

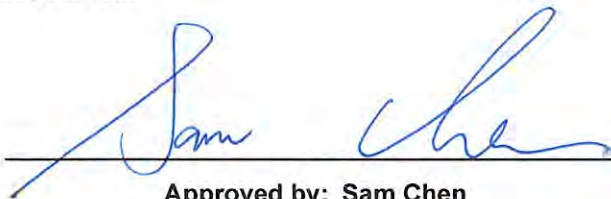


RADIO TEST REPORT

FCC ID : SERAOFN210
Equipment : WiFi module
Brand Name : Sintai
Model Name : AOFN210
Applicant : Sintai Optical (Shenzhen) Co., Ltd.
Qiwei Ind Sec,1st,2nd,&3Rd Bldg,Lisonglang Village
Gongming Town,Bao an District,
Shenzhen,Guangdong,
China
Manufacturer : Sintai Optical (Shenzhen) Co., Ltd.
Qiwei Ind Sec,1st,2nd,&3Rd Bldg,Lisonglang Village
Gongming Town,Bao an District,
Shenzhen,Guangdong,
China
Standard : 47 CFR FCC Part 15.247

The product was received on Nov. 03, 2023, and testing was started from Nov. 03, 2023 and completed on Dec. 04, 2023. We, Sporton International Inc. Hsinchu Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

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



Approved by: Sam Chen

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



Table of Contents

History of this test report.....3

Summary of Test Result.....4

1 General Description5

1.1 Information.....5

1.2 Applicable Standards7

1.3 Testing Location Information7

1.4 Measurement Uncertainty7

2 Test Configuration of EUT8

2.1 Test Channel Mode8

2.2 The Worst Case Measurement Configuration9

2.3 EUT Operation during Test9

2.4 Accessories9

2.5 Support Equipment.....10

2.6 Test Setup Diagram11

3 Transmitter Test Result13

3.1 AC Power-line Conducted Emissions13

3.2 DTS Bandwidth15

3.3 Maximum Conducted Output Power16

3.4 Power Spectral Density19

3.5 Emissions in Non-restricted Frequency Bands21

3.6 Emissions in Restricted Frequency Bands.....22

4 Test Equipment and Calibration Data26

Appendix A. Test Results of AC Power-line Conducted Emissions

Appendix B. Test Results of DTS Bandwidth

Appendix C. Test Results of Maximum Conducted Output Power

Appendix D. Test Results of Power Spectral Density

Appendix E. Test Results of Emissions in Non-restricted Frequency Bands

Appendix F. Test Results of Emissions in Restricted Frequency Bands

Appendix G. Test Photos

Photographs of EUT v01



History of this test report

Report No.	Version	Description	Issued Date
FR3N0301	01	Initial issue of report	Dec. 18, 2023



Summary of Test Result

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

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/manufacture 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: **Vicky Huang**



1 General Description

1.1 Information

1.1.1 RF General Information

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

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

Note:

- ♦ 11b mode uses a combination of DSSS-DBPSK, DQPSK, CCK modulation.
- ♦ 11g, HT20 and HT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
- ♦ BWch is the nominal channel bandwidth.

1.1.2 Antenna Information

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	Shenzhen Fbetter Electronic	S2B4BC3F1B04000	FPC	I-PEX	Note 1
2	ELECTRIC CONNENTOR TECHNOLOGY	81800V576	FPC	I-PEX	

Note1:

Ant.	Port	Gain (dBi)
1	1	-0.98
2	-	-1.39

Note 2: The above information was declared by manufacturer.

Note 3: The EUT has two antennas. Ant. 1~2 are the same type antenna. Only the highest gain Ant. 1 antenna was selected to test and record in this report.

Note 4: For 2.4GHz function:

For IEEE 802.11 b/g/n (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)	1	0	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11g_Nss 1,(6D)	1	0	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11n HT20_Nss 1,(M0)	1	0	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11n HT40_Nss 1,(M0)	1	0	n/a (DC>=0.98)	n/a (DC>=0.98)

Note:

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

1.1.4 EUT Operational Condition

EUT Power Type	From Host System		
Beamforming Function	<input type="checkbox"/> With beamforming	<input checked="" type="checkbox"/>	Without beamforming
Function	<input type="checkbox"/> Point-to-multipoint	<input checked="" type="checkbox"/>	Point-to-point
Test Software Version	Default		

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 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	Serway Lee	21.1-22.5 / 64-69	Nov. 03, 2023~ Nov. 09, 2023
Radiated (below 1G)	03CH01-CB	Chris Li	21.2-22.3 / 56-59	Nov. 07, 2023~ Dec. 04, 2023
Radiated (above 1G)	03CH02-CB		22.4-23.5 / 55-58	
	03CH03-CB		22.7-23.8 / 56-59	
AC Conduction	CO01-CB	Joe Chu	24-25 / 52-53	Dec. 04, 2023

1.4 Measurement Uncertainty

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

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	3.4 dB	Confidence levels of 95%
Radiated Emission (9kHz ~ 30MHz)	3.7 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	5.1 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	Power Setting
802.11b_Nss1,(1Mbps)_1TX	-
2412MHz	63
2437MHz	54
2462MHz	55
802.11g_Nss1,(6Mbps)_1TX	-
2412MHz	63
2437MHz	63
2462MHz	63
802.11n HT20_Nss1,(MCS0)_1TX	-
2412MHz	63
2437MHz	63
2462MHz	63
802.11n HT40_Nss1,(MCS0)_1TX	-
2422MHz	61
2437MHz	63
2452MHz	63



2.2 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
Tests Item	AC power-line conducted emissions
Condition	AC power-line conducted measurement for line and neutral Test Voltage: 120Vac / 60Hz
Operating Mode	CTX
1	EUT

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

The Worst Case Mode for Following Conformance Tests	
Tests Item	Emissions in Restricted Frequency Bands
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.
Operating Mode < 1GHz	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
Operating Mode > 1GHz	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

2.3 EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

2.4 Accessories

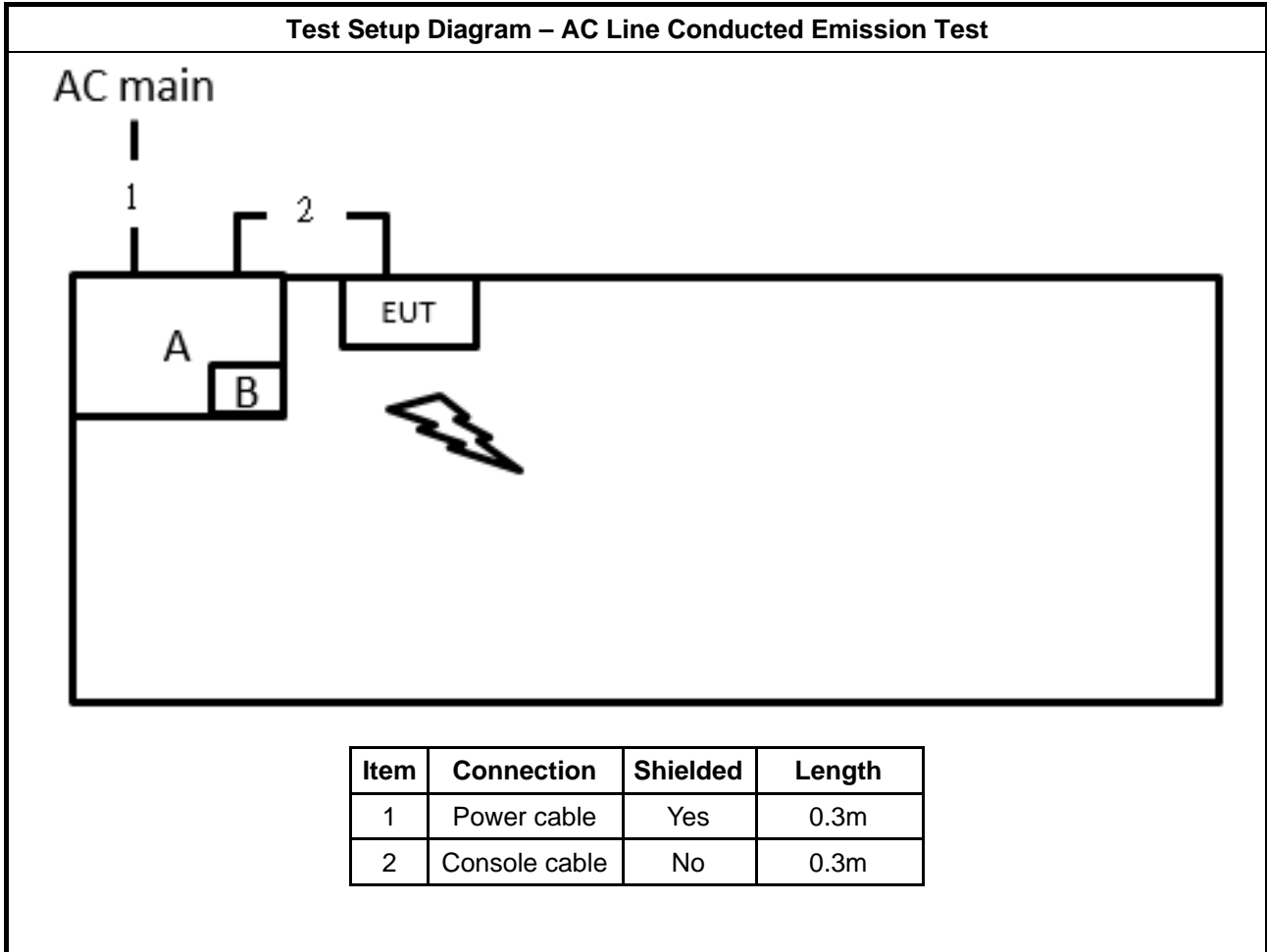
N/A



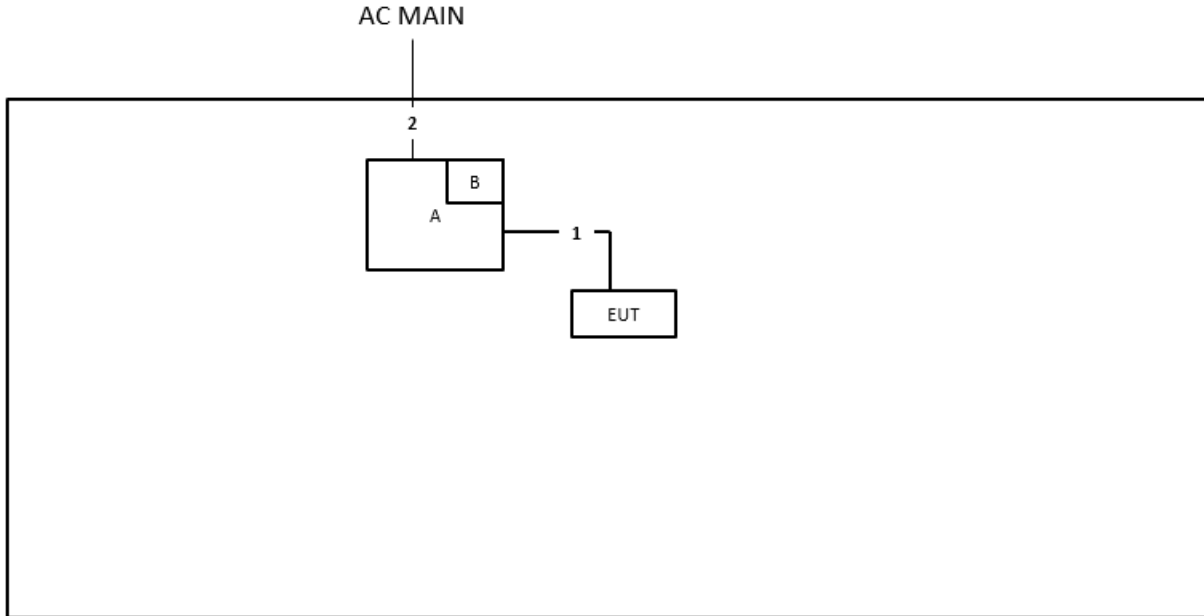
2.5 Support Equipment

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	Test Fixture	KODAK	AZ405	N/A
B	SD Card	Apacer	SD Card	N/A

2.6 Test Setup Diagram



Test Setup Diagram - Radiated Test



Item	Connection	Shielded	Length
1	Console cable	No	0.3m
2	Power cable	No	1.5m



3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

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

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

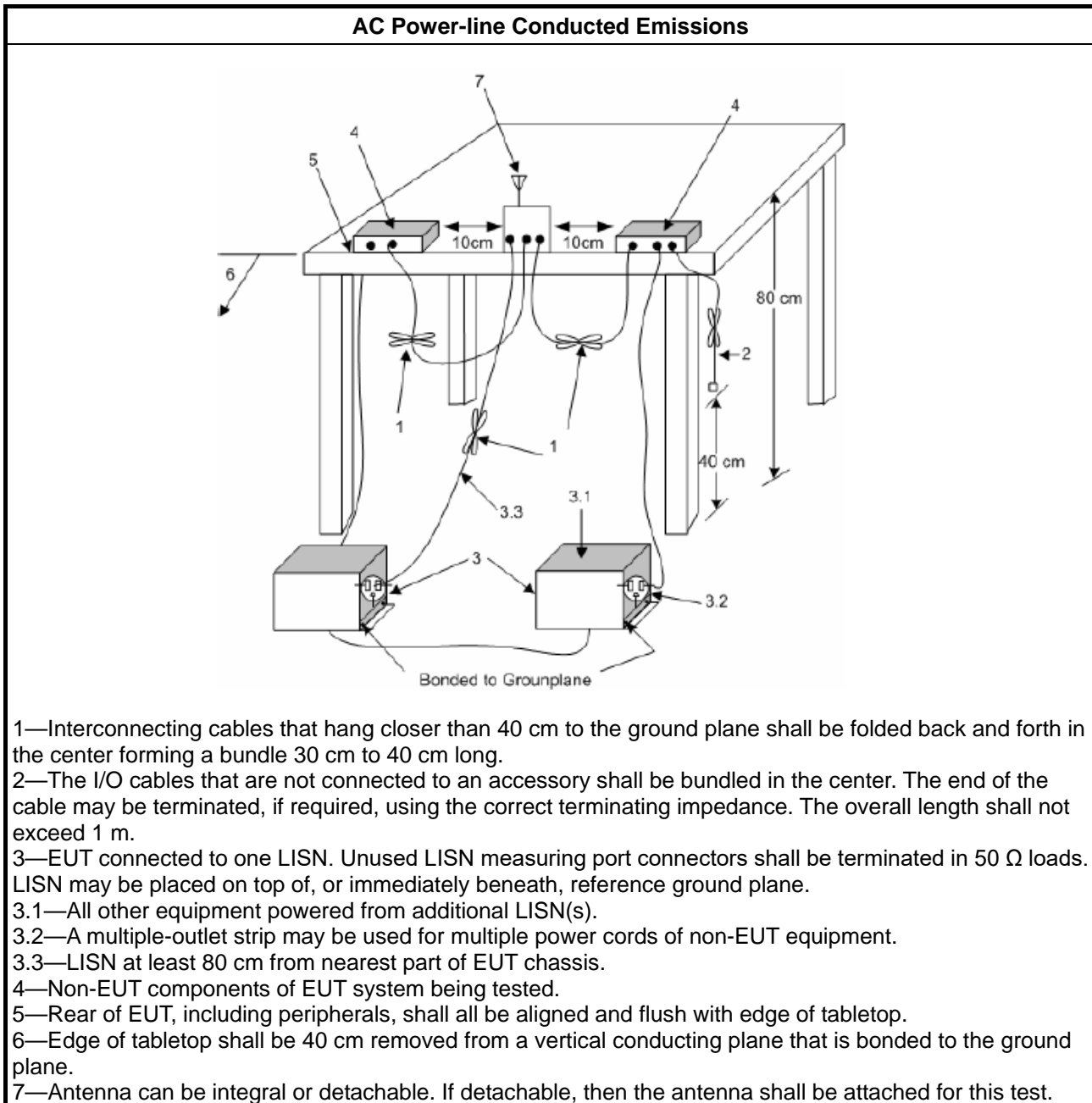
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

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

3.1.4 Test Setup



3.1.5 Measurement Results Calculation

The measured Level is calculated using:

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

3.1.6 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

3.2 DTS Bandwidth

3.2.1 6dB Bandwidth Limit

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

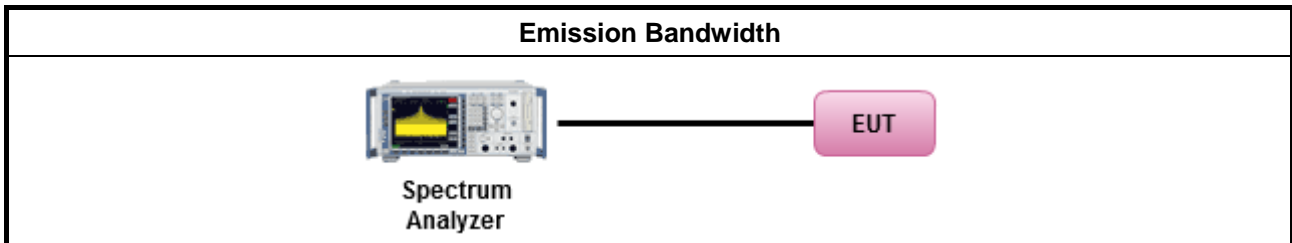
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

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

3.2.4 Test Setup



3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B



3.3 Maximum Conducted Output Power

3.3.1 Maximum Conducted Output Power Limit

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

3.3.2 Measuring Instruments

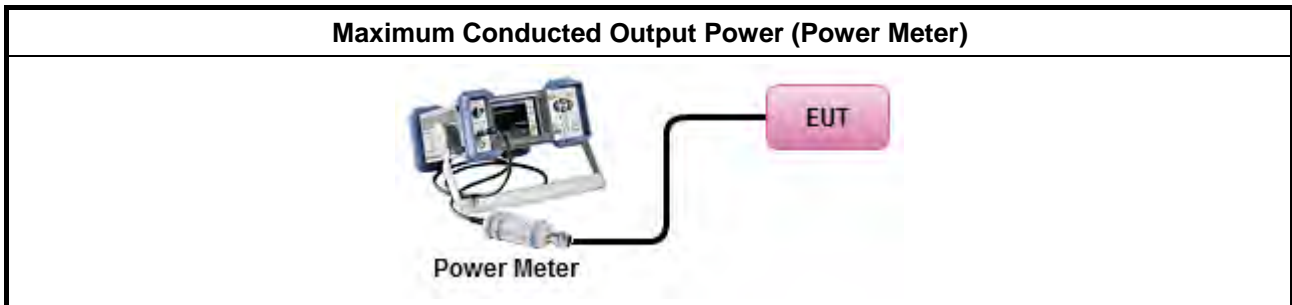
Refer a test equipment and calibration data table in this test report.



3.3.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> ▪ Maximum Peak Conducted Output Power 	
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.3.1.1 & C63.10 clause 11.9.1.1 (RBW ≥ EBW method).
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.3.1.3 & C63.10 clause 11.9.1.3 (peak power meter).
<ul style="list-style-type: none"> ▪ Maximum Conducted Output Power 	
[duty cycle ≥ 98% or external video / power trigger]	
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.2 Method AVGSA-1.
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.3 Method AVGSA-1A. (alternative)
duty cycle < 98% and average over on/off periods with duty factor	
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.4 Method AVGSA-2.
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.5 Method AVGSA-2A (alternative)
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.6 Method AVGSA-3
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.7 Method AVGSA-3A (alternative)
Measurement using a power meter (PM)	
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.3.2.3 & C63.10 clause 11.9.2.3.1 Method AVGPM (using an RF average power meter).
	<input checked="" type="checkbox"/> Refer as FCC KDB 558074, clause 8.3.2.3 & C63.10 clause 11.9.2.3.2 Method AVGPM-G (using an gate RF average power meter).
<ul style="list-style-type: none"> ▪ For conducted measurement. 	
	<ul style="list-style-type: none"> ▪ 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.
	<ul style="list-style-type: none"> ▪ If multiple transmit chains, EIRP calculation could be following as methods: $P_{total} = P_1 + P_2 + \dots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$

3.3.4 Test Setup



3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C



3.4 Power Spectral Density

3.4.1 Power Spectral Density Limit

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

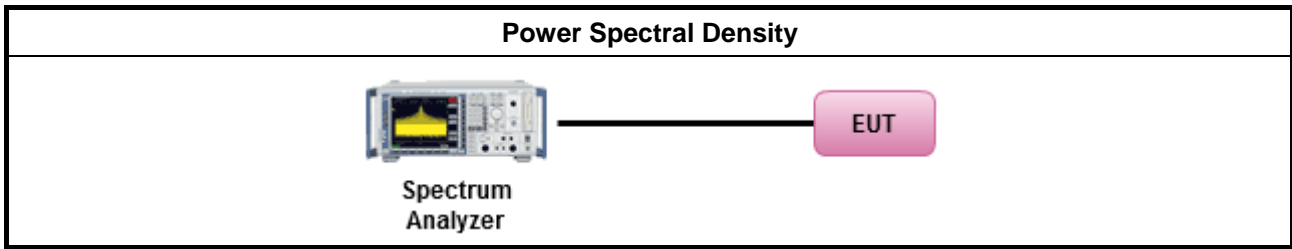
3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

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

3.4.4 Test Setup



3.4.5 Test Result of Power Spectral Density

Refer as Appendix D

3.5 Emissions in Non-restricted Frequency Bands

3.5.1 Emissions in Non-restricted Frequency Bands Limit

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

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

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

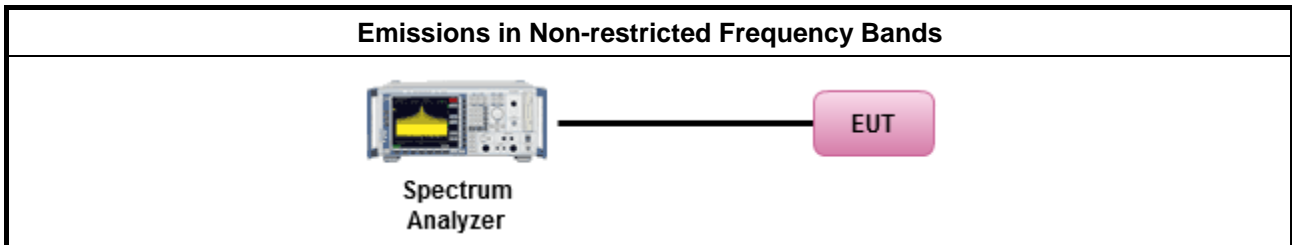
3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

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

3.5.4 Test Setup



3.5.5 Test Result of Emissions in Non-restricted Frequency Bands

Refer as Appendix E



3.6 Emissions in Restricted Frequency Bands

3.6.1 Emissions in Restricted Frequency Bands Limit

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

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

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

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

3.6.2 Measuring Instruments

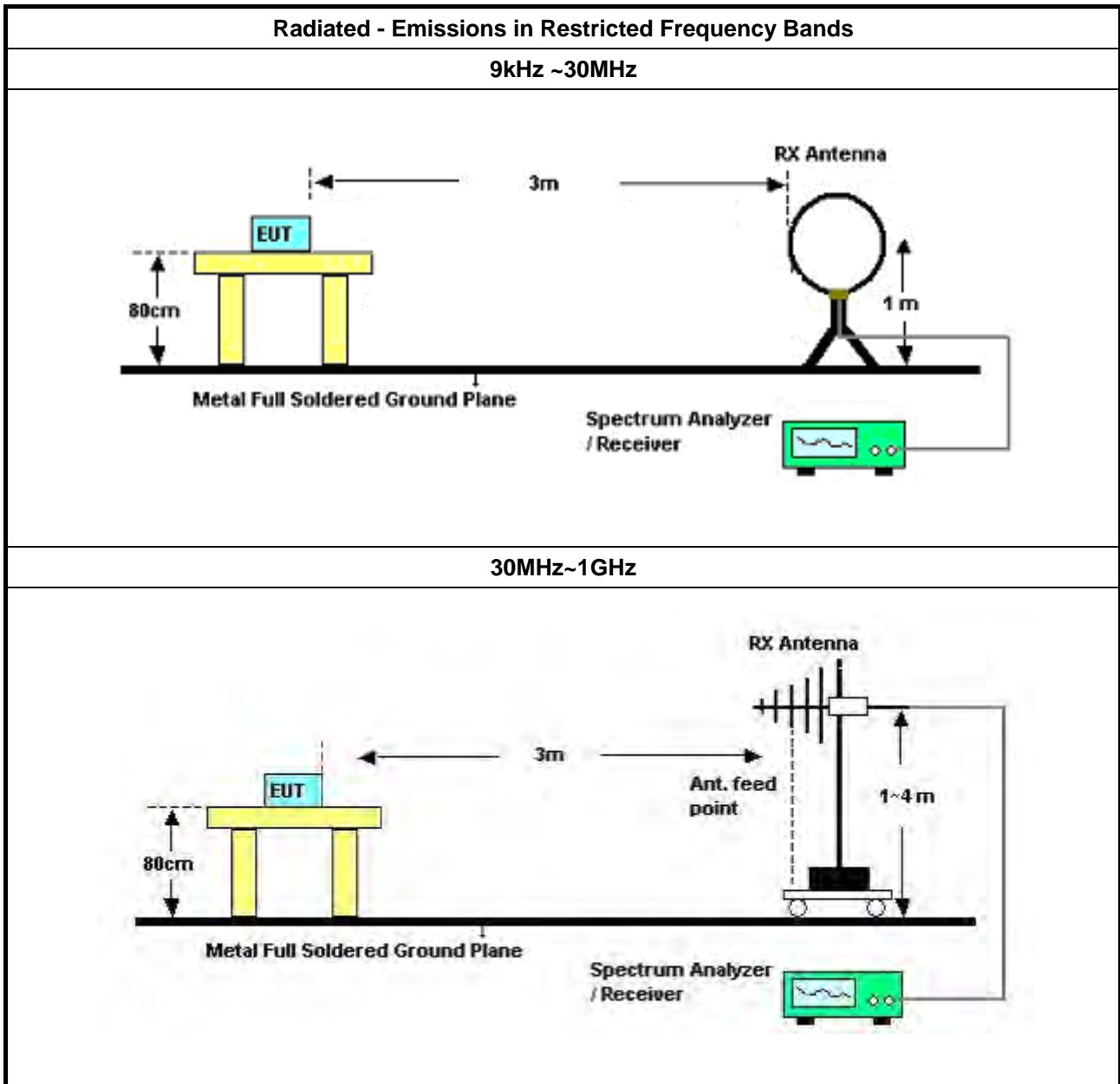
Refer a test equipment and calibration data table in this test report.

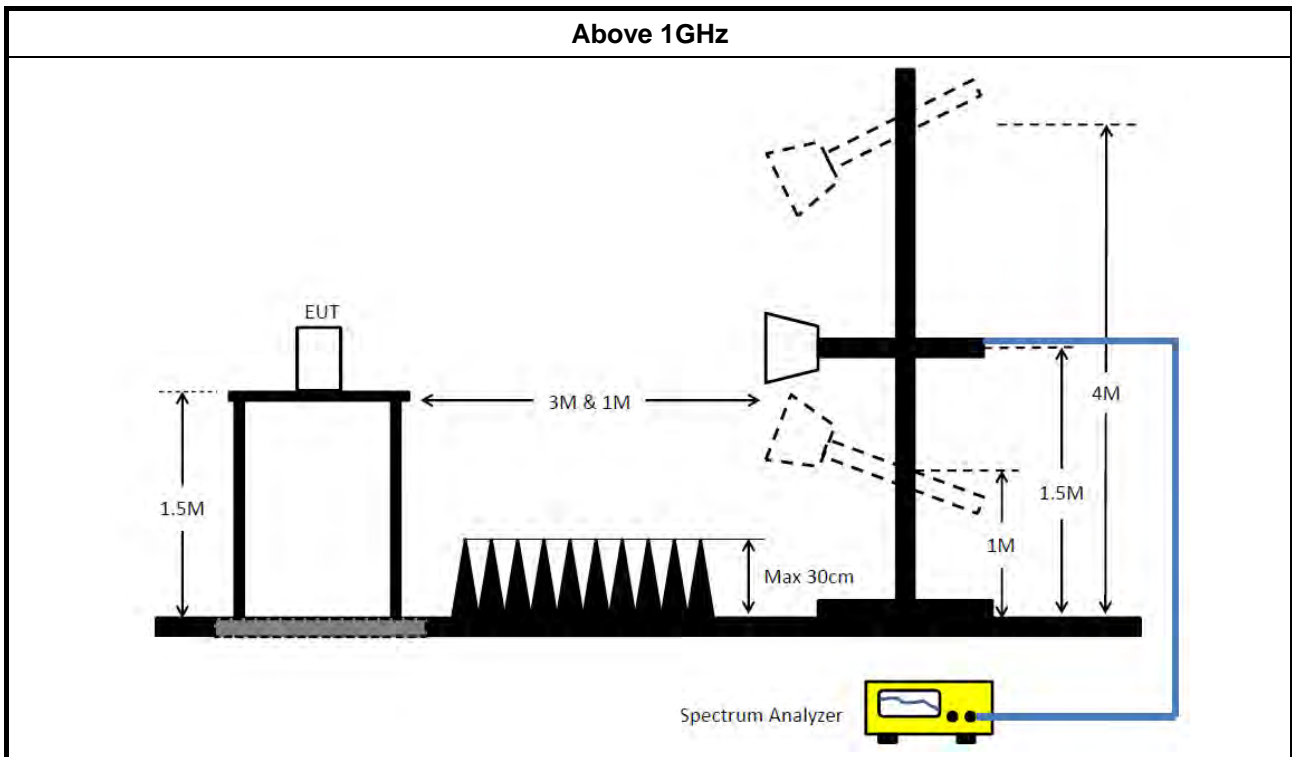


3.6.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> ▪ The average emission levels shall be measured in [duty cycle \geq 98 or duty factor]. 	
<ul style="list-style-type: none"> ▪ 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. 	
<ul style="list-style-type: none"> ▪ For the transmitter unwanted emissions shall be measured using following options below: 	
	<ul style="list-style-type: none"> ▪ Refer as FCC KDB 558074, clause 8.6 for unwanted emissions into restricted bands.
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.1(trace averaging for duty cycle \geq 98%).
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.2(trace averaging + duty factor).
	<input checked="" type="checkbox"/> Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.3(Reduced VBW \geq 1/T).
	<input type="checkbox"/> Refer as ANSI C63.10, clause 11.12.2.5.3 (Reduced VBW). VBW \geq 1/T, where T is pulse time.
	<input type="checkbox"/> Refer as ANSI C63.10, clause 7.5 average value of pulsed emissions.
	<input checked="" type="checkbox"/> Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.4 measurement procedure peak limit.
<ul style="list-style-type: none"> ▪ For the transmitter band-edge emissions shall be measured using following options below: 	
	<ul style="list-style-type: none"> ▪ Refer as FCC KDB 558074 clause 8.7 & 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.
	<ul style="list-style-type: none"> ▪ Refer as FCC KDB 558074, clause 8.7 (ANSI C63.10, clause 6.10.6) for marker-delta method for band-edge measurements.
	<ul style="list-style-type: none"> ▪ 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).
	<ul style="list-style-type: none"> ▪ For conducted unwanted emissions into restricted bands (absolute emission limits). Devices with multiple transmit chains using options given below: (1) Measure and sum the spectra across the outputs or (2) Measure and add 10 log(N) dB
	<ul style="list-style-type: none"> ▪ 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.

