

# FCC Test Report

**FCC ID** : IPH-04780  
**Equipment** : IVI Unit  
**Model No.** : TGWW  
**Brand Name** : GARMIN  
**Applicant** : Garmin International, Inc.  
**Address** : 1200 E. 151st Street Olathe, KS 66062 United States  
**Standard** : 47 CFR FCC Part 15.247  
**Received Date** : Dec. 15, 2023  
**Tested Date** : Dec. 18 ~ Dec. 29, 2023

We, International Certification Corporation, would like to declare that the tested sample has been evaluated and in compliance with the requirement of the above standards. The test results contained in this report refer exclusively to the product. It shall not be reproduced except in full without the written approval of our laboratory.

Reviewed by:

Approved by:

  
\_\_\_\_\_  
Along Chen / Assistant Manager

  
\_\_\_\_\_  
Gary Chang / Manager

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## Release Record

Report No.	Version	Description	Issued Date
FR3D1301AC	Rev. 01	Initial issue	Jan. 25, 2024

## Summary of Test Results

FCC Rules	Test Items	Measured	Result
15.207	AC Power Line Conducted Emission	Note <sup>1</sup>	N/A
15.247(d) 15.209	Unwanted Emissions	[dBuV/m at 3m]: 2.4835GHz 52.81 (Margin -1.19dB) - AV	Pass
15.247(b)(3)	Conducted Output Power	Max Power [dBm]: 18.16	Pass
15.247(a)(2)	6dB Bandwidth	Meet the requirement of limit	Pass
15.247(e)	Power Spectral Density	Meet the requirement of limit	Pass
15.203	Antenna Requirement	Meet the requirement of limit	Pass

N/A means Not Applicable.  
Note<sup>1</sup>: The EUT consumes DC power from battery, so the test is not required.

### Declaration of Conformity:

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

### Comments and Explanations:

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

# 1 General Description

## 1.1 Information

### 1.1.1 Specification of the Equipment under Test (EUT)

RF General Information					
Frequency Range (MHz)	IEEE Std. 802.11	Ch. Freq. (MHz)	Channel Number	Transmit Chains (N <sub>TX</sub> )	Data Rate / MCS
2400-2483.5	b	2412-2462	1-11 [11]	2	1-11 Mbps
2400-2483.5	g	2412-2462	1-11 [11]	2	6-54 Mbps
2400-2483.5	n (HT20)	2412-2462	1-11 [11]	2	MCS 0-15

Note 1: RF output power specifies that Maximum Conducted (Average) Output Power.  
 Note 2: DSSS-DBPSK, DQPSK, CCK modulation  
 OFDM - BPSK, QPSK, 16QAM and 64QAM modulation.

### 1.1.2 Antenna Details

Ant. No.	Brand	Model	Type	Connector	Operating Frequencies (MHz) / Antenna Gain (dBi)	
					2400~2483.5	5725~5850
1	HARADA	39215	RHCP	R-SMA	0.3	-0.3
2	HARADA	39216	RHCP	R-SMA	1.2	0.8

### 1.1.3 Power Supply Type of Equipment under Test (EUT)

<b>Power Supply Type</b>	12Vdc
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### 1.1.4 Accessories

N/A

### 1.1.5 Channel List

Frequency band (MHz)	
Channel	Frequency(MHz)
1	2412
2	2417
3	2422
4	2427
5	2432
6	2437
7	2442
8	2447
9	2452
10	2457
11	2462

### 1.1.6 Test Tool and Duty Cycle

Test Tool	adb tool		
Duty Cycle and Duty Factor	Mode	Duty Cycle (%)	Duty Factor (dB)
	11b	99.65%	0.02
	11g	95.81%	0.19
	HT20	93.06%	0.31

### 1.1.7 Power Index of Test Tool

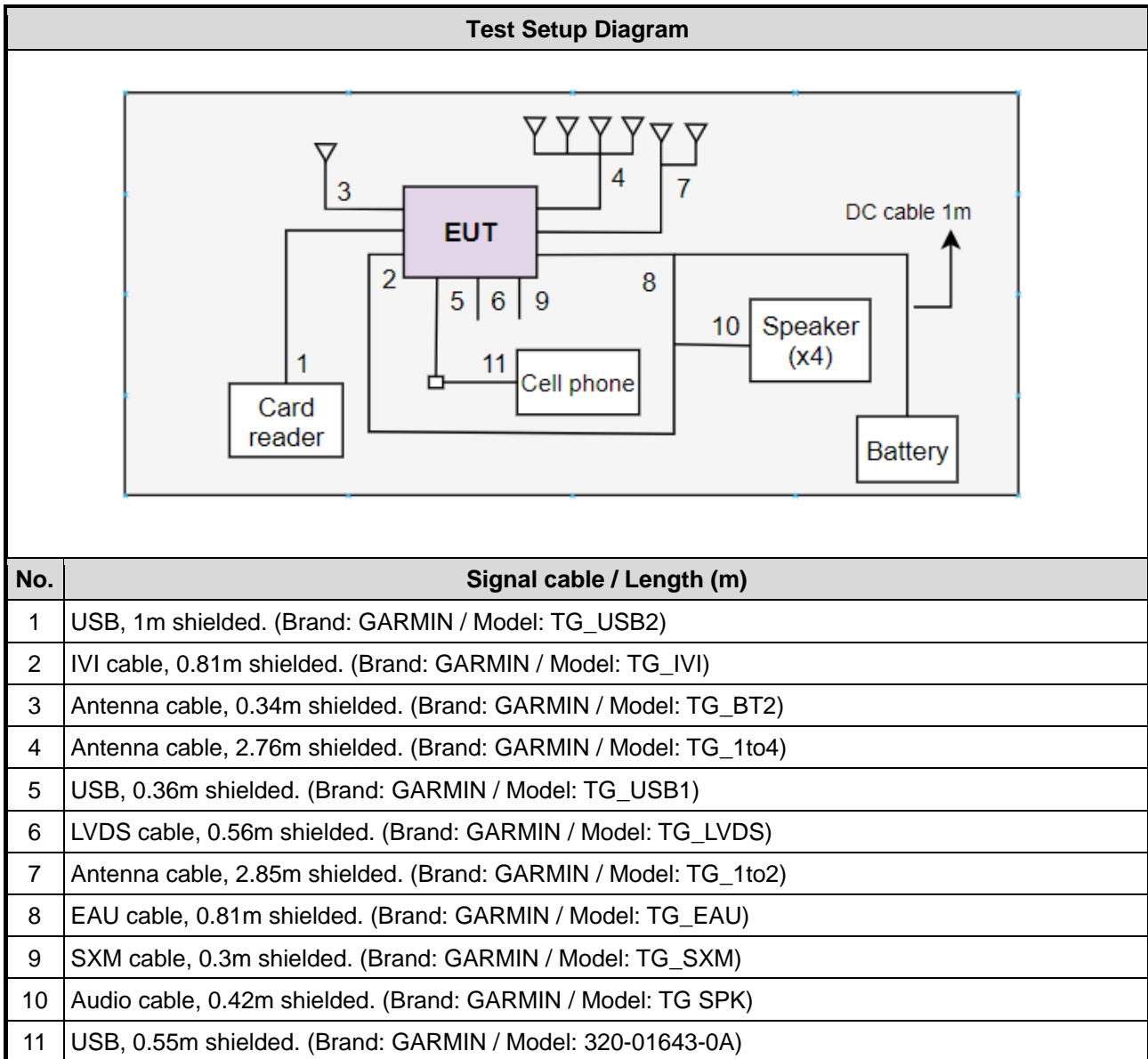
Modulation Mode	Test Frequency (MHz)	Power Index
11b	2412	16
11b	2437	16
11b	2462	16
11g	2412	16
11g	2437	16
11g	2462	16
HT20	2412	16
HT20	2437	16
HT20	2462	16

## 1.2 Local Support Equipment List

Support Equipment List					
No.	Equipment	Brand	Model	FCC ID	Remarks
1	Card reader	TCSTAR	TYC-MF007	---	---
2	12V DC Battery	Hotai Motor Co, Ltd.	S55B24LS	---	---
3	Cell phone	SAMSUNG	A8	---	---
4	Speaker	GARMIN	TG SPK	---	Provided by applicant.
5	Fixture Board	GARMIN	TG_FB	---	Provided by applicant.
6	Laptop	DELL	Latitude E5470	DoC	---

Note: The fixture board and laptop are disconnected from EUT and removed from test table when EUT is set to transmit continuously.

### 1.3 Test Setup Chart





## 1.4 The Equipment List

Test Item	Radiated Emission				
Test Site	966 chamber1 / (03CH01-WS)				
Tested Date	Dec. 18 ~ Dec. 25, 2023				
Instrument	Brand	Model No.	Serial No.	Calibration Date	Calibration Until
Receiver	R&S	ESR3	101657	Mar. 03, 2023	Mar. 02, 2024
Spectrum Analyzer	R&S	FSV40	101498	Nov. 23, 2023	Nov. 22, 2024
Loop Antenna	R&S	HFH2-Z2	100330	Oct. 31, 2023	Oct. 30, 2024
Bilog Antenna	SCHWARZBECK	VULB9168	VULB9168-522	Jul. 31, 2023	Jul. 30, 2024
Horn Antenna 1G-18G	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1096	Nov. 27, 2023	Nov. 26, 2024
Horn Antenna 18G-40G	SCHWARZBECK	BBHA 9170	BBHA 9170517	Oct. 30, 2023	Oct. 29, 2024
Preamplifier	EMC	EMC02325	980225	Jun. 28, 2023	Jun. 27, 2024
Preamplifier	EMC	EMC118A45SE	980898	Jul. 14, 2023	Jul. 13, 2024
Preamplifier	EMC	EMC184045SE	980903	Jul. 17, 2023	Jul. 16, 2024
Loop Antenna Cable	KOAX KABEL	101354-BW	101354-BW	Oct. 03, 2023	Oct. 02, 2024
LF cable 3M	Woken	CFD400NL-LW	CFD400NL-001	Oct. 03, 2023	Oct. 02, 2024
LF cable 11M	EMC	EMCCFD400-NW-N W-11000	200801	Oct. 03, 2023	Oct. 02, 2024
LF cable 1M	EMC	EMCCFD400-NM-N M-1000	160502	Oct. 03, 2023	Oct. 02, 2024
RF Cable	EMC	EMC104-35M-35M- 8000	210920	Oct. 03, 2023	Oct. 02, 2024
RF Cable	EMC	EMC104-35M-35M- 3000	210922	Oct. 03, 2023	Oct. 02, 2024
Attenuator	Pasternack	PE7005-10	10-1	Oct. 05, 2023	Oct. 04, 2024
HIGHPASS FILTER 3.1-18G	WHK	WHK3.1/18G-10SS	39	Oct. 05, 2023	Oct. 04, 2024
Measurement Software	Sporton	SENSE-15247_DTS	V5.11	NA	NA
Measurement Software	Sporton	SENSE-EMI	V5.10.8	NA	NA

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

<b>Test Item</b>	RF Conducted				
<b>Test Site</b>	(TH01-WS)				
<b>Tested Date</b>	Dec. 29, 2023				
<b>Instrument</b>	<b>Brand</b>	<b>Model No.</b>	<b>Serial No.</b>	<b>Calibration Date</b>	<b>Calibration Until</b>
Spectrum Analyzer	R&S	FSV40	101910	Apr. 14, 2023	Apr. 13, 2024
Power Meter	Anritsu	ML2495A	1241002	Nov. 21, 2023	Nov. 20, 2024
Power Sensor	Anritsu	MA2411B	1207366	Nov. 21, 2023	Nov. 20, 2024
Attenuator	Pasternack	PE7005-10	10-2	Oct. 05, 2023	Oct. 04, 2024
Measurement Software	Sporton	SENSE-15247_DTS	V5.11	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

## 1.5 Test Standards

47 CFR FCC Part 15.247  
ANSI C63.10-2013

## 1.6 Reference Guidance

FCC KDB 558074 D01 15.247 Meas Guidance v05r02  
FCC KDB 662911 D01 Multiple Transmitter Output v02r01

## 1.7 Deviation from Test Standard and Measurement Procedure

None

## 1.8 Measurement Uncertainty

The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2)).

Measurement Uncertainty	
Parameters	Uncertainty
Bandwidth	±34.130 Hz
Conducted power	±0.808 dB
Power density	±0.583 dB
Conducted emission	±2.715 dB
AC conducted emission	±2.92 dB
Unwanted Emission ≤ 1GHz	±3.41 dB
Unwanted Emission > 1GHz	±4.59 dB

## 2 Test Configuration

### 2.1 Testing Facility

<b>Test Laboratory</b>	International Certification Corporation
<b>Test Site</b>	03CH01-WS, TH01-WS
<b>Address of Test Site</b>	No.3-1, Lane 6, Wen San 3rd St., Kwei Shan Dist., Tao Yuan City 33381, Taiwan (R.O.C.)

- FCC Designation No.: TW2732
- FCC site registration No.: 181692
- ISED#: 10807A
- CAB identifier: TW2732

### 2.2 The Worst Test Modes and Channel Details

Test item	Modulation Mode	Test Frequency (MHz)	Data Rate	Test Configuration
Unwanted Emissions ≤ 1GHz	11b	2462	1 Mbps	---
Unwanted Emissions >1GHz	11b	2412 / 2437 / 2462	1 Mbps	---
Conducted Output Power	11g	2412 / 2437 / 2462	6 Mbps	
6dB bandwidth	HT20	2412 / 2437 / 2462	MCS 0	
Power spectral density				
<b>NOTE:</b>				
1. The EUT was pretested with 3 orientations placed on the table for the radiated emission measurement – X, Y, and Z-plane. The <b>Z-plane</b> results were found as the worst case and were shown in this report.				

### 3 Transmitter Test Results

#### 3.1 6dB and Occupied Bandwidth

##### 3.1.1 Limit of 6dB Bandwidth

The minimum 6dB bandwidth shall be at least 500 kHz.

##### 3.1.2 Test Procedures

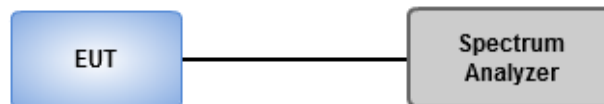
###### 6dB Bandwidth

1. Set resolution bandwidth (RBW) = 100 kHz, Video bandwidth = 300 kHz.
2. Detector = Peak, Trace mode = max hold.
3. Sweep = auto couple, Allow the trace to stabilize.
4. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower) that are attenuated by 6dB relative to the maximum level measured in the fundamental emission.

