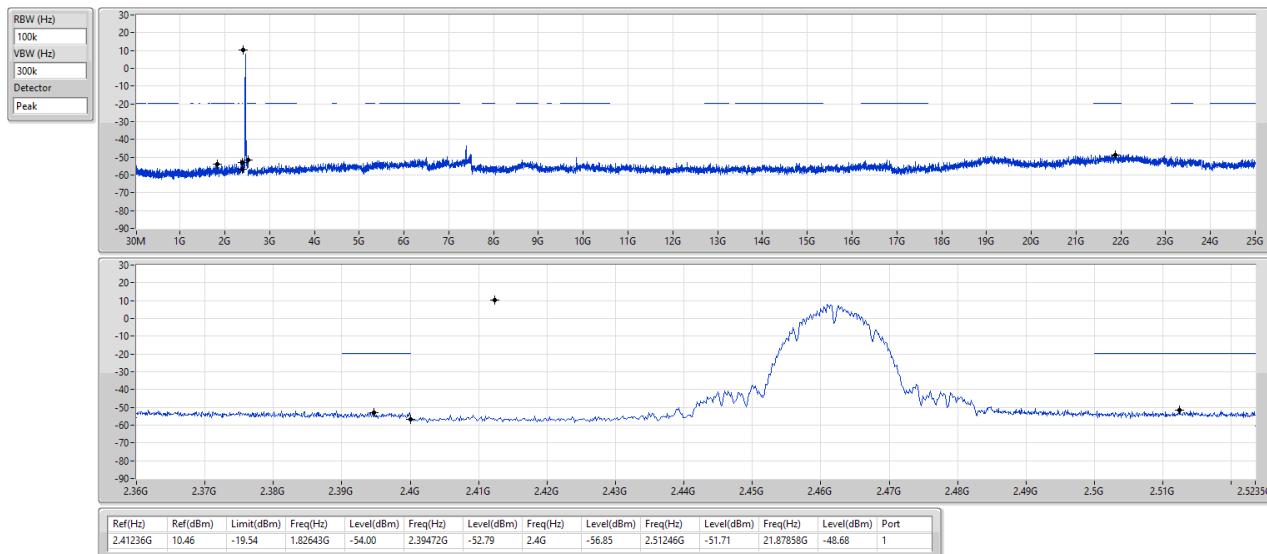
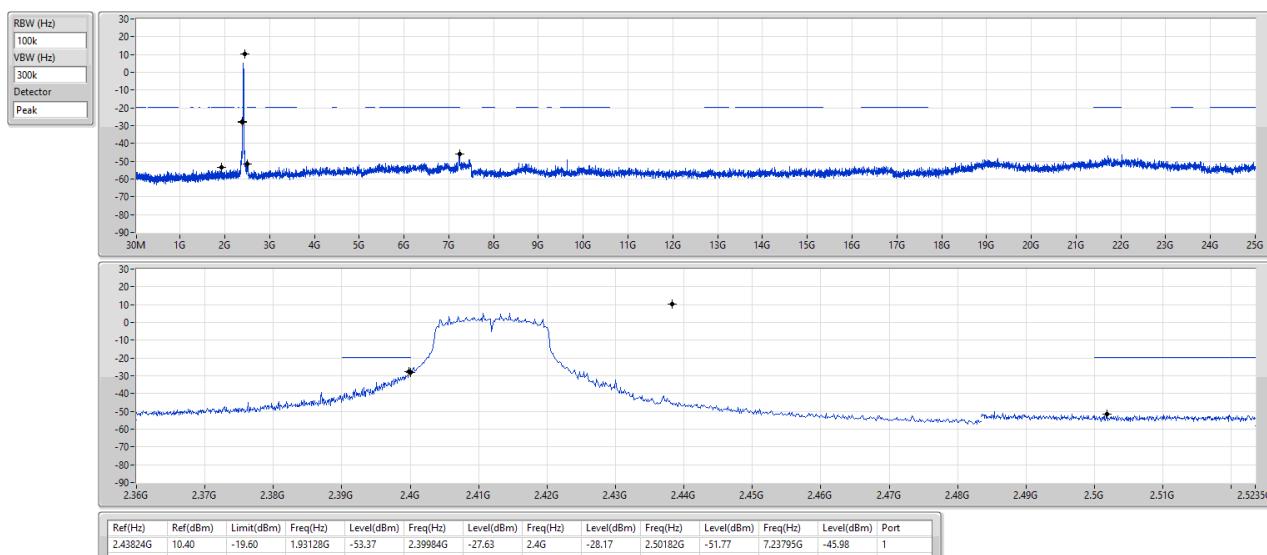
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Port								
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
802.11b_Nss1,(1Mbps)_1TX	Pass	2.41236G	10.46	-19.54	2.00584G	-54.44	2.4G	-34.83	2.4G	-35.35	2.5155G	-51.21	7.23514G	-39.04	1
802.11g_Nss1,(6Mbps)_1TX	Pass	2.43824G	10.40	-19.60	1.93128G	-53.37	2.39984G	-27.63	2.4G	-28.17	2.50182G	-51.77	7.23795G	-45.98	1
802.11n HT20_Nss1,(MCS0)_1TX	Pass	2.43824G	10.21	-19.79	2.17943G	-54.51	2.39984G	-29.12	2.4G	-29.18	2.50998G	-52.04	21.74653G	-46.96	1

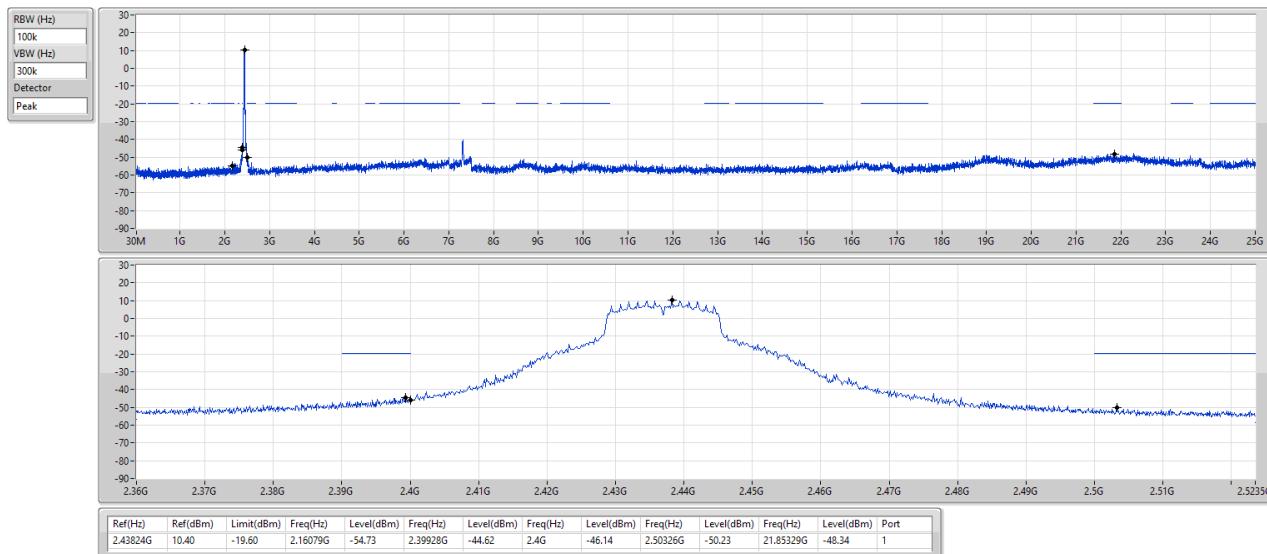
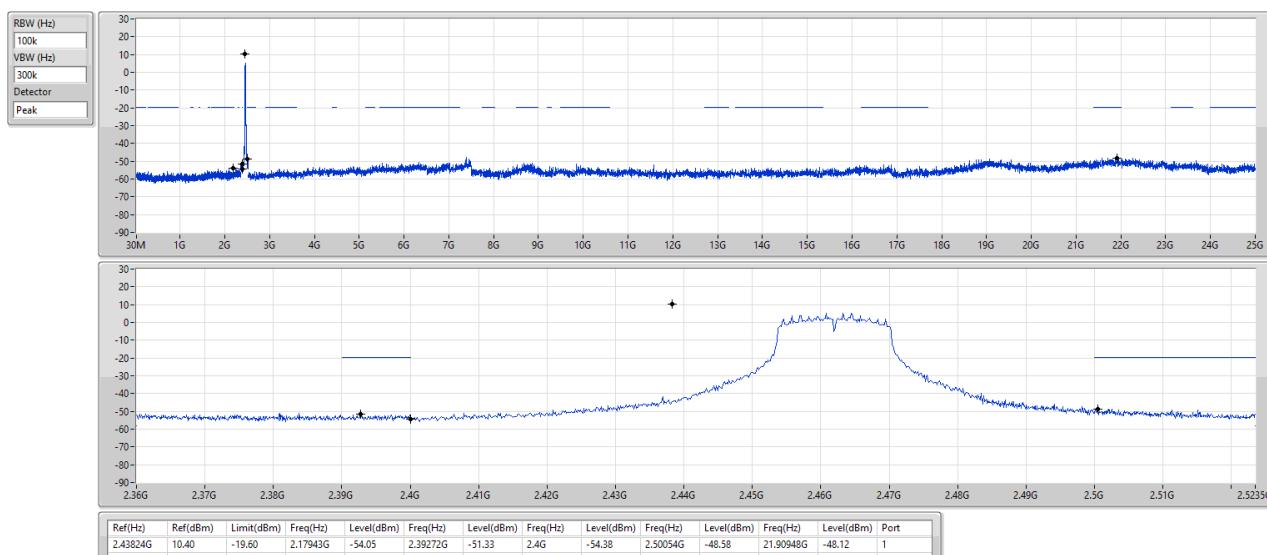


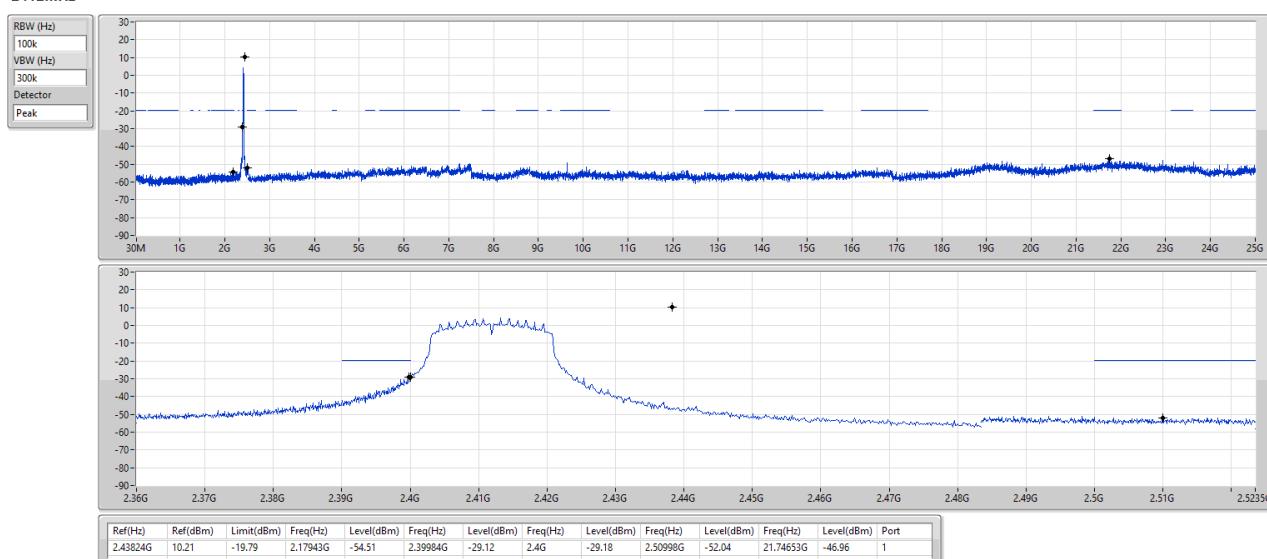
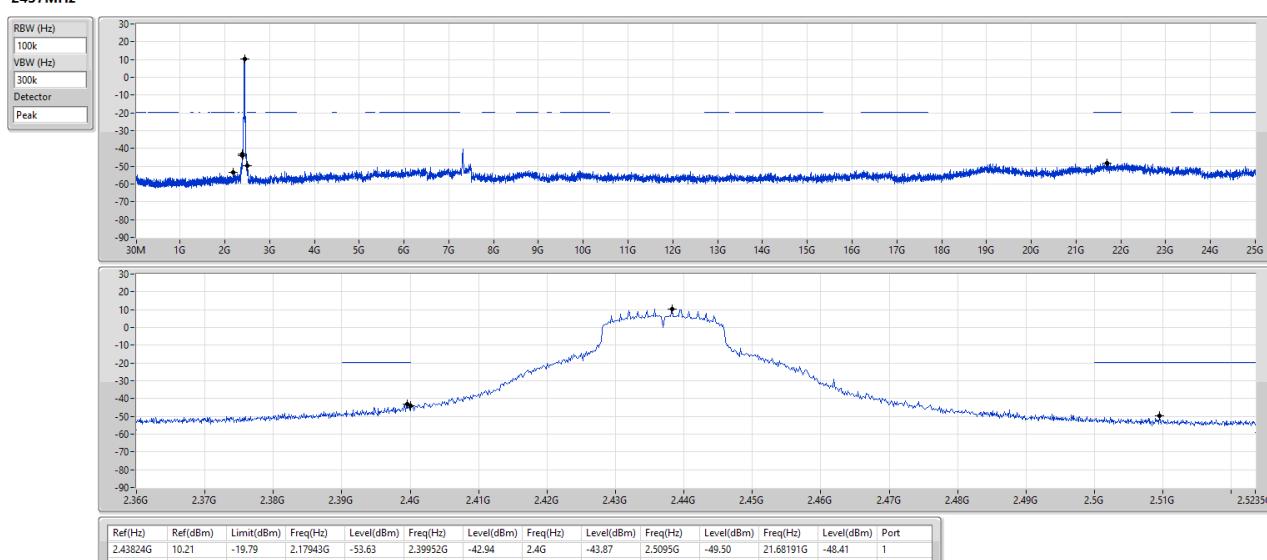
## Result

Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Port								
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.41236G	10.46	-19.54	2.00584G	-54.44	2.4G	-34.83	2.4G	-35.35	2.5155G	-51.21	7.23514G	-39.04	1
2437MHz	Pass	2.41236G	10.46	-19.54	34.66M	-54.50	2.3992G	-52.60	2.4G	-54.67	2.50686G	-51.49	21.74372G	-48.18	1
2462MHz	Pass	2.41236G	10.46	-19.54	1.82643G	-54.00	2.39472G	-52.79	2.4G	-56.85	2.51246G	-51.71	21.87858G	-48.68	1
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43824G	10.40	-19.60	1.93128G	-53.37	2.39984G	-27.63	2.4G	-28.17	2.50182G	-51.77	7.23795G	-45.98	1
2437MHz	Pass	2.43824G	10.40	-19.60	2.16079G	-54.73	2.39928G	-44.62	2.4G	-46.14	2.50326G	-50.23	21.85329G	-48.34	1
2462MHz	Pass	2.43824G	10.40	-19.60	2.17943G	-54.05	2.39272G	-51.33	2.4G	-54.38	2.50054G	-48.58	21.90948G	-48.12	1
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43824G	10.21	-19.79	2.17943G	-54.51	2.39984G	-29.12	2.4G	-29.18	2.50998G	-52.04	21.74653G	-46.96	1
2437MHz	Pass	2.43824G	10.21	-19.79	2.17943G	-53.63	2.39952G	-42.94	2.4G	-43.87	2.5095G	-49.50	21.68191G	-48.41	1
2462MHz	Pass	2.43824G	10.21	-19.79	2.11885G	-53.51	2.39136G	-50.30	2.4G	-54.62	2.50294G	-48.01	21.40376G	-48.30	1