3.6.4 Test Setup





3.6.5 Measurement Results Calculation

The measured Level is calculated using:

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

3.6.6 Emissions in Restricted Frequency Bands (Below 30MHz)

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

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

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

3.6.7 Test Result of Emissions in Restricted Frequency Bands

Refer as Appendix F



4 Test Equipment and Calibration Data

Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
EMI Receiver	Agilent	N9038A	My52260123	9kHz ~ 8.4GHz	Feb. 20, 2023	Feb. 19, 2024	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-50-16-2	04083	150kHz ~ 100MHz	Feb. 16, 2023	Feb. 15, 2024	Conduction (CO01-CB)
LISN	Schwarzbeck	NSLK 8127	8127647	9kHz ~ 30MHz	Apr. 27, 2023	Apr. 26, 2024	Conduction (CO01-CB)
Pulse Limiter	Rohde&Schwarz	ESH3-Z2	100430	9kHz ~ 30MHz	Feb. 09, 2023	Feb. 08, 2024	Conduction (CO01-CB)
COND Cable	Woken	Cable	Low cable-CO01	9kHz ~ 30MHz	Oct. 17, 2023	Oct. 16, 2024	Conduction (CO01-CB)
Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conduction (CO01-CB)
Loop Antenna	Teseq	HLA 6121	65417	9kHz - 30 MHz	Oct. 13, 2023	Oct. 12, 2024	Radiation (03CH01-CB)
3m Semi Anechoic Chamber NSA	TDK	SAC-3M	03CH01-CB	30 MHz ~ 1 GHz	Jan. 16, 2023	Jan. 15, 2024	Radiation (03CH01-CB)
BILOG ANTENNA with 6dB Attenuator	TESEQ & EMC1	CBL6112D N-6-06	37880 & AT-N0609	20MHz ~ 2GHz	Feb. 19, 2023	Feb. 18, 2024	Radiation (03CH01-CB)
Pre-Amplifier	SGH	SGH0301	20230109-2	10M~1GHz	Jun. 23, 2023	Jun. 22, 2024	Radiation (03CH01-CB)
Signal Analyzer	R&S	FSV3044	101437	10kHz ~ 44GHz	Nov. 29, 2022	Nov. 29, 2023	Radiation (03CH01-CB)
Signal Analyzer	R&S	FSV3044	101437	10kHz ~ 44GHz	Nov. 28, 2023	Nov. 27, 2024	Radiation (03CH01-CB)
EMI Test Receiver	R&S	ESCS	826547/017	9kHz ~ 2.75GHz	Jun. 13, 2023	Jun. 12, 2024	Radiation (03CH01-CB)
RF Cable-low	Woken	RG402	Low Cable-31+32	30 MHz ~ 1 GHz	Nov. 06, 2023	Nov. 05, 2024	Radiation (03CH01-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH01-CB)
3m Semi Anechoic Chamber VSWR	RIKEN	SAC-3M	03CH02-CB	1GHz ~18GHz	Mar. 25, 2023	Mar. 24, 2024	Radiation (03CH02-CB)
Horn Antenna	EMCO	3115	9610-4976	1GHz ~ 18GHz	Apr. 18, 2023	Apr. 17, 2024	Radiation (03CH02-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Sep. 04, 2023	Sep. 03, 2024	Radiation (03CH02-CB)
Pre-Amplifier	Agilent	83017A	MY39501305	1GHz ~ 26.5GHz	Jun. 30, 2023	Jun. 29, 2024	Radiation (03CH02-CB)
Spectrum analyzer	R&S	FSU	100015	9kHz~26GHz	Dec. 05, 2022	Dec. 04, 2023	Radiation (03CH02-CB)
RF Cable-high	Woken	RG402	High Cable-18	1GHz ~ 18GHz	Oct. 02, 2023	Oct. 01, 2024	Radiation (03CH02-CB)



Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
RF Cable-high	Woken	RG402	High Cable-18+19	1GHz ~ 18GHz	Oct. 02, 2023	Oct. 01, 2024	Radiation (03CH02-CB)
High Cable	Woken	WCA0929M	40G#5+6	1GHz ~ 40 GHz	Oct. 02, 2023	Oct. 01, 2024	Radiation (03CH02-CB)
High Cable	Woken	WCA0929M	40G#5	1GHz ~ 40 GHz	Oct. 02, 2023	Oct. 01, 2024	Radiation (03CH02-CB)
High Cable	Woken	WCA0929M	40G#6	1GHz ~ 40 GHz	Oct. 02, 2023	Oct. 01, 2024	Radiation (03CH02-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH02-CB)
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH03-CB	1GHz ~18GHz 3m	May 04, 2023	May 03, 2024	Radiation (03CH03-CB)
Horn Antenna	ETS • Lindgren	3115	6821	750MHz~18GHz	Feb. 03, 2023	Feb. 02, 2024	Radiation (03CH03-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Sep. 04, 2023	Sep. 03, 2024	Radiation (03CH03-CB)
Pre-Amplifier	Agilent	8449B	3008A02097	1GHz ~ 26.5GHz	Jun. 30, 2023	Jun. 29, 2024	Radiation (03CH03-CB)
Spectrum Analyzer	R&S	FSP40	100019	9kHz ~ 40GHz	Jun. 12, 2023	Jun. 11, 2024	Radiation (03CH03-CB)
RF Cable-high	Woken	RG402	High Cable-20+29	1GHz ~ 18GHz	Nov. 07, 2023	Nov. 06, 2024	Radiation (03CH03-CB)
RF Cable-high	Woken	RG402	High Cable-29	1GHz ~ 18GHz	Nov. 07, 2023	Nov. 06, 2024	Radiation (03CH03-CB)
High Cable	Woken	WCA0929M	40G#5+6	1GHz ~ 40 GHz	Oct. 02, 2023	Oct. 01, 2024	Radiation (03CH03-CB)
High Cable	Woken	WCA0929M	40G#5	1GHz ~ 40 GHz	Oct. 02, 2023	Oct. 01, 2024	Radiation (03CH03-CB)
High Cable	Woken	WCA0929M	40G#6	1GHz ~ 40 GHz	Oct. 02, 2023	Oct. 01, 2024	Radiation (03CH03-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH03-CB)
Spectrum analyzer	R&S	FSV40	101027	9kHz~40GHz	Aug. 14, 2023	Aug. 13, 2024	Conducted (TH02-CB)
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)



Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
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	1GHz~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)

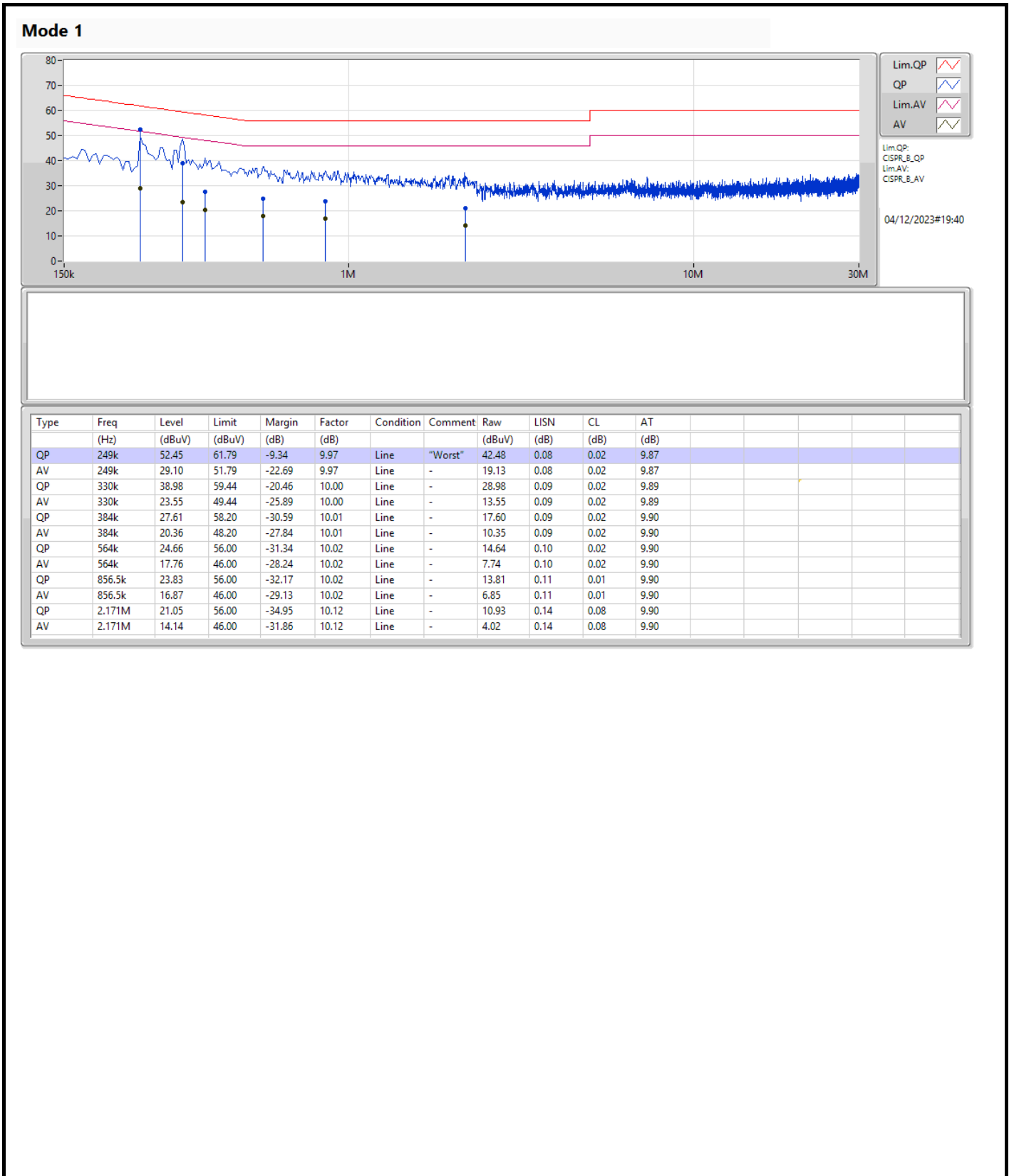
Note: Calibration Interval of instruments listed above is one year.

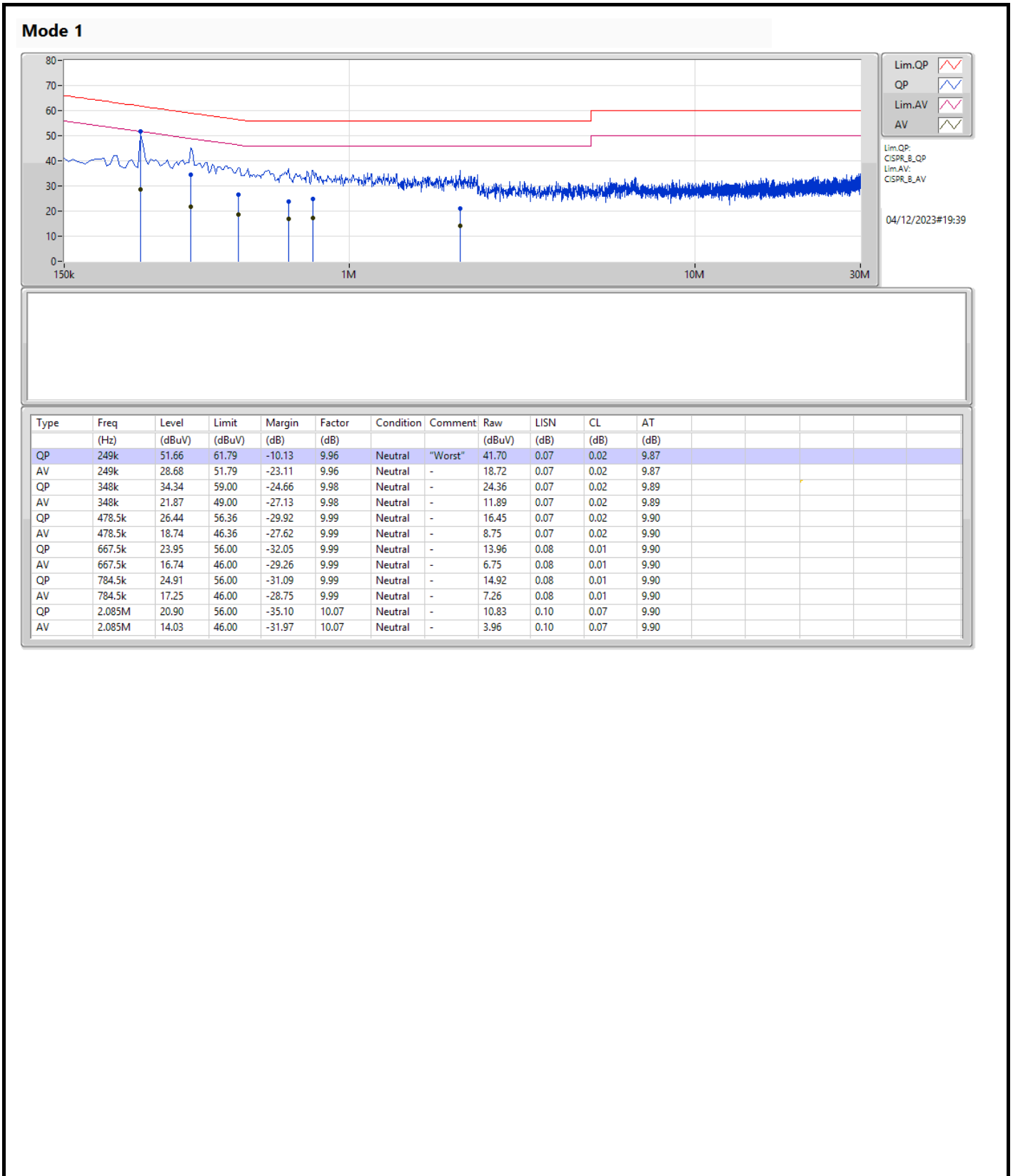
NCR means Non-Calibration required.



Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	QP	249k	52.45	61.79	-9.34	Line







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	8.6M	13.631M	13M6G1D	8.575M	13.377M
802.11g_Nss1,(6Mbps)_1TX	16.55M	16.76M	16M8D1D	16.5M	16.542M
802.11n HT20_Nss1,(MCS0)_1TX	17.775M	17.798M	17M8D1D	17.725M	17.546M
802.11n HT40_Nss1,(MCS0)_1TX	36.4M	36.251M	36M3D1D	36.4M	36.148M

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	8.575M	13.631M
2437MHz	Pass	500k	8.6M	13.377M
2462MHz	Pass	500k	8.575M	13.392M
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	16.55M	16.76M
2437MHz	Pass	500k	16.525M	16.625M
2462MHz	Pass	500k	16.5M	16.542M
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-
2412MHz	Pass	500k	17.775M	17.798M
2437MHz	Pass	500k	17.725M	17.669M
2462MHz	Pass	500k	17.725M	17.546M
802.11n HT40_Nss1,(MCS0)_1TX	-	-	-	-
2422MHz	Pass	500k	36.4M	36.148M
2437MHz	Pass	500k	36.4M	36.218M
2452MHz	Pass	500k	36.4M	36.251M

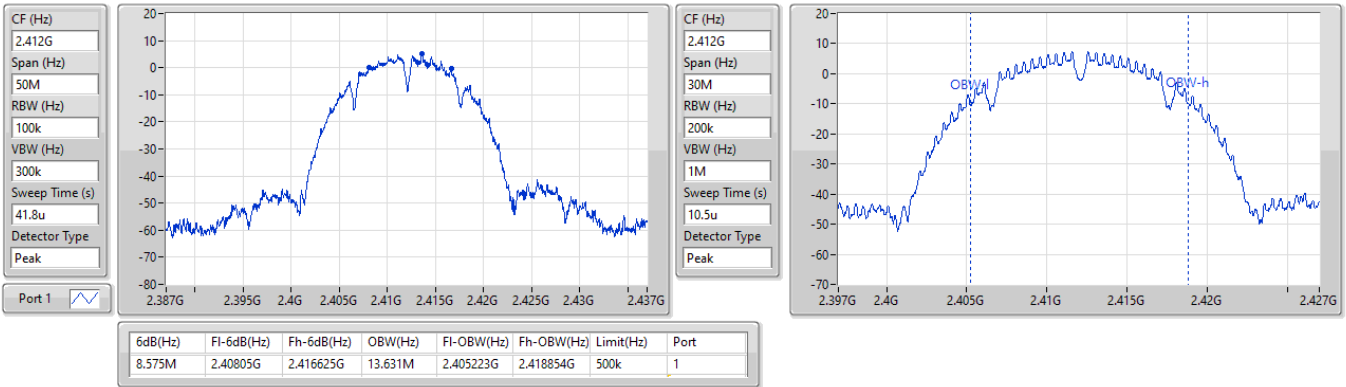
Port X-N dB = Port X 6dB down bandwidth;
 Port X-OBW = Port X 99% occupied bandwidth

2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_1TX

EBW

2412MHz

03/11/2023

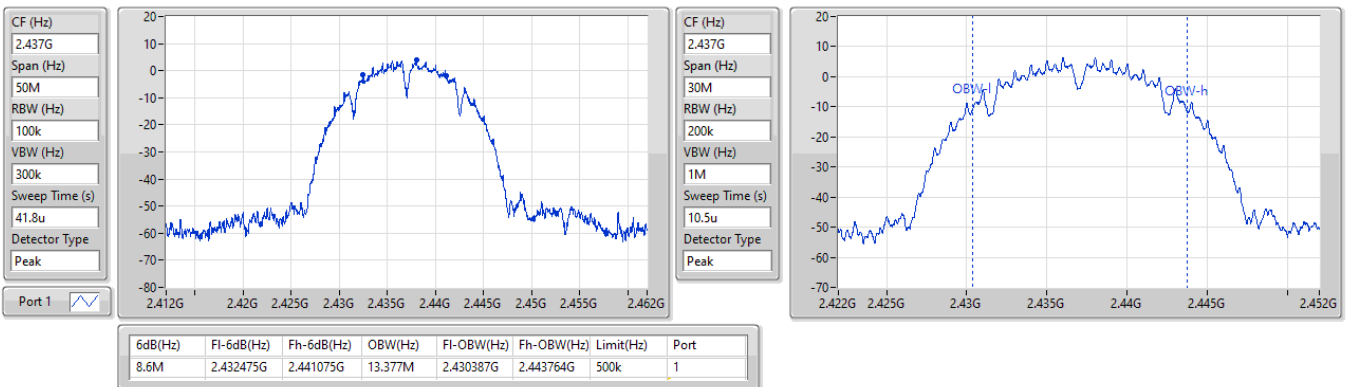


2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_1TX

EBW

2437MHz

03/11/2023

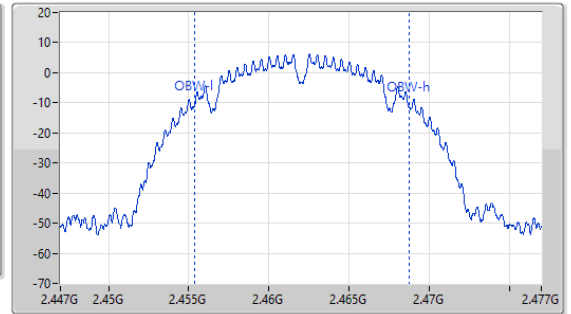
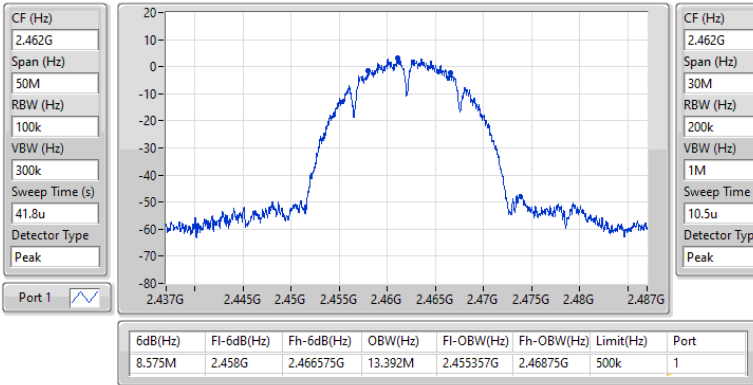


2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_1TX

EBW

2462MHz

03/11/2023

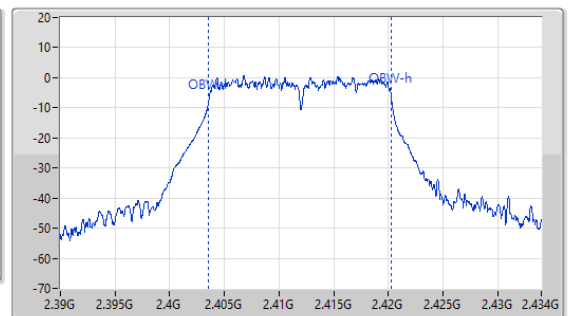
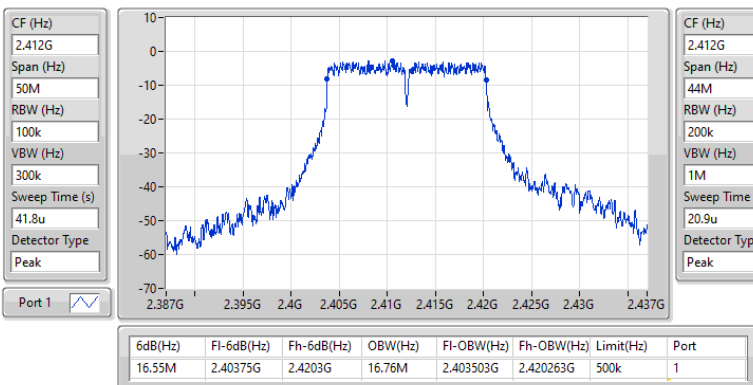


