



# RADIO TEST REPORT

**FCC ID** : WT8-DNWDSE641T  
**Equipment** : 2x2 WiFi 6 Router  
**Brand Name** : datto  
**Model Name** : DSE641TL, DSE641T  
**Applicant** : Datto, Inc.  
101 Merritt 7 Norwalk, Connecticut 06851, United States  
**Standard** : 47 CFR FCC Part 15.247

The product was received on Nov. 09, 2022, and testing was started from Nov. 09, 2022 and completed on May 03, 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**

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### History of this test report

Report No.	Version	Description	Issued Date
FR330127AA	01	Initial issue of report	Dec. 06, 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: Cathy Chiu**



# 1 General Description

## 1.1 Information

### 1.1.1 RF General Information

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

Band	Mode	BWch (MHz)	Nant
2.4-2.4835GHz	802.11b	20	2TX
2.4-2.4835GHz	802.11g	20	2TX
2.4-2.4835GHz	802.11n HT20	20	2TX
2.4-2.4835GHz	802.11n HT20-BF	20	2TX
2.4-2.4835GHz	VHT20	20	2TX
2.4-2.4835GHz	VHT20-BF	20	2TX
2.4-2.4835GHz	802.11ax HEW20	20	2TX
2.4-2.4835GHz	802.11ax HEW20-BF	20	2TX
2.4-2.4835GHz	802.11n HT40	40	2TX
2.4-2.4835GHz	802.11n HT40-BF	40	2TX
2.4-2.4835GHz	VHT40	40	2TX
2.4-2.4835GHz	VHT40-BF	40	2TX
2.4-2.4835GHz	802.11ax HEW40	40	2TX
2.4-2.4835GHz	802.11ax HEW40-BF	40	2TX

Note:

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



**1.1.2 Antenna Information**

For WWAN(For EUT 2):

Set	Port	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	1	PSA	RFDPA161500SMMB805	Dipole Antenna	SMA	Note1
	2	PSA	RFDPA161500SMMB805	Dipole Antenna	SMA	
2	1/2	Ventev	M3030050O20006	Dipole Antenna	N-Female	
3	1/2	PTY	XPOL-2-5G-US	Patch Antenna	N-Female	

Note1:

Set	Port	Antenna Gain (dBi)												
		WCDMA Band 2	WCDMA Band 4	WCDMA Band 5	LTE Band 2	LTE Band 4	LTE Band 5	LTE Band 7	LTE Band 12	LTE Band 13	LTE Band 17	LTE Band 41	LTE Band 66	LTE Band 71
1	1	3.82	3.82	2.37	3.82	3.82	2.37	3.82	2.37	2.37	2.37	3.82	3.82	2.37
	2	4.66	4.66	2.81	4.66	4.66	2.81	4.66	2.81	2.81	2.81	4.66	4.66	2.81
2	1/2	5	5	3	5	5	3	5	3	3	3	5	5	3
3	1/2	10	10	9	10	10	9	10	9	9	9	10	10	9

Set	Cradlepoint to External Antenna Cable Loss (dB)												
	WCDMA Band 2	WCDMA Band 4	WCDMA Band 5	LTE Band 2	LTE Band 4	LTE Band 5	LTE Band 7	LTE Band 12	LTE Band 13	LTE Band 17	LTE Band 41	LTE Band 66	LTE Band 71
2	2.5												
3	2.5												

Set	Net Gain (dBi)												
	WCDMA Band 2	WCDMA Band 4	WCDMA Band 5	LTE Band 2	LTE Band 4	LTE Band 5	LTE Band 7	LTE Band 12	LTE Band 13	LTE Band 17	LTE Band 41	LTE Band 66	LTE Band 71
2	2.5	2.5	0.5	2.5	2.5	0.5	2.5	0.5	0.5	0.5	2.5	2.5	0.5
3	7.5	7.5	6.5	7.5	7.5	6.5	7.5	6.5	6.5	6.5	7.5	7.5	6.5

Note2: The above information was declared by manufacturer.

**For WWAN function (1TX/2RX)**

Both Port 1 and Port 2 could be used as receiving antennas.

Only Port 2 antenna can transmit RF signal.



**For WLAN:**

Set	Port	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	1	PSA	RFDPA161500SBLB803	Dipole Antenna	Reversed-SMA	Note1
	2	PSA	RFDPA161500SBLB803	Dipole Antenna	Reversed-SMA	

Note1

**For EUT 1:**

Set	Port	Gain (dBi)	
		2.4GHz	5GHz
1	1	4.33	5.02
	2	5.20	4.95

**For EUT 2:**

Set	Port	Gain (dBi)		RF Flexible Low Loss Coaxial Cable Loss (dB)			Net Gain (dBi)				
		2.4GHz	5GHz	2.4GHz	5GHz			2.4GHz	5GHz		
					UNII 1~2A	UNII 2C	UNII 3		UNII 1~2A	UNII 2C	UNII 3
1	1	4.33	5.02	0.94	1.52	1.41	1.25	3.39	3.50	3.61	3.77
	2	5.20	4.95								

Note2: The above information was declared by manufacturer.

Note3: Directional gain information

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

Ex.

Directional Gain (NSS1) formula :

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

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

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

$$DG = 10 \log \left[ \frac{(NSS1(g1,1) + NSS1(g1,2))^2}{N_{ANT}} \right] \Rightarrow 10 \log \left[ \frac{(10^{G1/20} + 10^{G2/20})^2}{N_{ANT}} \right]$$

Where ;

**EUT 1**

2.4G G1= 4.33 dBi ; G2= 5.2 dBi ; Nss1 DG= 7.79dBi ; Nss2 DG=4.79 dBi

5G G1= 5.02 dBi ; G2= 4.95 dBi ;Nss1 DG= 8dBi ; Nss2 DG=4.99 dBi

**EUT 2**

2.4G G1= 3.39 dBi ; G2= 4.26 dBi ;Nss1 DG= 6.85dBi ; Nss2 DG=3.85dBi

5G UNII-1 G1= 3.5 dBi ; G2= 3.43 dBi ;Nss1 DG= 6.48dBi ; Nss2 DG=3.47dBi

5G UNII-2A G1= 3.5 dBi ; G2= 3.43 dBi ;Nss1 DG= 6.48dBi ; Nss2 DG=3.47dBi

5G UNII-2C G1= 3.61 dBi ; G2= 3.54 dBi ;Nss1 DG= 6.59dBi ; Nss2 DG=3.58 dBi

5G UNII-3 G1= 3.77 dBi ; G2= 3.7 dBi ;Nss1 DG= 6.75dBi ; Nss2 DG=3.74 dBi



**For 2.4GHz function:**

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

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

Port 1 and Port 2 could transmit/receive simultaneously.

**For 5GHz function:**

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

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

Port 1 and Port 2 could transmit/receive simultaneously.

**1.1.3 Mode Test Duty Cycle**

**For EUT 1:**

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11b_Nss1,(1Mbps)_2TX	0.607	2.17	650u	3k
802.11g_Nss1,(6Mbps)_2TX	0.92	0.36	1.565m	1k
802.11ax HEW20_Nss1,(MCS0)_2TX	0.95	0.22	5.229m	300
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	0.913	0.4	1.77ms	1k
802.11ax HEW40_Nss1,(MCS0)_2TX	0.941	0.26	5.229m	300
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	0.92	0.36	1.77ms	1k
802.11ax HEW20_Nss2,(MCS0)_2TX	0.944	0.25	5.236m	300
802.11ax HEW40_Nss2,(MCS0)_2TX	0.945	0.25	5.238m	300

**For EUT 2:**

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11b_Nss1,(1Mbps)_2TX	0.318	4.98	237.5u	10k
802.11g_Nss1,(6Mbps)_2TX	0.925	0.34	1.568m	1k
802.11ax HEW20_Nss1,(MCS0)_2TX	0.959	0.18	5.229m	300
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	0.954	0.2	1.965m	1k
802.11ax HEW40_Nss1,(MCS0)_2TX	0.94	0.27	5.229m	300
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	0.928	0.32	1.77m	1k
802.11ax HEW20_Nss2,(MCS0)_2TX	0.943	0.25	5.237m	300
802.11ax HEW40_Nss2,(MCS0)_2TX	0.959	0.18	5.238m	300

**Note:**

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





**1.1.4 EUT Operational Condition**

<b>EUT Power Type</b>	From Power Adapter			
<b>Beamforming Function</b>	<input checked="" type="checkbox"/>	With beamforming	<input type="checkbox"/>	Without beamforming
	The product has beamforming function for 11n/VHT/ax in 2.4GHz and 11n/ac/ax in 5GHz.			
<b>Function</b>	<input checked="" type="checkbox"/>	Point-to-multipoint	<input type="checkbox"/>	Point-to-point
<b>Support RU</b>	<input checked="" type="checkbox"/>	Full RU	<input type="checkbox"/>	Partial RU
<b>Test Software Version</b>	For non-beamforming mode: QRCT Version 4.0.00189.0 For beamforming mode: DOS [ver 6.1.7601] \ LanTest			

Note: The above information was declared by manufacturer.

**1.1.5 Table for Multiple Listing**

Model Name	Description
DSE641TL	With LTE module
DSE641T	Without LTE module

Note 1: From the above models, model: DSE641TL was selected as representative model for the test and its data was recorded in this report.

Note 2: The above information was declared by manufacturer.

**1.1.6 Table for EUT supports function**

Function	Supports Band
AP Router	2.4GHz, 5GHz UNII 1~3, WWAN
Mesh	2.4GHz, 5GHz UNII 1, 3, WWAN

Note1: For above table list, only AP Router mode was tested and recorded in this test.

Note2: The above information was declared by manufacturer.

**1.1.7 Table for EUT Configuration Information**

EUT	WLAN Function	WWAN Function	WLAN Antenna	RF Flexible Low Loss Coaxial Cable	WWAN Set 1 Antenna	WWAN Set 2 Antenna	WWAN Set 3 Antenna	Cradlepoint to External Antenna Cable	Rack
1	V	-	V	-	-	-	-	-	-
2	V	V	V	V	V	V	V	V	V

Note1: From the above, EUT 1 has selected to execute all test items except for Emissions in Restricted Frequency Bands below 1GHz, AC Conducted Emissions test and EUT 2 has selected to execute all test items.

Note 2: The above information was declared by manufacturer.



**1.1.8 Table for WWAN Module Information**

The EUT contains a certified WWAN module.

The certified WWAN module information is listed below:

<b>Brand Name</b>	<b>Model Name</b>	<b>FCC ID</b>	<b>Support Function</b>
ALPHA	EM060K-GL-ALPHA	RRKEM060KALPHA	WCDMA band: 2,4,5 LTE band: 2,4,5,7,12,13,17,41,66,71, LTE CA band:intra CA_7C for downlink band.

Note: The above information was declared by manufacturer.



### 1.2 Applicable Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- ♦ 47 CFR FCC Part 15.247
- ♦ ANSI C63.10-2013

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

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

### 1.3 Testing Location Information

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

Test Condition	Test Site No.	Test Engineer	Test Environment (°C / %)	Test Date
RF Conducted	TH01-CB	Mason Chan	22.5~23.3 / 60~64	Dec. 21, 2022~ Apr. 22, 2023
Radiated below 1GHz	03CH04-CB	Paul Hu	22.4~23.9 / 59~60	Apr. 27, 2023~ Apr. 28, 2023
Radiated above 1GHz (For EUT 1)	03CH02-CB	Jackson Peng	22.2~23.9 / 58~61	Nov. 09, 2022~ Dec. 23, 2022
	03CH03-CB	Jackson Peng	21.8~23.3 / 59~60	Nov. 09, 2022~ Dec. 23, 2022
Radiated above 1GHz (For EUT 2)	03CH03-CB	Jackson Peng	22.7~24 / 57~61	Apr. 13, 2023~ Apr. 17, 2023
	03CH06-CB	Jackson Peng	22.6~23.1 / 60~62	Apr. 13, 2023~ Apr. 17, 2023
Radiated above 1GHz (For co-location test)	03CH04-CB	Jackson Peng	21.7~22.9 / 58~62	Apr. 28, 2023~ Apr. 29, 2023
AC Conduction	CO01-CB	Summer Li	23~24 / 51~52	May 03, 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)	3.4 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	5.6 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	5.2 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	4.7 dB	Confidence levels of 95%
Conducted Emission	3.2 dB	Confidence levels of 95%
Output Power Measurement	0.8 dB	Confidence levels of 95%
Power Density Measurement	3.2 dB	Confidence levels of 95%
Bandwidth Measurement	2.0 %	Confidence levels of 95%



## 2 Test Configuration of EUT

### 2.1 Test Channel Mode

For EUT 1:

Mode	Power Setting
802.11b_Nss1,(1Mbps)_2TX	-
2412MHz	26
2437MHz	26
2462MHz	26
802.11g_Nss1,(6Mbps)_2TX	-
2412MHz	23
2417MHz	24
2437MHz	26
2457MHz	24
2462MHz	23.5
802.11ax HEW20_Nss1,(MCS0)_2TX	-
2412MHz	22.5
2417MHz	25
2437MHz	26.5
2457MHz	24
2462MHz	23.5
802.11ax HEW40_Nss1,(MCS0)_2TX	-
2422MHz	19.5
2437MHz	19.5
2452MHz	19.5
802.11ax HEW20_Nss2,(MCS0)_2TX	-
2412MHz	22.5
2417MHz	24
2437MHz	26.5
2457MHz	24.5
2462MHz	23.5
802.11ax HEW40_Nss2,(MCS0)_2TX	-
2422MHz	20.5
2437MHz	20.5
2452MHz	20.5
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-
2412MHz	25
2437MHz	28
2462MHz	28
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-



Mode	Power Setting
2422MHz	24
2437MHz	22
2452MHz	22

**For EUT 2:**

Mode	Power Setting
802.11b_Nss1,(1Mbps)_2TX	-
2412MHz	25
2417MHz	25
2437MHz	27.5
2457MHz	26
2462MHz	25
802.11g_Nss1,(6Mbps)_2TX	-
2412MHz	22
2417MHz	24
2437MHz	25
2457MHz	25
2462MHz	23
802.11ax HEW20_Nss1,(MCS0)_2TX	-
2412MHz	19.5
2417MHz	23
2437MHz	24.5
2457MHz	24.5
2462MHz	23
802.11ax HEW40_Nss1,(MCS0)_2TX	-
2422MHz	20
2437MHz	22
2452MHz	22.5
802.11ax HEW20_Nss2,(MCS0)_2TX	-
2412MHz	21.5
2417MHz	25
2437MHz	27.5
2457MHz	25
2462MHz	23
802.11ax HEW40_Nss2,(MCS0)_2TX	-
2422MHz	19.5
2437MHz	20
2452MHz	20
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-
2412MHz	24



Mode	Power Setting
2417MHz	23
2437MHz	26
2457MHz	26
2462MHz	26
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-
2422MHz	22
2437MHz	23
2452MHz	23

**Note:**

- ♦ Evaluated HEW20/HEW40 mode only, due to similar modulation. The power setting of HT20/HT40/VHT20/VHT40 mode are the same or lower than HEW20/HEW40.



## 2.2 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
<b>Tests Item</b>	AC power-line conducted emissions
<b>Condition</b>	AC power-line conducted measurement for line and neutral Test Voltage: 120Vac / 60Hz
<b>Operating Mode</b>	Normal Link
1	EUT 2+WWAN-WCDMA Band 2+WWAN Set 3 Antenna+Adapter
2	EUT 2+WWAN-WCDMA Band 2+WWAN Set 2 Antenna+Adapter
3	EUT 2+WWAN-WCDMA Band 2+WWAN Set 1 Antenna+Adapter
Mode 2 has been evaluated to be the worst case among Mode 1~3, thus measurement for Mode 4 will follow this same test mode.	
4	EUT 2+WWAN-LTE Band 5+WWAN Set 2 Antenna+Adapter
For operating mode 4 is the worst case and it was record in this test report.	

The Worst Case Mode for Following Conformance Tests	
<b>Tests Item</b>	DTS Bandwidth Maximum Conducted Output Power Power Spectral Density Emissions in Non-restricted Frequency Bands
<b>Test Condition</b>	Conducted measurement at transmit chains
<b>Test Mode</b>	1 EUT 1
	2 EUT 2

The Worst Case Mode for Following Conformance Tests	
<b>Tests Item</b>	Emissions in Restricted Frequency Bands
<b>Test Condition</b>	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.
<b>Operating Mode &lt; 1GHz</b>	Normal Link
	After evaluating, the worst case was found at Z axis, so it was selected to perform test and its test result was written in the report.
1	EUT 2 at Z-axis+WWAN-WCDMA Band 2+WWAN Set 3 Antenna+Adapter
2	EUT 2 at Z-axis+WWAN-WCDMA Band 2+WWAN Set 2 Antenna+Adapter
3	EUT 2 at Z-axis+WWAN-WCDMA Band 2+WWAN Set 1 Antenna+Adapter
Mode 1 has been evaluated to be the worst case among Mode 1~3, thus measurement for Mode 4 will follow this same test mode.	





4	EUT 2 at Z-axis+WWAN-LTE Band 5+WWAN Set 3 Antenna+Adapter
For operating mode 4 is the worst case and it was record in this test report.	
<b>Operating Mode &gt; 1GHz</b>	CTX
	After evaluating, the worst case was found at Z axis, so it was selected to perform test and its test result was written in the report.
1	EUT 1 at Z-axis
2	EUT 2 at Z-axis

<b>The Worst Case Mode for Following Conformance Tests</b>	
<b>Tests Item</b>	Simultaneous Transmission Analysis - Radiated Emission Co-location
<b>Test Condition</b>	Radiated measurement
<b>Operating Mode</b>	Normal Link
	After evaluating, the worst case was found at Z axis, so it was selected to perform test and its test result was written in the report.
1	EUT 1 at Z-axis+WLAN 2.4GHz+WLAN 5GHz
2	EUT 2 at Z-axis+WLAN 2.4GHz+WLAN 5GHz
Mode 2 generated the worst test result, so it was recorded in this report.	
Refer to Appendix G for Radiated Emission Co-location.	

<b>The Worst Case Mode for Following Conformance Tests</b>	
<b>Tests Item</b>	Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation
<b>Operating Mode</b>	
1	EUT 1+WLAN 2.4GHz+WLAN 5GHz
2	EUT 2+WLAN 2.4GHz+WLAN 5GHz+WWAN
Refer to Sporton Test Report No.: FA330127 for Co-location RF Exposure Evaluation.	



### 2.3 EUT Operation during Test

For CTX Mode:

non-beamforming mode:

The EUT was programmed to be in continuously transmitting mode.

beamforming mode:

For Conducted Mode:

The EUT was programmed to be in continuously transmitting mode.

For Radiated Mode:

During the test, the following programs under WIN 7 were executed.

The program was executed as follows:

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

For Normal Link Mode:

During the test, the EUT operation to normal function.

### 2.4 Accessories

Accessories				
Equipment Name	Brand Name	Model Name	Rating	DC Power Line
Adapter	FSP	FSP120-AWAN3	INPUT: 100-240V~,1.8A, 50-60Hz OUTPUT: 54.0V, 2.22A, 120.0W	Non-Shielded, 1.5m
Others				
US Plug AC Power Cable*1, non-shielded, 1m				
RJ-45 Cable 1*1, non-shielded, 1.8m				
RJ-45 Cable 2*5, non-shielded, 0.5m (Only for EUT 2 use)				
USB Cable*2, Shielded, 0.45m (Only for EUT 2 use)				
Cradlepoint to External Antenna Cable*2, Shielded, 6.2m (Only for EUT 2 with WWAN ant. set 2, and 3 use)				
RF Flexible Low Loss Coaxial Cable*1 (Only for EUT 2 with WLAN ant. use)				
Rack*1 (Only for EUT 2 use)				



## 2.5 Support Equipment

For AC Conduction and Radiated (below 1GHz):

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	PSE Device1	Panasonic	EA-7HW04AP1	N/A
B	PSE Device2	Panasonic	EA-7HW04AP1	N/A
C	Flash disk 3.0	SanDisk	SDCZ600-016G	N/A
D	Flash disk 3.0	SanDisk	SDCZ600-016G	N/A
E	2.4G NB	DELL	E6430	N/A
F	5G NB	DELL	E6430	N/A
G	Base station	Anritsu	MT8820C	N/A
H	LAN NB	DELL	E6430	N/A
I	SIM Card	Anritsu	N/A	N/A

For Radiated (above 1GHz):

For non-beamforming

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

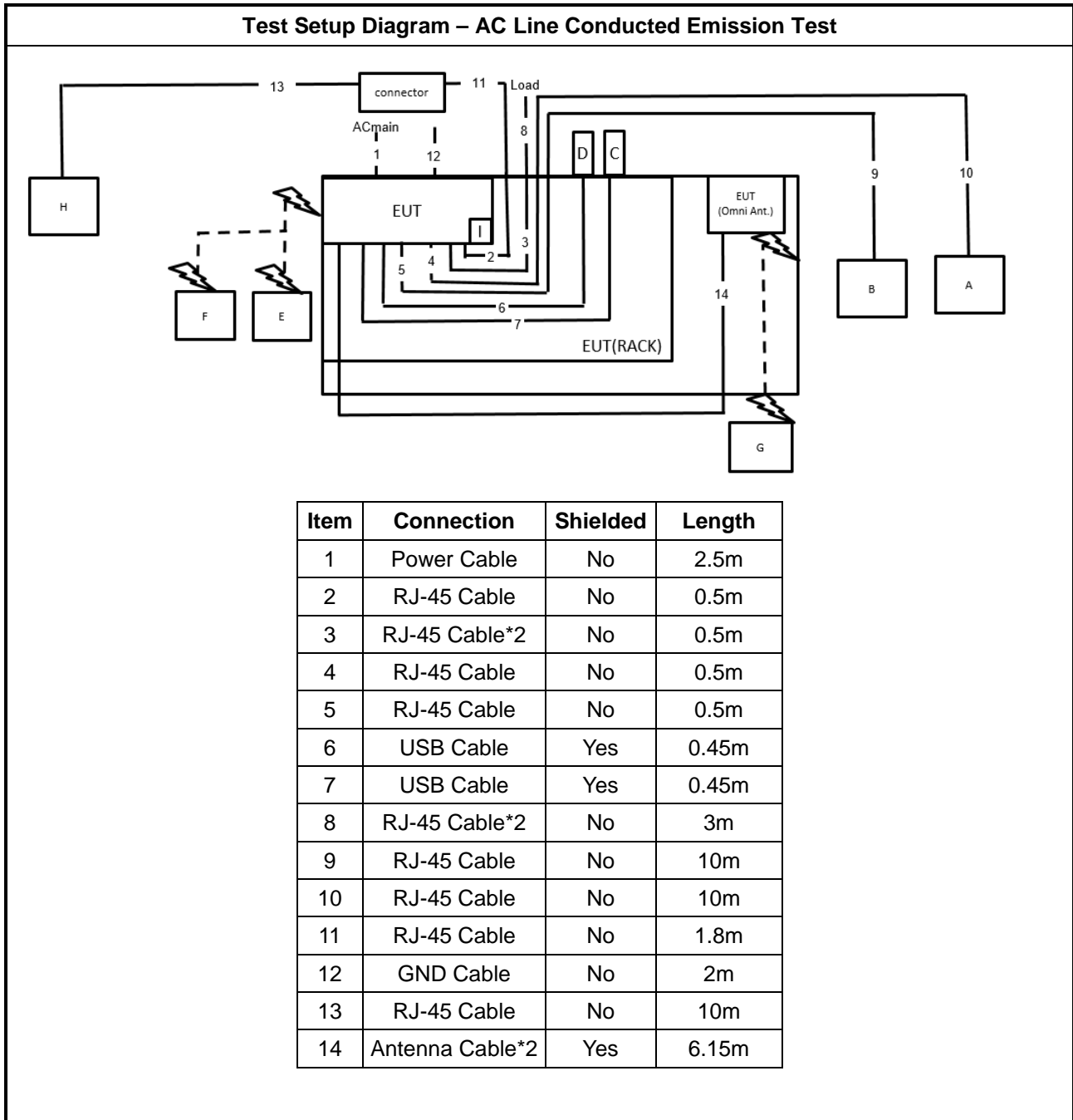
For beamforming

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	NB	DELL	E4300	N/A
B	Client	datto	DSE641TL	N/A
C	NB	DELL	E4300	N/A

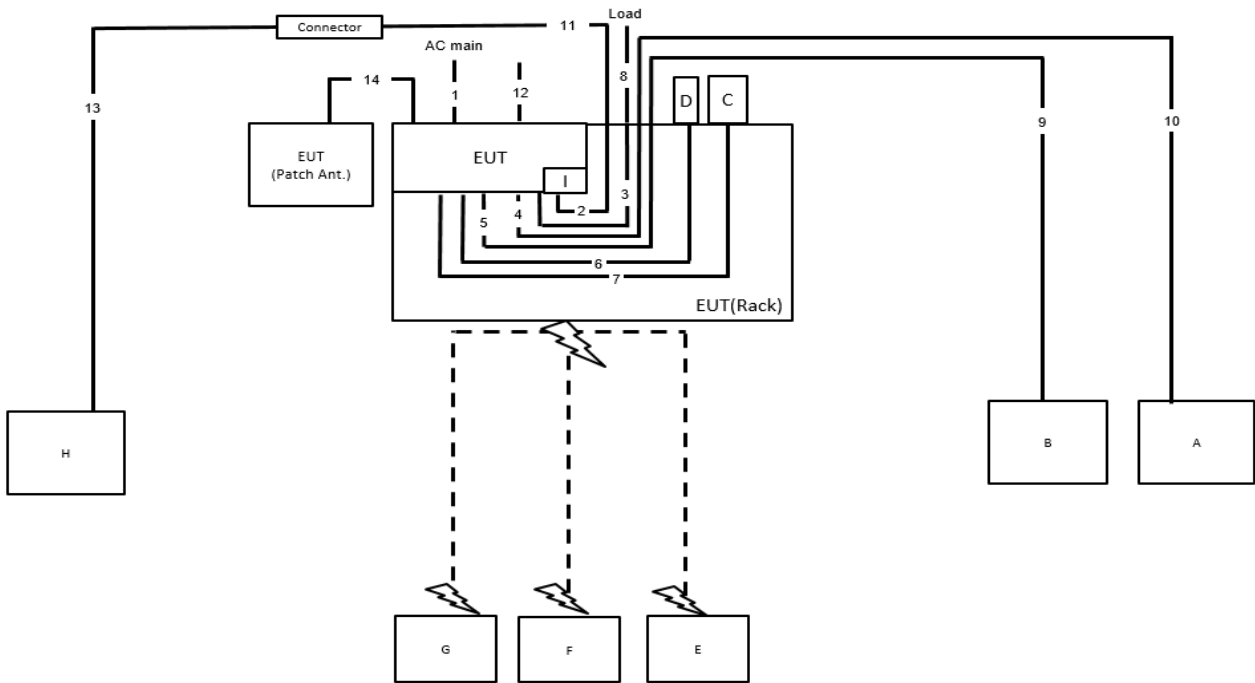
For RF Conducted:

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	NB	DELL	E4300	N/A
B	NB	DELL	E4300	N/A
C	RX Device	Alphanetworks	WRG-AX28	N/A

## 2.6 Test Setup Diagram

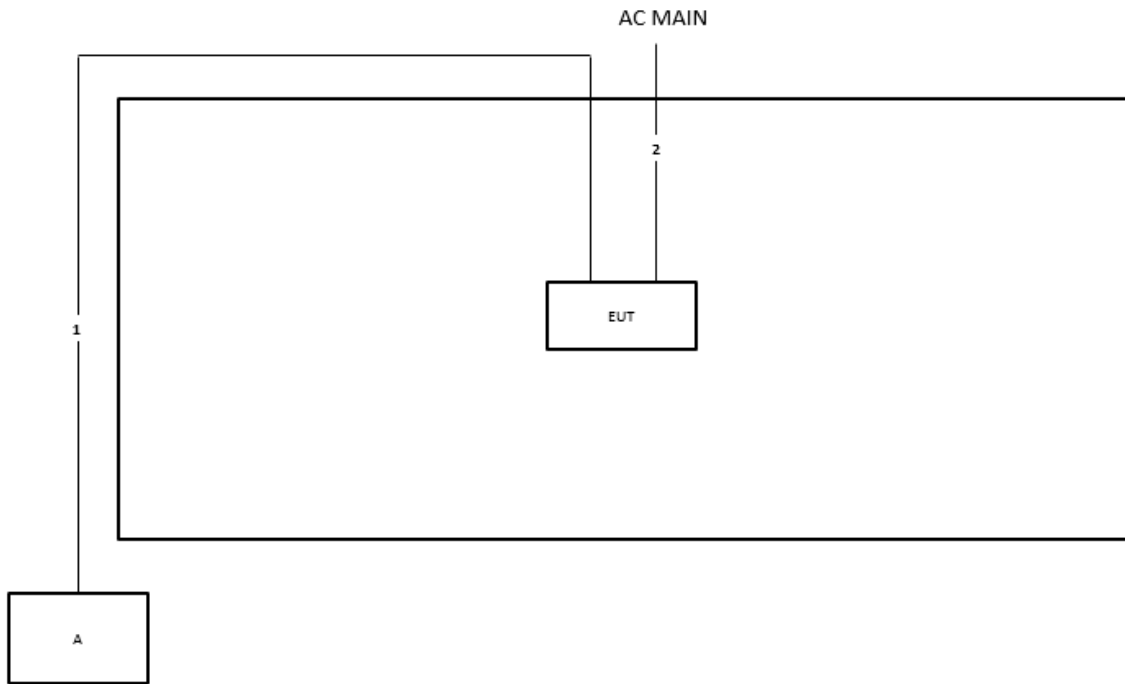


**Test Setup Diagram - Radiated Test < 1GHz**



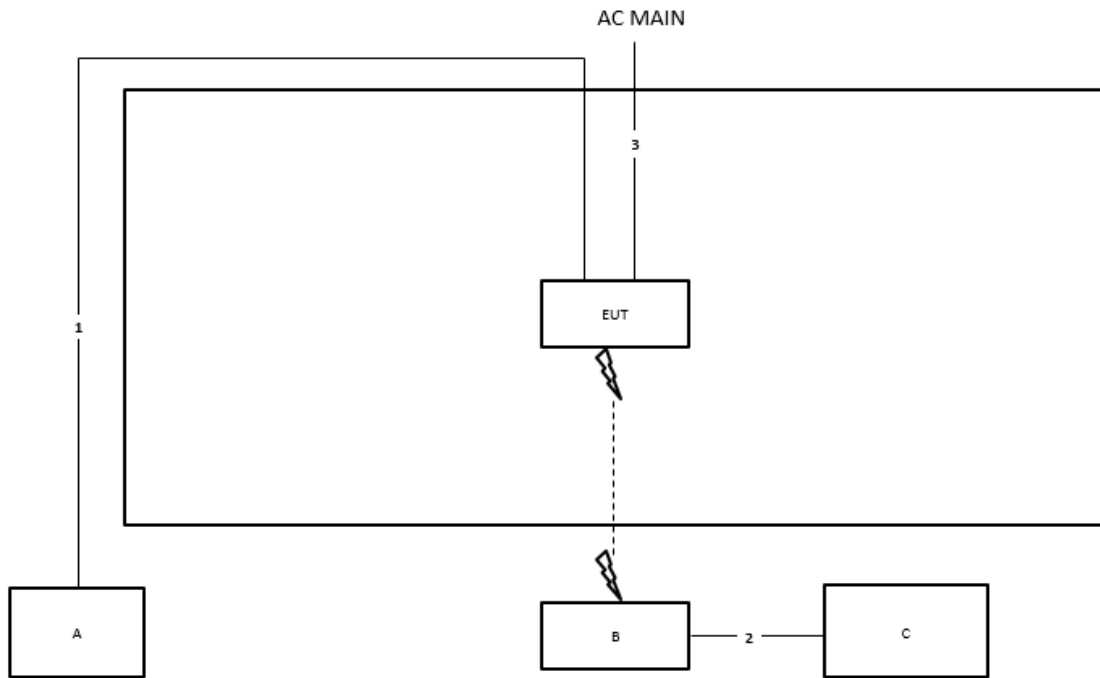
Item	Connection	Shielded	Length
1	Power Cable	No	2.5m
2	RJ-45 Cable	No	0.5m
3	RJ-45 Cable*2	No	0.5m
4	RJ-45 Cable	No	0.5m
5	RJ-45 Cable	No	0.5m
6	USB Cable	Yes	0.45m
7	USB Cable	Yes	0.45m
8	RJ-45 Cable*2	No	3m
9	RJ-45 Cable	No	10m
10	RJ-45 Cable	No	10m
11	RJ-45 Cable	No	1.8m
12	GND Cable	No	2m
13	RJ-45 Cable	No	10m
14	Antenna Cable*2	Yes	6.15m

**Test Setup Diagram - Radiated Test > 1GHz\_For non-beamforming**



Item	Connection	Shielded	Length
1	RJ-45 Cable	No	10m
2	Power Cable	No	2.5m

**Test Setup Diagram - Radiated Test > 1GHz\_ For beamforming**



Item	Connection	Shielded	Length
1	RJ-45 Cable	No	10m
2	RJ-45 Cable	No	1.5m
3	Power Cable	No	2.5m



### 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

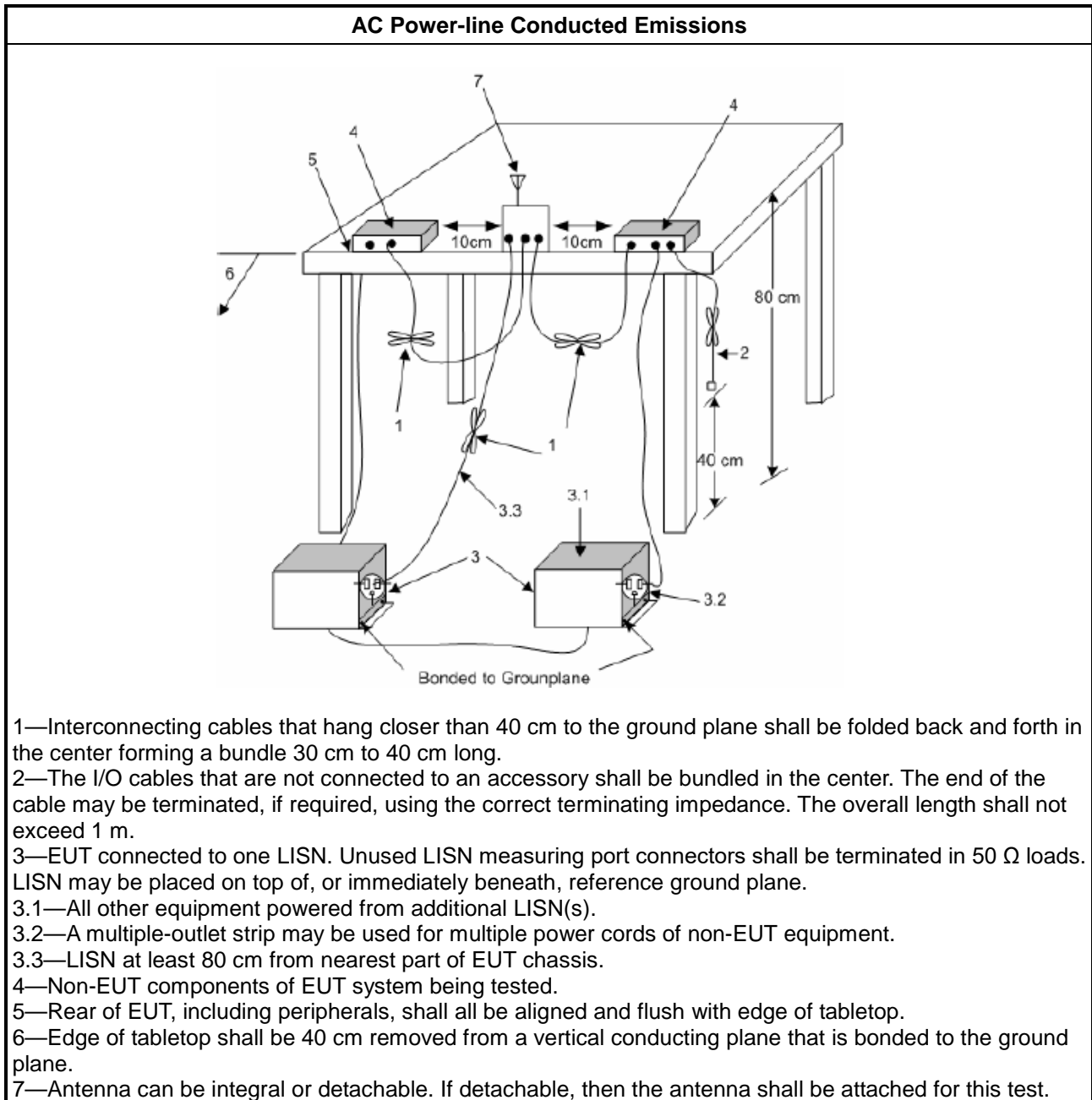
Refer a test equipment and calibration data table in this test report.

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

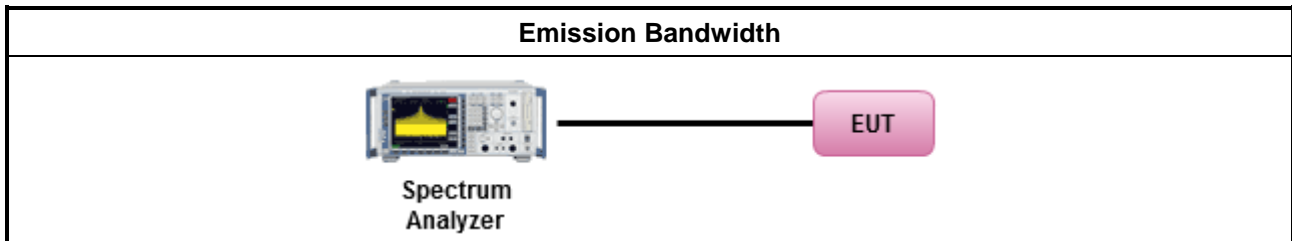
#### 3.2.2 Measuring Instruments

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

#### 3.2.3 Test Procedures

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

#### 3.2.4 Test Setup



#### 3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B



### 3.3 Maximum Conducted Output Power

#### 3.3.1 Maximum Conducted Output Power Limit

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

#### 3.3.2 Measuring Instruments

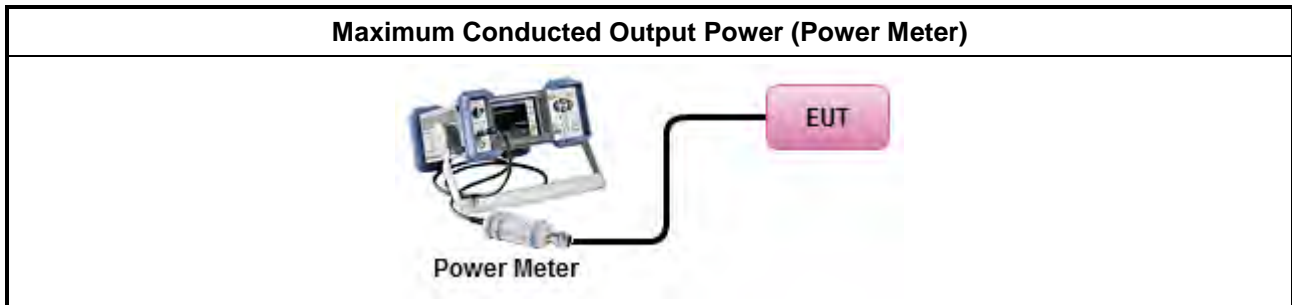
Refer a test equipment and calibration data table in this test report.



**3.3.3 Test Procedures**

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

### 3.3.4 Test Setup



### 3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C



### 3.4 Power Spectral Density

#### 3.4.1 Power Spectral Density Limit

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

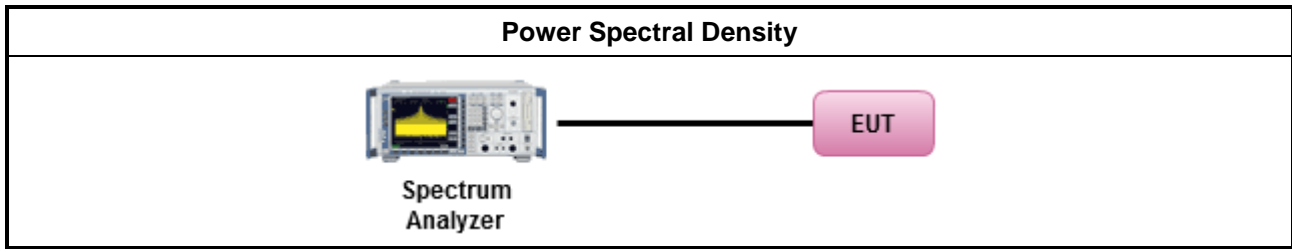
#### 3.4.2 Measuring Instruments

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

#### 3.4.3 Test Procedures

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

### 3.4.4 Test Setup



### 3.4.5 Test Result of Power Spectral Density

Refer as Appendix D

### 3.5 Emissions in Non-restricted Frequency Bands

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

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

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

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

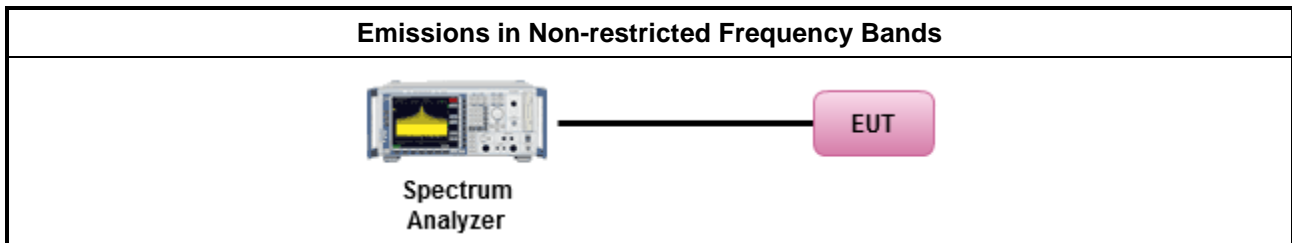
#### 3.5.2 Measuring Instruments

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

#### 3.5.3 Test Procedures

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

#### 3.5.4 Test Setup



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

Refer as Appendix E





### 3.6 Emissions in Restricted Frequency Bands

#### 3.6.1 Emissions in Restricted Frequency Bands Limit

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

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

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

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

#### 3.6.2 Measuring Instruments

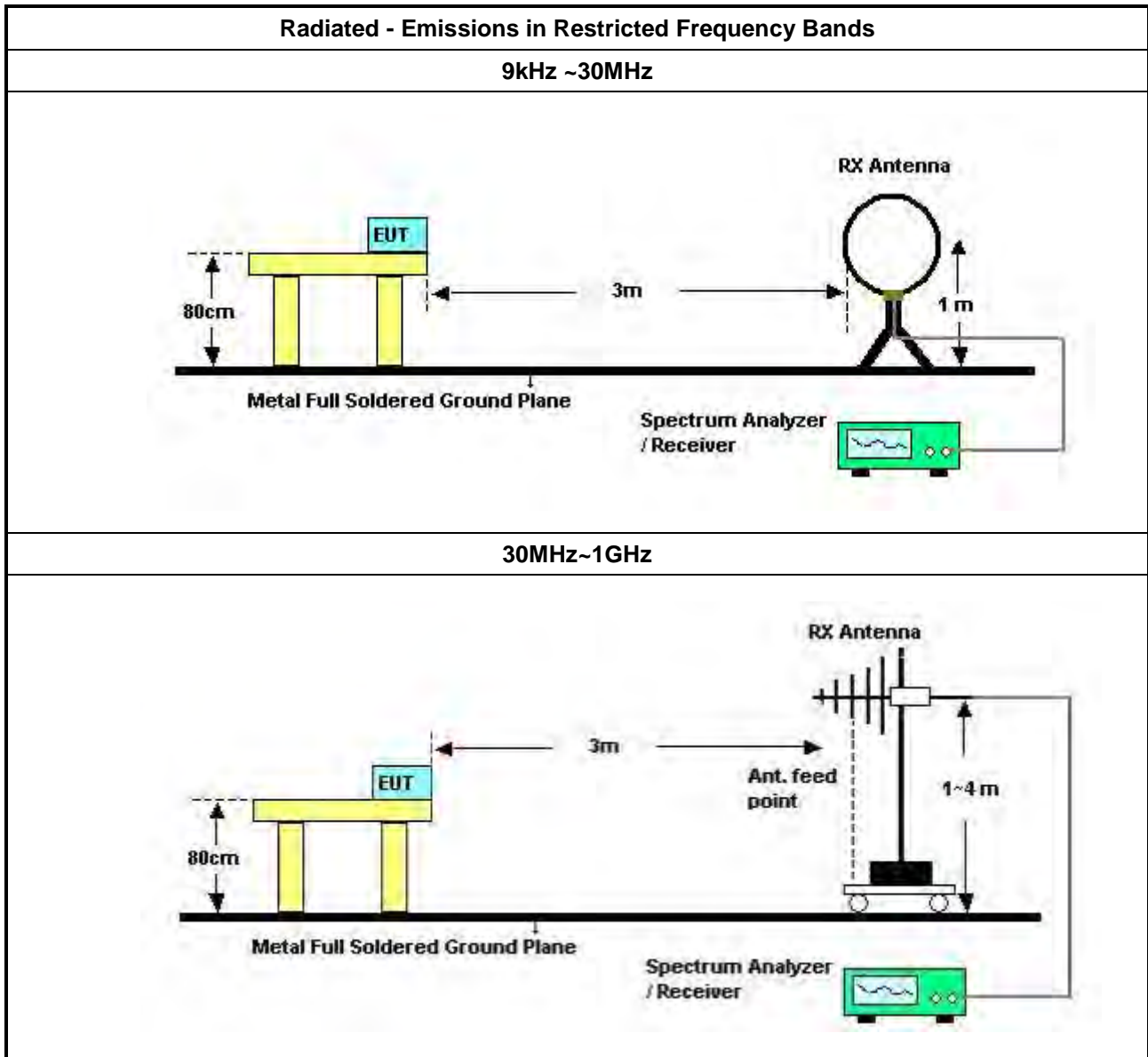
Refer a test equipment and calibration data table in this test report.