**2.4-2.4835GHz\_802.11b\_Nss1,(1Mbps)\_1TX**
**CSEndb**
**2412MHz**

**2.4-2.4835GHz\_802.11b\_Nss1,(1Mbps)\_1TX**
**CSEndb**
**2437MHz**


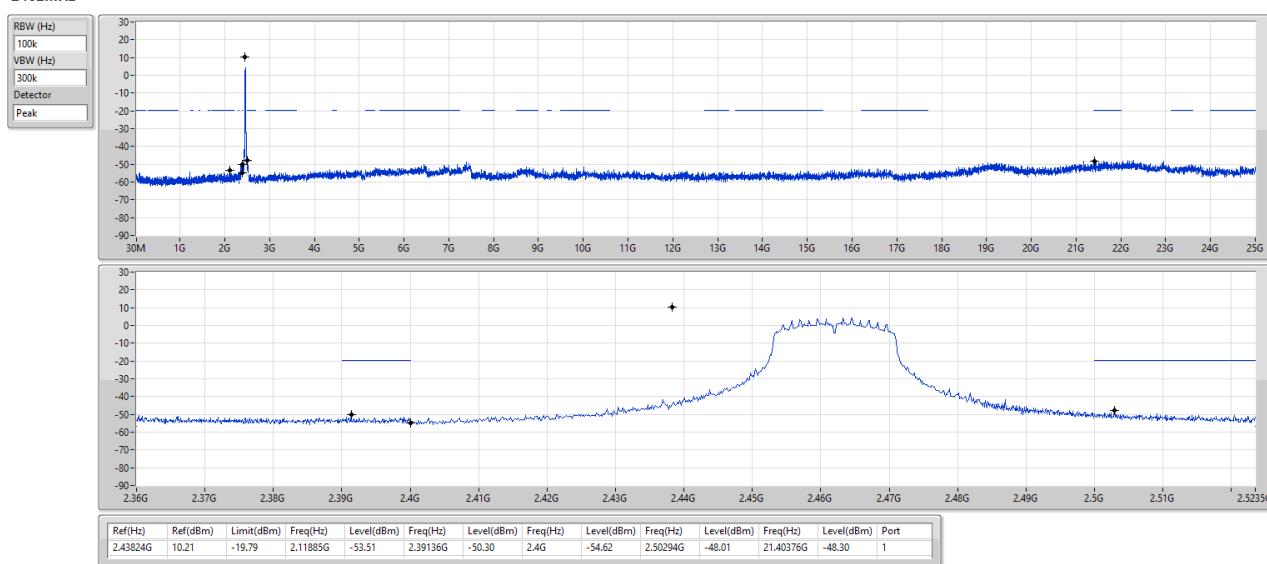
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**CSEndb**
**2462MHz**

**2.4-2.4835GHz\_802.11g\_(6Mbps)\_1TX**
**CSEndb**
**2412MHz**


**2.4-2.4835GHz\_802.11g\_Nss1,(6Mbps)\_1TX**
**CSEndb**
**2437MHz**

**2.4-2.4835GHz\_802.11g\_Nss1,(6Mbps)\_1TX**
**CSEndb**
**2462MHz**


**2.4-2.4835GHz\_802.11n HT20\_Nss1,(MCS0)\_1TX**
**CSEndb**
**2412MHz**

**2.4-2.4835GHz\_802.11n HT20\_Nss1,(MCS0)\_1TX**
**CSEndb**
**2437MHz**


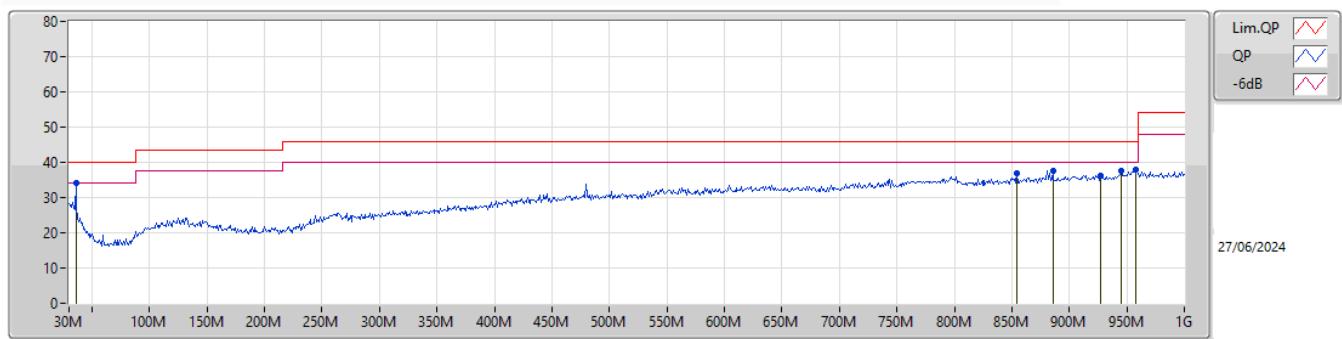
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**CSEndb**
**2462MHz**

26/02/2024

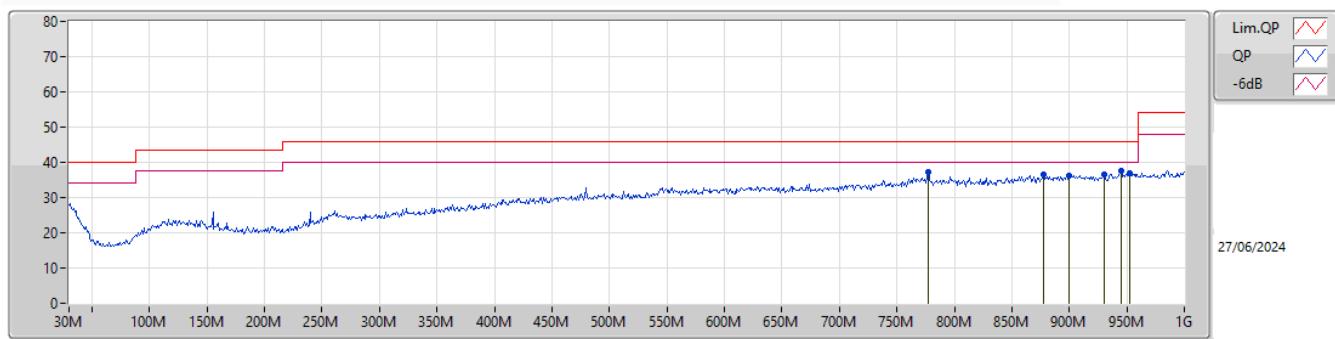
Port 1 


**Summary**

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition
Mode 1	Pass	PK	35.82M	34.09	40.00	-5.91	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	35.82M	34.09	40.00	-5.91	-9.13	3	Vertical	18	1.50	"Worst"	43.22	21.27	1.10	31.50		
PK	854.5M	36.87	46.00	-9.13	-0.59	3	Vertical	80	3.00	-	37.46	26.10	5.63	32.32		
PK	885.54M	37.49	46.00	-8.51	-0.21	3	Vertical	322	1.25	-	37.70	26.37	5.77	32.35		
PK	927.25M	36.21	46.00	-9.79	0.04	3	Vertical	185	1.25	-	36.17	26.45	5.92	32.33		
PK	944.71M	37.65	46.00	-8.35	0.25	3	Vertical	179	1.25	-	37.40	26.59	5.97	32.31		
PK	958.29M	37.98	46.00	-8.02	0.42	3	Vertical	26	2.00	-	37.56	26.72	6.01	32.31		

**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	776.9M	37.37	46.00	-8.63	-1.37	3	Horizontal	338	3.00	-	38.74	25.64	5.34	32.35	
PK	877.78M	36.38	46.00	-9.62	-0.30	3	Horizontal	314	1.25	-	36.68	26.30	5.74	32.34	
PK	900.09M	36.29	46.00	-9.71	-0.12	3	Horizontal	129	2.00	-	36.41	26.41	5.84	32.37	
PK	930M	36.58	46.00	-9.42	0.04	3	Horizontal	349	3.00	-	36.54	26.45	5.92	32.33	
PK	944.71M	37.65	46.00	-8.35	0.25	3	Horizontal	343	1.00	"Worst"	37.40	26.59	5.97	32.31	
PK	952.47M	36.85	46.00	-9.15	0.32	3	Horizontal	310	3.00	-	36.53	26.63	5.99	32.30	

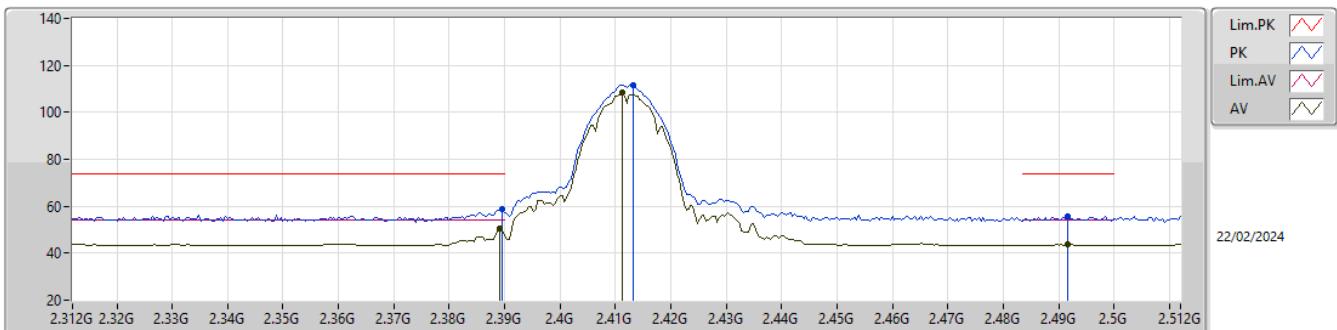
**Summary**

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-
802.11g_Nss1,(6Mbps)_1TX	Pass	AV	7.30932G	52.01	54.00	-1.99	3	Horizontal	11	2.65	-



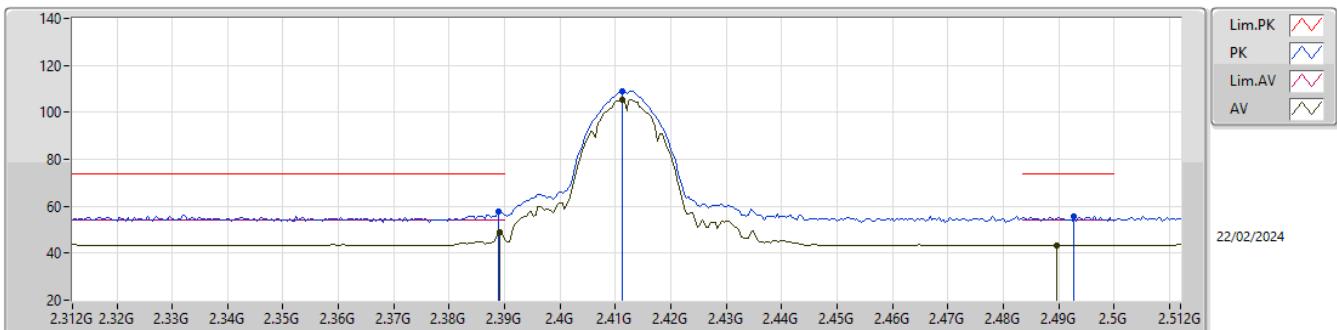
## 2.4-2.4835GHz\_802.11b\_Nss1,(1Mbps)\_1TX

## 2412MHz\_TX



EUT X\_1TX  
Setting 18  
04-C-Y-1

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition (*)	Azimuth (m)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)				
PK	2.3896G	58.72	74.00	-15.28	27.97	3	Vertical	87	1.00	-	27.40	3.35	-				
AV	2.3892G	50.76	54.00	-3.24	20.01	3	Vertical	87	1.00	-	27.40	3.35	-				
PK	2.4132G	111.76	Inf	-Inf	80.90	3	Vertical	87	1.00	-	27.50	3.36	-				
AV	2.4112G	108.42	Inf	-Inf	77.56	3	Vertical	87	1.00	-	27.50	3.36	-				
PK	2.4916G	55.66	74.00	-18.34	24.56	3	Vertical	87	1.00	-	27.70	3.40	-				
AV	2.4916G	43.59	54.00	-10.41	12.49	3	Vertical	87	1.00	-	27.70	3.40	-				

**2.4-2.4835GHz\_802.11b\_Nss1,(1Mbps)\_1TX**
**2412MHz\_TX**


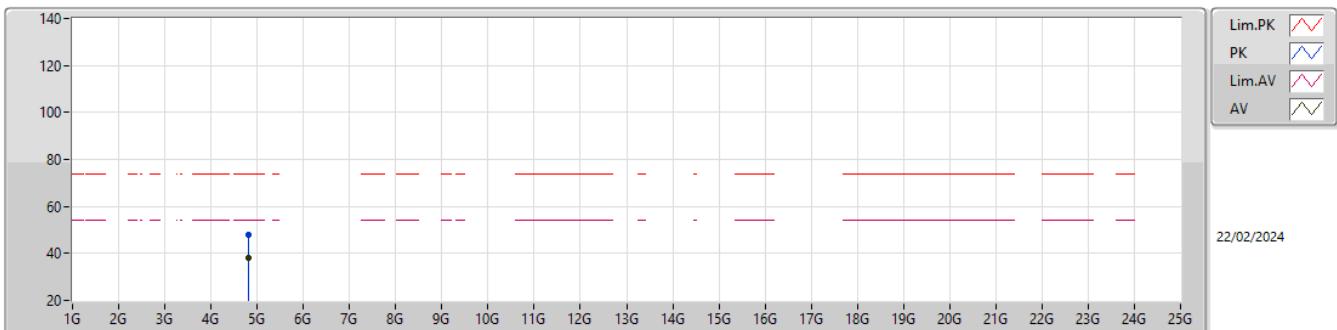
EUT X\_1TX  
Setting 18  
04-C-Y-1

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition (*)	Azimuth	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)			
PK	2.3888G	57.82	74.00	-16.18	27.07	3	Horizontal	49	2.85	-	27.40	3.35	-			
AV	2.3892G	49.20	54.00	-4.80	18.45	3	Horizontal	49	2.85	-	27.40	3.35	-			
PK	2.4112G	109.18	Inf	-Inf	78.32	3	Horizontal	49	2.85	-	27.50	3.36	-			
AV	2.4112G	105.55	Inf	-Inf	74.69	3	Horizontal	49	2.85	-	27.50	3.36	-			
PK	2.4928G	55.56	74.00	-18.44	24.46	3	Horizontal	49	2.85	-	27.70	3.40	-			
AV	2.4896G	43.45	54.00	-10.55	12.35	3	Horizontal	49	2.85	-	27.70	3.40	-			