2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_1TX

EBW

2412MHz

03/11/2023

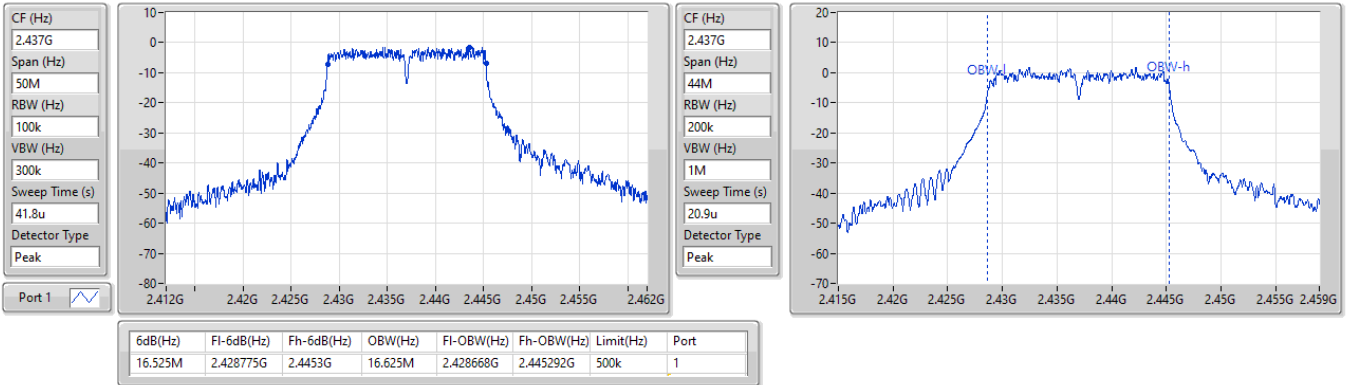


2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_1TX

EBW

2437MHz

03/11/2023

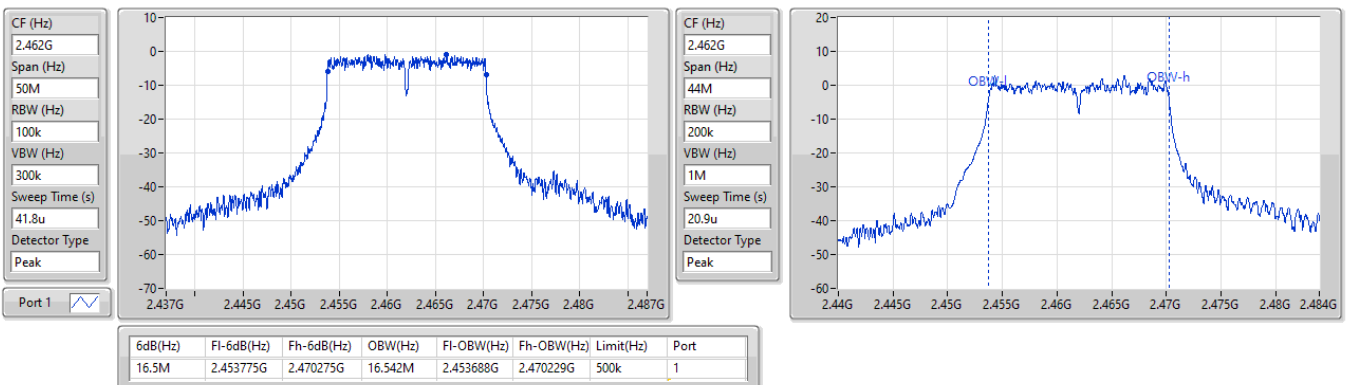


2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_1TX

EBW

2462MHz

03/11/2023

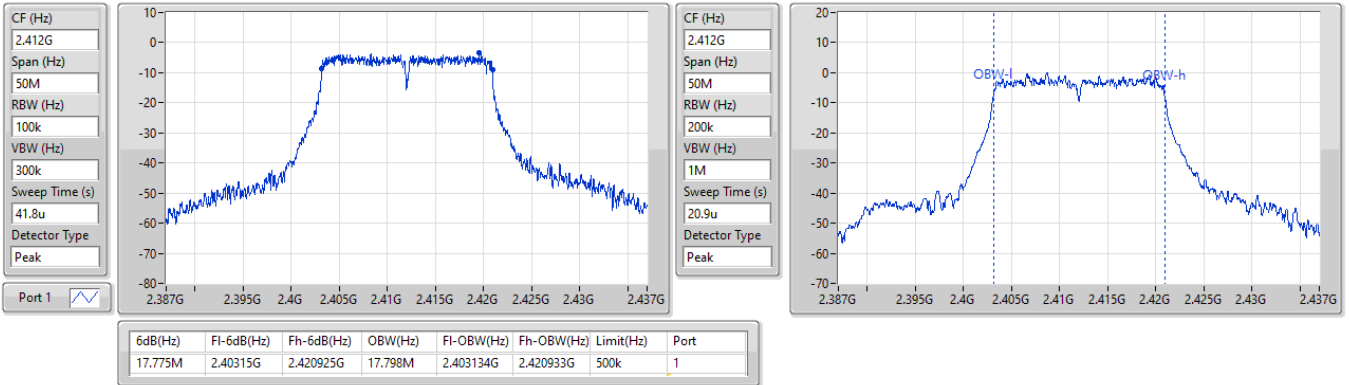


2.4-2.4835GHz_802.11n HT20_Nss1,(MCS0)_1TX

EBW

2412MHz

03/11/2023

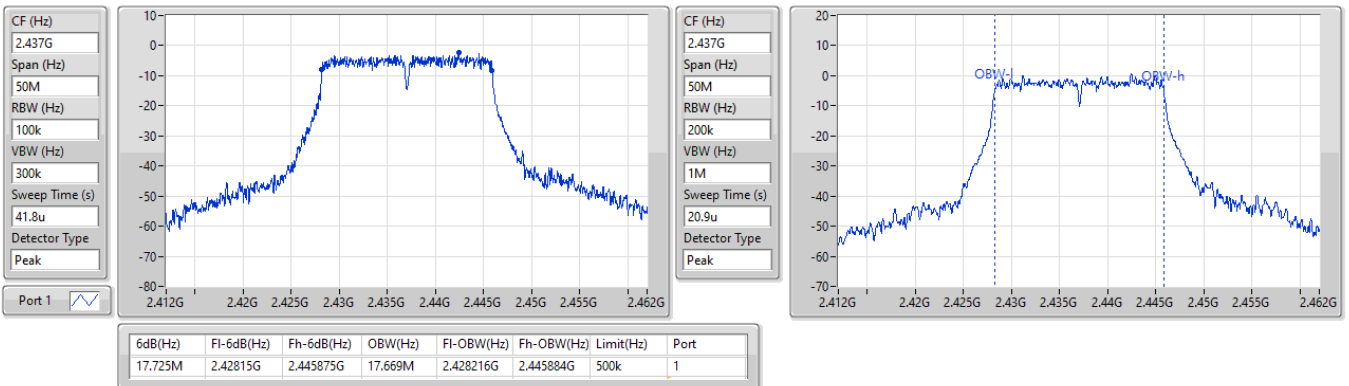


2.4-2.4835GHz_802.11n HT20_Nss1,(MCS0)_1TX

EBW

2437MHz

03/11/2023

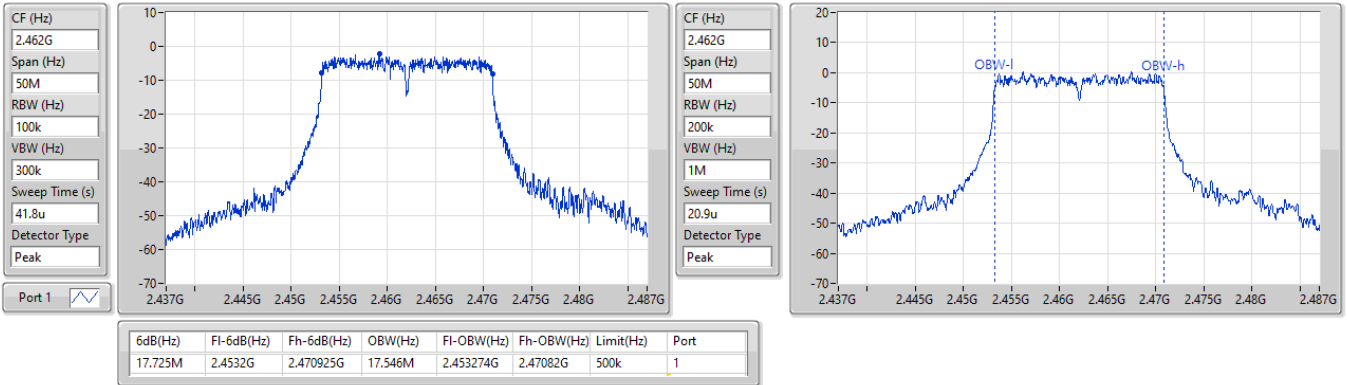


2.4-2.4835GHz_802.11n HT20_Nss1,(MCS0)_1TX

EBW

2462MHz

03/11/2023

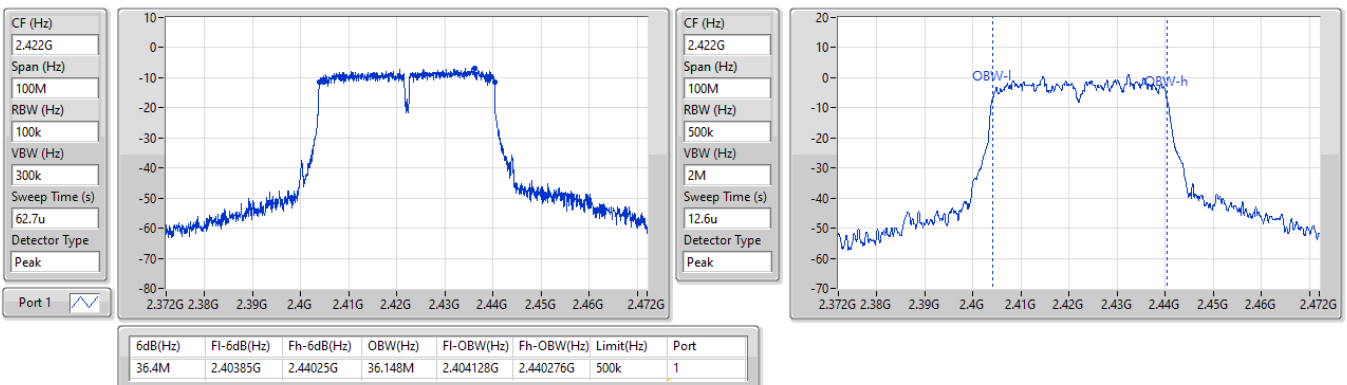


2.4-2.4835GHz_802.11n HT40_Nss1,(MCS0)_1TX

EBW

2422MHz

03/11/2023

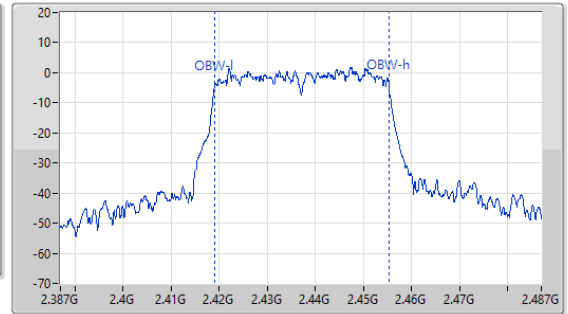
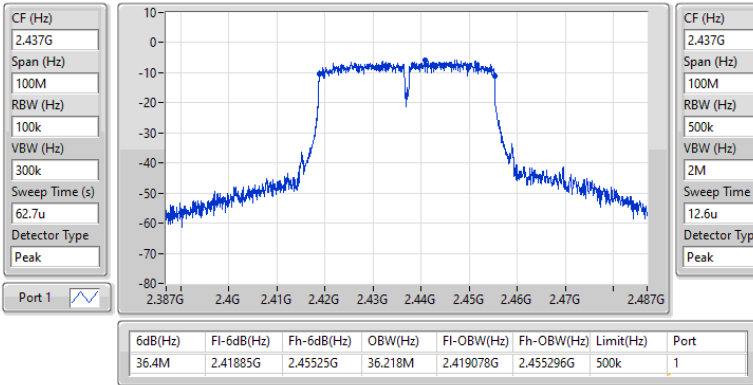


2.4-2.4835GHz_802.11n HT40_Nss1,(MCS0)_1TX

EBW

2437MHz

03/11/2023

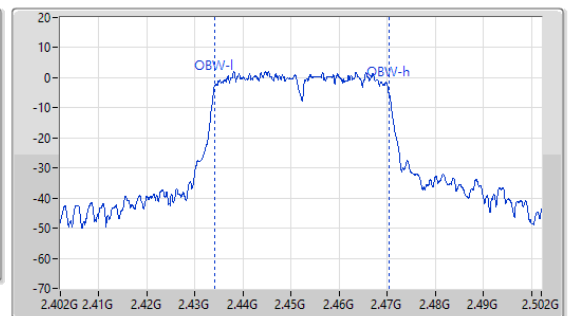
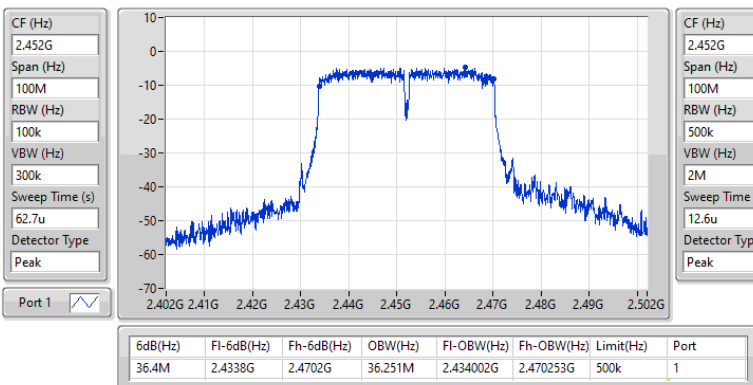


2.4-2.4835GHz_802.11n HT40_Nss1,(MCS0)_1TX

EBW

2452MHz

03/11/2023





Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11b_Nss1,(1Mbps)_1TX	15.72	0.03733
802.11g_Nss1,(6Mbps)_1TX	12.81	0.01910
802.11n HT20_Nss1,(MCS0)_1TX	12.43	0.01750
802.11n HT40_Nss1,(MCS0)_1TX	12.46	0.01762



Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	-0.98	15.72	15.72	30.00
2437MHz	Pass	-0.98	13.55	13.55	30.00
2462MHz	Pass	-0.98	13.65	13.65	30.00
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	-0.98	12.47	12.47	30.00
2437MHz	Pass	-0.98	12.81	12.81	30.00
2462MHz	Pass	-0.98	12.65	12.65	30.00
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-	-
2412MHz	Pass	-0.98	12.27	12.27	30.00
2437MHz	Pass	-0.98	12.43	12.43	30.00
2462MHz	Pass	-0.98	12.32	12.32	30.00
802.11n HT40_Nss1,(MCS0)_1TX	-	-	-	-	-
2422MHz	Pass	-0.98	11.23	11.23	30.00
2437MHz	Pass	-0.98	12.46	12.46	30.00
2452MHz	Pass	-0.98	12.40	12.40	30.00

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



Summary

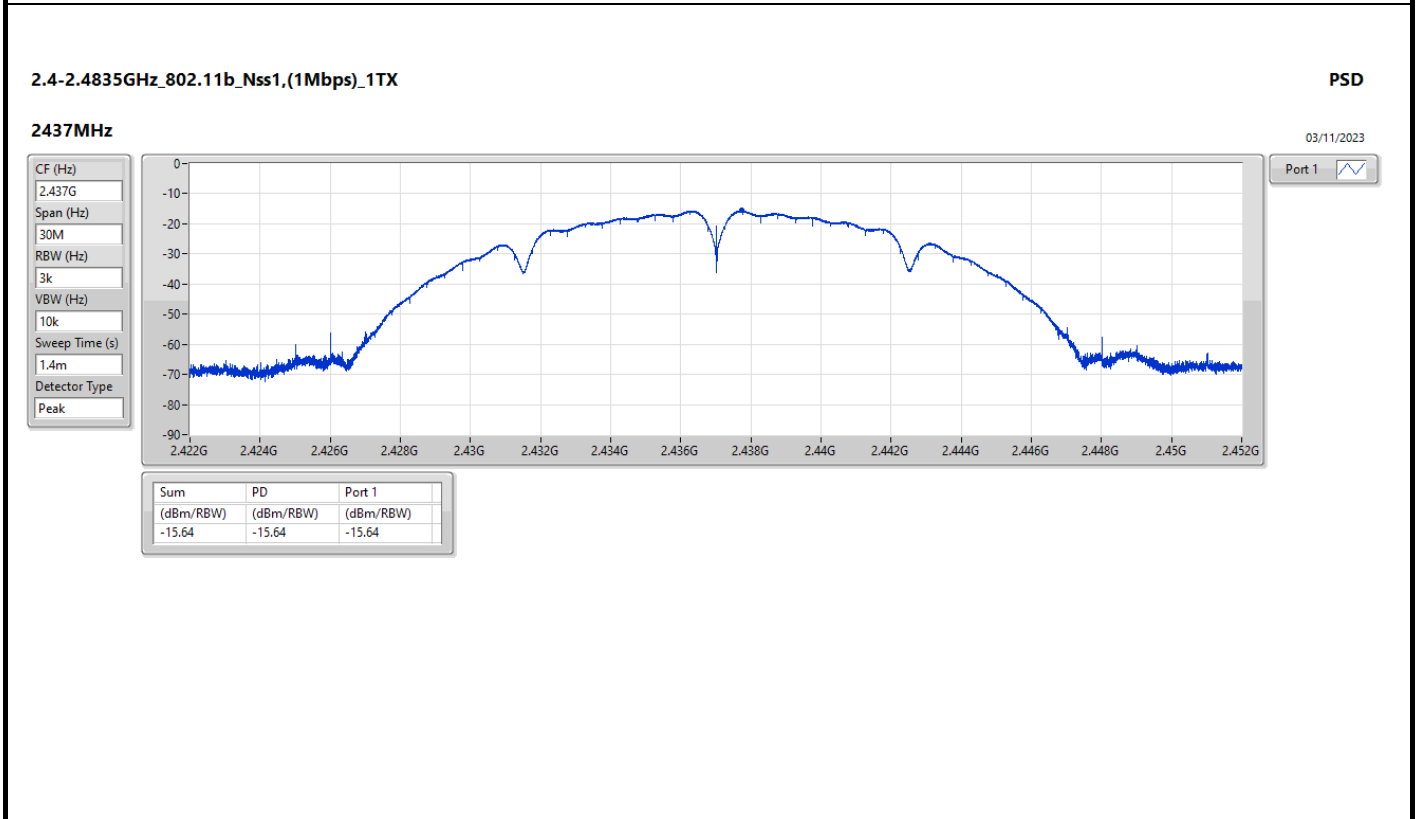
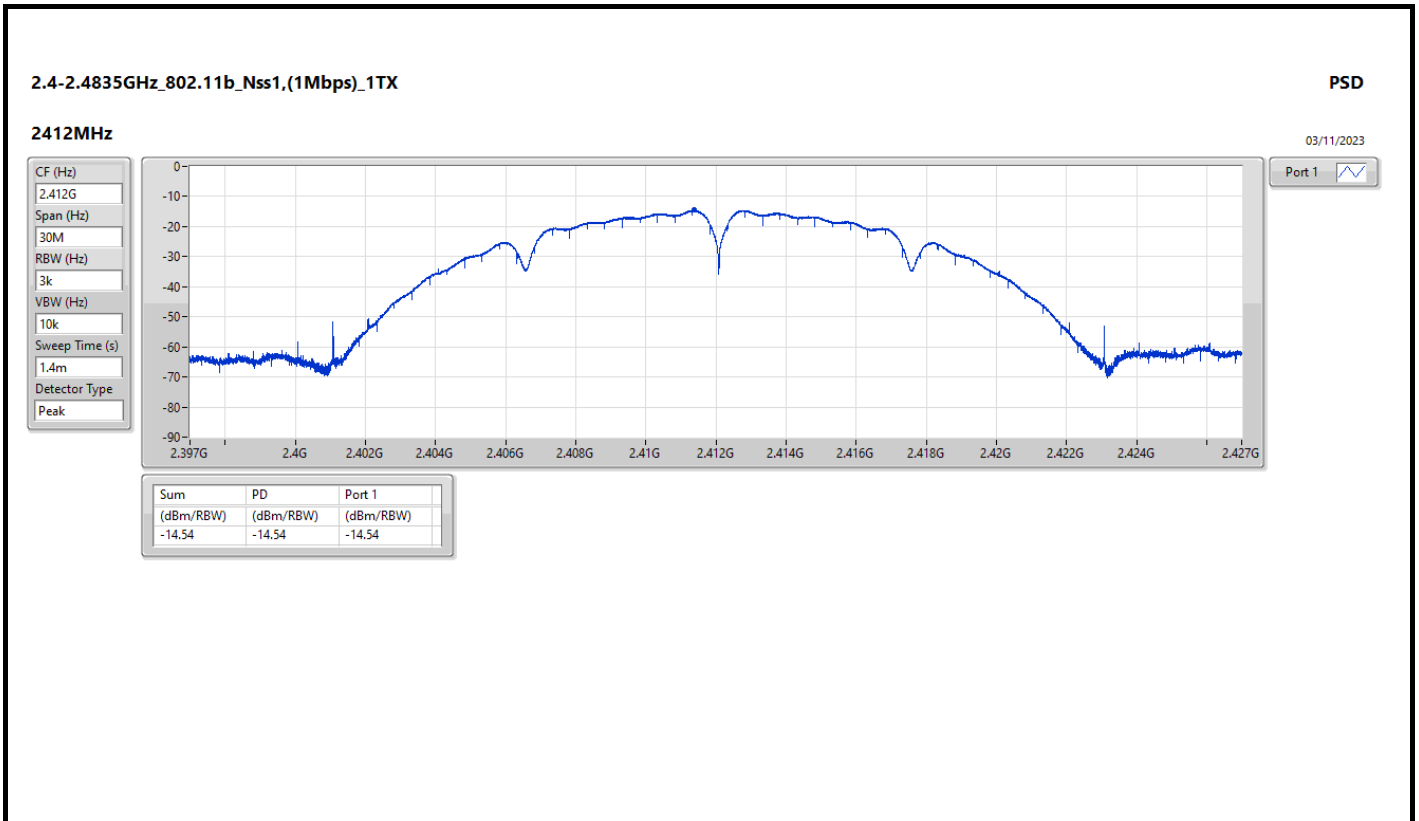
Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
802.11b_Nss1,(1Mbps)_1TX	-14.54
802.11g_Nss1,(6Mbps)_1TX	-15.17
802.11n HT20_Nss1,(MCS0)_1TX	-14.78
802.11n HT40_Nss1,(MCS0)_1TX	-15.39

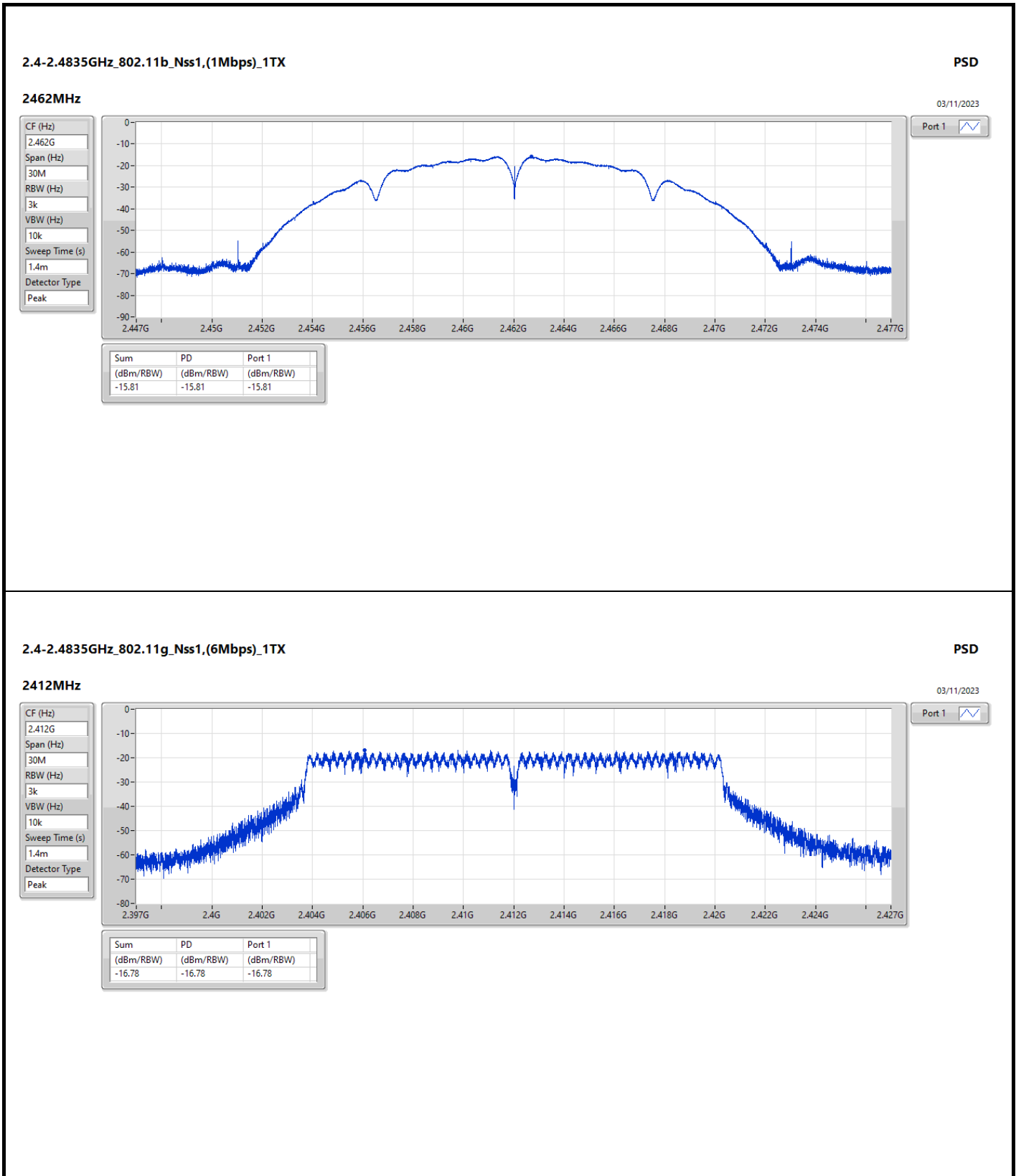
RBW = 3kHz;

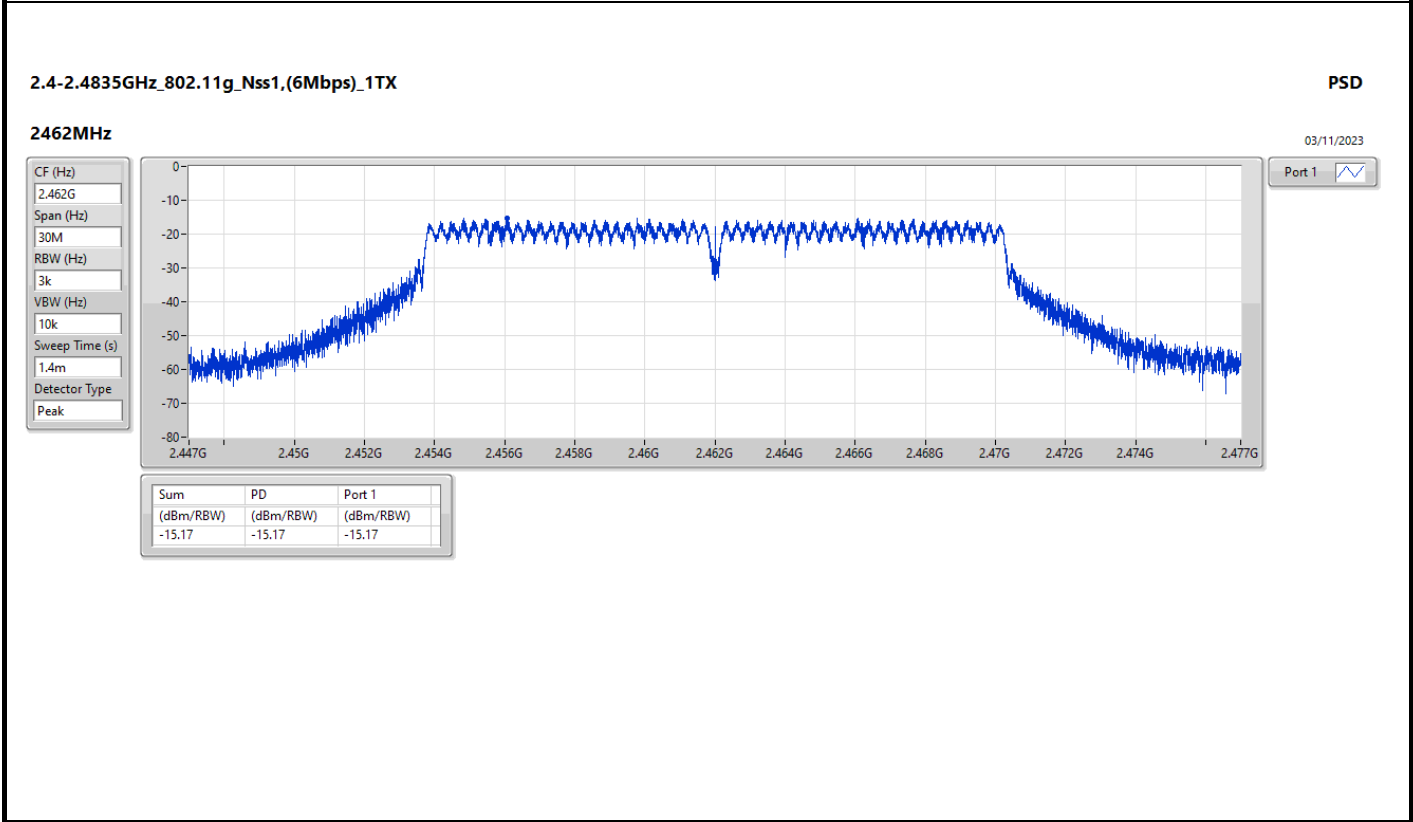
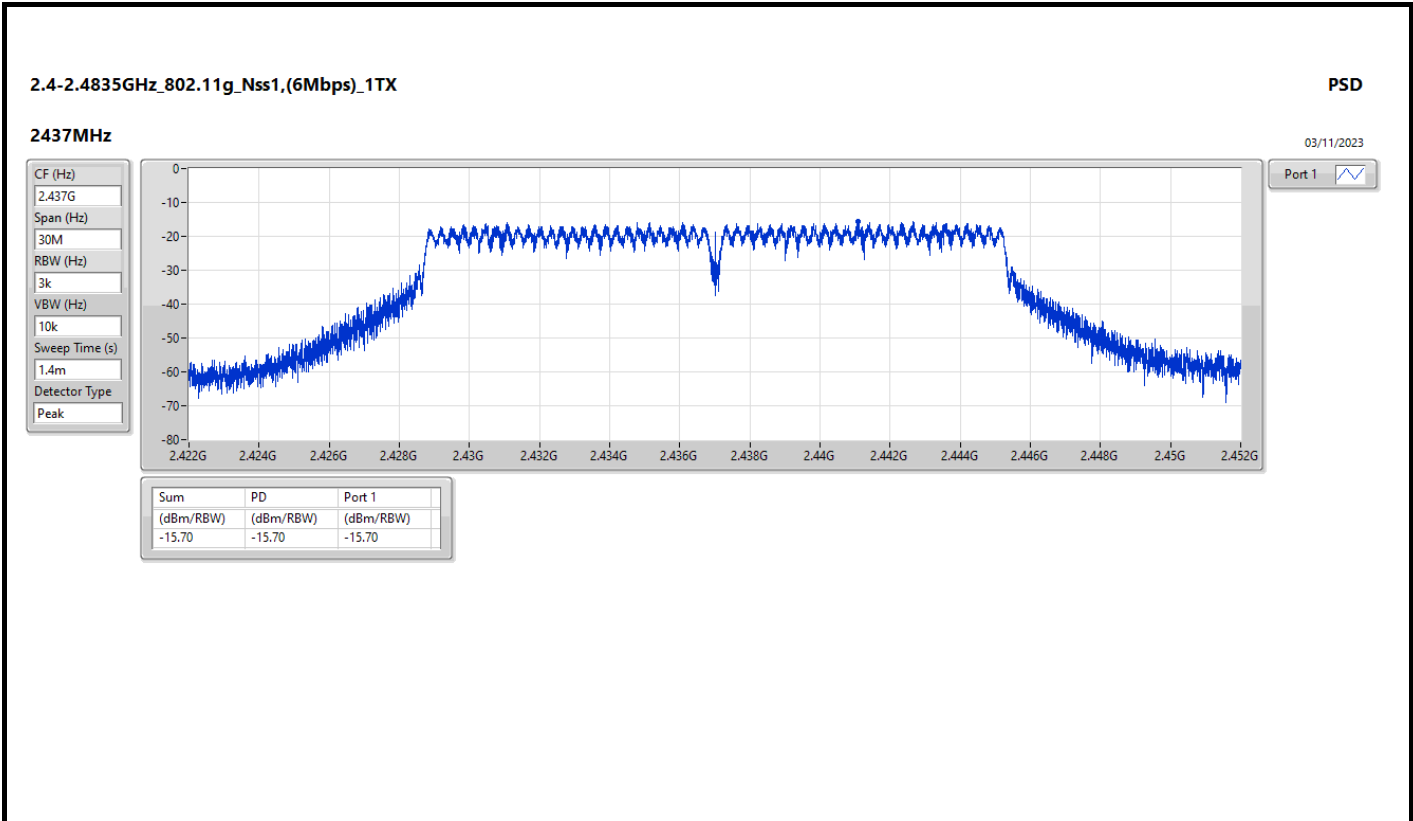
Result

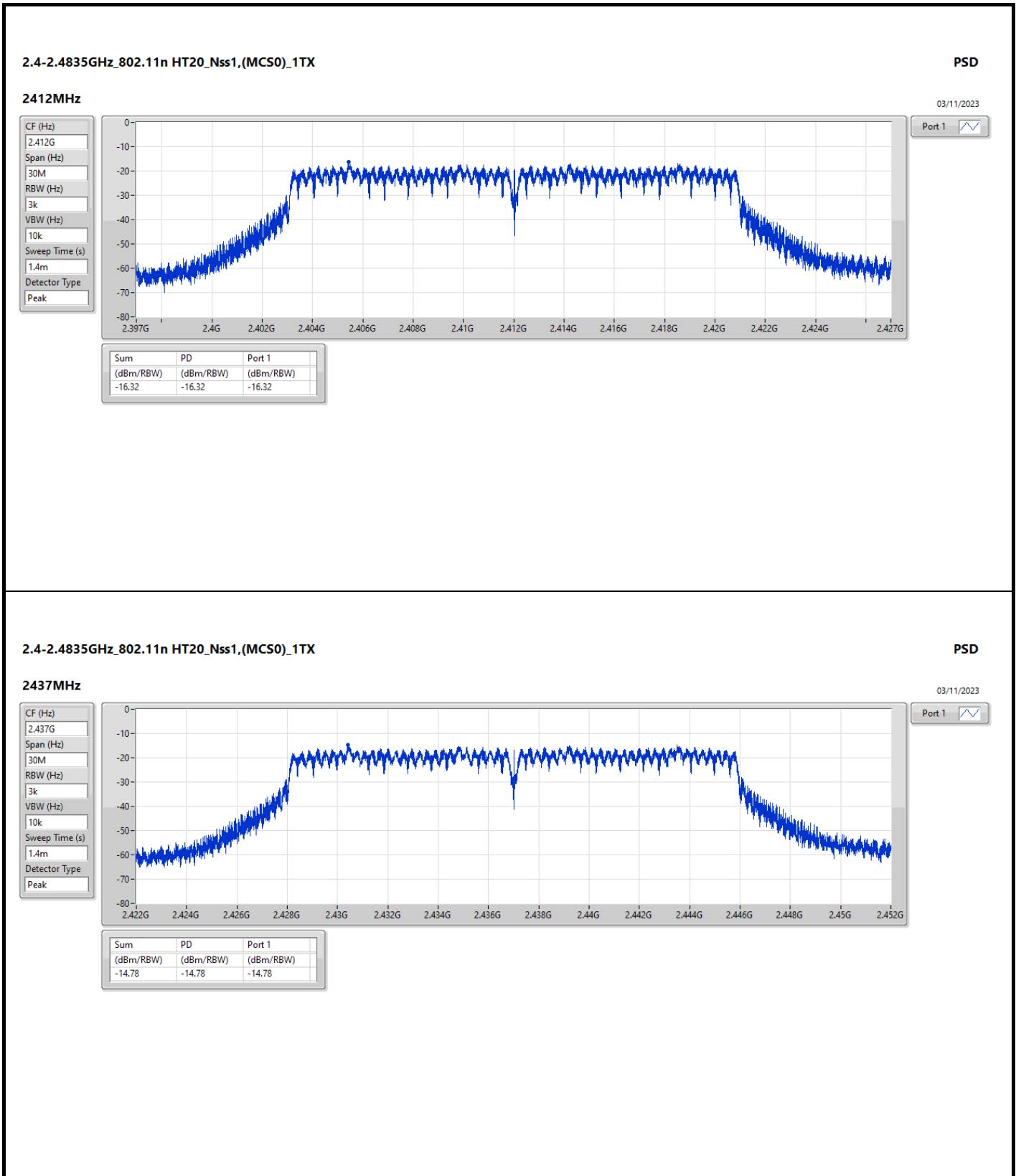
Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	-0.98	-14.54	-14.54	8.00
2437MHz	Pass	-0.98	-15.64	-15.64	8.00
2462MHz	Pass	-0.98	-15.81	-15.81	8.00
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	-0.98	-16.78	-16.78	8.00
2437MHz	Pass	-0.98	-15.70	-15.70	8.00
2462MHz	Pass	-0.98	-15.17	-15.17	8.00
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-	-
2412MHz	Pass	-0.98	-16.32	-16.32	8.00
2437MHz	Pass	-0.98	-14.78	-14.78	8.00
2462MHz	Pass	-0.98	-15.72	-15.72	8.00
802.11n HT40_Nss1,(MCS0)_1TX	-	-	-	-	-
2422MHz	Pass	-0.98	-18.04	-18.04	8.00
2437MHz	Pass	-0.98	-16.54	-16.54	8.00
2452MHz	Pass	-0.98	-15.39	-15.39	8.00