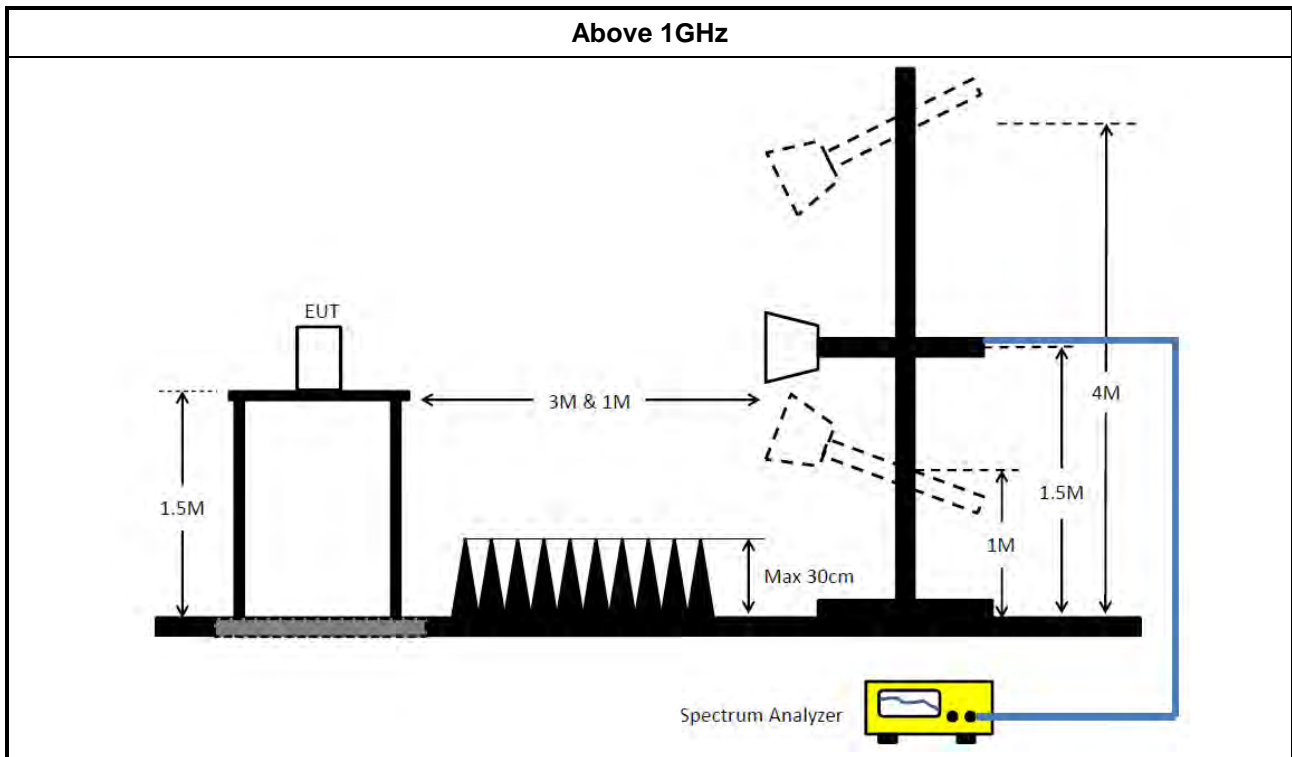


**3.6.3 Test Procedures**

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

**3.6.4 Test Setup**





### 3.6.5 Measurement Results Calculation

The measured Level is calculated using:

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

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

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

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

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

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

Refer as Appendix F



## 4 Test Equipment and Calibration Data

Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
EMI Receiver	Agilent	N9038A	My52260123	9kHz ~ 8.4GHz	Feb. 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	8127478	9kHz ~ 30MHz	Dec. 20, 2022	Dec. 19, 2023	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. 18, 2022	Oct. 17, 2023	Conduction (CO01-CB)
Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conduction (CO01-CB)
3m Semi Anechoic Chamber VSWR	RIKEN	SAC-3M	03CH02-CB	1GHz ~18GHz	Mar. 26, 2022	Mar. 25, 2023	Radiation (03CH02-CB)
Horn Antenna	EMCO	3115	9610-4976	1GHz ~ 18GHz	Apr. 19, 2022	Apr. 18, 2023	Radiation (03CH02-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA91702 52	15GHz ~ 40GHz	Aug. 22, 2022	Aug. 21, 2023	Radiation (03CH02-CB)
Pre-Amplifier	Agilent	83017A	MY39501305	1GHz ~ 26.5GHz	Jul. 01, 2022	Jun. 30, 2023	Radiation (03CH02-CB)
Spectrum analyzer	R&S	FSP	100593	9kHz~40GHz	Apr. 08, 2022	Apr. 07, 2023	Radiation (03CH02-CB)
RF Cable-high	Woken	RG402	High Cable-18	1GHz ~ 18GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH02-CB)
RF Cable-high	Woken	RG402	High Cable-18+19	1GHz ~ 18GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH02-CB)
High Cable	Woken	WCA0929M	40G#5+7	1GHz ~ 40 GHz	Dec. 14, 2021	Dec. 13, 2022	Radiation (03CH02-CB)
High Cable	Woken	WCA0929M	40G#5	1GHz ~ 40 GHz	Dec. 08, 2021	Dec. 07, 2022	Radiation (03CH02-CB)
High Cable	Woken	WCA0929M	40G#7	1GHz ~ 40 GHz	Dec. 14, 2021	Dec. 13, 2022	Radiation (03CH02-CB)
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 05, 2022	May 04, 2023	Radiation (03CH03-CB)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1370	1GHz~18GHz	Jun. 23, 2022	Jun. 22, 2023	Radiation (03CH03-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA91702 52	15GHz ~ 40GHz	Aug. 22, 2022	Aug. 21, 2023	Radiation (03CH03-CB)



Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
Pre-Amplifier	Agilent	8449B	3008A02097	1GHz ~ 26.5GHz	Jul. 01, 2022	Jun. 30, 2023	Radiation (03CH03-CB)
Spectrum Analyzer	R&S	FSP40	100019	9kHz ~ 40GHz	Jun. 10, 2022	Jun. 09, 2023	Radiation (03CH03-CB)
RF Cable-high	Woken	RG402	High Cable-20+29	1GHz ~ 18GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH03-CB)
RF Cable-high	Woken	RG402	High Cable-29	1GHz ~ 18GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH03-CB)
High Cable	Woken	WCA0929M	40G#5+7	1GHz ~ 40 GHz	Dec. 14, 2021	Dec. 13, 2022	Radiation (03CH03-CB)
High Cable	Woken	WCA0929M	40G#5+6	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH03-CB)
High Cable	Woken	WCA0929M	40G#5	1GHz ~ 40 GHz	Dec. 08, 2021	Dec. 07, 2022	Radiation (03CH03-CB)
High Cable	Woken	WCA0929M	40G#5	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH03-CB)
High Cable	Woken	WCA0929M	40G#7	1GHz ~ 40 GHz	Dec. 14, 2021	Dec. 13, 2022	Radiation (03CH03-CB)
High Cable	Woken	WCA0929M	40G#6	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH03-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH03-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	May 14, 2022	May 13, 2023	Radiation (03CH04-CB)
3m Semi Anechoic Chamber NSA	TDK	SAC-3M	03CH04-CB	30 MHz ~ 1 GHz	Aug. 02, 2022	Aug. 01, 2023	Radiation (03CH04-CB)
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH04-CB	1GHz ~18GHz 3m	Feb. 23, 2023	Feb. 22, 2024	Radiation (03CH04-CB)
BILOG ANTENNA with 6 dB attenuator	Schaffner & EMCI	CBL6112B & N-6-06	22021&AT-N 0607	30MHz ~ 1GHz	Oct. 08, 2022	Oct. 07, 2023	Radiation (03CH04-CB)
Horn Antenna	ETS-Lindgren	3115	00143147	750MHz~18GHz	Oct. 12, 2022	Oct. 11, 2023	Radiation (03CH04-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA91702 52	15GHz ~ 40GHz	Aug. 22, 2022	Aug. 21, 2023	Radiation (03CH04-CB)
Pre-Amplifier	EMCI	EMC330N	980391	20MHz ~ 3GHz	May 19, 2022	May 18, 2023	Radiation (03CH04-CB)
Pre-Amplifier	Agilent	83017A	MY53270063	0.5GHz ~ 26.5GHz	Jul. 01, 2022	Jun. 30, 2023	Radiation (03CH04-CB)
Pre-Amplifier	SGH	SGH184	20221107-3	18GHz ~ 40GHz	Nov. 16, 2022	Nov. 15, 2023	Radiation (03CH04-CB)
Spectrum Analyzer	R&S	FSP40	100142	9kHz~40GHz	Mar. 21, 2023	Mar. 20, 2024	Radiation (03CH04-CB)



Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
EMI Test Receiver	R&S	ESCS	826547/017	9kHz ~ 2.75GHz	Jun. 17, 2022	Jun. 16, 2023	Radiation (03CH04-CB)
RF Cable-low	Woken	RG402	Low Cable-03+67	30MHz – 1GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH04-CB)
RF Cable-high	Woken	RG402	High Cable-21	1GHz - 18GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH04-CB)
RF Cable-high	Woken	RG402	High Cable-21+67	1GHz - 18GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH04-CB)
High Cable	Woken	WCA0929M	40G#5+6	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH04-CB)
High Cable	Woken	WCA0929M	40G#5	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH04-CB)
High Cable	Woken	WCA0929M	40G#6	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH04-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH04-CB)
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH06-CB	1GHz ~18GHz 3m	Sep. 30, 2022	Sep. 29, 2023	Radiation (03CH06-CB)
Horn Antenna	SCHWARZBECK	BBHA9120D	BBHA 9120D-1292	1GHz~18GHz	Aug. 09, 2022	Aug. 08, 2023	Radiation (03CH06-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA91702 52	15GHz ~ 40GHz	Aug. 22, 2022	Aug. 21, 2023	Radiation (03CH06-CB)
Pre-Amplifier	Agilent	83017A	MY53270064	0.5GHz ~ 26.5GHz	Aug. 02, 2022	Aug. 01, 2023	Radiation (03CH06-CB)
Spectrum analyzer	R&S	FSP40	100080	9kHz~40GHz	Dec. 21, 2022	Dec. 20, 2023	Radiation (03CH06-CB)
RF Cable-high	Woken	RG402	High Cable-68	1GHz~18GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH06-CB)
RF Cable-high	Woken	RG402	High Cable-05+68	1GHz~18GHz	Dec. 21, 2022	Dec. 20, 2023	Radiation (03CH06-CB)
High Cable	Woken	WCA0929M	40G#5+6	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH06-CB)
High Cable	Woken	WCA0929M	40G#5	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH06-CB)
High Cable	Woken	WCA0929M	40G#6	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH06-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH06-CB)
Spectrum analyzer	R&S	FSV40	100979	9kHz~40GHz	May 27, 2022	May 26, 2023	Conducted (TH01-CB)
Switch	SPTCB	SP-SWI	SWI-01	1 GHz ~26.5 GHz	Oct. 04, 2022	Oct. 03, 2023	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-06	1 GHz – 18 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (TH01-CB)



Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
RF Cable-high	Woken	RG402	High Cable-07	1 GHz – 18 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-08	1 GHz – 18 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-09	1 GHz – 18 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-10	1 GHz – 18 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-30	1 GHz – 18 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (TH01-CB)
Cable	Woken	RG402	low Cable-30	9 kHz –1 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (TH01-CB)
Power Sensor	Anritsu	MA2411B	1339408	300MHz~40GHz	Sep. 12, 2022	Sep. 11, 2023	Conducted (TH01-CB)
Power Meter	Anritsu	ML2495A	1517009	300MHz~40GHz	Sep. 12, 2022	Sep. 11, 2023	Conducted (TH01-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conducted (TH01-CB)

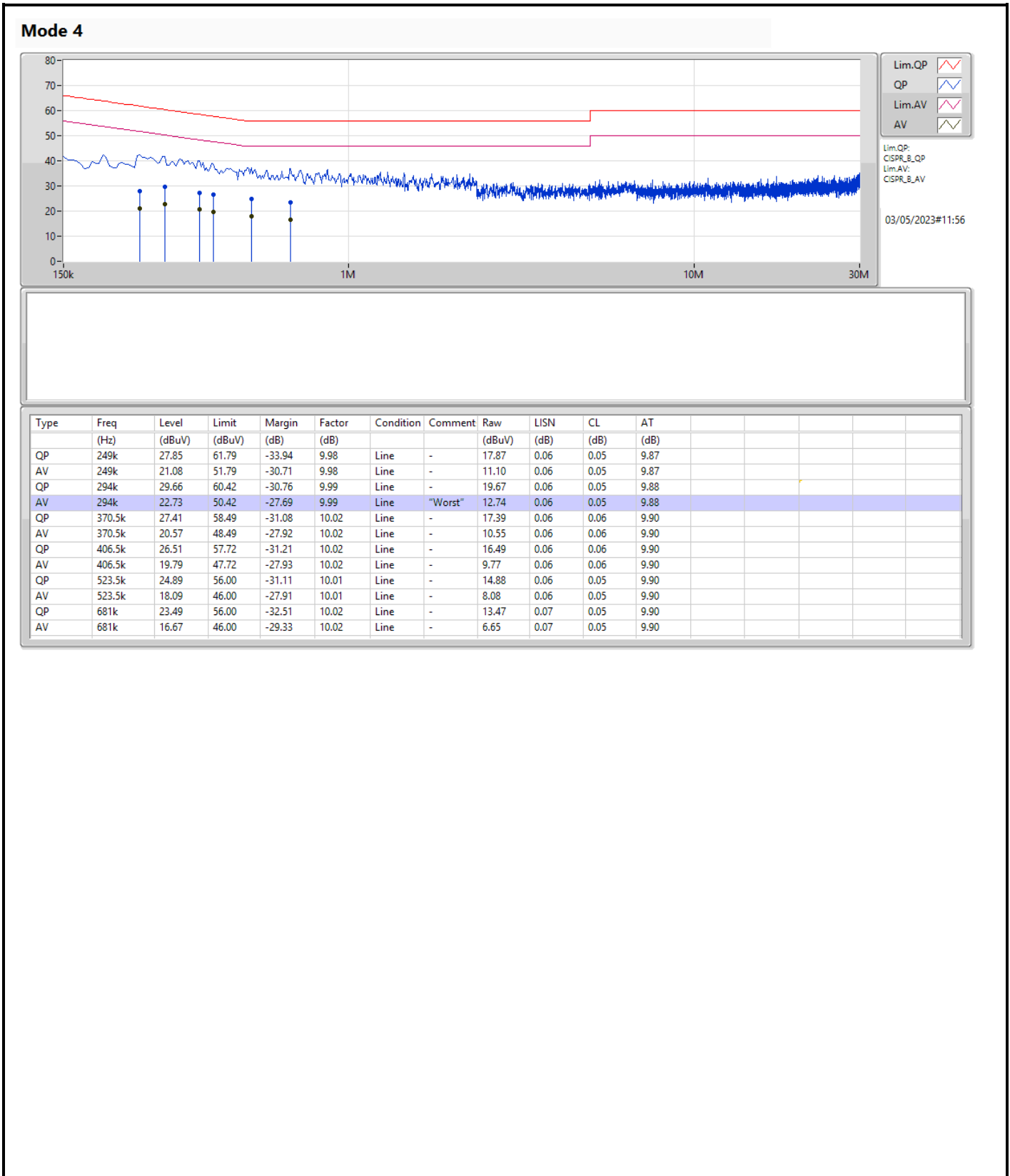
Note: Calibration Interval of instruments listed above is one year.  
NCR means Non-Calibration required.

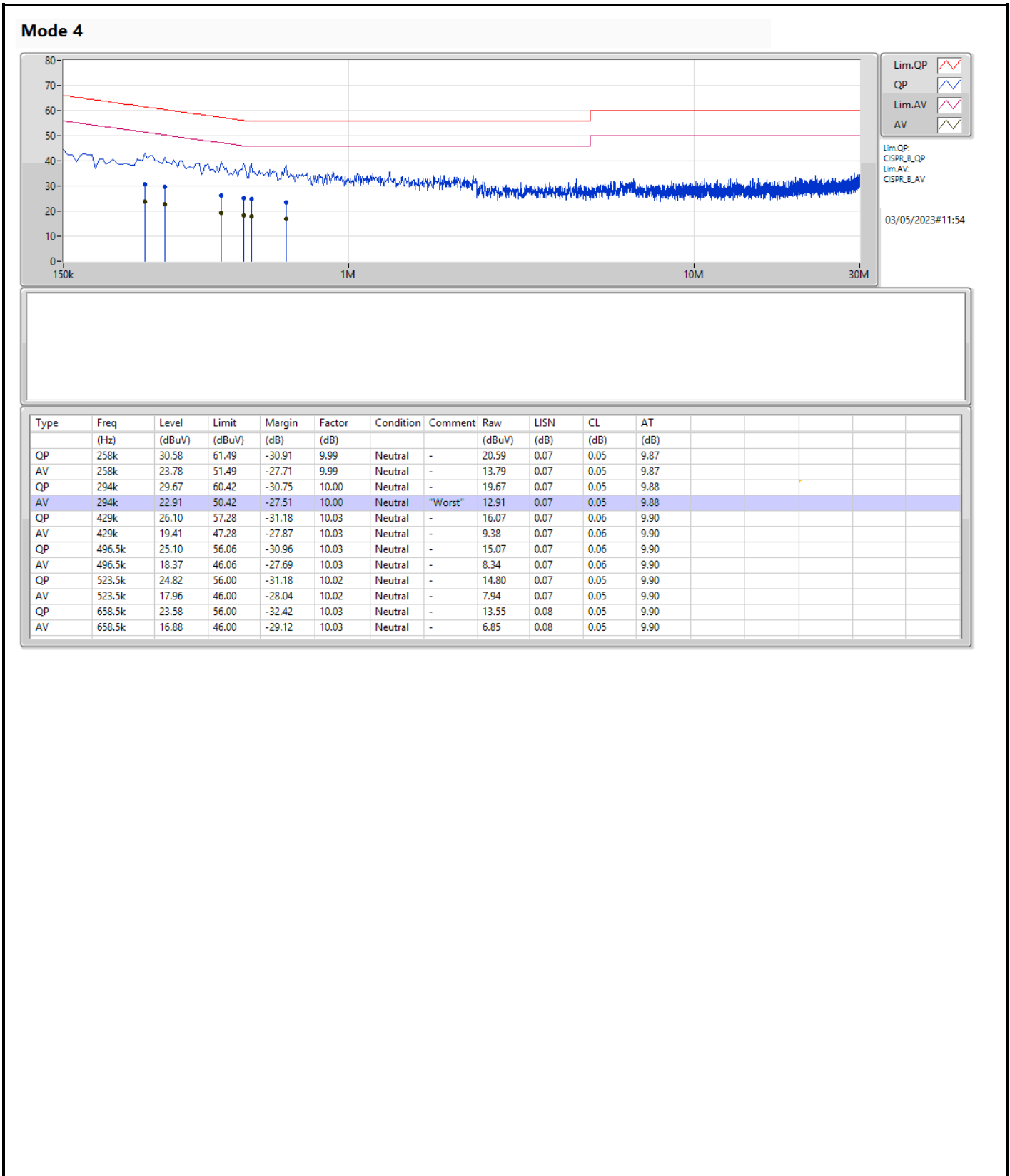




**Summary**

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 4	Pass	AV	294k	22.91	50.42	-27.51	Neutral





**Summary**

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
2.4-2.4835GHz	-	-	-	-	-
802.11b_Nss1,(1Mbps)_2TX	8.525M	13.624M	13M6G1D	7.05M	13.222M
802.11g_Nss1,(6Mbps)_2TX	16.025M	16.53M	16M5D1D	15.325M	16.374M
802.11ax HEW20_Nss1,(MCS0)_2TX	18.425M	19.023M	19M0D1D	16.8M	18.884M
802.11ax HEW20_Nss2,(MCS0)_2TX	18.4M	19.024M	19M0D1D	16.775M	18.899M
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	19.1M	19.165M	19M2D1D	16.25M	18.991M
802.11ax HEW40_Nss1,(MCS0)_2TX	37.75M	37.78M	37M8D1D	35.85M	37.607M
802.11ax HEW40_Nss2,(MCS0)_2TX	38.1M	37.863M	37M9D1D	35.7M	37.598M
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	37.75M	37.769M	37M8D1D	35.2M	37.486M

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**

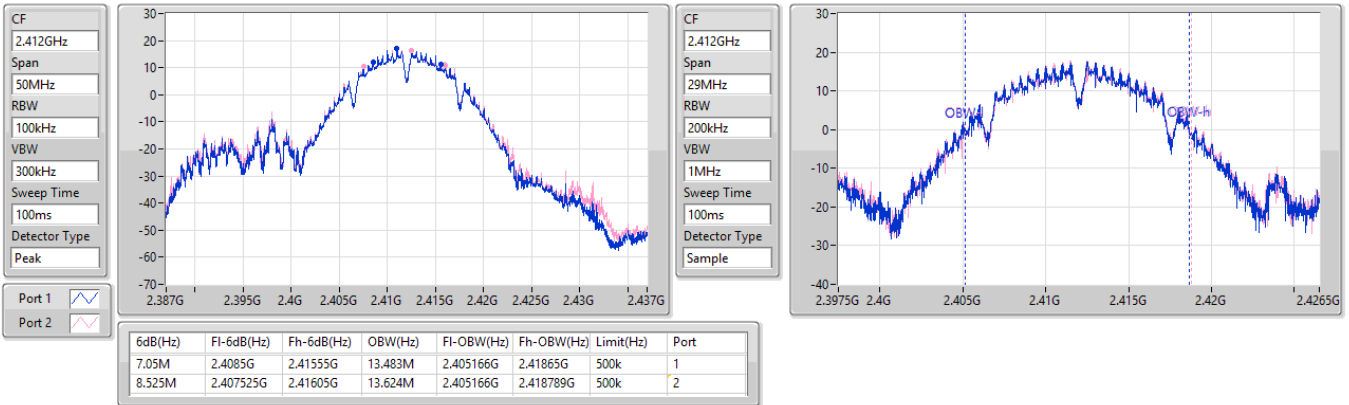
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	7.05M	13.483M	8.525M	13.624M
2437MHz	Pass	500k	7.575M	13.222M	7.55M	13.29M
2462MHz	Pass	500k	7.55M	13.312M	7.55M	13.325M
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	15.325M	16.374M	15.875M	16.395M
2437MHz	Pass	500k	15.45M	16.53M	15.375M	16.502M
2462MHz	Pass	500k	15.625M	16.379M	16.025M	16.405M
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	18.175M	18.942M	18.425M	18.884M
2437MHz	Pass	500k	17.775M	18.999M	17.825M	19.023M
2462MHz	Pass	500k	16.8M	18.952M	17.05M	18.94M
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	500k	37.75M	37.778M	37.75M	37.78M
2437MHz	Pass	500k	37.55M	37.776M	37.45M	37.746M
2452MHz	Pass	500k	35.85M	37.607M	36.35M	37.635M
802.11ax HEW20_Nss2,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	16.775M	18.926M	17.625M	18.899M
2437MHz	Pass	500k	17.7M	19.024M	17.75M	19.016M
2462MHz	Pass	500k	18.4M	18.9M	17.75M	18.916M
802.11ax HEW40_Nss2,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	500k	37.25M	37.863M	38.1M	37.775M
2437MHz	Pass	500k	36.5M	37.691M	37.55M	37.657M
2452MHz	Pass	500k	35.7M	37.61M	37M	37.598M
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	19.025M	19.004M	19.075M	19.05M
2437MHz	Pass	500k	19.1M	19.077M	19.025M	18.991M
2462MHz	Pass	500k	19.075M	19.165M	16.25M	19.014M
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	500k	37.75M	37.769M	37.7M	37.74M
2437MHz	Pass	500k	37.65M	37.711M	36.8M	37.764M
2452MHz	Pass	500k	35.2M	37.593M	35.6M	37.486M

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  
2412MHz

EBW

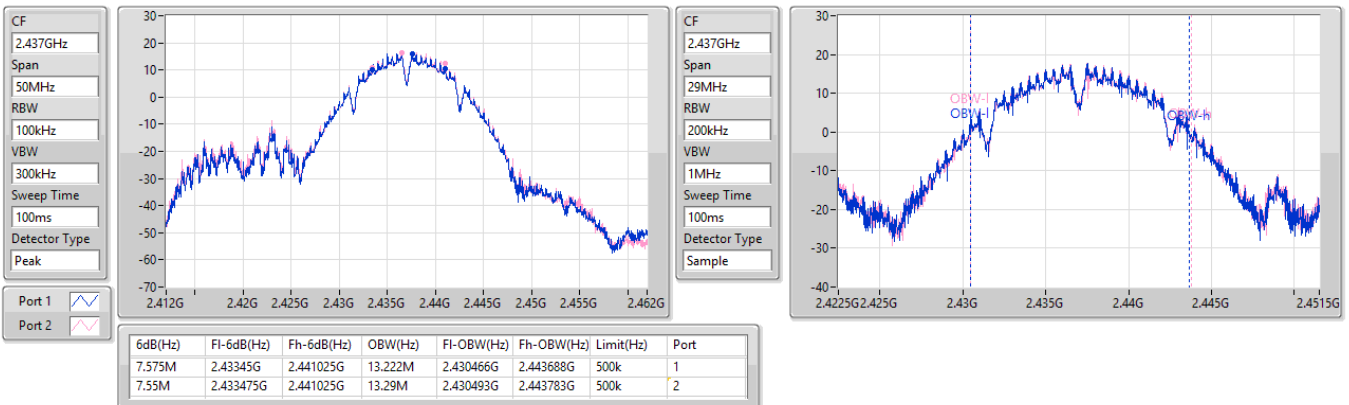
24/12/2022



2.4-2.4835GHz\_802.11b\_Nss1,(1Mbps)\_2TX  
2437MHz

EBW

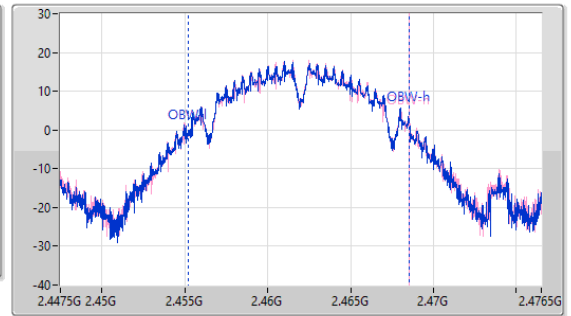
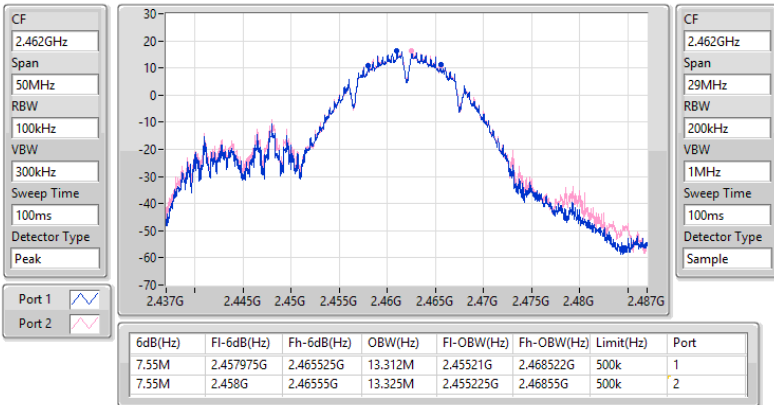
24/12/2022



**2.4-2.4835GHz\_802.11b\_Nss1,(1Mbps)\_2TX**  
**2462MHz**

EBW

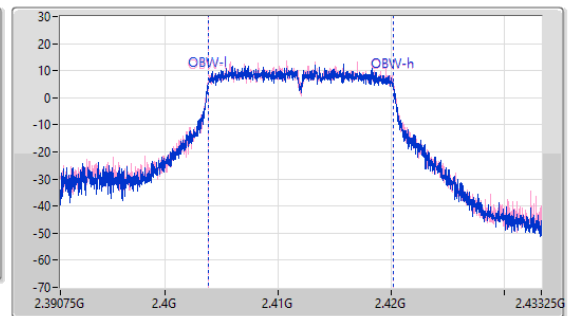
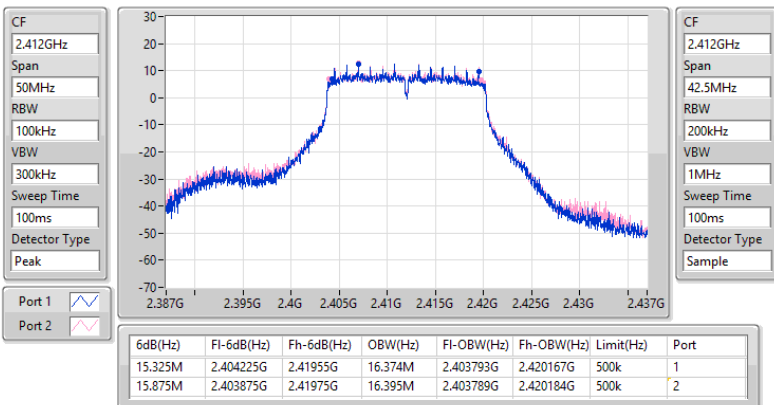
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**2.4-2.4835GHz\_802.11g\_Nss1,(6Mbps)\_2TX**  
**2412MHz**

EBW

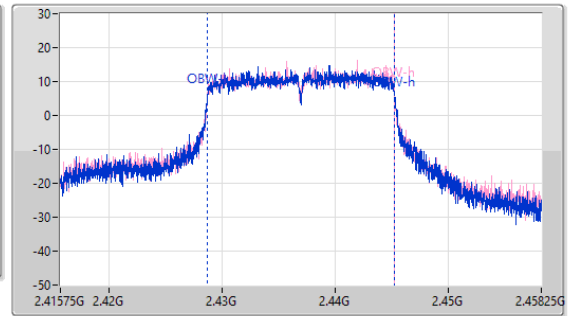
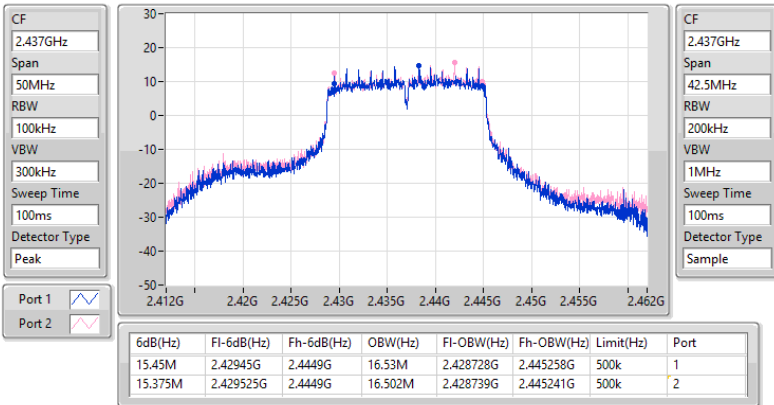
24/12/2022



2.4-2.4835GHz\_802.11g\_Nss1,(6Mbps)\_2TX  
2437MHz

EBW

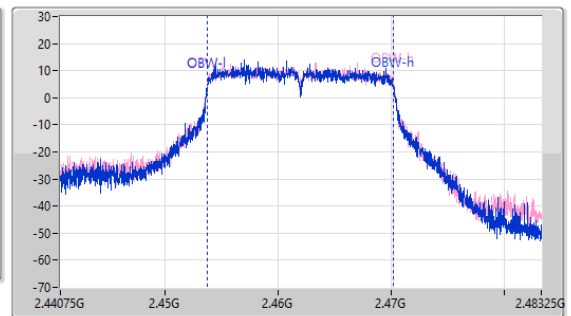
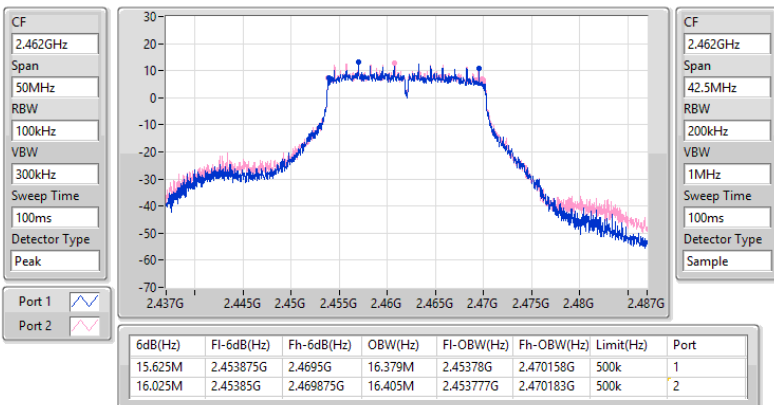
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2.4-2.4835GHz\_802.11g\_Nss1,(6Mbps)\_2TX  
2462MHz

EBW

24/12/2022



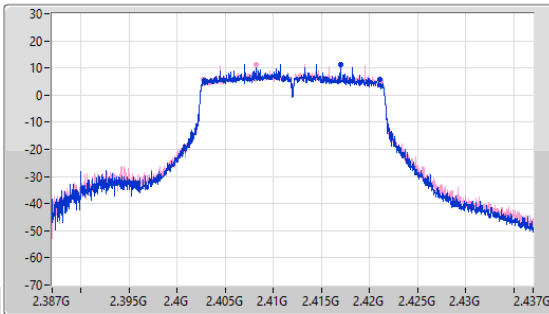


2.4-2.4835GHz\_802.11ax HEW20\_Nss1,(MCS0)\_2TX  
2412MHz

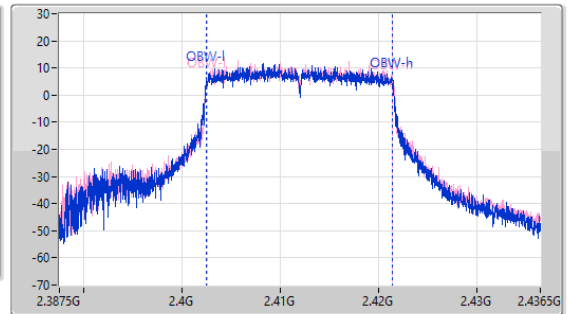
EBW

24/12/2022

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



CF  
2.412GHz  
Span  
49MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Sample



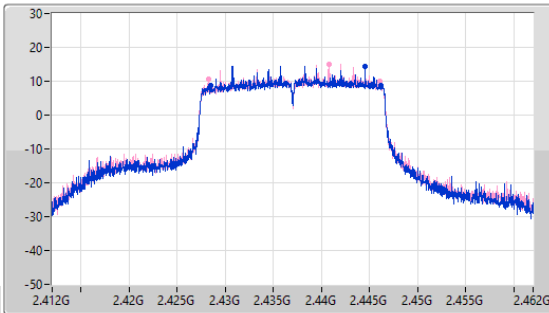
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
18.175M	2.402875G	2.42105G	18.942M	2.402497G	2.421439G	500k	1
18.425M	2.40275G	2.421175G	18.884M	2.402553G	2.421437G	500k	2

2.4-2.4835GHz\_802.11ax HEW20\_Nss1,(MCS0)\_2TX  
2437MHz

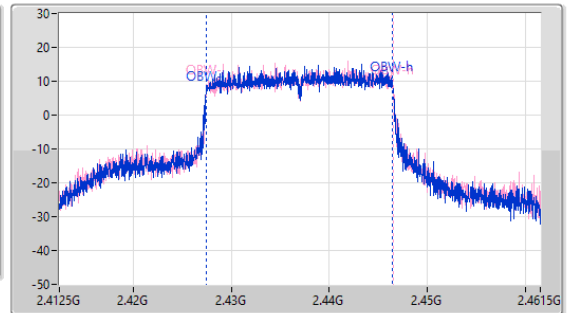
EBW

24/12/2022

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



CF  
2.437GHz  
Span  
49MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Sample

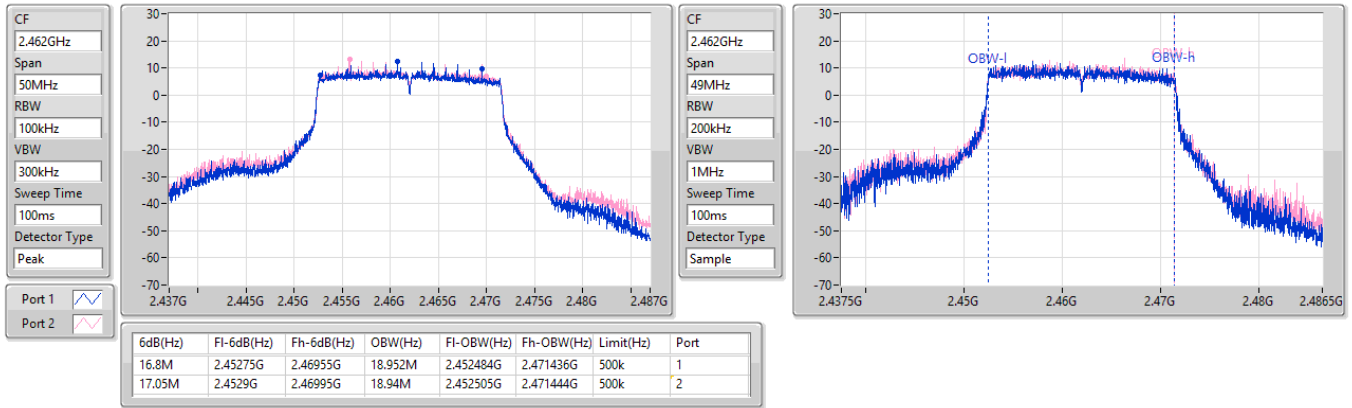


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.775M	2.42845G	2.446225G	18.999M	2.427469G	2.446468G	500k	1
17.825M	2.428225G	2.44605G	19.023M	2.427477G	2.4465G	500k	2

2.4-2.4835GHz\_802.11ax HEW20\_Nss1,(MCS0)\_2TX  
2462MHz

EBW

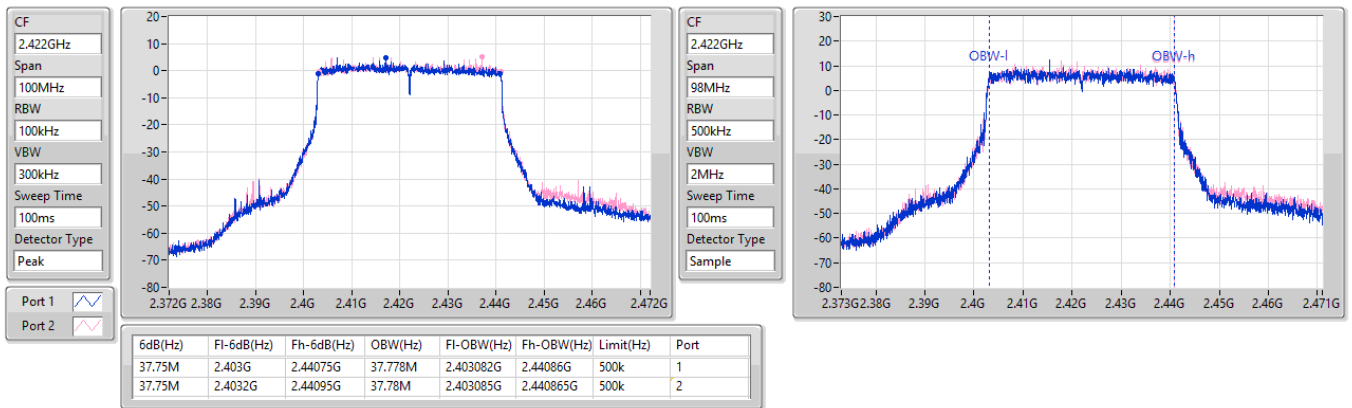
24/12/2022



2.4-2.4835GHz\_802.11ax HEW40\_Nss1,(MCS0)\_2TX  
2422MHz

EBW

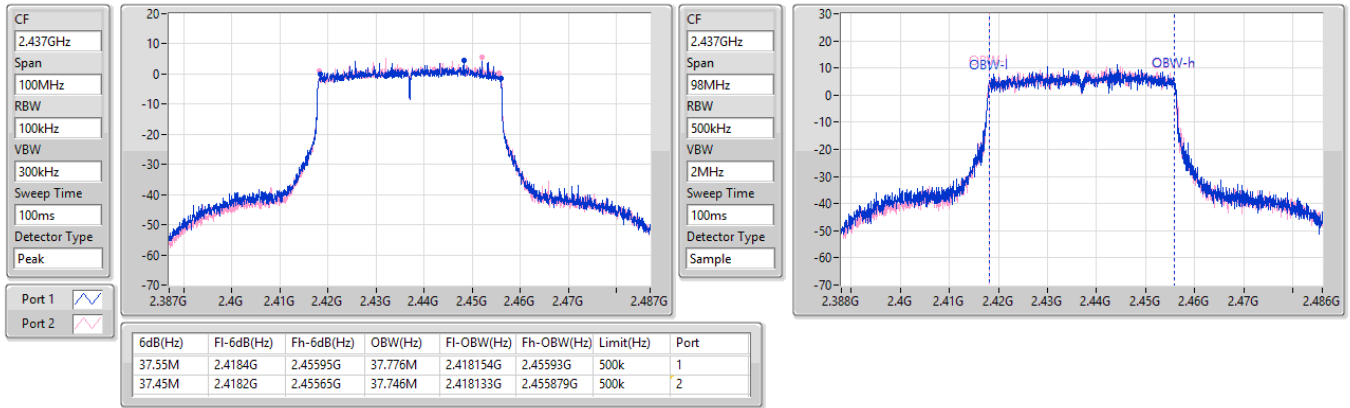
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2.4-2.4835GHz\_802.11ax HEW40\_Nss1,(MCS0)\_2TX  
2437MHz

EBW

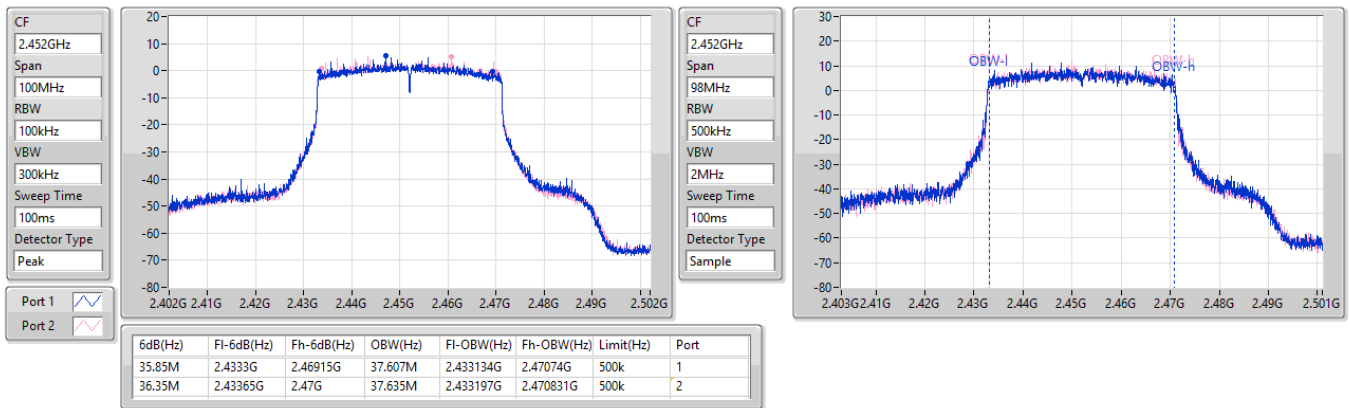
24/12/2022



2.4-2.4835GHz\_802.11ax HEW40\_Nss1,(MCS0)\_2TX  
2452MHz

EBW

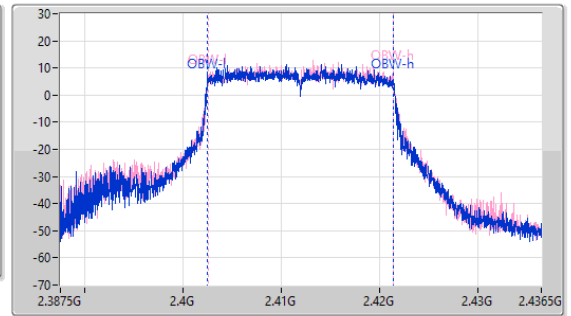
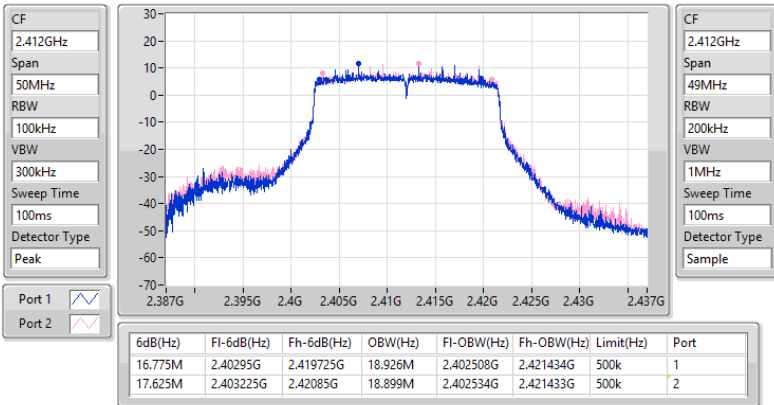
24/12/2022



2.4-2.4835GHz\_802.11ax HEW20\_Nss2,(MCS0)\_2TX  
2412MHz

EBW

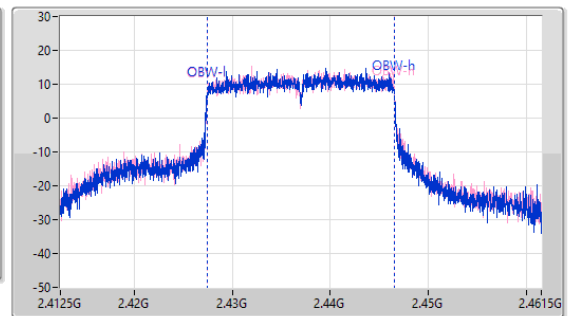
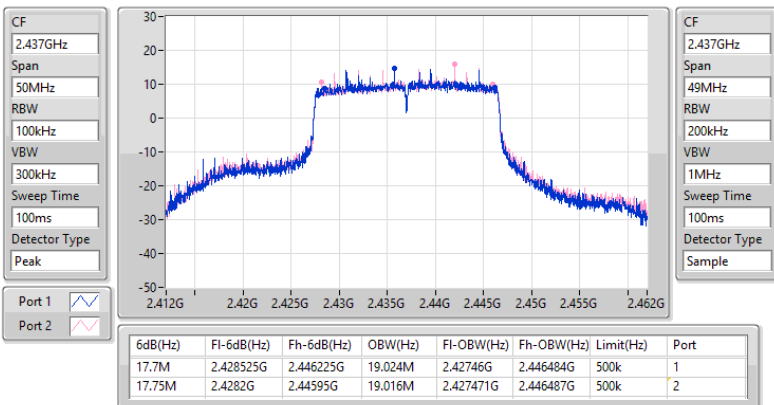
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2.4-2.4835GHz\_802.11ax HEW20\_Nss2,(MCS0)\_2TX  
2437MHz

EBW

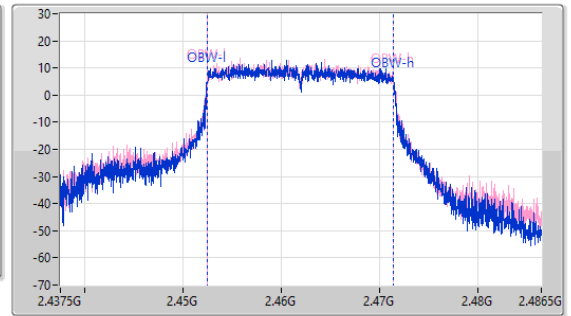
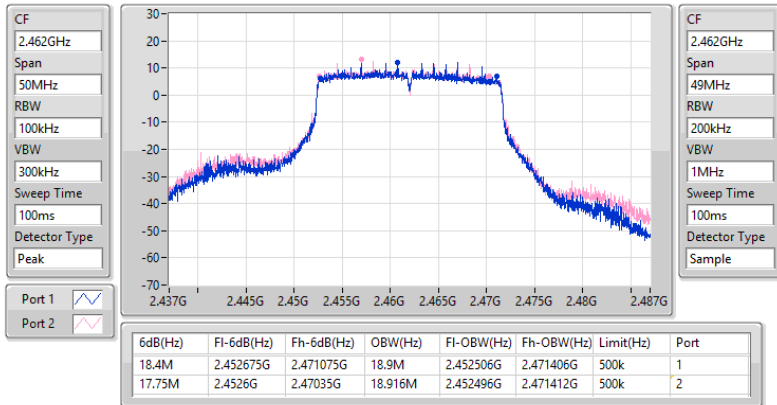
24/12/2022



2.4-2.4835GHz\_802.11ax HEW20\_Nss2,(MCS0)\_2TX  
2462MHz

EBW

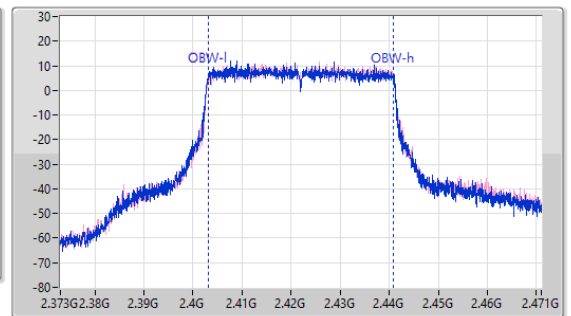
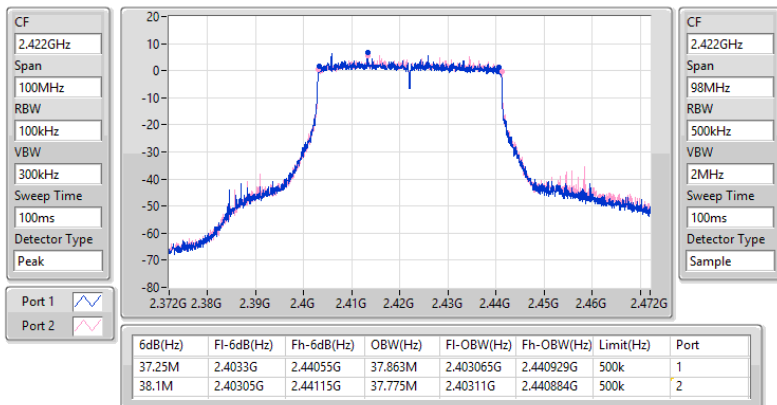
24/12/2022