## 2.4-2.4835GHz\_802.11b\_Nss1,(1Mbps)\_1TX

## 2412MHz\_TX



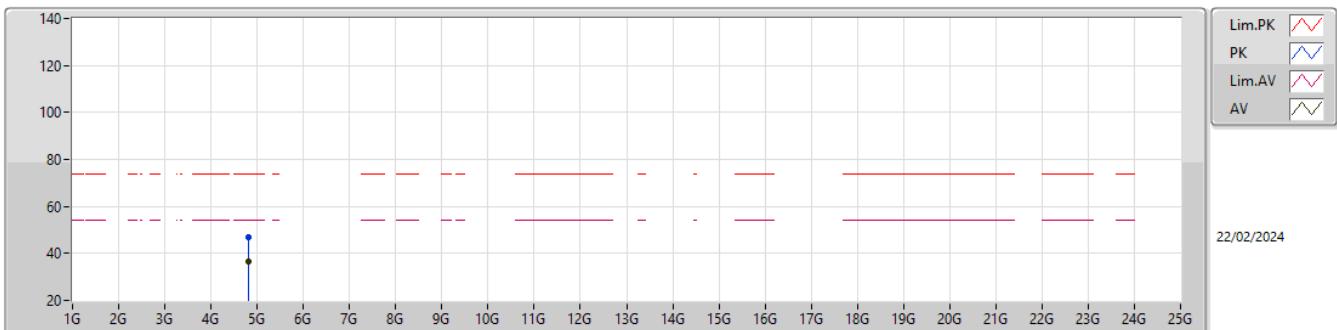
EUT X\_1TX  
Setting 18  
04-C-Y-1

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition (*)	Azimuth (m)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)			
PK	4.82412G	47.98	74.00	-26.02	43.23	3	Vertical	97	1.66	-	32.35	5.67	33.27			
AV	4.82401G	37.94	54.00	-16.06	33.19	3	Vertical	97	1.66	-	32.35	5.67	33.27			



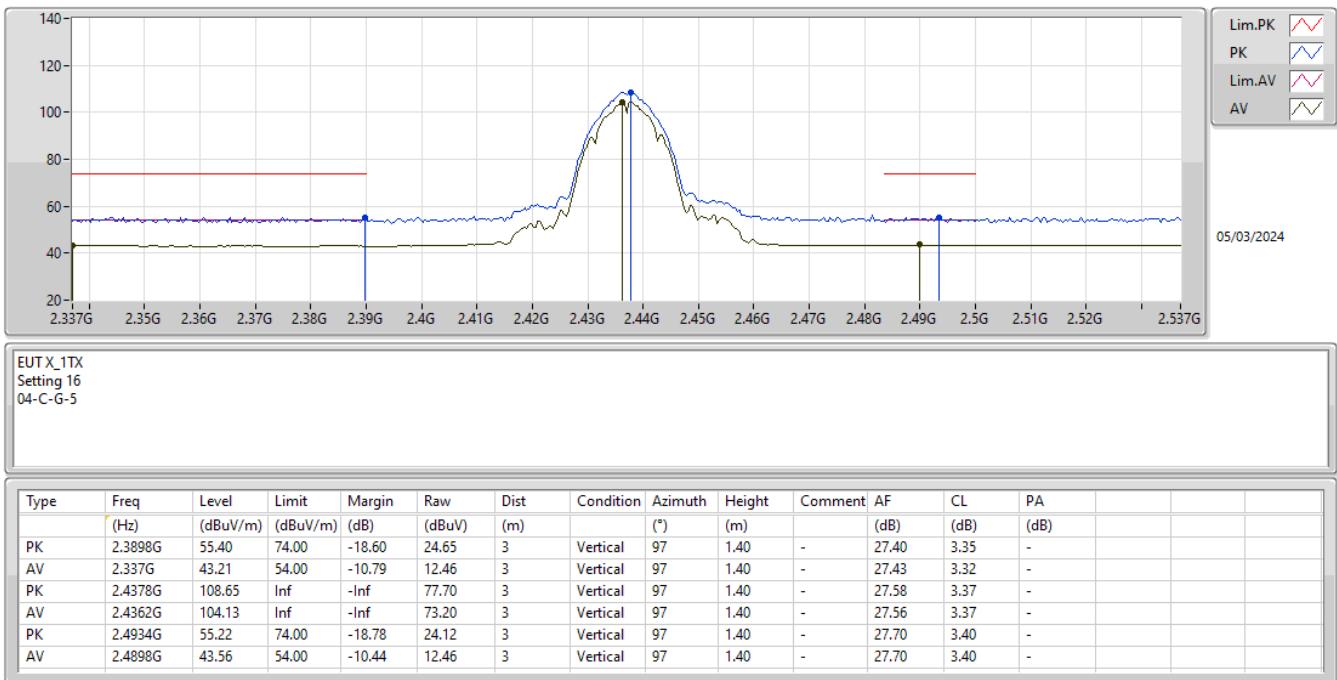
## 2.4-2.4835GHz\_802.11b\_Nss1,(1Mbps)\_1TX

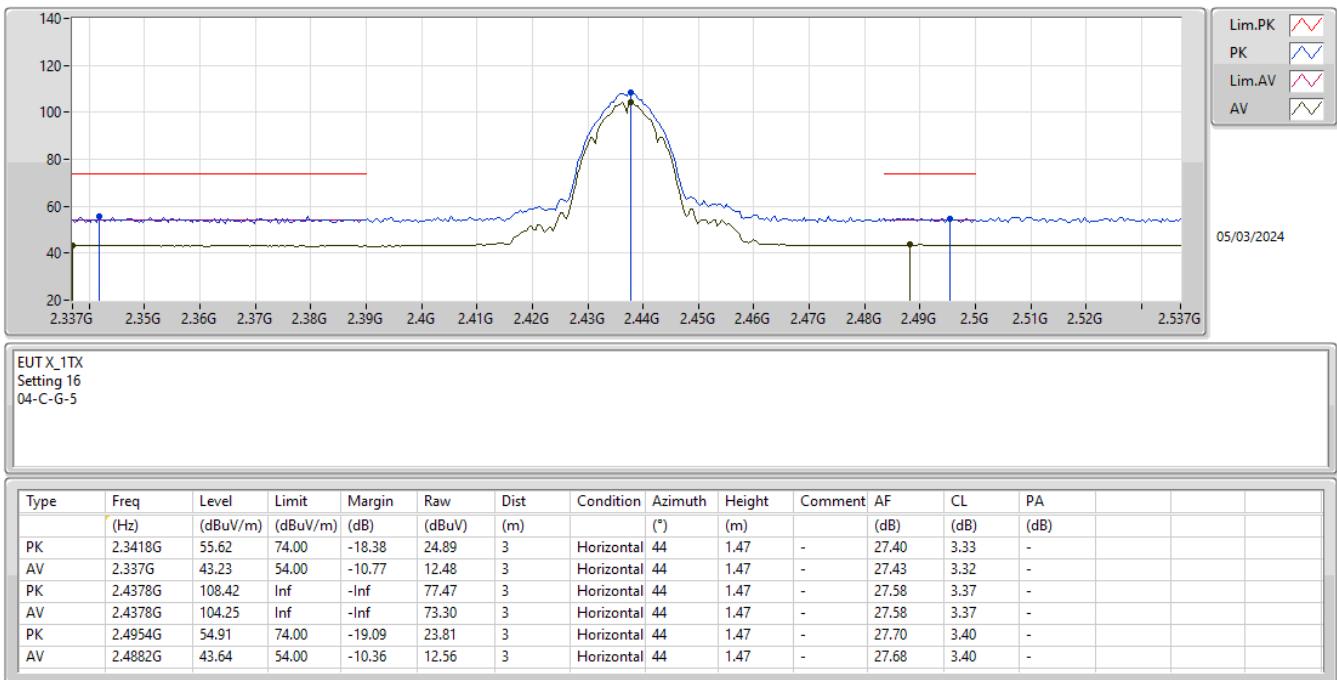
## 2412MHz\_TX



EUT X\_1TX  
Setting 18  
04-C-Y-1

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition (*)	Azimuth (m)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)			
PK	4.82391G	46.76	74.00	-27.24	42.01	3	Horizontal	174	2.84	-	32.35	5.67	33.27			
AV	4.824G	36.63	54.00	-17.37	31.88	3	Horizontal	174	2.84	-	32.35	5.67	33.27			

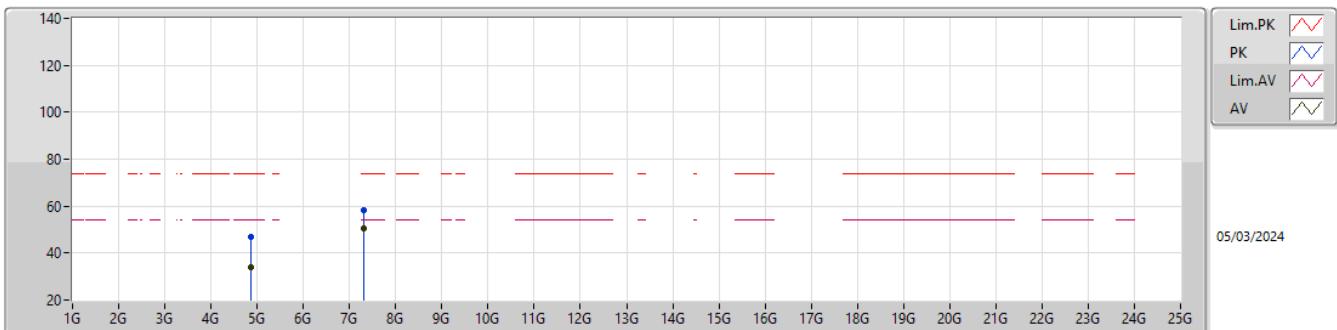
**2.4-2.4835GHz\_802.11b\_Nss1,(1Mbps)\_1TX**
**2437MHz\_TX**


**2.4-2.4835GHz\_802.11b\_Nss1,(1Mbps)\_1TX**
**2437MHz\_TX**




## 2.4-2.4835GHz\_802.11b\_Nss1,(1Mbps)\_1TX

## 2437MHz\_TX



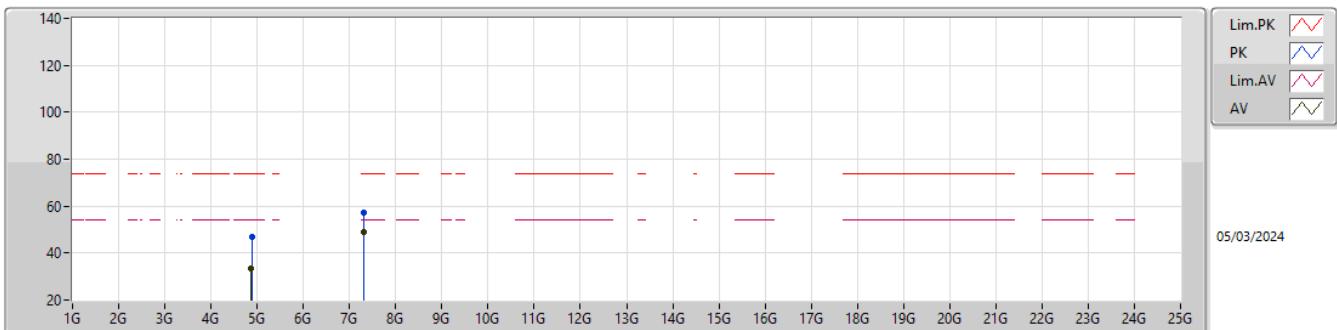
EUT X\_1TX  
Setting 16  
04-C-G-5

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	4.8739G	46.66	74.00	-27.34	41.70	3	Vertical	96	1.65	-	32.50	5.72	33.26				
AV	4.87394G	34.03	54.00	-19.97	29.07	3	Vertical	96	1.65	-	32.50	5.72	33.26				
PK	7.3094G	58.14	74.00	-15.86	47.91	3	Vertical	173	2.24	-	37.20	7.12	34.09				
AV	7.31168G	50.72	54.00	-3.28	40.49	3	Vertical	173	2.24	-	37.20	7.12	34.09				



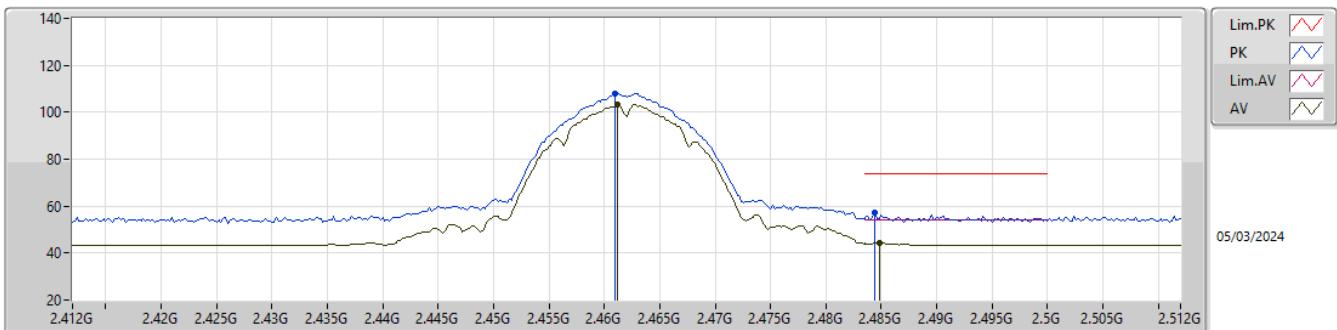
## 2.4-2.4835GHz\_802.11b\_Nss1,(1Mbps)\_1TX

## 2437MHz\_TX



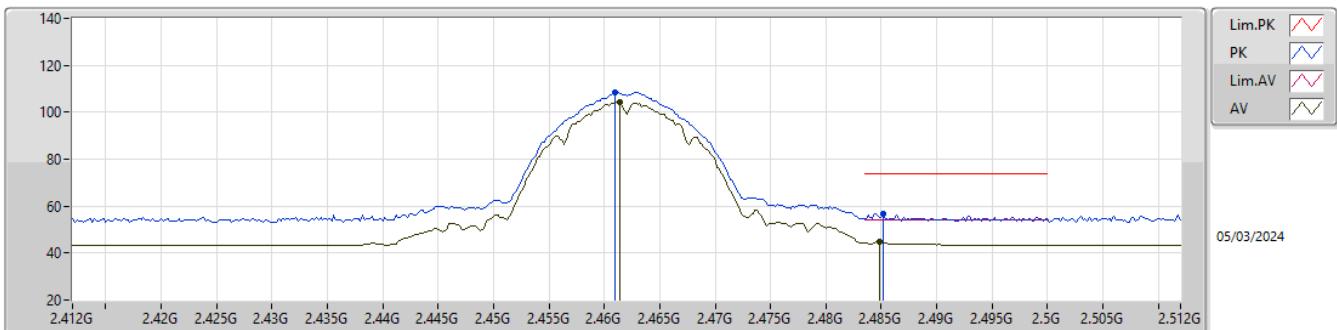
EUT X\_1TX  
Setting 16  
04-C-G-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition (*)	Azimuth (m)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)				
PK	4.87964G	46.98	74.00	-27.02	41.99	3	Horizontal	335	2.44	-	32.52	5.72	33.25				
AV	4.874G	33.38	54.00	-20.62	28.42	3	Horizontal	335	2.44	-	32.50	5.72	33.26				
PK	7.3118G	57.24	74.00	-16.76	47.01	3	Horizontal	18	2.65	-	37.20	7.12	34.09				
AV	7.31168G	49.16	54.00	-4.84	38.93	3	Horizontal	18	2.65	-	37.20	7.12	34.09				

**2.4-2.4835GHz\_802.11b\_Nss1,(1Mbps)\_1TX**
**2462MHz\_TX**


EUT X\_1TX  
 Setting 16  
 04-C-G-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition (*)	Azimuth (m)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)			
PK	2.461G	107.81	Inf	-Inf	76.83	3	Vertical	107	1.62	-	27.60	3.38	-			
AV	2.4612G	103.35	Inf	-Inf	72.37	3	Vertical	107	1.62	-	27.60	3.38	-			
PK	2.4844G	57.18	74.00	-16.82	26.14	3	Vertical	107	1.62	-	27.64	3.40	-			
AV	2.4848G	44.53	54.00	-9.47	13.48	3	Vertical	107	1.62	-	27.65	3.40	-			