###### Occupied Bandwidth

1. Set resolution bandwidth (RBW) = 1% ~ 5 % of OBW, Video bandwidth = 3 x RBW
2. Detector = Sample, Trace mode = max hold.
3. Sweep = auto couple, Allow the trace to stabilize.
4. Use the OBW measurement function of spectrum analyzer to measure the occupied bandwidth.

##### 3.1.3 Test Setup



##### 3.1.4 Test Results

<b>Ambient Condition</b>	22°C / 63%	<b>Tested By</b>	Roger Lu
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Refer to Appendix A.

## 3.2 Conducted Output Power

### 3.2.1 Limit of Conducted Output Power

Conducted power shall not exceed 1Watt.

Antenna gain  $\leq 6\text{dBi}$ , no any corresponding reduction is in output power limit.

Antenna gain  $> 6\text{dBi}$

Non Fixed, point to point operations.

The conducted output power from the intentional radiator shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dB

Fixed, point to point operations

Systems operating in the 2400–2483.5 MHz band that are used exclusively for fixed, point-to-point Operations, maximum peak output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6 dBi.

### 3.2.2 Test Procedures

A broadband RF power meter is used for output power measurement. The video bandwidth of power meter is greater than DTS bandwidth of EUT. If duty cycle of test signal is not 100 %, trigger and gating function of power meter will be enabled to capture transmission burst for measuring output power.

### 3.2.3 Test Setup



### 3.2.4 Test Results

<b>Ambient Condition</b>	22°C / 63%	<b>Tested By</b>	Roger Lu
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Refer to Appendix B.

### 3.3 Power Spectral Density

#### 3.3.1 Limit of Power Spectral Density

Power spectral density shall not be greater than 8 dBm in any 3 kHz band.

#### 3.3.2 Test Procedures

##### Peak PSD

1. Set the RBW = 3 kHz, VBW = 10 kHz.
2. Detector = Peak, Sweep time = auto couple.
3. Trace mode = max hold, allow trace to fully stabilize.
4. Use the peak marker function to determine the maximum amplitude level.

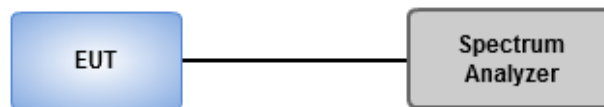
##### Average PSD, duty cycle $\geq$ 98%

1. Set the RBW = 3 kHz, VBW = 10 kHz.
2. Detector = RMS, Sweep time = auto couple.
3. Sweep time = auto couple.
4. Employ trace averaging (RMS) mode over a minimum of 100 traces.
5. Use the peak marker function to determine the maximum amplitude level.

##### Average PSD, duty cycle $<$ 98%

1. Set the RBW = 3 kHz, VBW = 10 kHz
2. Detector = RMS, Sweep time = auto couple.
3. Sweep time = auto couple.
4. Employ trace averaging (RMS) mode over a minimum of 100 traces.
5. Use the peak marker function to determine the maximum amplitude level.
6. Add  $10 \log (1/x)$ , where x is the duty cycle.

#### 3.3.3 Test Setup



#### 3.3.4 Test Results

<b>Ambient Condition</b>	22°C / 63%	<b>Tested By</b>	Roger Lu
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Refer to Appendix C.

## 3.4 Unwanted Emissions into Restricted Frequency Bands

### 3.4.1 Limit of Unwanted Emissions into Restricted Frequency Bands

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:**  
Quasi-Peak value is measured for frequency below 1GHz except for 9–90 kHz, 110–490 kHz frequency band. Peak and average value are measured for frequency above 1GHz. The limit on average radio frequency emission is as above table. The limit on peak radio frequency emissions is 20 dB above the maximum permitted average emission limit

**Note 2:**  
Measurements may be performed at a distance other than what is specified provided. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor as below, Frequency at or above 30 MHz: 20 dB/decade Frequency below 30 MHz: 40 dB/decade.

### 3.4.2 Test Procedures

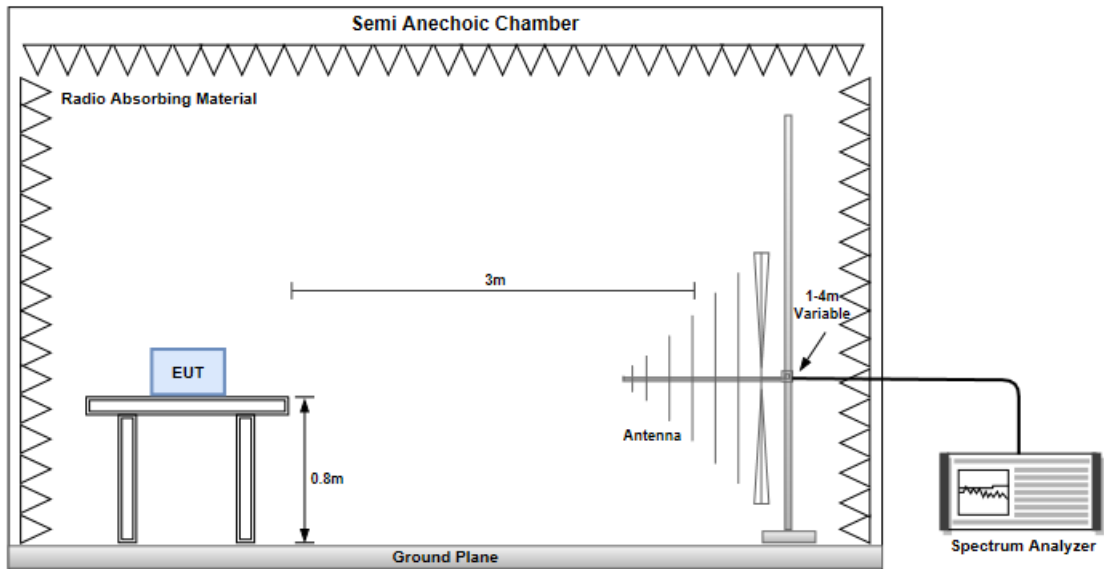
1. Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360°. A continuously-rotating, remotely-controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission frequency. The EUT is placed at test table. For emissions testing at or below 1 GHz, the table height is 80 cm above the reference ground plane. For emission measurements above 1 GHz, the table height is 1.5 m
2. Measurement is made with the antenna positioned in both the horizontal and vertical planes of polarization. The measurement antenna is varied in height (1m ~ 4m) above the reference ground plane to obtain the maximum signal strength. Distance between EUT and antenna is 3 m.
3. This investigation is performed with the EUT rotated 360°, the antenna height scanned between 1 m and 4 m, and the antenna rotated to repeat the measurements for both the horizontal and vertical antenna polarizations.

Note:

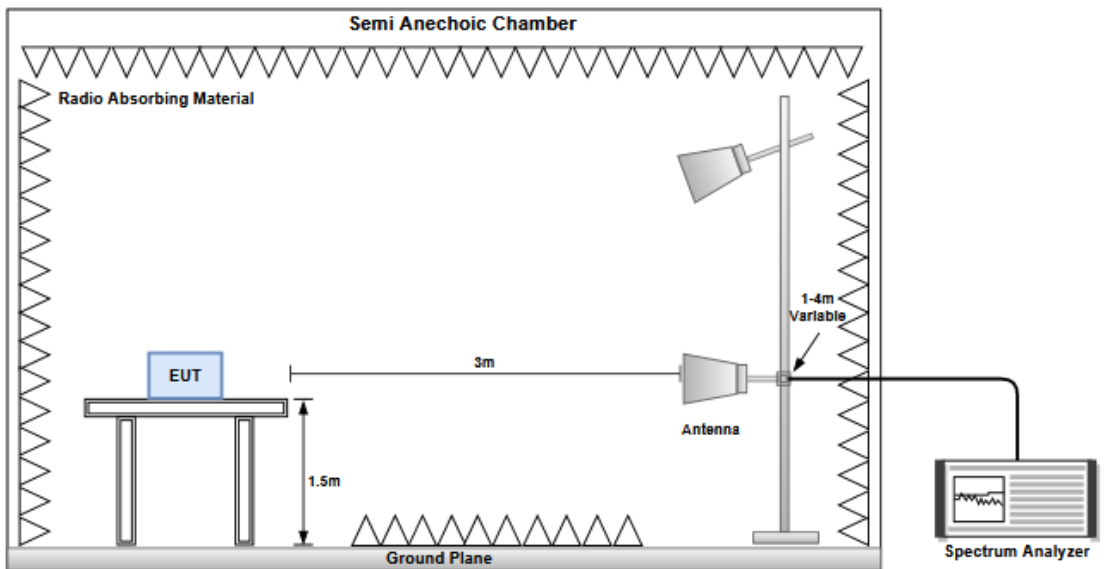
1. 120kHz measurement bandwidth of test receiver and Quasi-peak detector is for radiated emission below 1GHz.
2. RBW=1MHz, VBW=3MHz and Peak detector is for peak measured value of radiated emission above 1GHz.
3. RBW=1MHz, VBW=1/T and Peak detector is for average measured value of radiated emission above 1GHz.

### 3.4.3 Test Setup

#### Radiated Emissions below 1 GHz



#### Radiated Emissions above 1 GHz



### 3.4.4 Test Results

Refer to Appendix D.



## 3.5 Emissions in Non-Restricted Frequency Bands

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

Peak power in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum in-band peak PSD level in 100 kHz.

### 3.5.2 Test Procedures

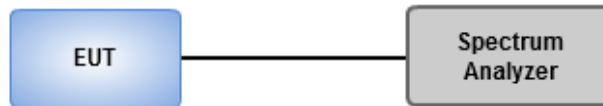
#### Reference level measurement

1. Set RBW=100kHz, VBW = 300kHz , Detector = Peak, Sweep time = Auto
2. Trace = max hold , Allow Trace to fully stabilize
3. Use the peak marker function to determine the maximum PSD level

#### Emission level measurement

1. Set RBW=100kHz, VBW = 300kHz , Detector = Peak, Sweep time = Auto
2. Trace = max hold , Allow Trace to fully stabilize
3. Scan Frequency range is up to 25GHz
4. Use the peak marker function to determine the maximum amplitude level

### 3.5.3 Test Setup



### 3.5.4 Test Results

<b>Ambient Condition</b>	22°C / 63%	<b>Tested By</b>	Roger Lu
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Refer to Appendix E.

## 4 Test laboratory information

Established in 2012, ICC provides foremost EMC & RF Testing and advisory consultation services by our skilled engineers and technicians. Our services employ a wide variety of advanced edge test equipment and one of the widest certification extents in the business.

International Certification Corporation (EMC and Wireless Communication Laboratory), it is our definitive objective is to institute long term, trust-based associations with our clients. The expectation we set up with our clients is based on outstanding service, practical expertise and devotion to a certified value structure. Our passion is to grant our clients with best EMC / RF services by oriented knowledgeable and accommodating staff.

Our Test sites are located at Linkou District and Kwei Shan District. Location map can be found on our website <http://www.icertifi.com.tw>.

### **Linkou**

Tel: 886-2-2601-1640

No.30-2, Ding Fwu Tsuen, Lin Kou  
District, New Taipei City, Taiwan  
(R.O.C.)

### **Kwei Shan**

Tel: 886-3-271-8666

No.3-1, Lane 6, Wen San 3rd  
St., Kwei Shan Dist., Tao Yuan  
City 33381, Taiwan (R.O.C.)  
No.2-1, Lane 6, Wen San 3rd  
St., Kwei Shan Dist., Tao Yuan  
City 33381, Taiwan (R.O.C.)

### **Kwei Shan Site II**

Tel: 886-3-271-8640

No.14-1, Lane 19, Wen San 3rd  
St., Kwei Shan Dist., Tao Yuan  
City 33381, Taiwan (R.O.C.)

If you have any suggestion, please feel free to contact us as below information.

Tel: 886-3-271-8666

Fax: 886-3-318-0345

Email: ICC\_Service@icertifi.com.tw

==END==

**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	8.575M	13.506M	13M5G1D	7.525M	13.249M
802.11g_Nss1,(6Mbps)_2TX	16.275M	16.423M	16M4D1D	16.025M	16.389M
802.11n HT20_Nss1,(MCS0)_2TX	16.8M	17.59M	17M6D1D	16.025M	17.542M

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

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

**Result**

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	7.575M	13.249M	8.575M	13.296M
2437MHz	Pass	500k	7.575M	13.253M	7.525M	13.352M
2462MHz	Pass	500k	8.025M	13.29M	7.575M	13.506M
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	16.05M	16.401M	16.275M	16.389M
2437MHz	Pass	500k	16.05M	16.401M	16.25M	16.403M
2462MHz	Pass	500k	16.05M	16.423M	16.025M	16.414M
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	16.775M	17.573M	16.025M	17.542M
2437MHz	Pass	500k	16.8M	17.574M	16.05M	17.559M
2462MHz	Pass	500k	16.8M	17.59M	16.25M	17.579M

Port X-N dB = Port X 6dB down bandwidth;

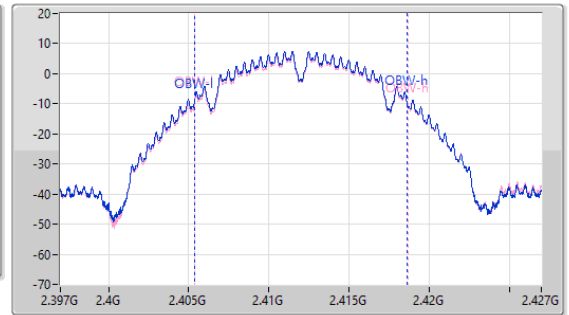
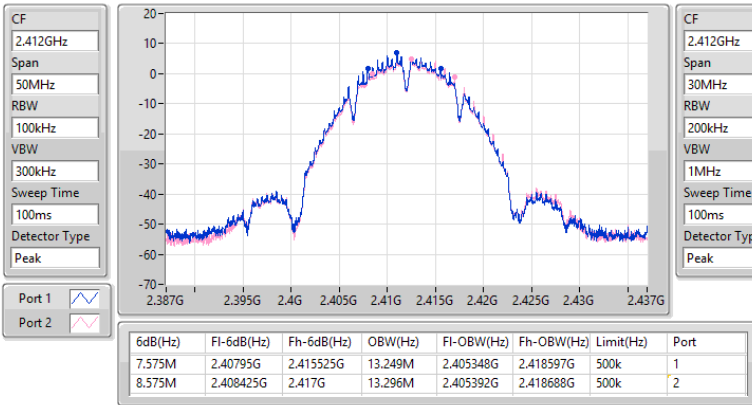
Port X-OBW = Port X 99% occupied bandwidth