2.4-2.4835GHz\_802.11ax HEW40\_Nss2,(MCS0)\_2TX  
2422MHz

EBW

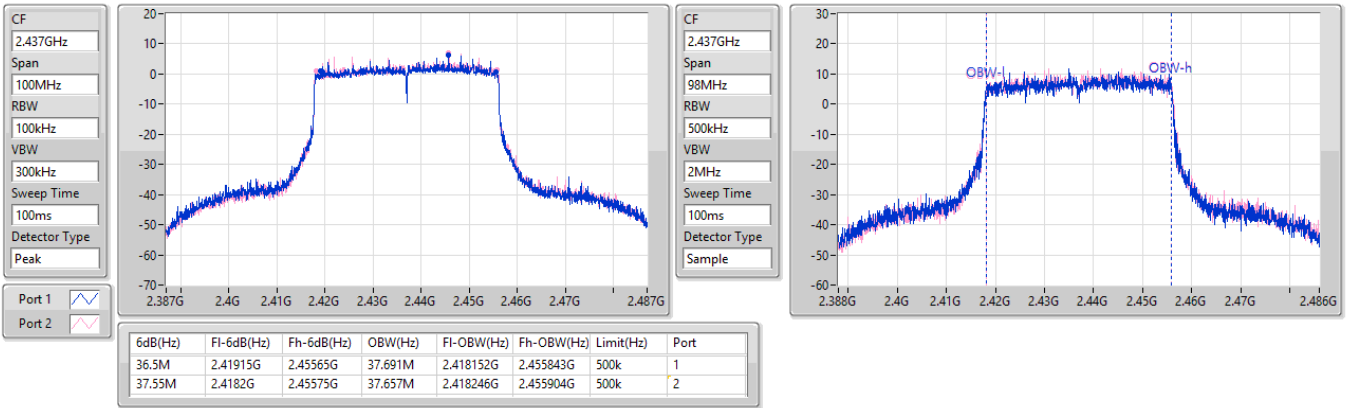
24/12/2022



2.4-2.4835GHz\_802.11ax HEW40\_Nss2,(MCS0)\_2TX  
2437MHz

EBW

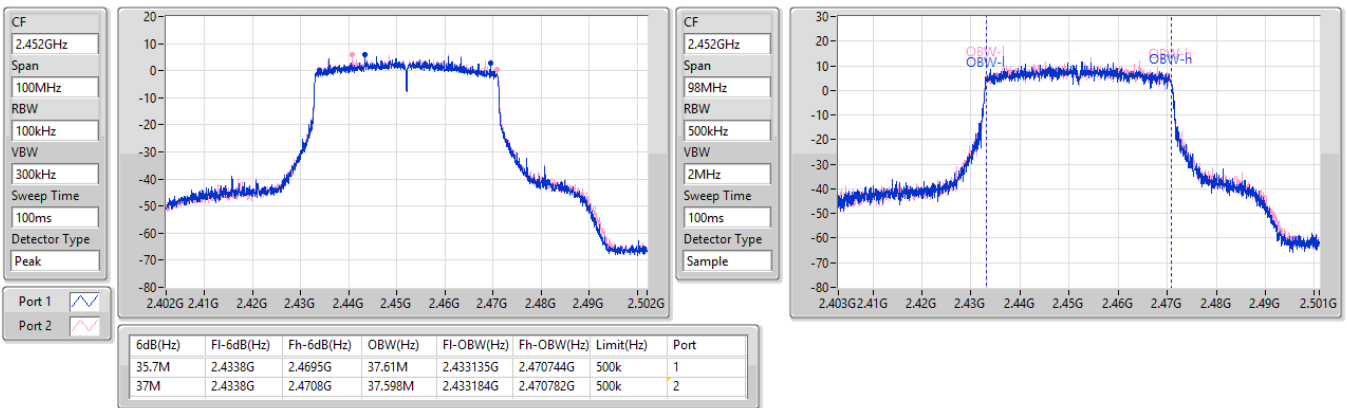
24/12/2022



2.4-2.4835GHz\_802.11ax HEW40\_Nss2,(MCS0)\_2TX  
2452MHz

EBW

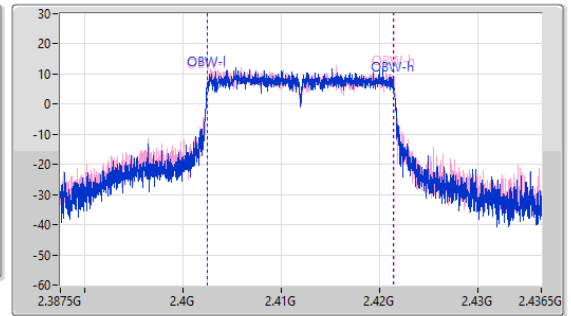
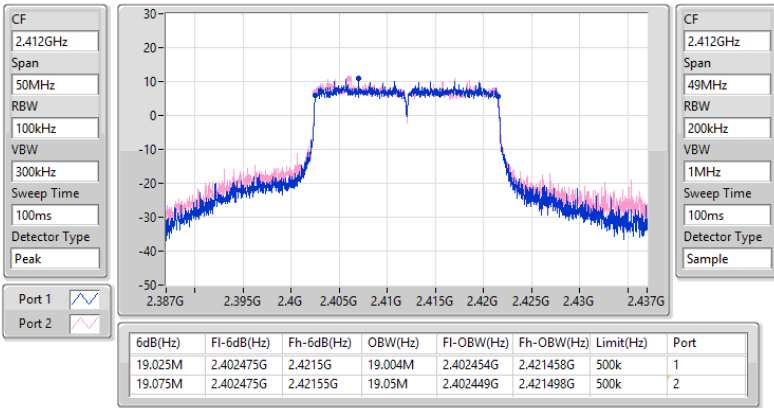
24/12/2022



2.4-2.4835GHz\_802.11ax HEW20-BF\_Nss1,(MCS0)\_2TX  
2412MHz

EBW

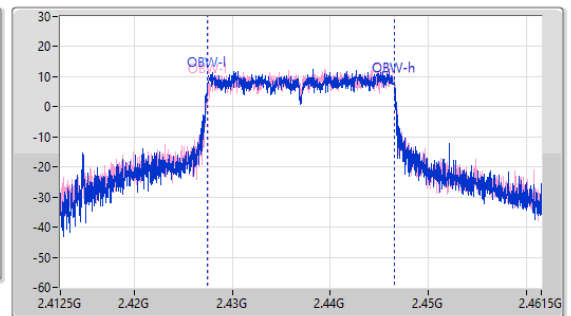
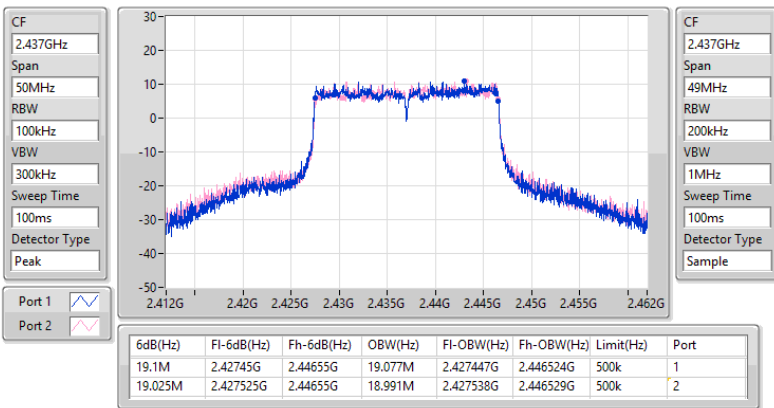
26/12/2022



2.4-2.4835GHz\_802.11ax HEW20-BF\_Nss1,(MCS0)\_2TX  
2437MHz

EBW

26/12/2022

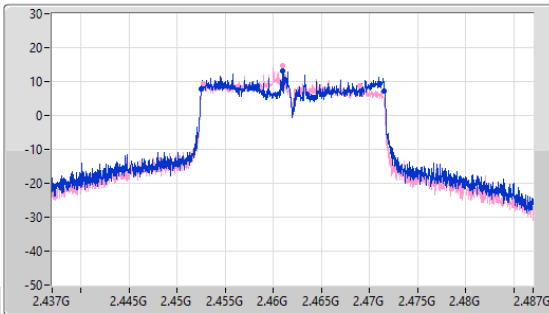


2.4-2.4835GHz\_802.11ax HEW20-BF\_Nss1,(MCS0)\_2TX  
2462MHz

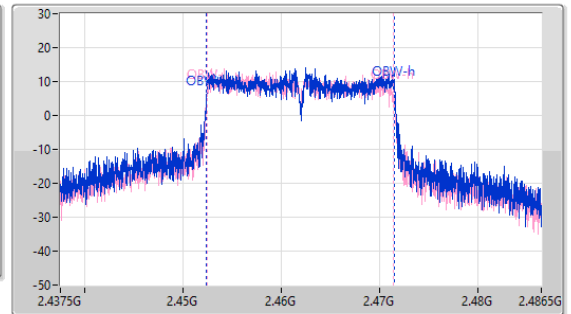
EBW

26/12/2022

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



CF  
2.462GHz  
Span  
49MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Sample



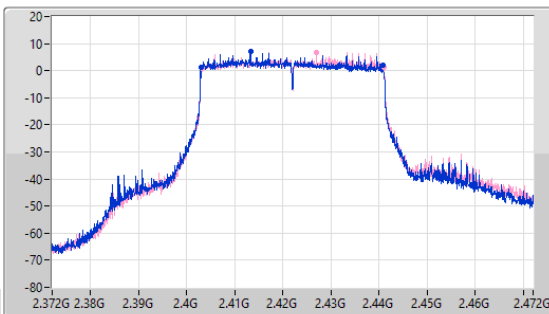
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
19.075M	2.452475G	2.47155G	19.165M	2.452385G	2.47155G	500k	1
16.25M	2.45275G	2.469G	19.014M	2.452417G	2.471431G	500k	2

2.4-2.4835GHz\_802.11ax HEW40-BF\_Nss1,(MCS0)\_2TX  
2422MHz

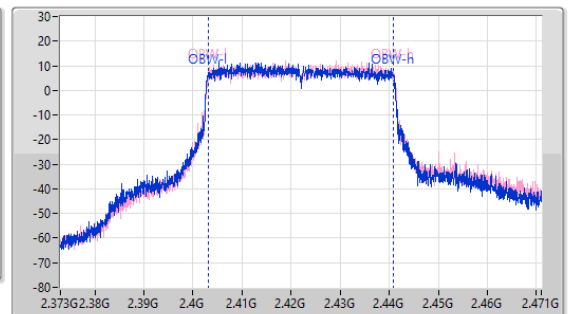
EBW

26/12/2022

CF  
2.422GHz  
Span  
100MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



CF  
2.422GHz  
Span  
98MHz  
RBW  
500kHz  
VBW  
2MHz  
Sweep Time  
100ms  
Detector Type  
Sample



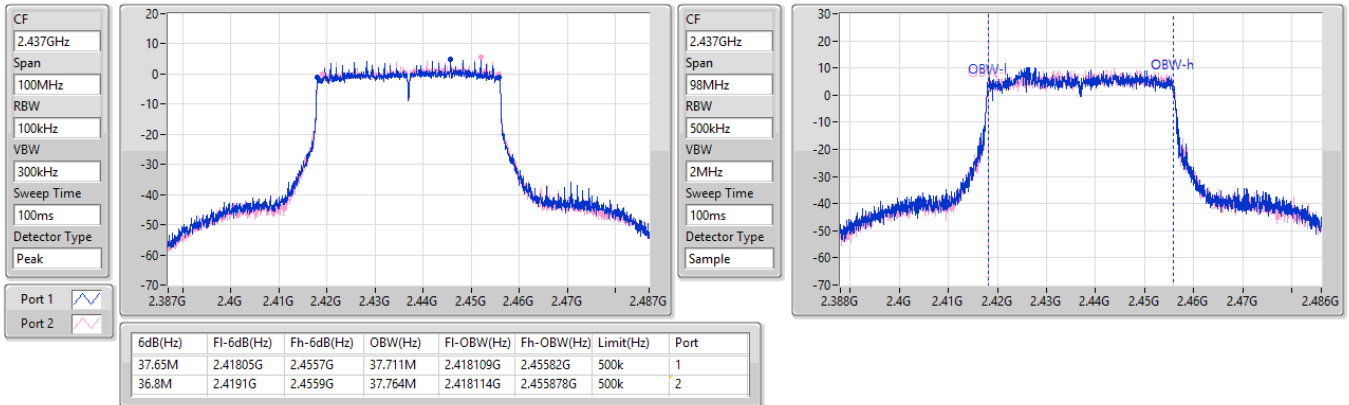
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
37.75M	2.40305G	2.4408G	37.769M	2.403074G	2.440843G	500k	1
37.7M	2.40325G	2.44095G	37.74M	2.403172G	2.440912G	500k	2



2.4-2.4835GHz\_802.11ax HEW40-BF\_Nss1,(MCS0)\_2TX  
2437MHz

EBW

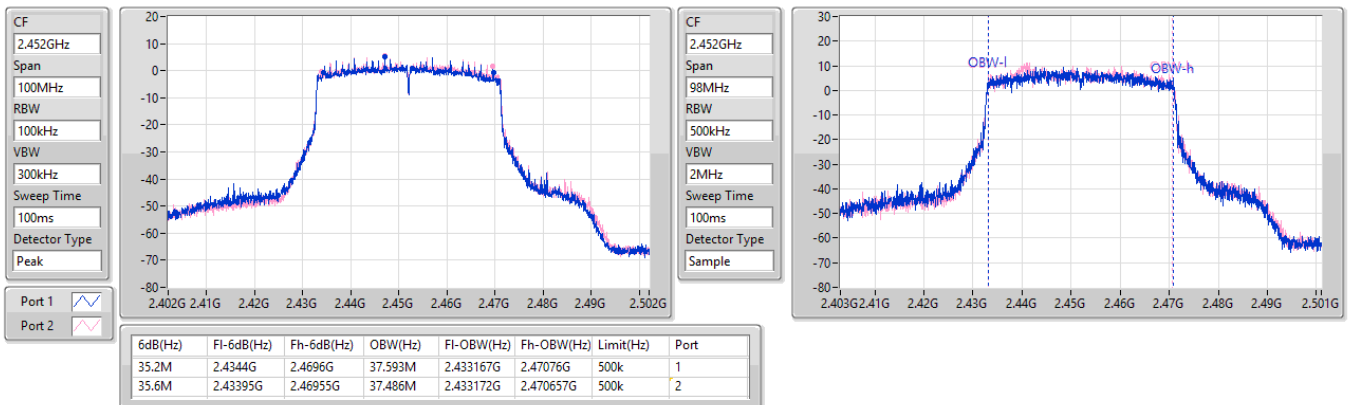
26/12/2022



2.4-2.4835GHz\_802.11ax HEW40-BF\_Nss1,(MCS0)\_2TX  
2452MHz

EBW

26/12/2022



**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	8.55M	14.434M	14M4G1D	7.025M	12.907M
802.11g_Nss1,(6Mbps)_2TX	15.9M	16.424M	16M4D1D	15.325M	16.334M
802.11ax HEW20_Nss1,(MCS0)_2TX	18.35M	18.954M	19M0D1D	16.325M	18.893M
802.11ax HEW20_Nss2,(MCS0)_2TX	18.375M	19.188M	19M2D1D	16.25M	18.888M
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	18.1M	18.905M	18M9D1D	15.425M	18.824M
802.11ax HEW40_Nss1,(MCS0)_2TX	37.75M	37.814M	37M8D1D	35.8M	37.577M
802.11ax HEW40_Nss2,(MCS0)_2TX	37.95M	37.777M	37M8D1D	36.1M	37.614M
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	37.35M	37.764M	37M8D1D	25.5M	37.574M

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	7.025M	12.972M	8.55M	12.907M
2437MHz	Pass	500k	7.5M	13.692M	7.525M	14.434M
2462MHz	Pass	500k	7.55M	13.052M	8.025M	12.976M
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	15.325M	16.334M	15.9M	16.362M
2437MHz	Pass	500k	15.425M	16.395M	15.7M	16.424M
2462MHz	Pass	500k	15.7M	16.359M	15.9M	16.382M
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	16.325M	18.915M	16.825M	18.893M
2437MHz	Pass	500k	17.9M	18.954M	18.35M	18.938M
2462MHz	Pass	500k	17.775M	18.925M	18.3M	18.927M
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	500k	37.75M	37.814M	37.65M	37.76M
2437MHz	Pass	500k	37.65M	37.755M	35.8M	37.724M
2452MHz	Pass	500k	36.45M	37.577M	36.05M	37.669M
802.11ax HEW20_Nss2,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	16.25M	18.888M	17.775M	18.901M
2437MHz	Pass	500k	17.6M	19.037M	18.1M	19.188M
2462MHz	Pass	500k	18.375M	18.897M	18.1M	18.945M
802.11ax HEW40_Nss2,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	500k	37.95M	37.777M	37.65M	37.758M
2437MHz	Pass	500k	36.55M	37.774M	37.7M	37.726M
2452MHz	Pass	500k	36.1M	37.614M	37.5M	37.648M
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	16.4M	18.824M	17.825M	18.89M
2437MHz	Pass	500k	15.425M	18.86M	17.475M	18.881M
2462MHz	Pass	500k	16.425M	18.899M	18.1M	18.905M
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	500k	37.35M	37.756M	36.2M	37.764M
2437MHz	Pass	500k	36.65M	37.727M	25.5M	37.674M
2452MHz	Pass	500k	31.25M	37.574M	37.1M	37.631M

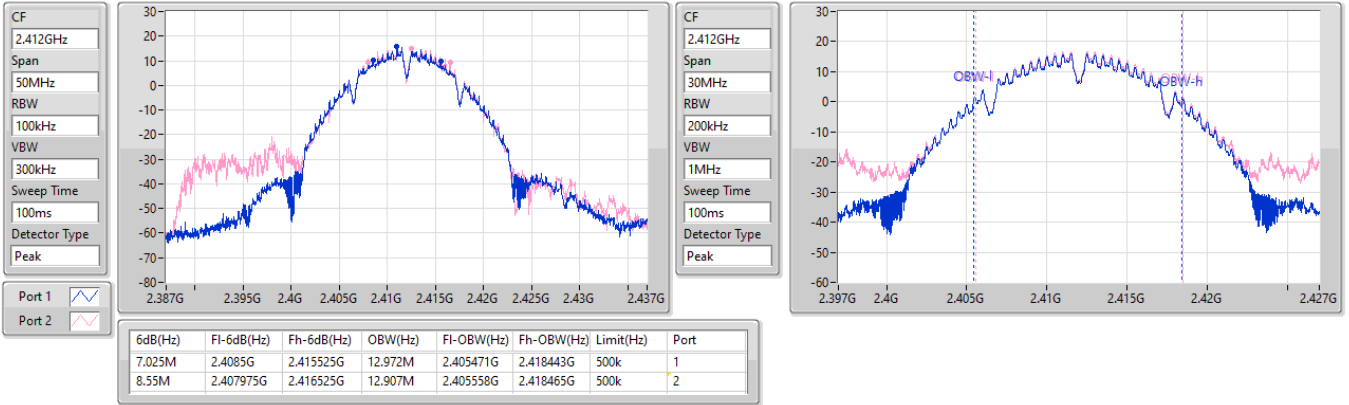
Port X-N dB = Port X 6dB down bandwidth:  
 Port X-OBW = Port X 99% occupied bandwidth

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

EBW

2412MHz

20/04/2023

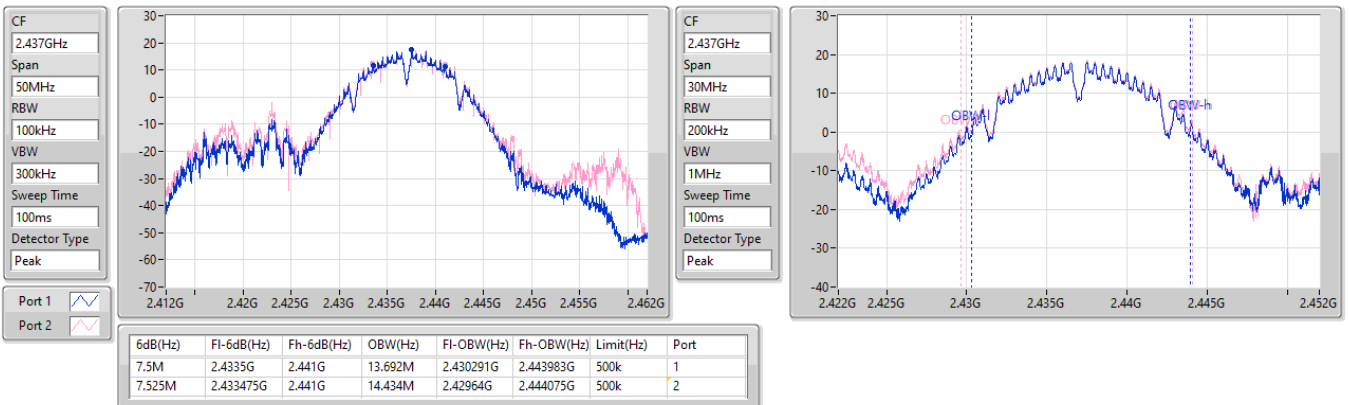


2.4-2.4835GHz\_802.11b\_Nss1,(1Mbps)\_2TX

EBW

2437MHz

20/04/2023



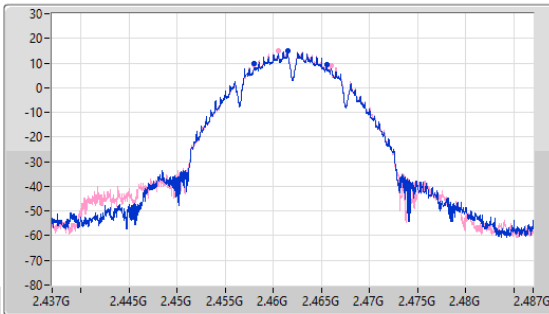
2.4-2.4835GHz\_802.11b\_Nss1,(1Mbps)\_2TX

EBW

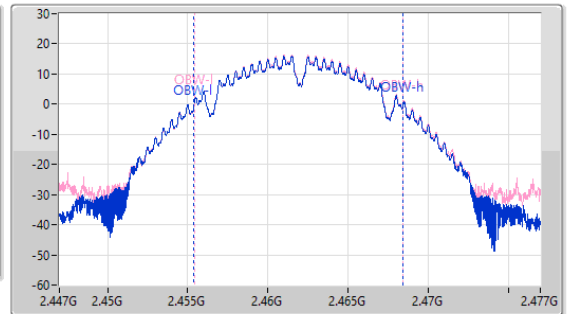
2462MHz

20/04/2023

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
7.55M	2.458G	2.46555G	13.052M	2.455345G	2.468396G	500k	1
8.025M	2.457975G	2.466G	12.976M	2.455444G	2.46842G	500k	2

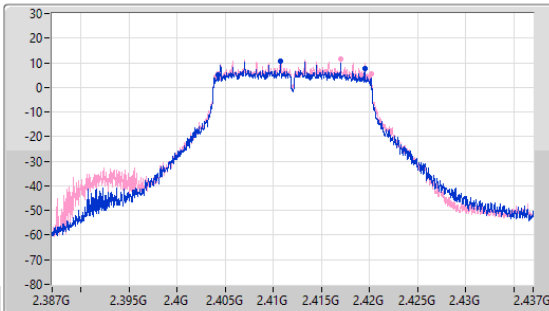
2.4-2.4835GHz\_802.11g\_Nss1,(6Mbps)\_2TX

EBW

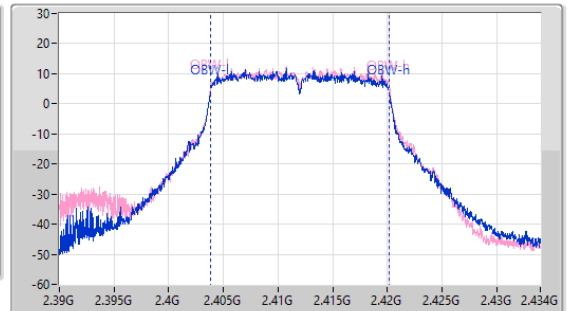
2412MHz

20/04/2023

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
15.325M	2.404225G	2.41955G	16.334M	2.403827G	2.420161G	500k	1
15.9M	2.40425G	2.42015G	16.362M	2.403838G	2.4202G	500k	2

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

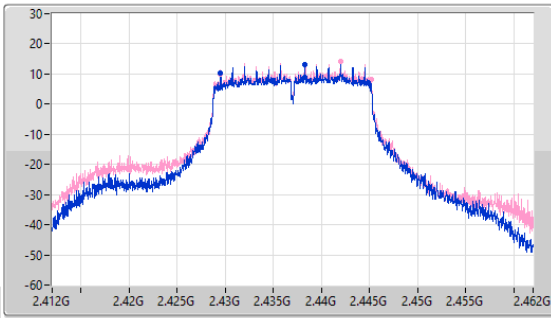
EBW

2437MHz

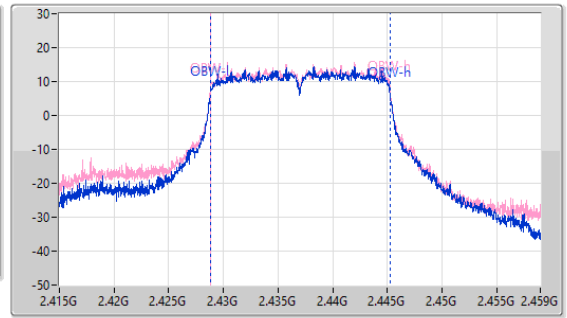
20/04/2023

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

Port 1: [Waveform icon]  
 Port 2: [Waveform icon]



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
15.425M	2.429475G	2.4449G	16.395M	2.428834G	2.445228G	500k	1
15.7M	2.42945G	2.44515G	16.424M	2.428811G	2.445234G	500k	2

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

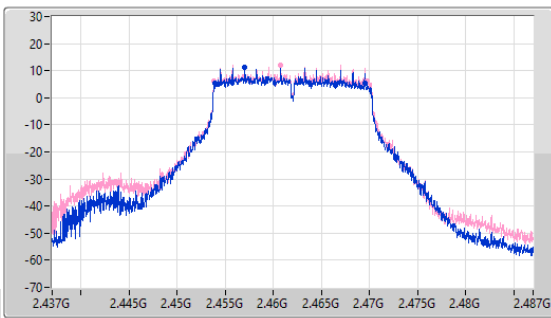
EBW

2462MHz

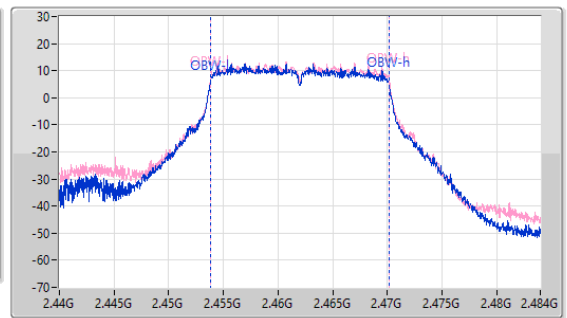
20/04/2023

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

Port 1: [Waveform icon]  
 Port 2: [Waveform icon]



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



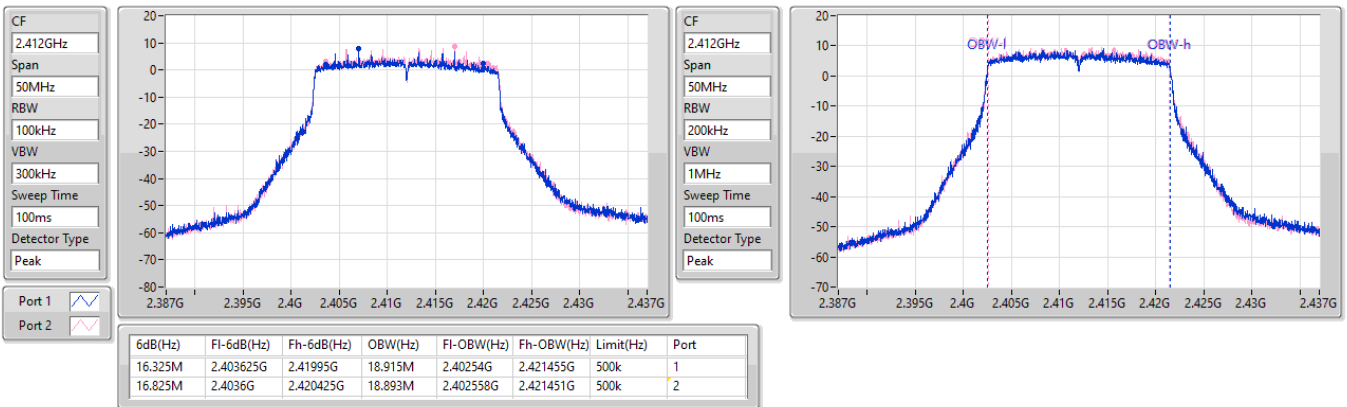
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15.7M	2.453875G	2.469575G	16.359M	2.453784G	2.470143G	500k	1
15.9M	2.45385G	2.46975G	16.382M	2.453798G	2.47018G	500k	2

2.4-2.4835GHz\_802.11ax HEW20\_Nss1,(MCS0)\_2TX

EBW

2412MHz

20/04/2023

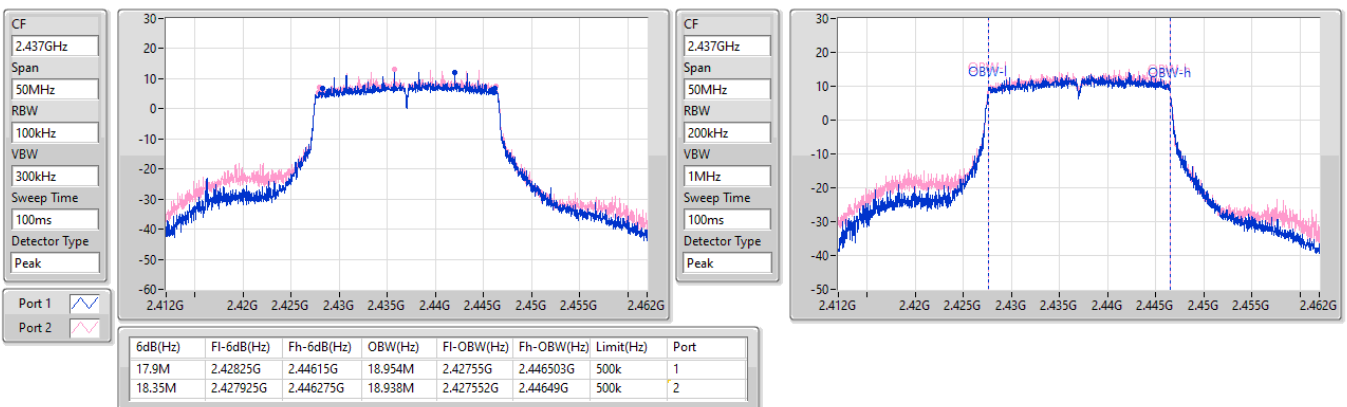


2.4-2.4835GHz\_802.11ax HEW20\_Nss1,(MCS0)\_2TX

EBW

2437MHz

20/04/2023

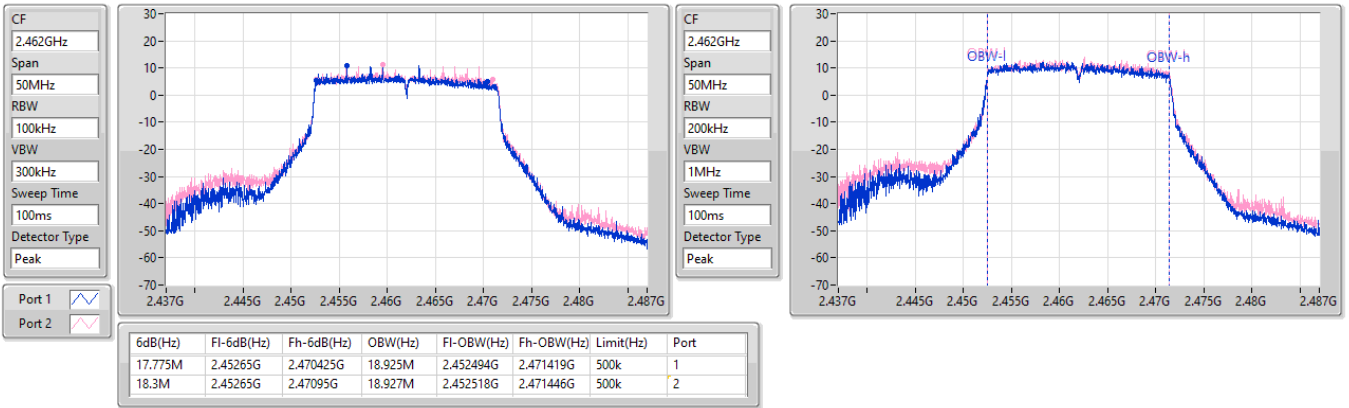


2.4-2.4835GHz\_802.11ax HEW20\_Nss1,(MCS0)\_2TX

EBW

2462MHz

20/04/2023

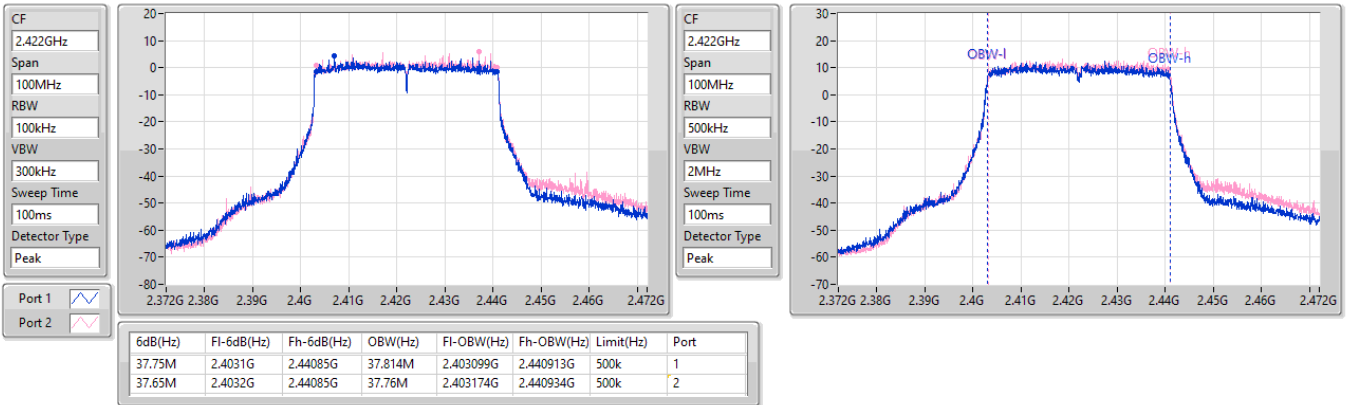


2.4-2.4835GHz\_802.11ax HEW40\_Nss1,(MCS0)\_2TX

EBW

2422MHz

20/04/2023



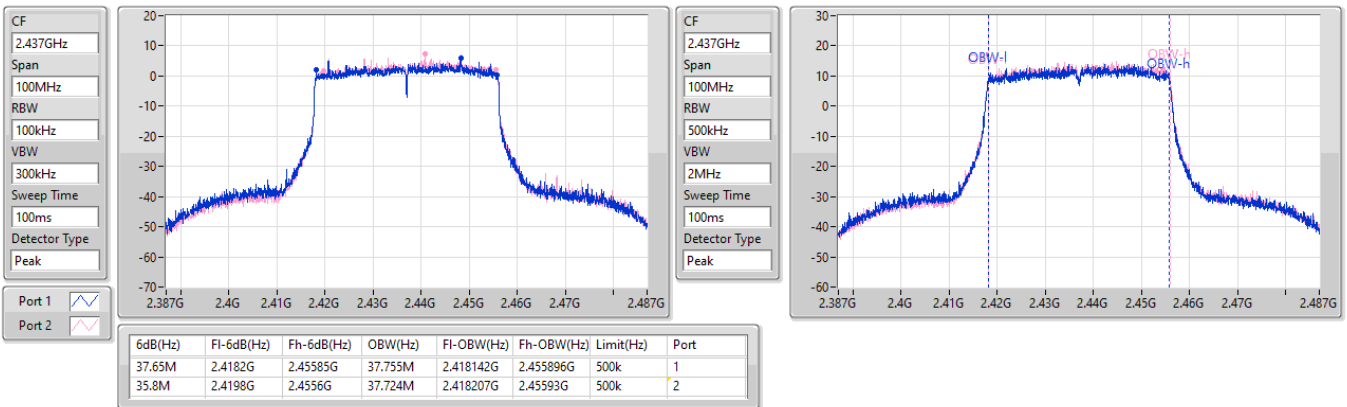


2.4-2.4835GHz\_802.11ax HEW40\_Nss1,(MCS0)\_2TX

EBW

2437MHz

20/04/2023

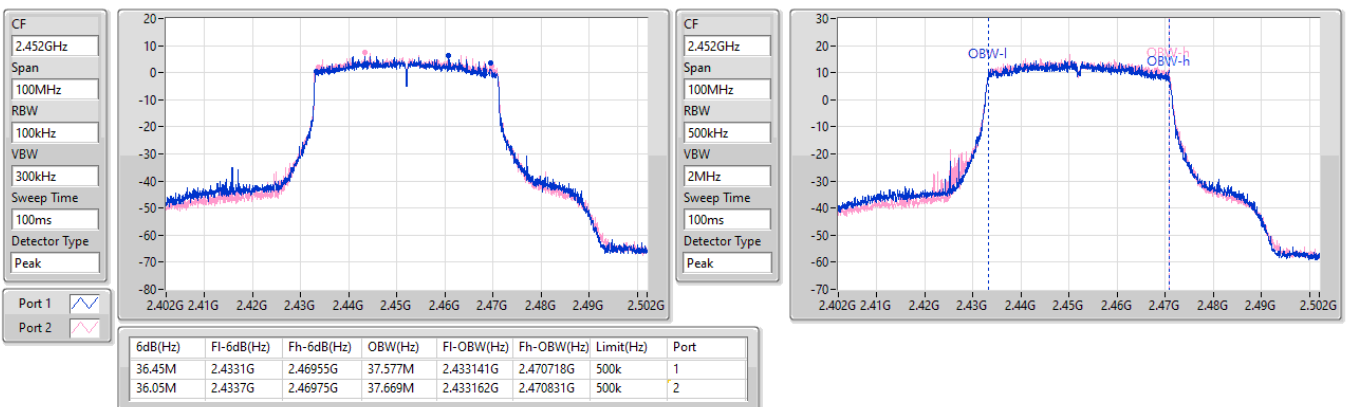


2.4-2.4835GHz\_802.11ax HEW40\_Nss1,(MCS0)\_2TX

EBW

2452MHz

20/04/2023

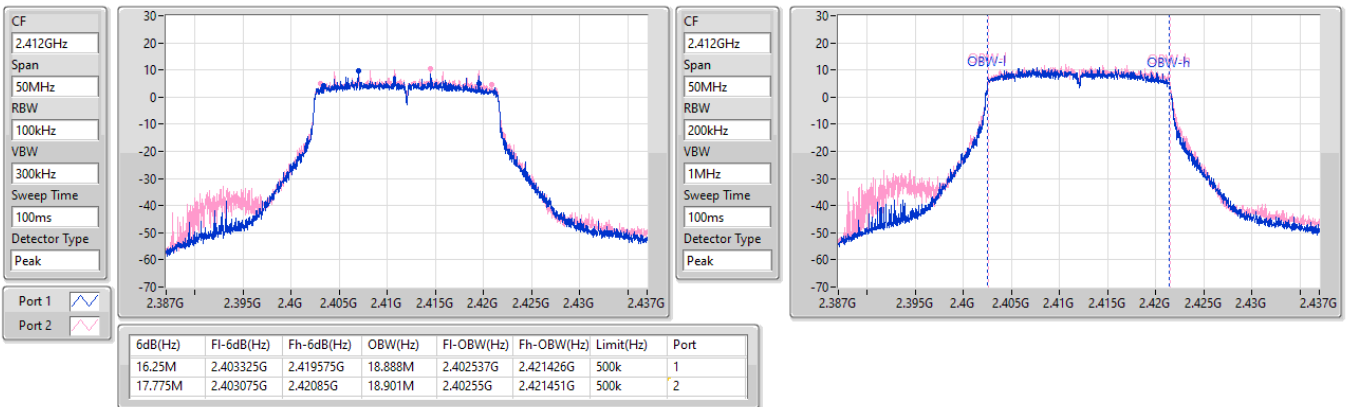


2.4-2.4835GHz\_802.11ax HEW20\_Nss2,(MCS0)\_2TX

EBW

2412MHz

20/04/2023

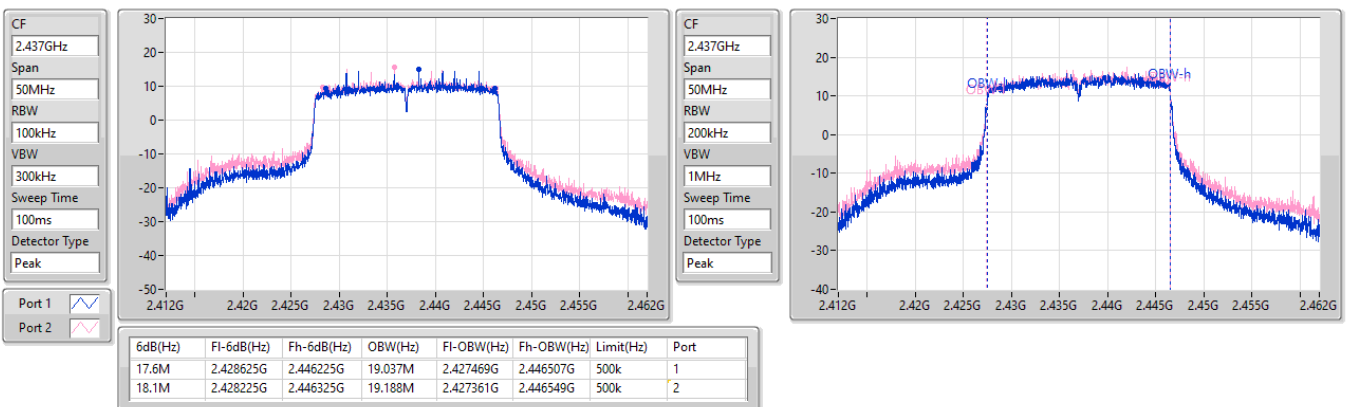


2.4-2.4835GHz\_802.11ax HEW20\_Nss2,(MCS0)\_2TX

EBW

2437MHz

20/04/2023

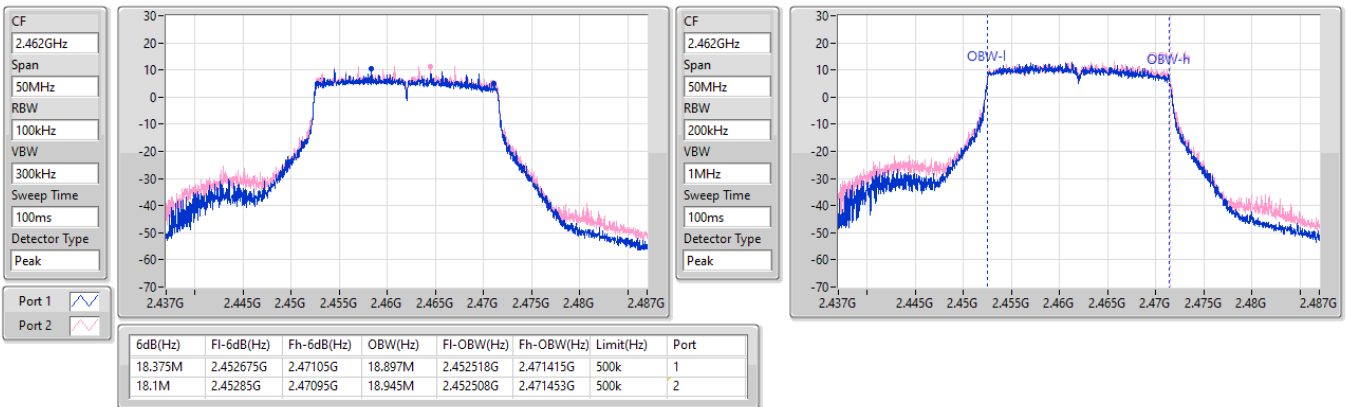


2.4-2.4835GHz\_802.11ax HEW20\_Nss2,(MCS0)\_2TX

EBW

2462MHz

20/04/2023

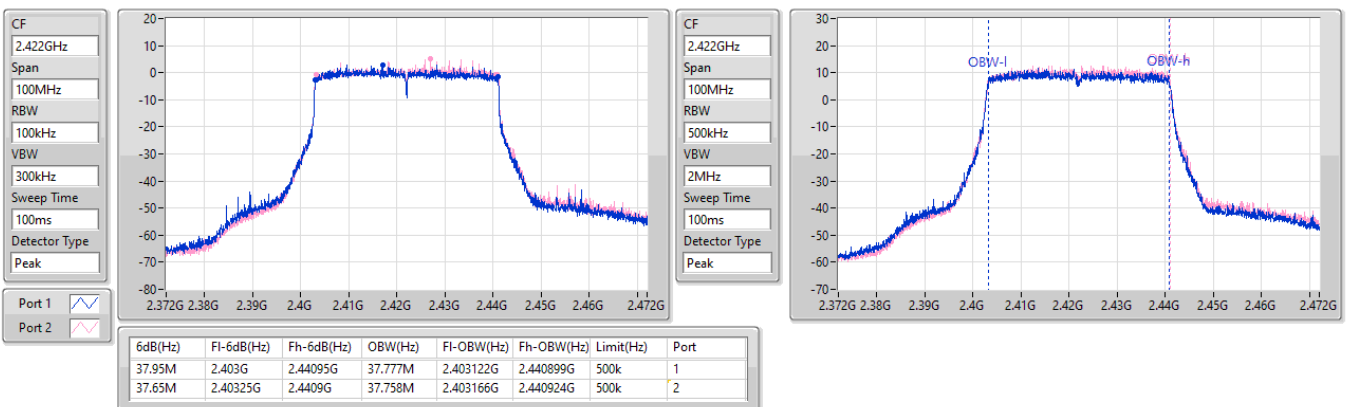


2.4-2.4835GHz\_802.11ax HEW40\_Nss2,(MCS0)\_2TX

EBW

2422MHz

20/04/2023



2.4-2.4835GHz\_802.11ax HEW40\_Nss2,(MCS0)\_2TX

EBW

2437MHz

20/04/2023

CF  
2.437GHz

Span  
100MHz

RBW  
100kHz

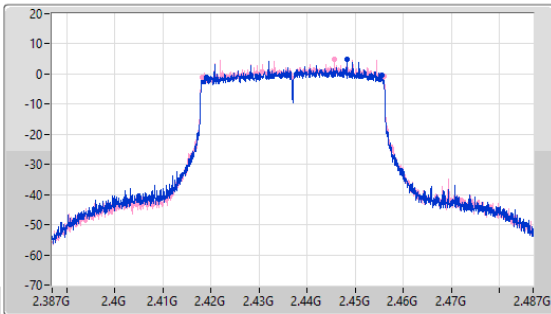
VBW  
300kHz

Sweep Time  
100ms

Detector Type  
Peak

Port 1

Port 2



CF  
2.437GHz

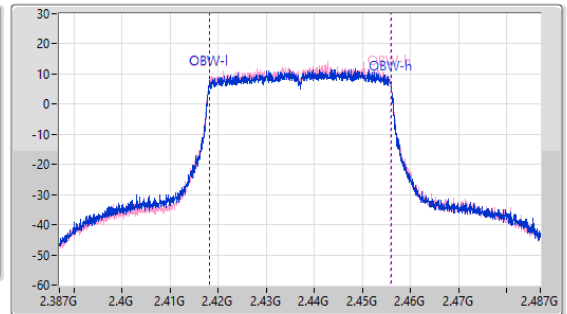
Span  
100MHz

RBW  
500kHz

VBW  
2MHz

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
36.55M	2.419G	2.45555G	37.774M	2.418144G	2.455918G	500k	1
37.7M	2.41825G	2.45595G	37.726M	2.418163G	2.455889G	500k	2

2.4-2.4835GHz\_802.11ax HEW40\_Nss2,(MCS0)\_2TX

EBW

2452MHz

20/04/2023

CF  
2.452GHz

Span  
100MHz

RBW  
100kHz

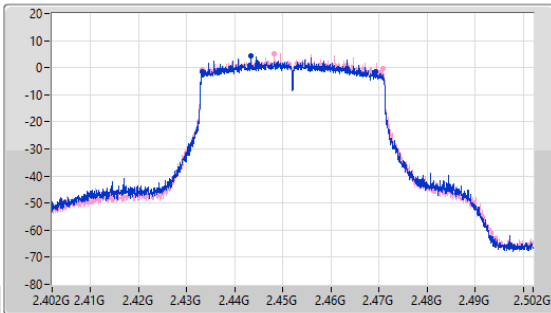
VBW  
300kHz

Sweep Time  
100ms

Detector Type  
Peak

Port 1

Port 2



CF  
2.452GHz

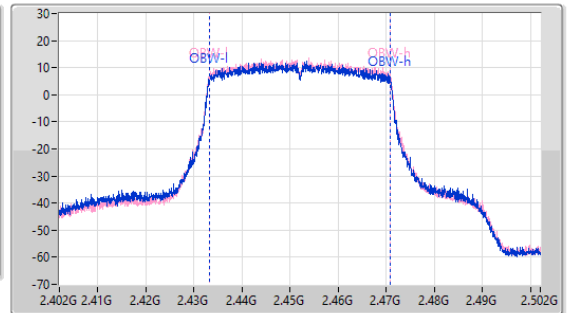
Span  
100MHz

RBW  
500kHz

VBW  
2MHz

Sweep Time  
100ms

Detector Type  
Peak



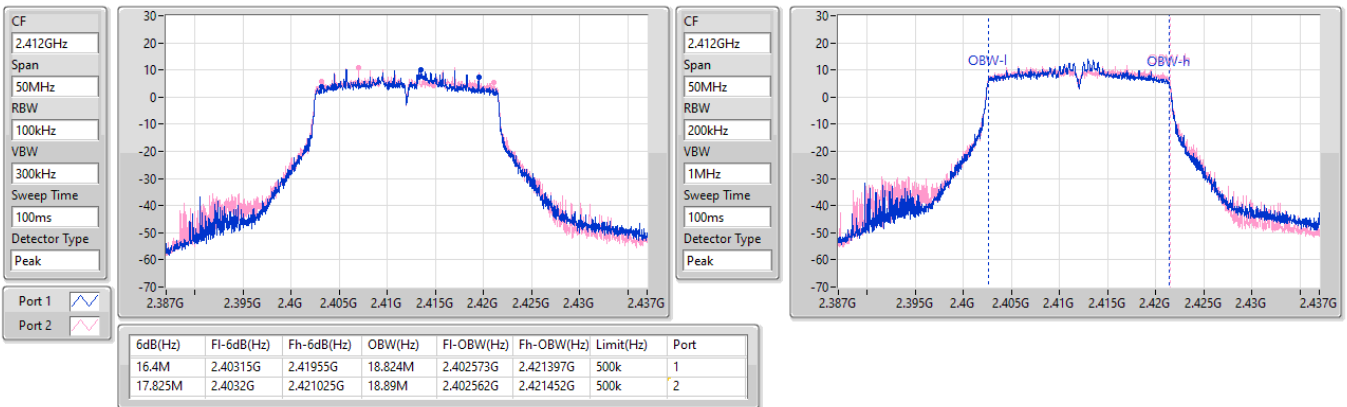
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.1M	2.4331G	2.4692G	37.614M	2.433149G	2.470763G	500k	1
37.5M	2.4333G	2.4708G	37.648M	2.433159G	2.470807G	500k	2