**2.4-2.4835GHz\_802.11b\_Nss1,(1Mbps)\_1TX**
**2462MHz\_TX**


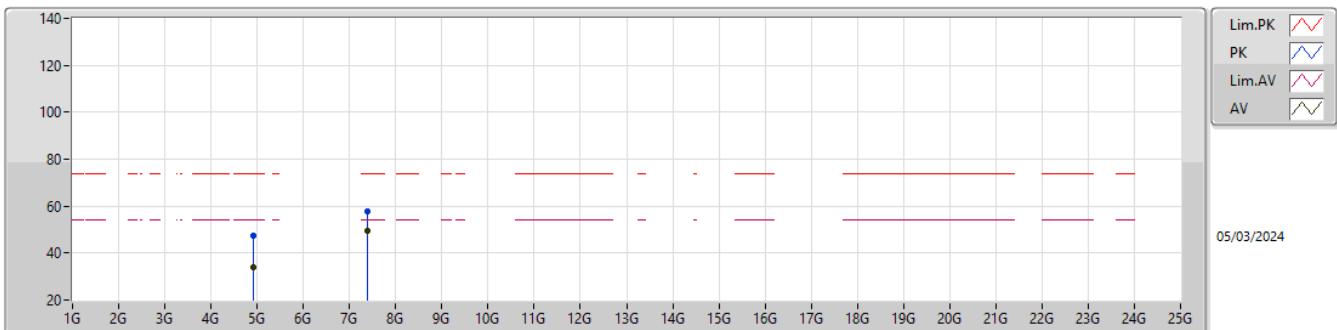
EUT X\_1TX  
 Setting 16  
 04-C-G-5

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	108.36	Inf	-Inf	77.38	3	Horizontal	41	2.42	-	27.60	3.38	-			
AV	2.4614G	104.23	Inf	-Inf	73.25	3	Horizontal	41	2.42	-	27.60	3.38	-			
PK	2.4852G	56.67	74.00	-17.33	25.62	3	Horizontal	41	2.42	-	27.65	3.40	-			
AV	2.4848G	45.01	54.00	-8.99	13.96	3	Horizontal	41	2.42	-	27.65	3.40	-			



## 2.4-2.4835GHz\_802.11b\_Nss1,(1Mbps)\_1TX

## 2462MHz\_TX



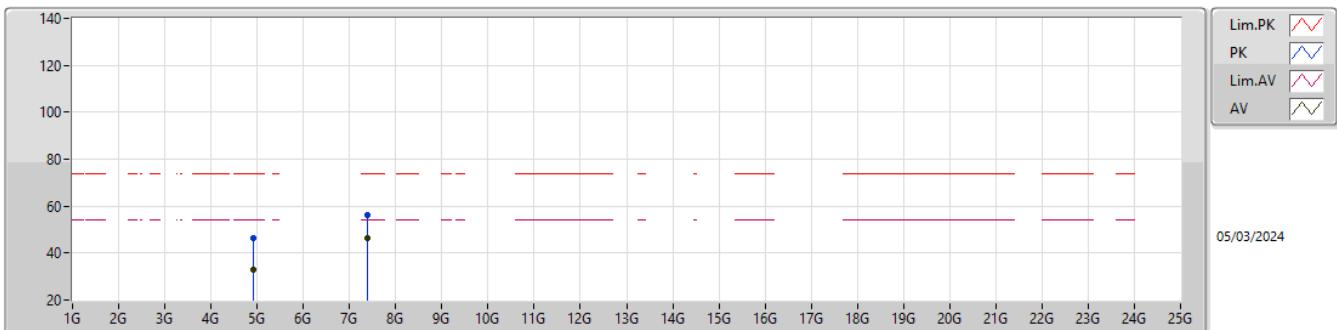
EUT X\_1TX  
Setting 16  
04-C-G-5

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	4.92082G	47.16	74.00	-26.84	42.00	3	Vertical	92	1.93	-	32.64	5.76	33.24				
AV	4.92394G	33.84	54.00	-20.16	28.67	3	Vertical	92	1.93	-	32.65	5.76	33.24				
PK	7.38696G	57.84	74.00	-16.16	47.60	3	Vertical	174	1.80	-	37.20	7.16	34.12				
AV	7.38666G	49.56	54.00	-4.44	39.32	3	Vertical	174	1.80	-	37.20	7.16	34.12				



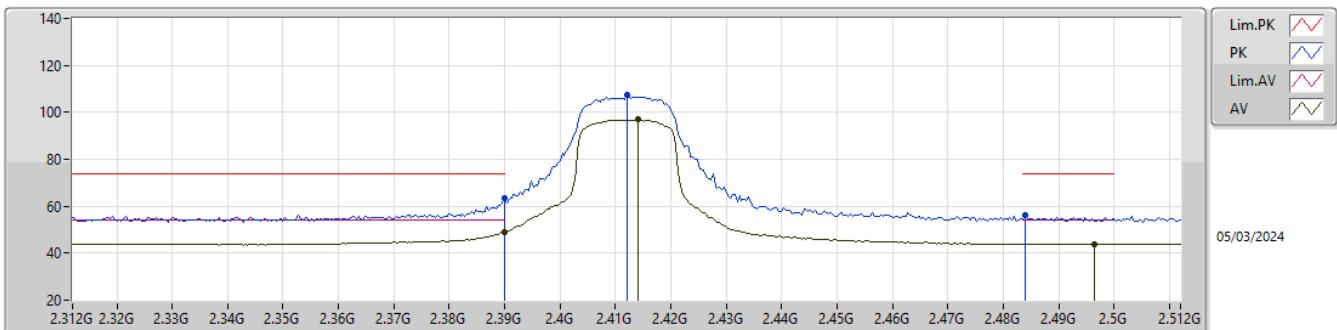
## 2.4-2.4835GHz\_802.11b\_Nss1,(1Mbps)\_1TX

## 2462MHz\_TX



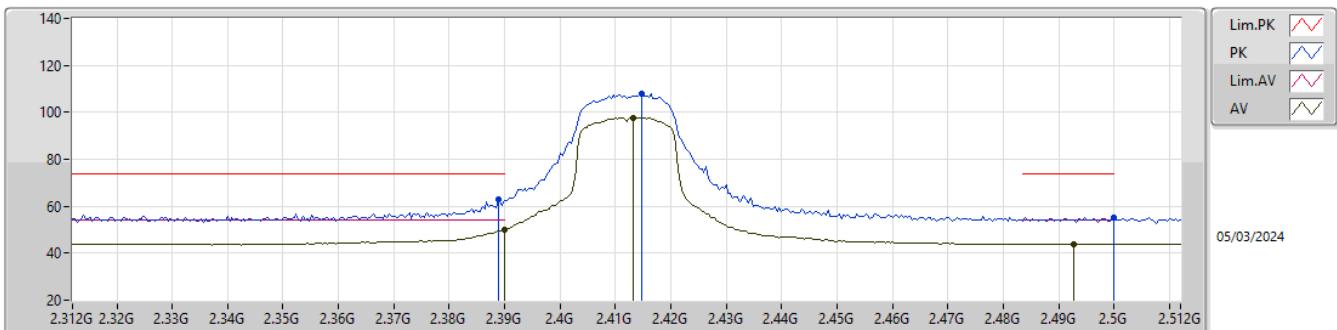
EUT X\_1TX  
Setting 16  
04-C-G-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition (*)	Azimuth (m)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)				
PK	4.92542G	46.22	74.00	-27.78	41.05	3	Horizontal	331	2.13	-	32.65	5.76	33.24				
AV	4.9239G	33.08	54.00	-20.92	27.91	3	Horizontal	331	2.13	-	32.65	5.76	33.24				
PK	7.38552G	56.44	74.00	-17.56	46.20	3	Horizontal	215	1.00	-	37.20	7.16	34.12				
AV	7.38674G	46.15	54.00	-7.85	35.91	3	Horizontal	215	1.00	-	37.20	7.16	34.12				

**2.4-2.4835GHz\_802.11g\_Nss1,(6Mbps)\_1TX**
**2412MHz\_TX**


EUT X\_1TX  
 Setting 14  
 04-C-G-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition (*)	Azimuth (m)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)			
PK	2.39G	63.42	74.00	-10.58	32.67	3	Vertical	106	1.57	-	27.40	3.35	-			
AV	2.39G	48.98	54.00	-5.02	18.23	3	Vertical	106	1.57	-	27.40	3.35	-			
PK	2.412G	107.50	Inf	-Inf	76.64	3	Vertical	106	1.57	-	27.50	3.36	-			
AV	2.414G	96.86	Inf	-Inf	66.00	3	Vertical	106	1.57	-	27.50	3.36	-			
PK	2.484G	56.22	74.00	-17.78	25.18	3	Vertical	106	1.57	-	27.64	3.40	-			
AV	2.4964G	43.94	54.00	-10.06	12.84	3	Vertical	106	1.57	-	27.70	3.40	-			

**2.4-2.4835GHz\_802.11g\_Nss1,(6Mbps)\_1TX**
**2412MHz\_TX**


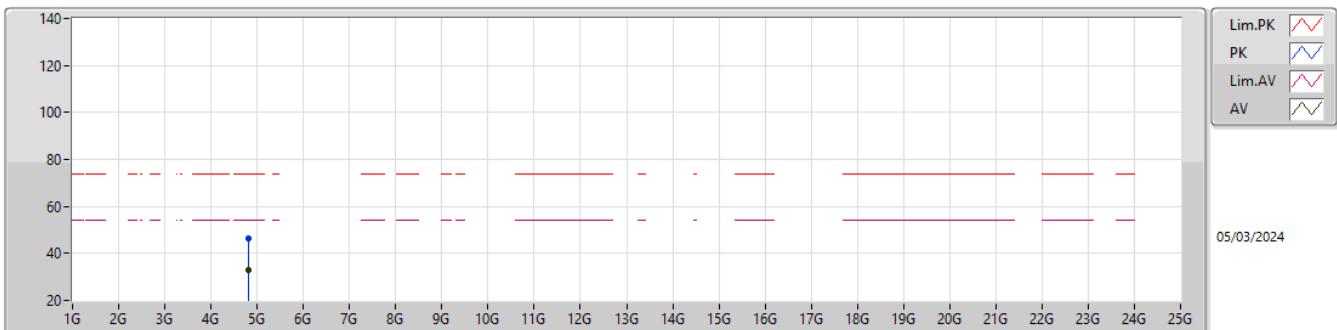
EUT X\_1TX  
 Setting 14  
 04-C-G-5

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	2.3888G	63.08	74.00	-10.92	32.33	3	Horizontal	41	1.73	-	27.40	3.35	-			
AV	2.39G	49.97	54.00	-4.03	19.22	3	Horizontal	41	1.73	-	27.40	3.35	-			
PK	2.4148G	108.01	Inf	-Inf	77.15	3	Horizontal	41	1.73	-	27.50	3.36	-			
AV	2.4132G	97.80	Inf	-Inf	66.94	3	Horizontal	41	1.73	-	27.50	3.36	-			
PK	2.5G	55.24	74.00	-18.76	24.13	3	Horizontal	41	1.73	-	27.70	3.41	-			
AV	2.4928G	44.02	54.00	-9.98	12.92	3	Horizontal	41	1.73	-	27.70	3.40	-			



## 2.4-2.4835GHz\_802.11g\_Nss1,(6Mbps)\_1TX

## 2412MHz\_TX



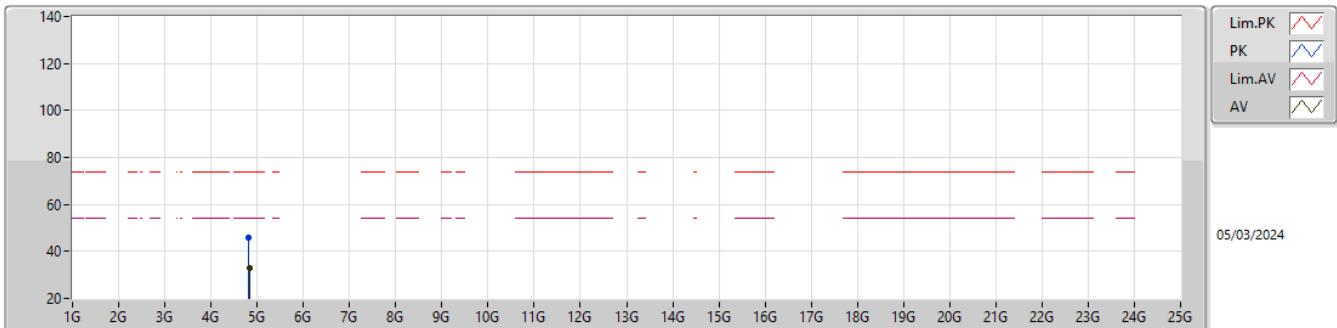
EUT X\_1TX  
Setting 14  
04-C-G-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition (*)	Azimuth (m)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)			
PK	4.82292G	46.17	74.00	-27.83	41.42	3	Vertical	360	2.38	-	32.35	5.67	33.27			
AV	4.82008G	32.87	54.00	-21.13	28.13	3	Vertical	360	2.38	-	32.34	5.67	33.27			



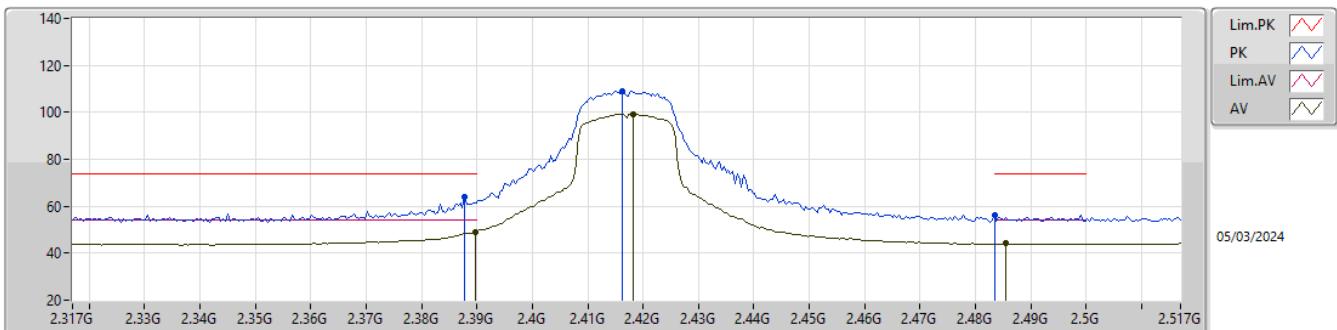
## 2.4-2.4835GHz\_802.11g\_Nss1,(6Mbps)\_1TX