2.4-2.4835GHz\_802.11b\_Nss1,(1Mbps)\_2TX

EBW

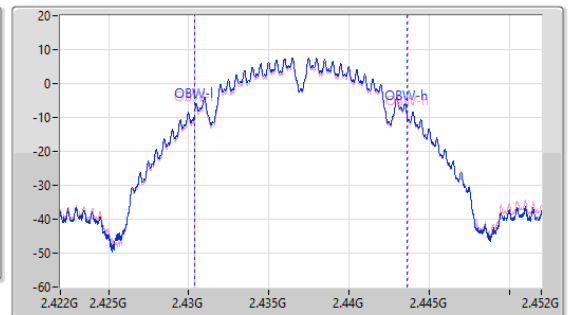
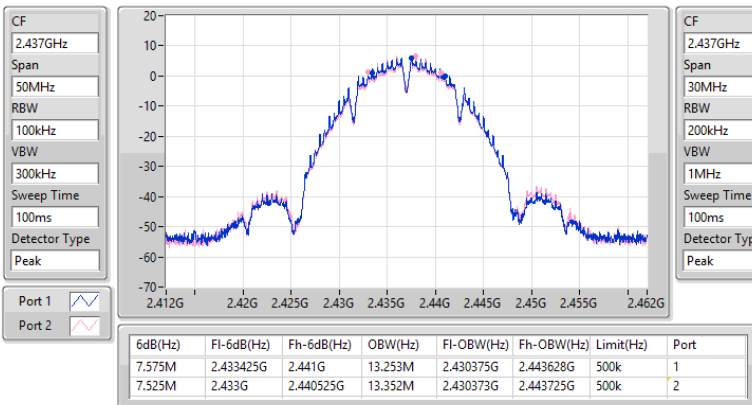
2412MHz



2.4-2.4835GHz\_802.11b\_Nss1,(1Mbps)\_2TX

EBW

2437MHz

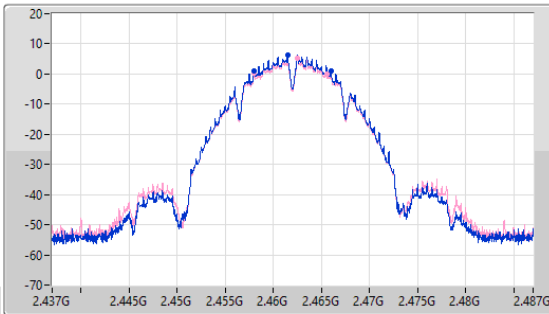


2.4-2.4835GHz\_802.11b\_Nss1,(1Mbps)\_2TX

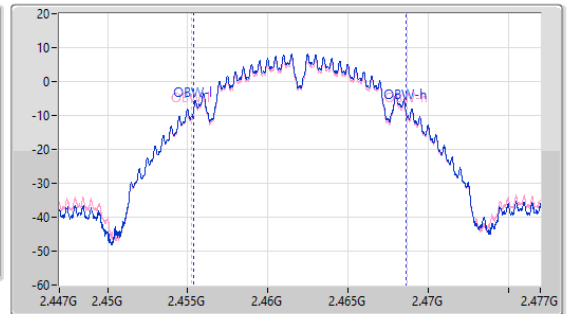
EBW

2462MHz

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



CF: 2.462GHz  
 Span: 30MHz  
 RBW: 200kHz  
 VBW: 1MHz  
 Sweep Time: 100ms  
 Detector Type: Peak



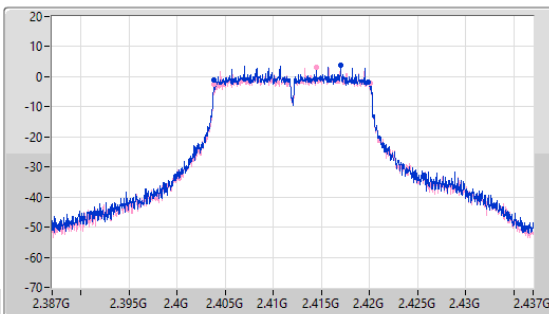
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
8.025M	2.457975G	2.466G	13.29M	2.455354G	2.468644G	500k	1
7.575M	2.457975G	2.46555G	13.506M	2.455217G	2.468723G	500k	2

2.4-2.4835GHz\_802.11g\_Nss1,(6Mbps)\_2TX

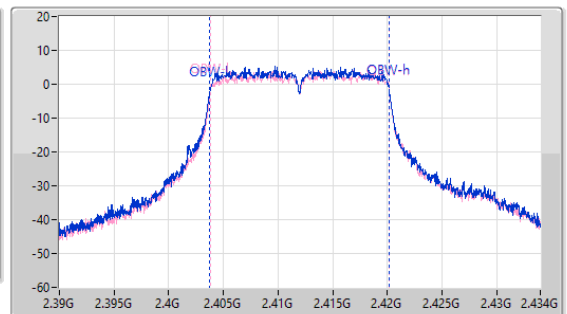
EBW

2412MHz

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



CF: 2.412GHz  
 Span: 44MHz  
 RBW: 200kHz  
 VBW: 1MHz  
 Sweep Time: 100ms  
 Detector Type: Peak



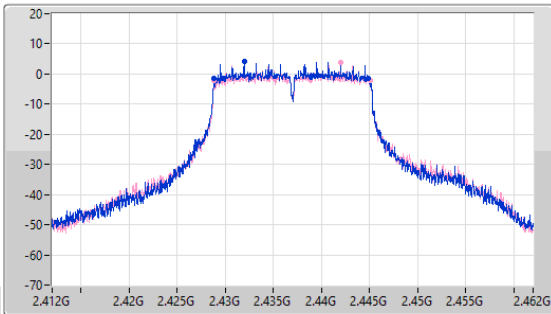
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.05M	2.40385G	2.4199G	16.401M	2.403775G	2.420175G	500k	1
16.275M	2.40385G	2.420125G	16.389M	2.40381G	2.420199G	500k	2

2.4-2.4835GHz\_802.11g\_Nss1,(6Mbps)\_2TX

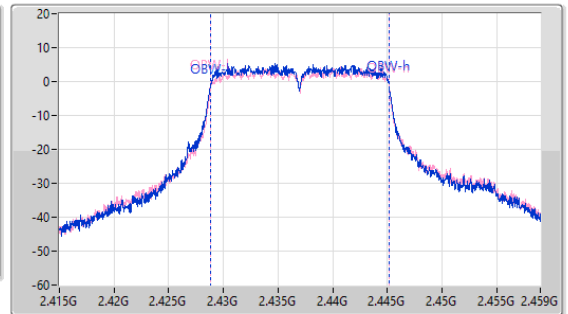
EBW

2437MHz

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



CF: 2.437GHz  
 Span: 44MHz  
 RBW: 200kHz  
 VBW: 1MHz  
 Sweep Time: 100ms  
 Detector Type: Peak



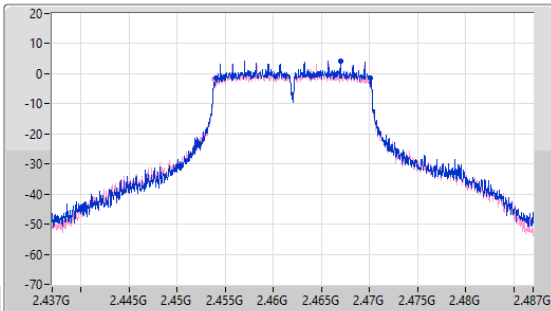
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.05M	2.42885G	2.4449G	16.401M	2.428784G	2.445185G	500k	1
16.25M	2.42885G	2.4451G	16.403M	2.428806G	2.445209G	500k	2

2.4-2.4835GHz\_802.11g\_Nss1,(6Mbps)\_2TX

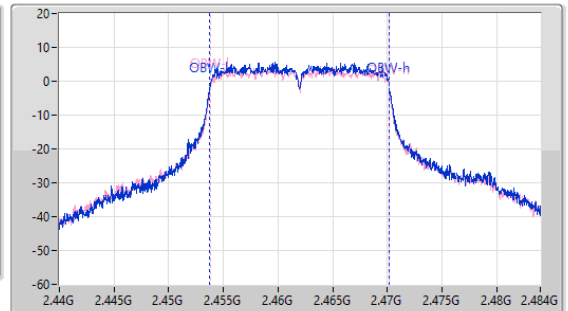
EBW

2462MHz

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



CF: 2.462GHz  
 Span: 44MHz  
 RBW: 200kHz  
 VBW: 1MHz  
 Sweep Time: 100ms  
 Detector Type: Peak

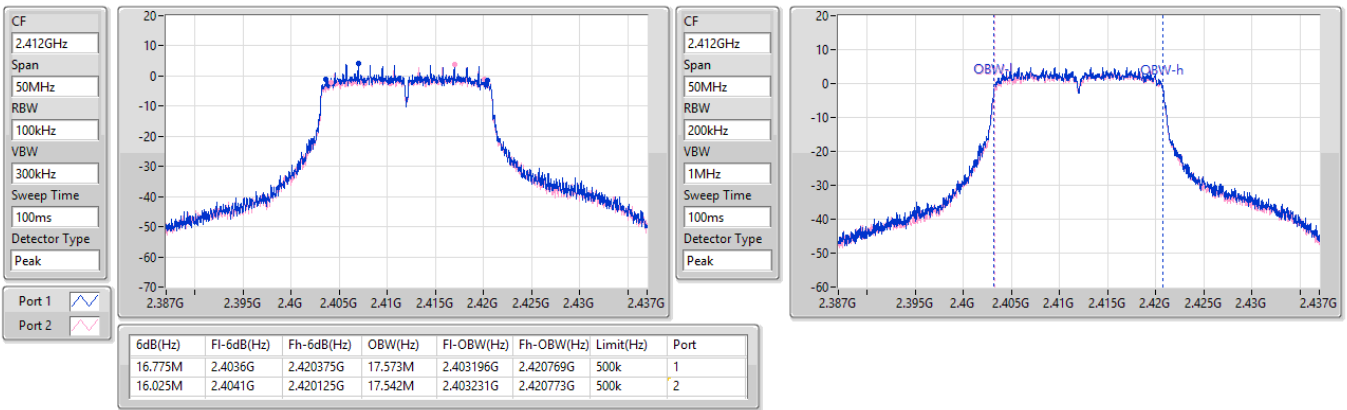


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.05M	2.454075G	2.470125G	16.423M	2.453772G	2.470195G	500k	1
16.025M	2.45385G	2.469875G	16.414M	2.453788G	2.470202G	500k	2

2.4-2.4835GHz\_802.11n\_HT20\_Nss1,(MCS0)\_2TX

EBW

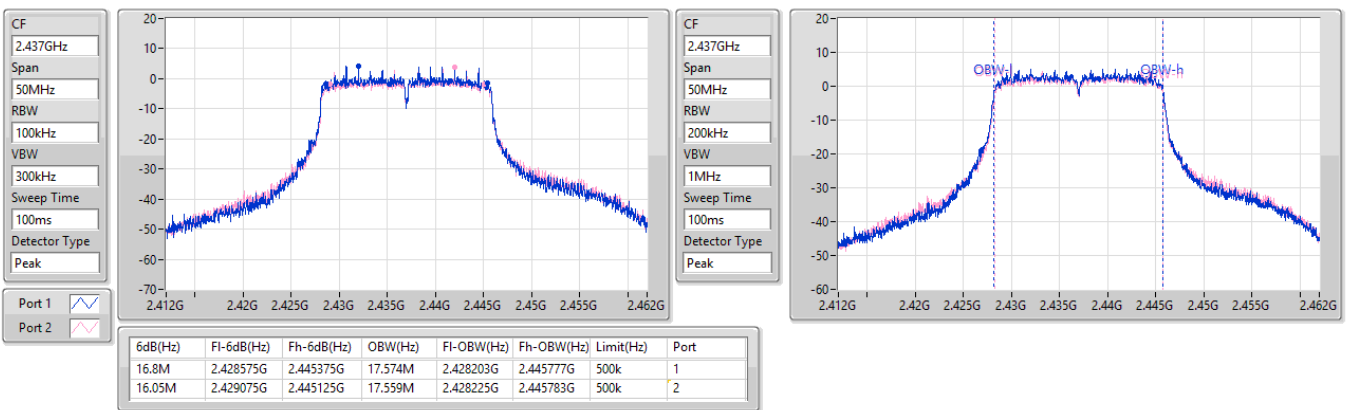
2412MHz



2.4-2.4835GHz\_802.11n\_HT20\_Nss1,(MCS0)\_2TX

EBW

2437MHz



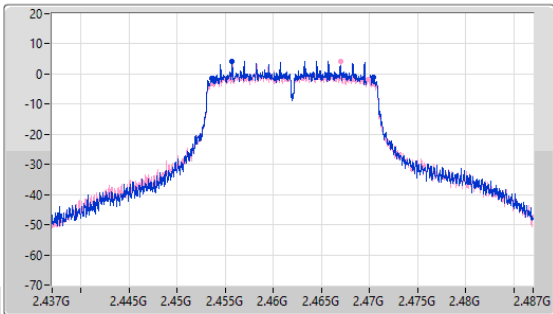


2.4-2.4835GHz\_802.11n\_HT20\_Nss1,(MCS0)\_2TX

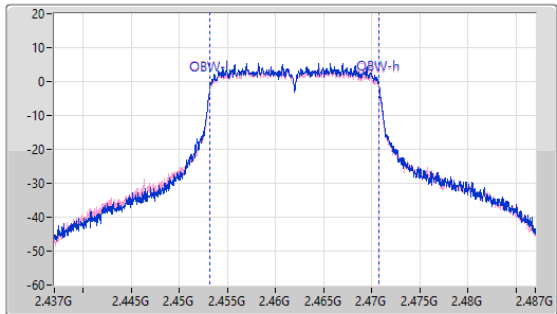
EBW

2462MHz

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



CF  
2.462GHz  
Span  
50MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Peak



Port 1  
Port 2

6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.8M	2.453575G	2.470375G	17.59M	2.453191G	2.470781G	500k	1
16.25M	2.4536G	2.46985G	17.579M	2.453195G	2.470774G	500k	2



**Summary**

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11b_Nss1,(1Mbps)_2TX	18.16	0.06546
802.11g_Nss1,(6Mbps)_2TX	17.86	0.06109
802.11n HT20_Nss1,(MCS0)_2TX	17.75	0.05957