2.4-2.4835GHz\_802.11ax HEW20-BF\_Nss1,(MCS0)\_2TX

EBW

2412MHz

21/04/2023

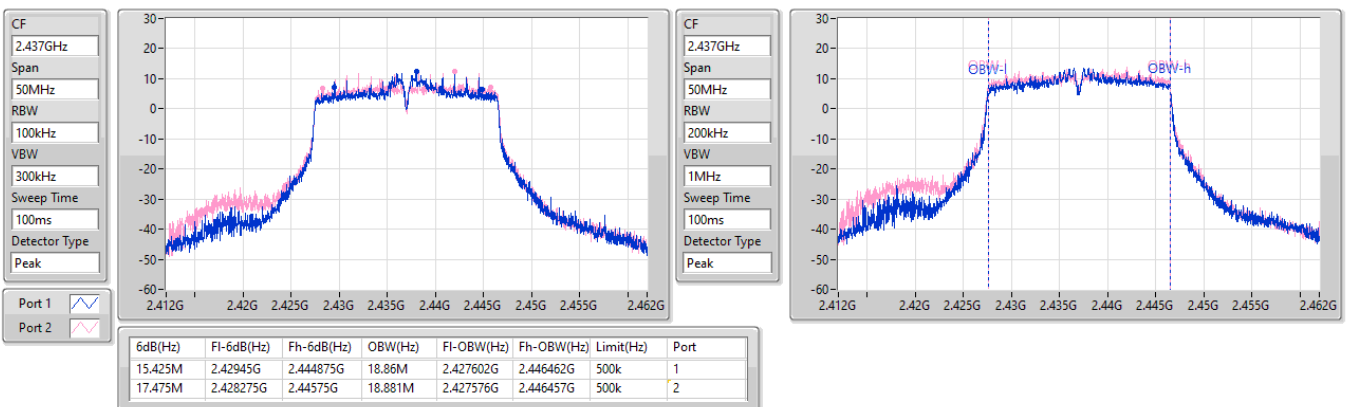


2.4-2.4835GHz\_802.11ax HEW20-BF\_Nss1,(MCS0)\_2TX

EBW

2437MHz

21/04/2023

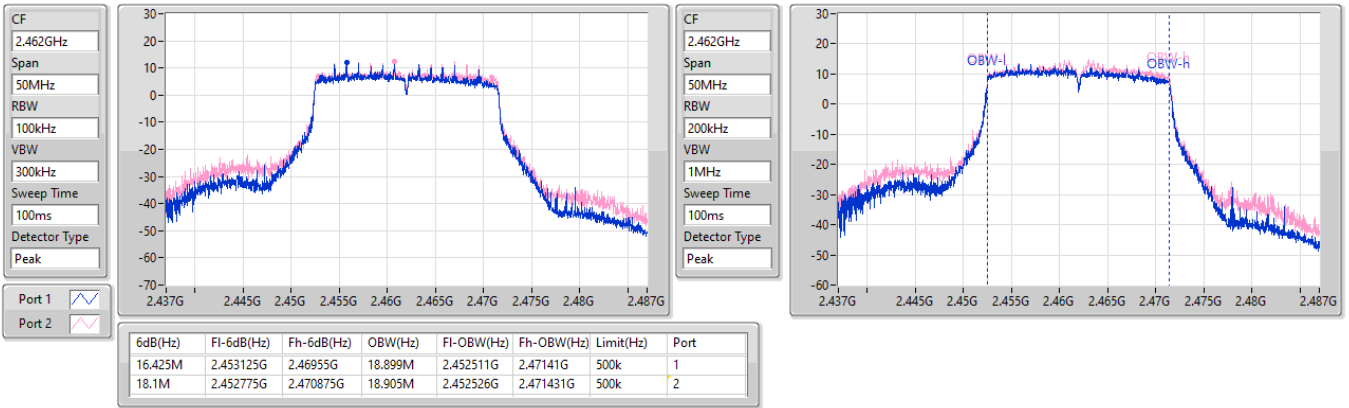


2.4-2.4835GHz\_802.11ax HEW20-BF\_Nss1,(MCS0)\_2TX

EBW

2462MHz

21/04/2023

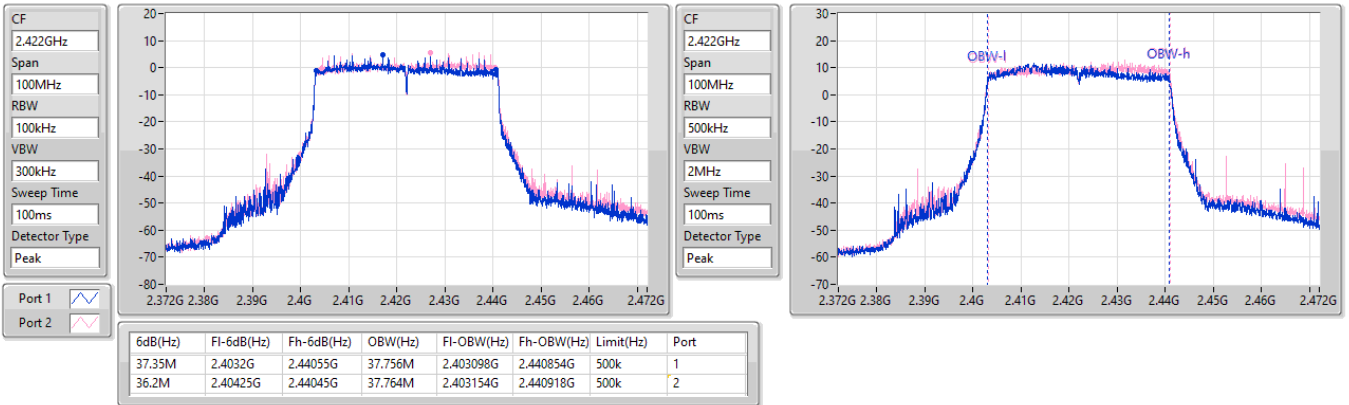


2.4-2.4835GHz\_802.11ax HEW40-BF\_Nss1,(MCS0)\_2TX

EBW

2422MHz

21/04/2023

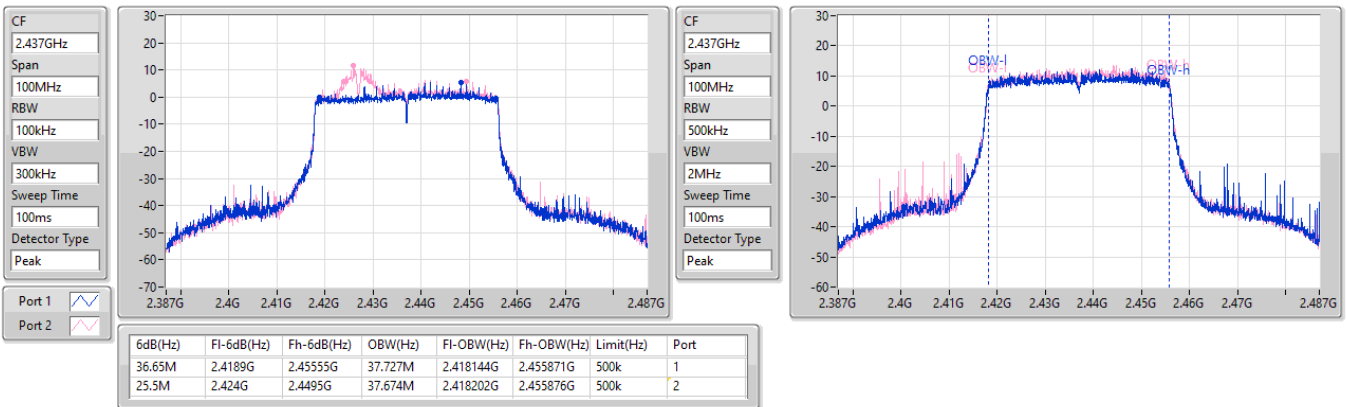


2.4-2.4835GHz\_802.11ax HEW40-BF\_Nss1,(MCS0)\_2TX

EBW

2437MHz

21/04/2023

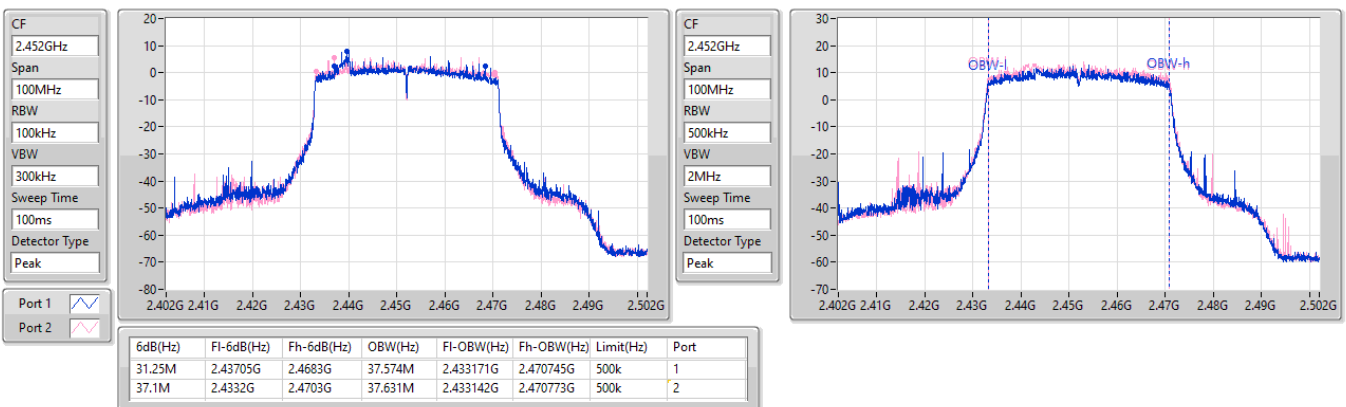


2.4-2.4835GHz\_802.11ax HEW40-BF\_Nss1,(MCS0)\_2TX

EBW

2452MHz

21/04/2023





Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11b_Nss1,(1Mbps)_2TX	29.86	0.96828
802.11g_Nss1,(6Mbps)_2TX	29.86	0.96828
802.11ax HEW20_Nss1,(MCS0)_2TX	29.86	0.96828
802.11ax HEW20_Nss2,(MCS0)_2TX	29.85	0.96605
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	27.09	0.51168
802.11ax HEW40_Nss1,(MCS0)_2TX	23.54	0.22594
802.11ax HEW40_Nss2,(MCS0)_2TX	24.70	0.29512
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	24.64	0.29107





Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	5.20	26.59	26.87	29.74	30.00
2437MHz	Pass	5.20	26.74	26.95	29.86	30.00
2462MHz	Pass	5.20	26.56	26.67	29.63	30.00
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	5.20	23.81	24.28	27.06	30.00
2417MHz	Pass	5.20	24.93	25.30	28.13	30.00
2437MHz	Pass	5.20	26.76	26.93	29.86	30.00
2457MHz	Pass	5.20	24.74	25.09	27.93	30.00
2462MHz	Pass	5.20	24.13	24.54	27.35	30.00
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	5.20	22.86	23.11	26.00	30.00
2417MHz	Pass	5.20	24.68	25.52	28.13	30.00
2437MHz	Pass	5.20	26.72	26.97	29.86	30.00
2457MHz	Pass	5.20	24.05	24.48	27.28	30.00
2462MHz	Pass	5.20	23.58	24.01	26.81	30.00
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	5.20	20.23	20.72	23.49	30.00
2437MHz	Pass	5.20	20.31	20.74	23.54	30.00
2452MHz	Pass	5.20	20.01	20.49	23.27	30.00
802.11ax HEW20_Nss2,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	4.79	22.85	23.19	26.03	30.00
2417MHz	Pass	4.79	24.38	24.56	27.48	30.00
2437MHz	Pass	4.79	26.69	26.99	29.85	30.00
2457MHz	Pass	4.79	24.64	24.95	27.81	30.00
2462MHz	Pass	4.79	23.70	24.05	26.89	30.00
802.11ax HEW40_Nss2,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	4.79	21.40	21.79	24.61	30.00
2437MHz	Pass	4.79	21.53	21.85	24.70	30.00
2452MHz	Pass	4.79	21.09	21.54	24.33	30.00
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	7.79	23.14	23.15	26.16	28.21
2437MHz	Pass	7.79	24.06	24.09	27.09	28.21
2462MHz	Pass	7.79	23.99	23.98	27.00	28.21
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	7.79	21.55	21.70	24.64	28.21
2437MHz	Pass	7.79	19.15	19.61	22.40	28.21
2452MHz	Pass	7.79	18.88	19.40	22.16	28.21

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



Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11b_Nss1,(1Mbps)_2TX	29.75	0.94406
802.11g_Nss1,(6Mbps)_2TX	27.51	0.56364
802.11ax HEW20_Nss1,(MCS0)_2TX	26.48	0.44463
802.11ax HEW20_Nss2,(MCS0)_2TX	29.19	0.82985
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	25.61	0.36392
802.11ax HEW40_Nss1,(MCS0)_2TX	24.78	0.30061
802.11ax HEW40_Nss2,(MCS0)_2TX	22.52	0.17865
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	23.02	0.20045



Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	4.26	24.24	25.11	27.71	30.00
2417MHz	Pass	4.26	24.24	25.07	27.69	30.00
2437MHz	Pass	4.26	26.48	26.98	29.75	30.00
2457MHz	Pass	4.26	25.06	25.46	28.27	30.00
2462MHz	Pass	4.26	24.00	24.37	27.20	30.00
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	4.26	21.32	22.47	24.94	30.00
2417MHz	Pass	4.26	23.36	24.32	26.88	30.00
2437MHz	Pass	4.26	24.03	24.92	27.51	30.00
2457MHz	Pass	4.26	23.96	24.55	27.28	30.00
2462MHz	Pass	4.26	21.90	22.83	25.40	30.00
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	4.26	18.34	19.21	21.81	30.00
2417MHz	Pass	4.26	21.86	22.71	25.32	30.00
2437MHz	Pass	4.26	22.95	23.94	26.48	30.00
2457MHz	Pass	4.26	22.91	23.72	26.34	30.00
2462MHz	Pass	4.26	21.44	22.30	24.90	30.00
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	4.26	19.49	20.37	22.96	30.00
2437MHz	Pass	4.26	21.01	21.87	24.47	30.00
2452MHz	Pass	4.26	21.37	22.13	24.78	30.00
802.11ax HEW20_Nss2,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	3.85	20.27	21.25	23.80	30.00
2417MHz	Pass	3.85	23.81	24.49	27.17	30.00
2437MHz	Pass	3.85	25.81	26.52	29.19	30.00
2457MHz	Pass	3.85	23.57	24.01	26.81	30.00
2462MHz	Pass	3.85	21.49	22.27	24.91	30.00
802.11ax HEW40_Nss2,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	3.85	18.96	19.85	22.44	30.00
2437MHz	Pass	3.85	19.06	19.91	22.52	30.00
2452MHz	Pass	3.85	18.95	19.87	22.44	30.00
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	6.85	19.92	21.27	23.66	29.15
2417MHz	Pass	6.85	19.56	20.56	23.10	29.15
2437MHz	Pass	6.85	21.77	23.29	25.61	29.15
2457MHz	Pass	6.85	22.17	22.15	25.17	29.15
2462MHz	Pass	6.85	22.12	22.62	25.39	29.15
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	6.85	18.86	18.71	21.80	29.15
2437MHz	Pass	6.85	19.45	20.51	23.02	29.15
2452MHz	Pass	6.85	19.30	19.29	22.31	29.15

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



Summary

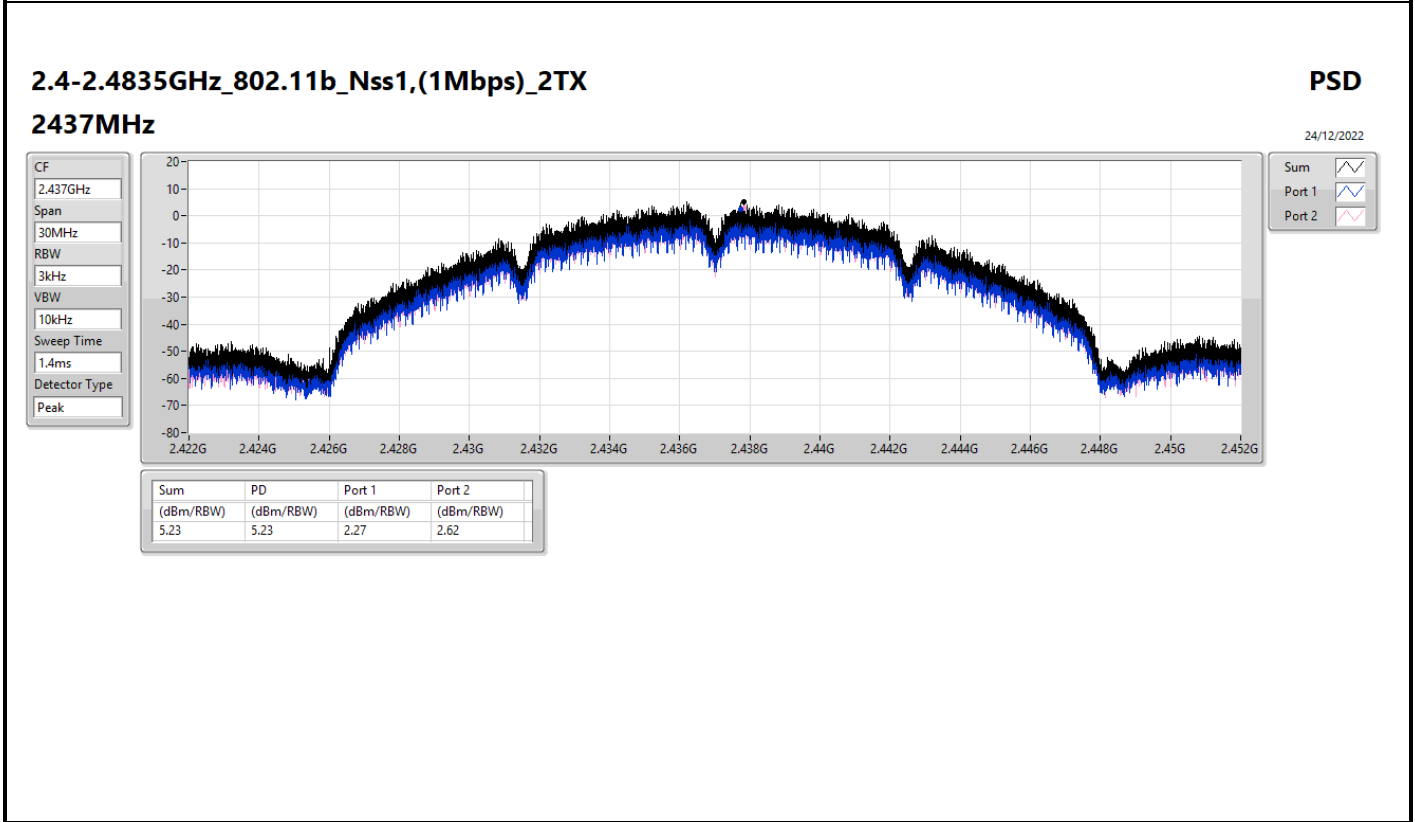
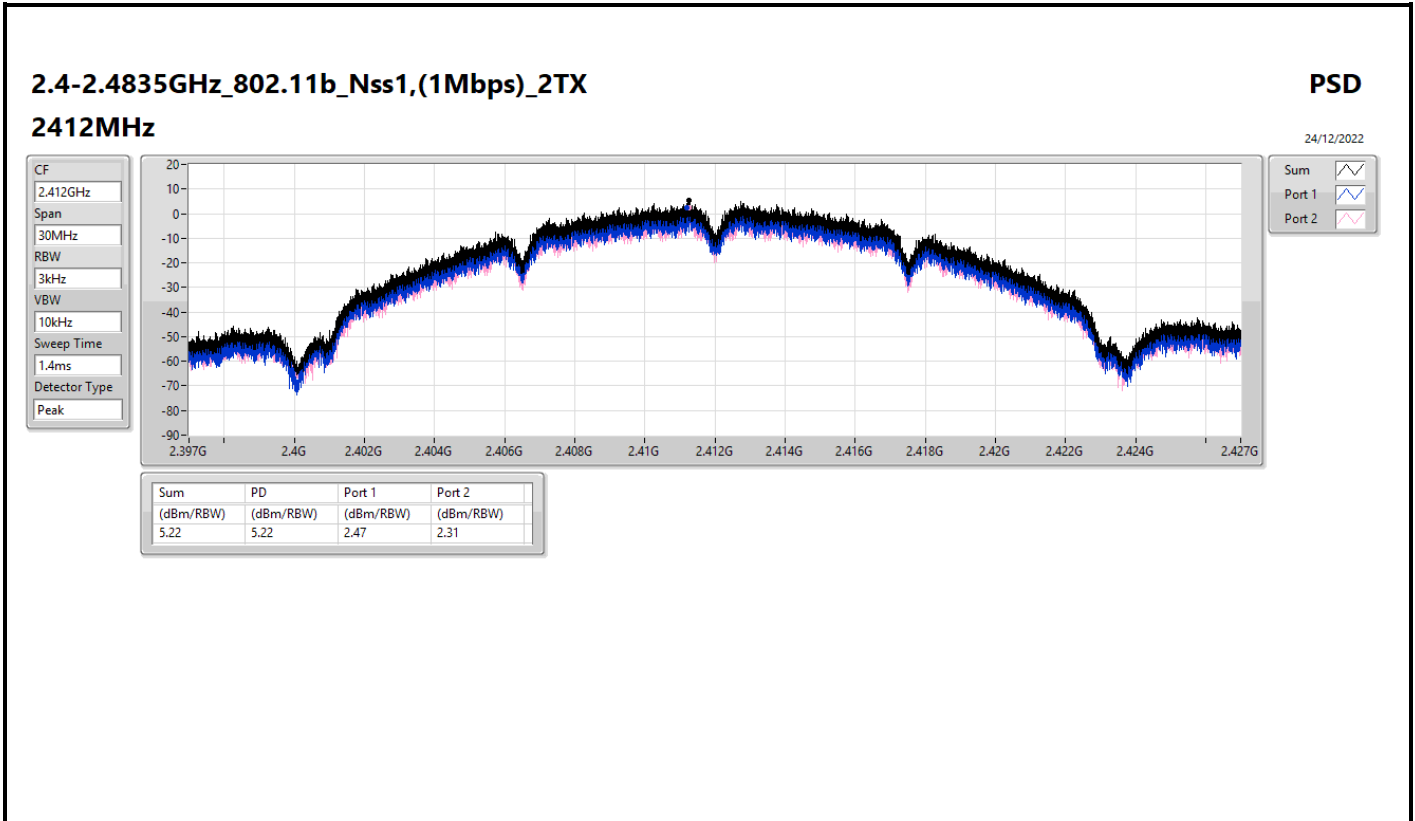
Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
802.11b_Nss1,(1Mbps)_2TX	5.78
802.11g_Nss1,(6Mbps)_2TX	-0.13
802.11ax HEW20_Nss1,(MCS0)_2TX	0.49
802.11ax HEW20_Nss2,(MCS0)_2TX	-0.03
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-1.30
802.11ax HEW40_Nss1,(MCS0)_2TX	-8.18
802.11ax HEW40_Nss2,(MCS0)_2TX	-7.16
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-7.22

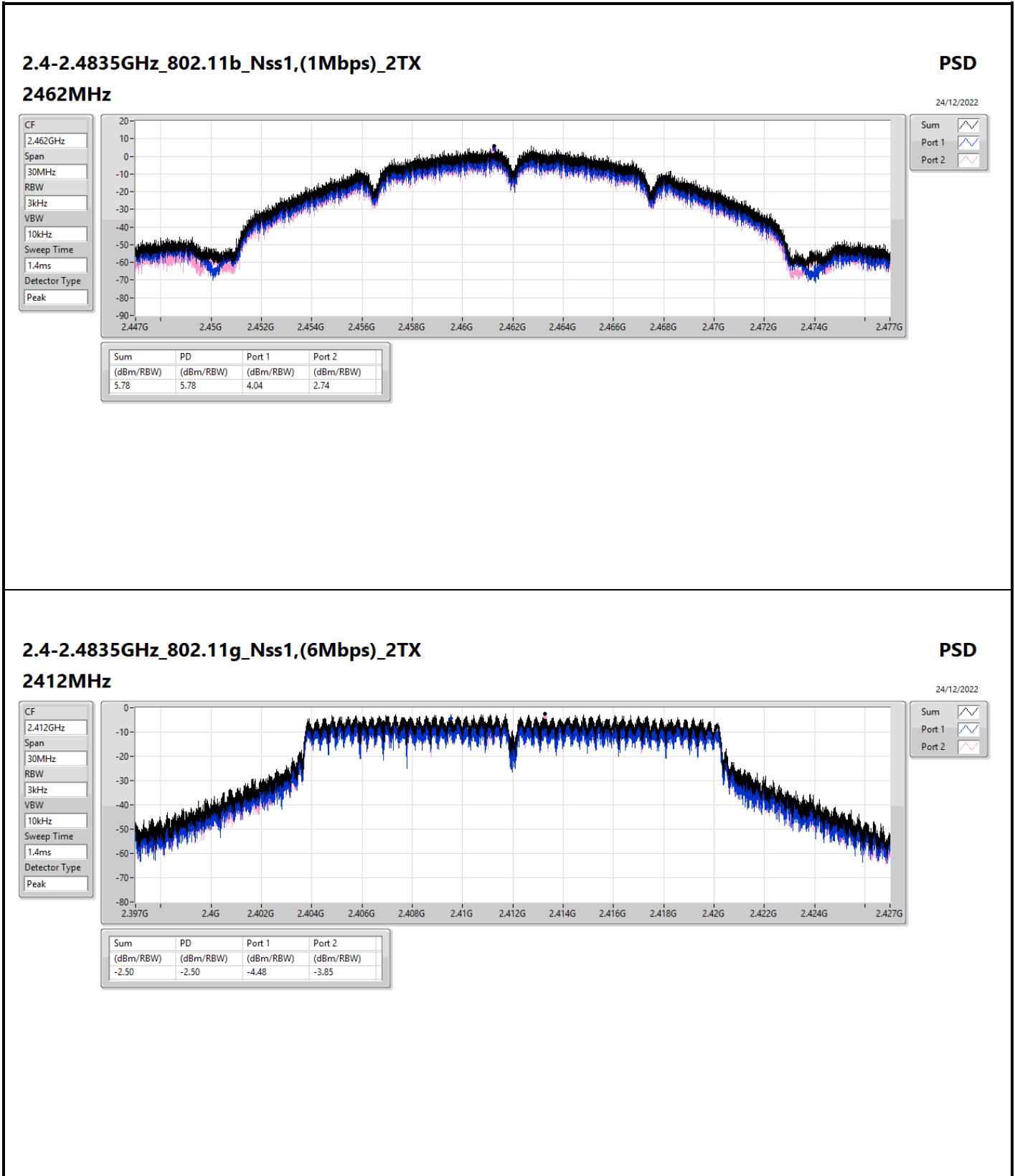
RBW = 3kHz;

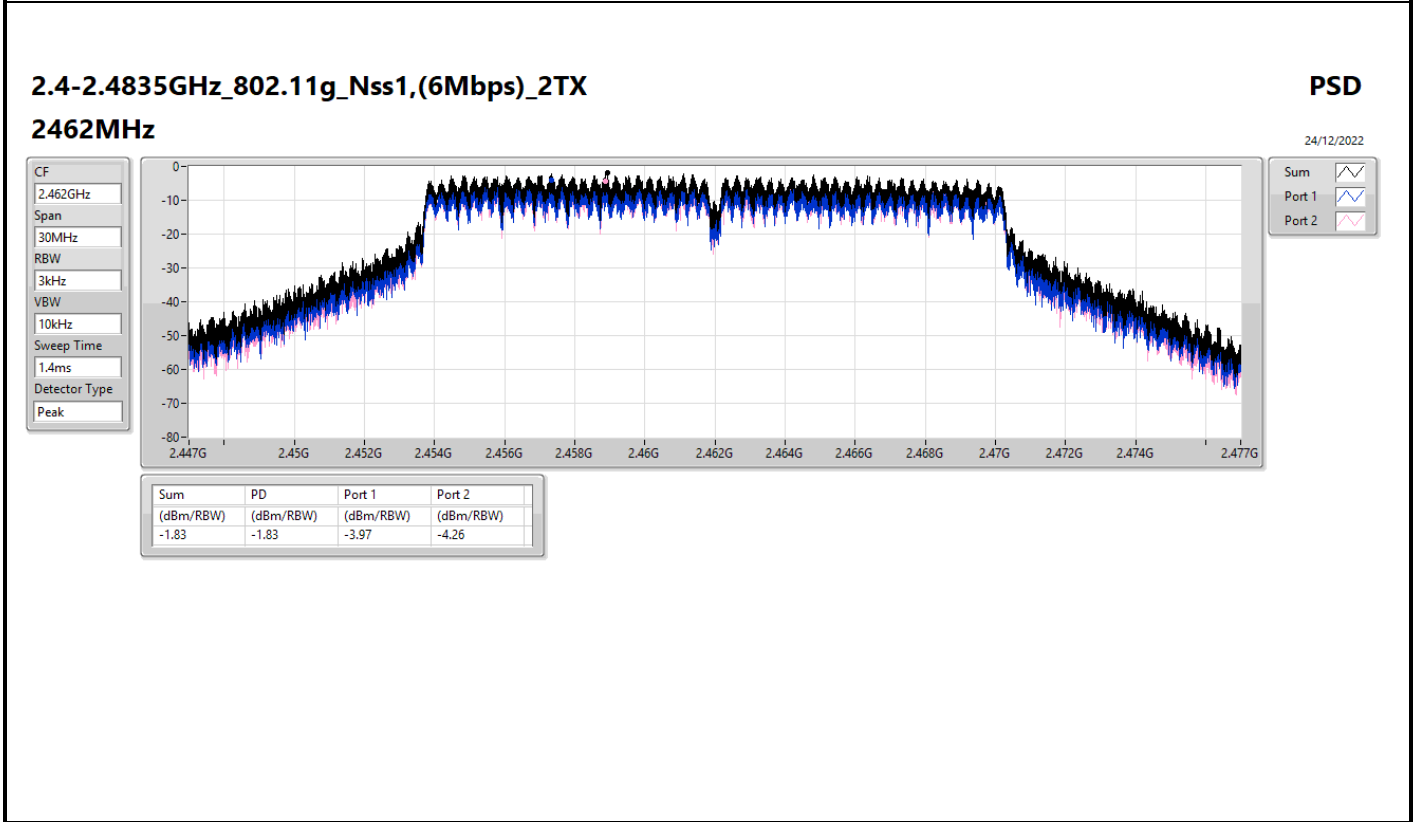
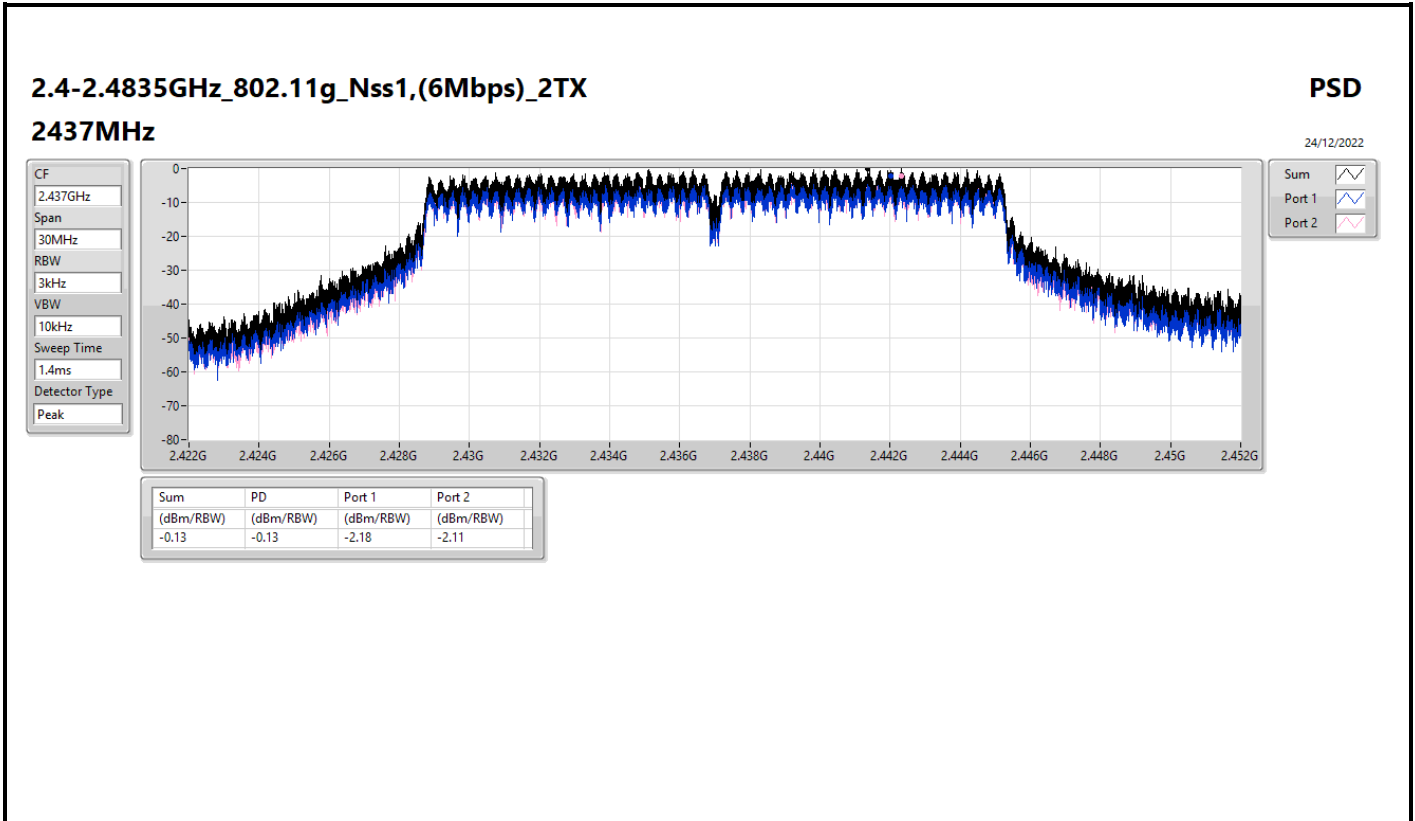
Result

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	7.79	2.47	2.31	5.22	6.21
2437MHz	Pass	7.79	2.27	2.62	5.23	6.21
2462MHz	Pass	7.79	4.04	2.74	5.78	6.21
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	7.79	-4.48	-3.85	-2.50	6.21
2437MHz	Pass	7.79	-2.18	-2.11	-0.13	6.21
2462MHz	Pass	7.79	-3.97	-4.26	-1.83	6.21
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	7.79	-4.74	-4.96	-3.12	6.21
2437MHz	Pass	7.79	-1.86	-0.78	0.49	6.21
2462MHz	Pass	7.79	-4.74	-4.00	-1.86	6.21
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	7.79	-10.67	-10.64	-8.47	6.21
2437MHz	Pass	7.79	-10.77	-10.98	-8.18	6.21
2452MHz	Pass	7.79	-10.00	-9.98	-8.79	6.21
802.11ax HEW20_Nss2,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	4.79	-4.90	-4.77	-3.46	8.00
2437MHz	Pass	4.79	-2.06	-0.74	-0.03	8.00
2462MHz	Pass	4.79	-4.45	-3.52	-2.38	8.00
802.11ax HEW40_Nss2,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	4.79	-9.65	-9.12	-7.73	8.00
2437MHz	Pass	4.79	-9.93	-9.17	-8.17	8.00
2452MHz	Pass	4.79	-8.40	-8.76	-7.16	8.00
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	7.79	-2.03	-4.77	-1.36	6.21
2437MHz	Pass	7.79	-2.11	-4.21	-1.30	6.21
2462MHz	Pass	7.79	-3.78	-4.04	-1.98	6.21
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	7.79	-8.97	-8.76	-7.22	6.21
2437MHz	Pass	7.79	-11.23	-10.42	-8.35	6.21
2452MHz	Pass	7.79	-11.29	-10.01	-8.40	6.21

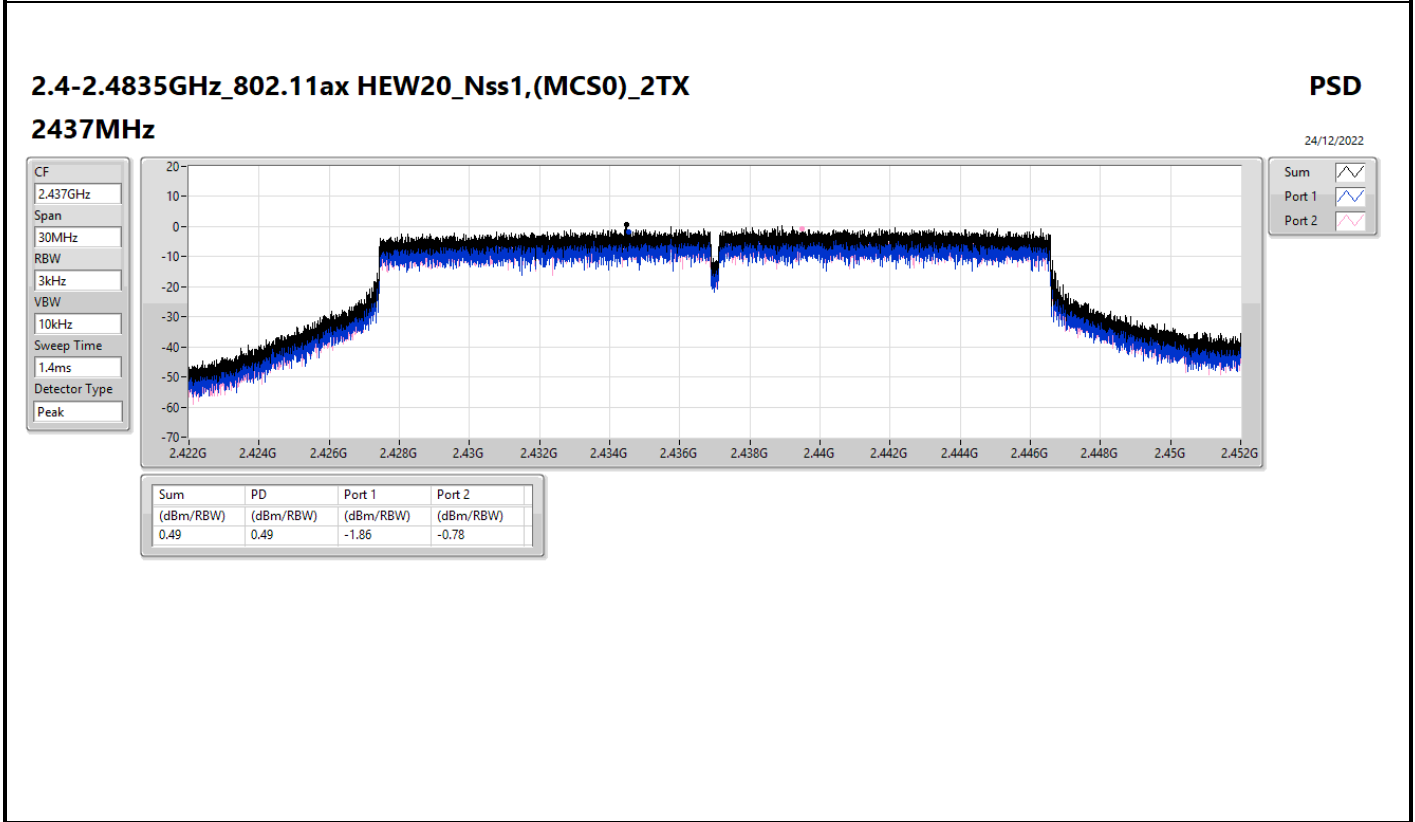
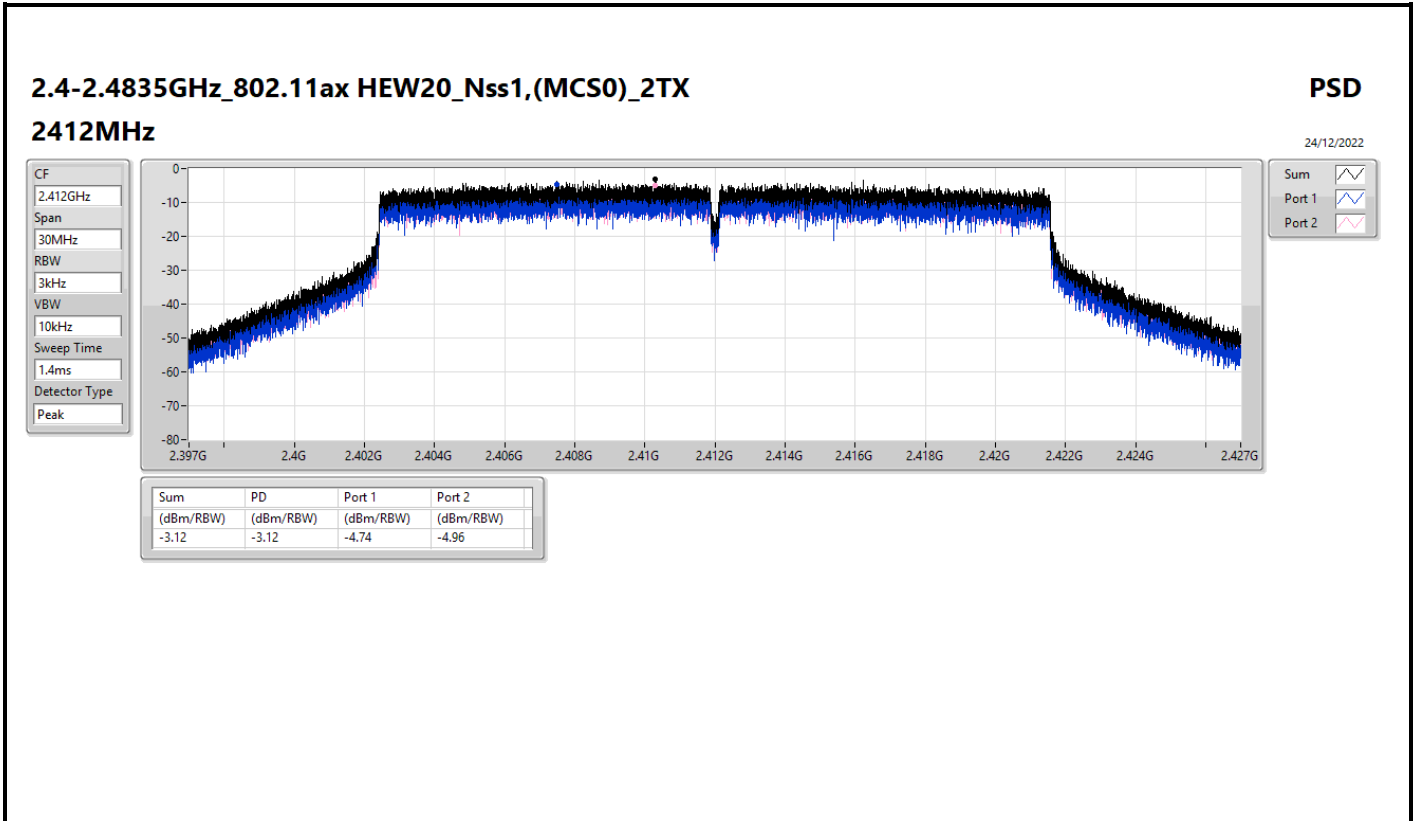
DG = Directional Gain; RBW = 3kHz;  
 PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; Port X = Port X Power Density;

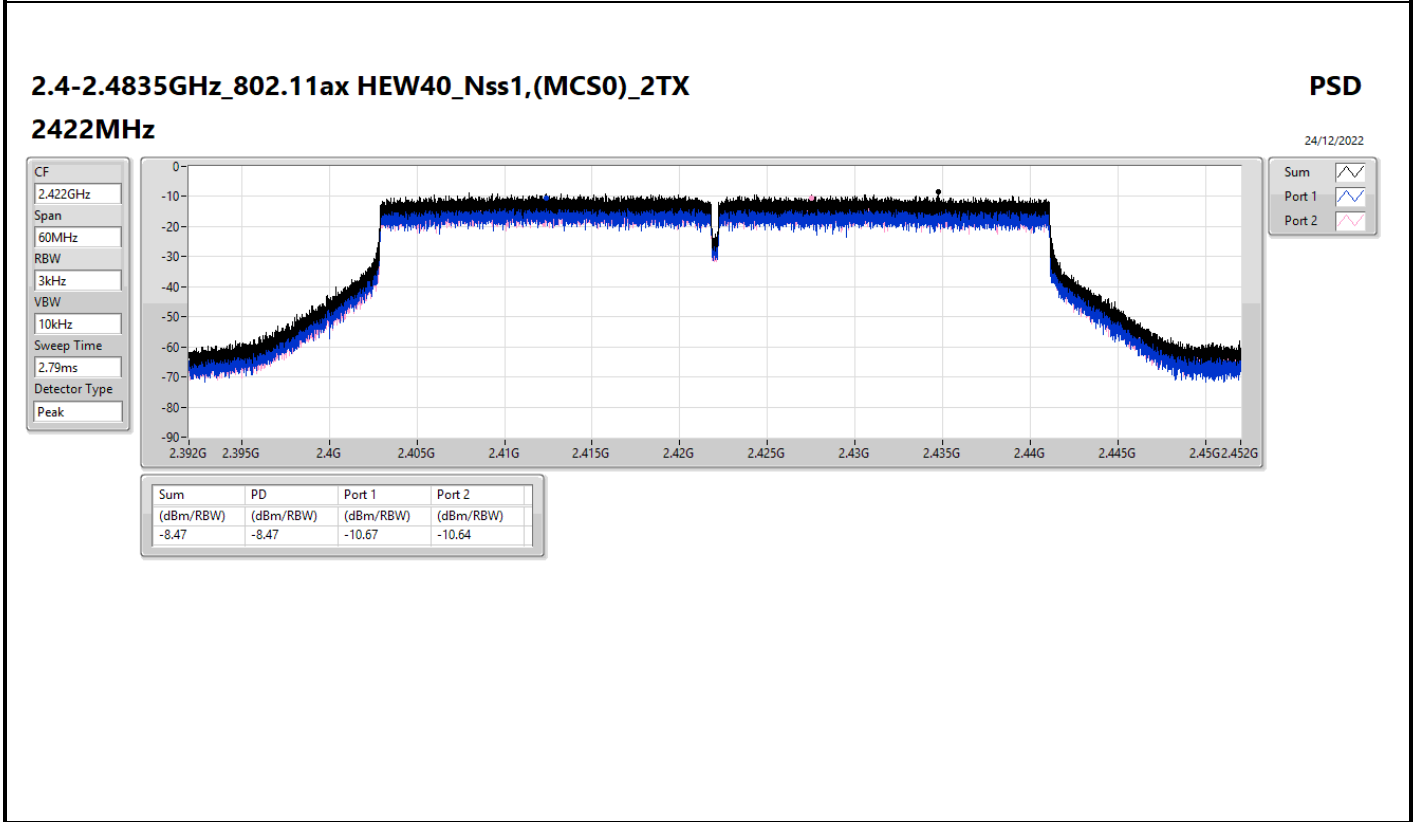
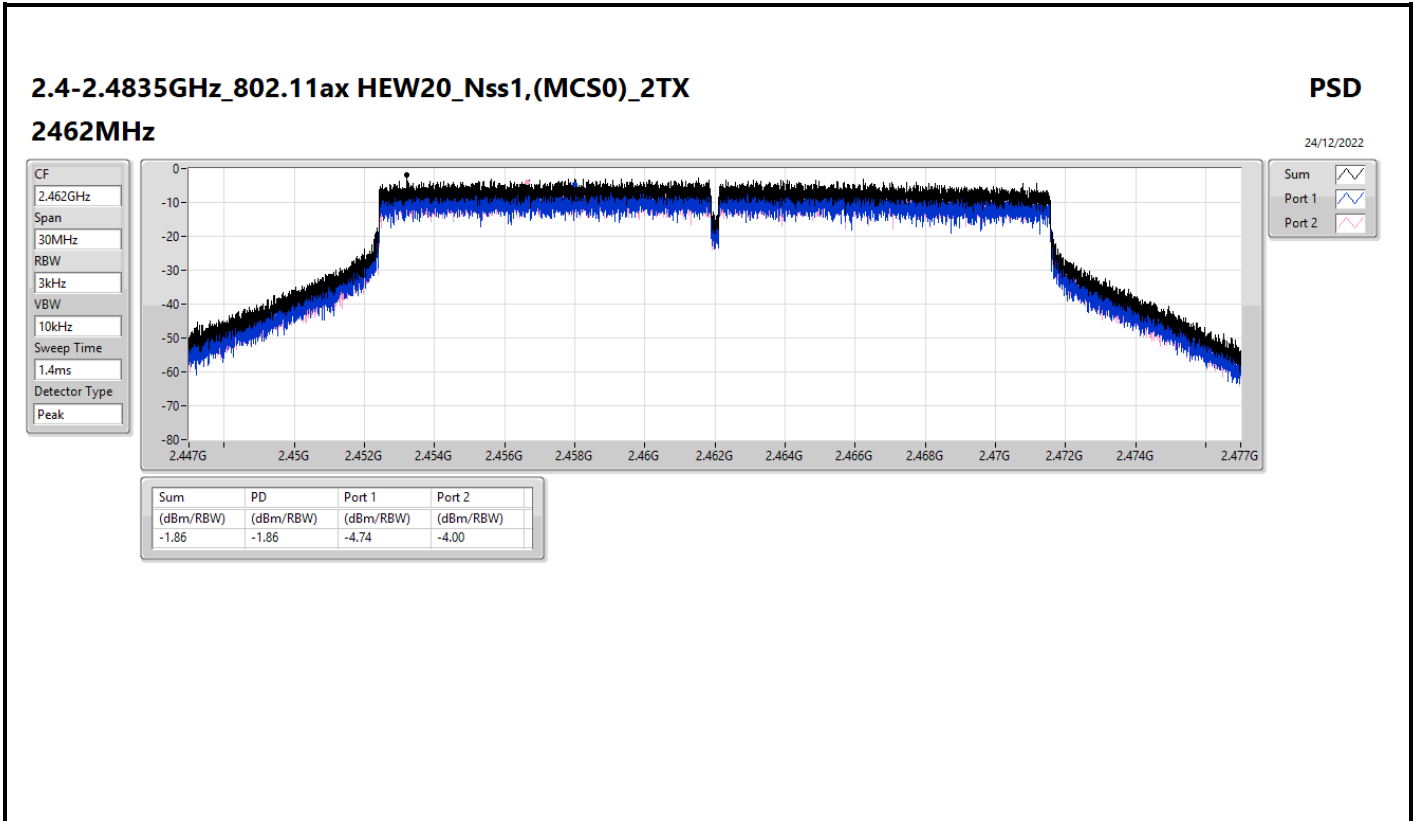