## 2412MHz\_TX



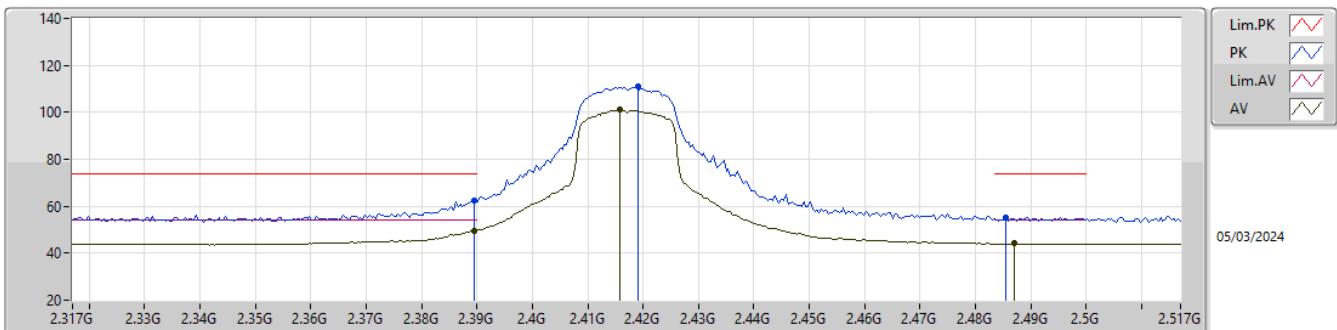
EUT X\_1TX  
Setting 14  
04-C-G-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition (*)	Azimuth (m)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)			
PK	4.82272G	45.95	74.00	-28.05	41.20	3	Horizontal	262	1.35	-	32.35	5.67	33.27			
AV	4.82768G	32.92	54.00	-21.08	28.16	3	Horizontal	262	1.35	-	32.36	5.67	33.27			

**2.4-2.4835GHz\_802.11g\_Nss1,(6Mbps)\_1TX**
**2417MHz\_TX**


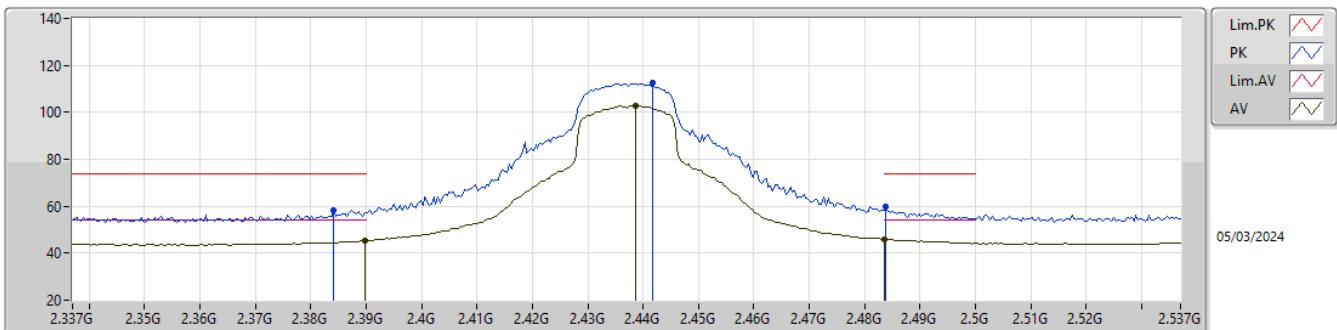
EUT X\_1TX  
Setting 17  
04-C-G-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition (*)	Azimuth (m)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)			
PK	2.3878G	63.94	74.00	-10.06	33.19	3	Vertical	105	1.60	-	27.40	3.35	-			
AV	2.3898G	49.04	54.00	-4.96	18.29	3	Vertical	105	1.60	-	27.40	3.35	-			
PK	2.4162G	108.93	Inf	-Inf	78.07	3	Vertical	105	1.60	-	27.50	3.36	-			
AV	2.4182G	99.27	Inf	-Inf	68.41	3	Vertical	105	1.60	-	27.50	3.36	-			
PK	2.4835G	56.21	74.00	-17.79	25.17	3	Vertical	105	1.60	-	27.64	3.40	-			
AV	2.4854G	44.07	54.00	-9.93	13.02	3	Vertical	105	1.60	-	27.65	3.40	-			

**2.4-2.4835GHz\_802.11g\_Nss1,(6Mbps)\_1TX**
**2417MHz\_TX**


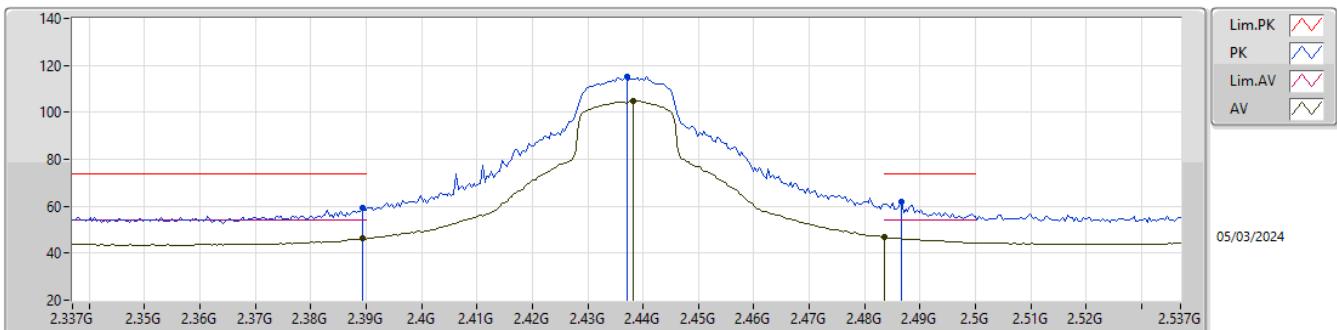
EUT X\_1TX  
Setting 17  
04-C-G-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition (*)	Azimuth	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)			
PK	2.3894G	62.56	74.00	-11.44	31.81	3	Horizontal 44	1.72	-	27.40	3.35	-				
AV	2.3894G	49.63	54.00	-4.37	18.88	3	Horizontal 44	1.72	-	27.40	3.35	-				
PK	2.419G	110.85	Inf	-Inf	79.99	3	Horizontal 44	1.72	-	27.50	3.36	-				
AV	2.4158G	100.98	Inf	-Inf	70.12	3	Horizontal 44	1.72	-	27.50	3.36	-				
PK	2.4854G	55.33	74.00	-18.67	24.28	3	Horizontal 44	1.72	-	27.65	3.40	-				
AV	2.487G	44.08	54.00	-9.92	13.01	3	Horizontal 44	1.72	-	27.67	3.40	-				

**2.4-2.4835GHz\_802.11g\_Nss1,(6Mbps)\_1TX**
**2437MHz\_TX**


EUT X\_1TX  
Setting 20  
04-C-G-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition (*)	Azimuth (m)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)			
PK	2.3842G	58.47	74.00	-15.53	27.73	3	Vertical	106	1.82	-	27.40	3.34	-			
AV	2.3898G	45.44	54.00	-8.56	14.69	3	Vertical	106	1.82	-	27.40	3.35	-			
PK	2.4418G	112.42	Inf	-Inf	81.45	3	Vertical	106	1.82	-	27.60	3.37	-			
AV	2.4386G	102.96	Inf	-Inf	72.00	3	Vertical	106	1.82	-	27.59	3.37	-			
PK	2.4838G	60.04	74.00	-13.96	29.00	3	Vertical	106	1.82	-	27.64	3.40	-			
AV	2.4835G	45.93	54.00	-8.07	14.89	3	Vertical	106	1.82	-	27.64	3.40	-			

**2.4-2.4835GHz\_802.11g\_Nss1,(6Mbps)\_1TX**
**2437MHz\_TX**


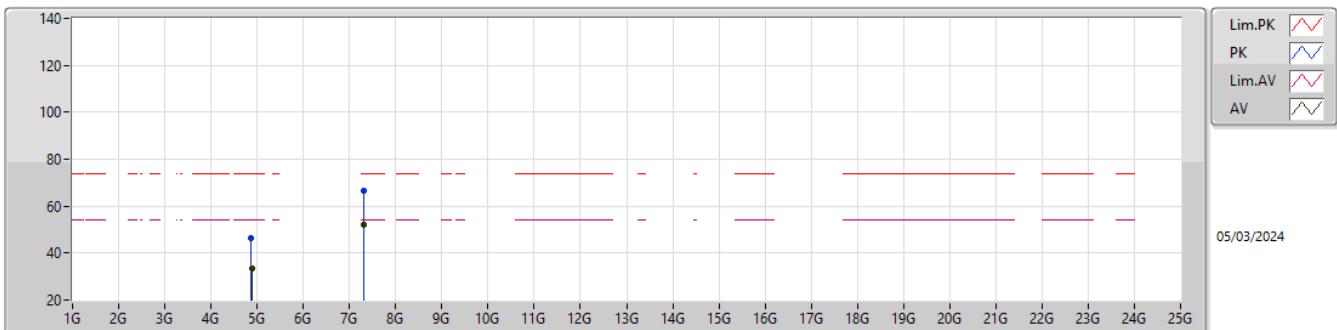
EUT X\_1TX  
Setting 20  
04-C-G-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition (*)	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)			
PK	2.3894G	59.27	74.00	-14.73	28.52	3	Horizontal	43	1.47	-	27.40	3.35	-			
AV	2.3894G	46.21	54.00	-7.79	15.46	3	Horizontal	43	1.47	-	27.40	3.35	-			
PK	2.437G	115.18	Inf	-Inf	84.24	3	Horizontal	43	1.47	-	27.57	3.37	-			
AV	2.4382G	104.94	Inf	-Inf	73.99	3	Horizontal	43	1.47	-	27.58	3.37	-			
PK	2.4866G	62.01	74.00	-11.99	30.94	3	Horizontal	43	1.47	-	27.67	3.40	-			
AV	2.4835G	47.12	54.00	-6.88	16.08	3	Horizontal	43	1.47	-	27.64	3.40	-			



## 2.4-2.4835GHz\_802.11g\_Nss1,(6Mbps)\_1TX

## 2437MHz\_TX



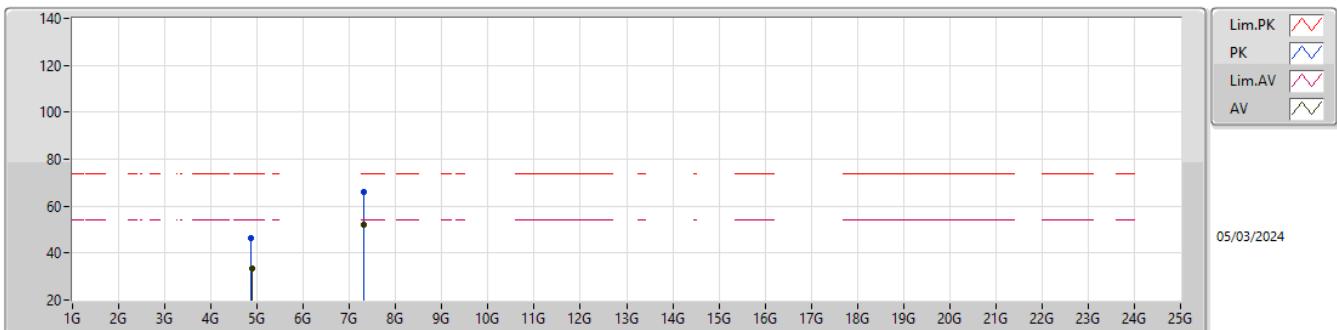
EUT X\_1TX  
Setting 20  
04-C-G-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition (*)	Azimuth (m)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)				
PK	4.86764G	46.50	74.00	-27.50	41.58	3	Vertical	182	2.87	-	32.47	5.71	33.26				
AV	4.87908G	33.34	54.00	-20.66	28.35	3	Vertical	182	2.87	-	32.52	5.72	33.25				
PK	7.3128G	66.31	74.00	-7.69	56.09	3	Vertical	174	2.22	-	37.20	7.12	34.10				
AV	7.31236G	51.87	54.00	-2.13	41.64	3	Vertical	174	2.22	-	37.20	7.12	34.09				



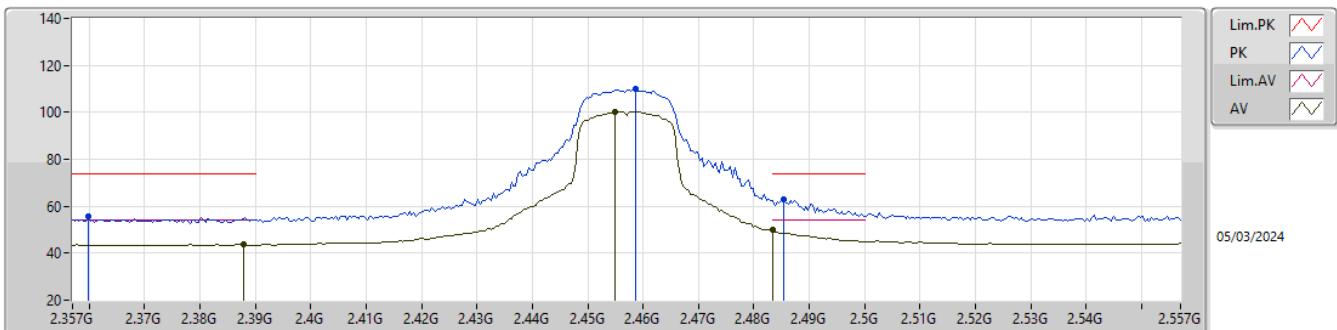
## 2.4-2.4835GHz\_802.11g\_Nss1,(6Mbps)\_1TX

## 2437MHz\_TX



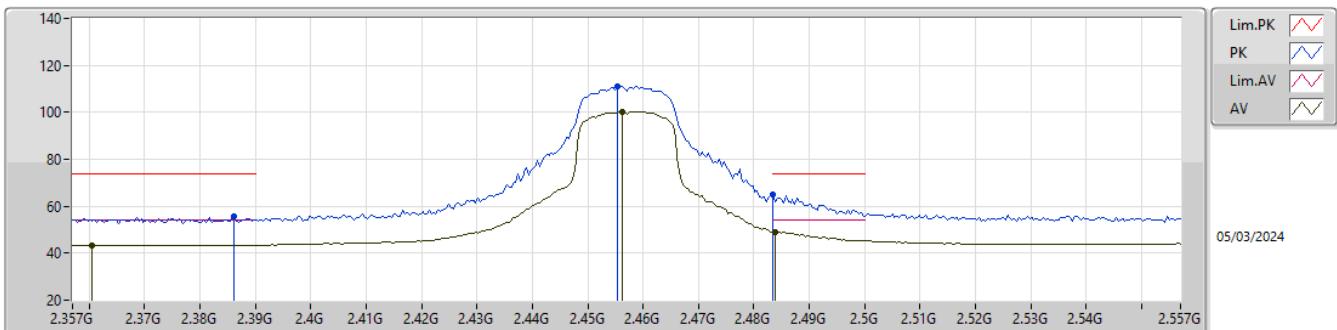
EUT X\_1TX  
Setting 20  
04-C-G-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition (*)	Azimuth (m)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)				
PK	4.86756G	46.46	74.00	-27.54	41.54	3	Horizontal	174	1.80	-	32.47	5.71	33.26				
AV	4.87928G	33.50	54.00	-20.50	28.51	3	Horizontal	174	1.80	-	32.52	5.72	33.25				
PK	7.31228G	66.24	74.00	-7.76	56.01	3	Horizontal	11	2.65	-	37.20	7.12	34.09				
AV	7.30932G	52.01	54.00	-1.99	41.78	3	Horizontal	11	2.65	-	37.20	7.12	34.09				