**Result**

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-	-	-
2412MHz	Pass	1.20	15.36	14.12	17.79	30.00	18.99	36.00
2437MHz	Pass	1.20	15.47	14.23	17.90	30.00	19.10	36.00
2462MHz	Pass	1.20	15.67	14.56	18.16	30.00	19.36	36.00
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-
2412MHz	Pass	1.20	15.08	13.87	17.53	30.00	18.73	36.00
2437MHz	Pass	1.20	15.24	14.02	17.68	30.00	18.88	36.00
2462MHz	Pass	1.20	15.36	14.28	17.86	30.00	19.06	36.00
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
2412MHz	Pass	1.20	14.96	13.79	17.42	30.00	18.62	36.00
2437MHz	Pass	1.20	15.08	13.82	17.51	30.00	18.71	36.00
2462MHz	Pass	1.20	15.23	14.19	17.75	30.00	18.95	36.00

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



Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
802.11b_Nss1,(1Mbps)_2TX	-6.51
802.11g_Nss1,(6Mbps)_2TX	-13.93
802.11n HT20_Nss1,(MCS0)_2TX	-14.00

RBW = 3kHz;

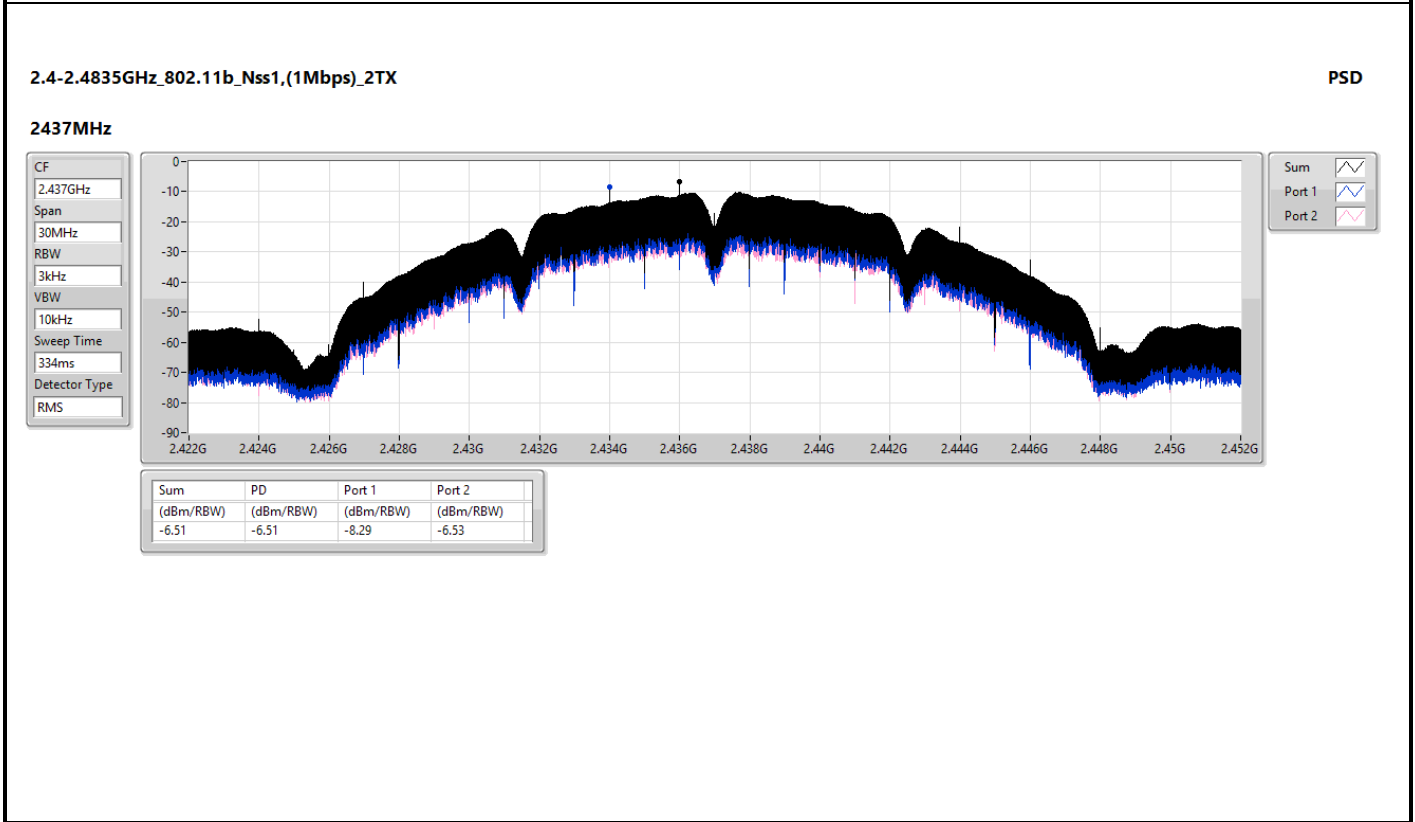
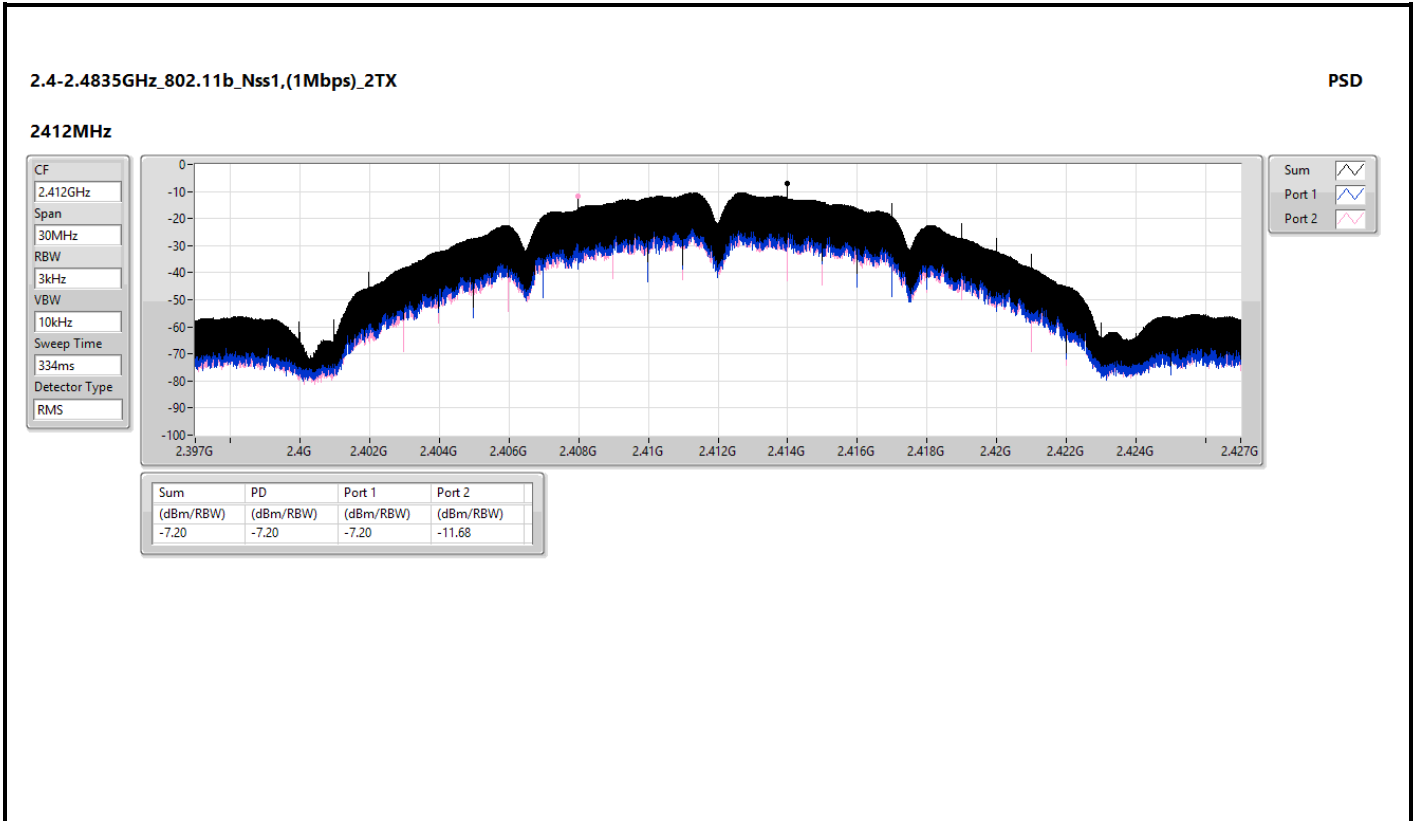
Result

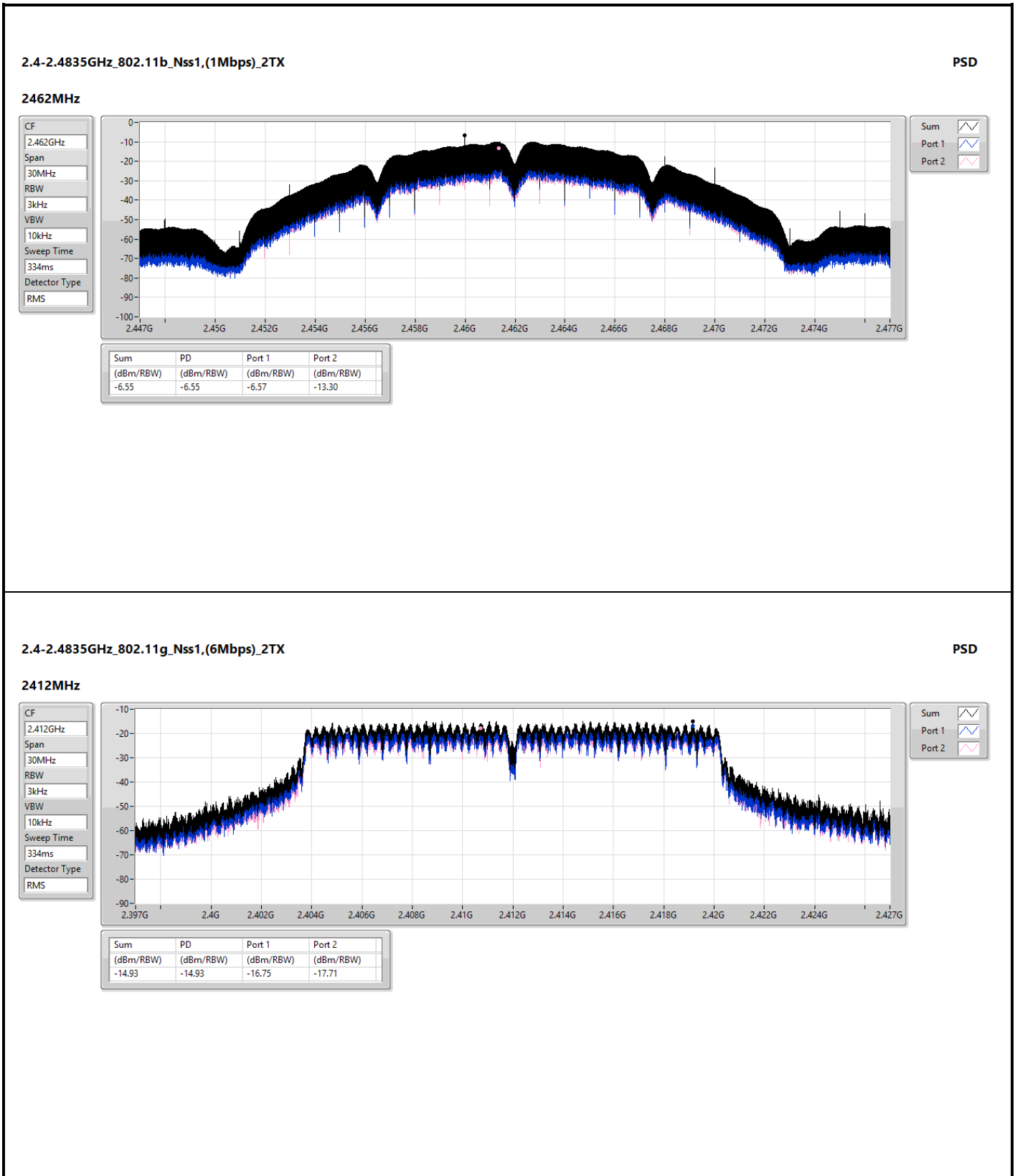
Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	3.77	-7.20	-11.68	-7.20	8.00
2437MHz	Pass	3.77	-8.29	-6.53	-6.51	8.00
2462MHz	Pass	3.77	-6.57	-13.30	-6.55	8.00
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	3.77	-16.75	-17.71	-14.93	8.00
2437MHz	Pass	3.77	-16.82	-17.20	-14.70	8.00
2462MHz	Pass	3.77	-15.50	-16.68	-13.93	8.00
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	3.77	-17.13	-17.61	-15.26	8.00
2437MHz	Pass	3.77	-16.96	-17.94	-14.56	8.00
2462MHz	Pass	3.77	-16.19	-17.39	-14.00	8.00