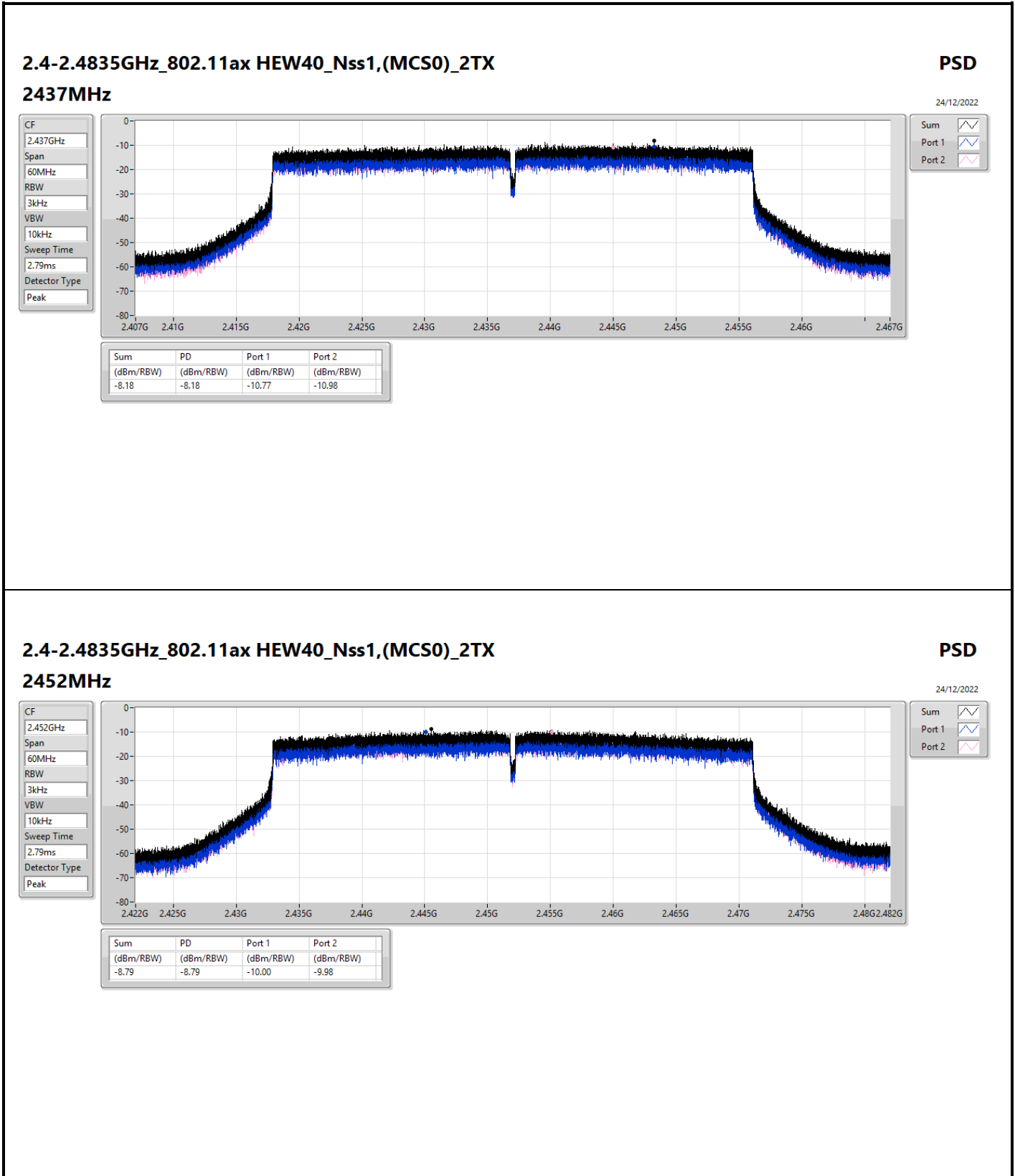


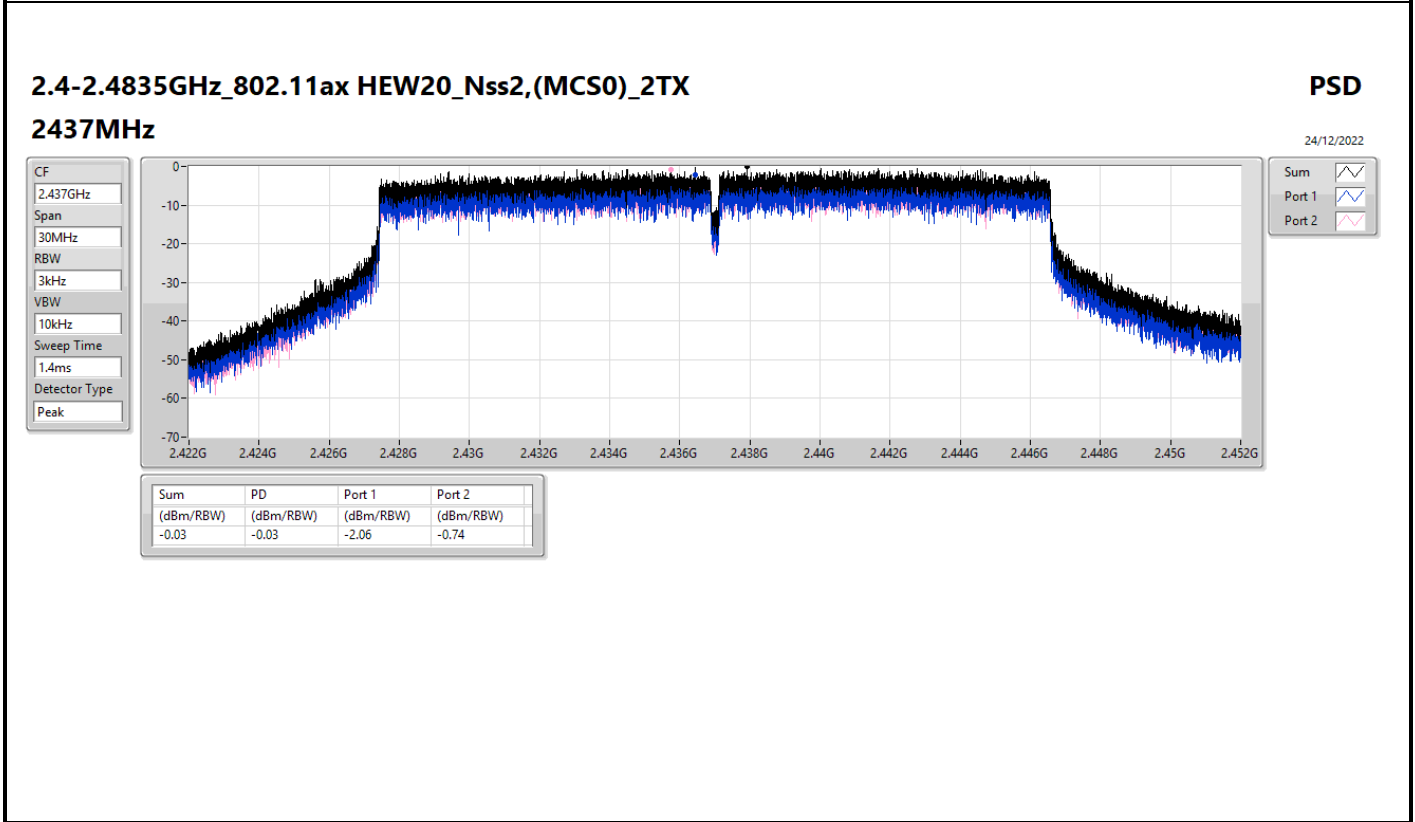
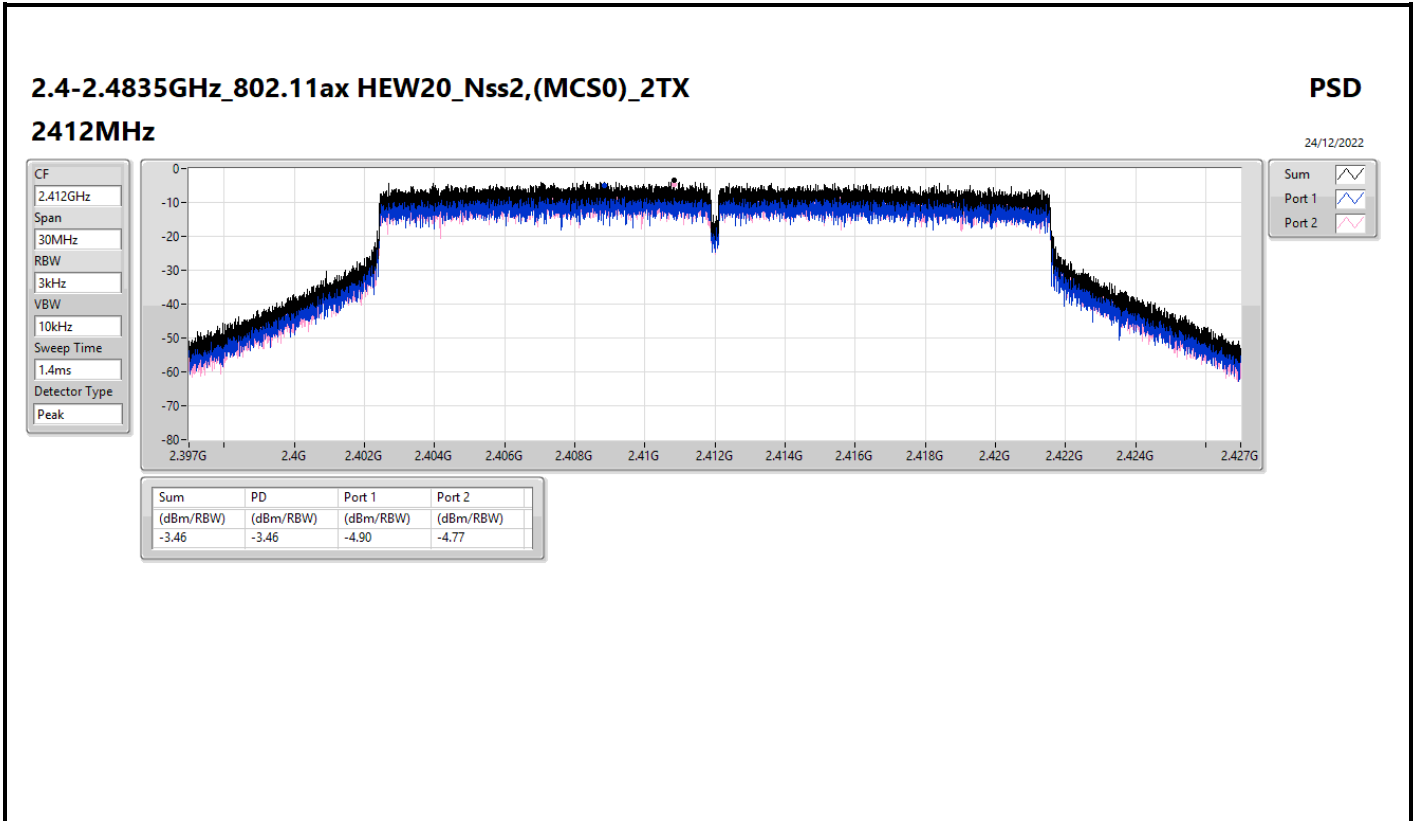


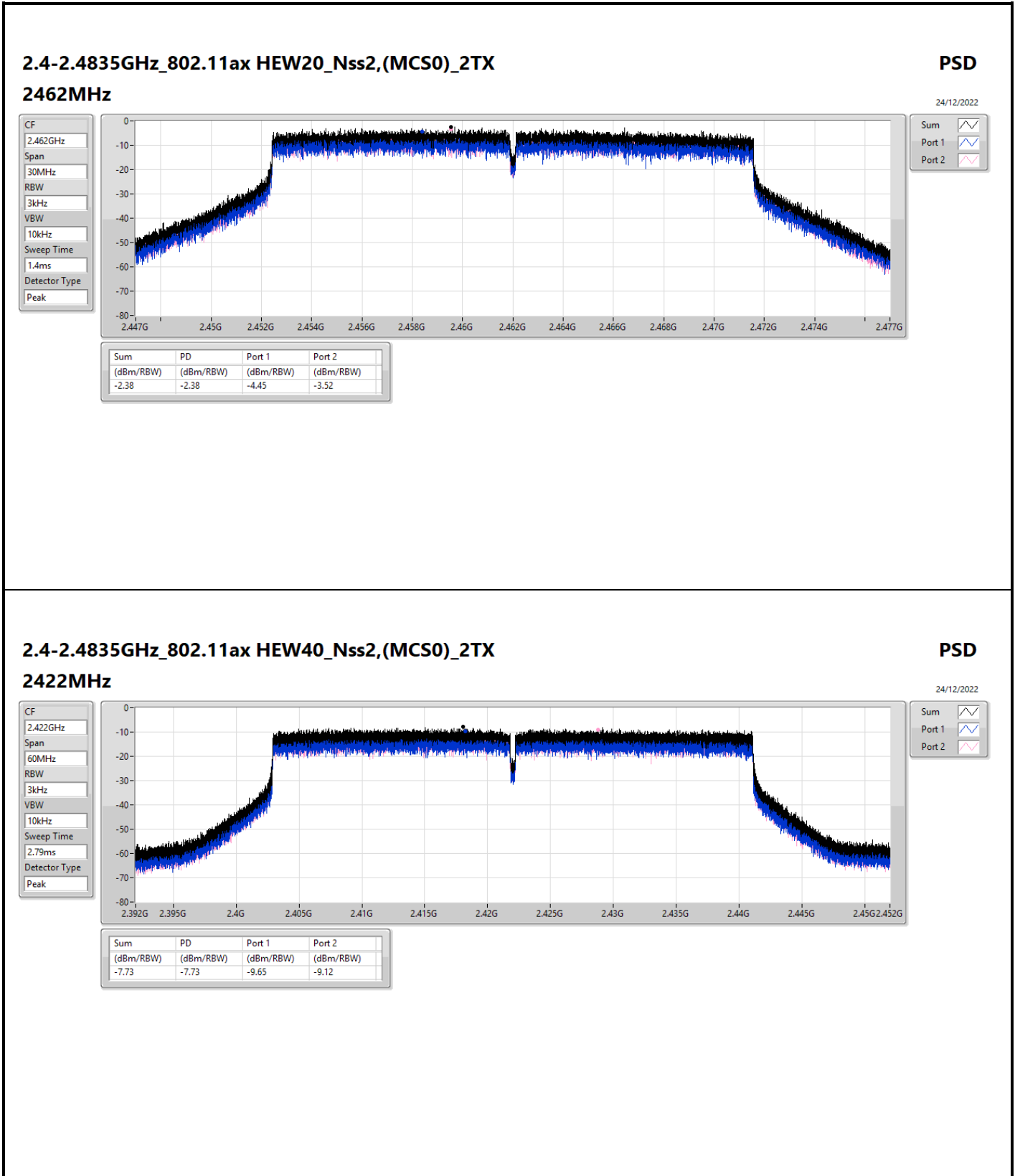


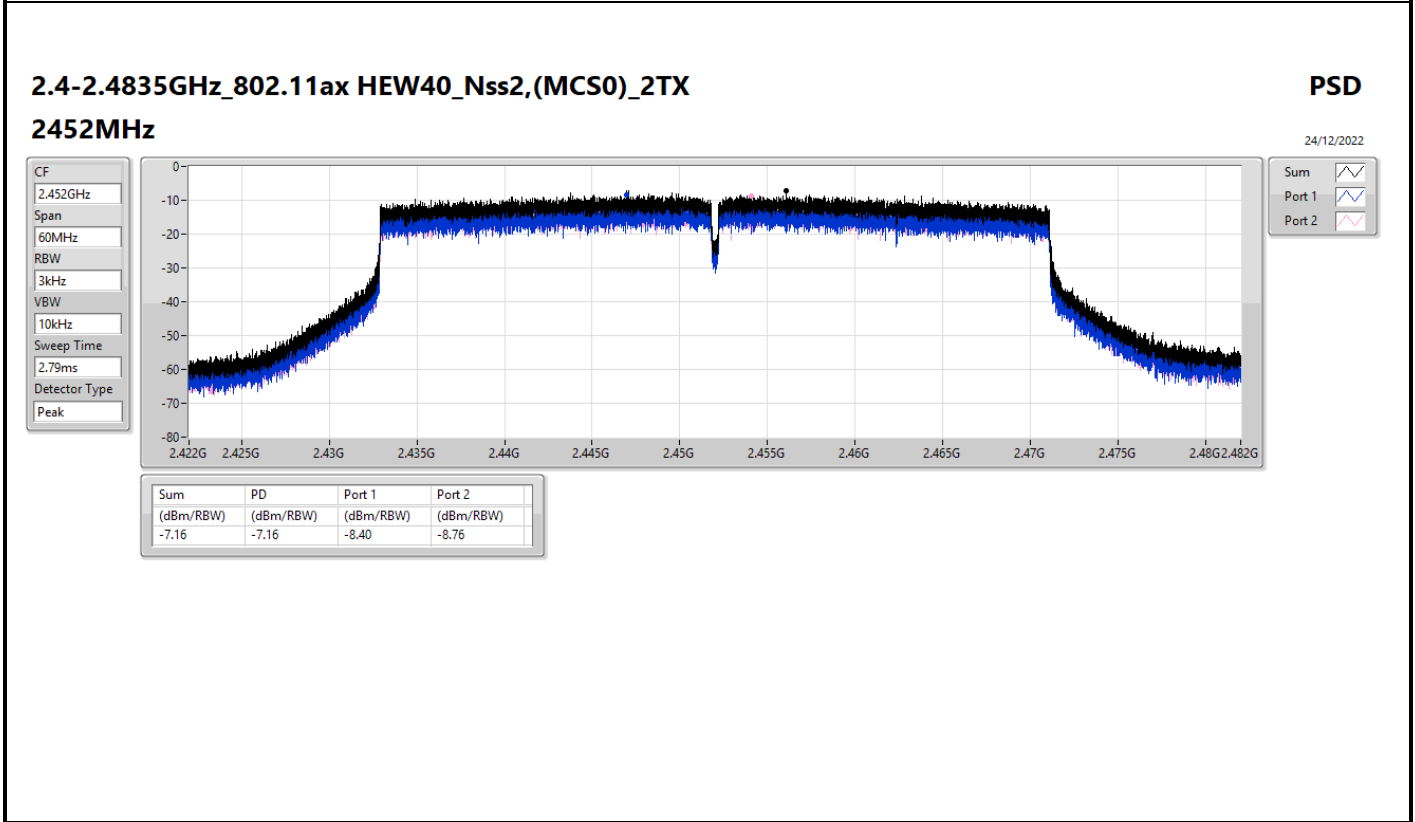
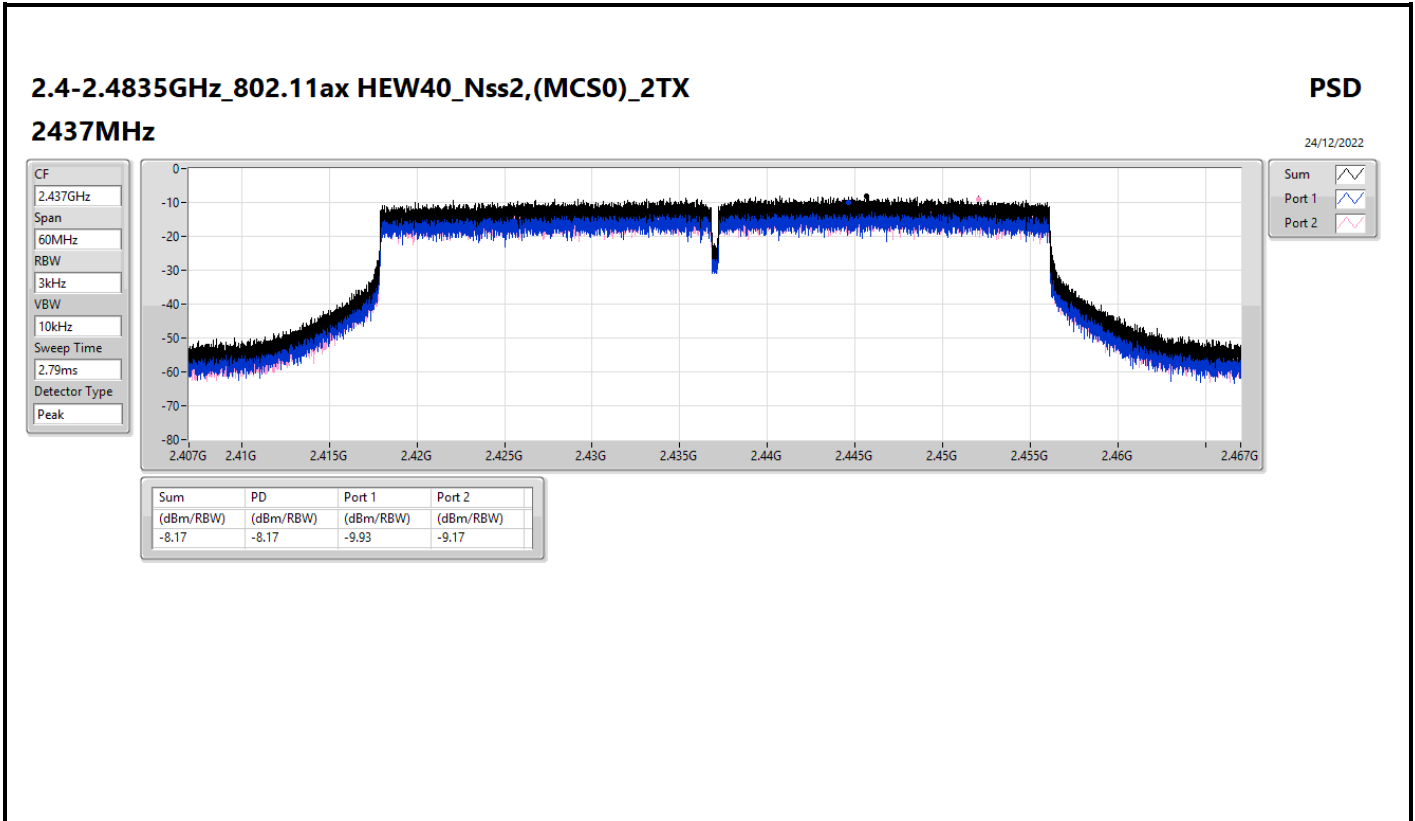


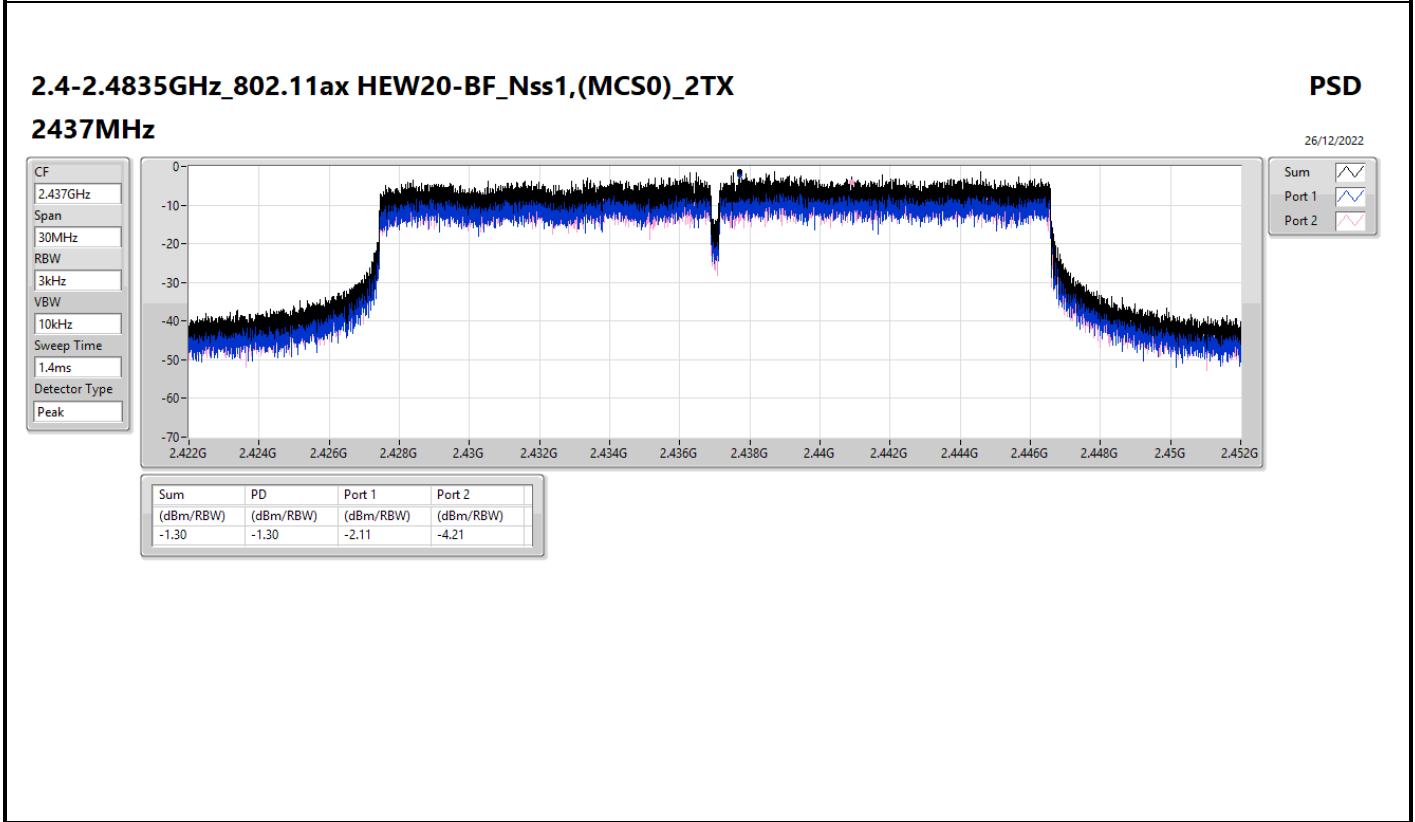
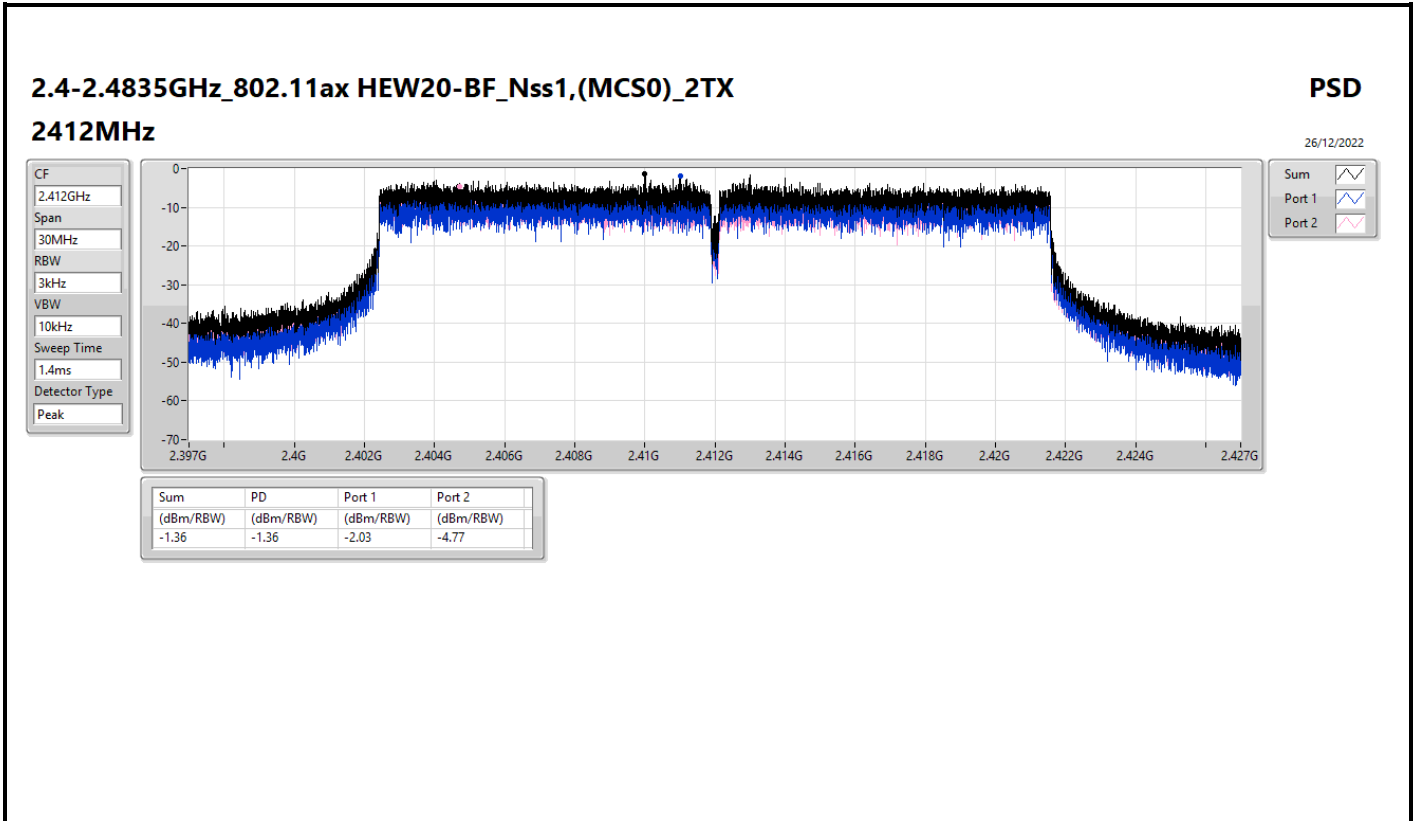


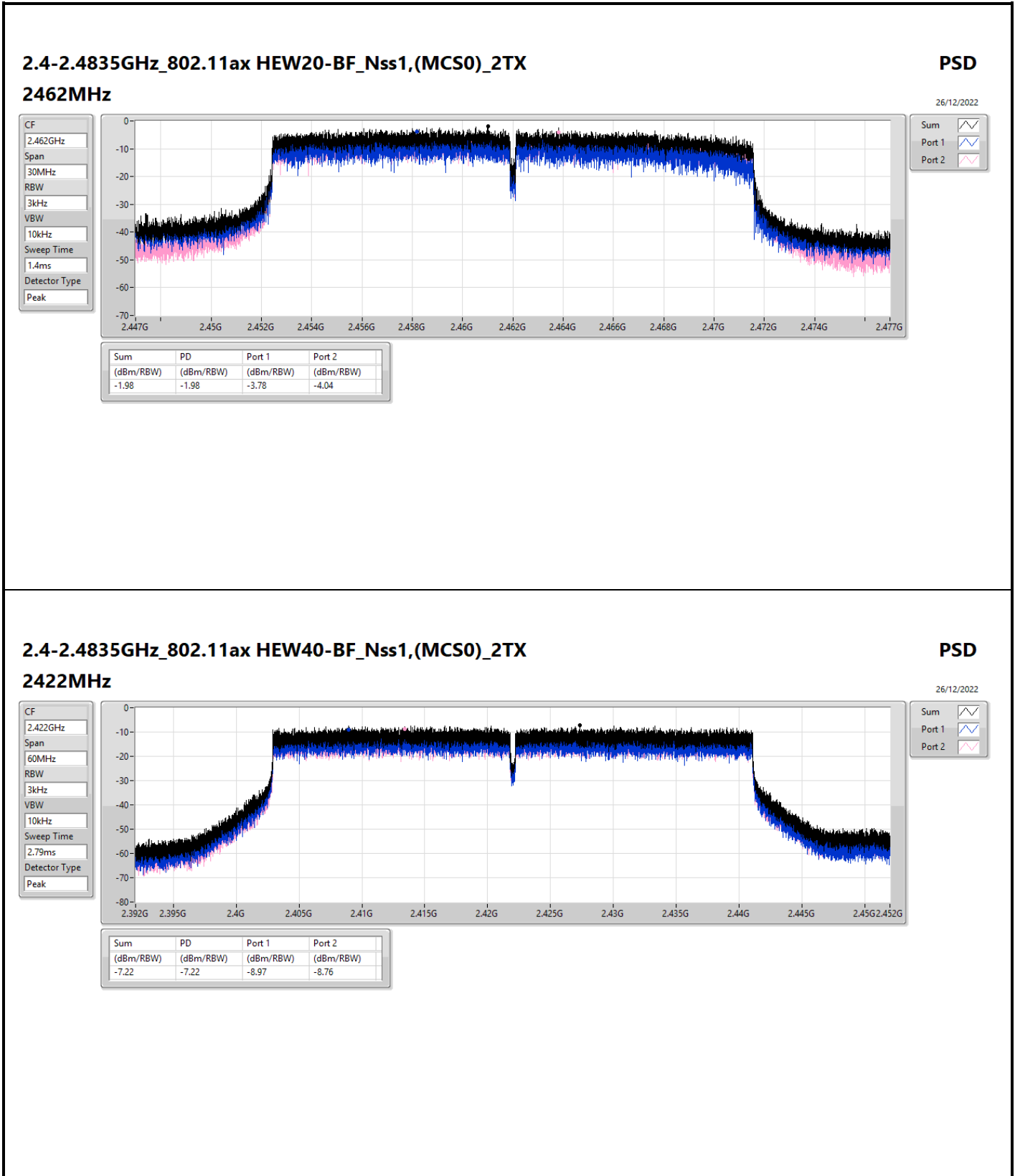












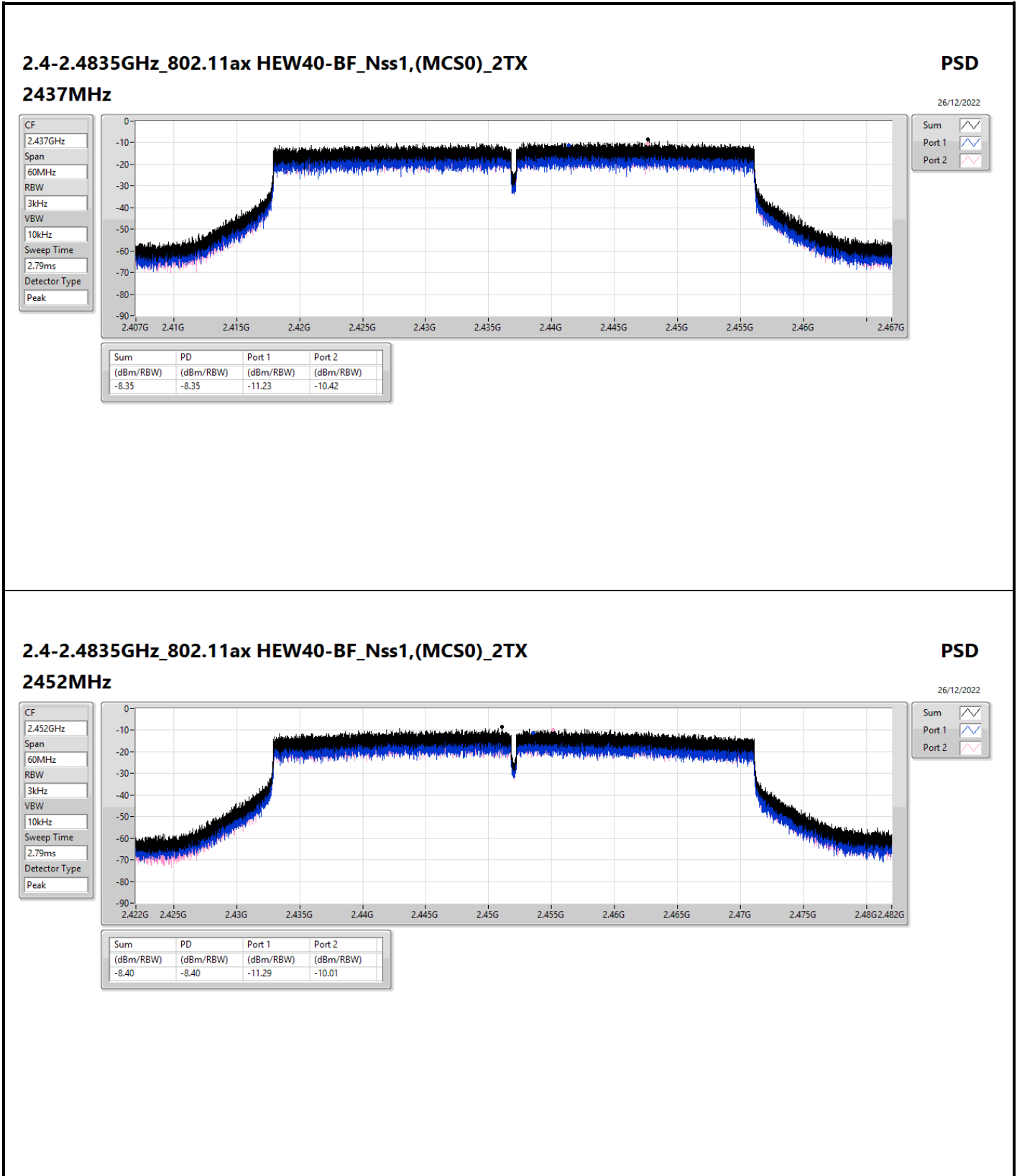
### 2.4-2.4835GHz\_802.11ax HEW40-BF\_Nss1,(MCS0)\_2TX

#### 2422MHz

PSD

26/12/2022







Summary

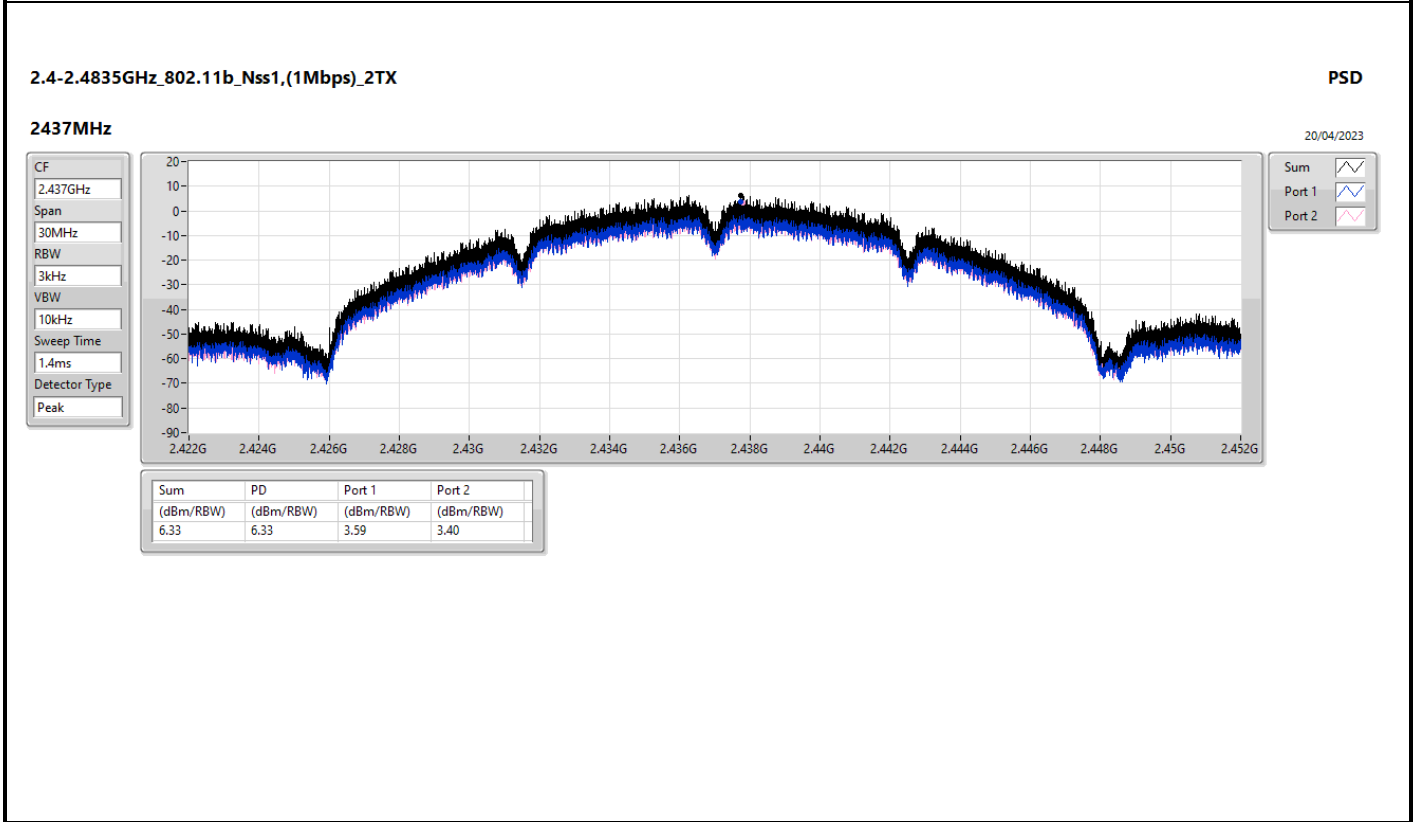
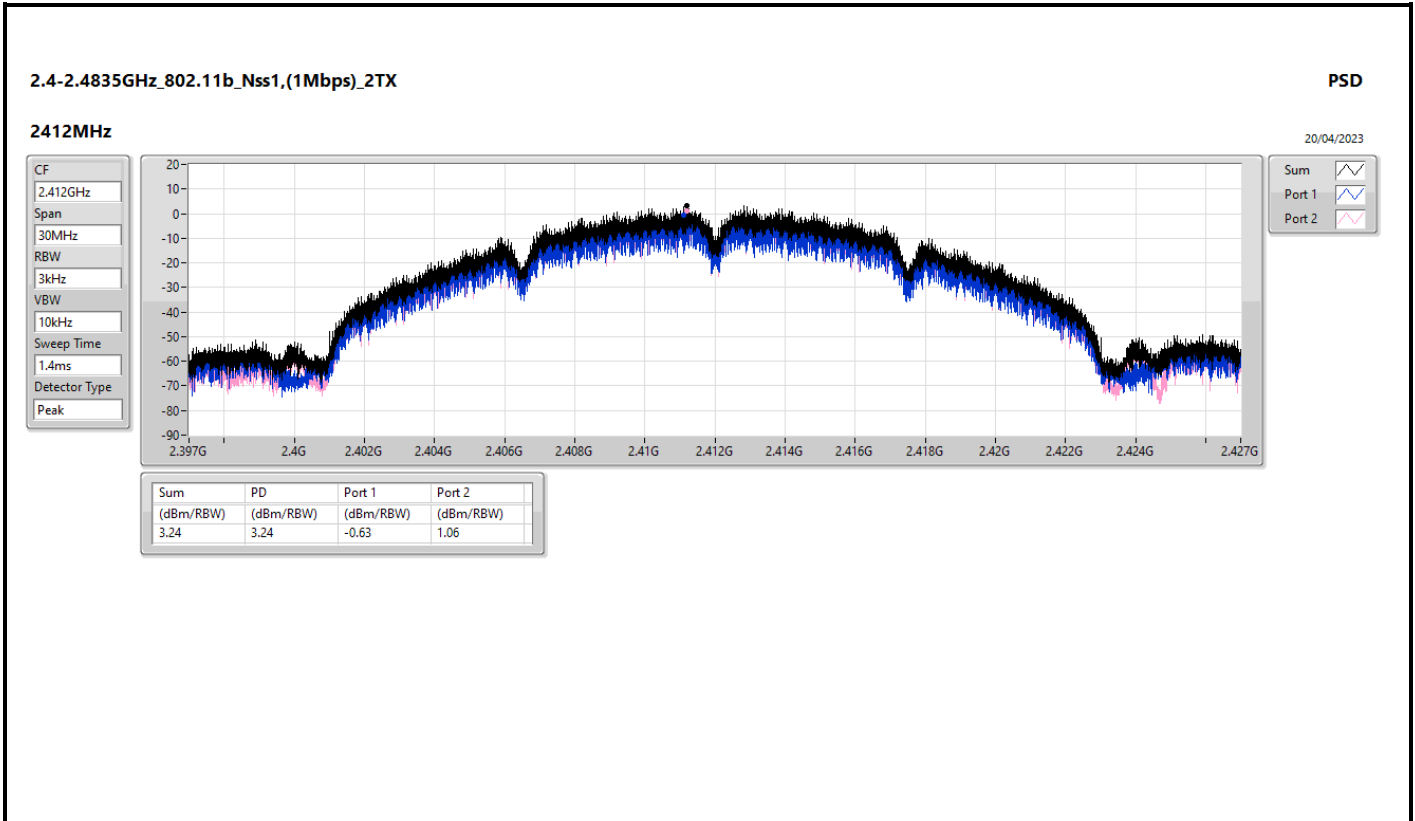
Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
802.11b_Nss1,(1Mbps)_2TX	6.33
802.11g_Nss1,(6Mbps)_2TX	-1.82
802.11ax HEW20_Nss1,(MCS0)_2TX	-2.70
802.11ax HEW20_Nss2,(MCS0)_2TX	0.29
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-0.51
802.11ax HEW40_Nss1,(MCS0)_2TX	-6.37
802.11ax HEW40_Nss2,(MCS0)_2TX	-9.25
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-2.18

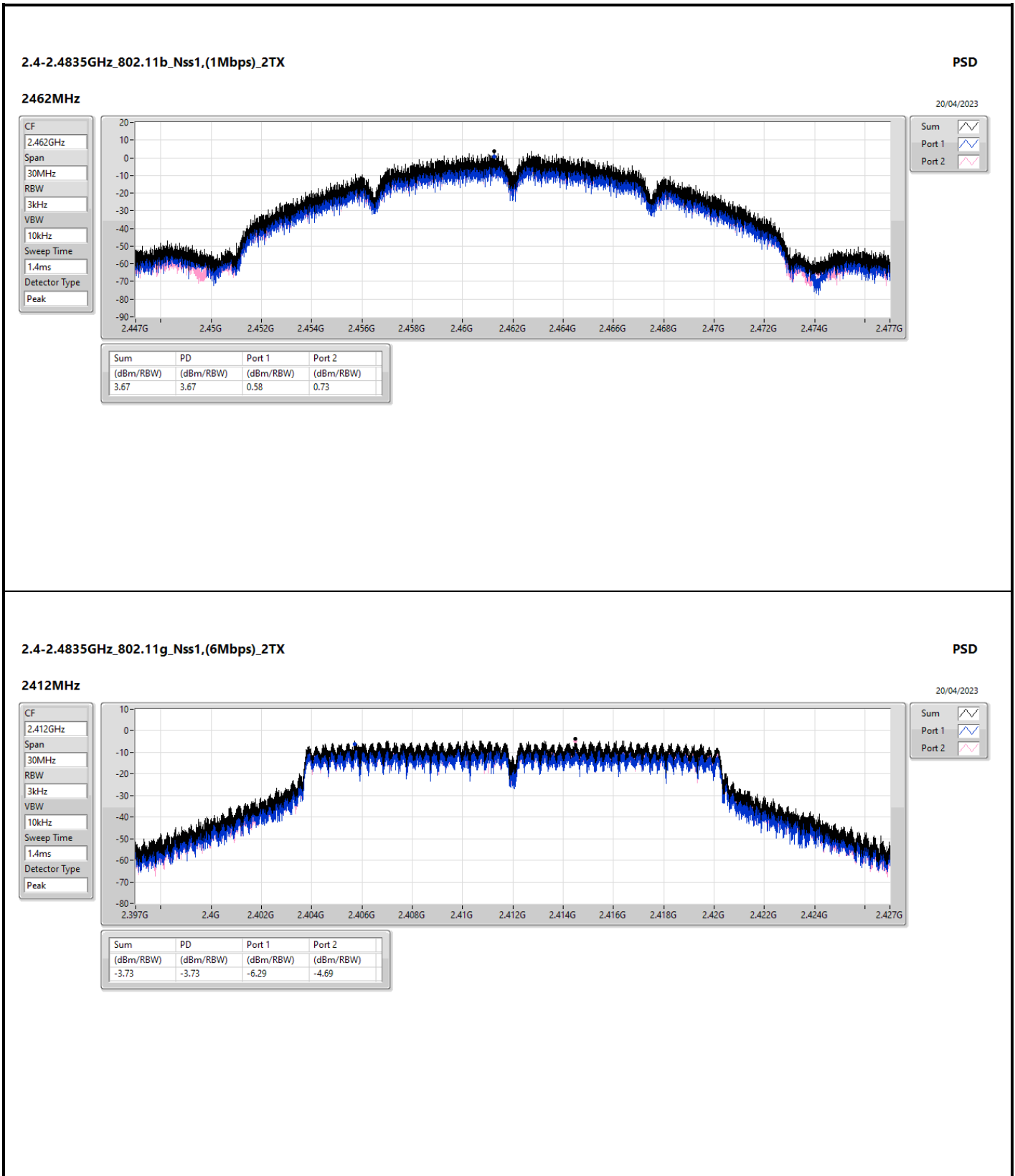
RBW = 3kHz;