**2.4-2.4835GHz\_802.11g\_Nss1,(6Mbps)\_1TX**
**2457MHz\_TX**


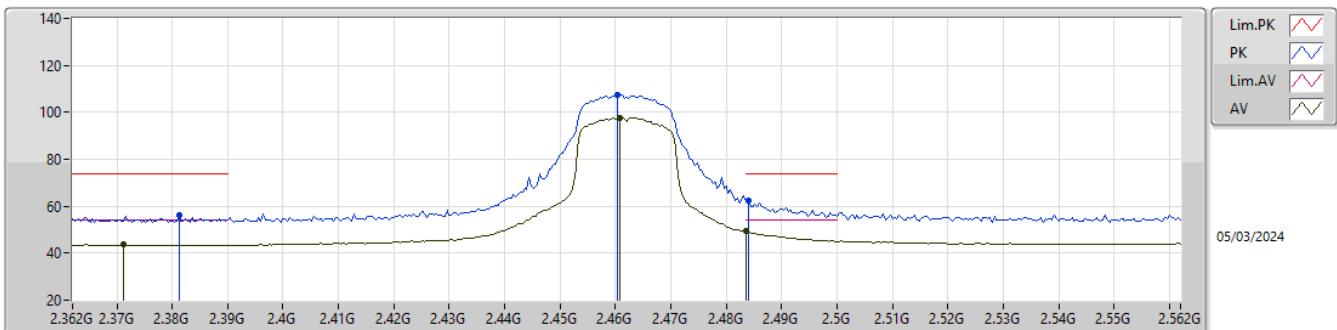
EUT X\_1TX  
Setting 17  
04-C-G-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition (*)	Azimuth (m)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)			
PK	2.3598G	55.92	74.00	-18.08	25.19	3	Vertical	110	1.60	-	27.40	3.33	-			
AV	2.3878G	43.60	54.00	-10.40	12.85	3	Vertical	110	1.60	-	27.40	3.35	-			
PK	2.4586G	110.07	Inf	-Inf	79.09	3	Vertical	110	1.60	-	27.60	3.38	-			
AV	2.455G	100.20	Inf	-Inf	69.22	3	Vertical	110	1.60	-	27.60	3.38	-			
PK	2.4854G	62.71	74.00	-11.29	31.66	3	Vertical	110	1.60	-	27.65	3.40	-			
AV	2.4835G	49.93	54.00	-4.07	18.89	3	Vertical	110	1.60	-	27.64	3.40	-			

**2.4-2.4835GHz\_802.11g\_Nss1,(6Mbps)\_1TX**
**2457MHz\_TX**


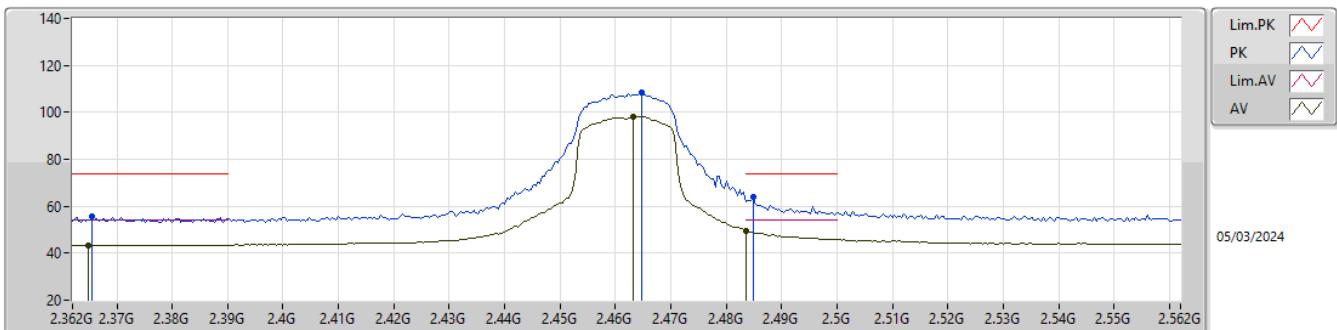
EUT X\_1TX  
Setting 17  
04-C-G-5

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	2.3862G	55.67	74.00	-18.33	24.93	3	Horizontal	43	2.43	-	27.40	3.34	-			
AV	2.3606G	43.52	54.00	-10.48	12.78	3	Horizontal	43	2.43	-	27.41	3.33	-			
PK	2.4554G	111.10	Inf	-Inf	80.12	3	Horizontal	43	2.43	-	27.60	3.38	-			
AV	2.4562G	100.35	Inf	-Inf	69.37	3	Horizontal	43	2.43	-	27.60	3.38	-			
PK	2.4835G	64.94	74.00	-9.06	33.90	3	Horizontal	43	2.43	-	27.64	3.40	-			
AV	2.4838G	49.22	54.00	-4.78	18.18	3	Horizontal	43	2.43	-	27.64	3.40	-			

**2.4-2.4835GHz\_802.11g\_Nss1,(6Mbps)\_1TX**
**2462MHz\_TX**


EUT X\_1TX  
Setting 14  
04-C-G-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition (*)	Azimuth (m)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)			
PK	2.3812G	55.99	74.00	-18.01	25.25	3	Vertical	109	1.58	-	27.40	3.34	-			
AV	2.3712G	43.64	54.00	-10.36	12.81	3	Vertical	109	1.58	-	27.49	3.34	-			
PK	2.4604G	107.58	Inf	-Inf	76.60	3	Vertical	109	1.58	-	27.60	3.38	-			
AV	2.4608G	97.65	Inf	-Inf	66.67	3	Vertical	109	1.58	-	27.60	3.38	-			
PK	2.484G	62.33	74.00	-11.67	31.29	3	Vertical	109	1.58	-	27.64	3.40	-			
AV	2.4835G	49.37	54.00	-4.63	18.33	3	Vertical	109	1.58	-	27.64	3.40	-			

**2.4-2.4835GHz\_802.11g\_Nss1,(6Mbps)\_1TX**
**2462MHz\_TX**


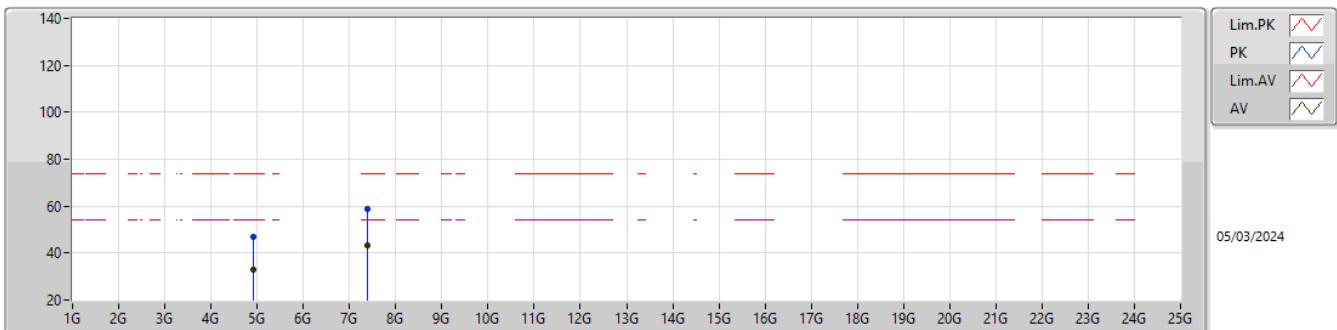
EUT X\_1TX  
Setting 14  
04-C-G-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition (*)	Azimuth (m)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)			
PK	2.3656G	55.46	74.00	-18.54	24.66	3	Horizontal 44	2.94	-	27.46	3.34	-				
AV	2.3648G	43.50	54.00	-10.50	12.71	3	Horizontal 44	2.94	-	27.45	3.34	-				
PK	2.4648G	108.26	Inf	-Inf	77.27	3	Horizontal 44	2.94	-	27.60	3.39	-				
AV	2.4632G	98.03	Inf	-Inf	67.05	3	Horizontal 44	2.94	-	27.60	3.38	-				
PK	2.4848G	63.73	74.00	-10.27	32.68	3	Horizontal 44	2.94	-	27.65	3.40	-				
AV	2.4835G	49.36	54.00	-4.64	18.32	3	Horizontal 44	2.94	-	27.64	3.40	-				



## 2.4-2.4835GHz\_802.11g\_Nss1,(6Mbps)\_1TX

## 2462MHz\_TX



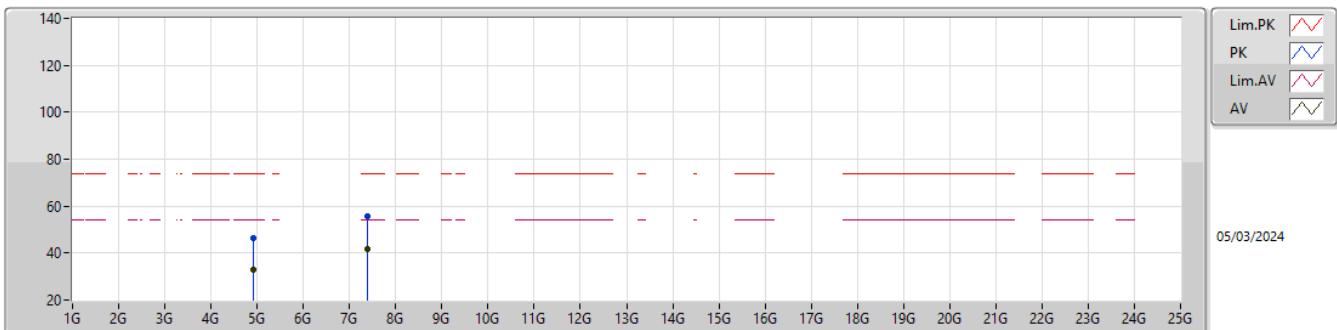
EUT X\_1TX  
Setting 14  
04-C-G-5

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	4.92696G	46.90	74.00	-27.10	41.73	3	Vertical	107	2.29	-	32.65	5.76	33.24				
AV	4.9234G	32.94	54.00	-21.06	27.77	3	Vertical	107	2.29	-	32.65	5.76	33.24				
PK	7.3864G	59.05	74.00	-14.95	48.81	3	Vertical	172	2.28	-	37.20	7.16	34.12				
AV	7.38564G	43.45	54.00	-10.55	33.21	3	Vertical	172	2.28	-	37.20	7.16	34.12				



## 2.4-2.4835GHz\_802.11g\_Nss1,(6Mbps)\_1TX

## 2462MHz\_TX



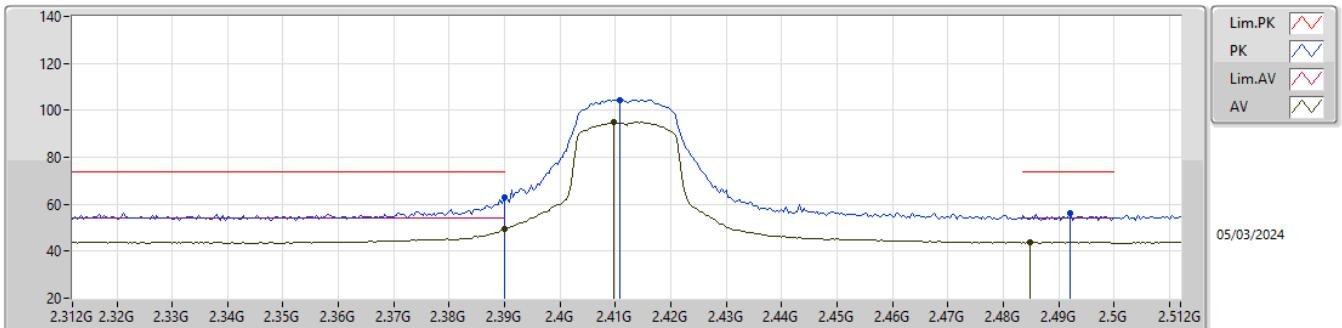
EUT X\_1TX  
Setting 14  
04-C-G-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition (*)	Azimuth (m)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)				
PK	4.92036G	46.22	74.00	-27.78	41.06	3	Horizontal	116	1.80	-	32.64	5.76	33.24				
AV	4.91916G	33.16	54.00	-20.84	28.00	3	Horizontal	116	1.80	-	32.64	5.76	33.24				
PK	7.38504G	55.44	74.00	-18.56	45.20	3	Horizontal	202	1.80	-	37.20	7.16	34.12				
AV	7.38588G	41.50	54.00	-12.50	31.26	3	Horizontal	202	1.80	-	37.20	7.16	34.12				



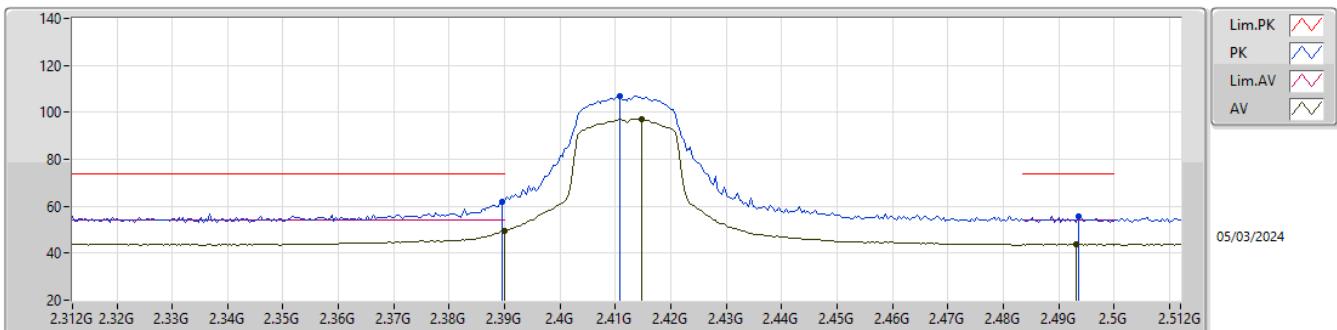
## 2.4-2.4835GHz\_802.11n HT20\_Nss1,(MCS0)\_1TX

## 2412MHz\_TX



EUT X\_1TX  
Setting 13  
04-C-G-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA		
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(*)	(m)		(dB)	(dB)	(dB)		
PK	2.39G	63.02	74.00	-10.98	32.27	3	Vertical	104	1.60	-	27.40	3.35	-		
AV	2.39G	49.33	54.00	-4.67	18.58	3	Vertical	104	1.60	-	27.40	3.35	-		
PK	2.4108G	104.56	Inf	-Inf	73.70	3	Vertical	104	1.60	-	27.50	3.36	-		
AV	2.4096G	94.96	Inf	-Inf	64.10	3	Vertical	104	1.60	-	27.50	3.36	-		
PK	2.492G	56.46	74.00	-17.54	25.36	3	Vertical	104	1.60	-	27.70	3.40	-		
AV	2.4848G	43.79	54.00	-10.21	12.74	3	Vertical	104	1.60	-	27.65	3.40	-		

**2.4-2.4835GHz\_802.11n HT20\_Nss1,(MCS0)\_1TX**
**2412MHz\_TX**


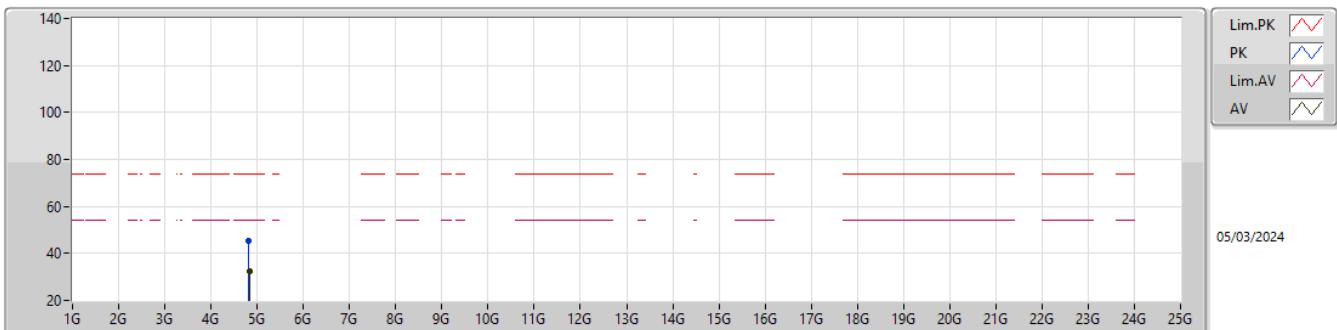
EUT X\_1TX  
Setting 13  
04-C-G-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition (*)	Azimuth	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)			
PK	2.3896G	61.72	74.00	-12.28	30.97	3	Horizontal	38	1.69	-	27.40	3.35	-			
AV	2.39G	49.68	54.00	-4.32	18.93	3	Horizontal	38	1.69	-	27.40	3.35	-			
PK	2.4108G	106.87	Inf	-Inf	76.01	3	Horizontal	38	1.69	-	27.50	3.36	-			
AV	2.4148G	96.96	Inf	-Inf	66.10	3	Horizontal	38	1.69	-	27.50	3.36	-			
PK	2.4936G	55.54	74.00	-18.46	24.44	3	Horizontal	38	1.69	-	27.70	3.40	-			
AV	2.4932G	43.96	54.00	-10.04	12.86	3	Horizontal	38	1.69	-	27.70	3.40	-			