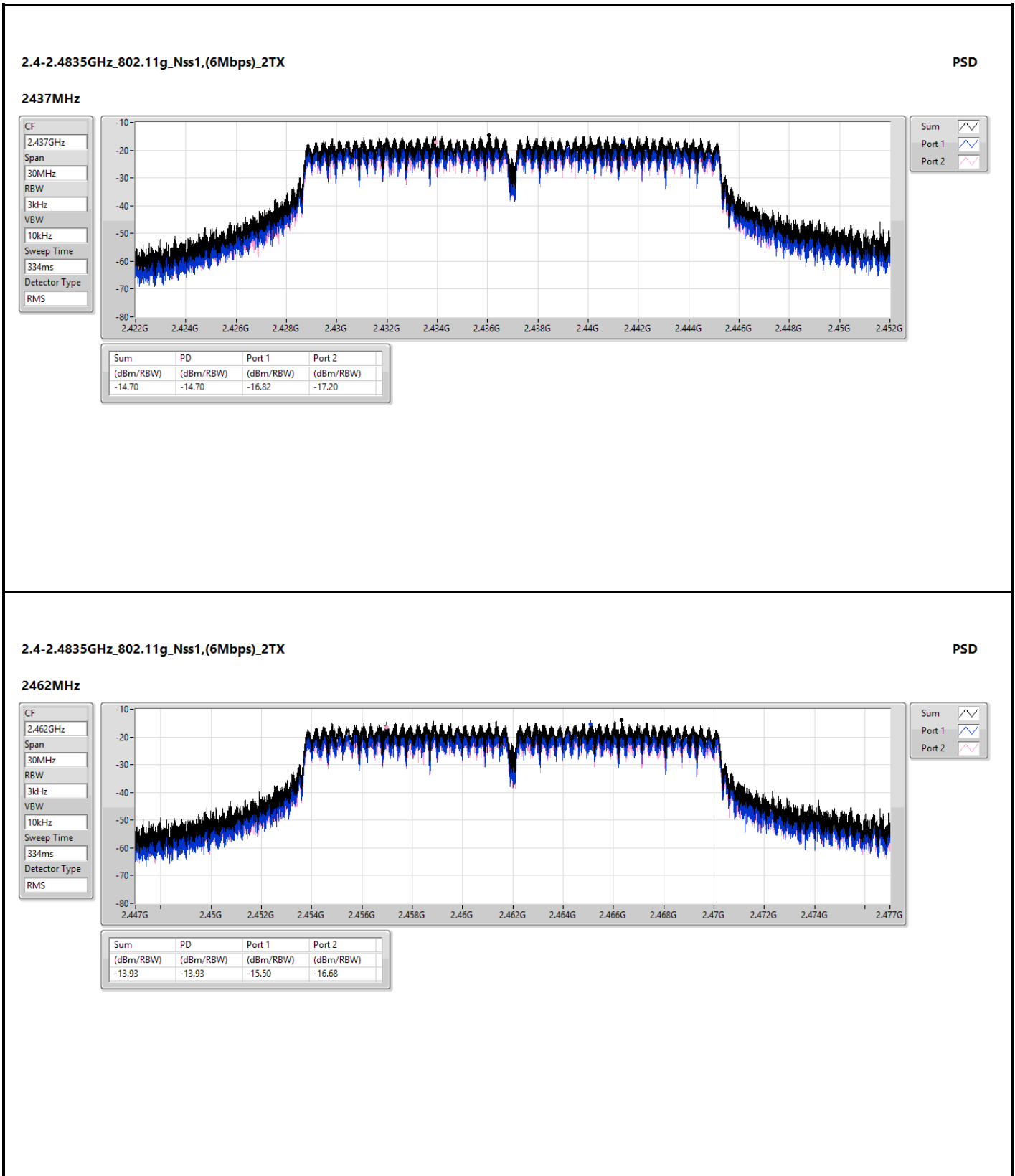
DG = Directional Gain; RBW = 3kHz;

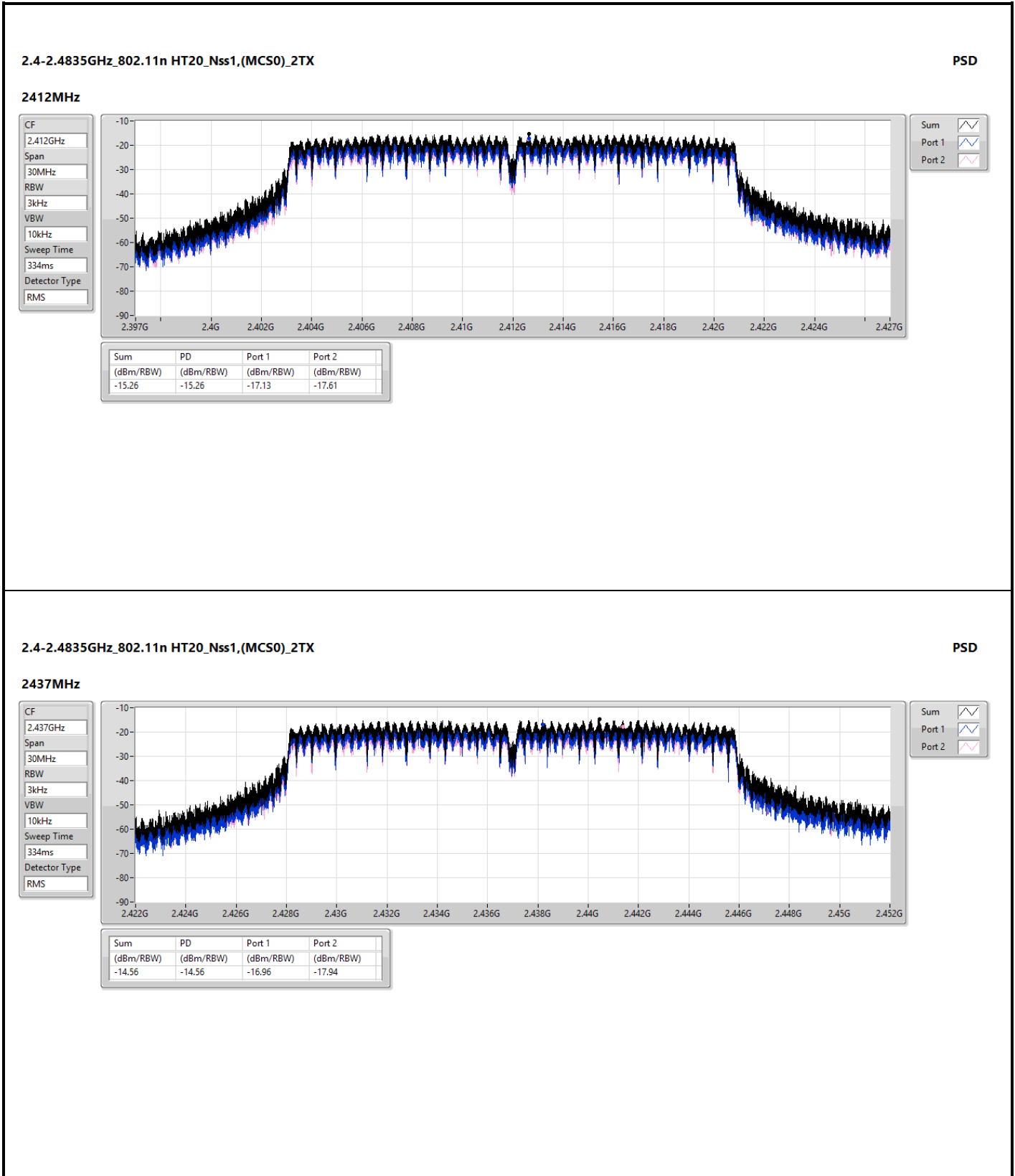
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; Port X = Port X Power Density;

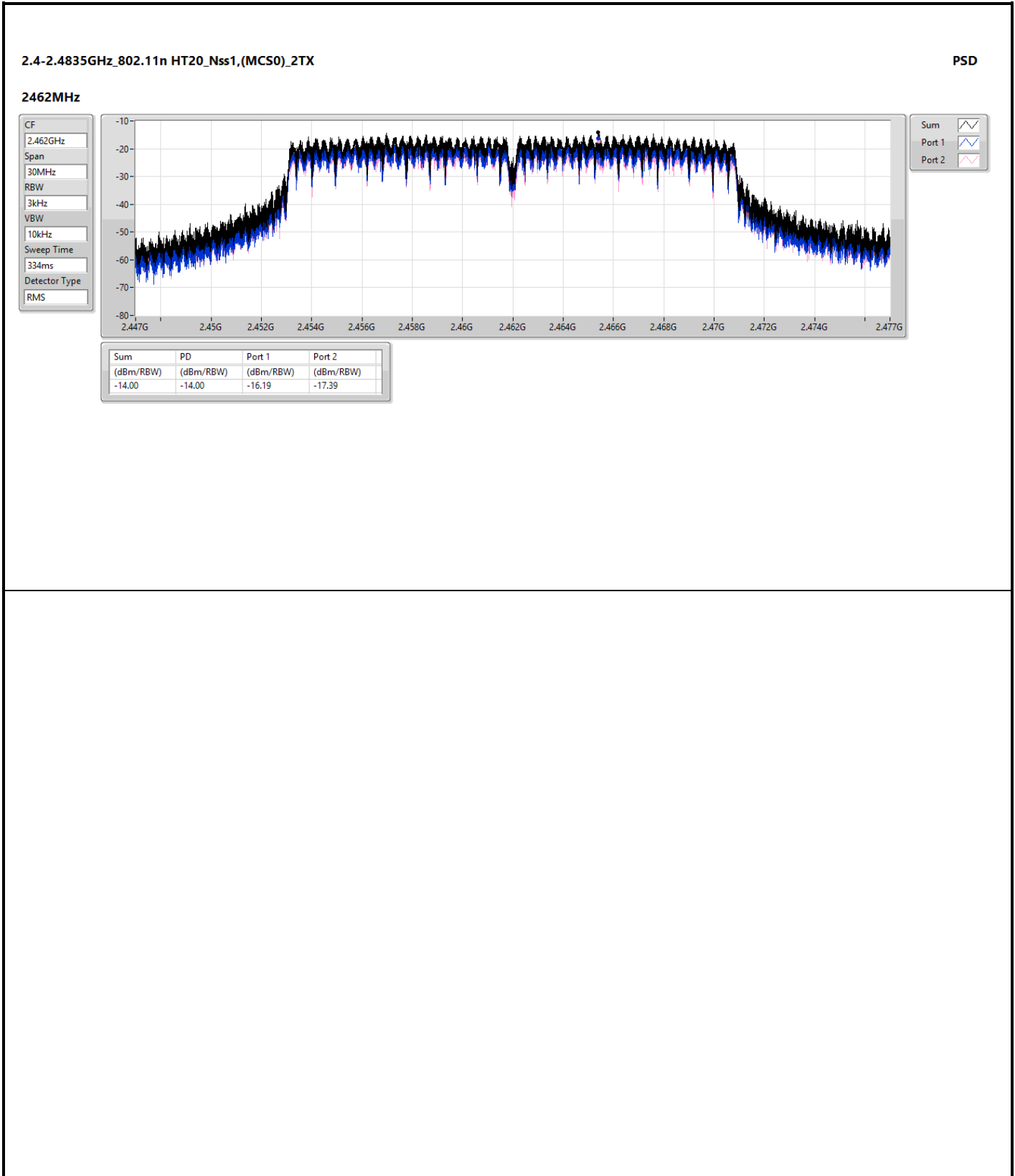
DG = Directional gain =  $10 * \log ((10^{0.3/20}+10^{1.2/20})^2/2) = 3.77$  dBi













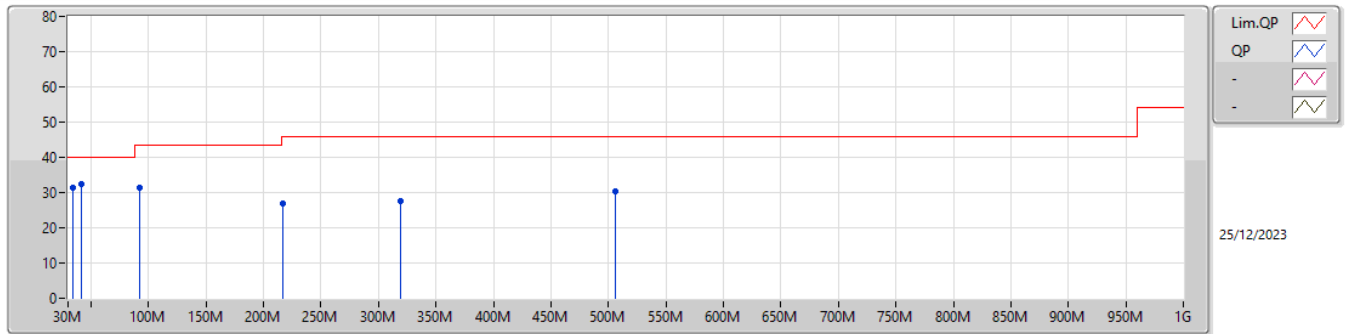
**Summary**

<b>Mode</b>	<b>Result</b>	<b>Type</b>	<b>Freq (Hz)</b>	<b>Level (dBuV/m)</b>	<b>Limit (dBuV/m)</b>	<b>Margin (dB)</b>	<b>Condition</b>
Mode 1	Pass	PK	41.15M	32.45	40.00	-7.55	Vertical





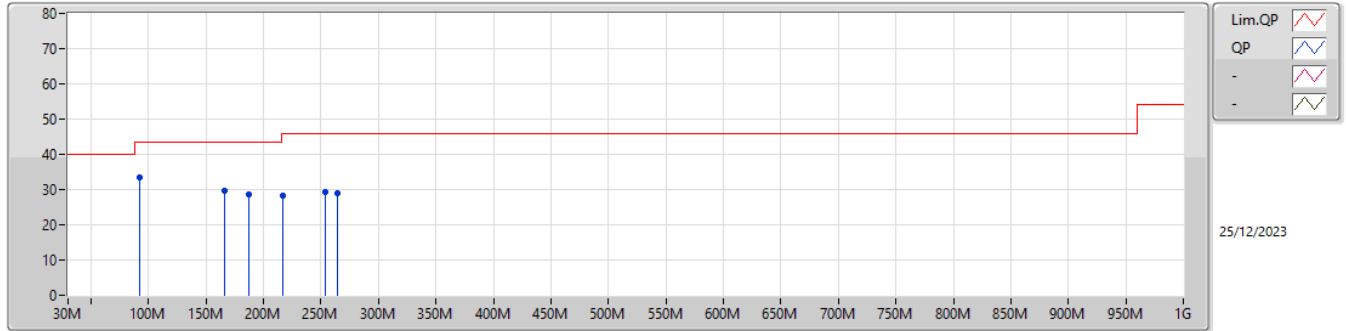
Mode 1



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	33.96M	31.27	40.00	-8.73	-9.57	3	Vertical	-	-	-	40.84	17.89	0.53	27.99
PK	41.15M	32.45	40.00	-7.55	-8.70	3	Vertical	-	-	-	41.15	18.75	0.58	28.03
PK	92.23M	31.22	43.50	-12.28	-14.26	3	Vertical	-	-	-	45.48	13.17	0.90	28.33
PK	216.89M	26.97	46.00	-19.03	-11.92	3	Vertical	-	-	-	38.89	15.14	1.38	28.44
PK	319.51M	27.72	46.00	-18.28	-7.41	3	Vertical	-	-	-	35.13	19.29	1.70	28.40
PK	505.76M	30.25	46.00	-15.75	-2.84	3	Vertical	-	-	-	33.09	23.22	2.18	28.24



Mode 1



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	92.37M	33.46	43.50	-10.04	-14.22	3	Horizontal	-	-	-	47.68	13.21	0.90	28.33
PK	166.16M	29.51	43.50	-13.99	-9.03	3	Horizontal	-	-	-	38.54	18.18	1.21	28.42
PK	187.15M	28.67	43.50	-14.83	-10.96	3	Horizontal	-	-	-	39.63	16.18	1.29	28.43
PK	217.24M	28.22	46.00	-17.78	-11.92	3	Horizontal	-	-	-	40.14	15.14	1.38	28.44
PK	254.14M	29.28	46.00	-16.72	-9.86	3	Horizontal	-	-	-	39.14	17.08	1.49	28.43
PK	264.36M	28.84	46.00	-17.16	-9.33	3	Horizontal	-	-	-	38.17	17.57	1.53	28.43