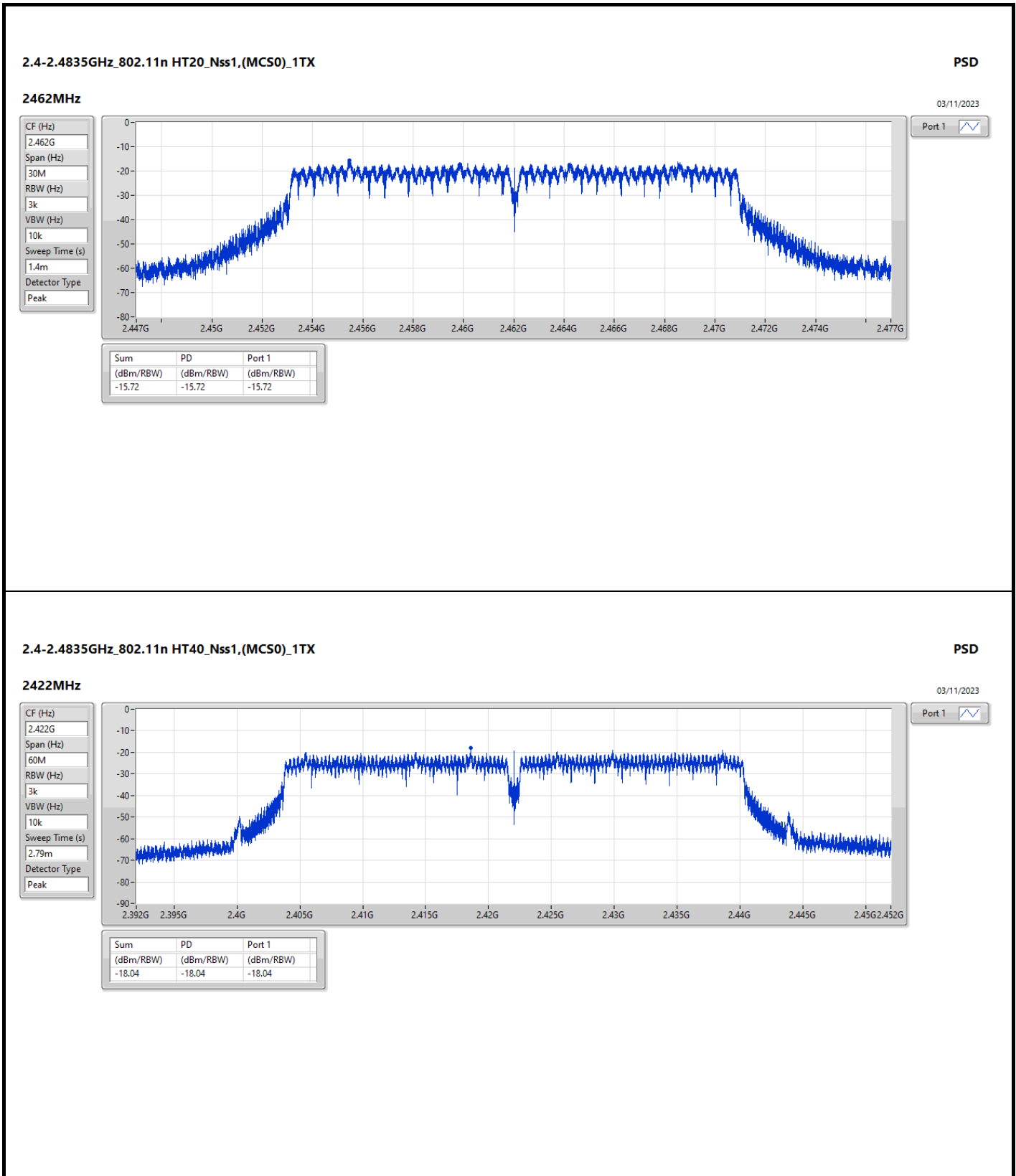
DG = Directional Gain; RBW = 3kHz;
 PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; Port X = Port X Power Density;

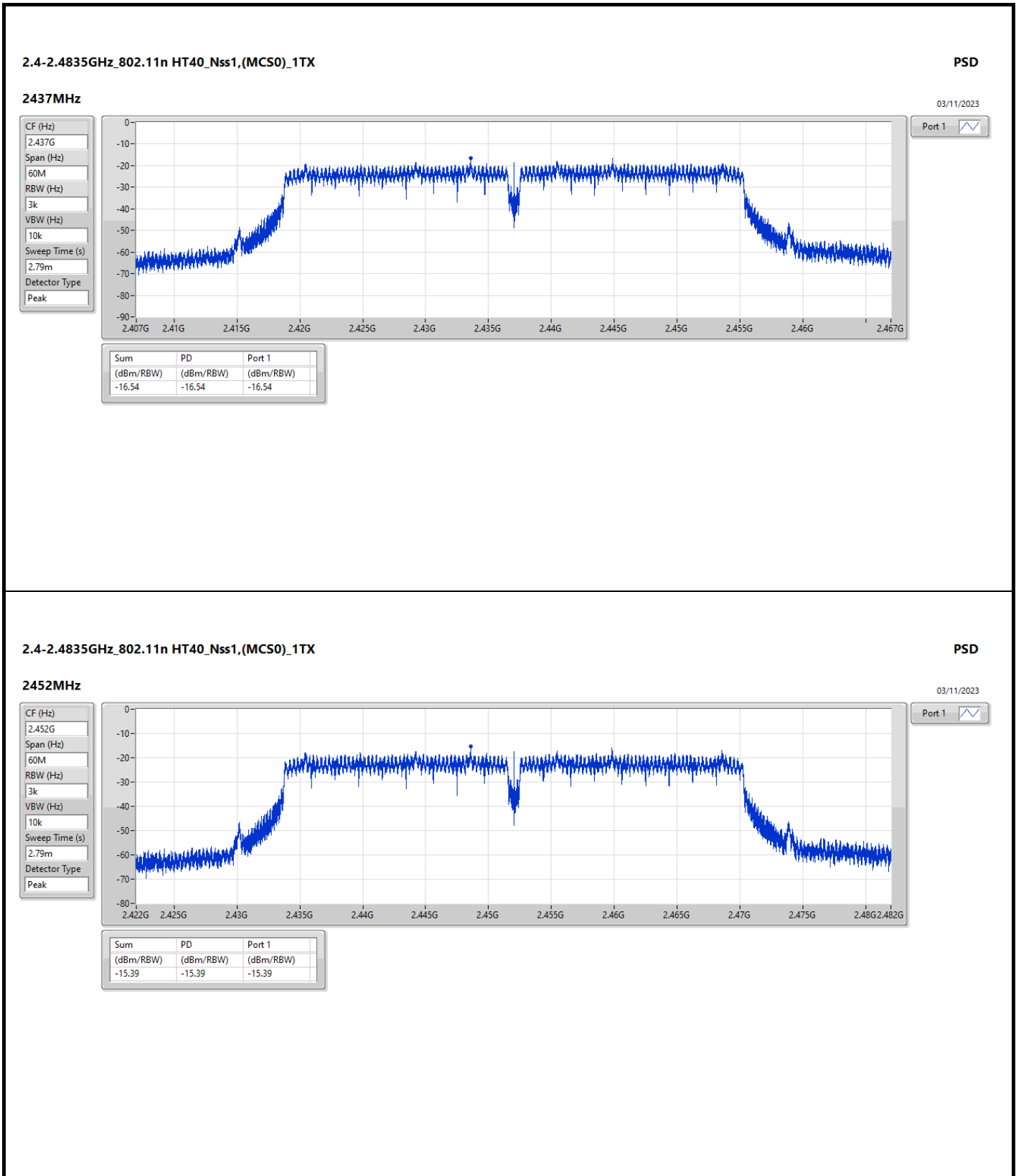














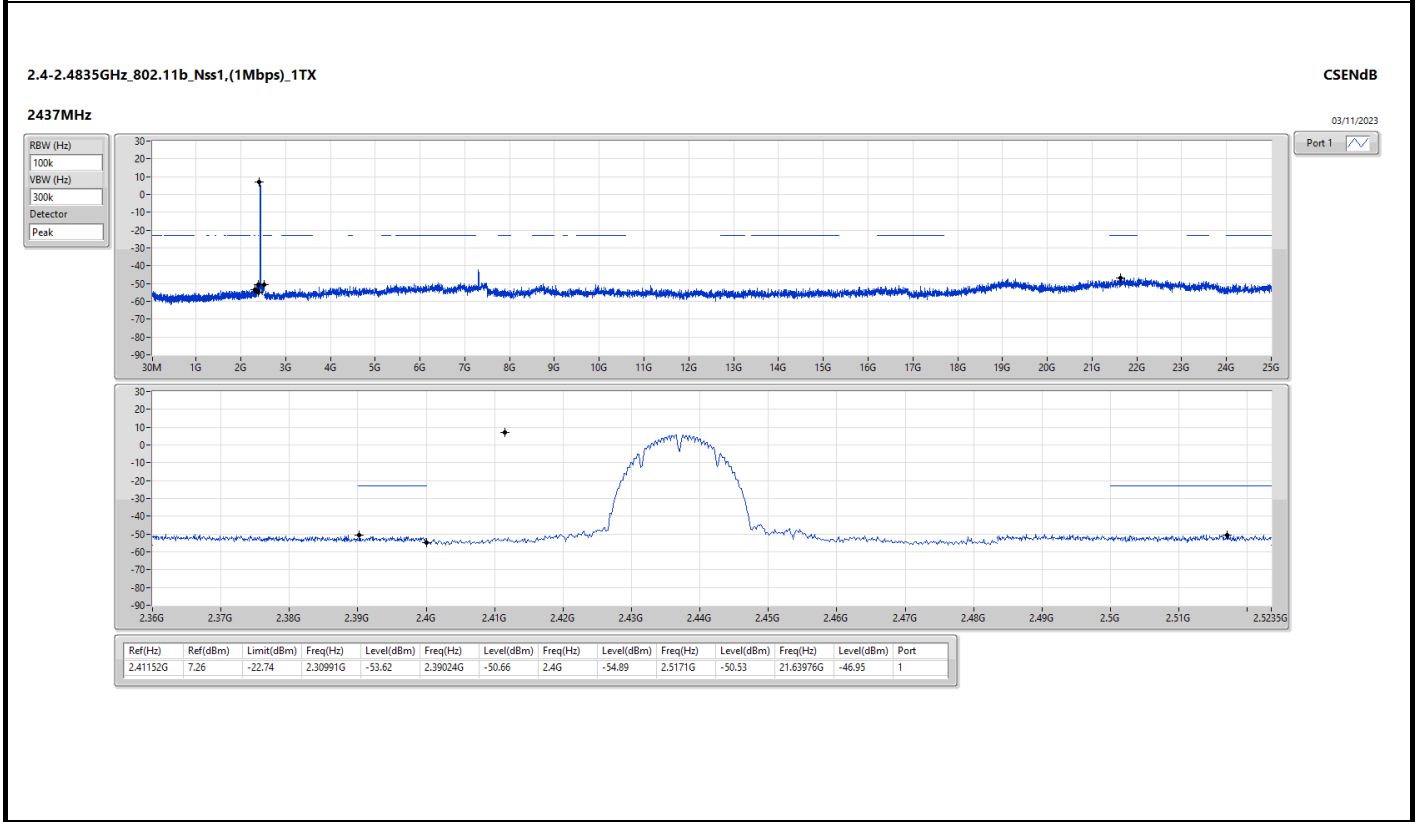
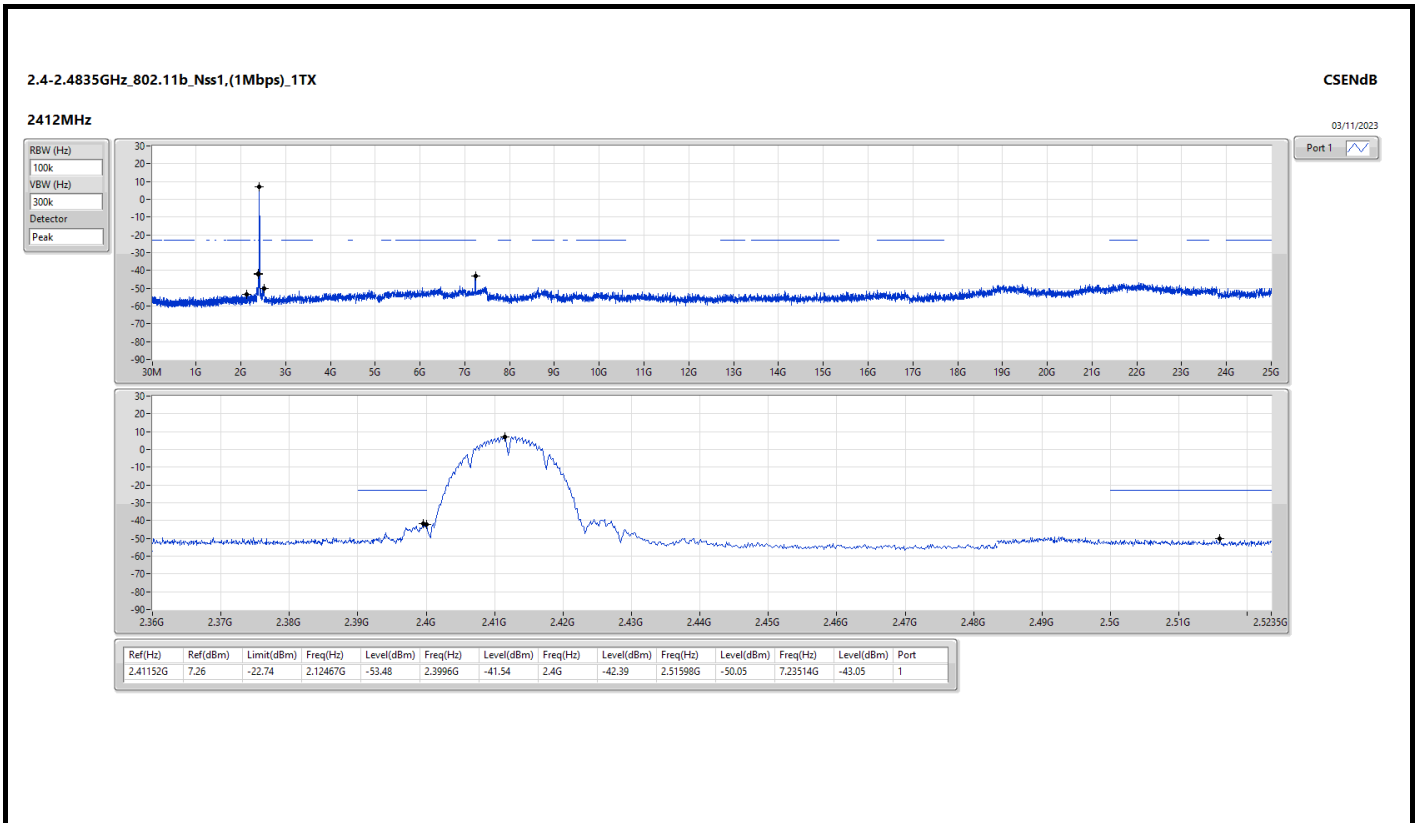
Summary

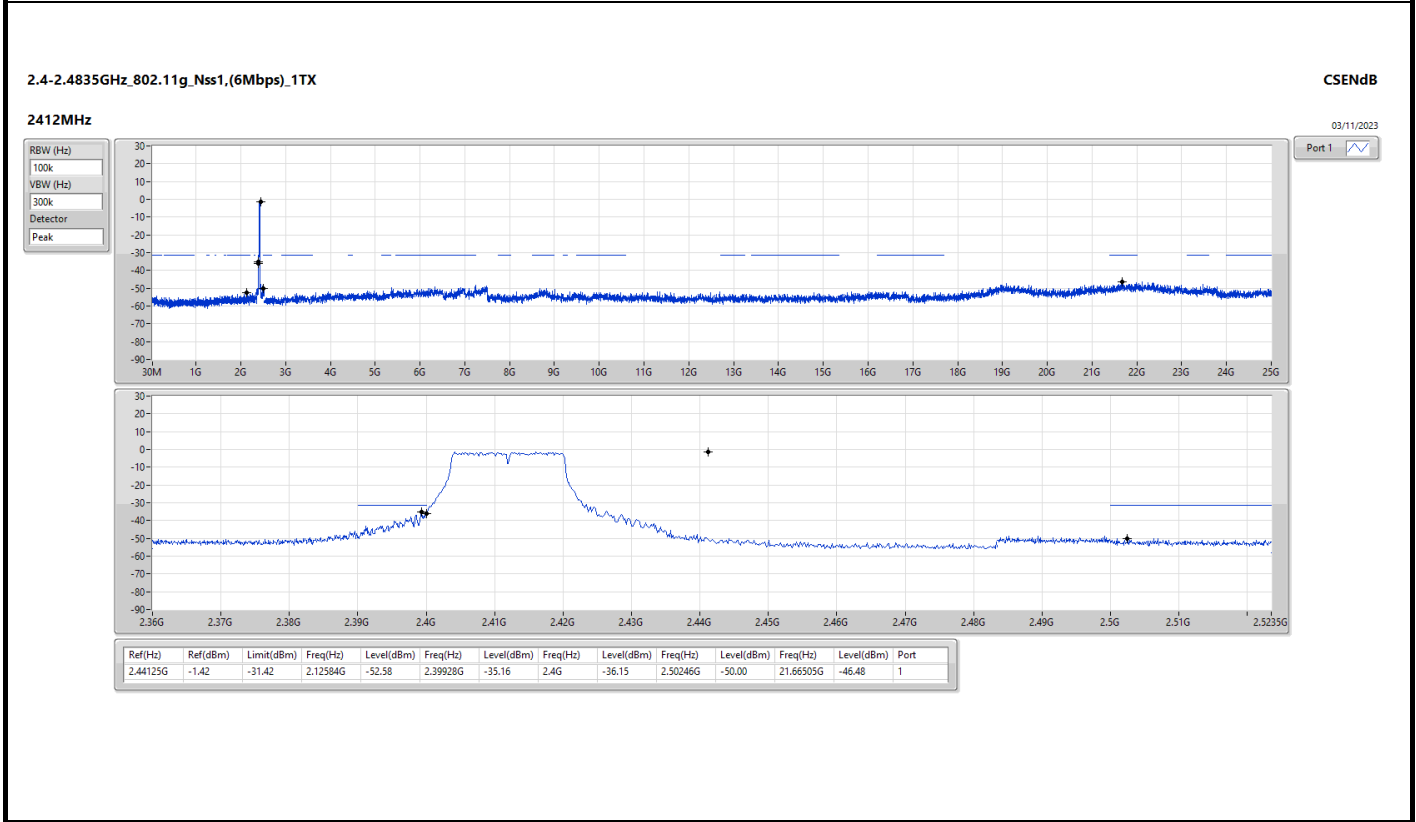
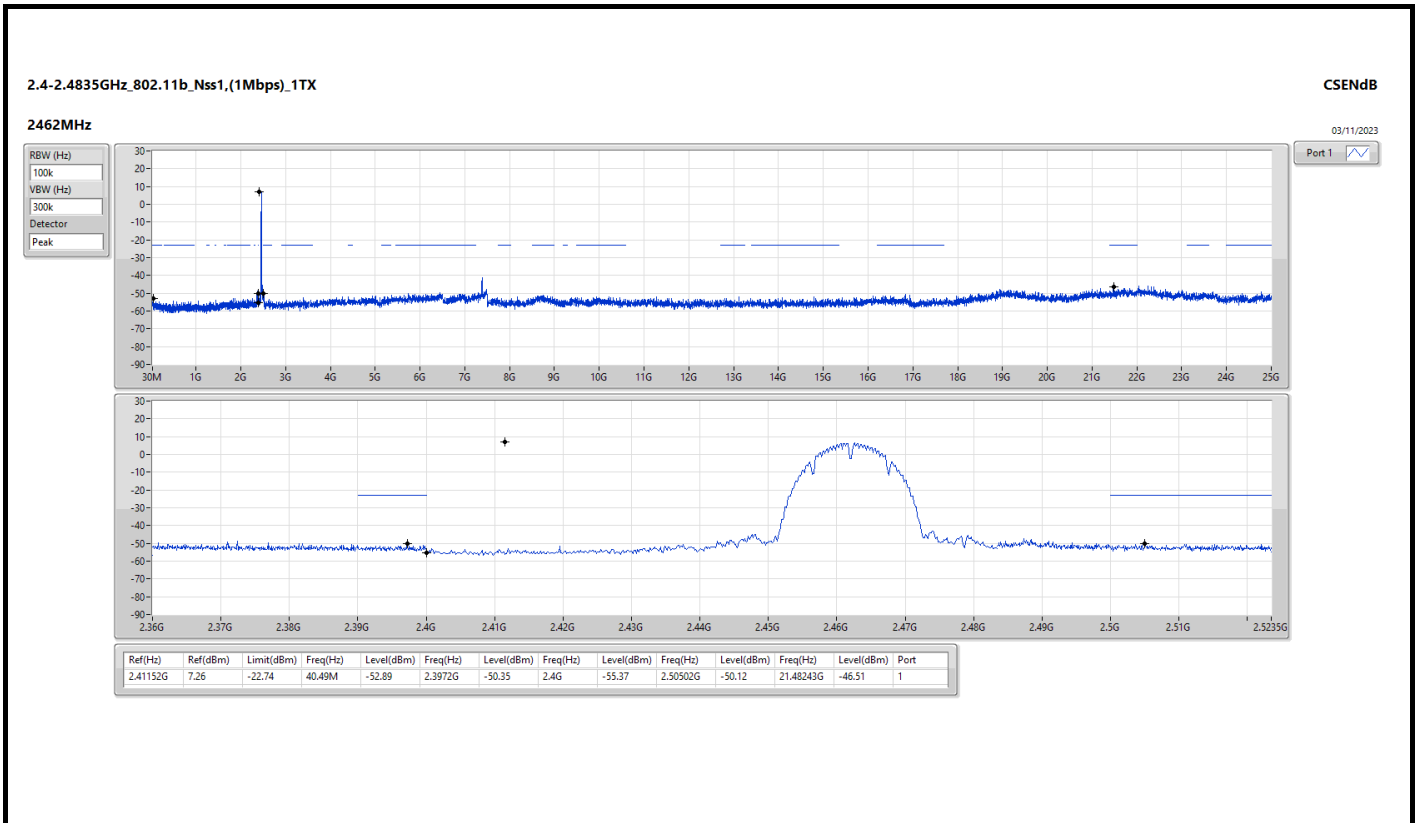
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
802.11b_Nss1,(1Mbps)_1TX	Pass	2.41152G	7.26	-22.74	2.12467G	-53.48	2.3996G	-41.54	2.4G	-42.39	2.51598G	-50.05	7.23514G	-43.05	1
802.11g_Nss1,(6Mbps)_1TX	Pass	2.44125G	-1.42	-31.42	2.12584G	-52.58	2.39928G	-35.16	2.4G	-36.15	2.50246G	-50.00	21.66505G	-46.48	1
802.11n HT20_Nss1,(MCS0)_1TX	Pass	2.43407G	-2.15	-32.15	1.89866G	-53.33	2.4G	-37.51	2.4G	-37.32	2.50022G	-50.27	21.74653G	-46.79	1
802.11n HT40_Nss1,(MCS0)_1TX	Pass	2.45043G	-5.49	-35.49	2.16314G	-53.71	2.4G	-40.34	2.4G	-36.05	2.5099G	-52.65	21.73268G	-46.86	1

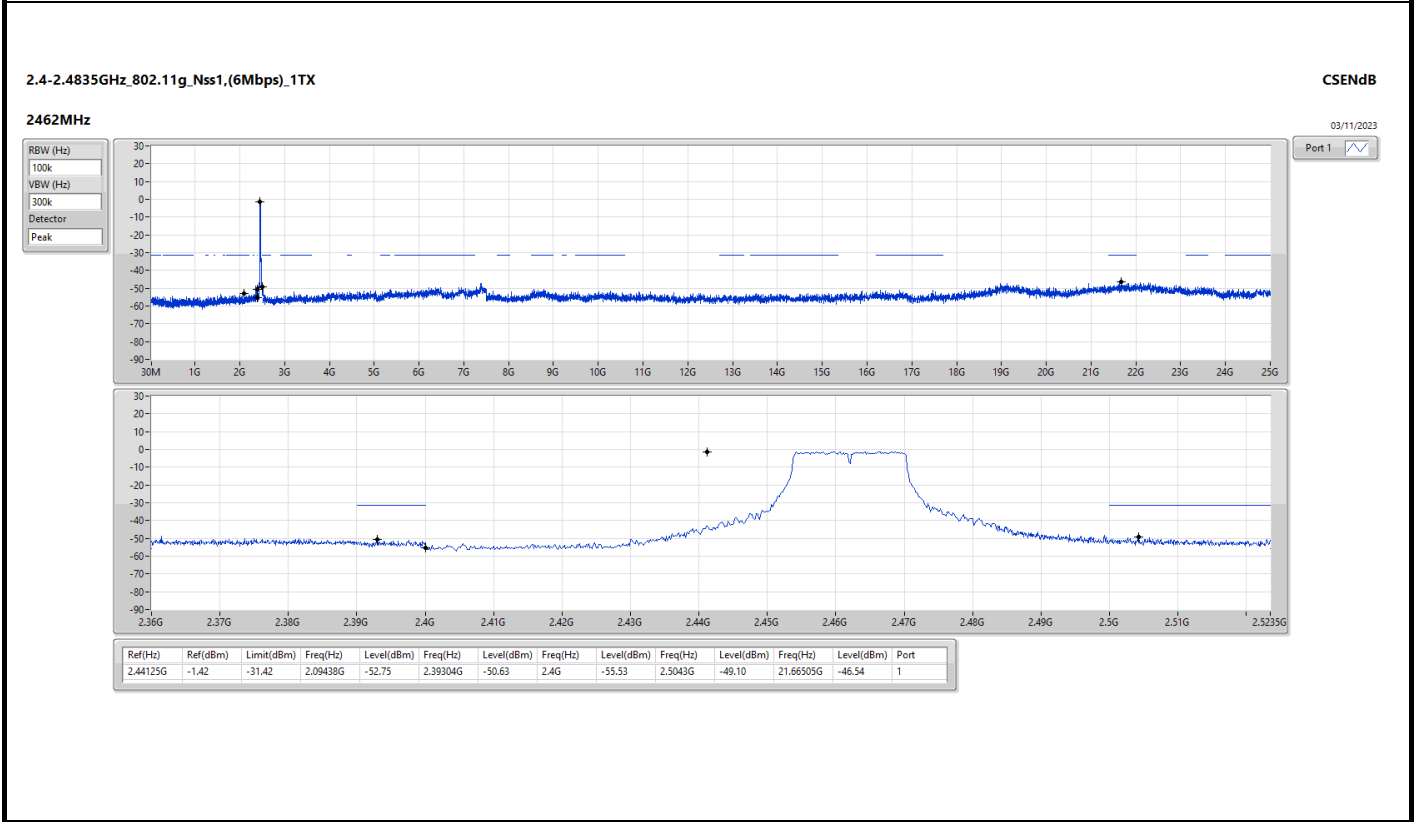
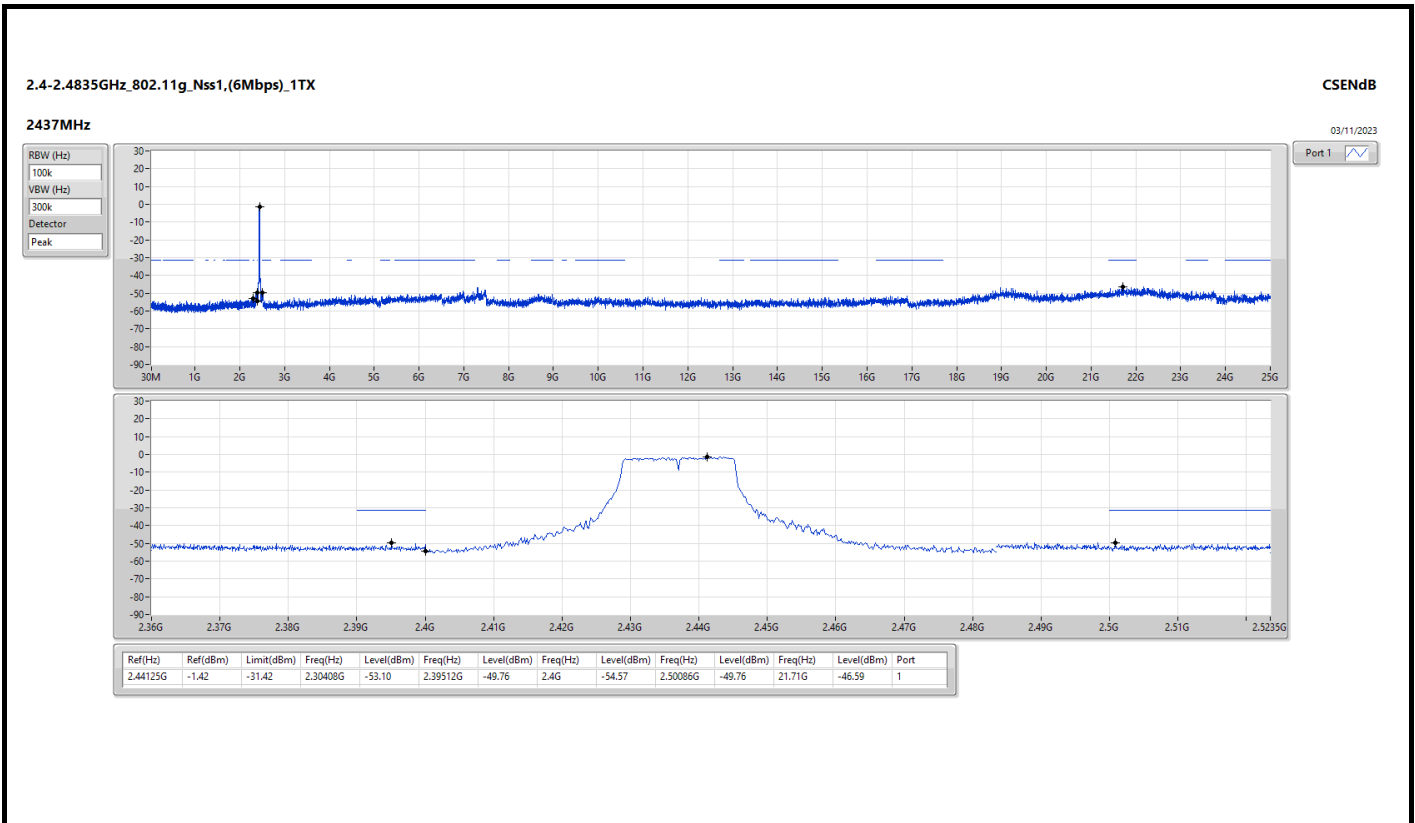