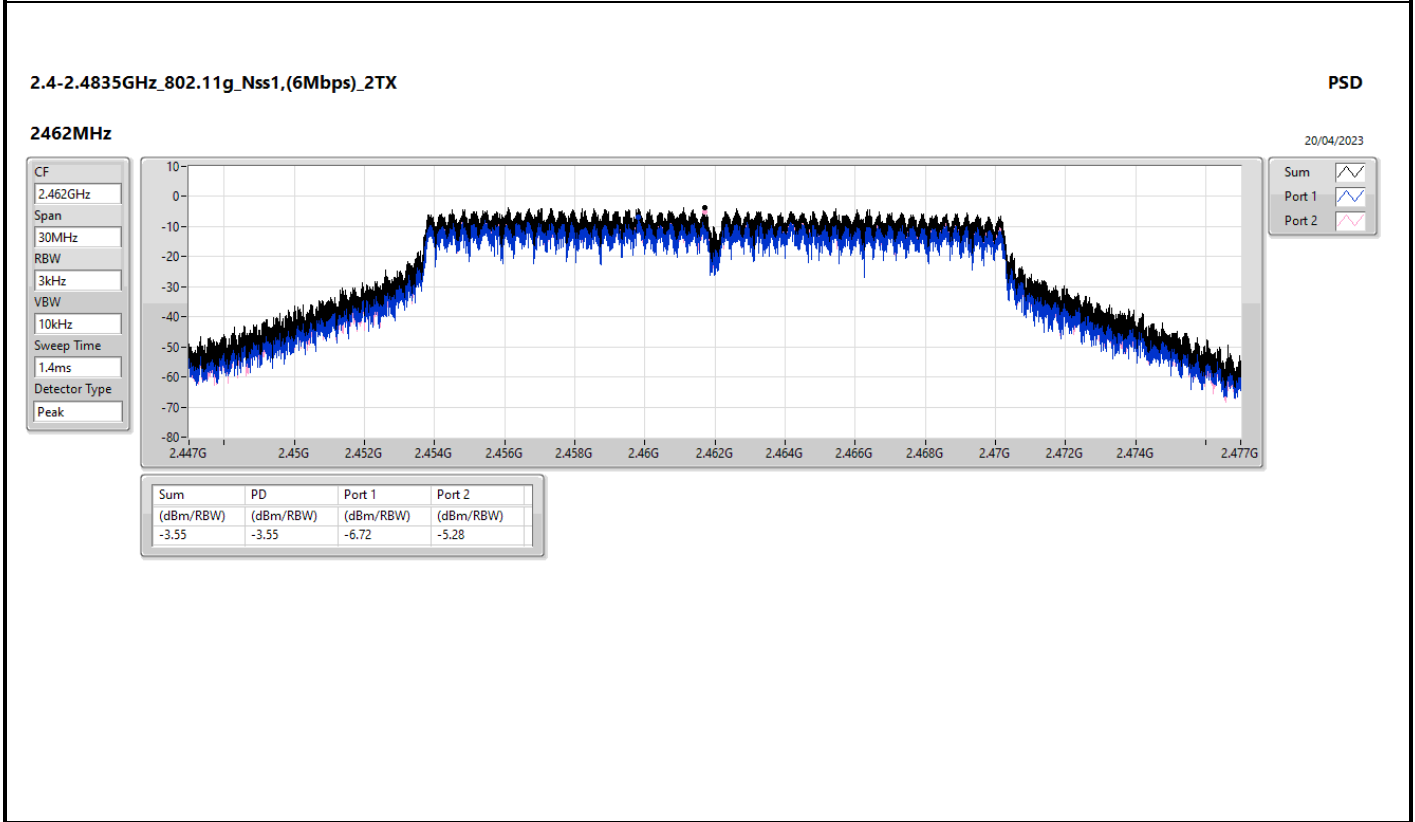
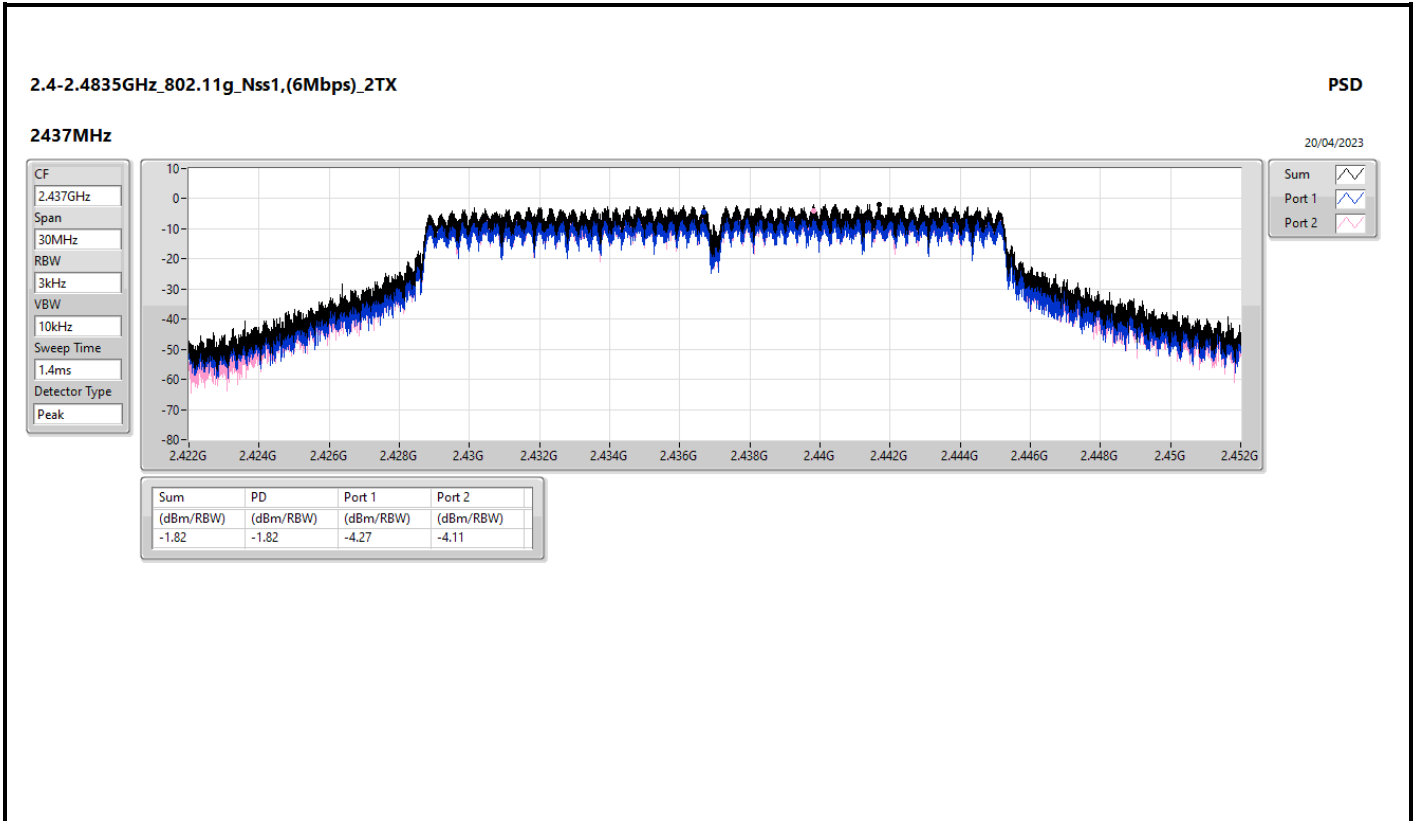
Result

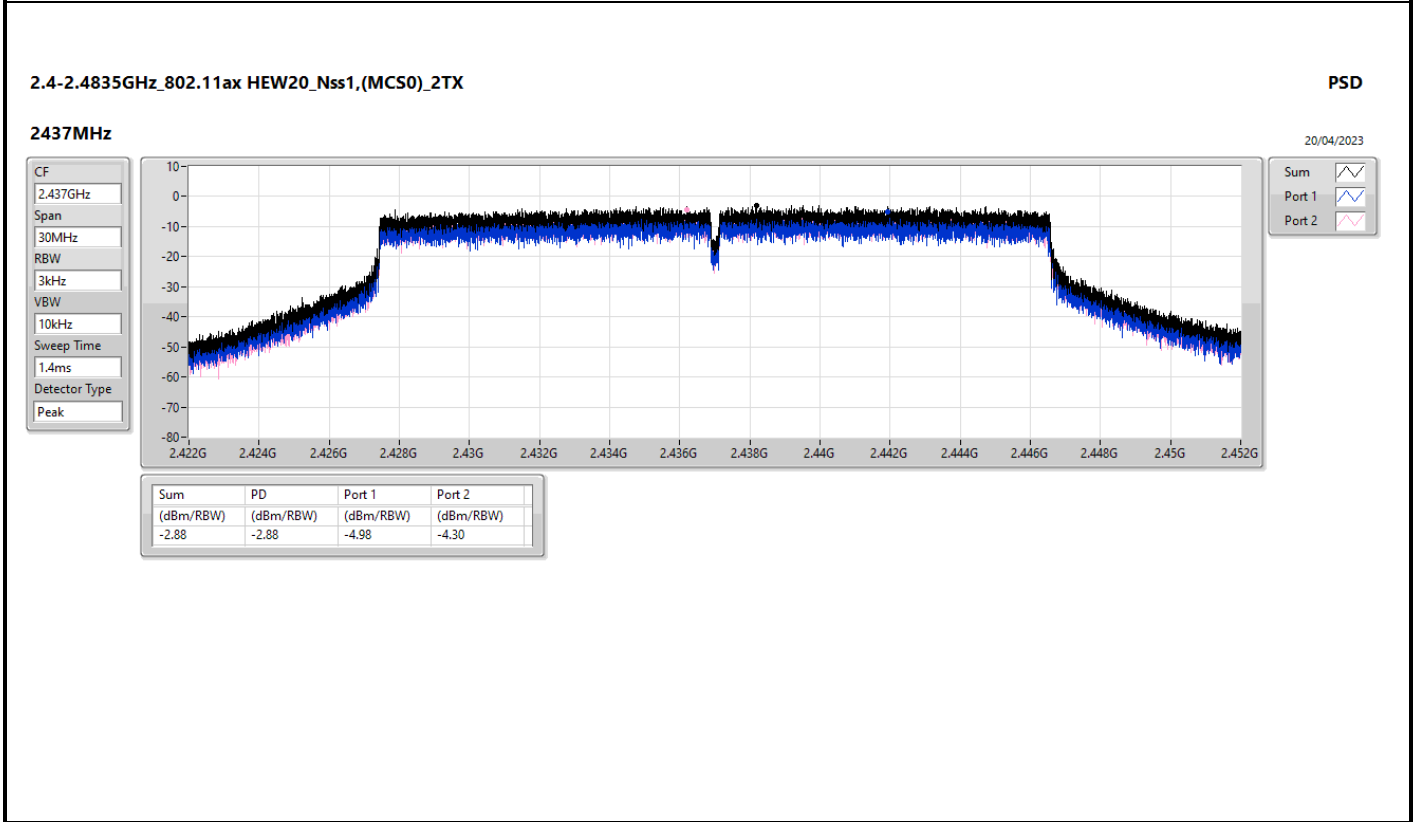
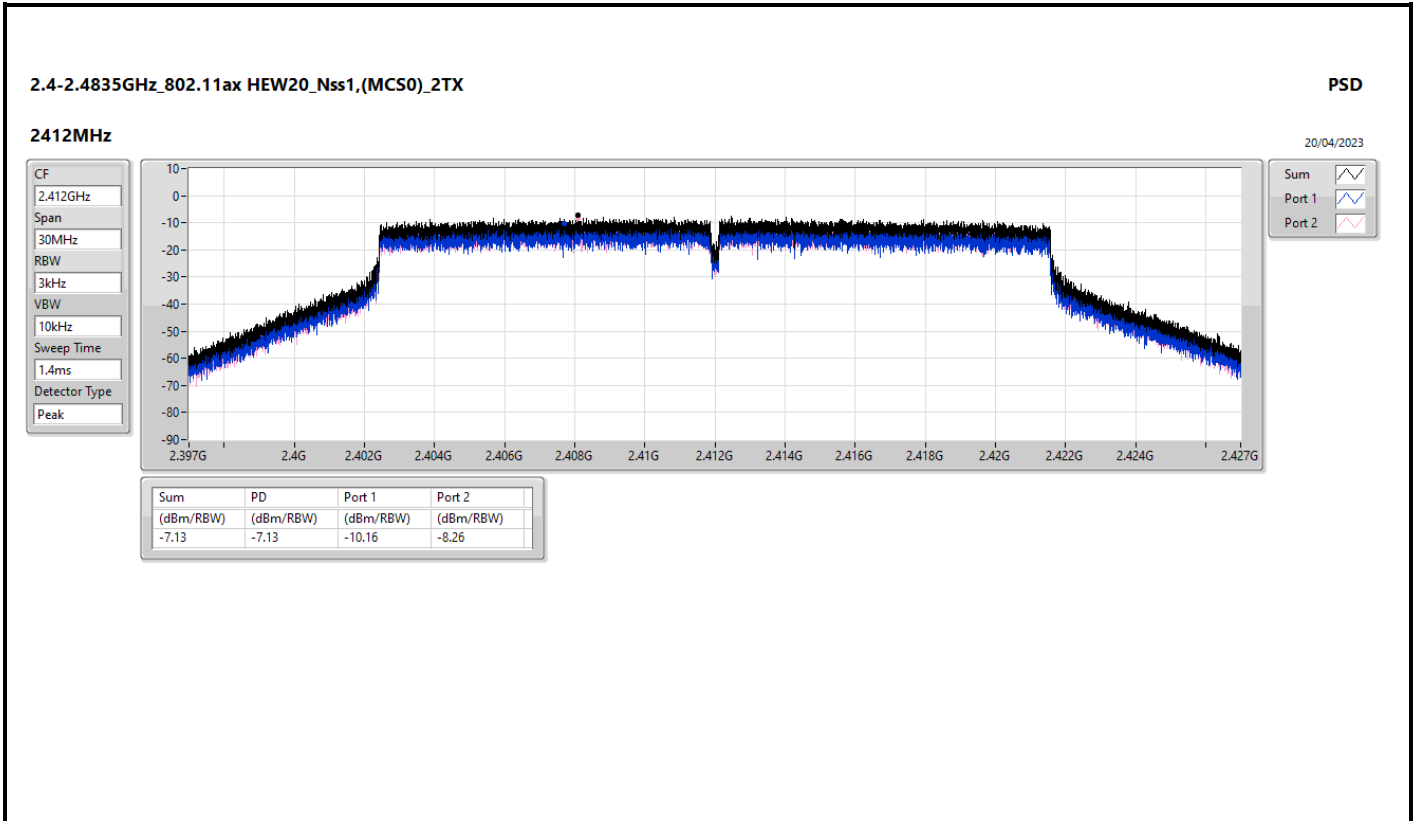
Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	6.85	-0.63	1.06	3.24	7.15
2437MHz	Pass	6.85	3.59	3.40	6.33	7.15
2462MHz	Pass	6.85	0.58	0.73	3.67	7.15
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	6.85	-6.29	-4.69	-3.73	7.15
2437MHz	Pass	6.85	-4.27	-4.11	-1.82	7.15
2462MHz	Pass	6.85	-6.72	-5.28	-3.55	7.15
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	6.85	-10.16	-8.26	-7.13	7.15
2437MHz	Pass	6.85	-4.98	-4.30	-2.88	7.15
2462MHz	Pass	6.85	-5.66	-4.51	-2.70	7.15
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	6.85	-11.33	-10.29	-9.30	7.15
2437MHz	Pass	6.85	-9.33	-8.55	-6.47	7.15
2452MHz	Pass	6.85	-8.58	-8.28	-6.37	7.15
802.11ax HEW20_Nss2,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	3.85	-7.58	-5.70	-4.67	8.00
2437MHz	Pass	3.85	-1.79	-0.70	0.29	8.00
2462MHz	Pass	3.85	-5.46	-4.88	-3.91	8.00
802.11ax HEW40_Nss2,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	3.85	-11.99	-10.96	-9.65	8.00
2437MHz	Pass	3.85	-12.16	-10.49	-9.29	8.00
2452MHz	Pass	3.85	-11.72	-11.00	-9.25	8.00
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	6.85	-7.26	-6.75	-5.81	7.15
2437MHz	Pass	6.85	-1.70	-2.09	-0.51	7.15
2462MHz	Pass	6.85	-2.86	-2.01	-1.08	7.15
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	6.85	-6.23	-10.64	-6.07	7.15
2437MHz	Pass	6.85	-5.86	-2.61	-2.18	7.15
2452MHz	Pass	6.85	-11.62	-9.31	-8.35	7.15

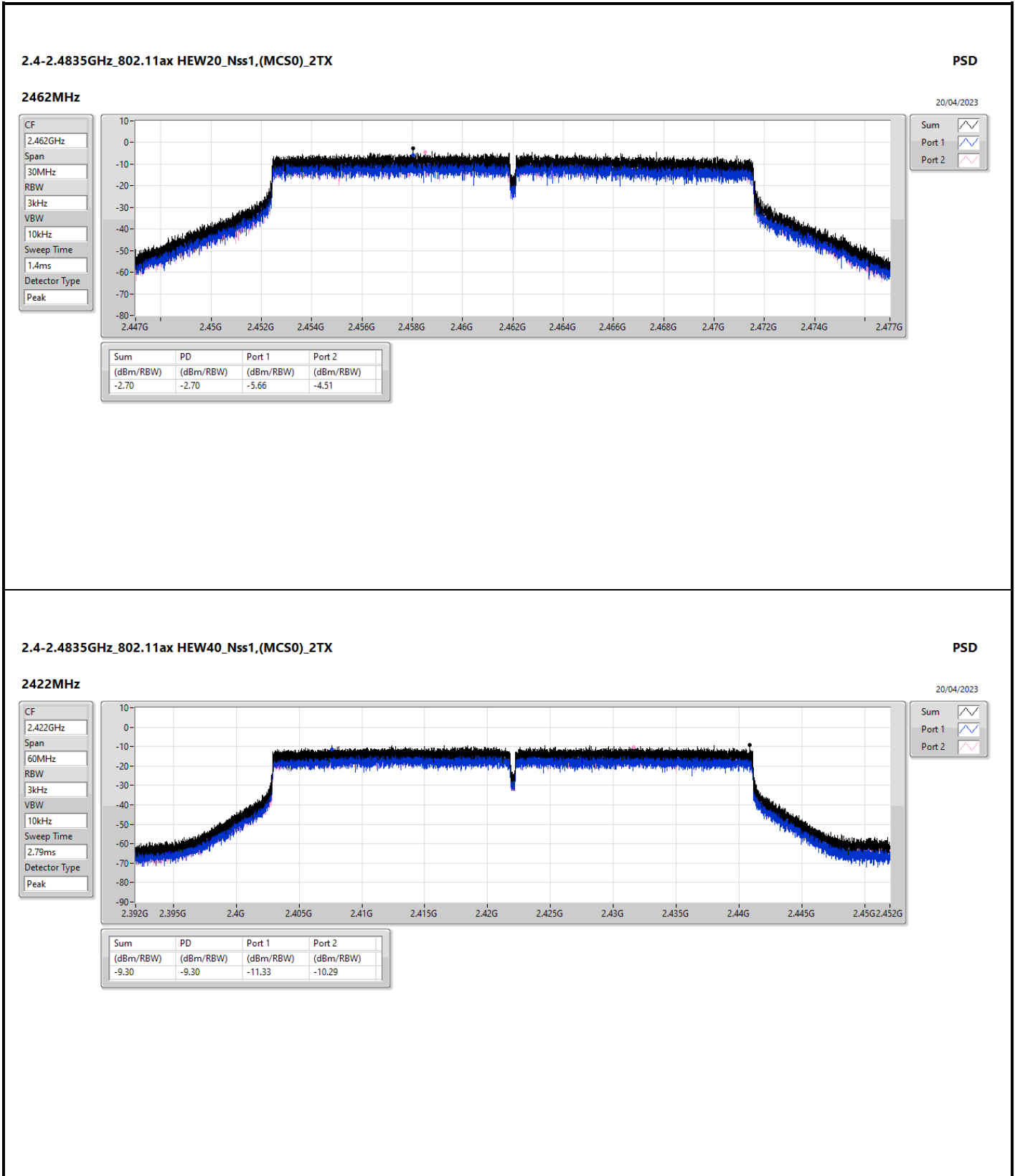
DG = Directional Gain; RBW = 3kHz;  
 PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; Port X = Port X Power Density;



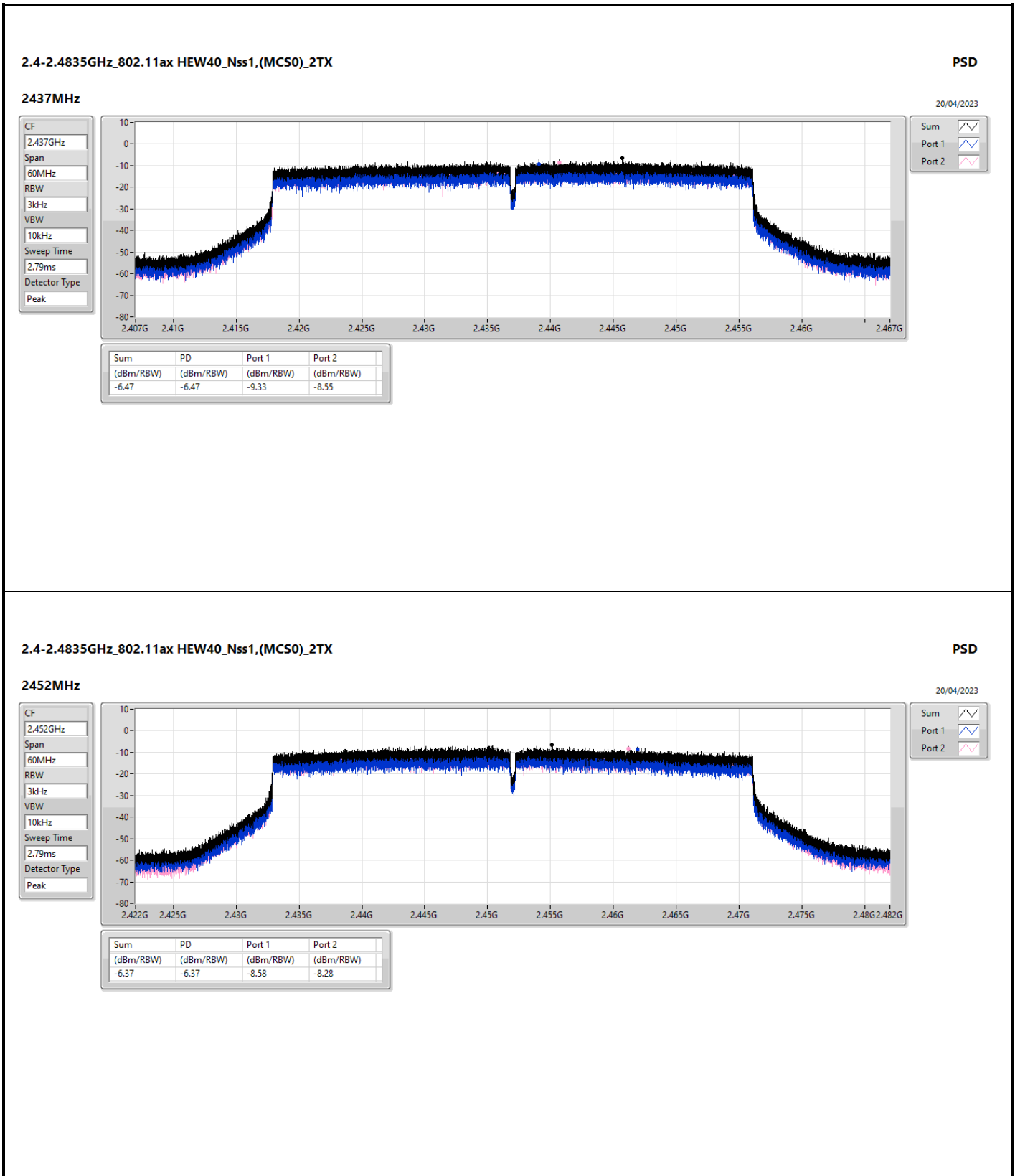


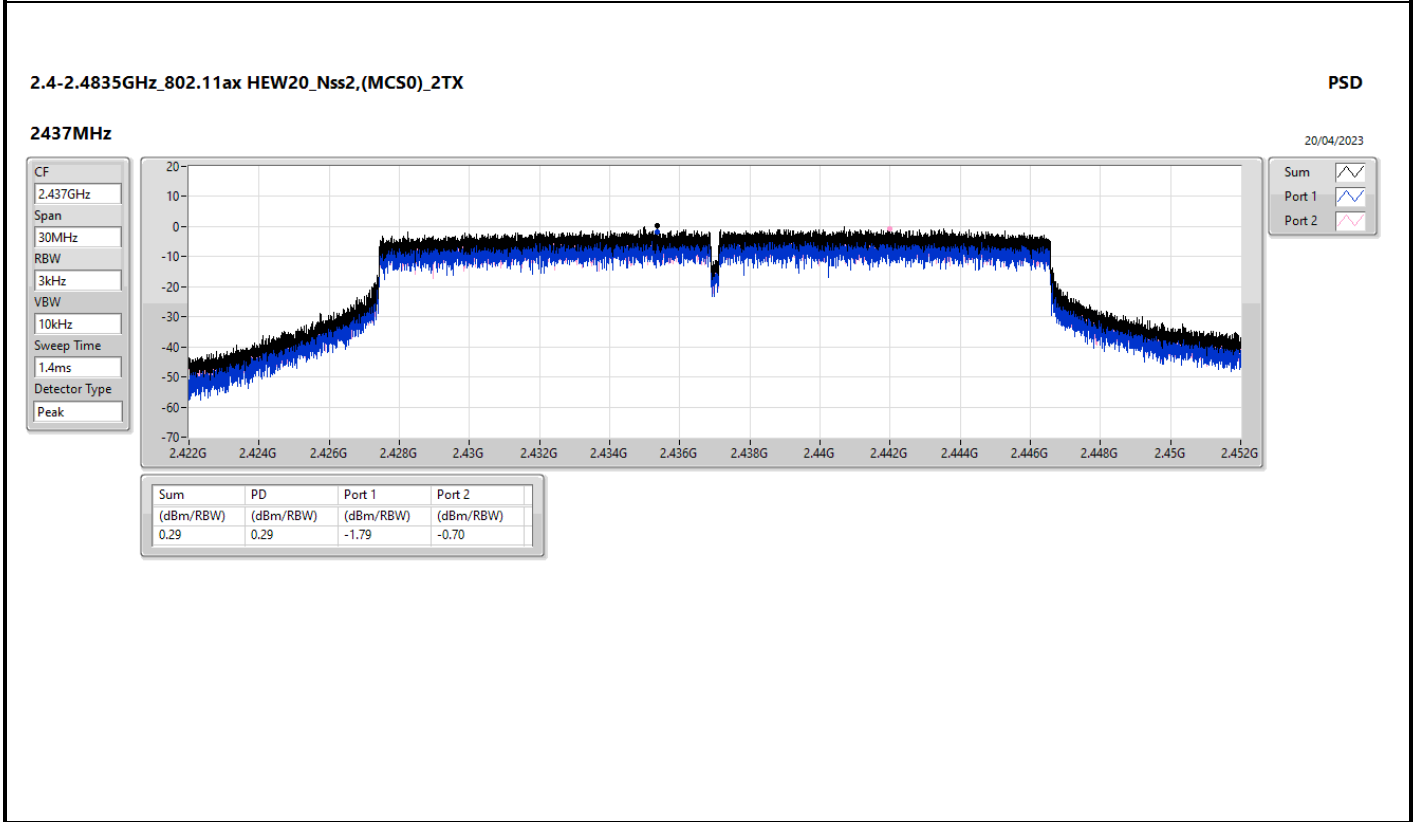
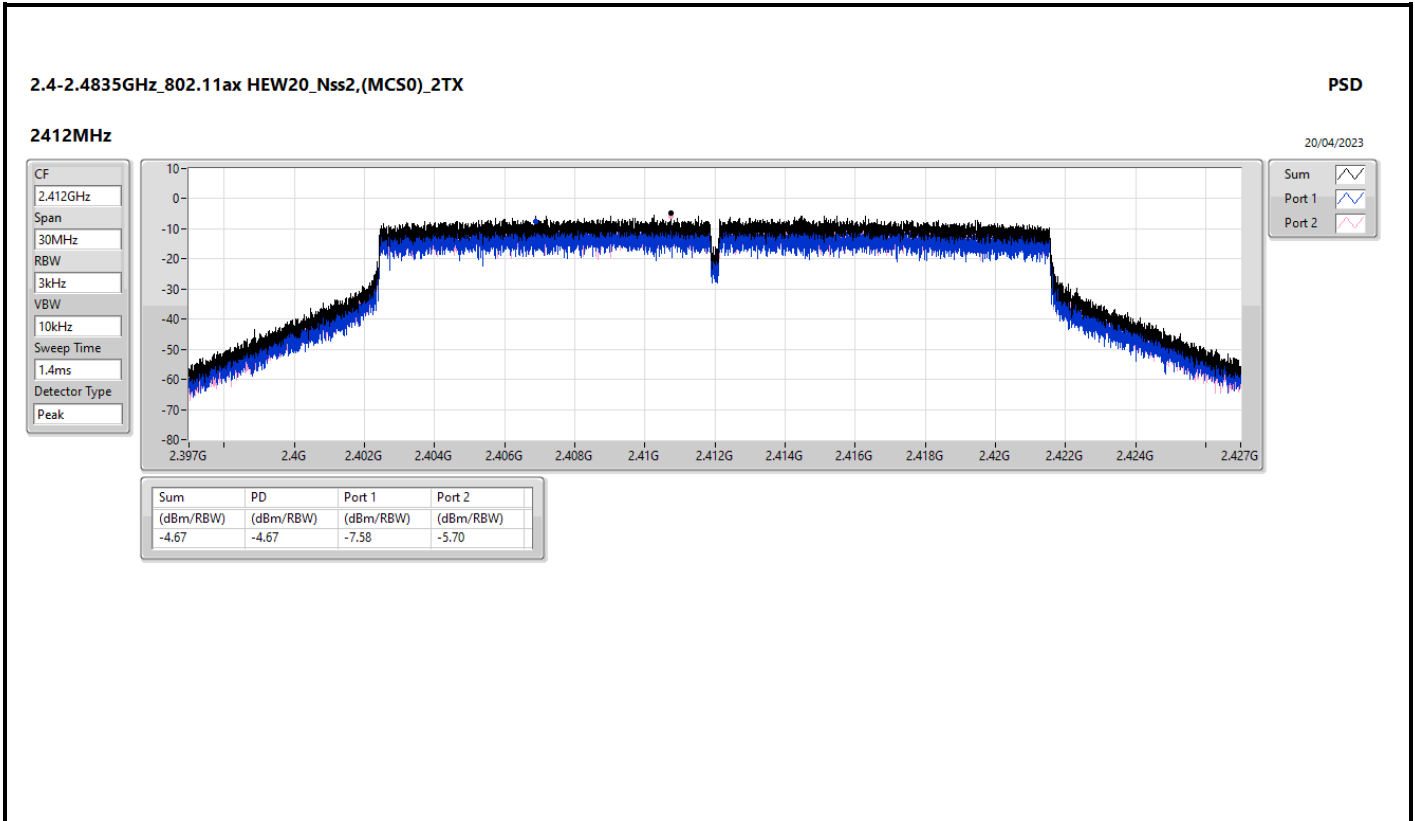


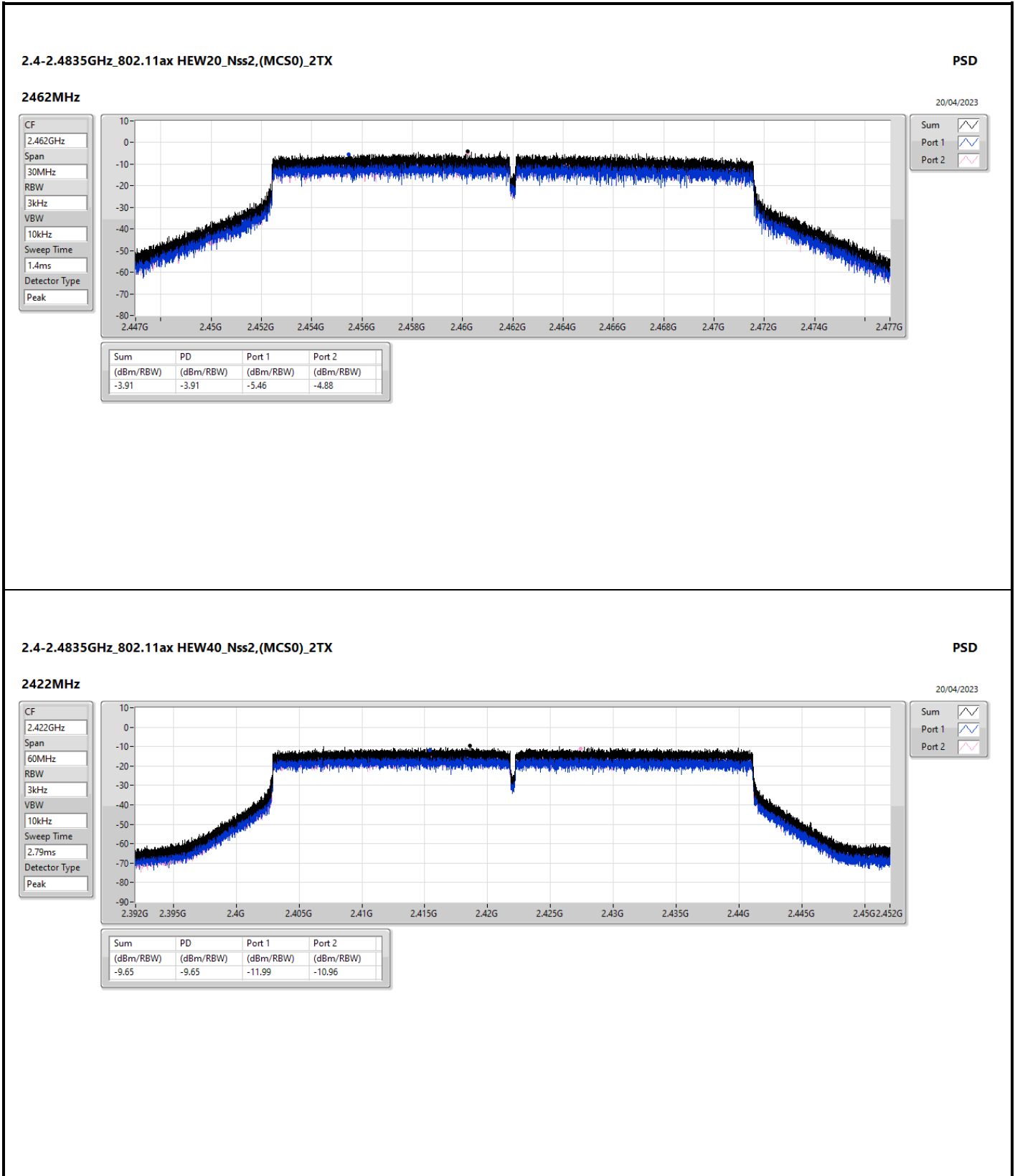


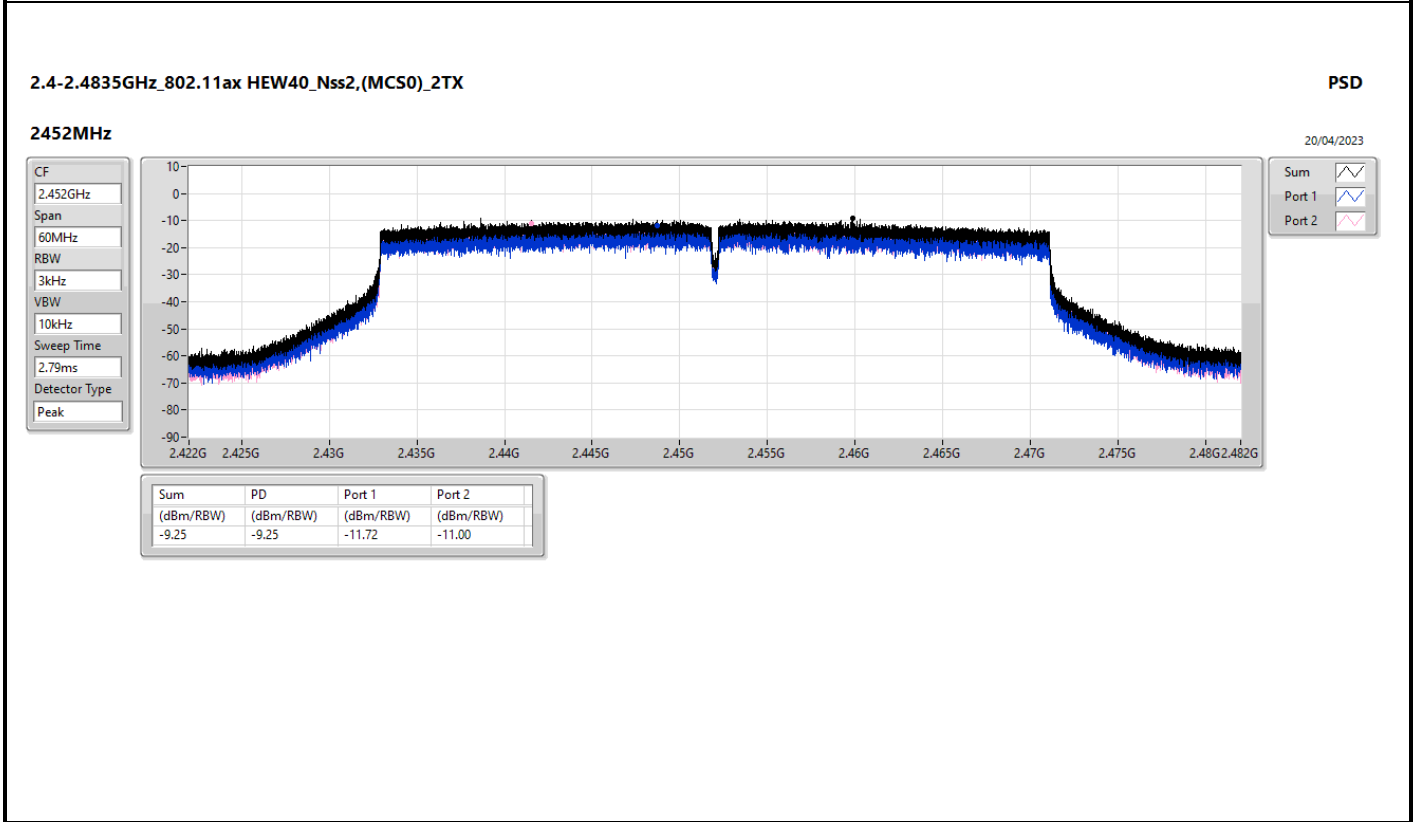
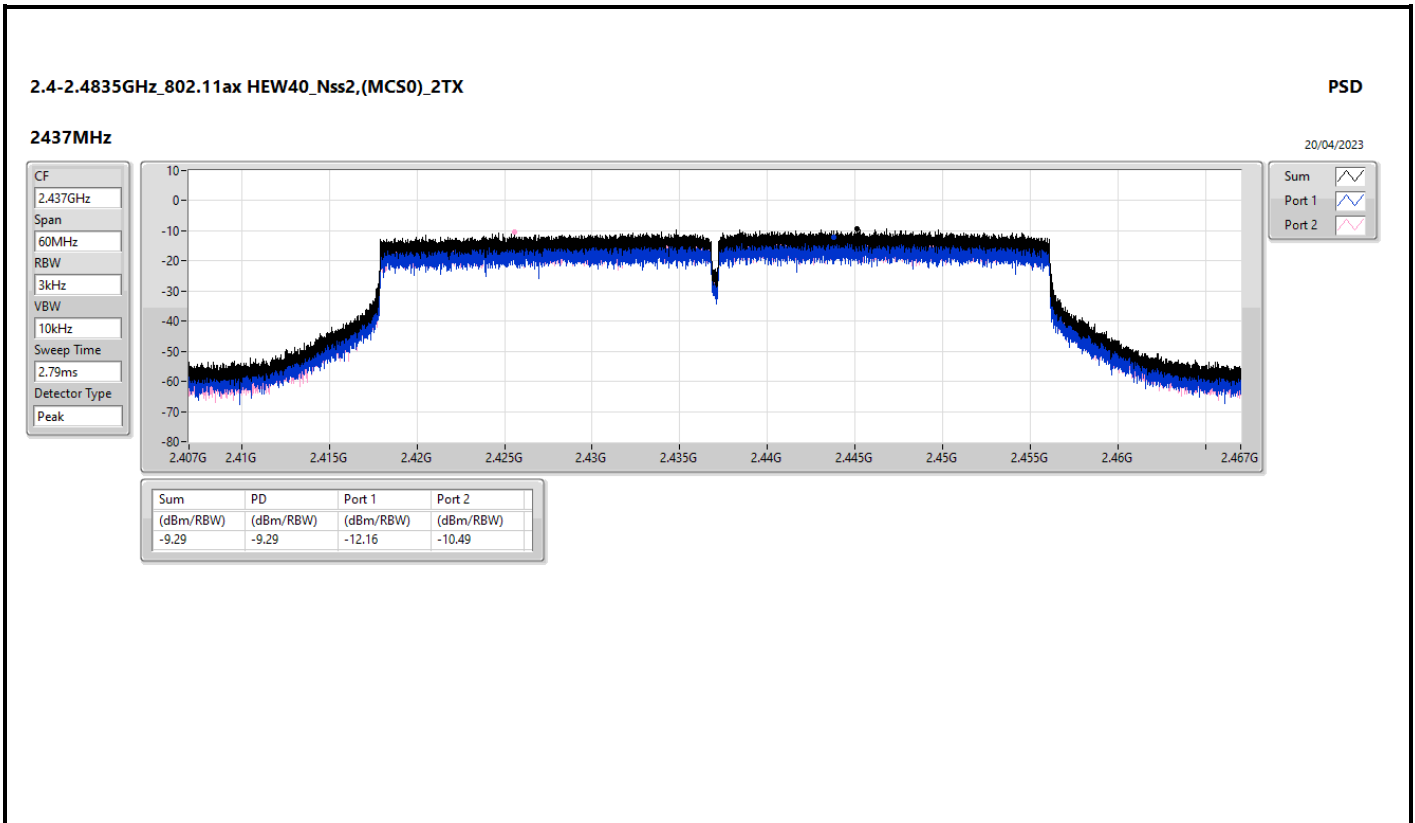


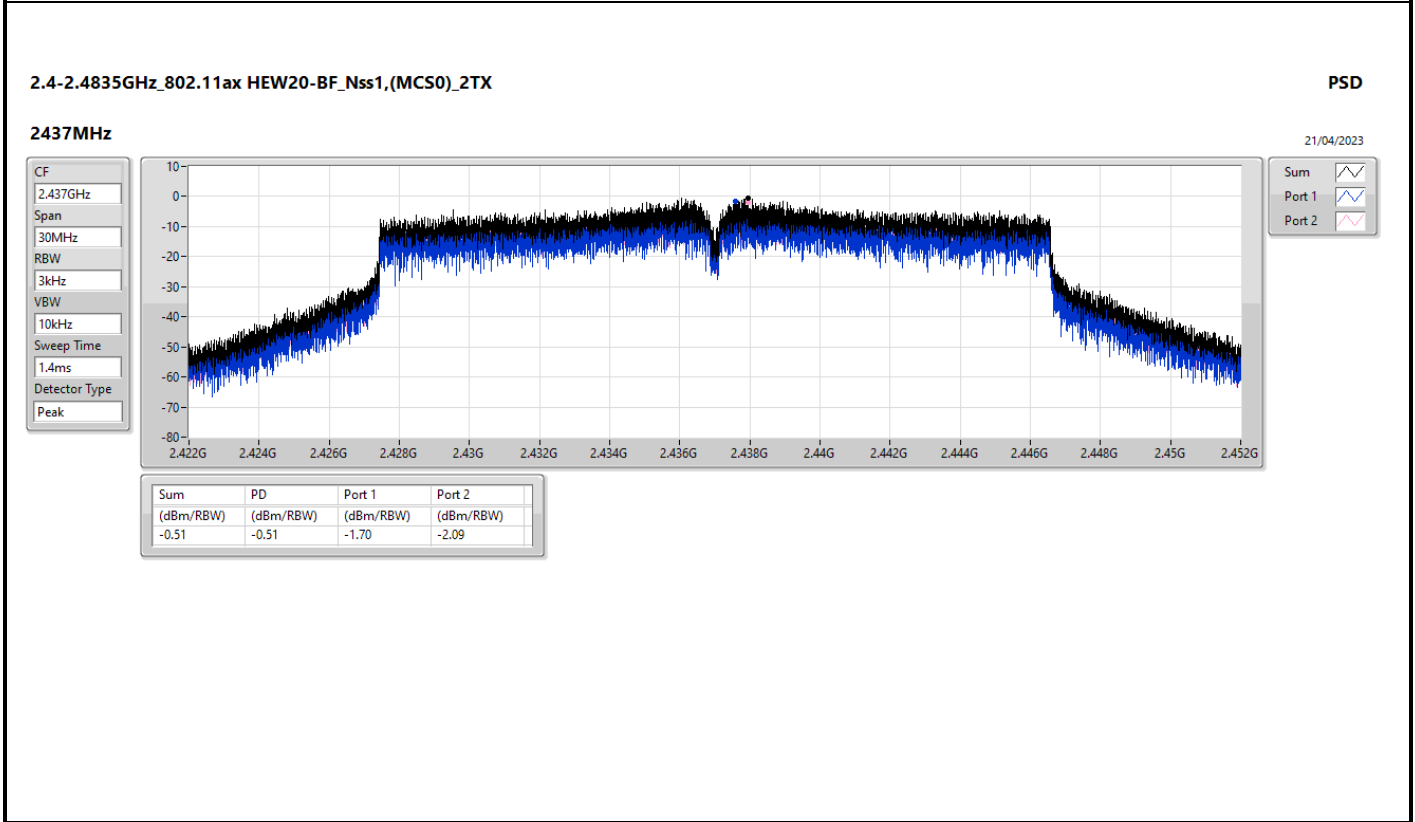
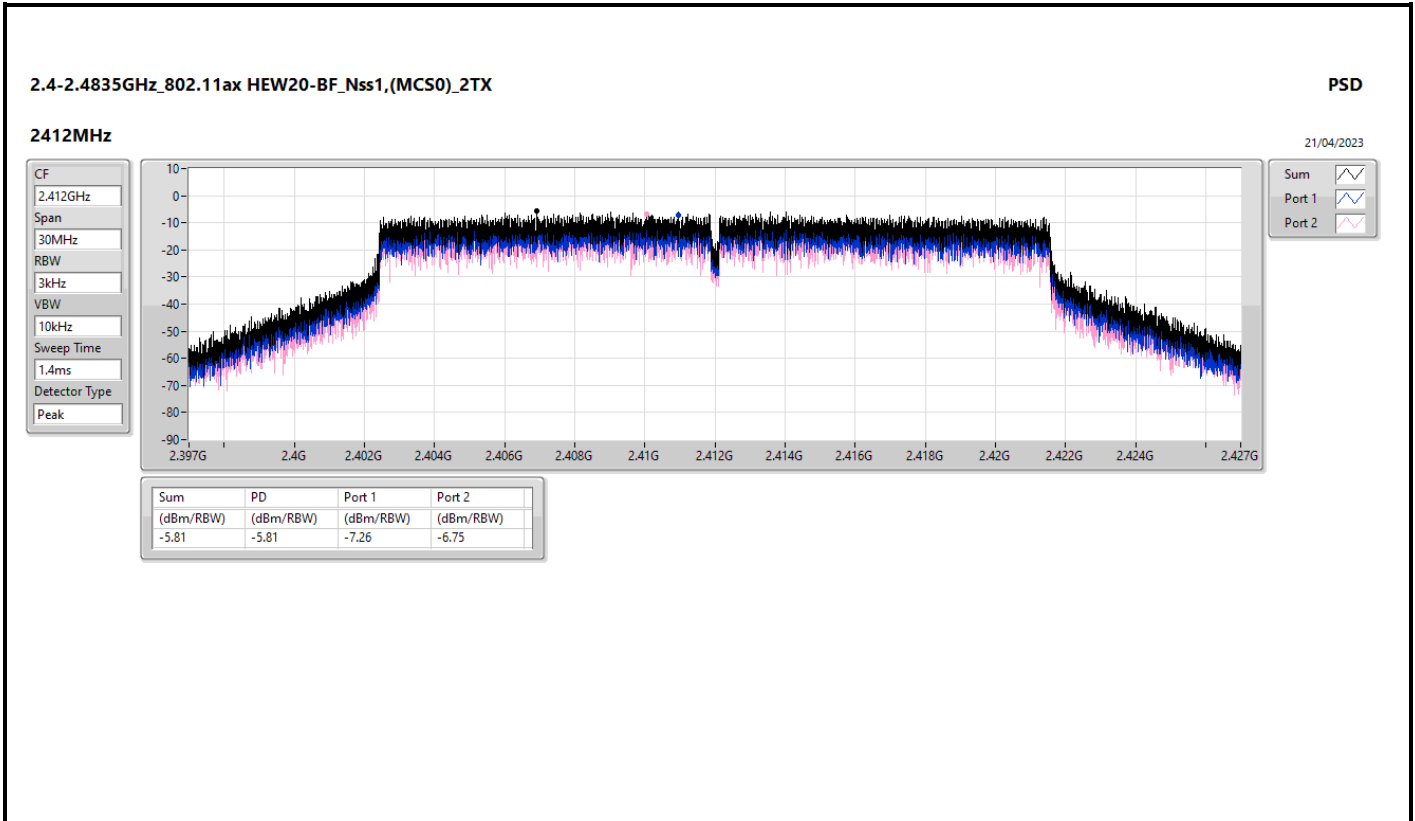