**Unwanted Emissions into Restricted Frequency Bands  
Above 1GHz**

**Appendix D.2**

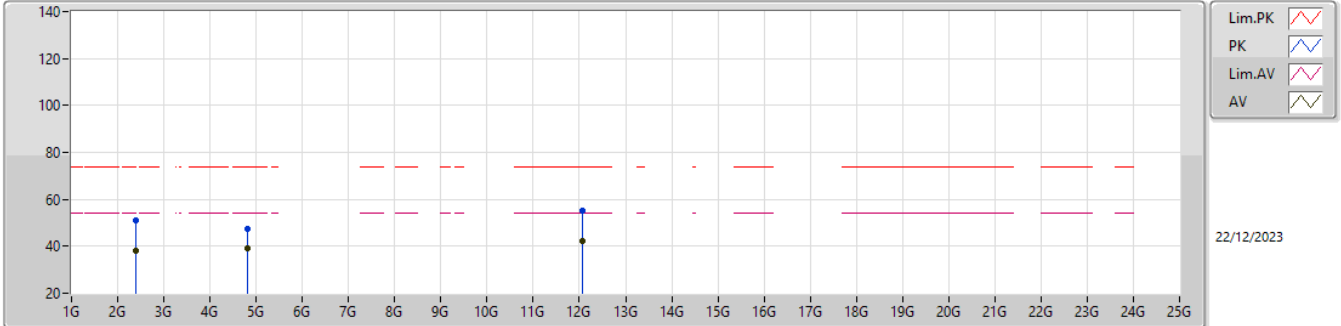
**Summary**

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-
802.11b_Nss1,(1Mbps)_2TX	Pass	AV	7.311G	48.34	54.00	-5.66	3	Vertical	235	2.46	-
802.11g_Nss1,(6Mbps)_2TX	Pass	AV	2.4835G	51.87	54.00	-2.13	3	Horizontal	340	1.66	-
802.11n HT20_Nss1,(MCS0)_2TX	Pass	AV	2.4835G	52.81	54.00	-1.19	3	Vertical	354	2.62	-



2.4-2.4835GHz\_802.11b\_Nss1,(1Mbps)\_2TX

2412MHz\_TX

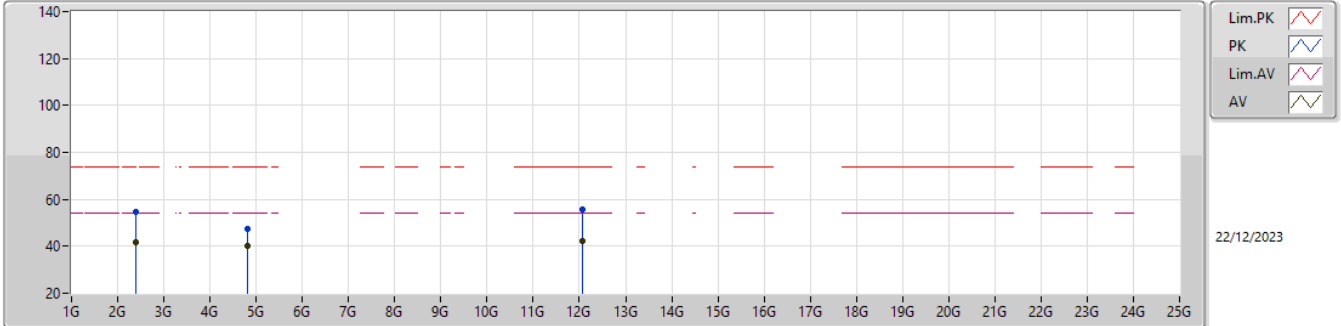


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.39G	50.84	74.00	-23.16	55.22	3	Vertical	348	2.32	-	27.60	4.95	36.93
AV	2.39G	38.36	54.00	-15.64	42.74	3	Vertical	348	2.32	-	27.60	4.95	36.93
PK	4.824G	47.27	74.00	-26.73	47.68	3	Vertical	161	1.00	-	31.25	6.87	38.53
AV	4.824G	39.31	54.00	-14.69	39.72	3	Vertical	161	1.00	-	31.25	6.87	38.53
PK	12.06G	55.31	74.00	-18.69	49.05	3	Vertical	5	1.00	-	39.22	10.03	42.99
AV	12.06G	42.32	54.00	-11.68	36.06	3	Vertical	5	1.00	-	39.22	10.03	42.99



2.4-2.4835GHz\_802.11b\_Nss1,(1Mbps)\_2TX

2412MHz\_TX

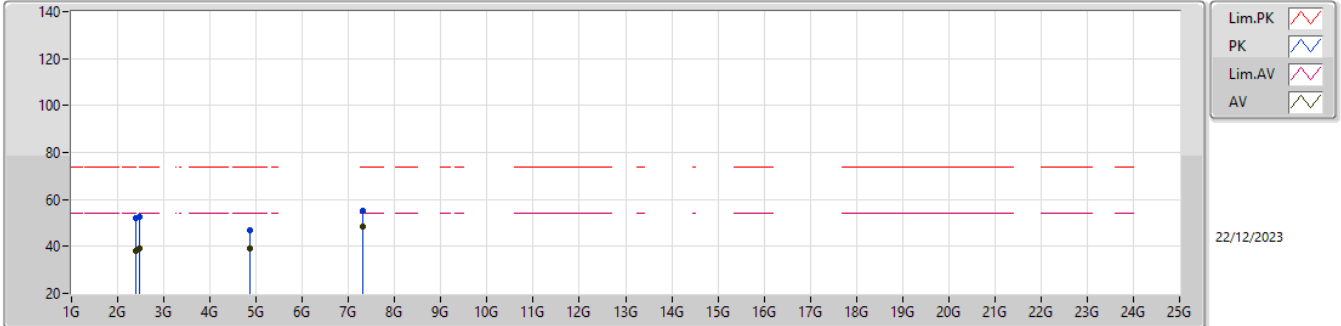


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.39G	54.78	74.00	-19.22	59.16	3	Horizontal	352	2.55	-	27.60	4.95	36.93
AV	2.39G	41.93	54.00	-12.07	46.31	3	Horizontal	352	2.55	-	27.60	4.95	36.93
PK	4.824G	47.17	74.00	-26.83	47.58	3	Horizontal	59	1.00	-	31.25	6.87	38.53
AV	4.824G	40.18	54.00	-13.82	40.59	3	Horizontal	59	1.00	-	31.25	6.87	38.53
PK	12.06G	55.71	74.00	-18.29	49.45	3	Horizontal	10	1.00	-	39.22	10.03	42.99
AV	12.06G	42.28	54.00	-11.72	36.02	3	Horizontal	10	1.00	-	39.22	10.03	42.99



2.4-2.4835GHz\_802.11b\_Nss1,(1Mbps)\_2TX

2437MHz\_TX

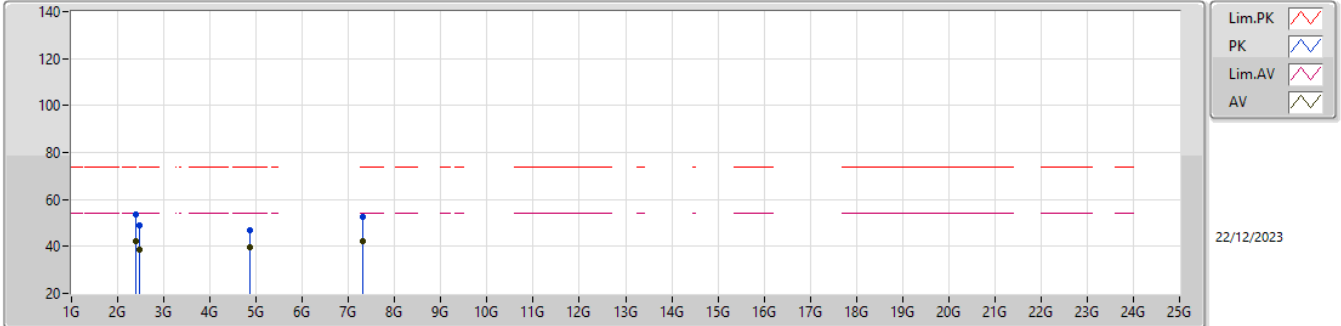


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.39G	52.15	74.00	-21.85	56.53	3	Vertical	1	2.13	-	27.60	4.95	36.93
AV	2.39G	38.21	54.00	-15.79	42.59	3	Vertical	1	2.13	-	27.60	4.95	36.93
PK	2.4835G	52.46	74.00	-21.54	57.21	3	Vertical	1	2.13	-	27.20	5.06	37.01
AV	2.4835G	39.01	54.00	-14.99	43.76	3	Vertical	1	2.13	-	27.20	5.06	37.01
PK	4.874G	46.74	74.00	-27.26	47.24	3	Vertical	155	1.05	-	31.15	6.92	38.57
AV	4.874G	39.08	54.00	-14.92	39.58	3	Vertical	155	1.05	-	31.15	6.92	38.57
PK	7.311G	55.41	74.00	-18.59	50.25	3	Vertical	235	2.46	-	36.18	8.43	39.45
AV	7.311G	48.34	54.00	-5.66	43.18	3	Vertical	235	2.46	-	36.18	8.43	39.45



2.4-2.4835GHz\_802.11b\_Nss1,(1Mbps)\_2TX

2437MHz\_TX

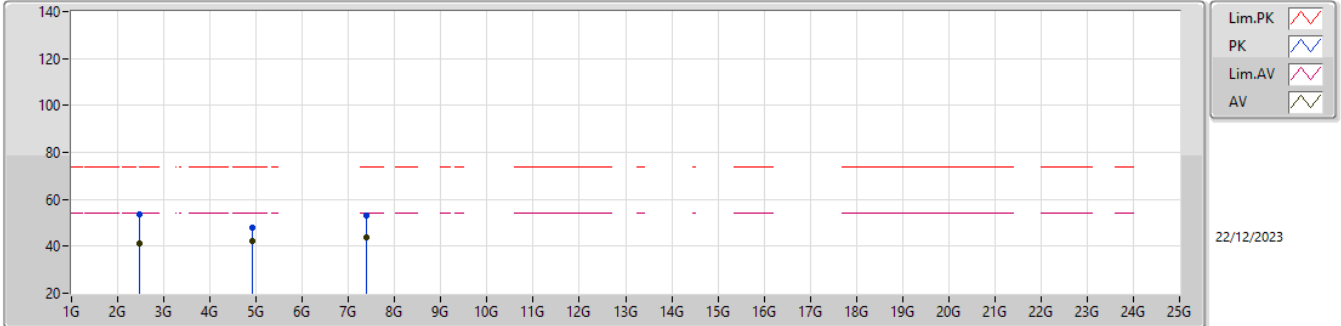


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.39G	53.64	74.00	-20.36	58.02	3	Horizontal	348	2.55	-	27.60	4.95	36.93
AV	2.39G	42.30	54.00	-11.70	46.68	3	Horizontal	348	2.55	-	27.60	4.95	36.93
PK	2.4835G	49.20	74.00	-24.80	53.95	3	Horizontal	348	2.55	-	27.20	5.06	37.01
AV	2.4835G	38.48	54.00	-15.52	43.23	3	Horizontal	348	2.55	-	27.20	5.06	37.01
PK	4.874G	46.67	74.00	-27.33	47.17	3	Horizontal	32	1.00	-	31.15	6.92	38.57
AV	4.874G	39.47	54.00	-14.53	39.97	3	Horizontal	32	1.00	-	31.15	6.92	38.57
PK	7.311G	52.55	74.00	-21.45	47.39	3	Horizontal	63	1.00	-	36.18	8.43	39.45
AV	7.311G	42.08	54.00	-11.92	36.92	3	Horizontal	63	1.00	-	36.18	8.43	39.45



2.4-2.4835GHz\_802.11b\_Nss1,(1Mbps)\_2TX

2462MHz\_TX



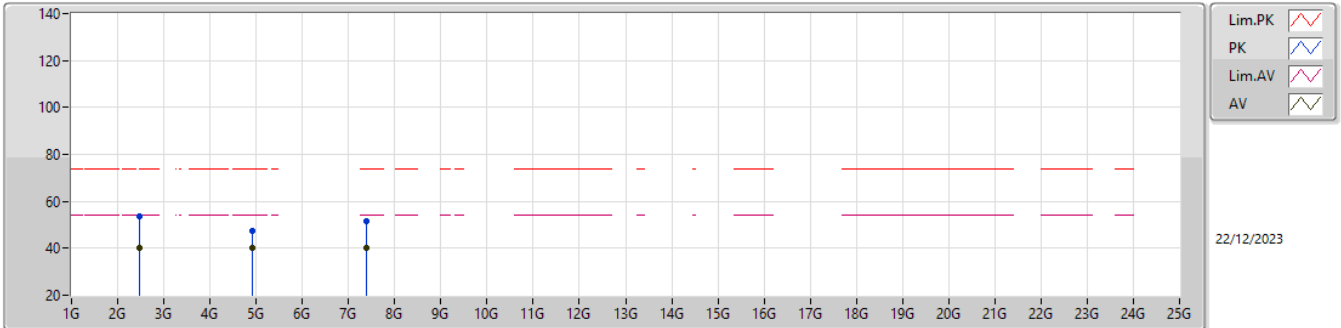
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.4835G	53.51	74.00	-20.49	58.26	3	Vertical	2	2.02	-	27.20	5.06	37.01
AV	2.4835G	41.03	54.00	-12.97	45.78	3	Vertical	2	2.02	-	27.20	5.06	37.01
PK	4.924G	48.13	74.00	-25.87	48.57	3	Vertical	126	1.47	-	31.20	6.96	38.60
AV	4.924G	42.50	54.00	-11.50	42.94	3	Vertical	126	1.47	-	31.20	6.96	38.60
PK	7.386G	53.35	74.00	-20.65	48.32	3	Vertical	221	1.00	-	36.10	8.47	39.54
AV	7.386G	44.01	54.00	-9.99	38.98	3	Vertical	221	1.00	-	36.10	8.47	39.54