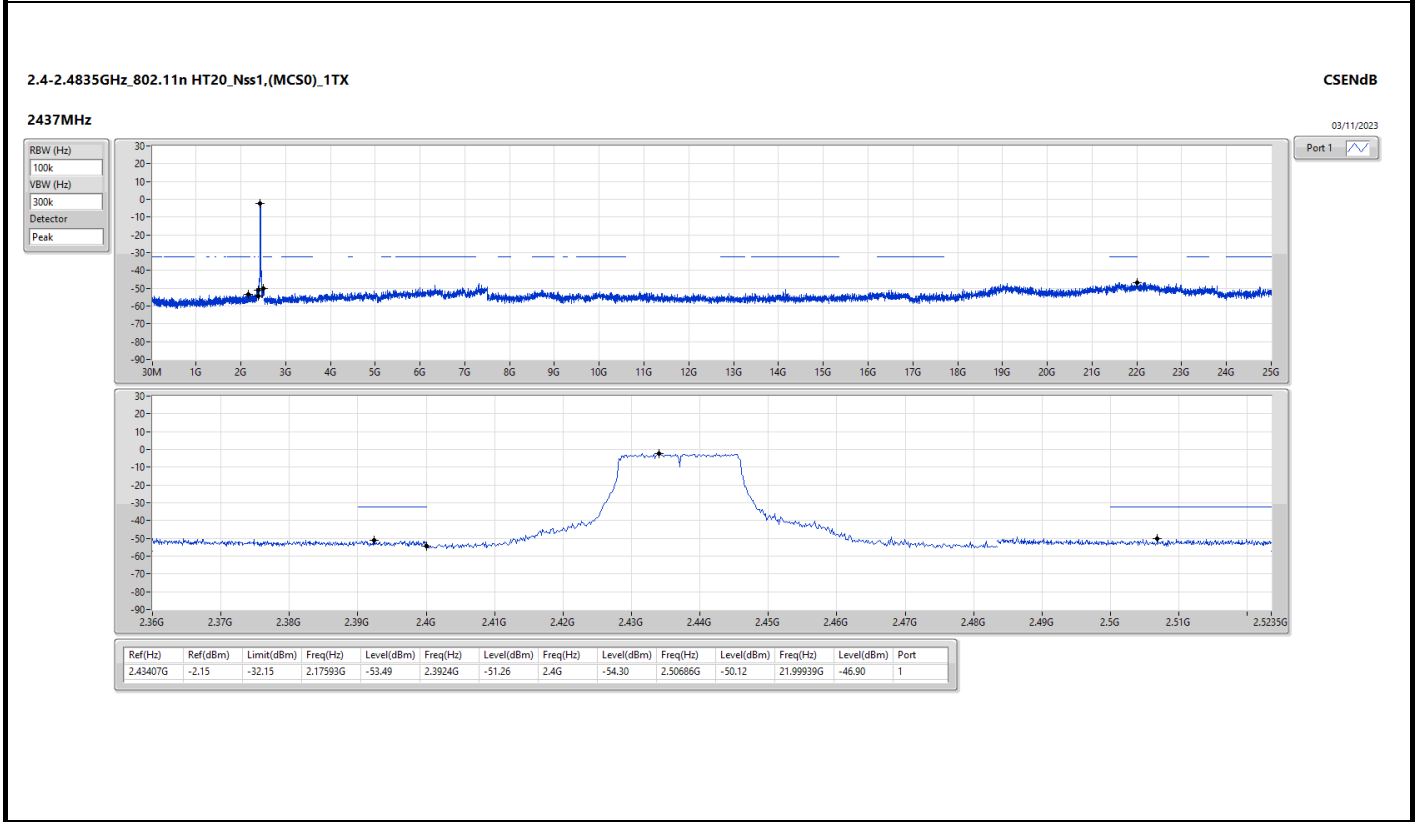
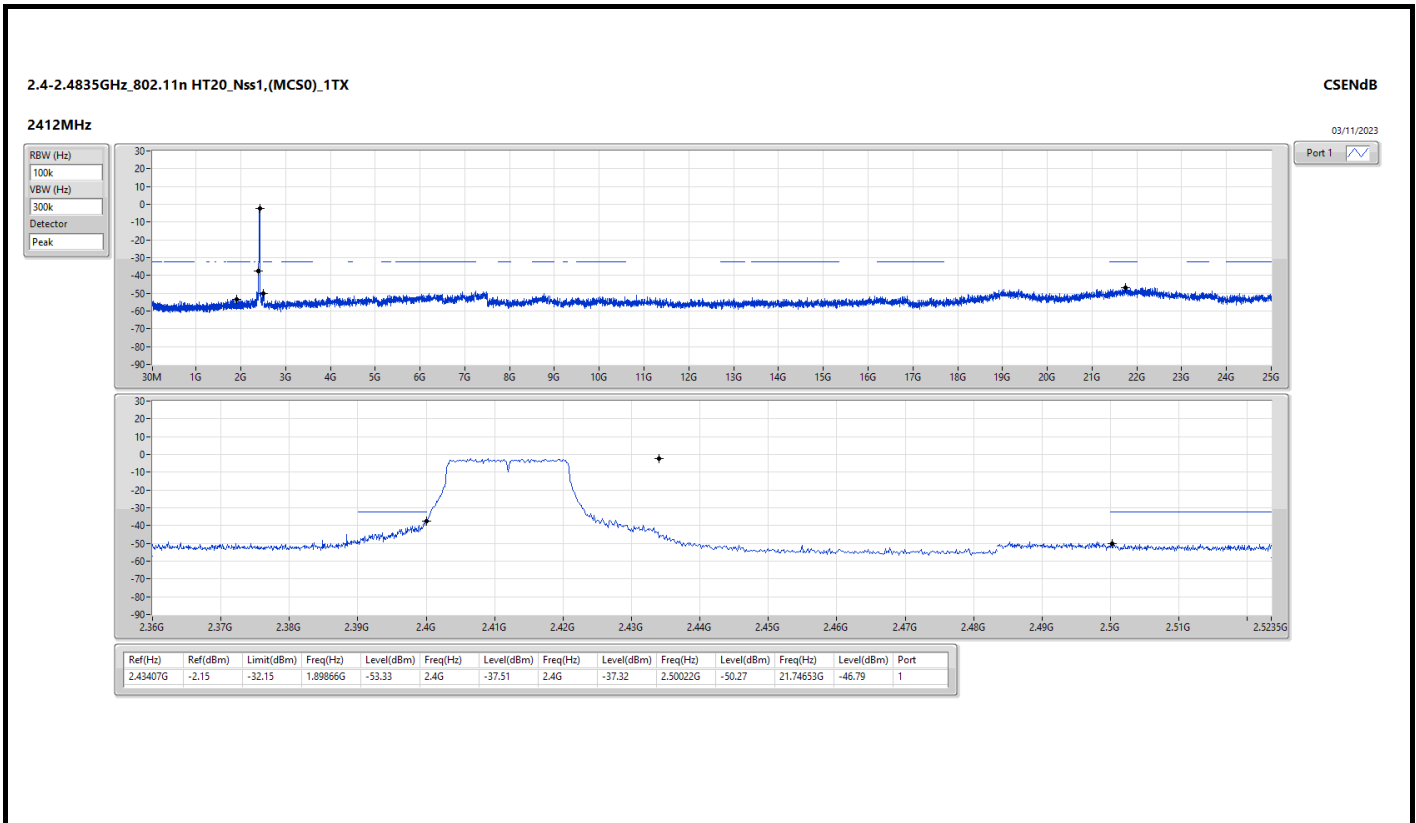
Result

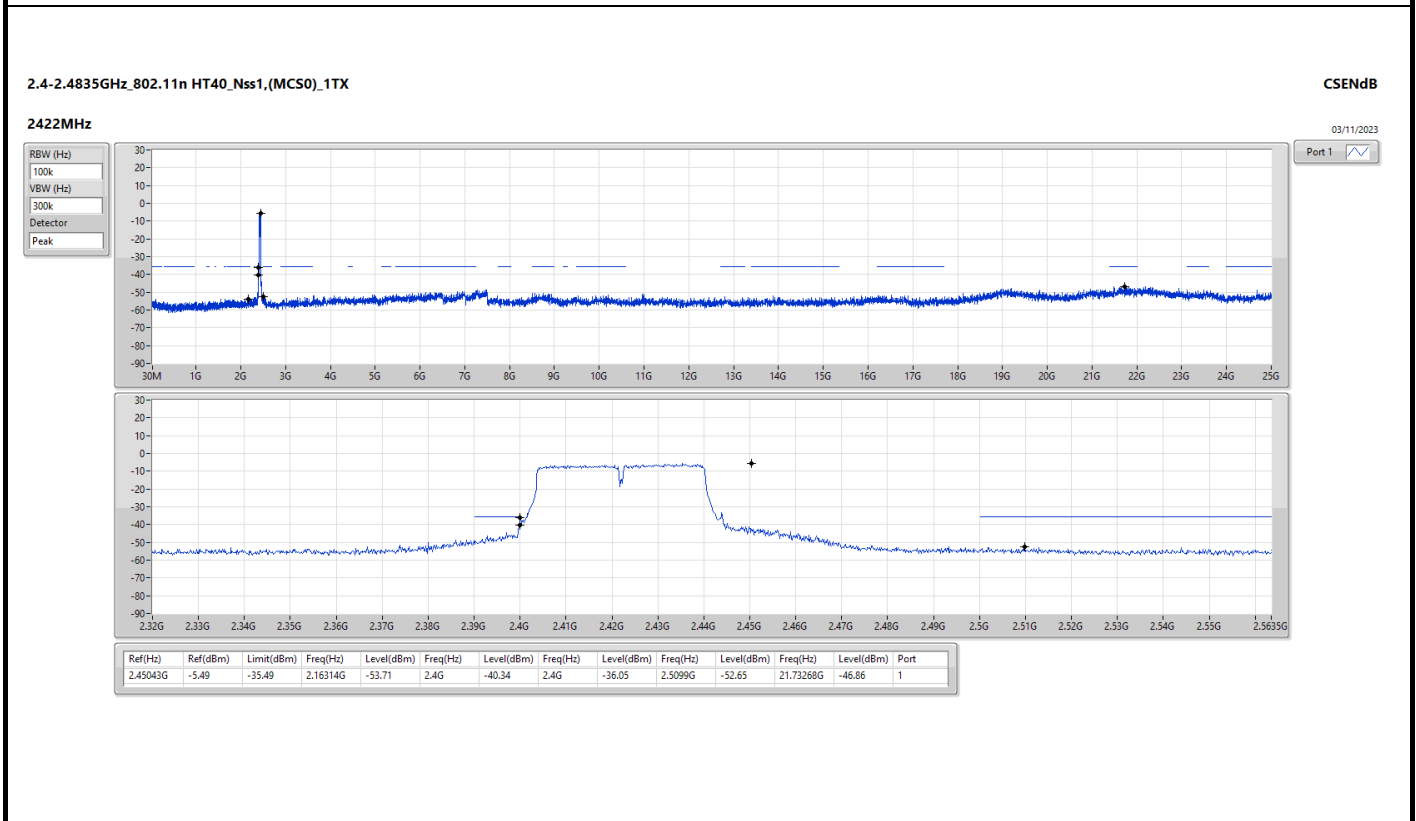
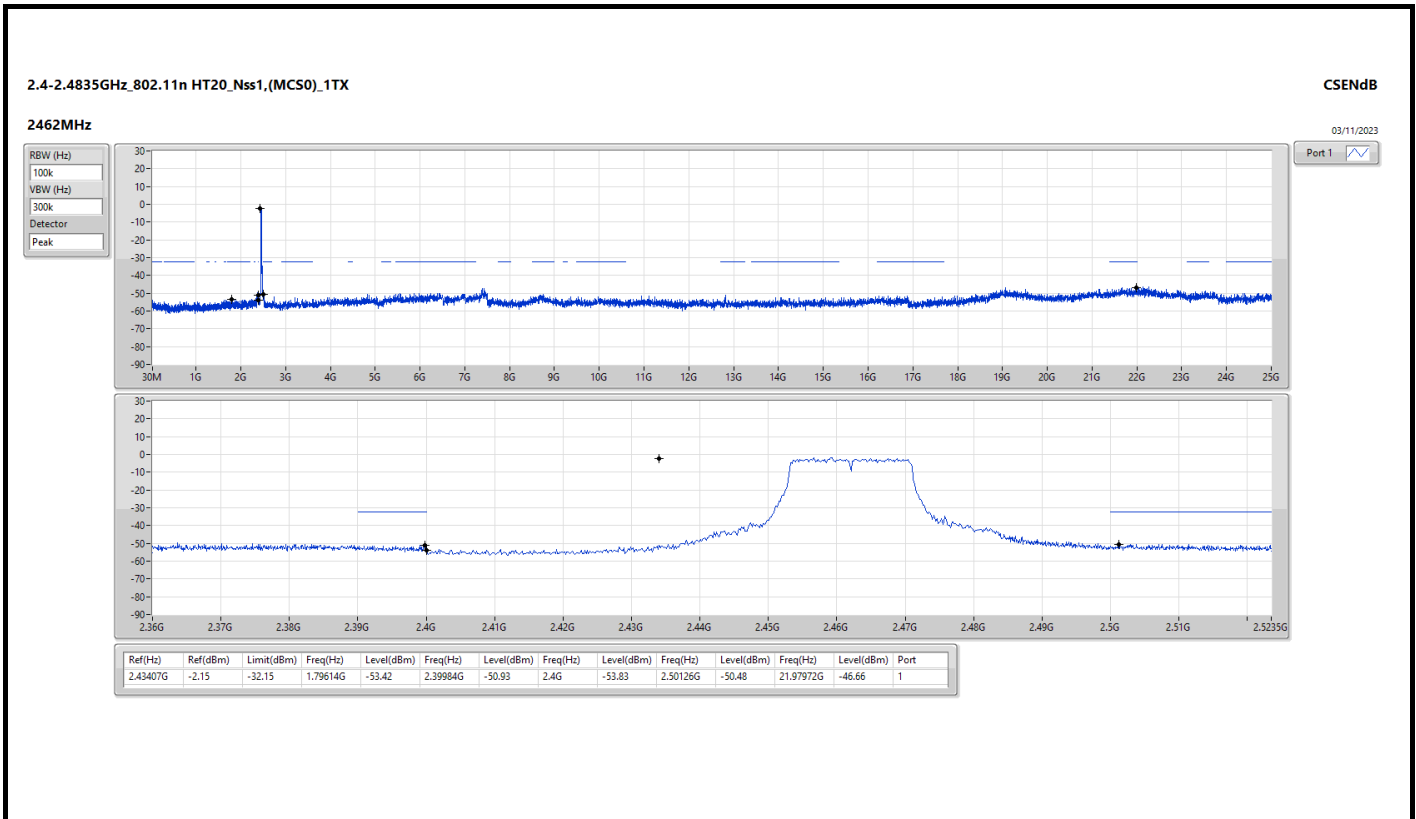
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
802.11b_Nss1.(1Mbps)_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.41152G	7.26	-22.74	2.12467G	-53.48	2.3996G	-41.54	2.4G	-42.39	2.51598G	-50.05	7.23514G	-43.05	1
2437MHz	Pass	2.41152G	7.26	-22.74	2.30991G	-53.62	2.39024G	-50.66	2.4G	-54.89	2.5171G	-50.53	21.63976G	-46.95	1
2462MHz	Pass	2.41152G	7.26	-22.74	40.49M	-52.89	2.3972G	-50.35	2.4G	-55.37	2.50502G	-50.12	21.48243G	-46.51	1
802.11g_Nss1.(6Mbps)_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.44125G	-1.42	-31.42	2.12584G	-52.58	2.39928G	-35.16	2.4G	-36.15	2.50246G	-50.00	21.66505G	-46.48	1
2437MHz	Pass	2.44125G	-1.42	-31.42	2.30408G	-53.10	2.39512G	-49.76	2.4G	-54.57	2.50086G	-49.76	21.71G	-46.59	1
2462MHz	Pass	2.44125G	-1.42	-31.42	2.09438G	-52.75	2.39304G	-50.63	2.4G	-55.53	2.5043G	-49.10	21.66505G	-46.54	1
802.11n HT20_Nss1.(MCS0)_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43407G	-2.15	-32.15	1.89866G	-53.33	2.4G	-37.51	2.4G	-37.32	2.50022G	-50.27	21.74653G	-46.79	1
2437MHz	Pass	2.43407G	-2.15	-32.15	2.17593G	-53.49	2.3924G	-51.26	2.4G	-54.30	2.50686G	-50.12	21.99939G	-46.90	1
2462MHz	Pass	2.43407G	-2.15	-32.15	1.79614G	-53.42	2.39984G	-50.93	2.4G	-53.83	2.50126G	-50.48	21.97972G	-46.66	1
802.11n HT40_Nss1.(MCS0)_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	2.45043G	-5.49	-35.49	2.16314G	-53.71	2.4G	-40.34	2.4G	-36.05	2.5099G	-52.65	21.73268G	-46.86	1
2437MHz	Pass	2.45043G	-5.49	-35.49	2.02345G	-53.59	2.3984G	-46.15	2.4G	-48.58	2.5011G	-52.68	21.9262G	-46.36	1
2452MHz	Pass	2.45043G	-5.49	-35.49	2.13222G	-53.34	2.39952G	-50.15	2.4G	-51.06	2.50078G	-45.41	21.78597G	-46.62	1

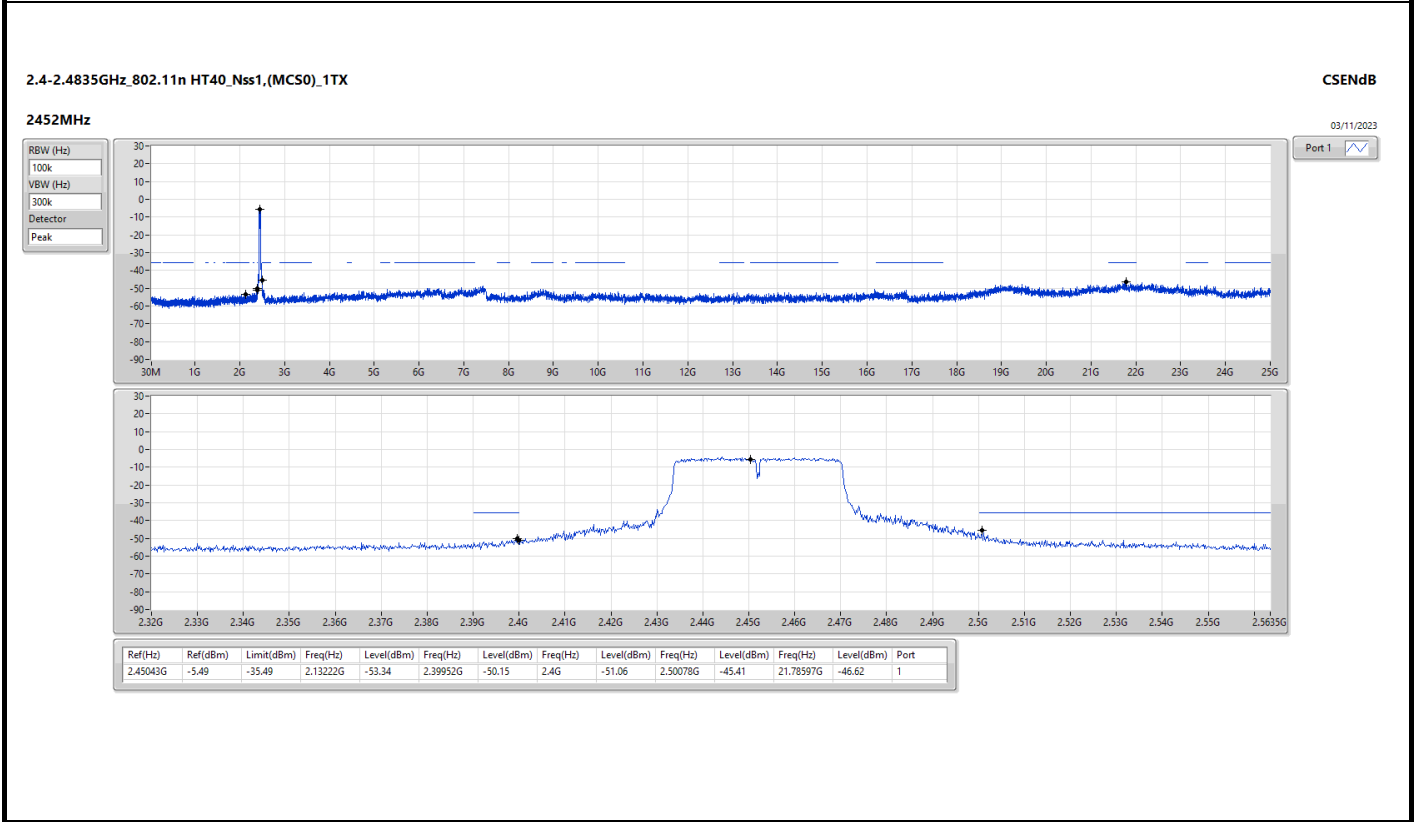
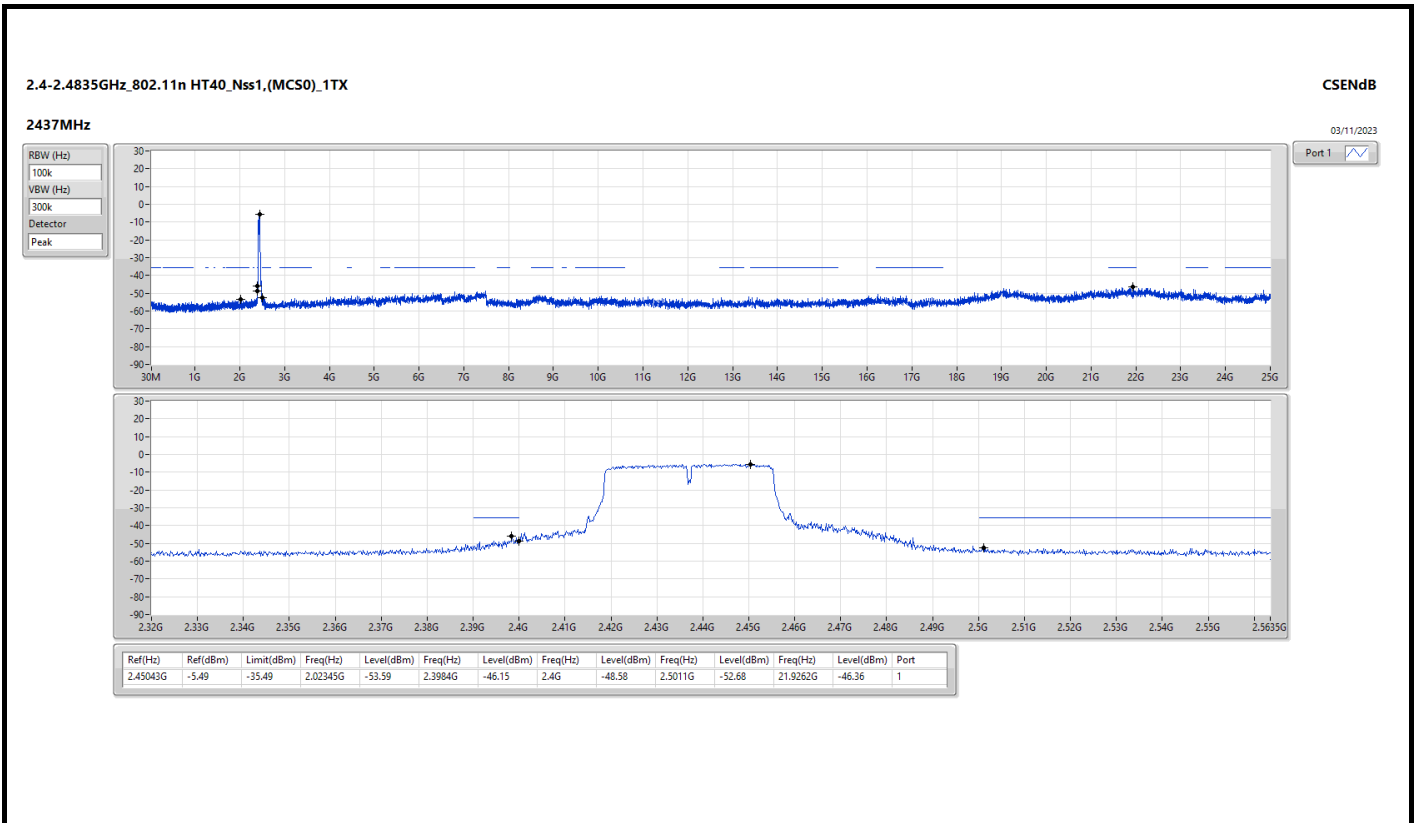










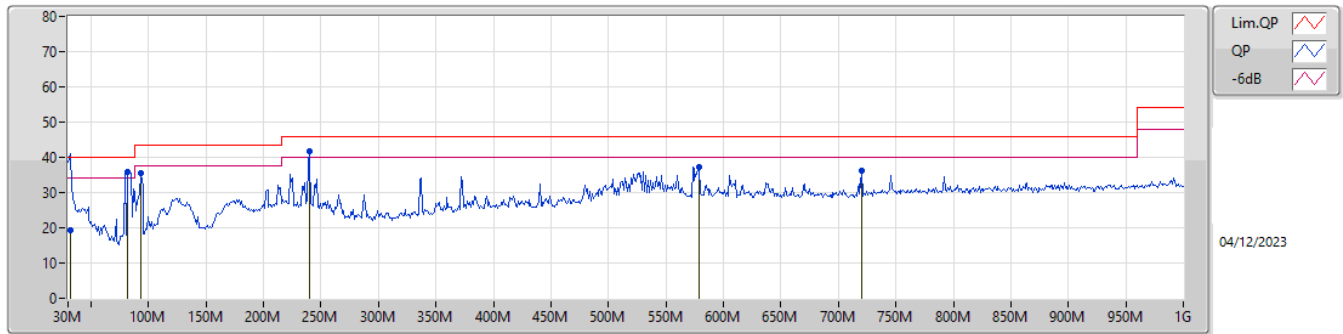




Summary

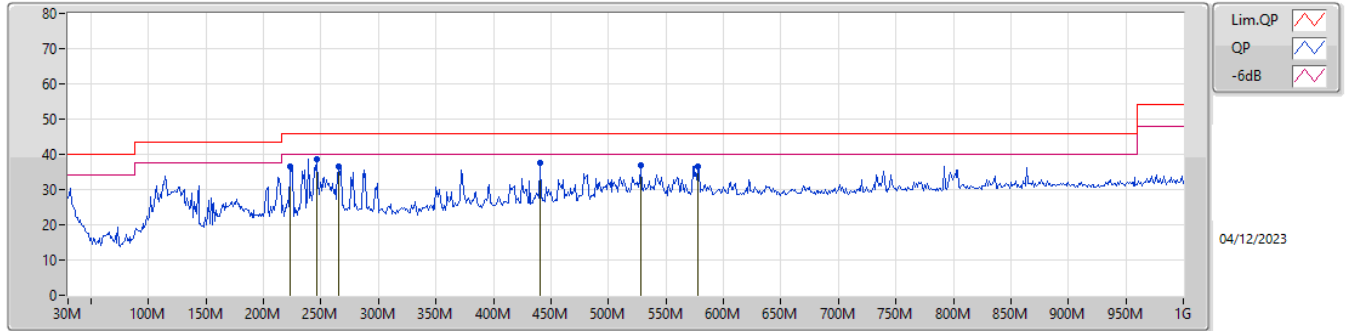
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition
Mode 1	Pass	PK	81.41M	35.80	40.00	-4.20	Vertical