## 2.4-2.4835GHz\_802.11n HT20\_Nss1,(MCS0)\_1TX

## 2412MHz\_TX



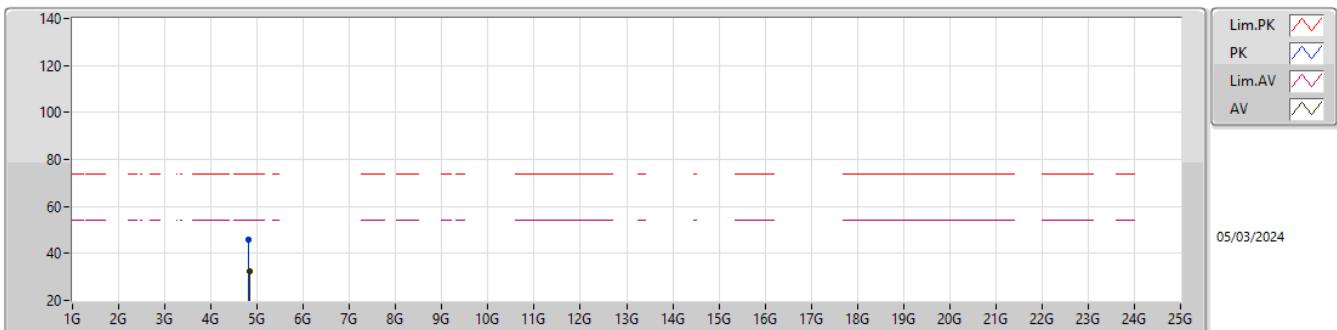
EUT X\_1TX  
Setting 13  
04-C-G-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition (*)	Azimuth (m)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)			
PK	4.82412G	45.60	74.00	-28.40	40.85	3	Vertical	100	1.80	-	32.35	5.67	33.27			
AV	4.82804G	32.45	54.00	-21.55	27.68	3	Vertical	100	1.80	-	32.36	5.68	33.27			



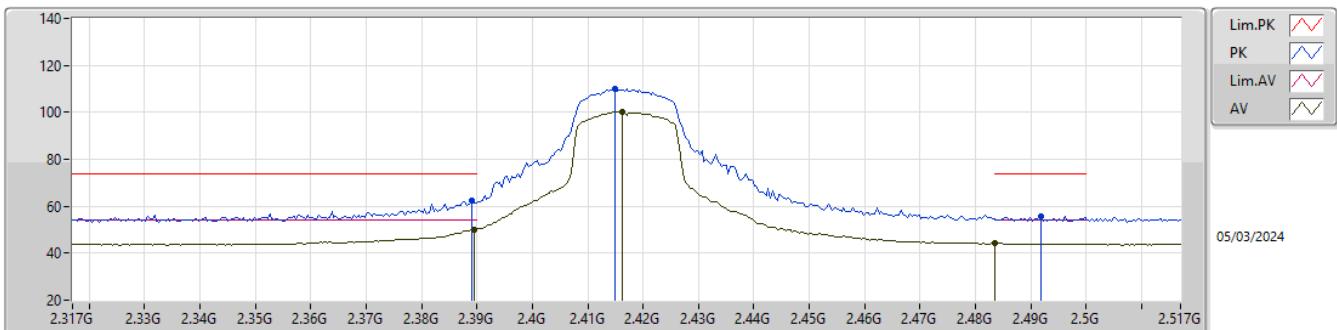
## 2.4-2.4835GHz\_802.11n HT20\_Nss1,(MCS0)\_1TX

## 2412MHz\_TX



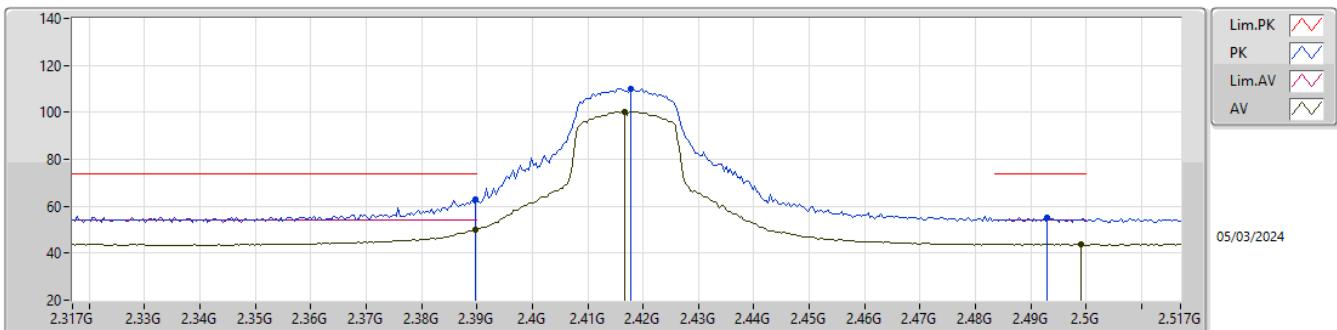
EUT X\_1TX  
Setting 13  
04-C-G-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition (*)	Azimuth (m)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)			
PK	4.81528G	45.77	74.00	-28.23	41.06	3	Horizontal	30	1.80	-	32.33	5.66	33.28			
AV	4.8302G	32.45	54.00	-21.55	27.68	3	Horizontal	30	1.80	-	32.36	5.68	33.27			

**2.4-2.4835GHz\_802.11n HT20\_Nss1,(MCS0)\_1TX**
**2417MHz\_TX**


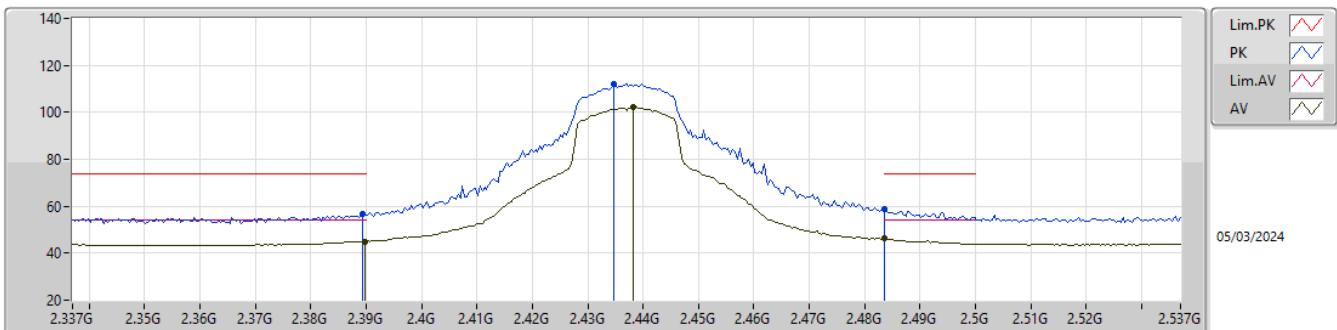
EUT X\_1TX  
Setting 17  
04-C-G-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition (*)	Azimuth (m)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)			
PK	2.389G	62.35	74.00	-11.65	31.60	3	Vertical	97	1.00	-	27.40	3.35	-			
AV	2.3894G	49.90	54.00	-4.10	19.15	3	Vertical	97	1.00	-	27.40	3.35	-			
PK	2.415G	109.82	Inf	-Inf	78.96	3	Vertical	97	1.00	-	27.50	3.36	-			
AV	2.4162G	100.29	Inf	-Inf	69.43	3	Vertical	97	1.00	-	27.50	3.36	-			
PK	2.4918G	55.67	74.00	-18.33	24.57	3	Vertical	97	1.00	-	27.70	3.40	-			
AV	2.4835G	44.11	54.00	-9.89	13.07	3	Vertical	97	1.00	-	27.64	3.40	-			

**2.4-2.4835GHz\_802.11n HT20\_Nss1,(MCS0)\_1TX**
**2417MHz\_TX**


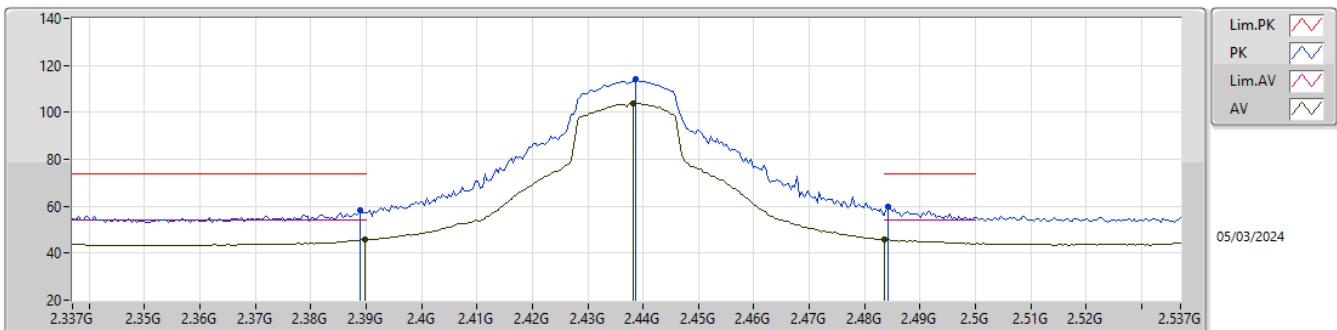
EUT X\_1TX  
Setting 17  
04-C-G-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition (*)	Azimuth (m)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)			
PK	2.3898G	63.11	74.00	-10.89	32.36	3	Horizontal 40	1.75	-	27.40	3.35	-				
AV	2.3898G	50.11	54.00	-3.89	19.36	3	Horizontal 40	1.75	-	27.40	3.35	-				
PK	2.4178G	110.11	Inf	-Inf	79.25	3	Horizontal 40	1.75	-	27.50	3.36	-				
AV	2.4166G	100.39	Inf	-Inf	69.53	3	Horizontal 40	1.75	-	27.50	3.36	-				
PK	2.493G	55.16	74.00	-18.84	24.06	3	Horizontal 40	1.75	-	27.70	3.40	-				
AV	2.499G	43.87	54.00	-10.13	12.77	3	Horizontal 40	1.75	-	27.70	3.40	-				

**2.4-2.4835GHz\_802.11n HT20\_Nss1,(MCS0)\_1TX**
**2437MHz\_TX**


EUT X\_1TX  
 Setting 20  
 04-C-G-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (*)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)			
PK	2.3894G	56.50	74.00	-17.50	25.75	3	Vertical	108	1.83	-	27.40	3.35	-			
AV	2.3898G	45.04	54.00	-8.96	14.29	3	Vertical	108	1.83	-	27.40	3.35	-			
PK	2.4346G	112.21	Inf	-Inf	81.29	3	Vertical	108	1.83	-	27.55	3.37	-			
AV	2.4382G	102.21	Inf	-Inf	71.26	3	Vertical	108	1.83	-	27.58	3.37	-			
PK	2.4835G	58.73	74.00	-15.27	27.69	3	Vertical	108	1.83	-	27.64	3.40	-			
AV	2.4835G	46.23	54.00	-7.77	15.19	3	Vertical	108	1.83	-	27.64	3.40	-			

**2.4-2.4835GHz\_802.11n HT20\_Nss1,(MCS0)\_1TX**
**2437MHz\_TX**


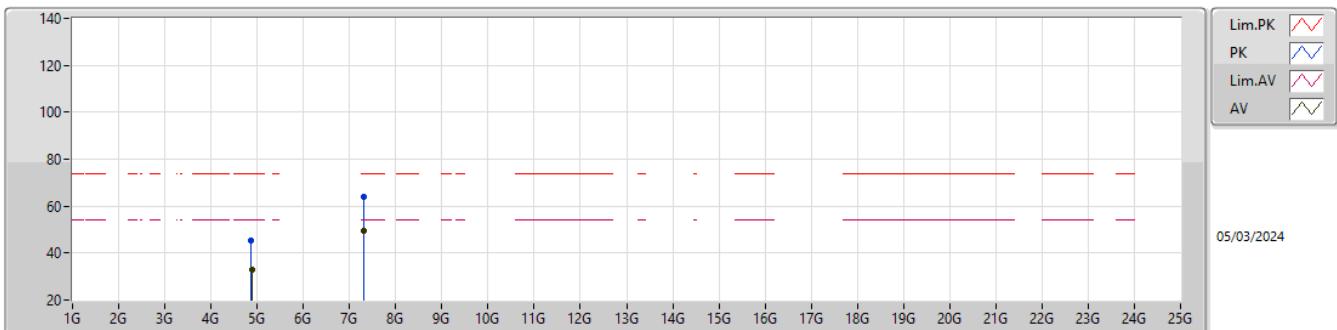
EUT X\_1TX  
Setting 20  
04-C-G-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition (*)	Azimuth (m)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)			
PK	2.389G	58.34	74.00	-15.66	27.59	3	Horizontal	40	2.81	-	27.40	3.35	-			
AV	2.3898G	45.66	54.00	-8.34	14.91	3	Horizontal	40	2.81	-	27.40	3.35	-			
PK	2.4386G	114.09	Inf	-Inf	83.13	3	Horizontal	40	2.81	-	27.59	3.37	-			
AV	2.4382G	103.99	Inf	-Inf	73.04	3	Horizontal	40	2.81	-	27.58	3.37	-			
PK	2.4842G	59.59	74.00	-14.41	28.55	3	Horizontal	40	2.81	-	27.64	3.40	-			
AV	2.4835G	45.77	54.00	-8.23	14.73	3	Horizontal	40	2.81	-	27.64	3.40	-			



## 2.4-2.4835GHz\_802.11n HT20\_Nss1,(MCS0)\_1TX

## 2437MHz\_TX



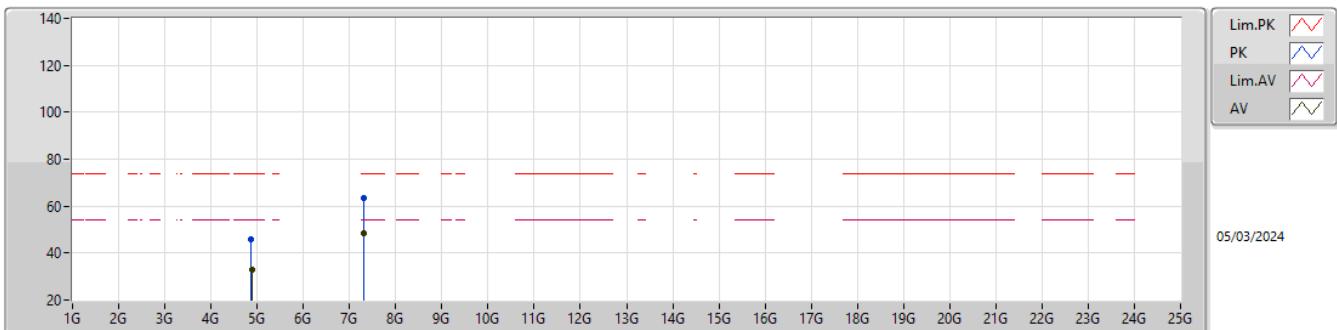
EUT X\_1TX  
Setting 20  
04-C-G-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition (*)	Azimuth (m)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)				
PK	4.87622G	45.59	74.00	-28.41	40.62	3	Vertical	-0	1.00	-	32.50	5.72	33.25				
AV	4.87826G	33.03	54.00	-20.97	28.05	3	Vertical	-0	1.00	-	32.51	5.72	33.25				
PK	7.3146G	63.91	74.00	-10.09	53.69	3	Vertical	177	1.06	-	37.20	7.12	34.10				
AV	7.31136G	49.54	54.00	-4.46	39.31	3	Vertical	177	1.06	-	37.20	7.12	34.09				