2.4-2.4835GHz\_802.11b\_Nss1,(1Mbps)\_2TX

2462MHz\_TX

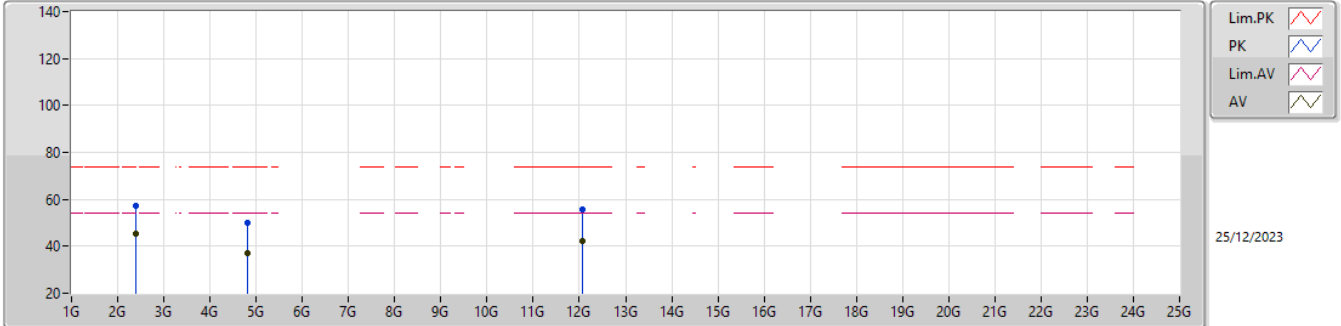


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.4835G	53.71	74.00	-20.29	58.46	3	Horizontal	1	2.08	-	27.20	5.06	37.01
AV	2.4835G	40.27	54.00	-13.73	45.02	3	Horizontal	1	2.08	-	27.20	5.06	37.01
PK	4.924G	47.28	74.00	-26.72	47.72	3	Horizontal	41	1.00	-	31.20	6.96	38.60
AV	4.924G	39.97	54.00	-14.03	40.41	3	Horizontal	41	1.00	-	31.20	6.96	38.60
PK	7.386G	51.39	74.00	-22.61	46.36	3	Horizontal	65	1.00	-	36.10	8.47	39.54
AV	7.386G	40.29	54.00	-13.71	35.26	3	Horizontal	65	1.00	-	36.10	8.47	39.54



2.4-2.4835GHz\_802.11g\_Nss1,(6Mbps)\_2TX

2412MHz\_TX

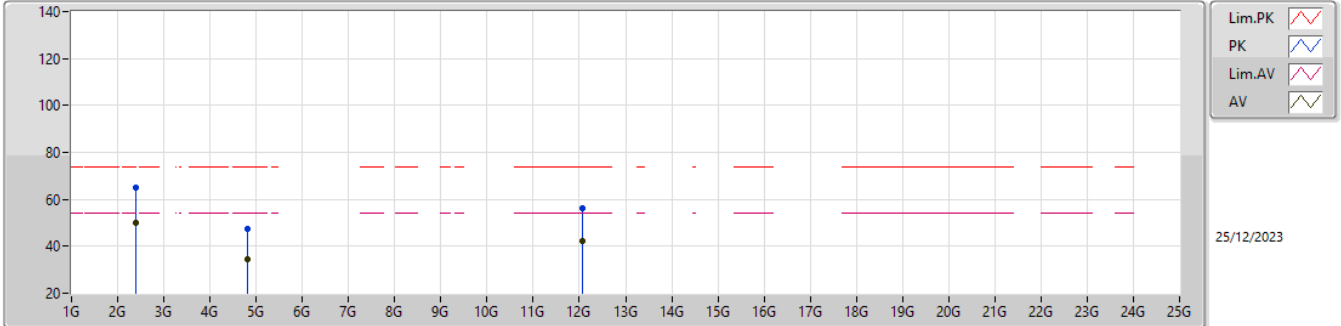


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.39G	57.22	74.00	-16.78	61.60	3	Vertical	327	3.17	-	27.60	4.95	36.93
AV	2.39G	45.25	54.00	-8.75	49.63	3	Vertical	327	3.17	-	27.60	4.95	36.93
PK	4.824G	49.95	74.00	-24.05	50.36	3	Vertical	192	1.00	-	31.25	6.87	38.53
AV	4.824G	36.88	54.00	-17.12	37.29	3	Vertical	192	1.00	-	31.25	6.87	38.53
PK	12.06G	55.72	74.00	-18.28	49.46	3	Vertical	2	1.00	-	39.22	10.03	42.99
AV	12.06G	42.08	54.00	-11.92	35.82	3	Vertical	2	1.00	-	39.22	10.03	42.99



2.4-2.4835GHz\_802.11g\_Nss1,(6Mbps)\_2TX

2412MHz\_TX

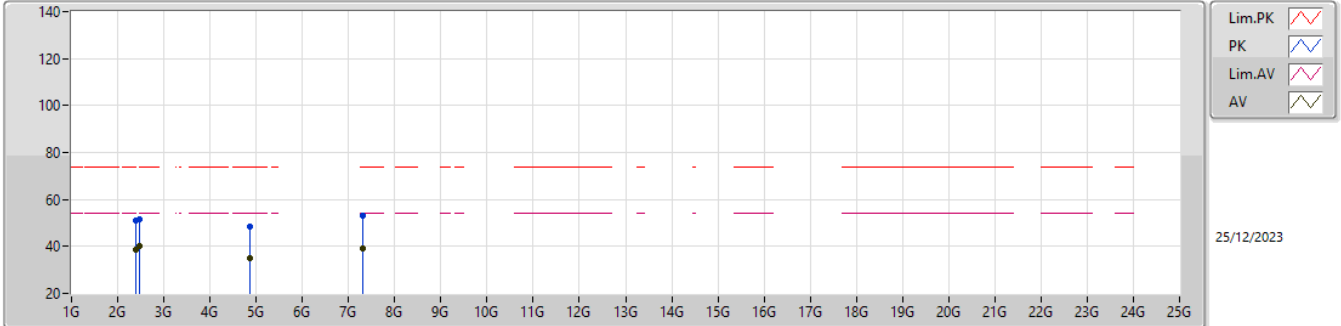


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.39G	65.14	74.00	-8.86	69.52	3	Horizontal	354	2.19	-	27.60	4.95	36.93
AV	2.39G	50.24	54.00	-3.76	54.62	3	Horizontal	354	2.19	-	27.60	4.95	36.93
PK	4.824G	47.57	74.00	-26.43	47.98	3	Horizontal	38	1.22	-	31.25	6.87	38.53
AV	4.824G	34.40	54.00	-19.60	34.81	3	Horizontal	38	1.22	-	31.25	6.87	38.53
PK	12.06G	56.37	74.00	-17.63	50.11	3	Horizontal	3	1.00	-	39.22	10.03	42.99
AV	12.06G	42.07	54.00	-11.93	35.81	3	Horizontal	3	1.00	-	39.22	10.03	42.99



2.4-2.4835GHz\_802.11g\_Nss1,(6Mbps)\_2TX

2437MHz\_TX

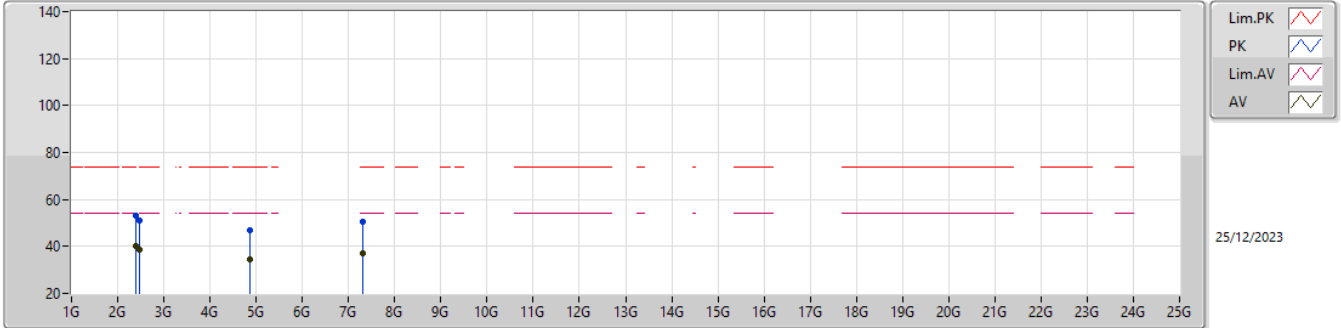


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.39G	50.80	74.00	-23.20	55.18	3	Vertical	4	2.33	-	27.60	4.95	36.93
AV	2.39G	38.42	54.00	-15.58	42.80	3	Vertical	4	2.33	-	27.60	4.95	36.93
PK	2.4835G	51.69	74.00	-22.31	56.44	3	Vertical	4	2.33	-	27.20	5.06	37.01
AV	2.4835G	40.03	54.00	-13.97	44.78	3	Vertical	4	2.33	-	27.20	5.06	37.01
PK	4.874G	48.34	74.00	-25.66	48.84	3	Vertical	193	1.00	-	31.15	6.92	38.57
AV	4.874G	34.97	54.00	-19.03	35.47	3	Vertical	193	1.00	-	31.15	6.92	38.57
PK	7.311G	52.99	74.00	-21.01	47.83	3	Vertical	245	2.47	-	36.18	8.43	39.45
AV	7.311G	39.11	54.00	-14.89	33.95	3	Vertical	245	2.47	-	36.18	8.43	39.45



2.4-2.4835GHz\_802.11g\_Nss1,(6Mbps)\_2TX

2437MHz\_TX

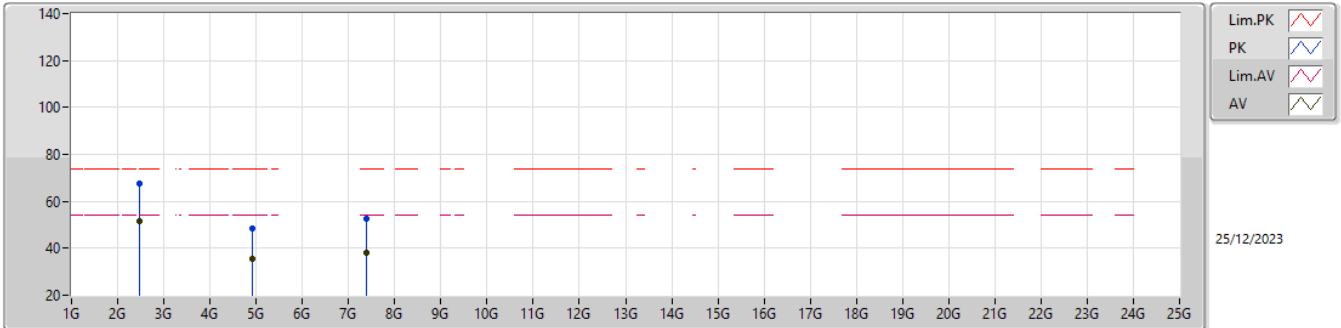


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.39G	53.36	74.00	-20.64	57.74	3	Horizontal	354	1.68	-	27.60	4.95	36.93
AV	2.39G	40.33	54.00	-13.67	44.71	3	Horizontal	354	1.68	-	27.60	4.95	36.93
PK	2.4835G	50.84	74.00	-23.16	55.59	3	Horizontal	354	1.68	-	27.20	5.06	37.01
AV	2.4835G	38.40	54.00	-15.60	43.15	3	Horizontal	354	1.68	-	27.20	5.06	37.01
PK	4.874G	47.00	74.00	-27.00	47.50	3	Horizontal	44	1.00	-	31.15	6.92	38.57
AV	4.874G	34.40	54.00	-19.60	34.90	3	Horizontal	44	1.00	-	31.15	6.92	38.57
PK	7.311G	50.49	74.00	-23.51	45.33	3	Horizontal	1	1.00	-	36.18	8.43	39.45
AV	7.311G	37.00	54.00	-17.00	31.84	3	Horizontal	1	1.00	-	36.18	8.43	39.45



2.4-2.4835GHz\_802.11g\_Nss1,(6Mbps)\_2TX

2462MHz\_TX

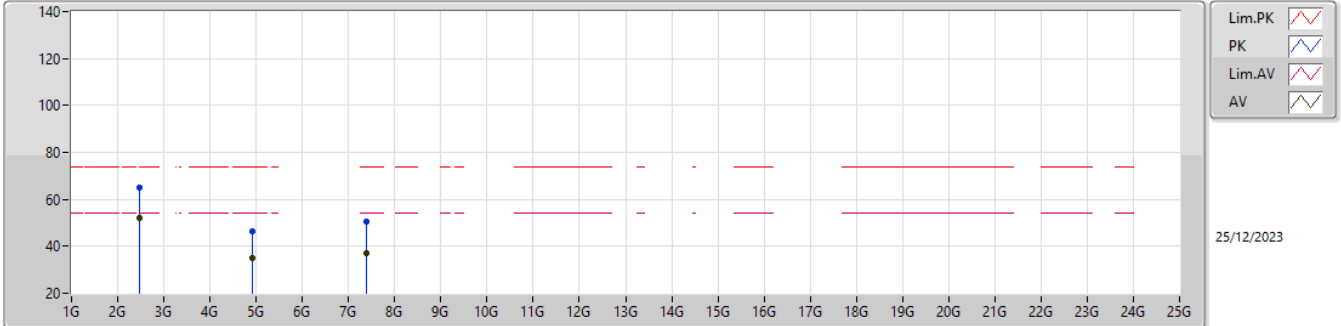


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.4835G	67.54	74.00	-6.46	72.29	3	Vertical	353	2.60	-	27.20	5.06	37.01
AV	2.4835G	51.72	54.00	-2.28	56.47	3	Vertical	353	2.60	-	27.20	5.06	37.01
PK	4.924G	48.61	74.00	-25.39	49.05	3	Vertical	191	1.00	-	31.20	6.96	38.60
AV	4.924G	35.56	54.00	-18.44	36.00	3	Vertical	191	1.00	-	31.20	6.96	38.60
PK	7.386G	52.34	74.00	-21.66	47.31	3	Vertical	241	1.00	-	36.10	8.47	39.54
AV	7.386G	38.21	54.00	-15.79	33.18	3	Vertical	241	1.00	-	36.10	8.47	39.54