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)
QP	31.94M	19.26	40.00	-20.74	-20.71	3	Vertical	299	1.00	-	39.97	22.92	0.69	44.32
PK	81.41M	35.80	40.00	-4.20	-31.23	3	Vertical	360	3.00	"Worst"	67.03	12.35	1.01	44.59
PK	93.05M	35.49	43.50	-8.01	-28.82	3	Vertical	0	3.00	-	64.31	14.69	1.09	44.60
PK	240M	41.60	46.00	-4.40	-26.29	3	Vertical	219	2.00	-	67.89	16.41	1.70	44.40
PK	579.02M	37.30	46.00	-8.70	-17.47	3	Vertical	315	1.00	-	54.77	23.68	2.65	43.80
PK	720.64M	36.31	46.00	-9.69	-16.47	3	Vertical	27	1.00	-	52.78	24.25	2.89	43.61

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	223.03M	36.69	46.00	-9.31	-28.22	3	Horizontal	132	1.25	-	64.91	14.56	1.65	44.43
PK	246.31M	38.49	46.00	-7.51	-25.59	3	Horizontal	191	1.25	"Worst"	64.08	17.08	1.72	44.39
PK	265.71M	36.58	46.00	-9.42	-23.77	3	Horizontal	360	1.00	-	60.35	18.76	1.81	44.34
PK	440.31M	37.73	46.00	-8.27	-20.10	3	Horizontal	207	1.00	-	57.83	21.63	2.32	44.05
PK	528.58M	36.85	46.00	-9.15	-18.85	3	Horizontal	179	1.25	-	55.70	22.56	2.49	43.90
PK	578.05M	36.67	46.00	-9.33	-17.47	3	Horizontal	210	1.50	-	54.14	23.70	2.64	43.81

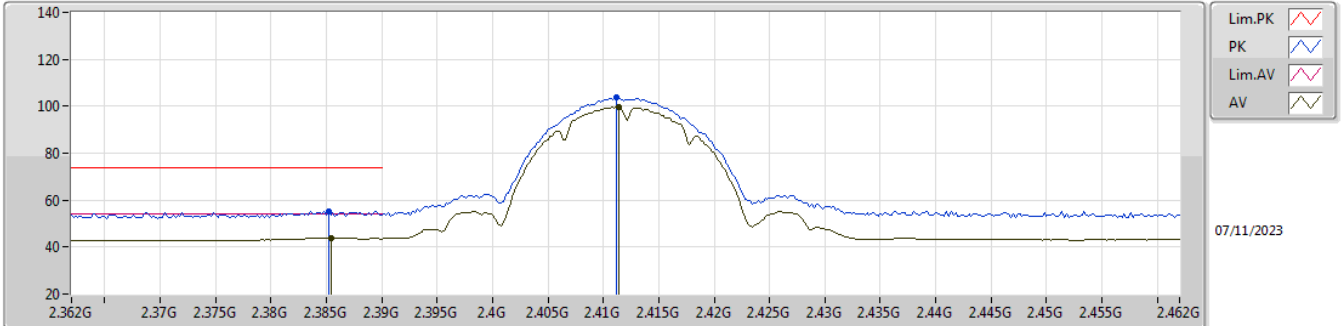


Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-
802.11n HT40_Nss1,(MCS0)_1TX	Pass	AV	2.4835G	53.96	54.00	-0.04	3	Horizontal	12	2.55	-

2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_1TX

2412MHz_TX

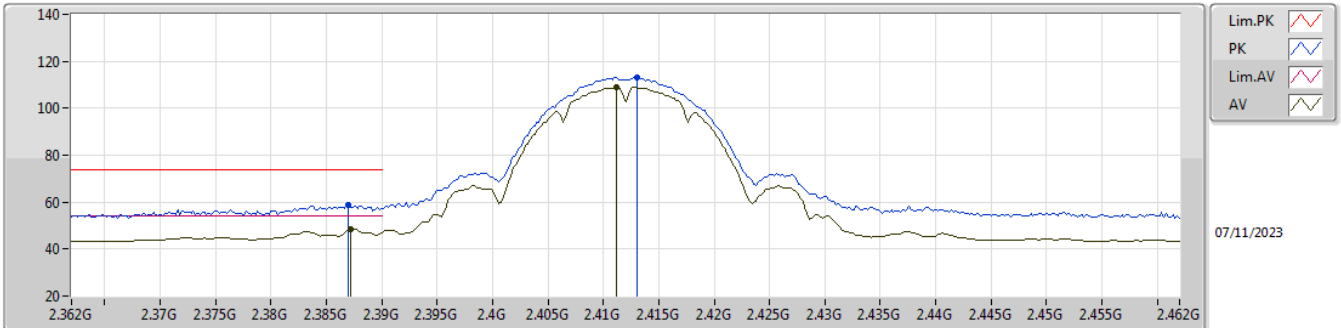


EUT X_1TX
Setting 108
02-E-E-5

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	2.3852G	55.26	74.00	-18.74	23.81	3	Vertical	257	2.71	-	28.40	3.05	-
AV	2.3854G	43.95	54.00	-10.05	12.50	3	Vertical	257	2.71	-	28.40	3.05	-
PK	2.4112G	103.56	Inf	-Inf	72.10	3	Vertical	257	2.71	-	28.40	3.06	-
AV	2.4114G	99.69	Inf	-Inf	68.23	3	Vertical	257	2.71	-	28.40	3.06	-

2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_1TX

2412MHz_TX

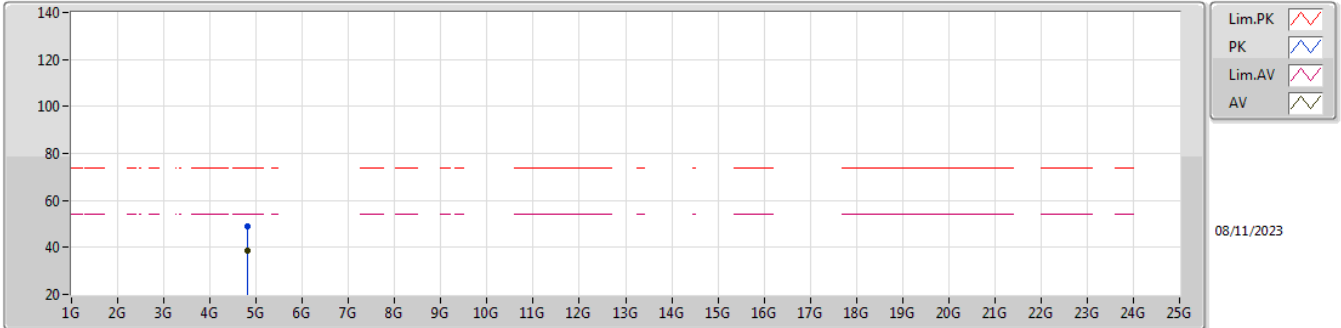


EUT X_1TX
Setting 108
02-E-E-5

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	2.387G	58.65	74.00	-15.35	27.20	3	Horizontal	167	2.64	-	28.40	3.05	-
AV	2.3872G	48.59	54.00	-5.41	17.14	3	Horizontal	167	2.64	-	28.40	3.05	-
PK	2.413G	113.23	Inf	-Inf	81.76	3	Horizontal	167	2.64	-	28.40	3.07	-
AV	2.4112G	108.92	Inf	-Inf	77.46	3	Horizontal	167	2.64	-	28.40	3.06	-

2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_1TX

2412MHz_TX

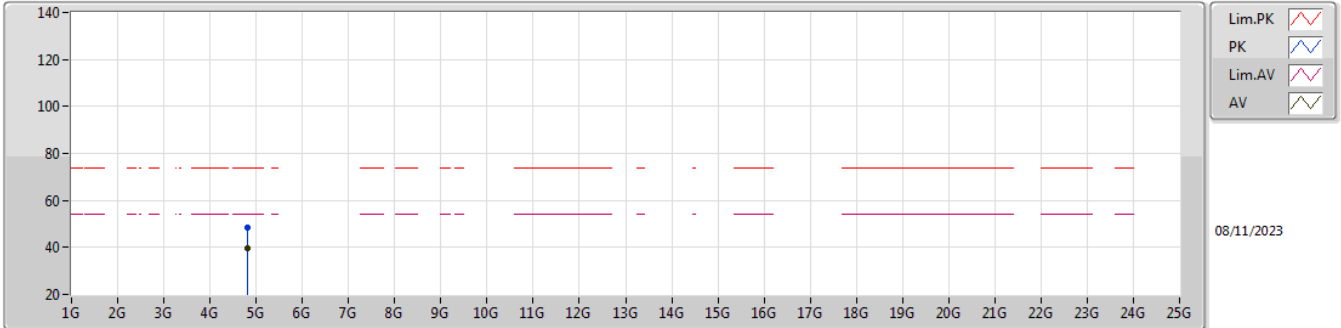


EUT X_1TX
Setting 108
02-E-V-1

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	4.8243G	48.93	74.00	-25.07	41.56	3	Vertical	204	1.80	-	32.95	5.10	30.68
AV	4.82424G	38.41	54.00	-15.59	31.04	3	Vertical	204	1.80	-	32.95	5.10	30.68

2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_1TX

2412MHz_TX

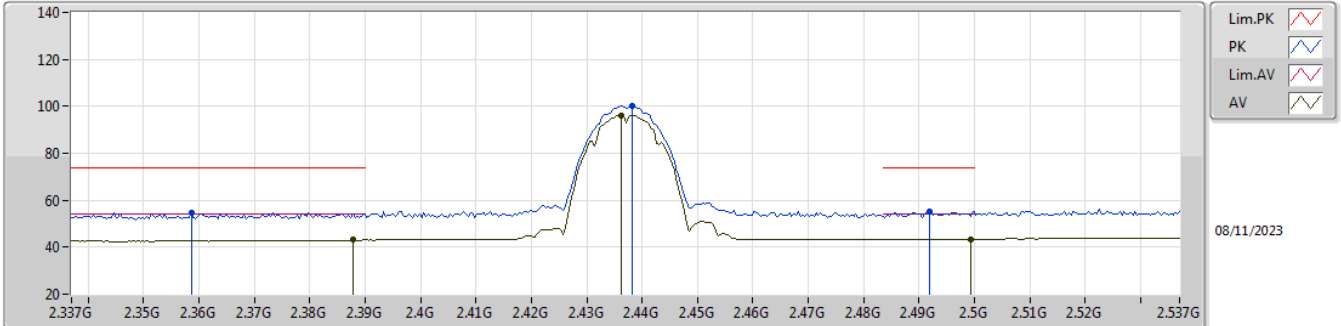


EUT X_1TX
 Setting 108
 02-E-V-1

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	4.82406G	48.27	74.00	-25.73	40.91	3	Horizontal	341	2.43	-	32.94	5.10	30.68
AV	4.82418G	39.72	54.00	-14.28	32.35	3	Horizontal	341	2.43	-	32.95	5.10	30.68

2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_1TX

2437MHz_TX

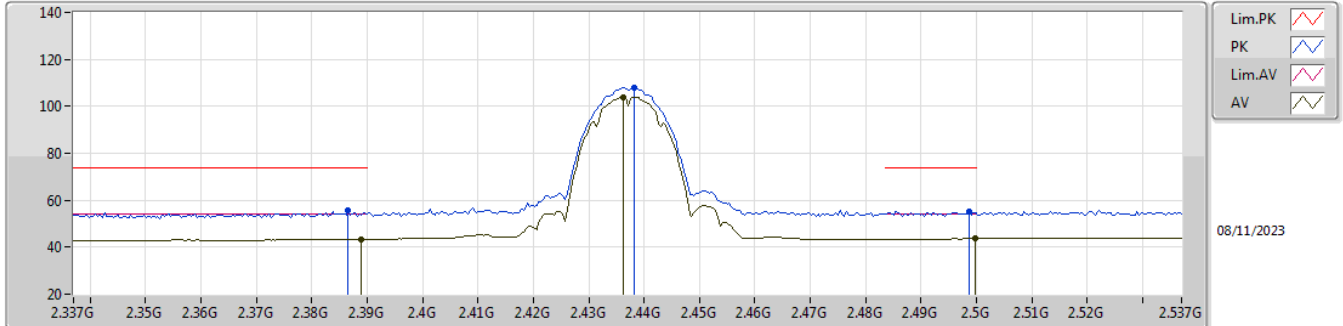


EUT X_1TX
Setting 108
02-E-E-5

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	2.3586G	54.82	74.00	-19.18	23.58	3	Vertical	50	1.13	-	28.20	3.04	-
AV	2.3878G	43.02	54.00	-10.98	11.57	3	Vertical	50	1.13	-	28.40	3.05	-
PK	2.4382G	100.25	Inf	-Inf	68.75	3	Vertical	50	1.13	-	28.42	3.08	-
AV	2.4362G	96.24	Inf	-Inf	64.73	3	Vertical	50	1.13	-	28.44	3.07	-
PK	2.4918G	55.16	74.00	-18.84	23.54	3	Vertical	50	1.13	-	28.52	3.10	-
AV	2.4994G	43.51	54.00	-10.49	11.82	3	Vertical	50	1.13	-	28.59	3.10	-

2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_1TX

2437MHz_TX

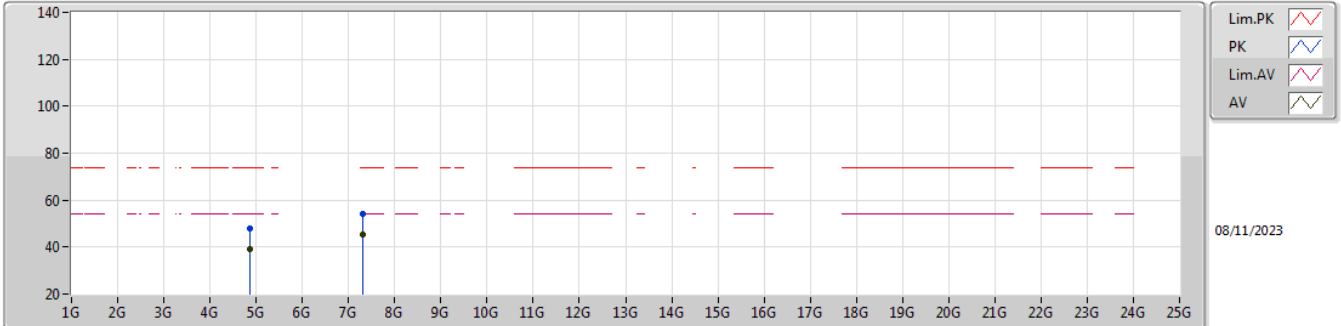


EUT X_1TX
Setting 108
02-E-E-5

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	2.3866G	55.47	74.00	-18.53	24.02	3	Horizontal	166	2.34	-	28.40	3.05	-
AV	2.389G	43.44	54.00	-10.56	11.99	3	Horizontal	166	2.34	-	28.40	3.05	-
PK	2.4382G	107.91	Inf	-Inf	76.41	3	Horizontal	166	2.34	-	28.42	3.08	-
AV	2.4362G	103.94	Inf	-Inf	72.43	3	Horizontal	166	2.34	-	28.44	3.07	-
PK	2.4986G	55.05	74.00	-18.95	23.36	3	Horizontal	166	2.34	-	28.59	3.10	-
AV	2.4998G	43.66	54.00	-10.34	11.96	3	Horizontal	166	2.34	-	28.60	3.10	-

2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_1TX

2437MHz_TX

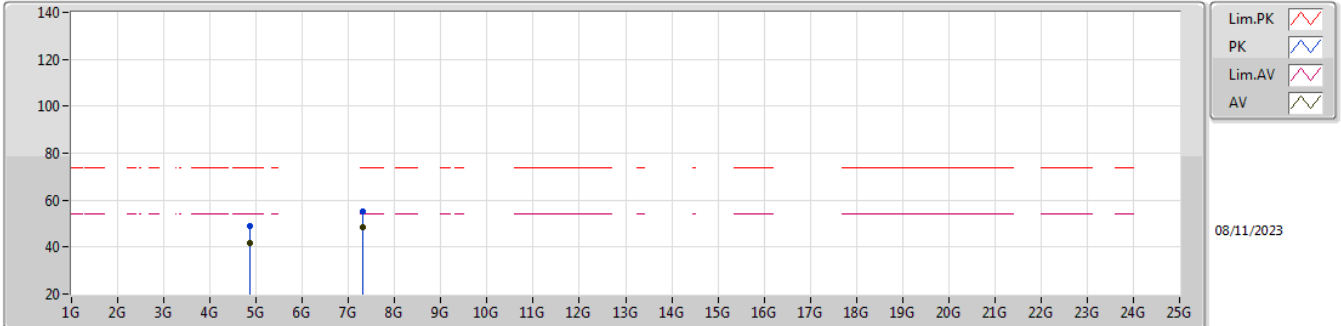


EUT X_1TX
Setting 108
02-E-V-1

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	4.87424G	48.04	74.00	-25.96	40.42	3	Vertical	153	1.94	-	33.15	5.11	30.64
AV	4.8743G	38.91	54.00	-15.09	31.29	3	Vertical	153	1.94	-	33.15	5.11	30.64
PK	7.31238G	54.20	74.00	-19.80	43.18	3	Vertical	33	1.99	-	36.62	6.51	32.11
AV	7.3107G	45.51	54.00	-8.49	34.49	3	Vertical	33	1.99	-	36.62	6.51	32.11

2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_1TX

2437MHz_TX

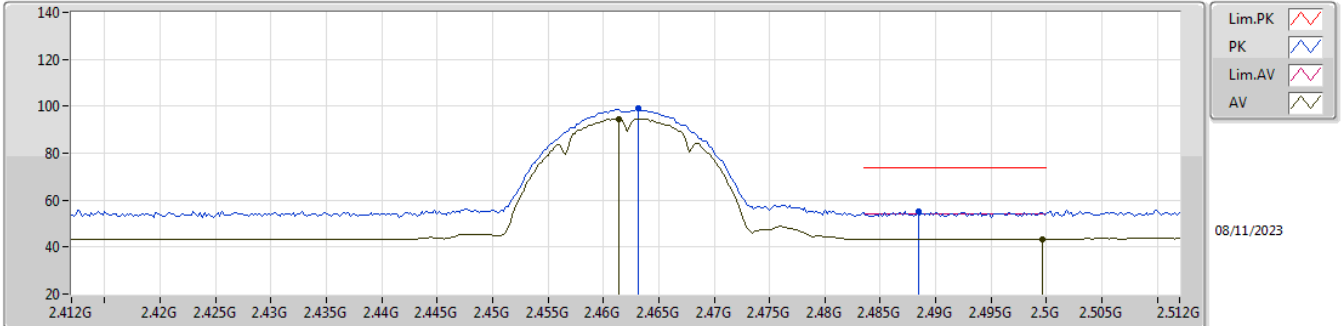


EUT X_1TX
Setting 108
02-E-V-1

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	4.8743G	49.01	74.00	-24.99	41.39	3	Horizontal	342	2.40	-	33.15	5.11	30.64
AV	4.8743G	41.75	54.00	-12.25	34.13	3	Horizontal	342	2.40	-	33.15	5.11	30.64
PK	7.3104G	55.38	74.00	-18.62	44.36	3	Horizontal	170	1.50	-	36.62	6.51	32.11
AV	7.3107G	48.22	54.00	-5.78	37.20	3	Horizontal	170	1.50	-	36.62	6.51	32.11

2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_1TX

2462MHz_TX

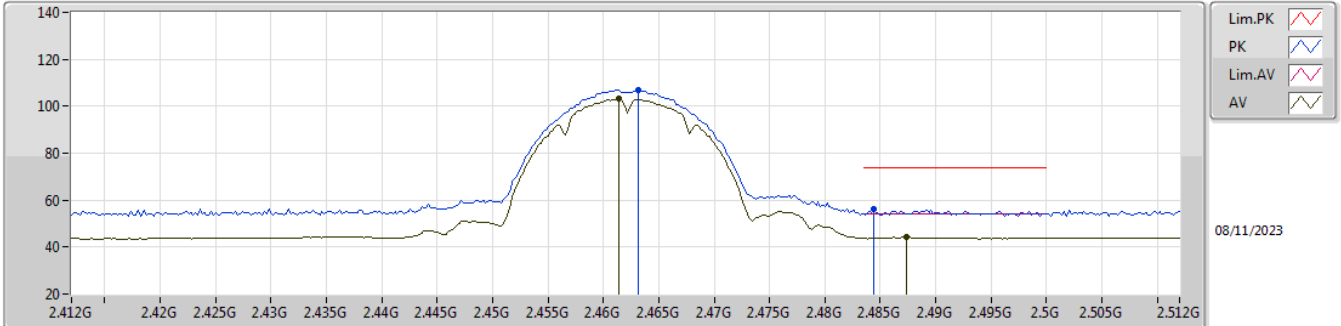


EUT X_1TX
Setting 108
02-E-E-5

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	2.4632G	98.88	Inf	-Inf	67.29	3	Vertical	57	1.11	-	28.50	3.09	-
AV	2.4614G	94.74	Inf	-Inf	63.16	3	Vertical	57	1.11	-	28.50	3.08	-
PK	2.4884G	55.16	74.00	-18.84	23.56	3	Vertical	57	1.11	-	28.50	3.10	-
AV	2.4996G	43.52	54.00	-10.48	11.82	3	Vertical	57	1.11	-	28.60	3.10	-

2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_1TX

2462MHz_TX

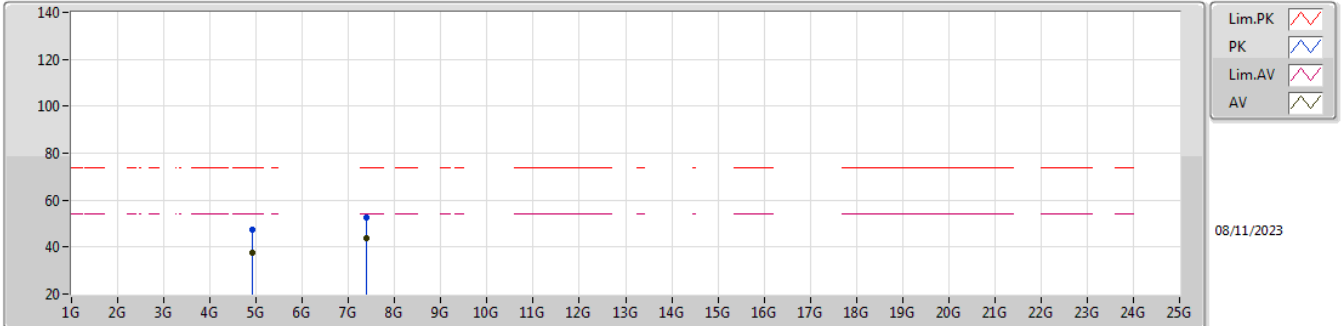


EUT X_1TX
Setting 108
02-E-E-5

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	2.4632G	106.95	Inf	-Inf	75.36	3	Horizontal	169	2.54	-	28.50	3.09	-
AV	2.4614G	103.08	Inf	-Inf	71.50	3	Horizontal	169	2.54	-	28.50	3.08	-
PK	2.4844G	55.98	74.00	-18.02	24.39	3	Horizontal	169	2.54	-	28.50	3.09	-
AV	2.4874G	44.20	54.00	-9.80	12.61	3	Horizontal	169	2.54	-	28.50	3.09	-

2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_1TX

2462MHz_TX

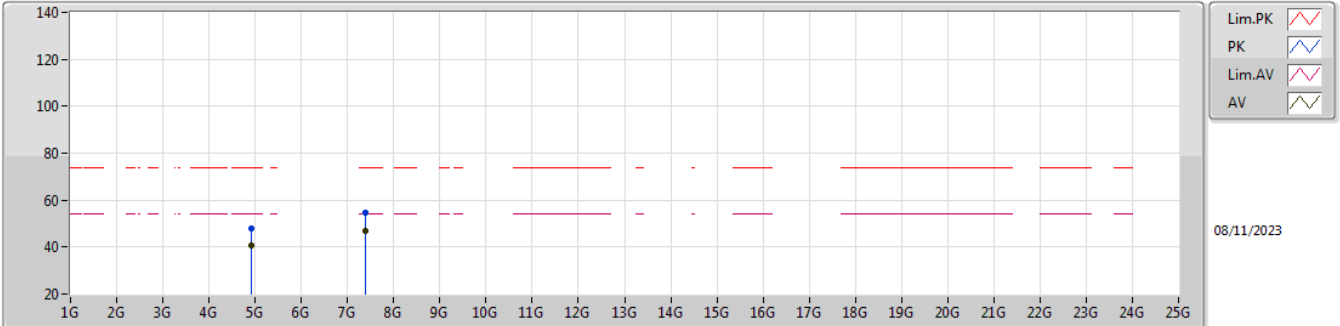


EUT X_1TX
Setting 108
02-E-E-5

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	4.92406G	47.25	74.00	-26.75	39.48	3	Vertical	163	1.80	-	33.25	5.13	30.61
AV	4.9243G	37.65	54.00	-16.35	29.88	3	Vertical	163	1.80	-	33.25	5.13	30.61
PK	7.38864G	52.75	74.00	-21.25	41.66	3	Vertical	64	1.80	-	36.70	6.55	32.16
AV	7.38576G	43.71	54.00	-10.29	32.62	3	Vertical	64	1.80	-	36.70	6.55	32.16

2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_1TX

2462MHz_TX

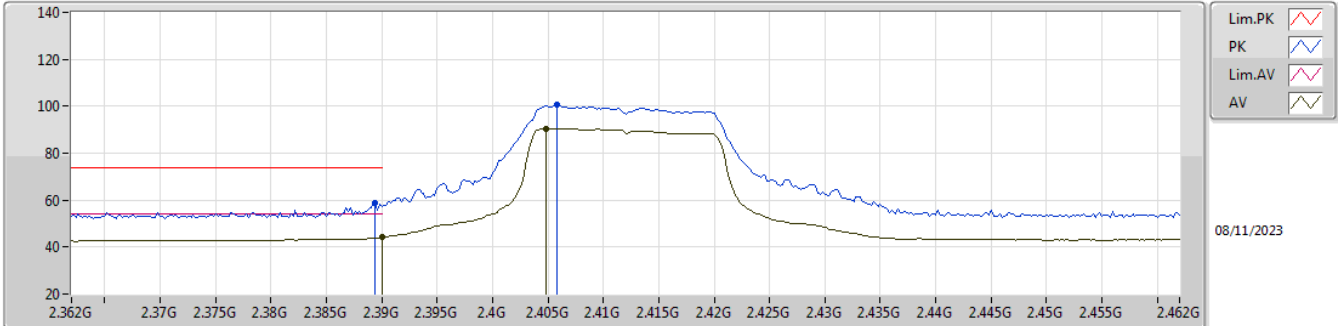


EUT X_1TX
Setting 108
02-E-E-5

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	4.92448G	48.11	74.00	-25.89	40.34	3	Horizontal	352	2.49	-	33.25	5.13	30.61
AV	4.92436G	40.50	54.00	-13.50	32.73	3	Horizontal	352	2.49	-	33.25	5.13	30.61
PK	7.38744G	54.88	74.00	-19.12	43.79	3	Horizontal	141	1.64	-	36.70	6.55	32.16
AV	7.3872G	46.78	54.00	-7.22	35.69	3	Horizontal	141	1.64	-	36.70	6.55	32.16

2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_1TX

2412MHz_TX

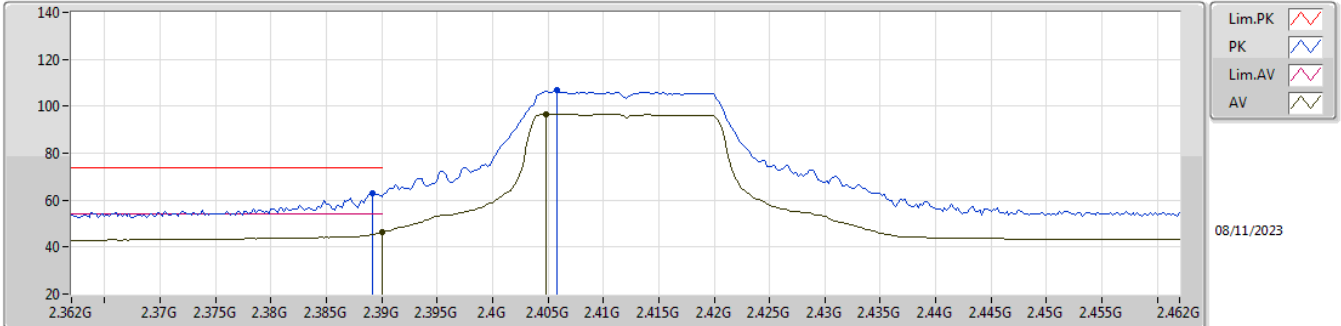


EUT X_1TX
 Setting 108
 02-E-E-5

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	58.70	74.00	-15.30	27.25	3	Vertical	270	2.71	-	28.40	3.05	-
AV	2.39G	44.07	54.00	-9.93	12.61	3	Vertical	270	2.71	-	28.40	3.06	-
PK	2.4058G	100.53	Inf	-Inf	69.07	3	Vertical	270	2.71	-	28.40	3.06	-
AV	2.4048G	90.53	Inf	-Inf	59.07	3	Vertical	270	2.71	-	28.40	3.06	-

2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_1TX

2412MHz_TX

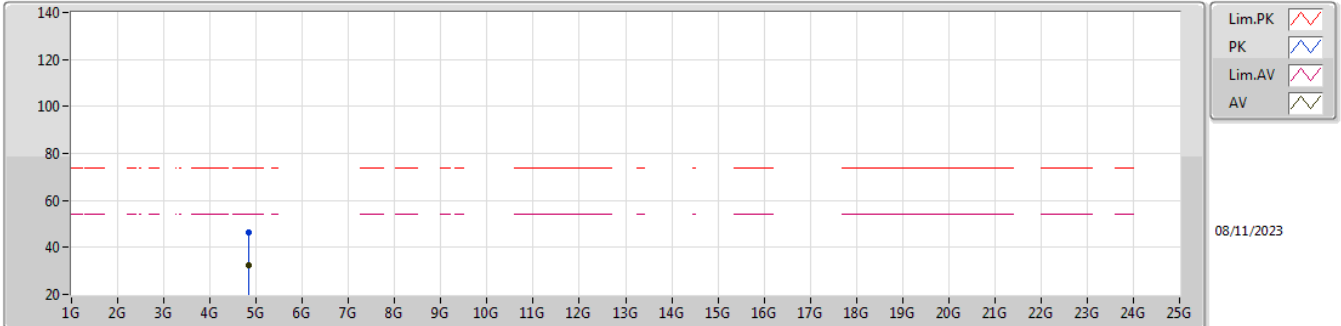


EUT X_1TX
Setting 108
02-E-E-5

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	2.3892G	62.70	74.00	-11.30	31.25	3	Horizontal	164	2.63	-	28.40	3.05	-
AV	2.39G	46.17	54.00	-7.83	14.71	3	Horizontal	164	2.63	-	28.40	3.06	-
PK	2.4058G	106.73	Inf	-Inf	75.27	3	Horizontal	164	2.63	-	28.40	3.06	-
AV	2.4048G	96.72	Inf	-Inf	65.26	3	Horizontal	164	2.63	-	28.40	3.06	-