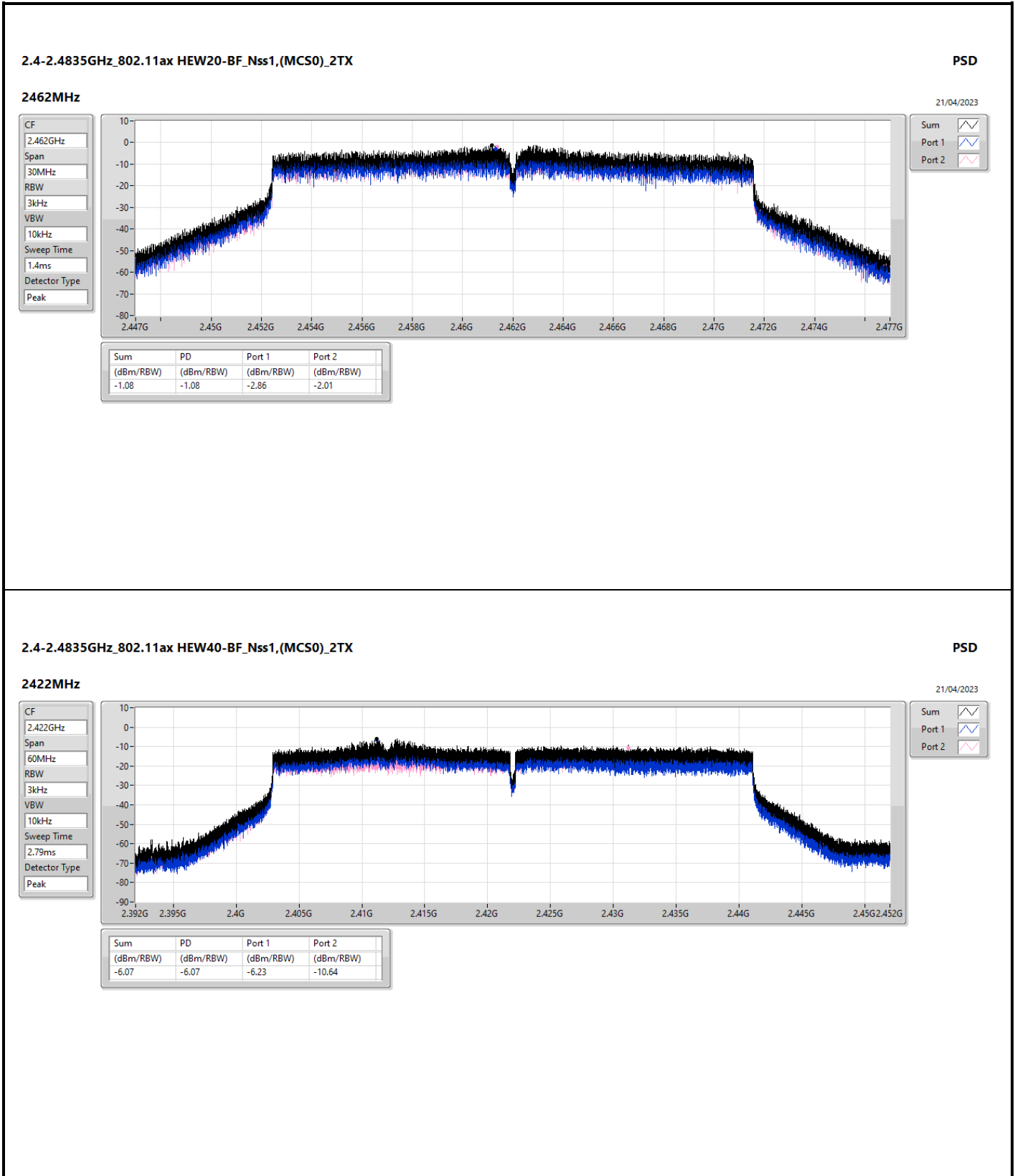


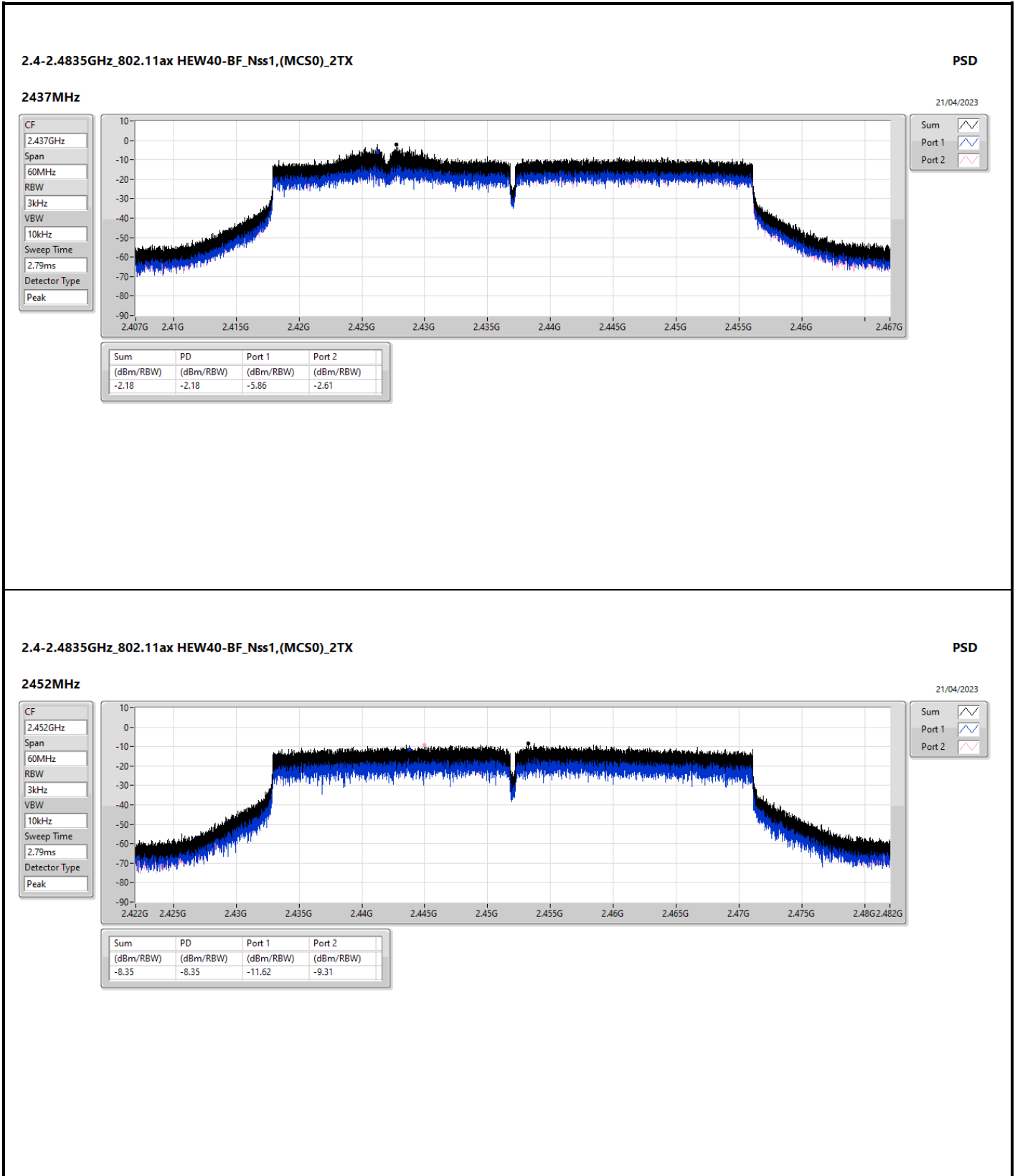














Summary

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)_2TX	Pass	2.43657G	16.53	-13.47	2.04312G	-53.49	2.39848G	-33.72	2.4G	-34.18	2.52142G	-51.95	21.61167G	-48.38	1
802.11g_Nss1,(6Mbps)_2TX	Pass	2.43574G	15.19	-14.81	33.5M	-54.46	2.39992G	-24.06	2.4G	-20.69	2.50238G	-51.69	21.54424G	-47.61	1
802.11ax HEW20_Nss1,(MCS0)_2TX	Pass	2.43941G	15.77	-14.23	31.17M	-52.92	2.39952G	-22.57	2.4G	-20.48	2.51806G	-51.89	21.47681G	-47.53	2
802.11ax HEW20_Nss2,(MCS0)_2TX	Pass	2.43941G	15.78	-14.22	2.06875G	-54.33	2.39992G	-22.43	2.4G	-23.15	2.51502G	-51.73	21.44309G	-47.70	1
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	Pass	2.43741G	14.09	-15.91	2.04429G	-50.06	2.3988G	-16.12	2.4G	-18.55	2.50742G	-47.98	21.57233G	-43.26	2
802.11ax HEW40_Nss1,(MCS0)_2TX	Pass	2.43206G	5.44	-24.56	1.97307G	-55.43	2.39968G	-30.51	2.4G	-28.41	2.52078G	-54.93	21.65696G	-47.52	1
802.11ax HEW40_Nss2,(MCS0)_2TX	Pass	2.45077G	5.95	-24.05	2.02345G	-54.65	2.4G	-29.47	2.4G	-26.34	2.53374G	-54.39	21.60928G	-48.14	1
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	Pass	2.41052G	11.68	-18.32	2.04062G	-49.03	2.4G	-27.82	2.4G	-25.39	2.51182G	-50.48	21.52234G	-43.53	1



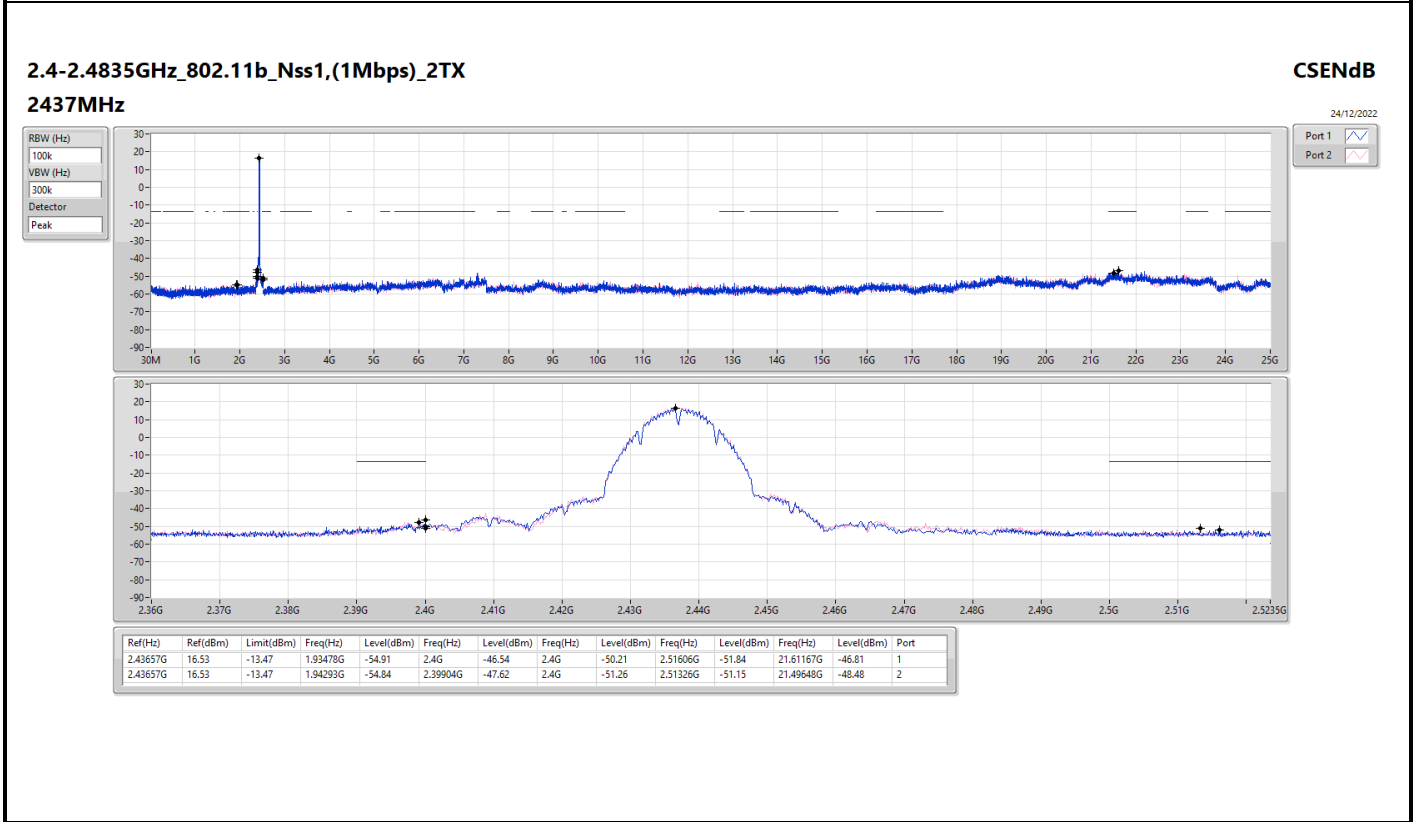
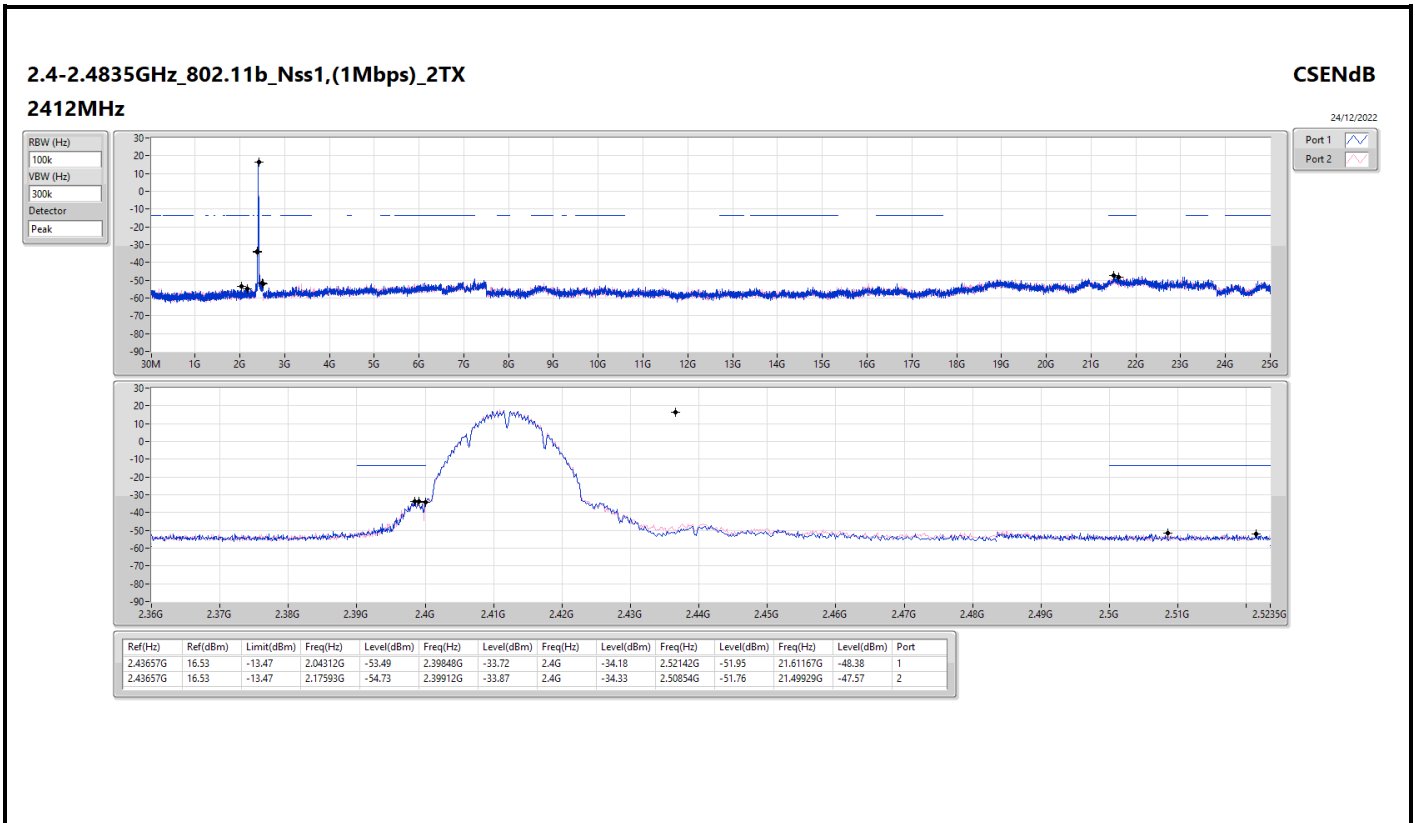


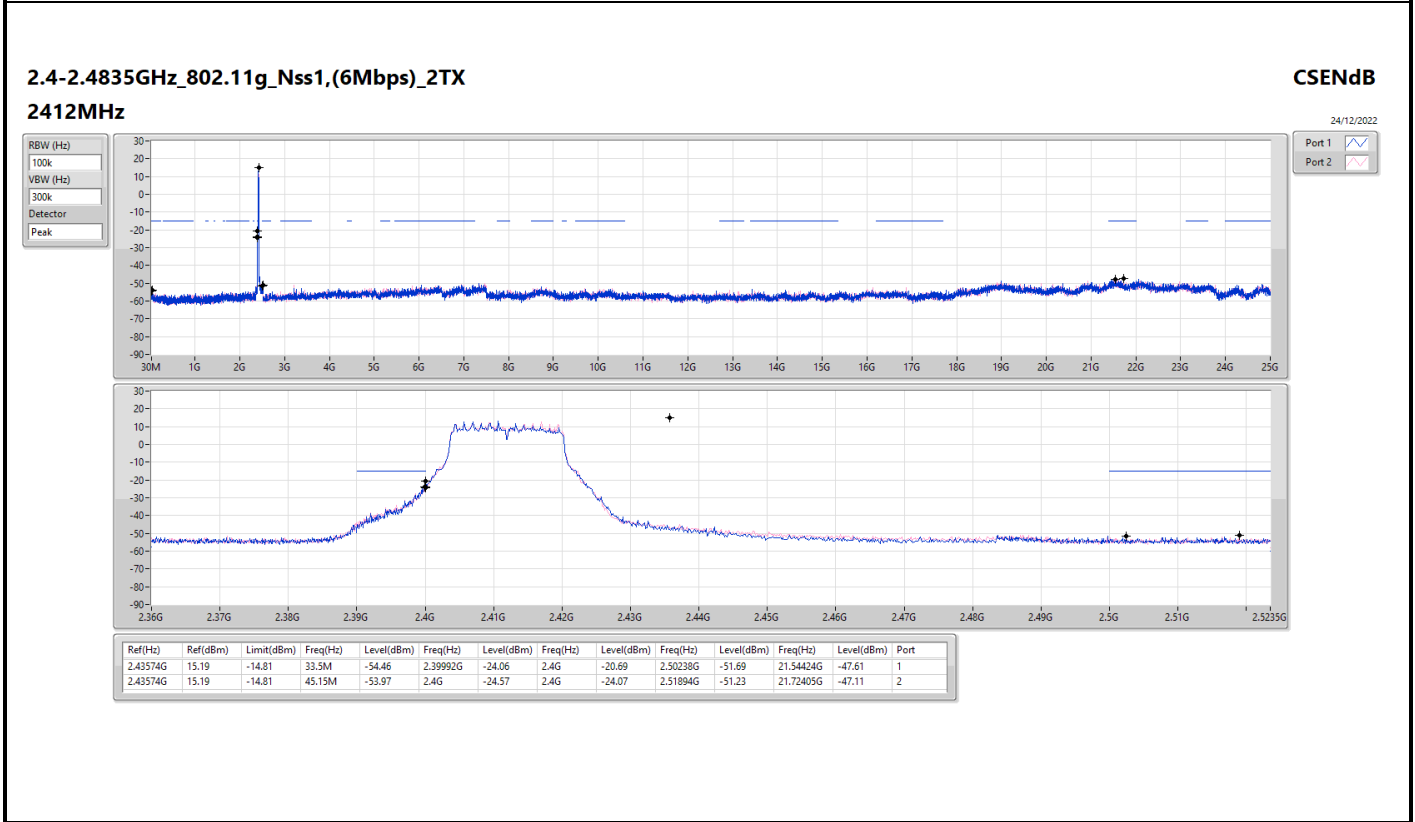
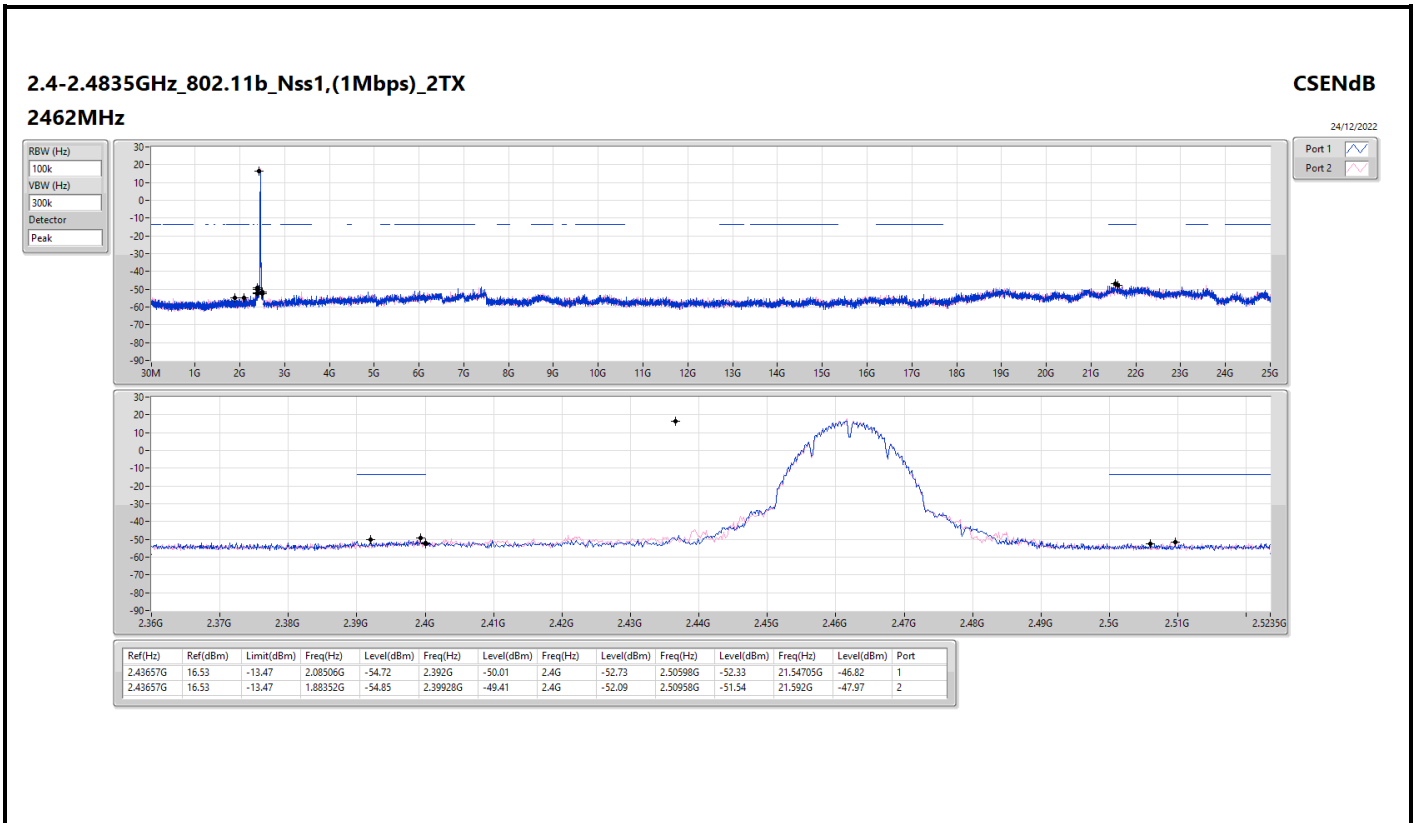
# CSE (NdB Down)\_EUT 1

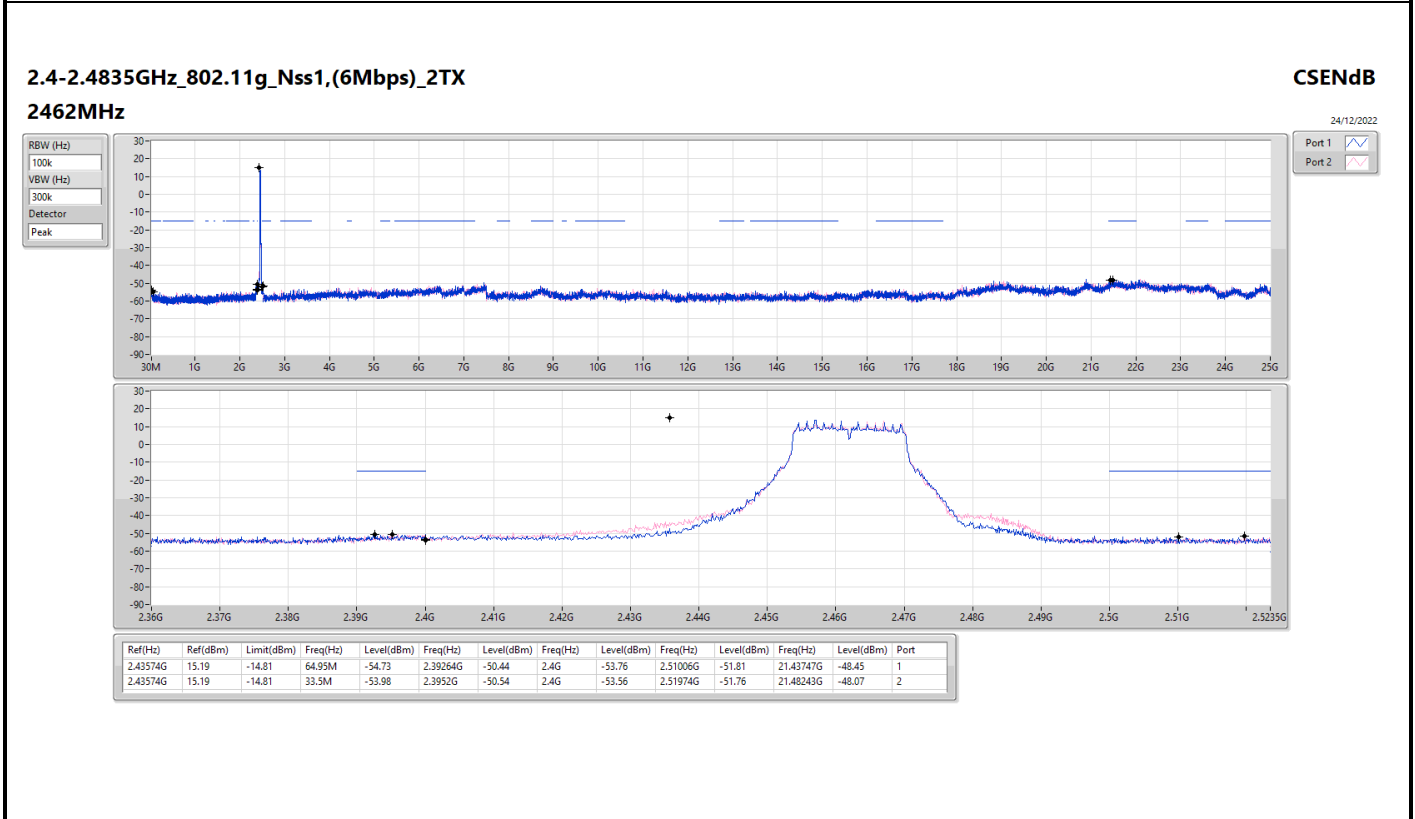
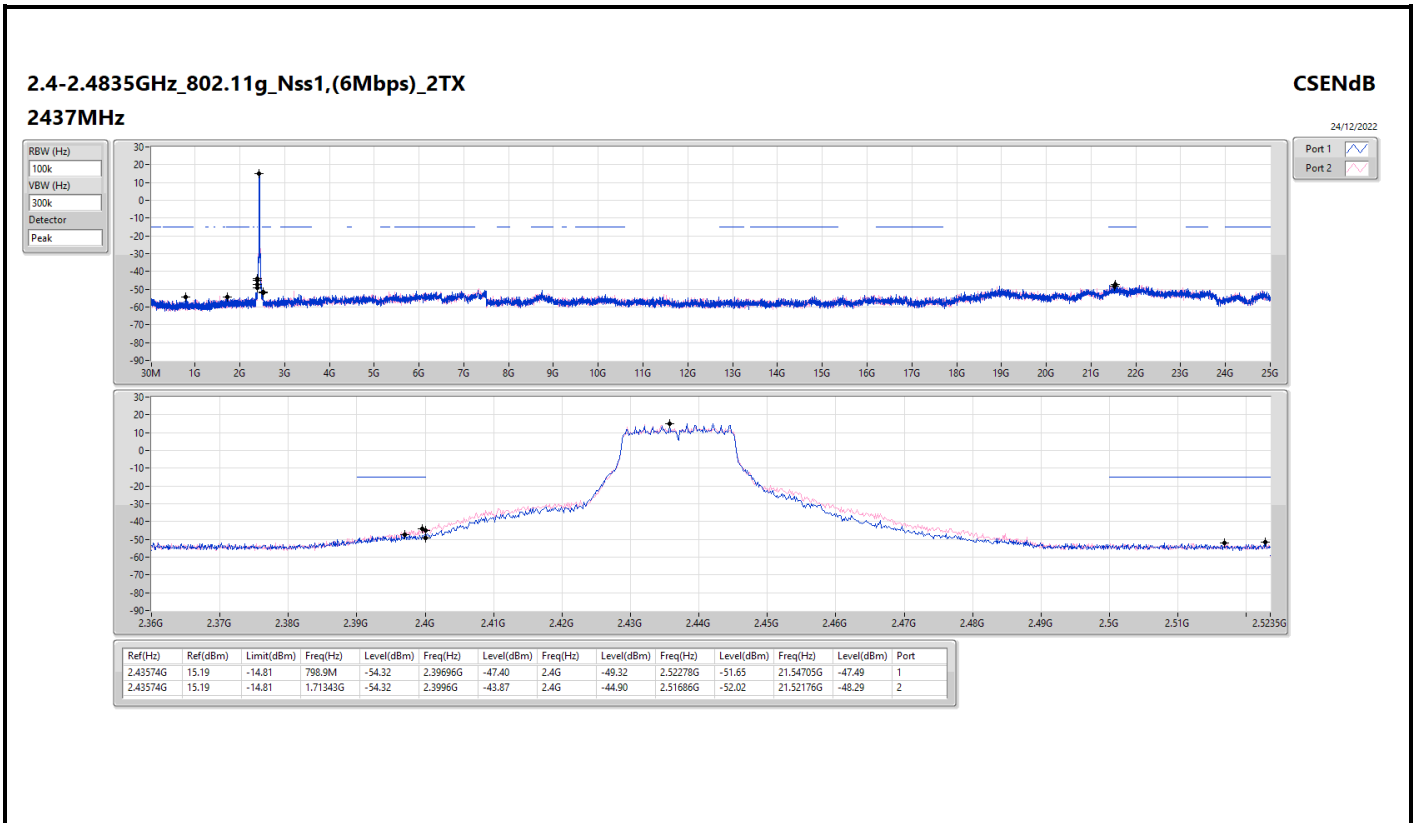
# Appendix E.1

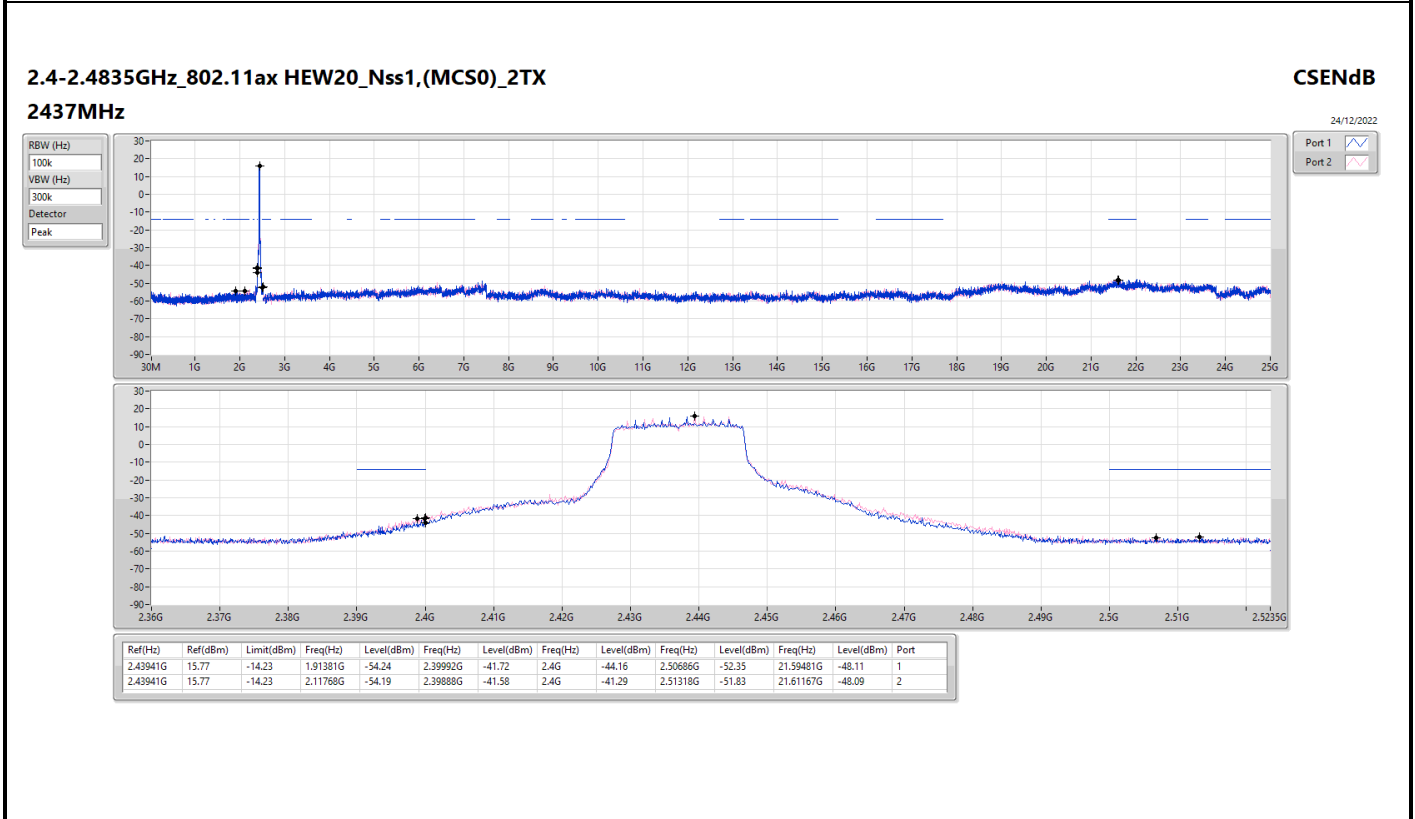
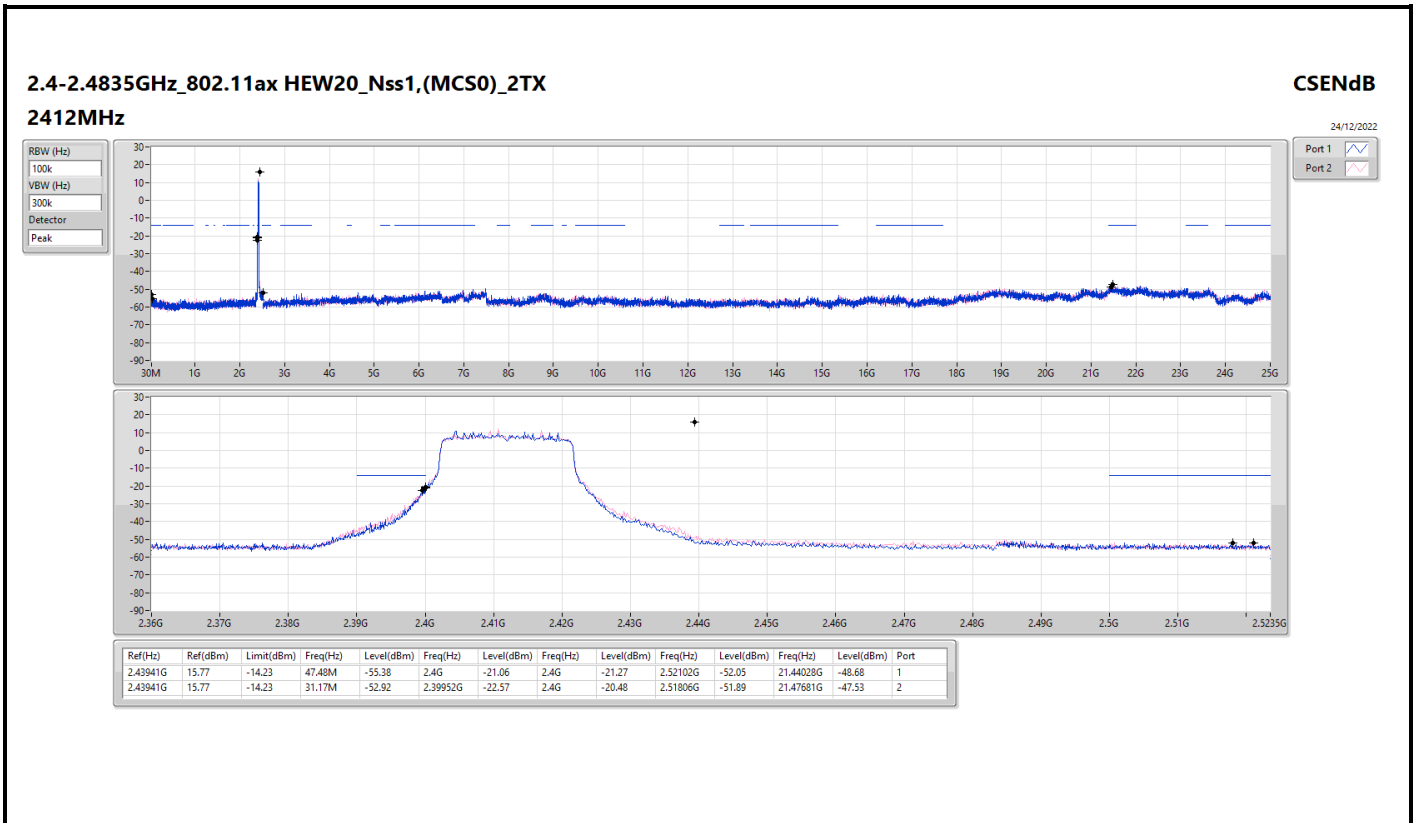
## Result

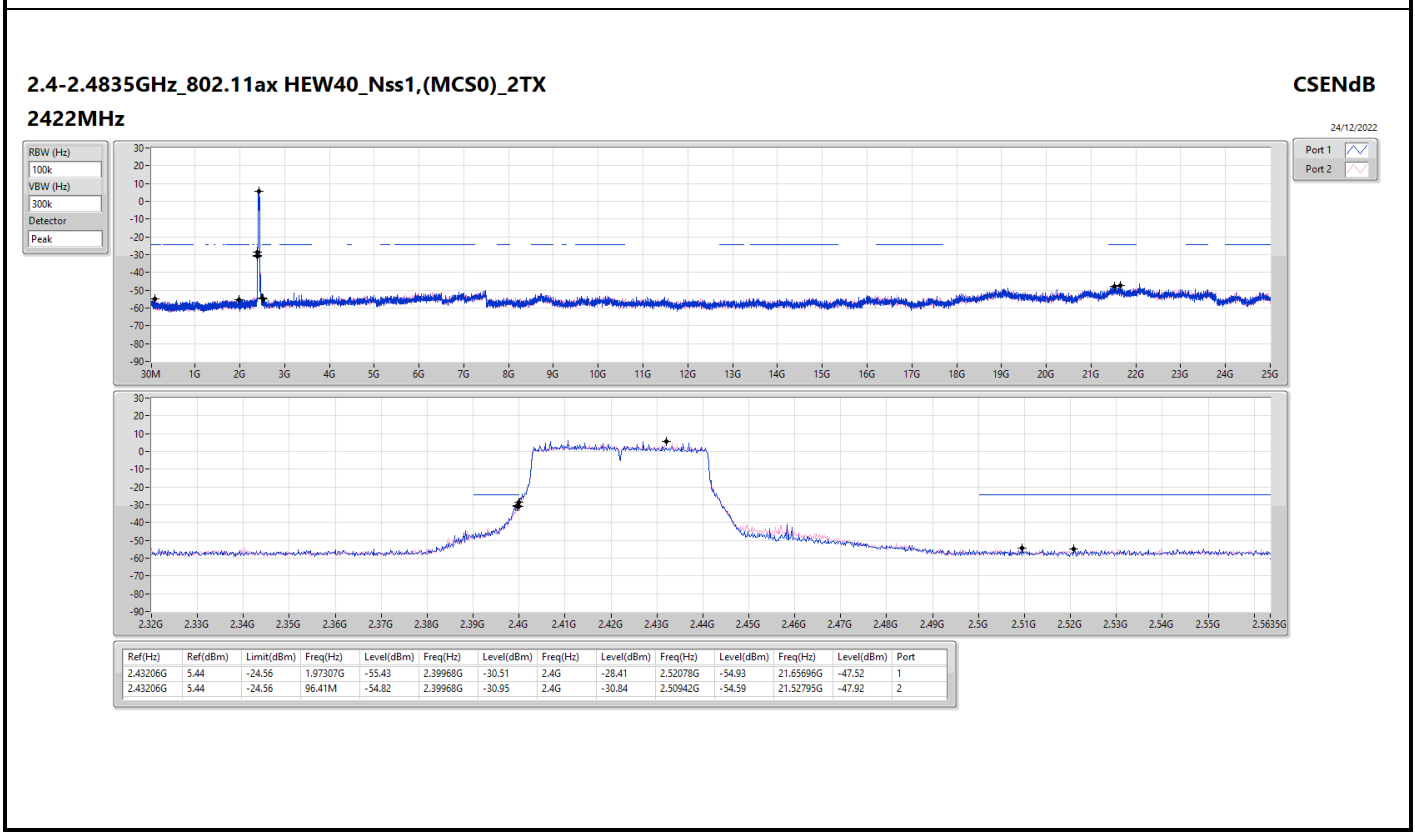
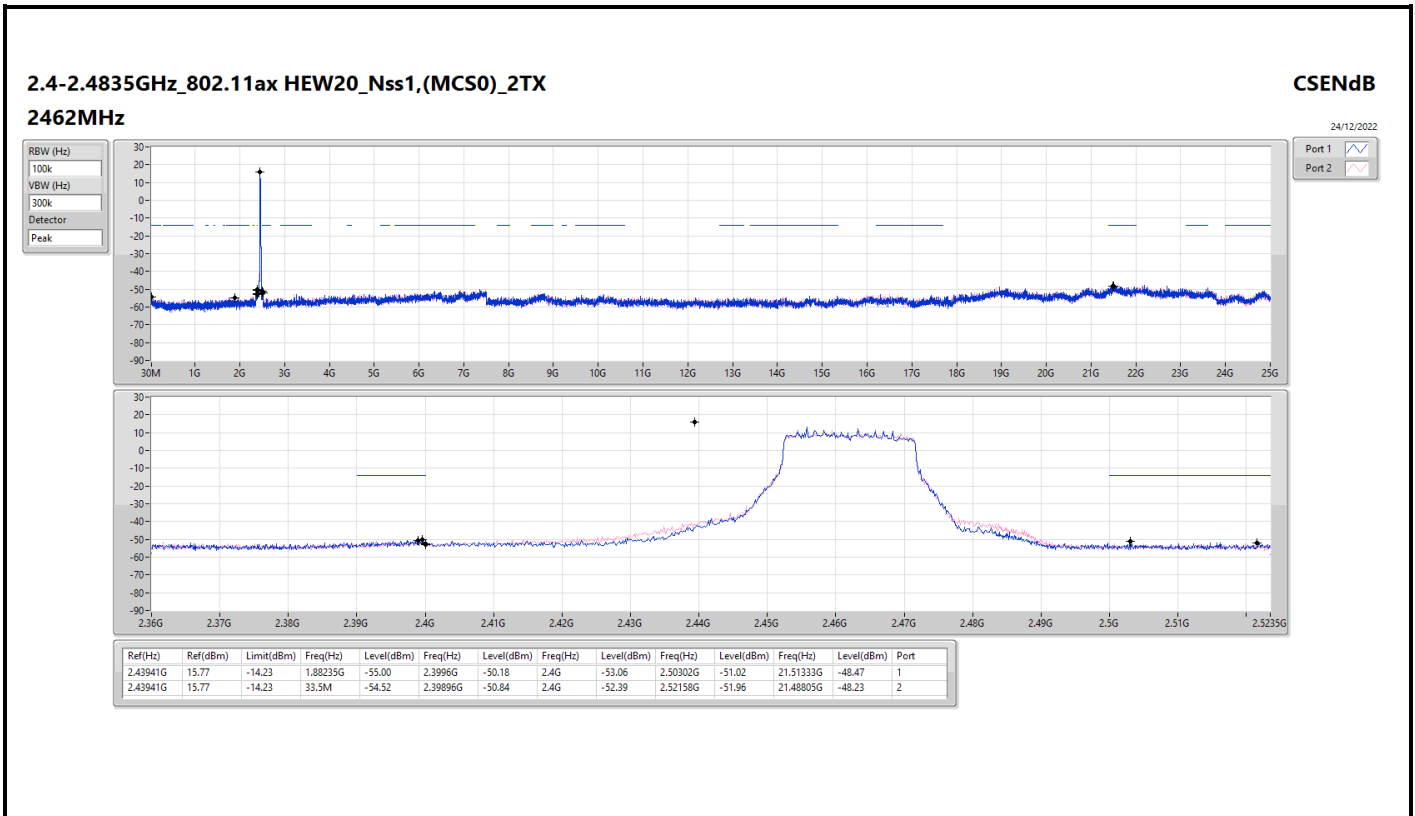
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43657G	16.53	-13.47	2.04312G	-53.49	2.39848G	-33.72	2.4G	-34.18	2.52142G	-51.95	21.61167G	-48.38	1
2412MHz	Pass	2.43657G	16.53	-13.47	2.17593G	-54.73	2.39912G	-33.87	2.4G	-34.33	2.50854G	-51.76	21.49929G	-47.57	2
2437MHz	Pass	2.43657G	16.53	-13.47	1.93478G	-54.91	2.4G	-46.54	2.4G	-50.21	2.51606G	-51.84	21.61167G	-46.81	1
2437MHz	Pass	2.43657G	16.53	-13.47	1.94293G	-54.84	2.39904G	-47.62	2.4G	-51.26	2.51326G	-51.15	21.49648G	-48.48	2
2462MHz	Pass	2.43657G	16.53	-13.47	2.08506G	-54.72	2.392G	-50.01	2.4G	-52.73	2.50598G	-52.33	21.54705G	-46.82	1
2462MHz	Pass	2.43657G	16.53	-13.47	1.88352G	-54.85	2.39928G	-49.41	2.4G	-52.09	2.50958G	-51.54	21.592G	-47.97	2
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43574G	15.19	-14.81	33.5M	-54.46	2.39992G	-24.06	2.4G	-20.69	2.50238G	-51.69	21.54424G	-47.61	1
2412MHz	Pass	2.43574G	15.19	-14.81	45.15M	-53.97	2.4G	-24.57	2.4G	-24.07	2.51894G	-51.23	21.72405G	-47.11	2
2437MHz	Pass	2.43574G	15.19	-14.81	798.9M	-54.32	2.39696G	-47.40	2.4G	-49.32	2.52278G	-51.65	21.54705G	-47.49	1
2437MHz	Pass	2.43574G	15.19	-14.81	1.71343G	-54.32	2.3996G	-43.87	2.4G	-44.90	2.51686G	-52.02	21.52176G	-48.29	2
2462MHz	Pass	2.43574G	15.19	-14.81	64.95M	-54.73	2.39264G	-50.44	2.4G	-53.76	2.51006G	-51.81	21.43747G	-48.45	1
2462MHz	Pass	2.43574G	15.19	-14.81	33.5M	-53.98	2.3952G	-50.54	2.4G	-53.56	2.51974G	-51.76	21.48243G	-48.07	2
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43941G	15.77	-14.23	47.48M	-55.38	2.4G	-21.06	2.4G	-21.27	2.52102G	-52.05	21.44028G	-48.68	1
2412MHz	Pass	2.43941G	15.77	-14.23	31.17M	-52.92	2.39952G	-22.57	2.4G	-20.48	2.51806G	-51.89	21.47681G	-47.53	2
2437MHz	Pass	2.43941G	15.77	-14.23	1.91381G	-54.24	2.39992G	-41.72	2.4G	-44.16	2.50686G	-52.35	21.59481G	-48.11	1
2437MHz	Pass	2.43941G	15.77	-14.23	2.11768G	-54.19	2.39888G	-41.58	2.4G	-41.29	2.51318G	-51.83	21.61167G	-48.09	2
2462MHz	Pass	2.43941G	15.77	-14.23	1.88235G	-55.00	2.3996G	-50.18	2.4G	-53.06	2.50302G	-51.02	21.51333G	-48.47	1
2462MHz	Pass	2.43941G	15.77	-14.23	33.5M	-54.52	2.39896G	-50.84	2.4G	-52.39	2.52158G	-51.96	21.48805G	-48.23	2
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	2.43206G	5.44	-24.56	1.97307G	-55.43	2.39968G	-30.51	2.4G	-28.41	2.52078G	-54.93	21.65696G	-47.52	1
2422MHz	Pass	2.43206G	5.44	-24.56	96.41M	-54.82	2.39968G	-30.95	2.4G	-30.84	2.50942G	-54.59	21.52795G	-47.92	2
2437MHz	Pass	2.43206G	5.44	-24.56	2.30512G	-53.10	2.39968G	-39.56	2.4G	-42.24	2.5203G	-55.17	21.60087G	-48.44	1
2437MHz	Pass	2.43206G	5.44	-24.56	2.14367G	-53.81	2.39936G	-42.71	2.4G	-42.35	2.55438G	-54.72	21.53637G	-48.56	2
2452MHz	Pass	2.43206G	5.44	-24.56	34.58M	-54.26	2.39952G	-49.66	2.4G	-50.66	2.52142G	-54.64	21.64855G	-47.39	1
2452MHz	Pass	2.43206G	5.44	-24.56	2.30855G	-54.90	2.39952G	-50.31	2.4G	-51.42	2.54494G	-55.07	21.51673G	-47.29	2
802.11ax HEW20_Nss2,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43941G	15.78	-14.22	2.06875G	-54.33	2.39992G	-22.43	2.4G	-23.15	2.51502G	-51.73	21.44309G	-47.70	1
2412MHz	Pass	2.43941G	15.78	-14.22	2.19224G	-53.96	2.39968G	-23.62	2.4G	-22.89	2.52246G	-51.96	21.70157G	-47.93	2
2437MHz	Pass	2.43941G	15.78	-14.22	2.14681G	-55.14	2.39912G	-43.32	2.4G	-45.70	2.50534G	-51.77	22.00782G	-47.81	1
2437MHz	Pass	2.43941G	15.78	-14.22	1.88701G	-54.33	2.39976G	-41.88	2.4G	-40.53	2.52342G	-52.09	21.51614G	-48.19	2
2462MHz	Pass	2.43941G	15.78	-14.22	139.51M	-54.02	2.39944G	-50.52	2.4G	-53.26	2.51686G	-52.13	21.52176G	-47.73	1
2462MHz	Pass	2.43941G	15.78	-14.22	2.10603G	-54.89	2.39648G	-49.74	2.4G	-53.58	2.51535G	-52.12	21.54705G	-48.03	2
802.11ax HEW40_Nss2,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	2.45077G	5.95	-24.05	2.02345G	-54.65	2.4G	-29.47	2.4G	-26.34	2.53374G	-54.39	21.60928G	-48.14	1
2422MHz	Pass	2.45077G	5.95	-24.05	33.44M	-54.33	2.4G	-30.47	2.4G	-26.75	2.52126G	-54.70	21.4971G	-47.57	2
2437MHz	Pass	2.45077G	5.95	-24.05	233.81M	-54.99	2.39712G	-37.62	2.4G	-37.79	2.50206G	-55.25	21.67659G	-48.41	1
2437MHz	Pass	2.45077G	5.95	-24.05	2.00971G	-53.56	2.39984G	-38.85	2.4G	-41.04	2.5315G	-54.48	21.70744G	-48.49	2
2452MHz	Pass	2.45077G	5.95	-24.05	47.18M	-54.19	2.3984G	-47.93	2.4G	-50.41	2.50702G	-54.78	21.57282G	-47.36	1
2452MHz	Pass	2.45077G	5.95	-24.05	2.30512G	-54.77	2.39888G	-49.43	2.4G	-49.98	2.5611G	-54.73	21.48027G	-48.29	2
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43741G	14.09	-15.91	2.19574G	-50.57	2.39912G	-17.53	2.4G	-17.79	2.5063G	-47.74	21.51895G	-43.80	1
2412MHz	Pass	2.43741G	14.09	-15.91	2.04429G	-50.06	2.3988G	-16.12	2.4G	-18.55	2.50742G	-47.98	21.57233G	-43.26	2
2437MHz	Pass	2.43741G	14.09	-15.91	2.03031G	-50.29	2.39664G	-33.89	2.4G	-35.84	2.52222G	-48.50	21.44871G	-42.74	1
2437MHz	Pass	2.43741G	14.09	-15.91	2.13516G	-49.85	2.39528G	-30.00	2.4G	-36.00	2.51188G	-47.91	21.48243G	-42.72	2
2462MHz	Pass	2.43741G	14.09	-15.91	2.18642G	-49.63	2.39312G	-40.32	2.4G	-48.60	2.51718G	-48.63	21.46557G	-43.51	1
2462MHz	Pass	2.43741G	14.09	-15.91	1.65634G	-50.78	2.39472G	-36.90	2.4G	-47.47	2.50014G	-48.35	21.42905G	-43.81	2
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	2.41052G	11.68	-18.32	2.04062G	-49.03	2.4G	-27.82	2.4G	-25.39	2.51182G	-50.48	21.52234G	-43.53	1
2422MHz	Pass	2.41052G	11.68	-18.32	1.90322G	-49.89	2.3968G	-28.75	2.4G	-28.11	2.53358G	-48.92	21.67659G	-43.89	2
2437MHz	Pass	2.41052G	11.68	-18.32	2.15741G	-48.69	2.3968G	-43.05	2.4G	-45.28	2.53854G	-50.50	21.47186G	-43.01	1
2437MHz	Pass	2.41052G	11.68	-18.32	1.84941G	-50.20	2.39872G	-44.34	2.4G	-44.95	2.5483G	-50.28	21.46345G	-44.21	2
2452MHz	Pass	2.41052G	11.68	-18.32	39.16M	-49.74	2.3928G	-50.25	2.4G	-51.85	2.51486G	-49.46	21.52795G	-42.50	1
2452MHz	Pass	2.41052G	11.68	-18.32	2.04291G	-50.02	2.4G	-49.66	2.4G	-48.18	2.52366G	-50.24	21.90657G	-43.48	2