2.4-2.4835GHz\_802.11g\_Nss1,(6Mbps)\_2TX

2462MHz\_TX

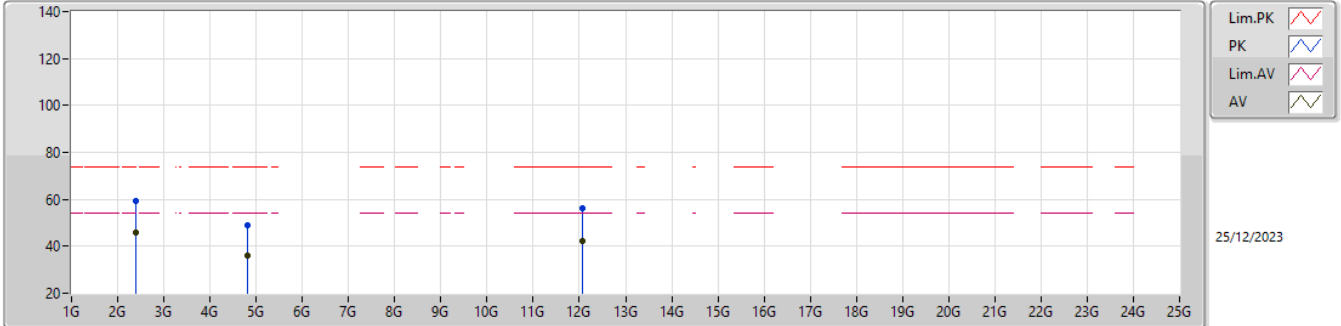


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.4835G	64.89	74.00	-9.11	69.64	3	Horizontal	340	1.66	-	27.20	5.06	37.01
AV	2.4835G	51.87	54.00	-2.13	56.62	3	Horizontal	340	1.66	-	27.20	5.06	37.01
PK	4.924G	46.57	74.00	-27.43	47.01	3	Horizontal	50	1.00	-	31.20	6.96	38.60
AV	4.924G	34.94	54.00	-19.06	35.38	3	Horizontal	50	1.00	-	31.20	6.96	38.60
PK	7.386G	50.34	74.00	-23.66	45.31	3	Horizontal	6	1.00	-	36.10	8.47	39.54
AV	7.386G	37.28	54.00	-16.72	32.25	3	Horizontal	6	1.00	-	36.10	8.47	39.54



2.4-2.4835GHz\_802.11n\_HT20\_Nss1,(MCS0)\_2TX

2412MHz\_TX



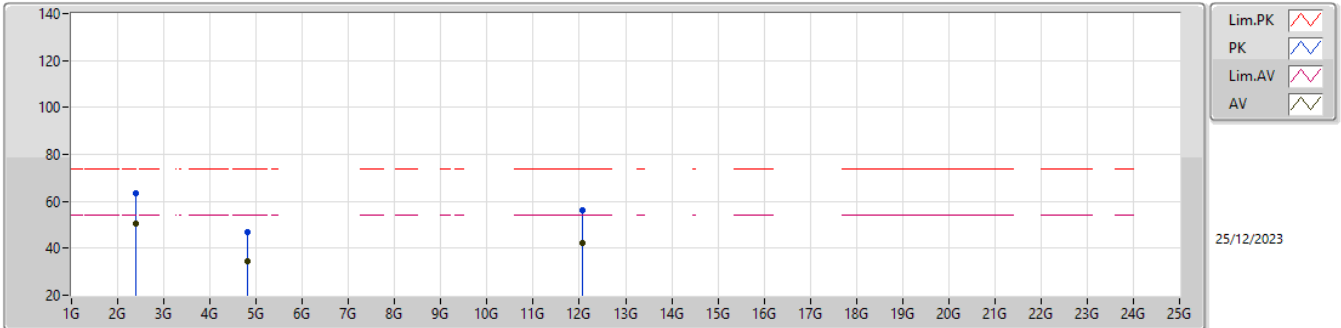
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.39G	59.28	74.00	-14.72	63.66	3	Vertical	333	2.65	-	27.60	4.95	36.93
AV	2.39G	46.02	54.00	-7.98	50.40	3	Vertical	333	2.65	-	27.60	4.95	36.93
PK	4.824G	48.90	74.00	-25.10	49.31	3	Vertical	192	1.00	-	31.25	6.87	38.53
AV	4.824G	35.99	54.00	-18.01	36.40	3	Vertical	192	1.00	-	31.25	6.87	38.53
PK	12.06G	56.02	74.00	-17.98	49.76	3	Vertical	5	1.00	-	39.22	10.03	42.99
AV	12.06G	42.38	54.00	-11.62	36.12	3	Vertical	5	1.00	-	39.22	10.03	42.99





2.4-2.4835GHz\_802.11n\_HT20\_Nss1,(MCS0)\_2TX

2412MHz\_TX

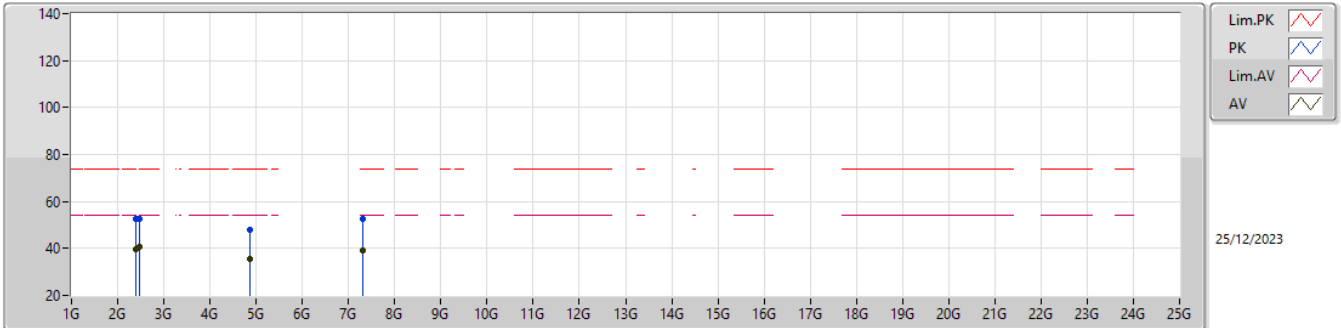


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.39G	63.22	74.00	-10.78	67.60	3	Horizontal	342	1.68	-	27.60	4.95	36.93
AV	2.39G	50.40	54.00	-3.60	54.78	3	Horizontal	342	1.68	-	27.60	4.95	36.93
PK	4.824G	46.67	74.00	-27.33	47.08	3	Horizontal	35	1.00	-	31.25	6.87	38.53
AV	4.824G	34.26	54.00	-19.74	34.67	3	Horizontal	35	1.00	-	31.25	6.87	38.53
PK	12.06G	56.29	74.00	-17.71	50.03	3	Horizontal	11	1.00	-	39.22	10.03	42.99
AV	12.06G	42.25	54.00	-11.75	35.99	3	Horizontal	11	1.00	-	39.22	10.03	42.99



2.4-2.4835GHz\_802.11n\_HT20\_Nss1,(MCS0)\_2TX

2437MHz\_TX

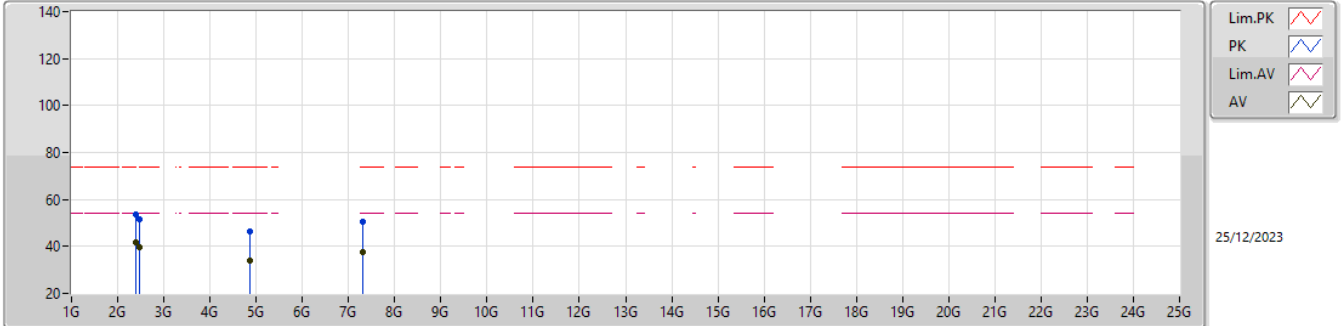


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.39G	52.56	74.00	-21.44	56.94	3	Vertical	4	3.31	-	27.60	4.95	36.93
AV	2.39G	39.65	54.00	-14.35	44.03	3	Vertical	4	3.31	-	27.60	4.95	36.93
PK	2.4835G	52.77	74.00	-21.23	57.52	3	Vertical	4	3.31	-	27.20	5.06	37.01
AV	2.4835G	40.51	54.00	-13.49	45.26	3	Vertical	4	3.31	-	27.20	5.06	37.01
PK	4.874G	47.87	74.00	-26.13	48.37	3	Vertical	191	1.00	-	31.15	6.92	38.57
AV	4.874G	35.44	54.00	-18.56	35.94	3	Vertical	191	1.00	-	31.15	6.92	38.57
PK	7.311G	52.58	74.00	-21.42	47.42	3	Vertical	246	1.00	-	36.18	8.43	39.45
AV	7.311G	38.91	54.00	-15.09	33.75	3	Vertical	246	1.00	-	36.18	8.43	39.45



2.4-2.4835GHz\_802.11n\_HT20\_Nss1,(MCS0)\_2TX

2437MHz\_TX

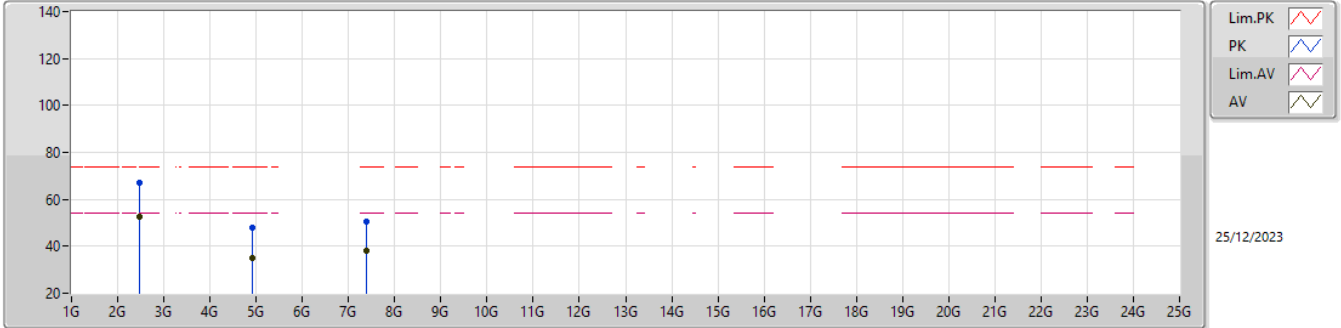


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.39G	53.76	74.00	-20.24	58.14	3	Horizontal	342	1.65	-	27.60	4.95	36.93
AV	2.39G	41.85	54.00	-12.15	46.23	3	Horizontal	342	1.65	-	27.60	4.95	36.93
PK	2.4835G	51.41	74.00	-22.59	56.16	3	Horizontal	342	1.65	-	27.20	5.06	37.01
AV	2.4835G	39.67	54.00	-14.33	44.42	3	Horizontal	342	1.65	-	27.20	5.06	37.01
PK	4.874G	46.26	74.00	-27.74	46.76	3	Horizontal	314	1.00	-	31.15	6.92	38.57
AV	4.874G	33.88	54.00	-20.12	34.38	3	Horizontal	314	1.00	-	31.15	6.92	38.57
PK	7.311G	50.37	74.00	-23.63	45.21	3	Horizontal	6	1.00	-	36.18	8.43	39.45
AV	7.311G	37.52	54.00	-16.48	32.36	3	Horizontal	6	1.00	-	36.18	8.43	39.45



2.4-2.4835GHz\_802.11n\_HT20\_Nss1,(MCS0)\_2TX

2462MHz\_TX

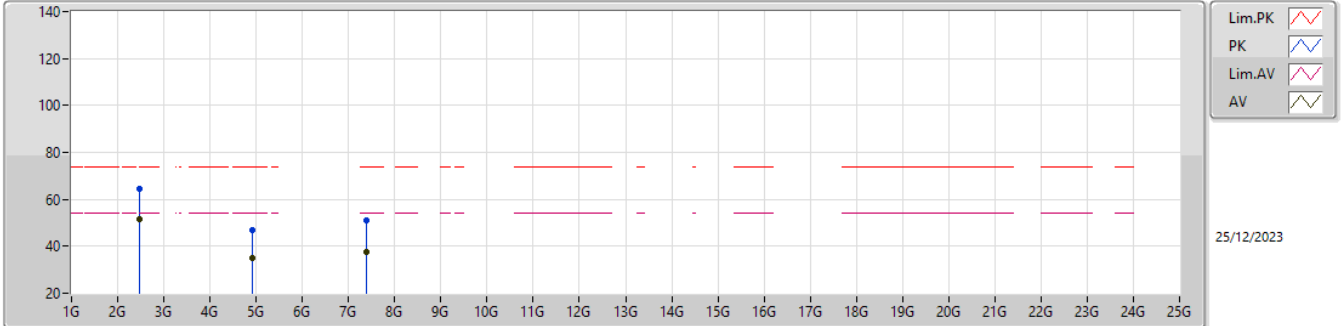


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.4835G	67.10	74.00	-6.90	71.85	3	Vertical	354	2.62	-	27.20	5.06	37.01
AV	2.4835G	52.81	54.00	-1.19	57.56	3	Vertical	354	2.62	-	27.20	5.06	37.01
PK	4.924G	48.16	74.00	-25.84	48.60	3	Vertical	181	1.00	-	31.20	6.96	38.60
AV	4.924G	34.93	54.00	-19.07	35.37	3	Vertical	181	1.00	-	31.20	6.96	38.60
PK	7.386G	50.75	74.00	-23.25	45.72	3	Vertical	9	1.00	-	36.10	8.47	39.54
AV	7.386G	38.12	54.00	-15.88	33.09	3	Vertical	9	1.00	-	36.10	8.47	39.54



2.4-2.4835GHz\_802.11n\_HT20\_Nss1,(MCS0)\_2TX

2462MHz\_TX



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	2.4835G	64.57	74.00	-9.43	69.32	3	Horizontal	341	2.16	-	27.20	5.06	37.01
AV	2.4835G	51.36	54.00	-2.64	56.11	3	Horizontal	341	2.16	-	27.20	5.06	37.01
PK	4.924G	47.07	74.00	-26.93	47.51	3	Horizontal	51	1.00	-	31.20	6.96	38.60
AV	4.924G	35.12	54.00	-18.88	35.56	3	Horizontal	51	1.00	-	31.20	6.96	38.60
PK	7.386G	50.85	74.00	-23.15	45.82	3	Horizontal	12	1.00	-	36.10	8.47	39.54
AV	7.386G	37.59	54.00	-16.41	32.56	3	Horizontal	12	1.00	-	36.10	8.47	39.54