2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_1TX

2412MHz_TX

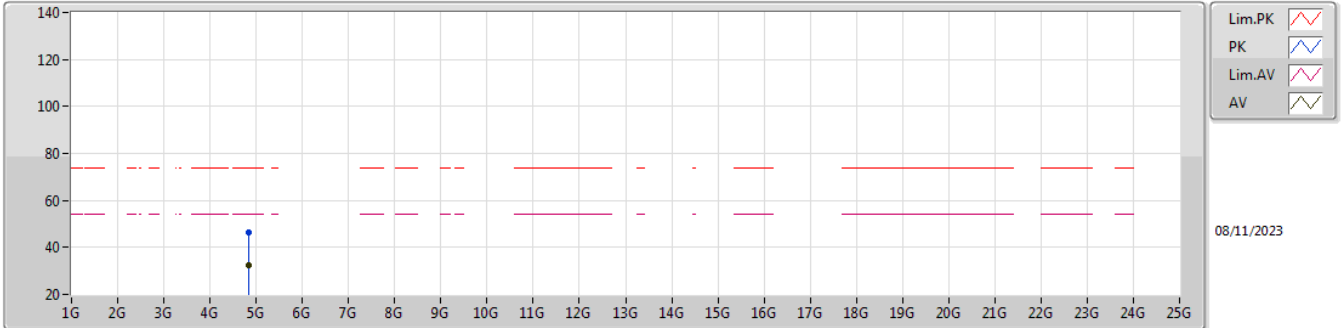


EUT X_1TX
Setting 108
02-E-E-5

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	4.8375G	46.62	74.00	-27.38	39.17	3	Vertical	304	3.00	-	33.02	5.10	30.67
AV	4.83468G	32.38	54.00	-21.62	24.94	3	Vertical	304	3.00	-	33.01	5.10	30.67

2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_1TX

2412MHz_TX

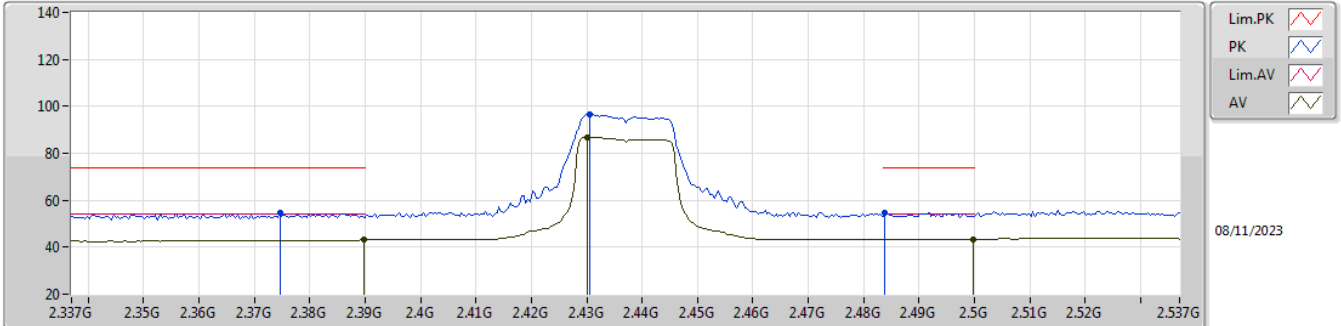


EUT X_1TX
Setting 108
02-E-E-5

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	4.83054G	46.62	74.00	-27.38	39.21	3	Horizontal	242	1.80	-	32.98	5.10	30.67
AV	4.83216G	32.40	54.00	-21.60	24.98	3	Horizontal	242	1.80	-	32.99	5.10	30.67

2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_1TX

2437MHz_TX

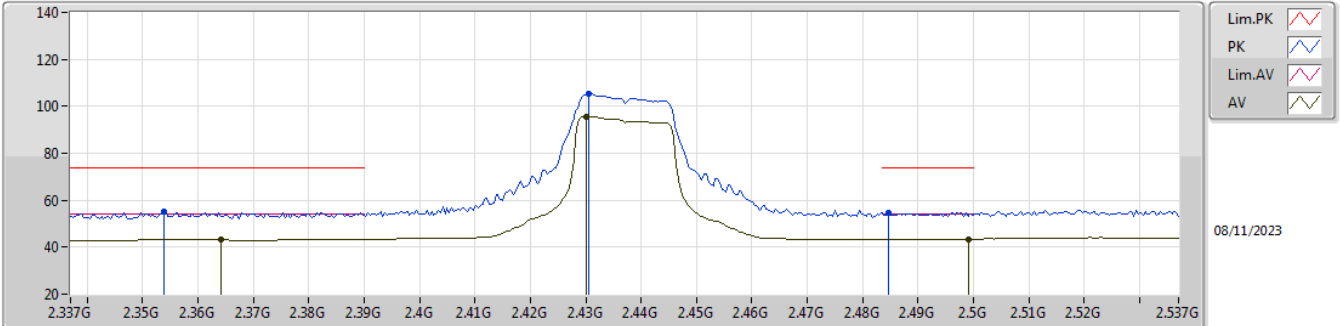


EUT X_1TX
Setting 108
02-E-E-5

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	2.3746G	54.65	74.00	-19.35	23.25	3	Vertical	51	1.20	-	28.35	3.05	-
AV	2.3898G	43.03	54.00	-10.97	11.58	3	Vertical	51	1.20	-	28.40	3.05	-
PK	2.4306G	96.72	Inf	-Inf	65.16	3	Vertical	51	1.20	-	28.49	3.07	-
AV	2.4302G	86.96	Inf	-Inf	55.39	3	Vertical	51	1.20	-	28.50	3.07	-
PK	2.4838G	54.89	74.00	-19.11	23.30	3	Vertical	51	1.20	-	28.50	3.09	-
AV	2.4998G	43.53	54.00	-10.47	11.83	3	Vertical	51	1.20	-	28.60	3.10	-

2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_1TX

2437MHz_TX

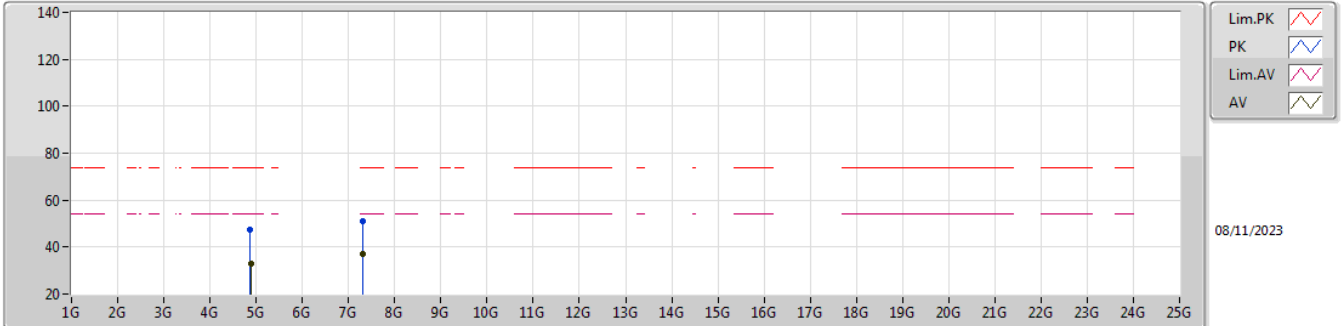


EUT X_1TX
Setting 108
02-E-E-5

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	2.3538G	54.99	74.00	-19.01	23.75	3	Horizontal	164	2.89	-	28.20	3.04	-
AV	2.3642G	43.40	54.00	-10.60	12.12	3	Horizontal	164	2.89	-	28.24	3.04	-
PK	2.4306G	105.52	Inf	-Inf	73.96	3	Horizontal	164	2.89	-	28.49	3.07	-
AV	2.4302G	95.55	Inf	-Inf	63.98	3	Horizontal	164	2.89	-	28.50	3.07	-
PK	2.4846G	54.81	74.00	-19.19	23.22	3	Horizontal	164	2.89	-	28.50	3.09	-
AV	2.499G	43.50	54.00	-10.50	11.81	3	Horizontal	164	2.89	-	28.59	3.10	-

2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_1TX

2437MHz_TX

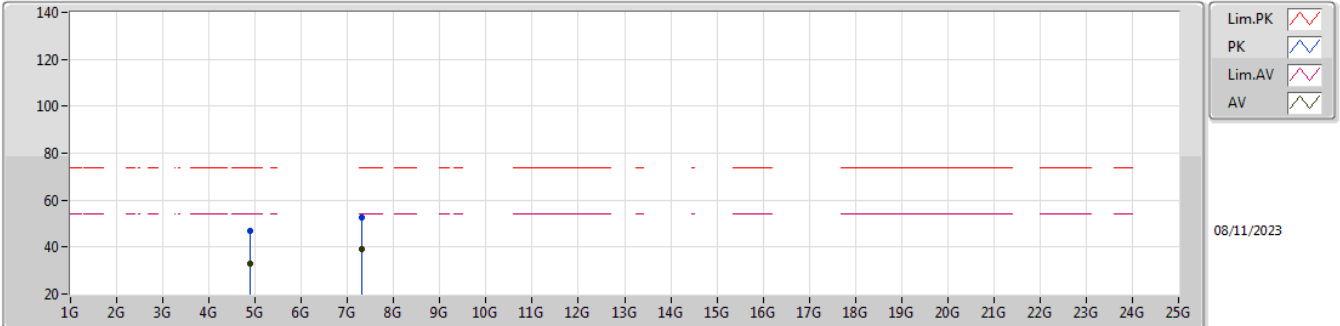


EUT X_1TX
Setting 108
02-E-E-5

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	4.86188G	47.30	74.00	-26.70	39.72	3	Vertical	2	1.80	-	33.12	5.11	30.65
AV	4.8851G	32.87	54.00	-21.13	25.22	3	Vertical	2	1.80	-	33.17	5.12	30.64
PK	7.31712G	51.08	74.00	-22.92	40.06	3	Vertical	37	2.05	-	36.63	6.51	32.12
AV	7.30854G	37.10	54.00	-16.90	26.08	3	Vertical	37	2.05	-	36.62	6.51	32.11

2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_1TX

2437MHz_TX

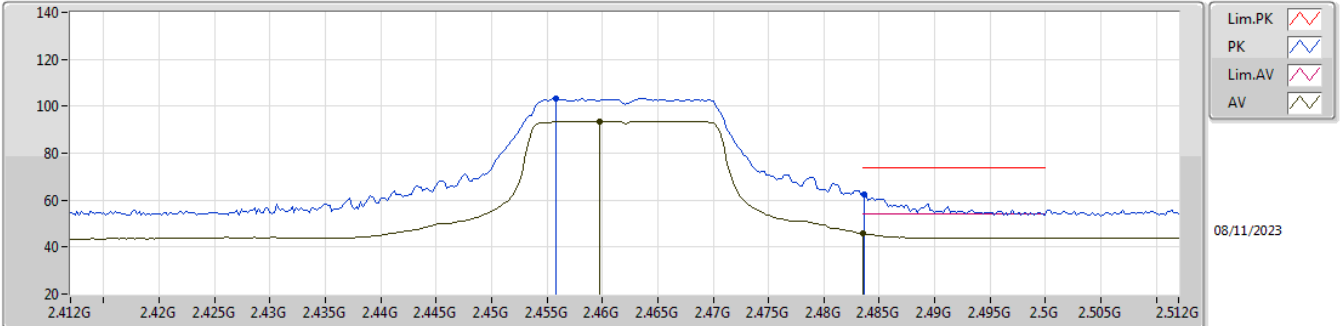


EUT X_1TX
Setting 108
02-E-E-5

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	4.8818G	46.72	74.00	-27.28	39.09	3	Horizontal	123	1.80	-	33.16	5.11	30.64
AV	4.88504G	32.81	54.00	-21.19	25.16	3	Horizontal	123	1.80	-	33.17	5.12	30.64
PK	7.31358G	52.76	74.00	-21.24	41.74	3	Horizontal	140	1.53	-	36.63	6.51	32.12
AV	7.31052G	39.21	54.00	-14.79	28.19	3	Horizontal	140	1.53	-	36.62	6.51	32.11

2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_1TX

2462MHz_TX

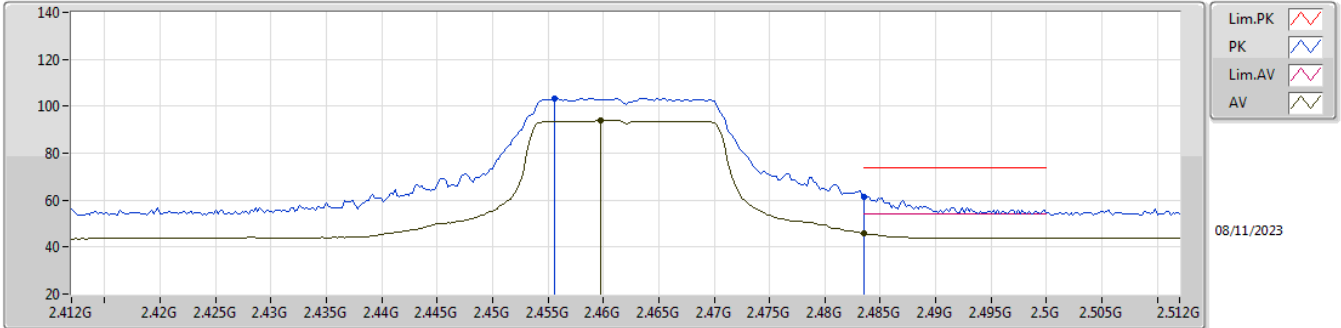


EUT X_1TX
Setting 108
02-E-E-5

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	2.4558G	103.25	Inf	-Inf	71.71	3	Vertical	169	2.55	-	28.46	3.08	-
AV	2.4598G	93.66	Inf	-Inf	62.08	3	Vertical	169	2.55	-	28.50	3.08	-
PK	2.4836G	62.29	74.00	-11.71	30.70	3	Vertical	169	2.55	-	28.50	3.09	-
AV	2.4835G	45.69	54.00	-8.31	14.10	3	Vertical	169	2.55	-	28.50	3.09	-

2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_1TX

2462MHz_TX

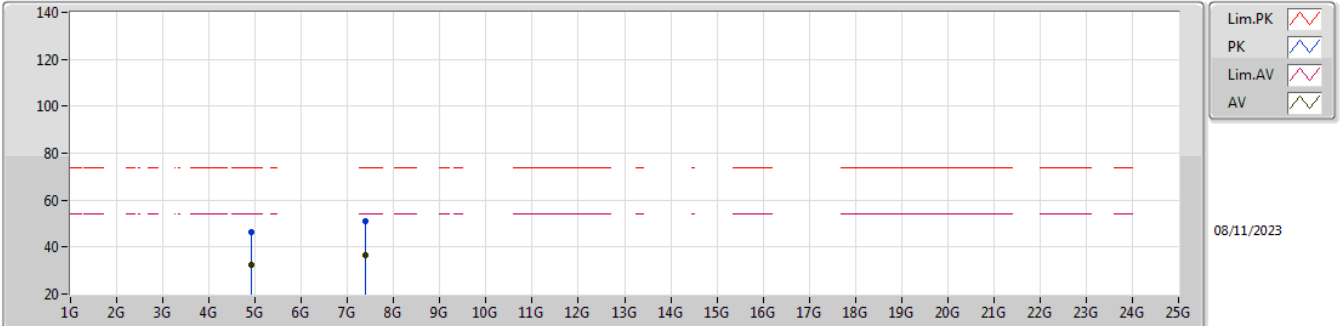


EUT X_1TX
Setting 108
02-E-E-5

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	2.4556G	103.46	Inf	-Inf	71.92	3	Horizontal	166	2.55	-	28.46	3.08	-
AV	2.4598G	93.83	Inf	-Inf	62.25	3	Horizontal	166	2.55	-	28.50	3.08	-
PK	2.4835G	61.57	74.00	-12.43	29.98	3	Horizontal	166	2.55	-	28.50	3.09	-
AV	2.4835G	45.80	54.00	-8.20	14.21	3	Horizontal	166	2.55	-	28.50	3.09	-

2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_1TX

2462MHz_TX

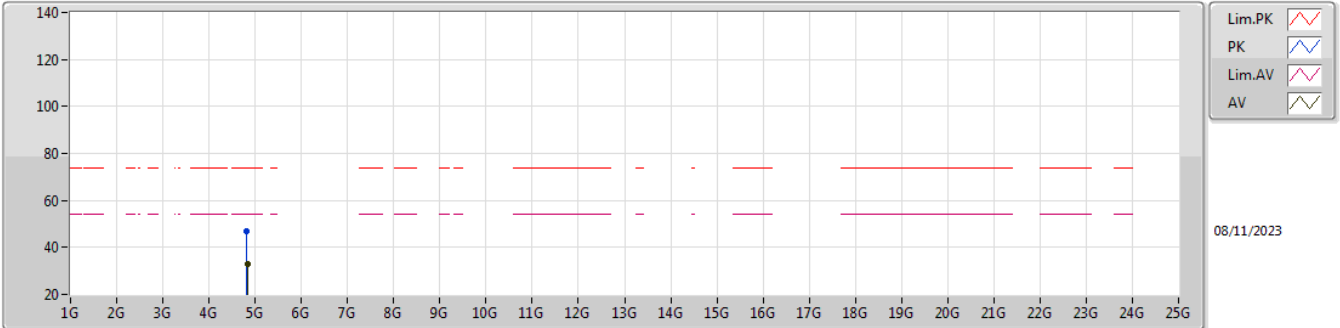


EUT X_1TX
Setting 108
02-E-E-5

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	4.92142G	46.30	74.00	-27.70	38.54	3	Vertical	132	2.44	-	33.24	5.13	30.61
AV	4.92424G	32.53	54.00	-21.47	24.76	3	Vertical	132	2.44	-	33.25	5.13	30.61
PK	7.39956G	50.79	74.00	-23.21	39.69	3	Vertical	61	1.80	-	36.70	6.56	32.16
AV	7.38408G	36.67	54.00	-17.33	25.58	3	Vertical	61	1.80	-	36.70	6.55	32.16

2.4-2.4835GHz_802.11n_HT20_Nss1,(MCS0)_1TX

2412MHz_TX

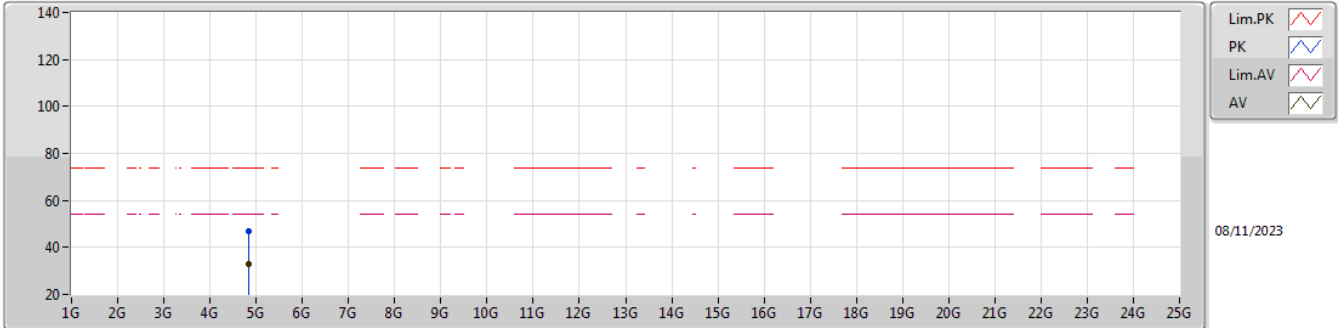


EUT X_1TX
Setting 108
02-E-V-1

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	4.81338G	46.64	74.00	-27.36	39.35	3	Vertical	266	2.98	-	32.88	5.09	30.68
AV	4.83408G	33.17	54.00	-20.83	25.74	3	Vertical	266	2.98	-	33.00	5.10	30.67

2.4-2.4835GHz_802.11n_HT20_Nss1,(MCS0)_1TX

2412MHz_TX

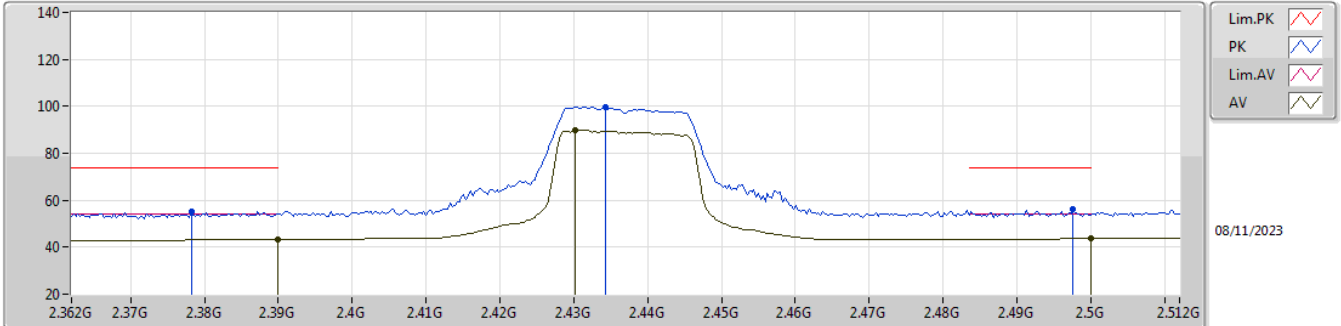


EUT X_1TX
Setting 108
02-E-E-5

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	4.83006G	46.64	74.00	-27.36	39.23	3	Horizontal	102	1.80	-	32.98	5.10	30.67
AV	4.83534G	33.06	54.00	-20.94	25.62	3	Horizontal	102	1.80	-	33.01	5.10	30.67

2.4-2.4835GHz_802.11n_HT20_Nss1,(MCS0)_1TX

2437MHz_TX

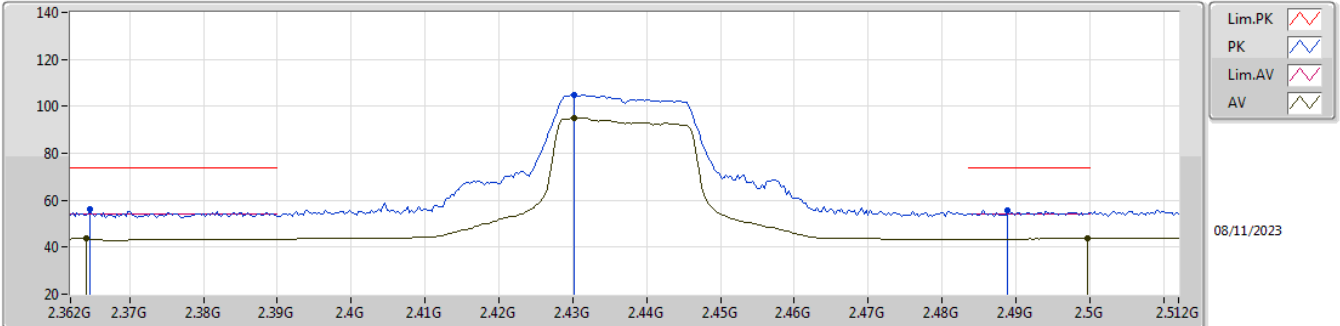


EUT X_1TX
Setting 108
02-E-V-1

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	2.3782G	55.14	74.00	-18.86	23.71	3	Vertical	262	3.00	-	28.38	3.05	-
AV	2.3899G	43.24	54.00	-10.76	11.79	3	Vertical	262	3.00	-	28.40	3.05	-
PK	2.4343G	99.67	Inf	-Inf	68.14	3	Vertical	262	3.00	-	28.46	3.07	-
AV	2.4301G	89.83	Inf	-Inf	58.26	3	Vertical	262	3.00	-	28.50	3.07	-
PK	2.4976G	56.42	74.00	-17.58	24.74	3	Vertical	262	3.00	-	28.58	3.10	-
AV	2.5G	43.65	54.00	-10.35	11.95	3	Vertical	262	3.00	-	28.60	3.10	-

2.4-2.4835GHz_802.11n_HT20_Nss1,(MCS0)_1TX

2437MHz_TX

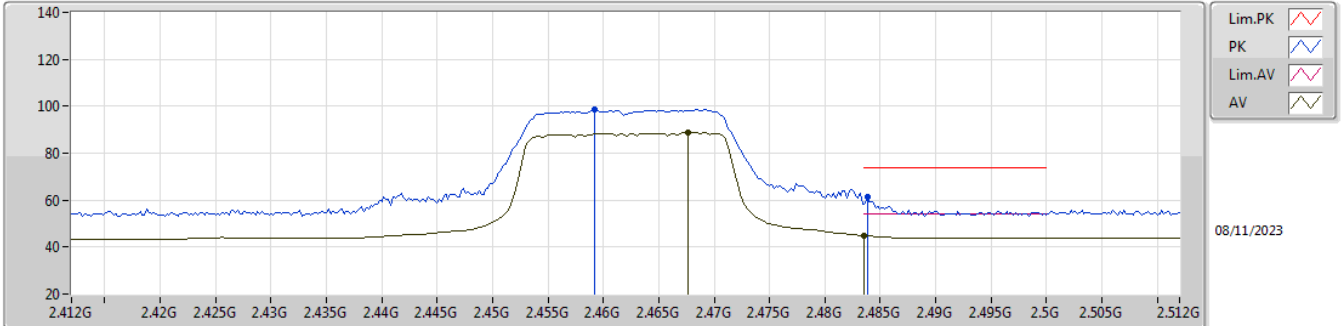


EUT X_1TX
Setting 108
02-E-V-1

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	2.3647G	56.38	74.00	-17.62	25.09	3	Horizontal	160	2.88	-	28.25	3.04	-
AV	2.3641G	43.58	54.00	-10.42	12.30	3	Horizontal	160	2.88	-	28.24	3.04	-
PK	2.4301G	104.83	Inf	-Inf	73.26	3	Horizontal	160	2.88	-	28.50	3.07	-
AV	2.4301G	95.05	Inf	-Inf	63.48	3	Horizontal	160	2.88	-	28.50	3.07	-
PK	2.4889G	55.89	74.00	-18.11	24.29	3	Horizontal	160	2.88	-	28.50	3.10	-
AV	2.4997G	43.70	54.00	-10.30	12.00	3	Horizontal	160	2.88	-	28.60	3.10	-

2.4-2.4835GHz_802.11n_HT20_Nss1,(MCS0)_1TX

2462MHz_TX

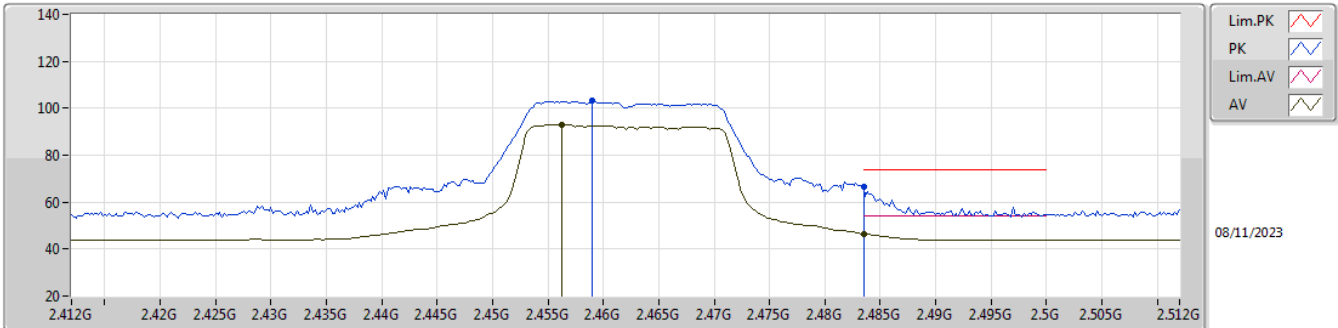


EUT X_1TX
Setting 108
02-E-V-1

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	2.4592G	98.55	Inf	-Inf	66.98	3	Vertical	256	2.60	-	28.49	3.08	-
AV	2.4676G	88.73	Inf	-Inf	57.14	3	Vertical	256	2.60	-	28.50	3.09	-
PK	2.4838G	61.26	74.00	-12.74	29.67	3	Vertical	256	2.60	-	28.50	3.09	-
AV	2.4835G	44.86	54.00	-9.14	13.27	3	Vertical	256	2.60	-	28.50	3.09	-