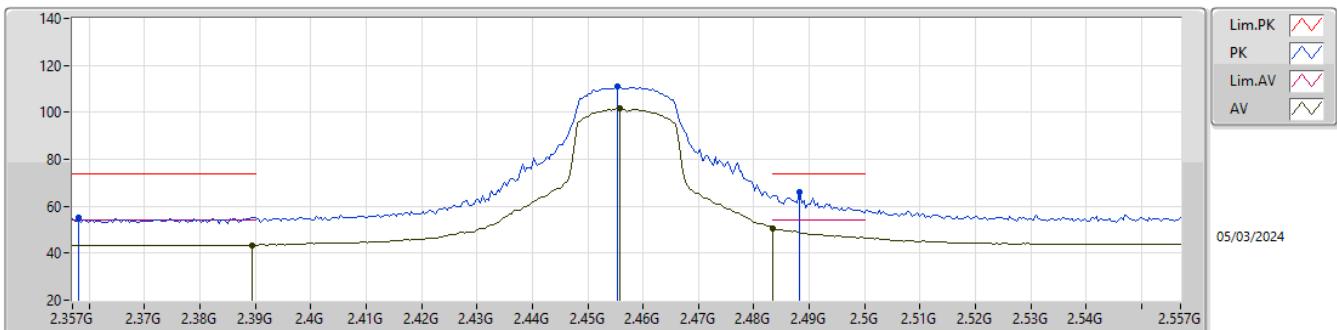
## 2.4-2.4835GHz\_802.11n HT20\_Nss1,(MCS0)\_1TX

## 2437MHz\_TX



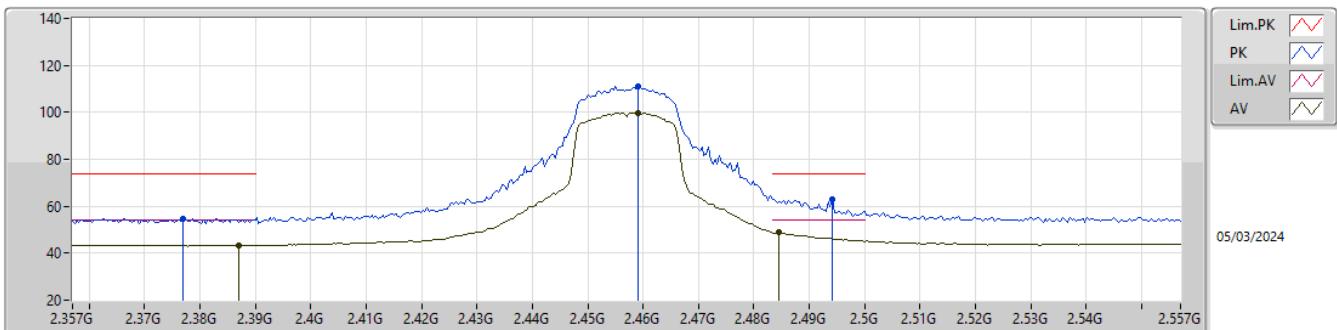
EUT X\_1TX  
Setting 20  
04-C-G-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition (*)	Azimuth (m)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)				
PK	4.86944G	45.67	74.00	-28.33	40.74	3	Horizontal	29	1.80	-	32.48	5.71	33.26				
AV	4.88252G	32.85	54.00	-21.15	27.85	3	Horizontal	29	1.80	-	32.53	5.72	33.25				
PK	7.31706G	63.33	74.00	-10.67	53.11	3	Horizontal	17	1.02	-	37.20	7.12	34.10				
AV	7.31148G	48.64	54.00	-5.36	38.41	3	Horizontal	17	1.02	-	37.20	7.12	34.09				

**2.4-2.4835GHz\_802.11n HT20\_Nss1,(MCS0)\_1TX**
**2457MHz\_TX**


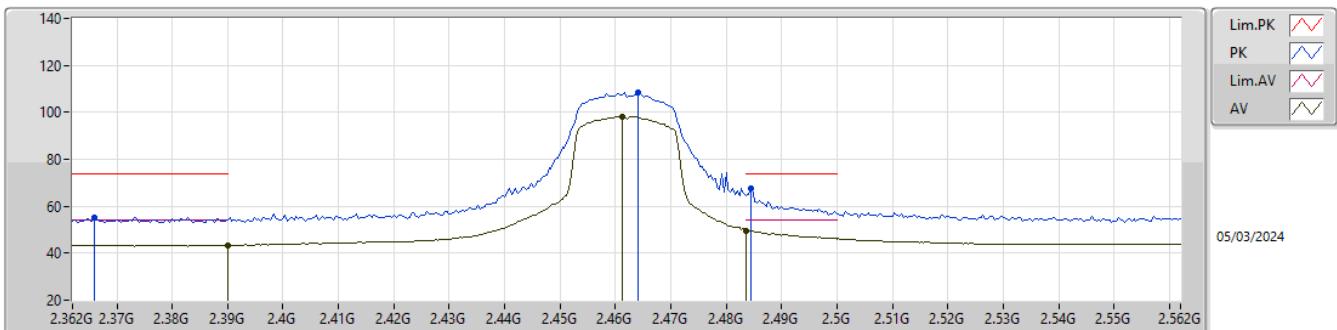
EUT X\_1TX  
Setting 17  
04-C-G-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition (*)	Azimuth (m)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)			
PK	2.3582G	55.36	74.00	-18.64	24.63	3	Vertical	97	1.04	-	27.40	3.33	-			
AV	2.3894G	43.53	54.00	-10.47	12.78	3	Vertical	97	1.04	-	27.40	3.35	-			
PK	2.4554G	110.84	Inf	-Inf	79.86	3	Vertical	97	1.04	-	27.60	3.38	-			
AV	2.4558G	101.56	Inf	-Inf	70.58	3	Vertical	97	1.04	-	27.60	3.38	-			
PK	2.4882G	65.91	74.00	-8.09	34.83	3	Vertical	97	1.04	-	27.68	3.40	-			
AV	2.4835G	50.54	54.00	-3.46	19.50	3	Vertical	97	1.04	-	27.64	3.40	-			

**2.4-2.4835GHz\_802.11n HT20\_Nss1,(MCS0)\_1TX**
**2457MHz\_TX**


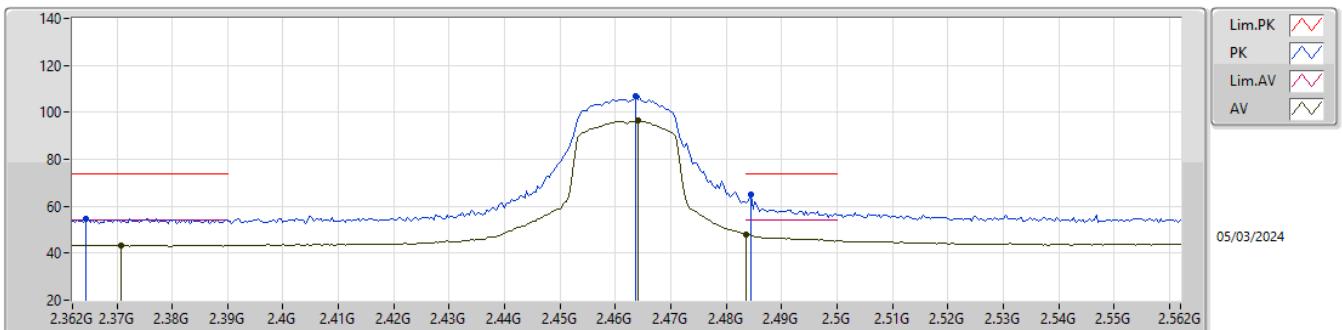
EUT X\_1TX  
Setting 17  
04-C-G-5

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	2.377G	54.83	74.00	-19.17	24.06	3	Horizontal	42	2.43	-	27.43	3.34	-			
AV	2.387G	43.40	54.00	-10.60	12.66	3	Horizontal	42	2.43	-	27.40	3.34	-			
PK	2.459G	111.14	Inf	-Inf	80.16	3	Horizontal	42	2.43	-	27.60	3.38	-			
AV	2.459G	99.72	Inf	-Inf	68.74	3	Horizontal	42	2.43	-	27.60	3.38	-			
PK	2.4942G	63.08	74.00	-10.92	31.98	3	Horizontal	42	2.43	-	27.70	3.40	-			
AV	2.4846G	48.73	54.00	-5.27	17.68	3	Horizontal	42	2.43	-	27.65	3.40	-			

**2.4-2.4835GHz\_802.11n HT20\_Nss1,(MCS0)\_1TX**
**2462MHz\_TX**


EUT X\_1TX  
Setting 14  
04-C-G-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition (*)	Azimuth (m)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)			
PK	2.366G	55.41	74.00	-18.59	24.61	3	Vertical	83	1.07	-	27.46	3.34	-			
AV	2.39G	43.50	54.00	-10.50	12.75	3	Vertical	83	1.07	-	27.40	3.35	-			
PK	2.464G	108.25	Inf	-Inf	77.26	3	Vertical	83	1.07	-	27.60	3.39	-			
AV	2.4612G	98.16	Inf	-Inf	67.18	3	Vertical	83	1.07	-	27.60	3.38	-			
PK	2.4844G	67.67	74.00	-6.33	36.63	3	Vertical	83	1.07	-	27.64	3.40	-			
AV	2.4835G	49.71	54.00	-4.29	18.67	3	Vertical	83	1.07	-	27.64	3.40	-			

**2.4-2.4835GHz\_802.11n HT20\_Nss1,(MCS0)\_1TX**
**2462MHz\_TX**


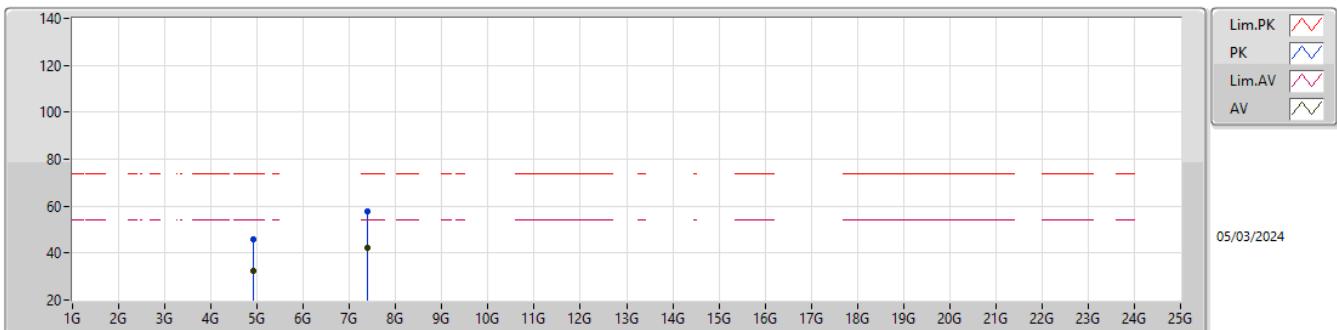
EUT X\_1TX  
Setting 14  
04-C-G-5

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	2.3644G	54.62	74.00	-19.38	23.84	3	Horizontal	45	2.91	-	27.44	3.34	-			
AV	2.3708G	43.38	54.00	-10.62	12.55	3	Horizontal	45	2.91	-	27.49	3.34	-			
PK	2.4636G	106.96	Inf	-Inf	75.98	3	Horizontal	45	2.91	-	27.60	3.38	-			
AV	2.4644G	96.66	Inf	-Inf	65.67	3	Horizontal	45	2.91	-	27.60	3.39	-			
PK	2.4844G	64.79	74.00	-9.21	33.75	3	Horizontal	45	2.91	-	27.64	3.40	-			
AV	2.4835G	47.85	54.00	-6.15	16.81	3	Horizontal	45	2.91	-	27.64	3.40	-			



## 2.4-2.4835GHz\_802.11n HT20\_Nss1,(MCS0)\_1TX

## 2462MHz\_TX



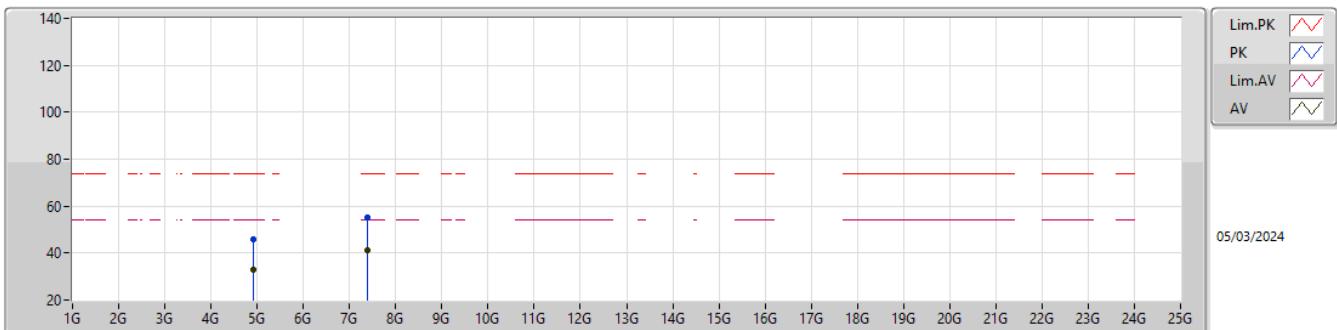
EUT X\_1TX  
Setting 14  
04-C-G-5

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	4.92136G	46.05	74.00	-27.95	40.89	3	Vertical	30	2.79	-	32.64	5.76	33.24				
AV	4.92128G	32.63	54.00	-21.37	27.47	3	Vertical	30	2.79	-	32.64	5.76	33.24				
PK	7.3894G	57.67	74.00	-16.33	47.44	3	Vertical	173	2.31	-	37.20	7.16	34.13				
AV	7.38392G	42.11	54.00	-11.89	31.87	3	Vertical	173	2.31	-	37.20	7.16	34.12				



## 2.4-2.4835GHz\_802.11n HT20\_Nss1,(MCS0)\_1TX

## 2462MHz\_TX



EUT X\_1TX  
Setting 14  
04-C-G-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition (*)	Azimuth (m)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)				
PK	4.92228G	45.85	74.00	-28.15	40.69	3	Horizontal	252	1.19	-	32.64	5.76	33.24				
AV	4.91876G	32.90	54.00	-21.10	27.74	3	Horizontal	252	1.19	-	32.64	5.76	33.24				
PK	7.387G	54.92	74.00	-19.08	44.68	3	Horizontal	202	1.00	-	37.20	7.16	34.12				
AV	7.3878G	40.97	54.00	-13.03	30.74	3	Horizontal	202	1.00	-	37.20	7.16	34.13				