2.4-2.4835GHz_802.11n_HT20_Nss1,(MCS0)_1TX

2462MHz_TX

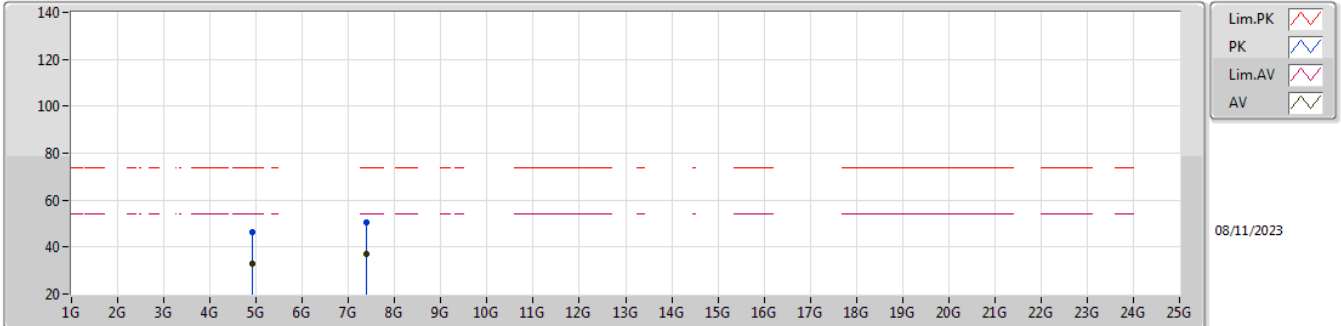


EUT X_1TX
Setting 108
02-E-V-1

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	2.459G	103.18	Inf	-Inf	71.61	3	Horizontal	159	2.62	-	28.49	3.08	-
AV	2.4562G	93.00	Inf	-Inf	61.46	3	Horizontal	159	2.62	-	28.46	3.08	-
PK	2.4835G	66.53	74.00	-7.47	34.94	3	Horizontal	159	2.62	-	28.50	3.09	-
AV	2.4835G	46.50	54.00	-7.50	14.91	3	Horizontal	159	2.62	-	28.50	3.09	-

2.4-2.4835GHz_802.11n_HT20_Nss1,(MCS0)_1TX

2462MHz_TX

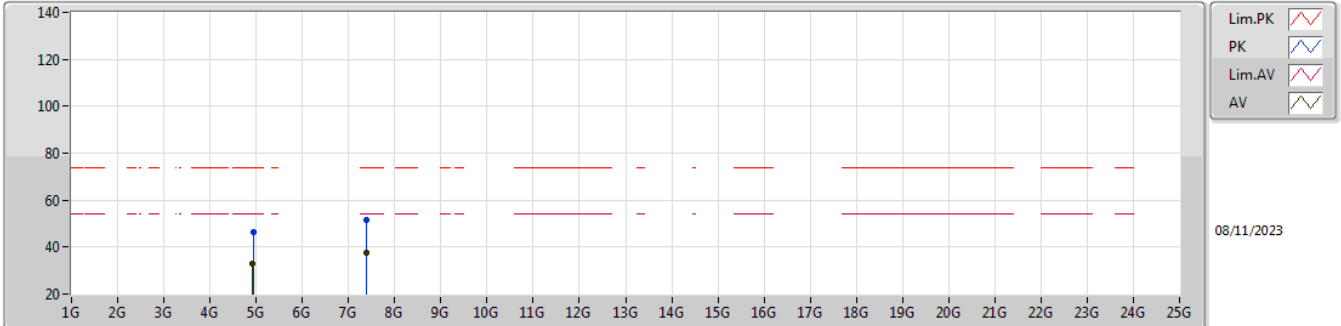


EUT X_1TX
Setting 108
02-E-V-1

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	4.91284G	46.60	74.00	-27.40	38.87	3	Vertical	166	1.60	-	33.23	5.12	30.62
AV	4.92406G	32.85	54.00	-21.15	25.08	3	Vertical	166	1.60	-	33.25	5.13	30.61
PK	7.38126G	50.74	74.00	-23.26	39.64	3	Vertical	29	1.70	-	36.70	6.55	32.15
AV	7.38234G	37.10	54.00	-16.90	26.00	3	Vertical	29	1.70	-	36.70	6.55	32.15

2.4-2.4835GHz_802.11n_HT20_Nss1,(MCS0)_1TX

2462MHz_TX

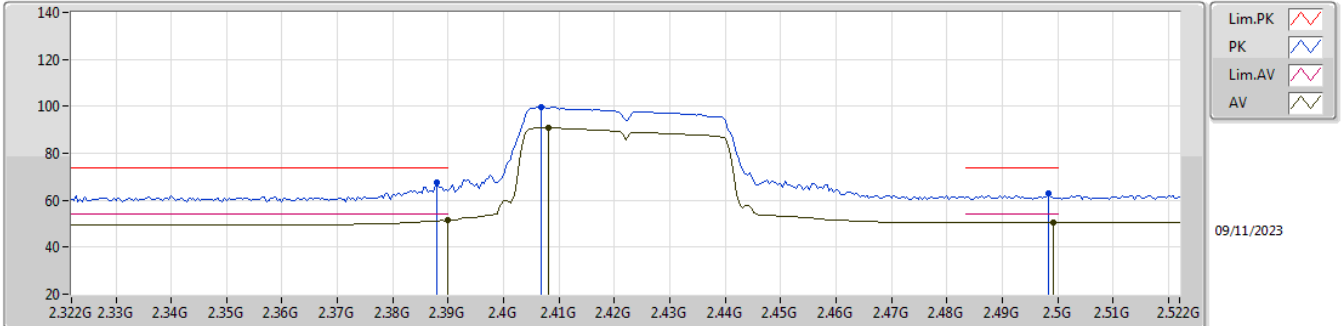


EUT X_1TX
Setting 108
02-E-V-1

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	4.93618G	46.19	74.00	-27.81	38.39	3	Horizontal	0	1.80	-	33.27	5.13	30.60
AV	4.9231G	32.70	54.00	-21.30	24.93	3	Horizontal	0	1.80	-	33.25	5.13	30.61
PK	7.38186G	51.80	74.00	-22.20	40.70	3	Horizontal	166	1.75	-	36.70	6.55	32.15
AV	7.3821G	37.49	54.00	-16.51	26.39	3	Horizontal	166	1.75	-	36.70	6.55	32.15

2.4-2.4835GHz_802.11n_HT40_Nss1,(MCS0)_1TX

2422MHz_TX

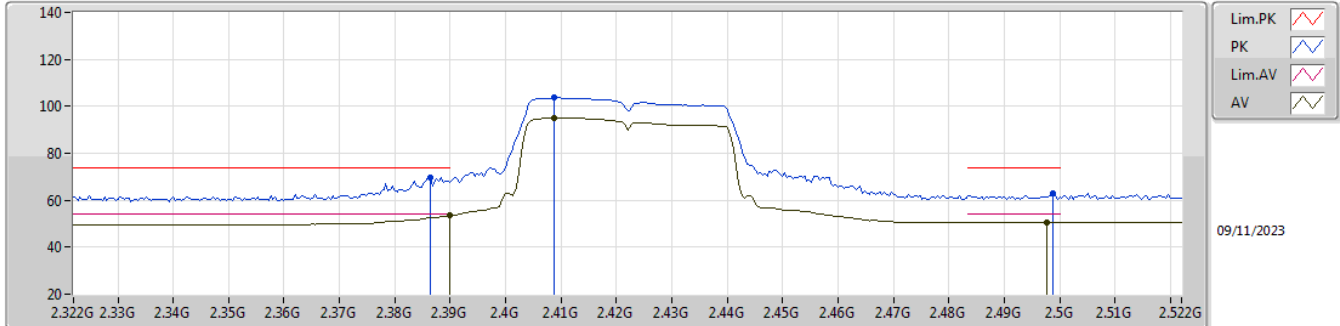


EUT X_1TX
 Setting 108
 03-C-C-6

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	2.388G	67.42	74.00	-6.58	35.65	3	Vertical	82	1.09	-	28.20	3.57	-
AV	2.39G	51.65	54.00	-2.35	19.88	3	Vertical	82	1.09	-	28.20	3.57	-
PK	2.4068G	99.48	Inf	-Inf	67.69	3	Vertical	82	1.09	-	28.20	3.59	-
AV	2.408G	90.88	Inf	-Inf	59.09	3	Vertical	82	1.09	-	28.20	3.59	-
PK	2.4984G	62.84	74.00	-11.16	30.70	3	Vertical	82	1.09	-	28.49	3.65	-
AV	2.4992G	50.71	54.00	-3.29	18.56	3	Vertical	82	1.09	-	28.50	3.65	-

2.4-2.4835GHz_802.11n HT40_Nss1,(MCS0)_1TX

2422MHz_TX

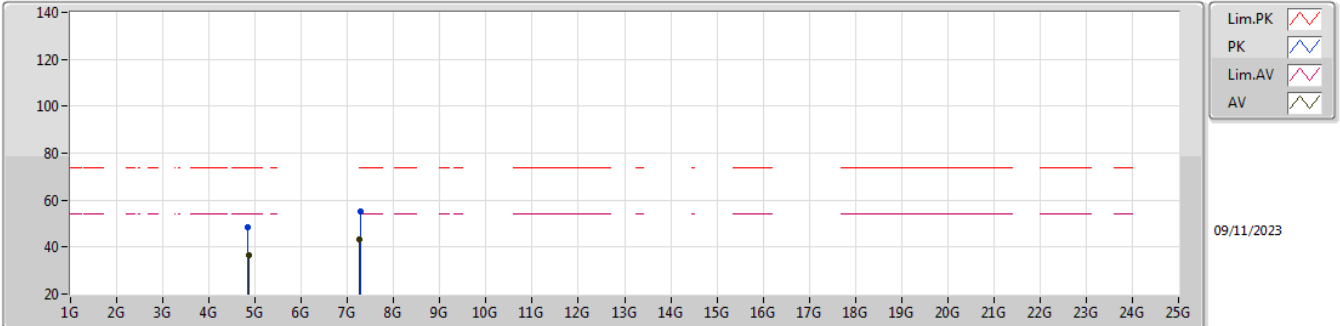


EUT X_1TX
Setting 108
03-C-C-6

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	2.3864G	69.54	74.00	-4.46	37.77	3	Horizontal	32	2.12	-	28.20	3.57	-
AV	2.39G	53.45	54.00	-0.55	21.68	3	Horizontal	32	2.12	-	28.20	3.57	-
PK	2.4088G	103.72	Inf	-Inf	71.93	3	Horizontal	32	2.12	-	28.20	3.59	-
AV	2.4088G	95.19	Inf	-Inf	63.40	3	Horizontal	32	2.12	-	28.20	3.59	-
PK	2.4988G	62.68	74.00	-11.32	30.54	3	Horizontal	32	2.12	-	28.49	3.65	-
AV	2.4976G	50.70	54.00	-3.30	18.56	3	Horizontal	32	2.12	-	28.49	3.65	-

2.4-2.4835GHz_802.11n_HT40_Nss1,(MCS0)_1TX

2422MHz_TX

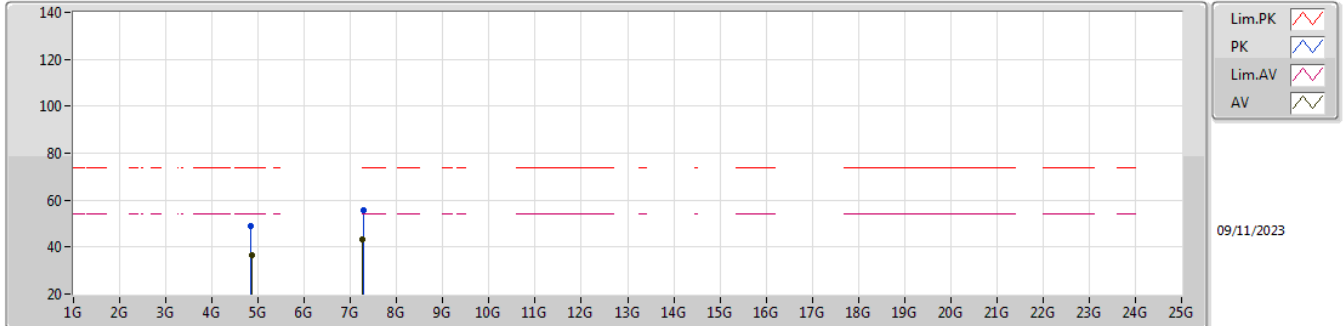


EUT X_1TX
Setting 108
03-C-C-6

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	4.8473G	48.47	74.00	-25.53	43.39	3	Vertical	286	2.68	-	33.40	6.39	34.71
AV	4.85792G	36.44	54.00	-17.56	31.30	3	Vertical	286	2.68	-	33.45	6.41	34.72
PK	7.27986G	55.08	74.00	-18.92	44.50	3	Vertical	120	2.04	-	36.72	9.26	35.40
AV	7.25646G	43.09	54.00	-10.91	32.63	3	Vertical	120	2.04	-	36.63	9.24	35.41

2.4-2.4835GHz_802.11n_HT40_Nss1,(MCS0)_1TX

2422MHz_TX

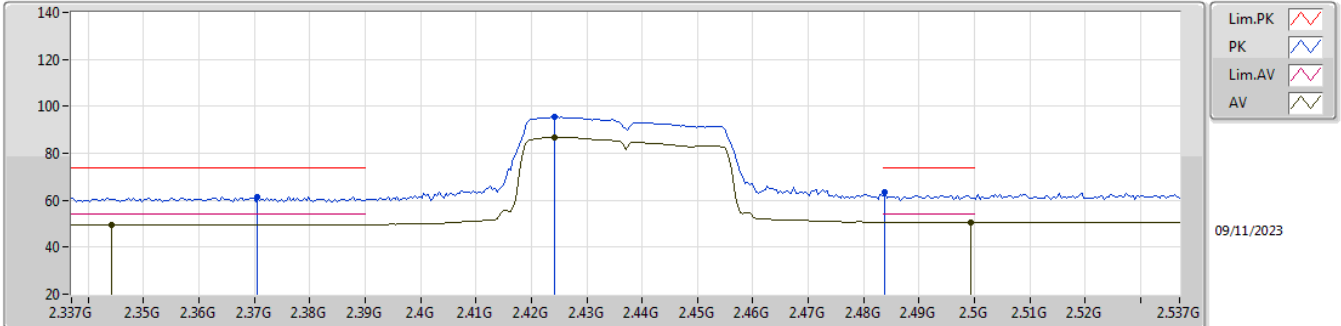


EUT X_1TX
Setting 108
03-C-C-6

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	4.8362G	49.19	74.00	-24.81	44.13	3	Horizontal	196	2.93	-	33.40	6.36	34.70
AV	4.85768G	36.44	54.00	-17.56	31.30	3	Horizontal	196	2.93	-	33.45	6.41	34.72
PK	7.28076G	55.44	74.00	-18.56	44.86	3	Horizontal	84	1.73	-	36.72	9.26	35.40
AV	7.25742G	43.10	54.00	-10.90	32.64	3	Horizontal	84	1.73	-	36.63	9.24	35.41

2.4-2.4835GHz_802.11n_HT40_Nss1,(MCS0)_1TX

2437MHz_TX

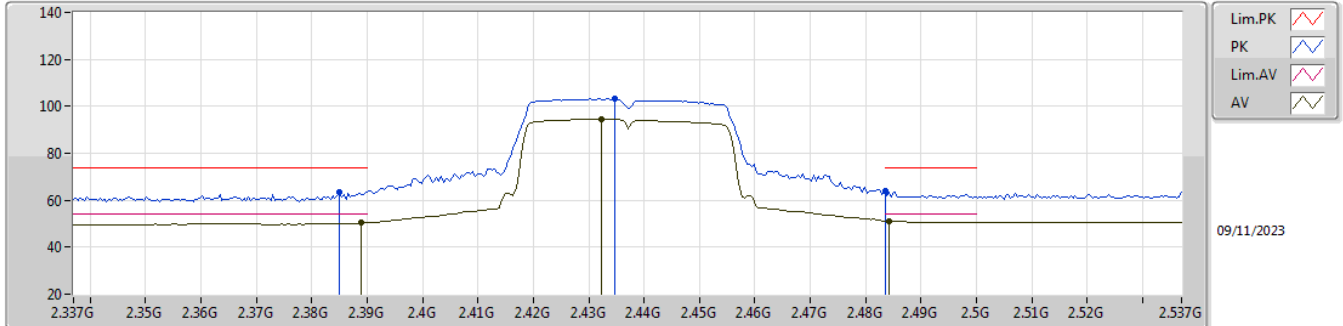


EUT X_1TX
 Setting 108
 03-C-C-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3706G	61.55	74.00	-12.45	29.79	3	Vertical	139	2.13	-	28.20	3.56	-
AV	2.3442G	49.65	54.00	-4.35	17.94	3	Vertical	139	2.13	-	28.17	3.54	-
PK	2.4242G	95.46	Inf	-Inf	63.66	3	Vertical	139	2.13	-	28.20	3.60	-
AV	2.4242G	86.90	Inf	-Inf	55.10	3	Vertical	139	2.13	-	28.20	3.60	-
PK	2.4838G	63.26	74.00	-10.74	31.22	3	Vertical	139	2.13	-	28.40	3.64	-
AV	2.4994G	50.71	54.00	-3.29	18.56	3	Vertical	139	2.13	-	28.50	3.65	-

2.4-2.4835GHz_802.11n_HT40_Nss1,(MCS0)_1TX

2437MHz_TX

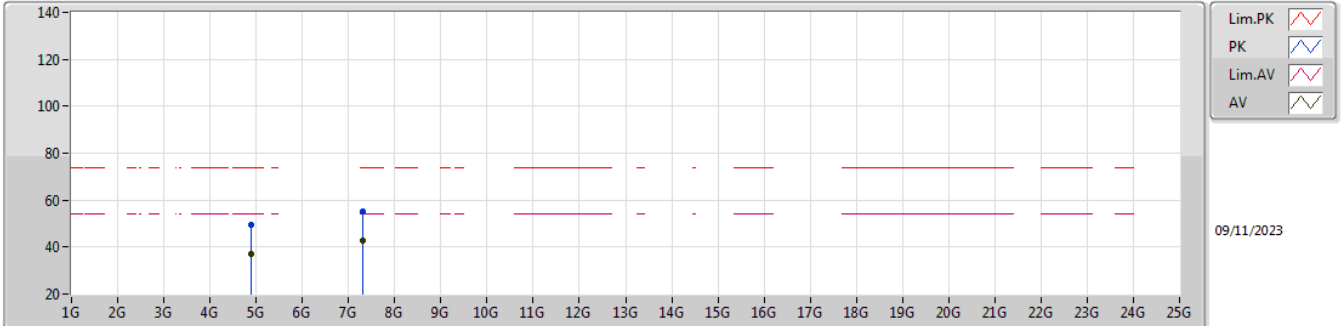


EUT X_1TX
Setting 108
03-C-C-6

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	2.385G	63.55	74.00	-10.45	31.78	3	Horizontal	151	2.35	-	28.20	3.57	-
AV	2.389G	50.28	54.00	-3.72	18.51	3	Horizontal	151	2.35	-	28.20	3.57	-
PK	2.4346G	103.21	Inf	-Inf	71.40	3	Horizontal	151	2.35	-	28.20	3.61	-
AV	2.4322G	94.44	Inf	-Inf	62.64	3	Horizontal	151	2.35	-	28.20	3.60	-
PK	2.4835G	63.79	74.00	-10.21	31.75	3	Horizontal	151	2.35	-	28.40	3.64	-
AV	2.4842G	51.27	54.00	-2.73	19.22	3	Horizontal	151	2.35	-	28.41	3.64	-

2.4-2.4835GHz_802.11n_HT40_Nss1,(MCS0)_1TX

2437MHz_TX

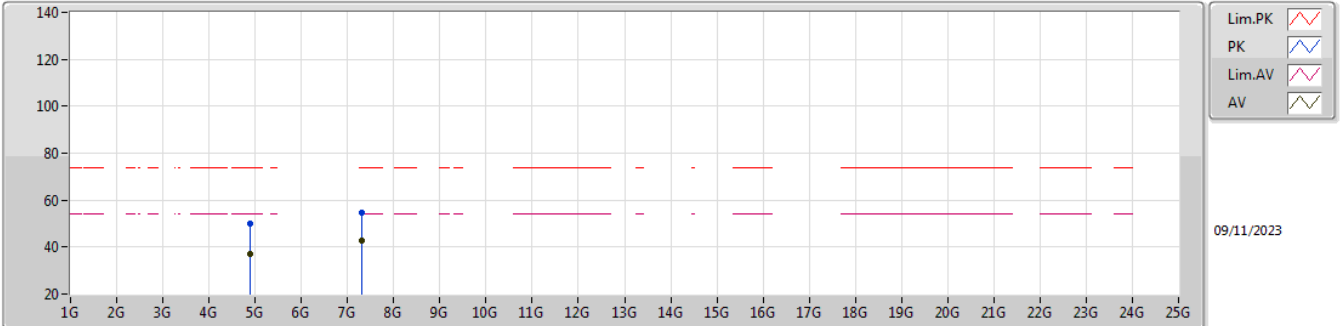


EUT X_1TX
Setting 108
03-C-C-6

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	4.88018G	49.35	74.00	-24.65	44.04	3	Vertical	131	2.23	-	33.58	6.47	34.74
AV	4.88714G	37.08	54.00	-16.92	31.72	3	Vertical	131	2.23	-	33.62	6.48	34.74
PK	7.31304G	54.95	74.00	-19.05	44.22	3	Vertical	109	2.18	-	36.83	9.28	35.38
AV	7.29612G	42.61	54.00	-11.39	31.95	3	Vertical	109	2.18	-	36.78	9.27	35.39

2.4-2.4835GHz_802.11n_HT40_Nss1,(MCS0)_1TX

2437MHz_TX

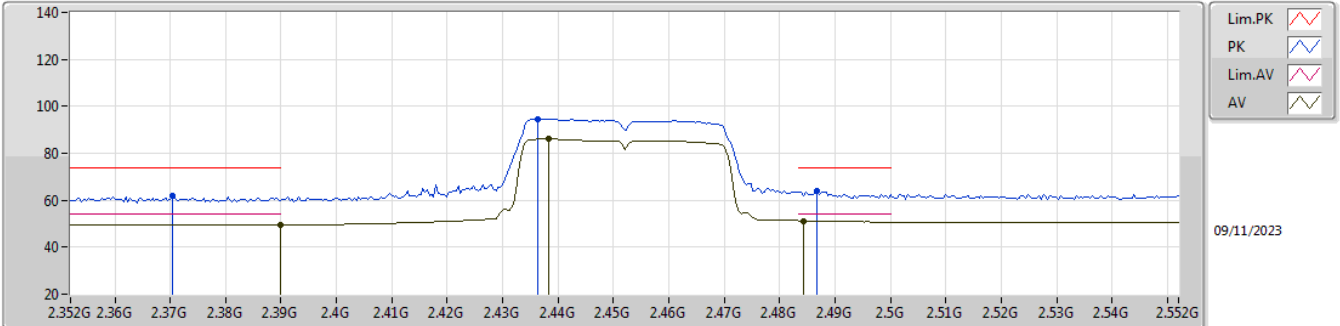


EUT X_1TX
Setting 108
03-C-C-6

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	4.88006G	50.03	74.00	-23.97	44.72	3	Horizontal	178	1.70	-	33.58	6.47	34.74
AV	4.88588G	37.07	54.00	-16.93	31.71	3	Horizontal	178	1.70	-	33.62	6.48	34.74
PK	7.30188G	54.62	74.00	-19.38	43.92	3	Horizontal	340	2.14	-	36.80	9.28	35.38
AV	7.3002G	42.60	54.00	-11.40	31.91	3	Horizontal	340	2.14	-	36.80	9.28	35.39

2.4-2.4835GHz_802.11n_HT40_Nss1,(MCS0)_1TX

2452MHz_TX

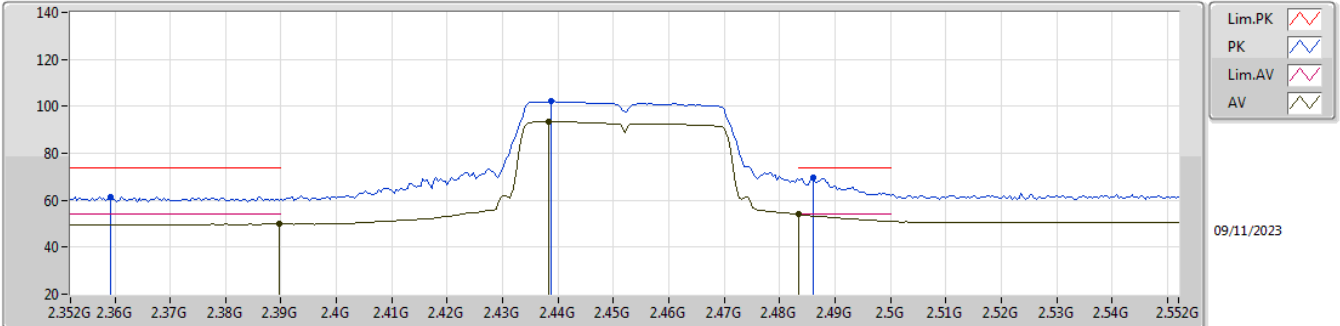


EUT X_1TX
Setting 108
03-C-C-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3704G	61.77	74.00	-12.23	30.01	3	Vertical	329	1.80	-	28.20	3.56	-
AV	2.39G	49.63	54.00	-4.37	17.86	3	Vertical	329	1.80	-	28.20	3.57	-
PK	2.4364G	94.62	Inf	-Inf	62.81	3	Vertical	329	1.80	-	28.20	3.61	-
AV	2.4384G	86.06	Inf	-Inf	54.25	3	Vertical	329	1.80	-	28.20	3.61	-
PK	2.4868G	63.73	74.00	-10.27	31.66	3	Vertical	329	1.80	-	28.42	3.65	-
AV	2.4844G	51.27	54.00	-2.73	19.22	3	Vertical	329	1.80	-	28.41	3.64	-

2.4-2.4835GHz_802.11n HT40_Nss1,(MCS0)_1TX

2452MHz_TX

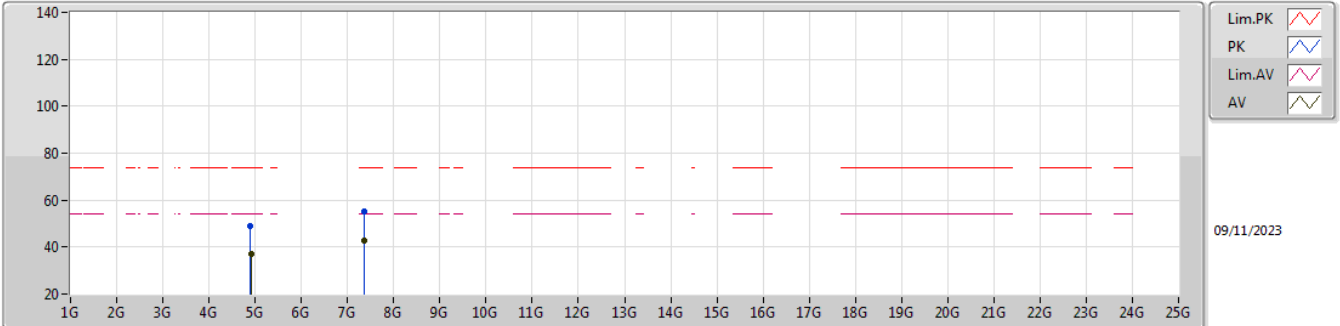


EUT X_1TX
Setting 108
03-C-C-6

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	2.3592G	61.44	74.00	-12.56	29.69	3	Horizontal	12	2.55	-	28.20	3.55	-
AV	2.3896G	49.85	54.00	-4.15	18.08	3	Horizontal	12	2.55	-	28.20	3.57	-
PK	2.4388G	102.09	Inf	-Inf	70.28	3	Horizontal	12	2.55	-	28.20	3.61	-
AV	2.4384G	93.54	Inf	-Inf	61.73	3	Horizontal	12	2.55	-	28.20	3.61	-
PK	2.486G	69.62	74.00	-4.38	37.56	3	Horizontal	12	2.55	-	28.42	3.64	-
AV	2.4835G	53.96	54.00	-0.04	21.92	3	Horizontal	12	2.55	-	28.40	3.64	-

2.4-2.4835GHz_802.11n_HT40_Nss1,(MCS0)_1TX

2452MHz_TX

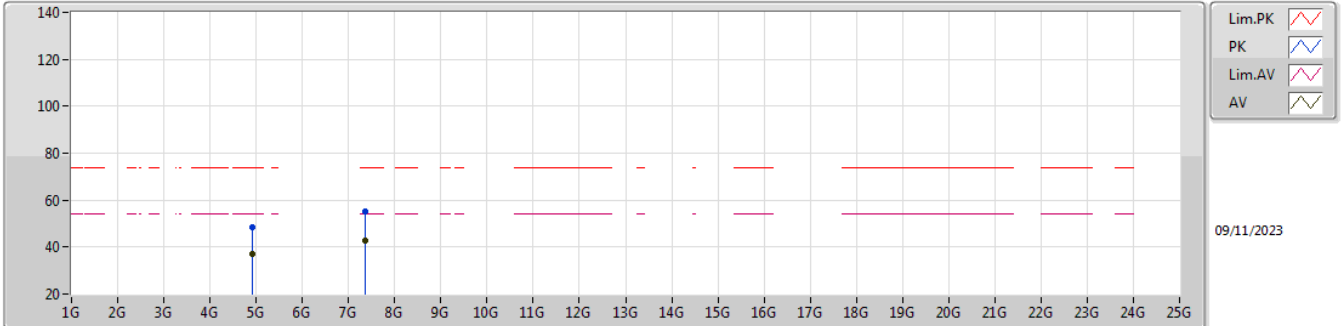


EUT X_1TX
Setting 108
03-C-C-6

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	4.88978G	48.77	74.00	-25.23	43.38	3	Vertical	34	2.39	-	33.64	6.49	34.74
AV	4.91642G	37.07	54.00	-16.93	31.60	3	Vertical	34	2.39	-	33.67	6.56	34.76
PK	7.37022G	55.32	74.00	-18.68	44.44	3	Vertical	287	1.71	-	36.90	9.33	35.35
AV	7.36674G	42.72	54.00	-11.28	31.84	3	Vertical	287	1.71	-	36.90	9.33	35.35

2.4-2.4835GHz_802.11n_HT40_Nss1,(MCS0)_1TX

2452MHz_TX



EUT X_1TX
 Setting 108
 03-C-C-6

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	4.91486G	48.64	74.00	-25.36	43.18	3	Horizontal	155	1.14	-	33.67	6.55	34.76
AV	4.91678G	37.06	54.00	-16.94	31.60	3	Horizontal	155	1.14	-	33.67	6.56	34.77
PK	7.36512G	55.15	74.00	-18.85	44.28	3	Horizontal	342	1.29	-	36.90	9.32	35.35
AV	7.36722G	42.73	54.00	-11.27	31.85	3	Horizontal	342	1.29	-	36.90	9.33	35.35