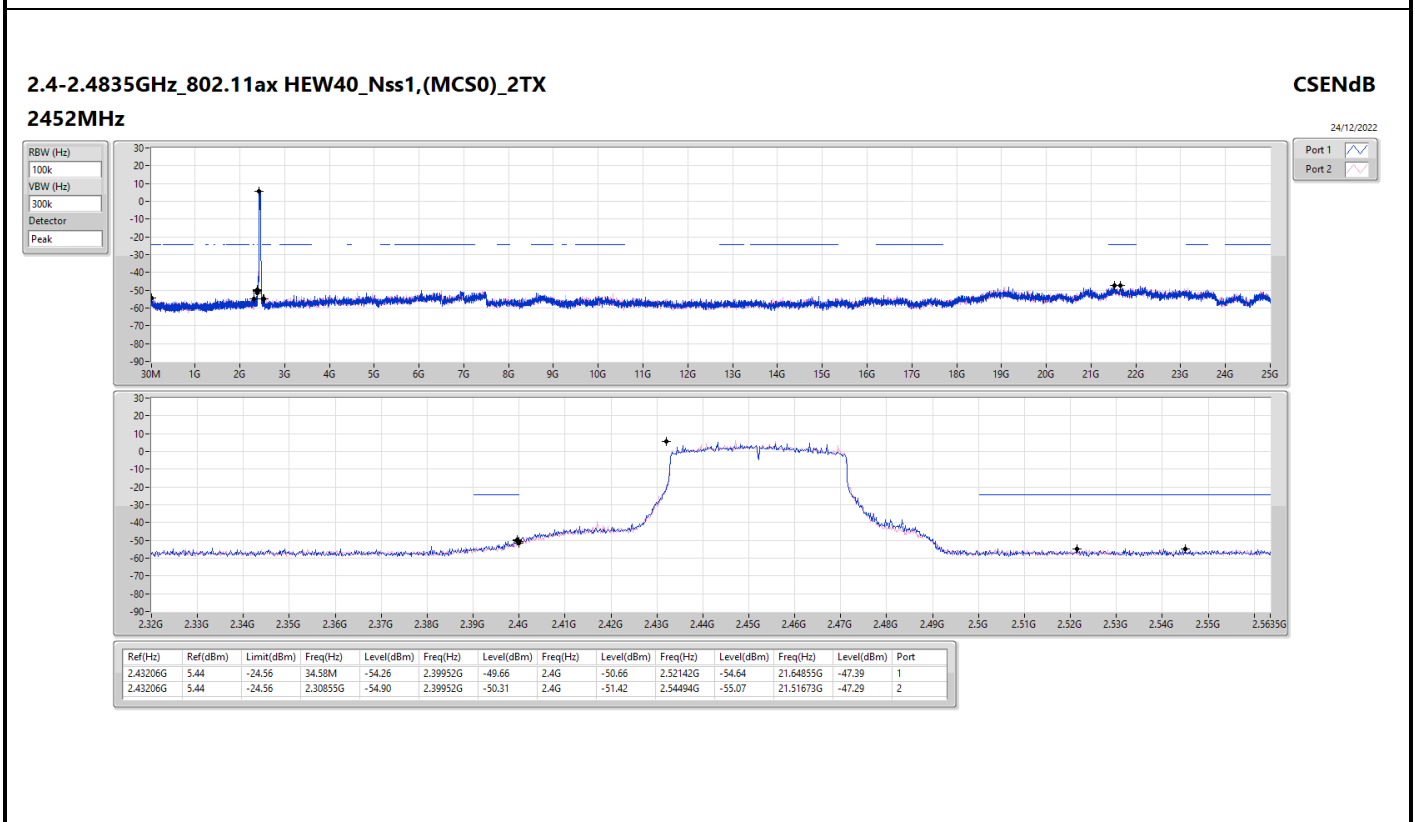
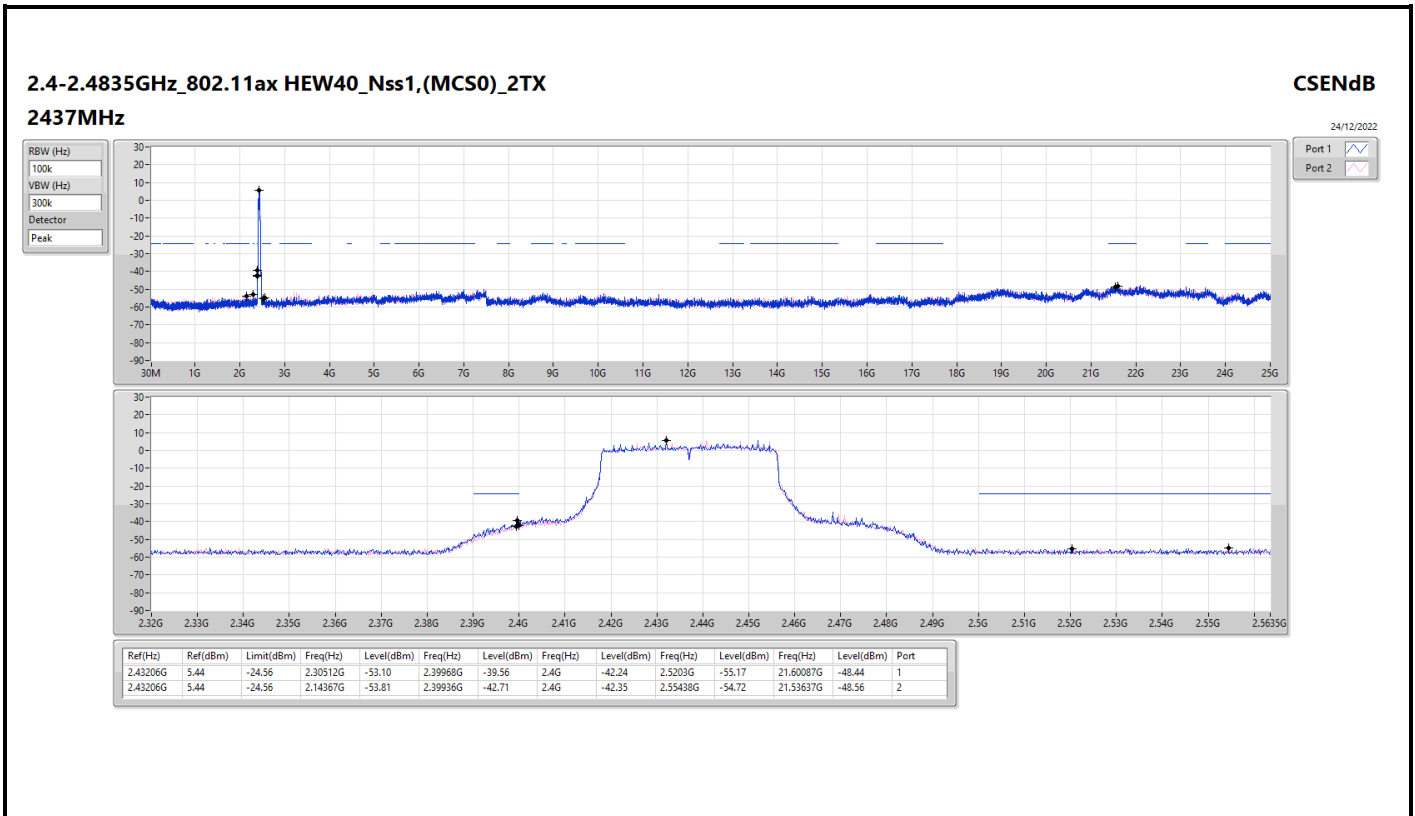


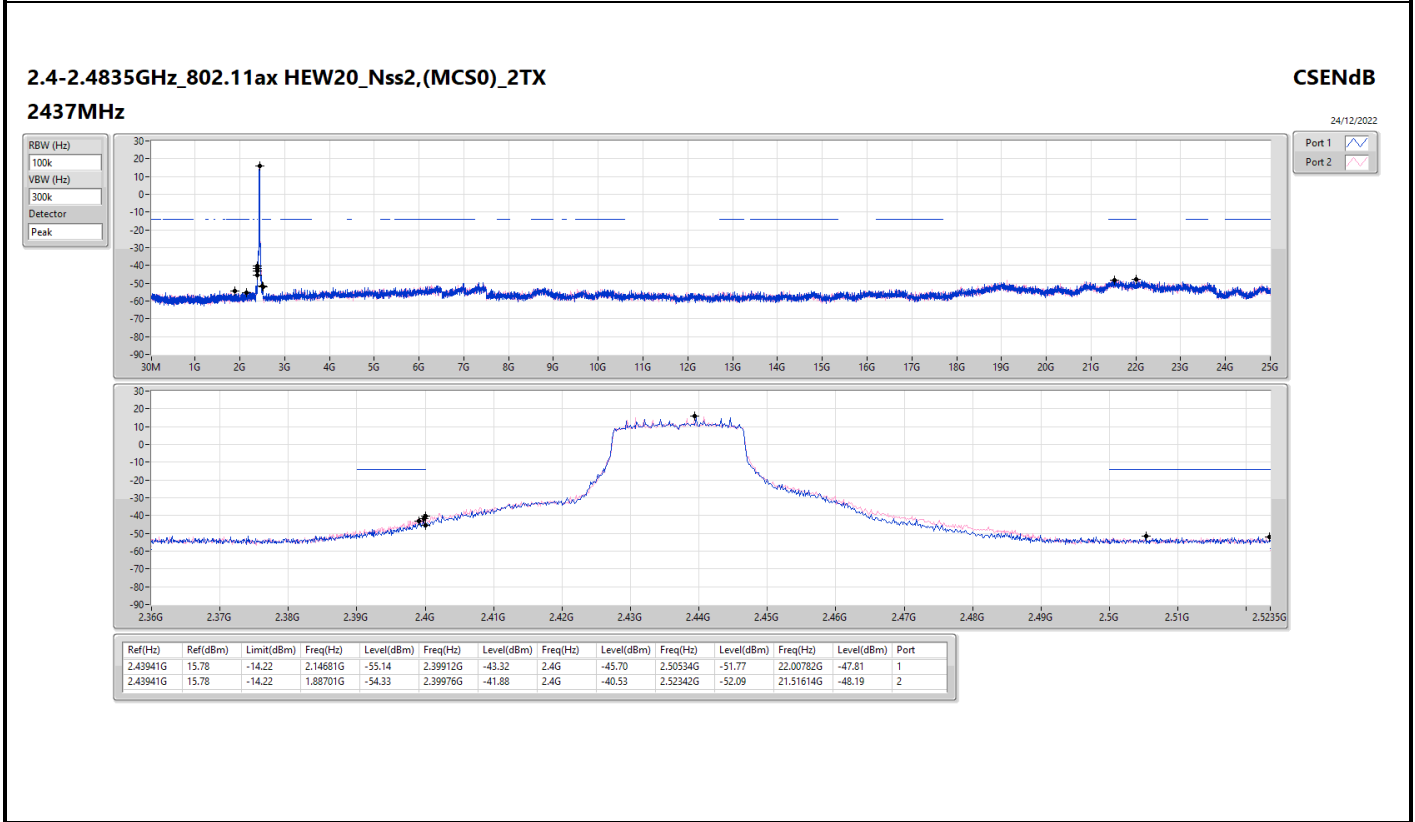
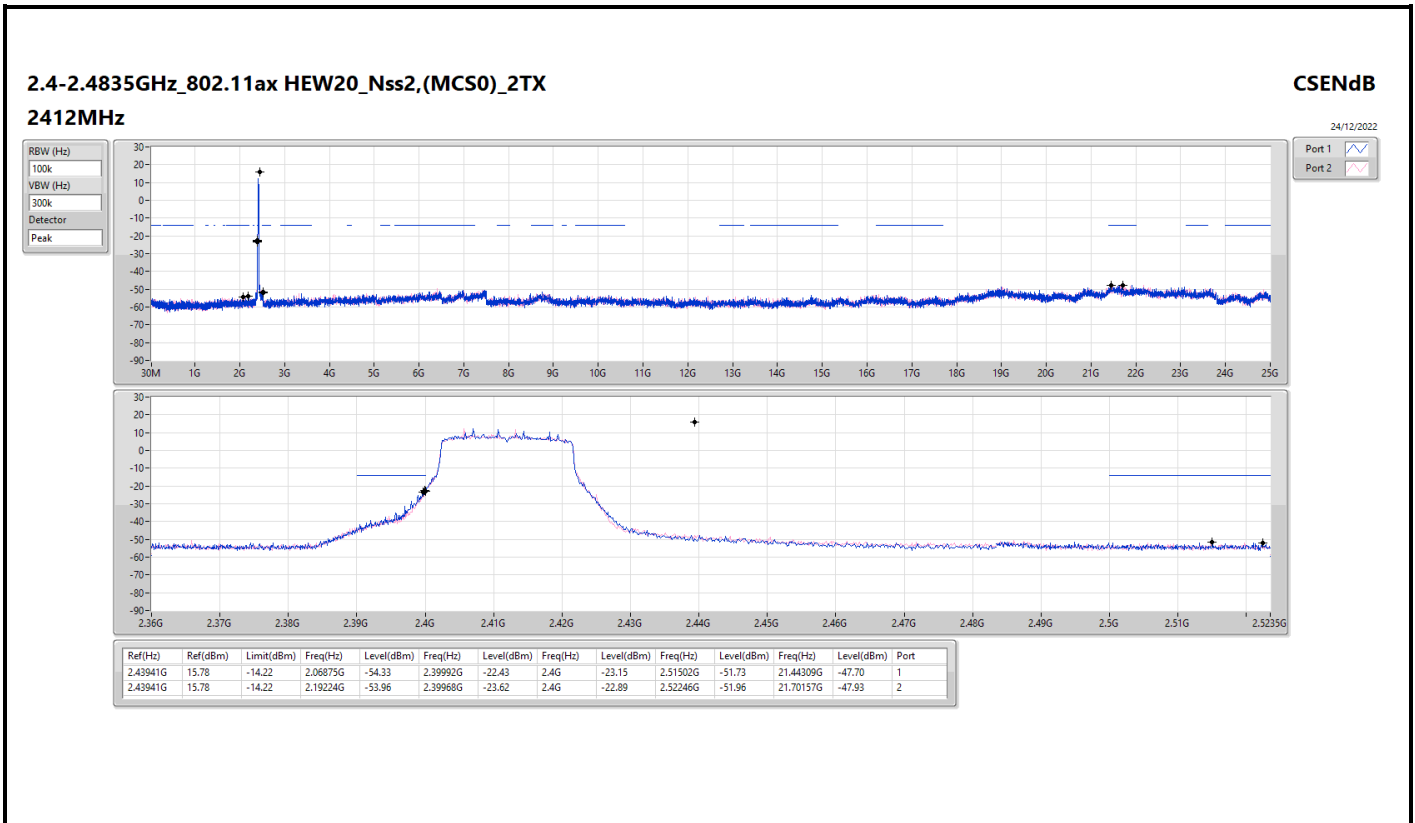




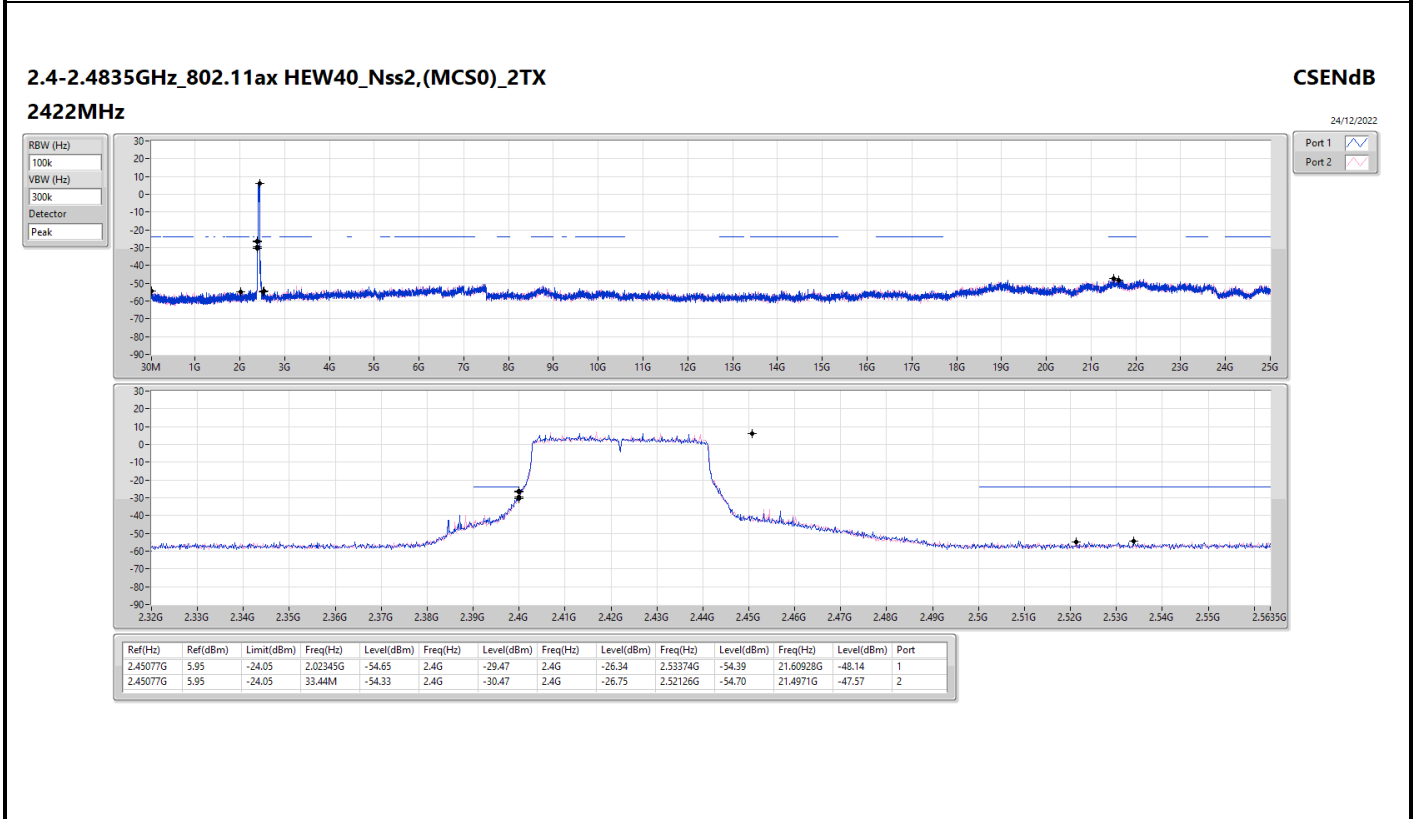
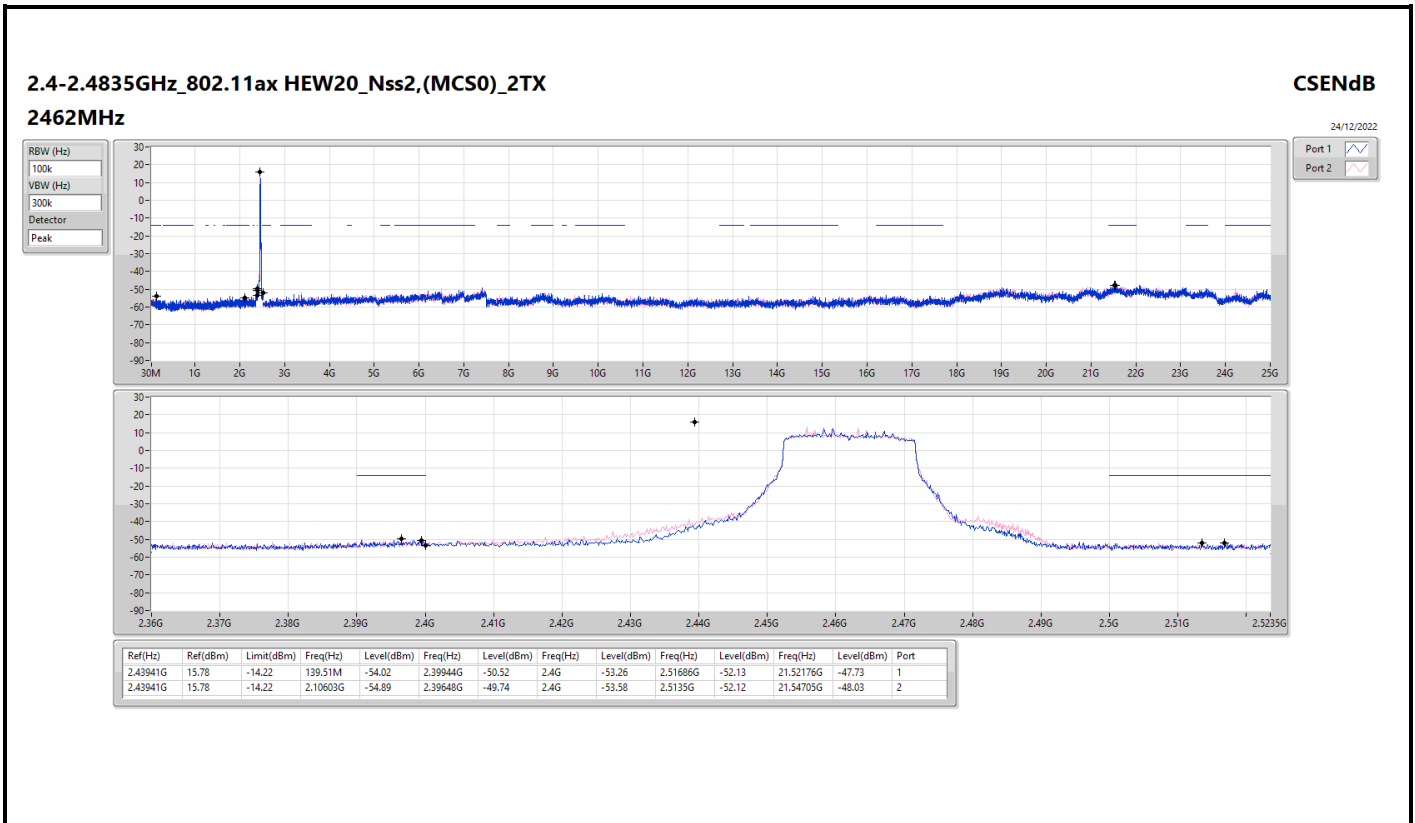


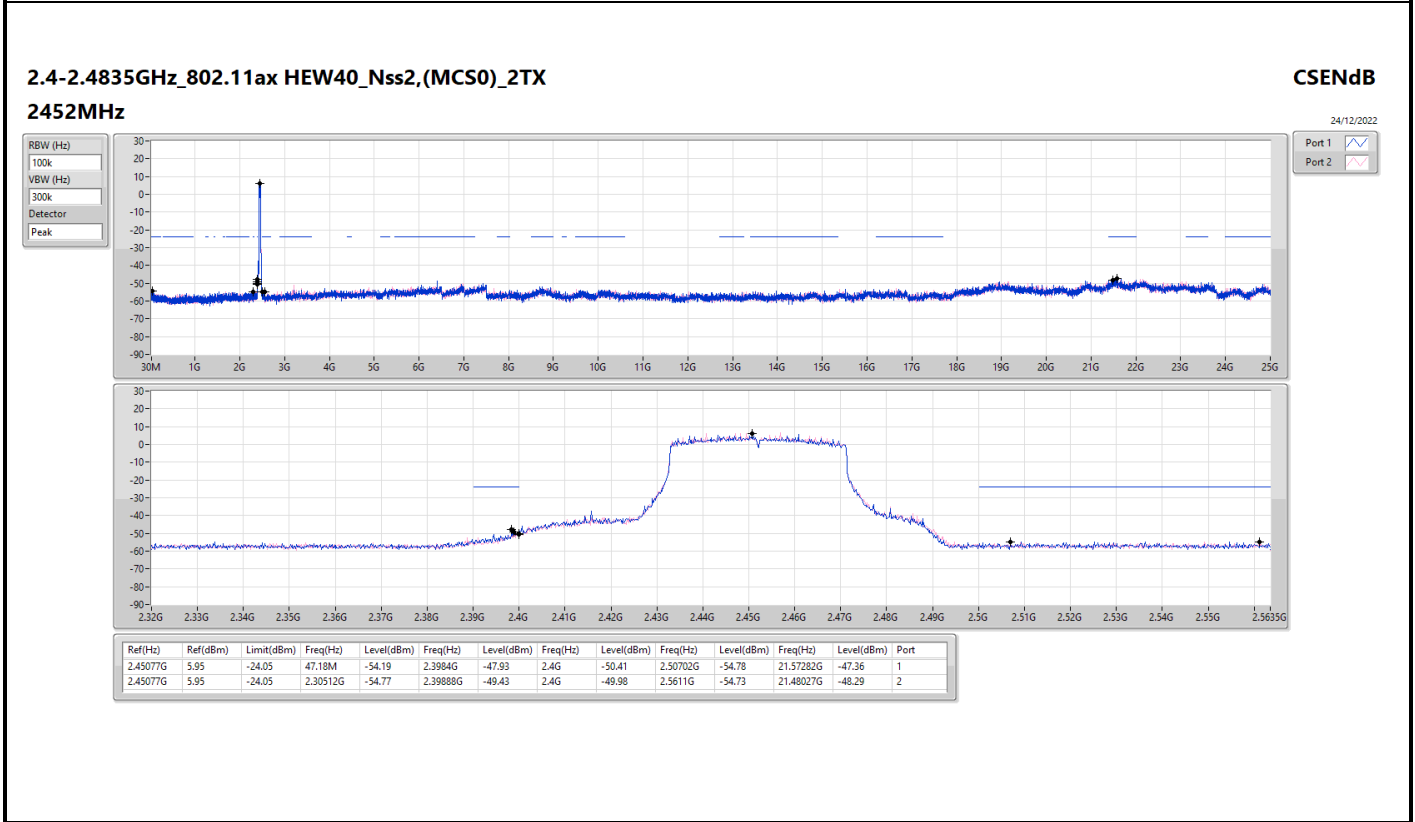
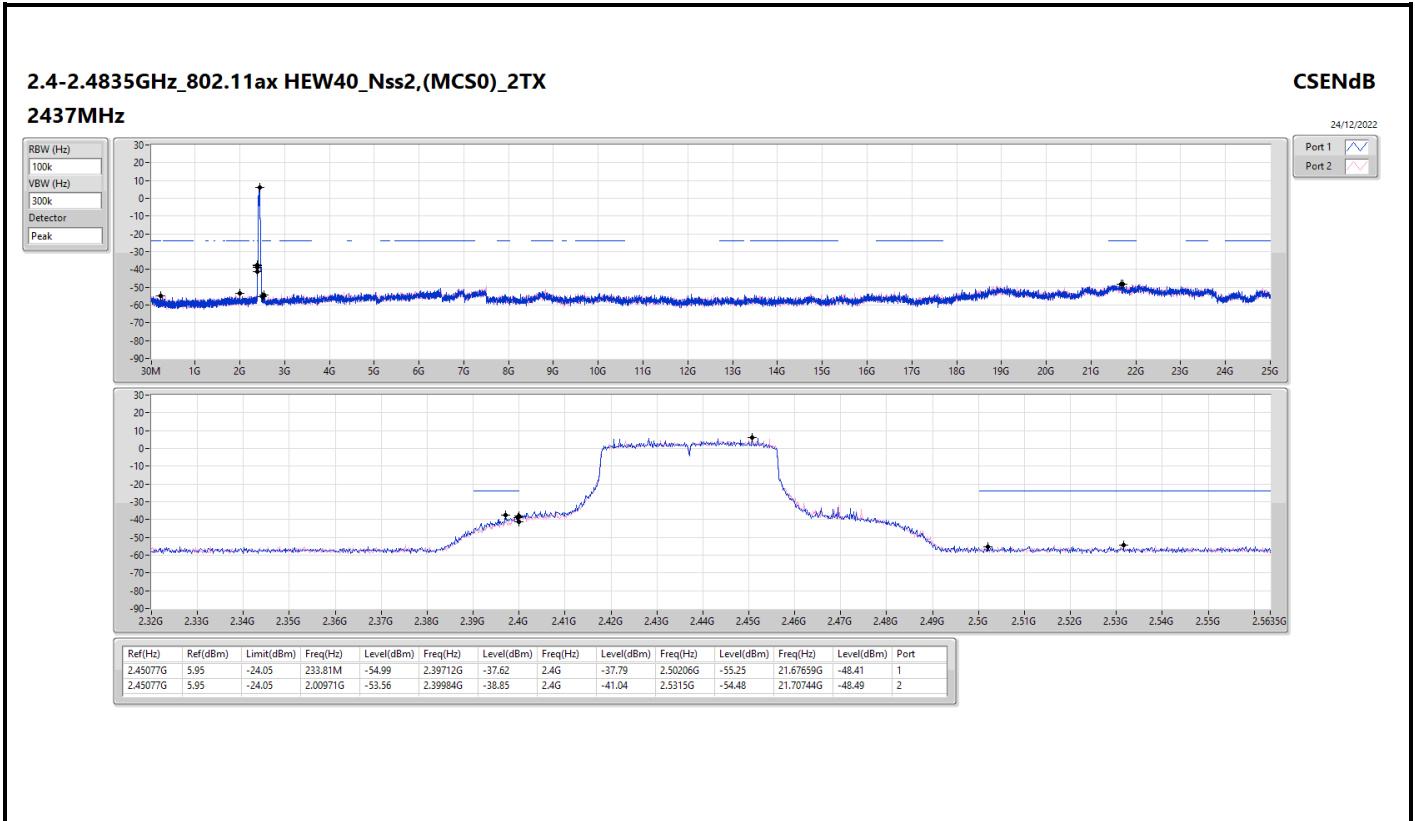


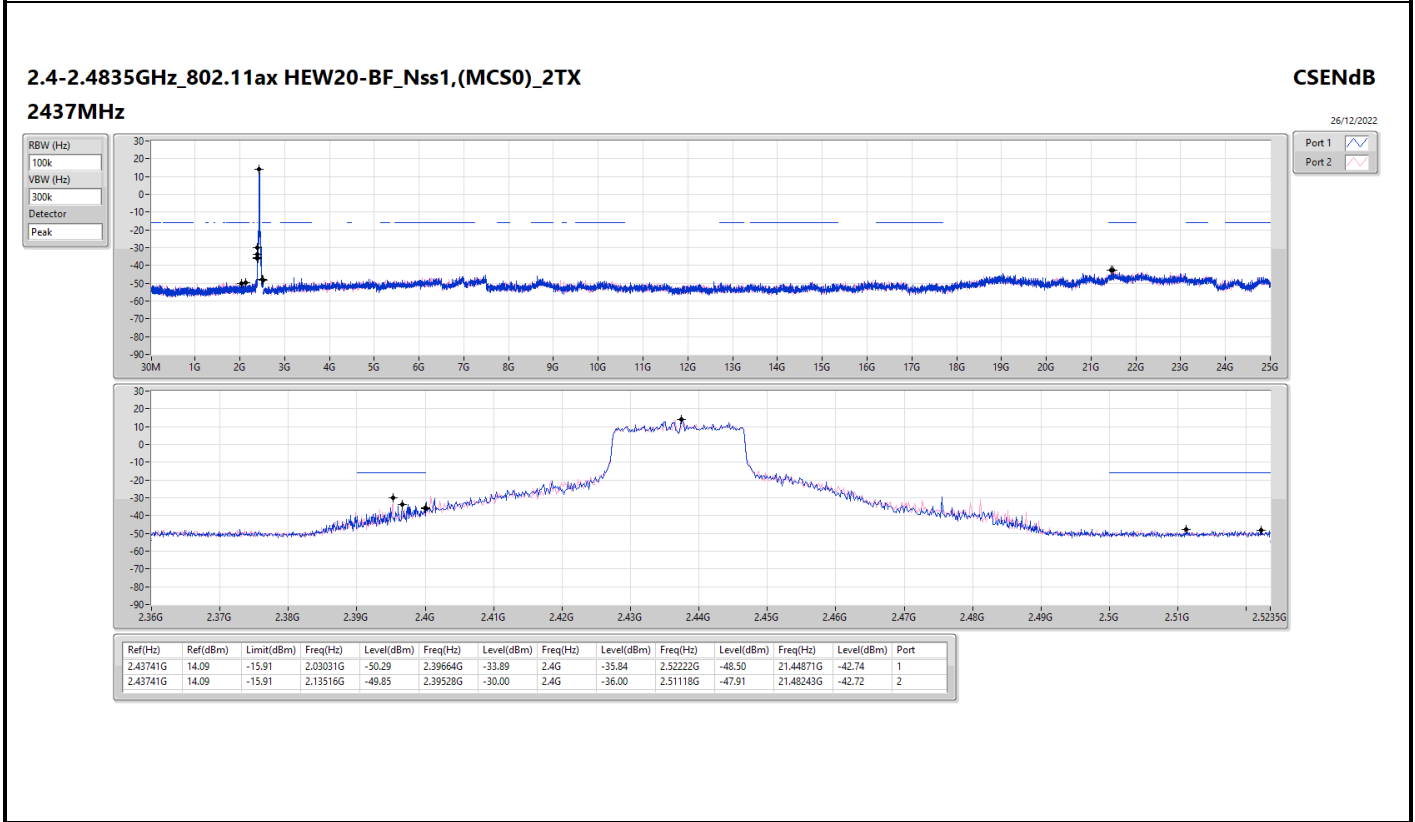
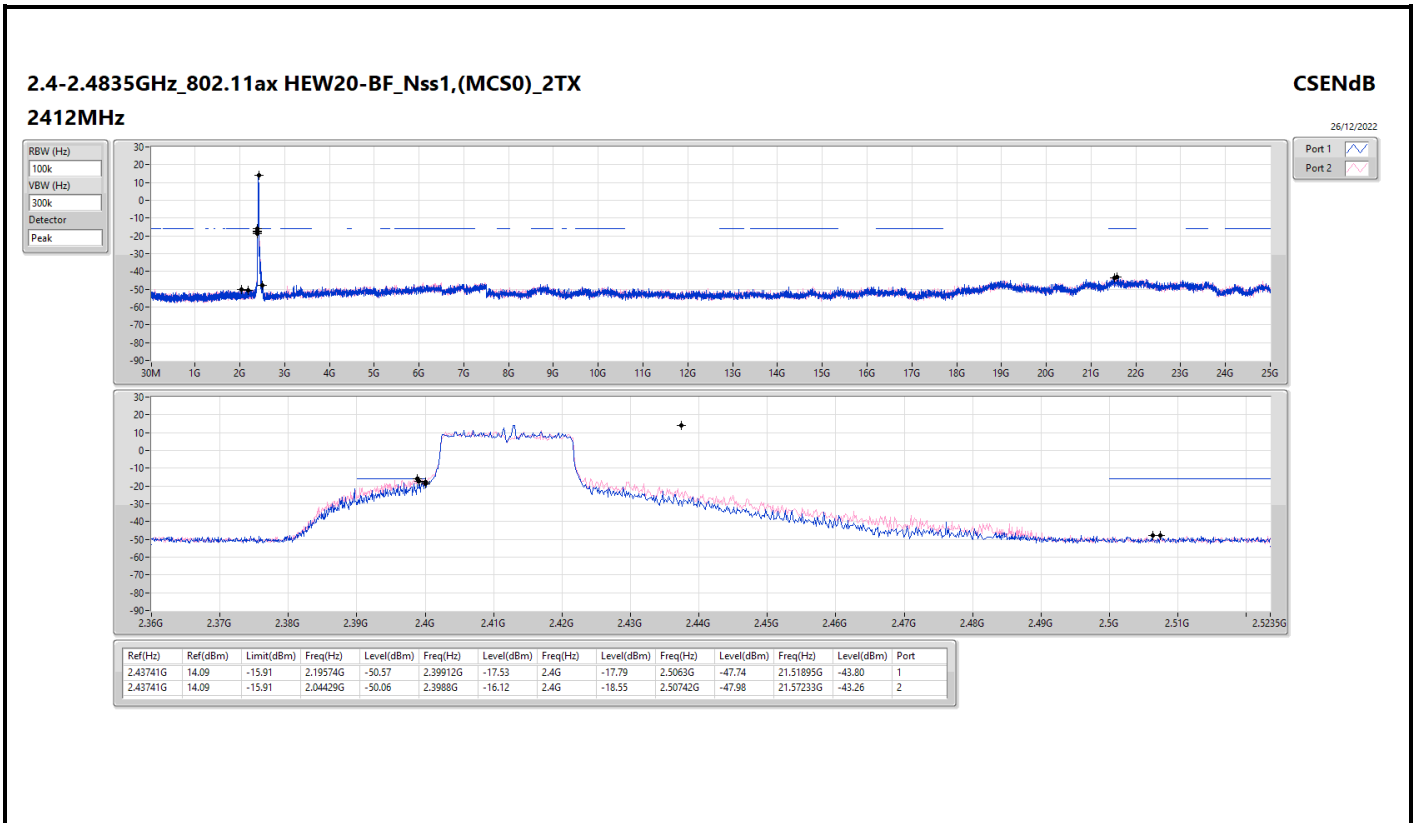


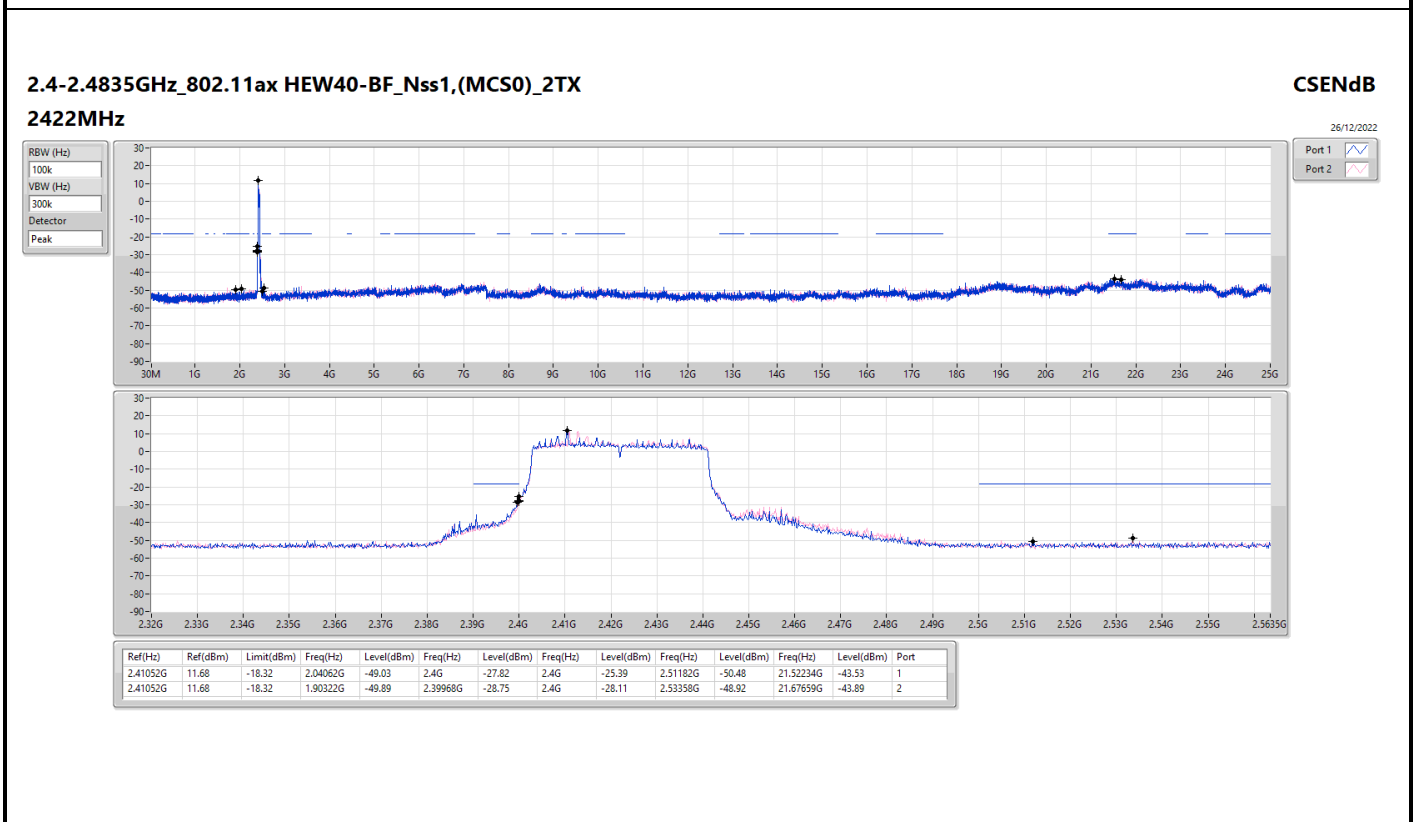
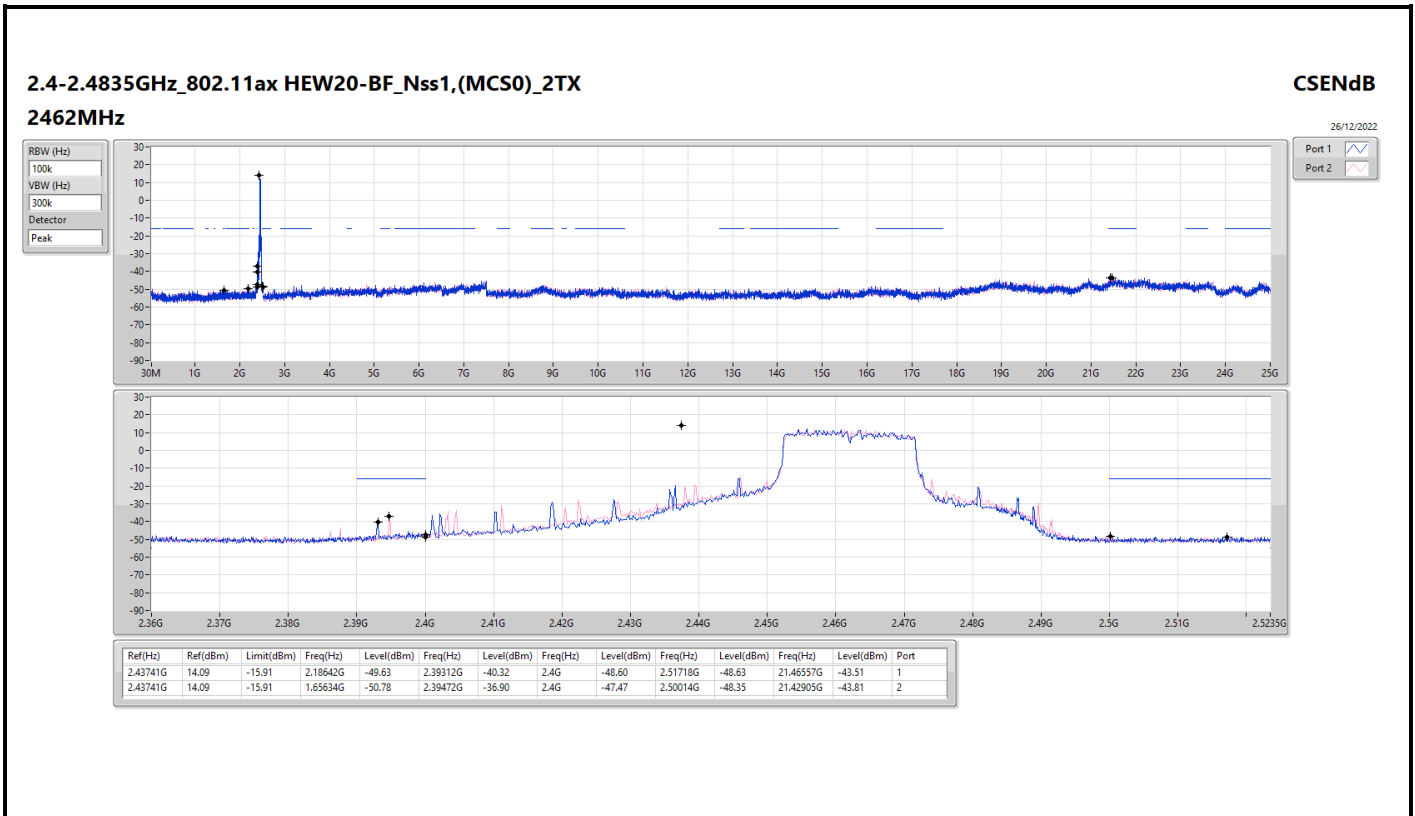


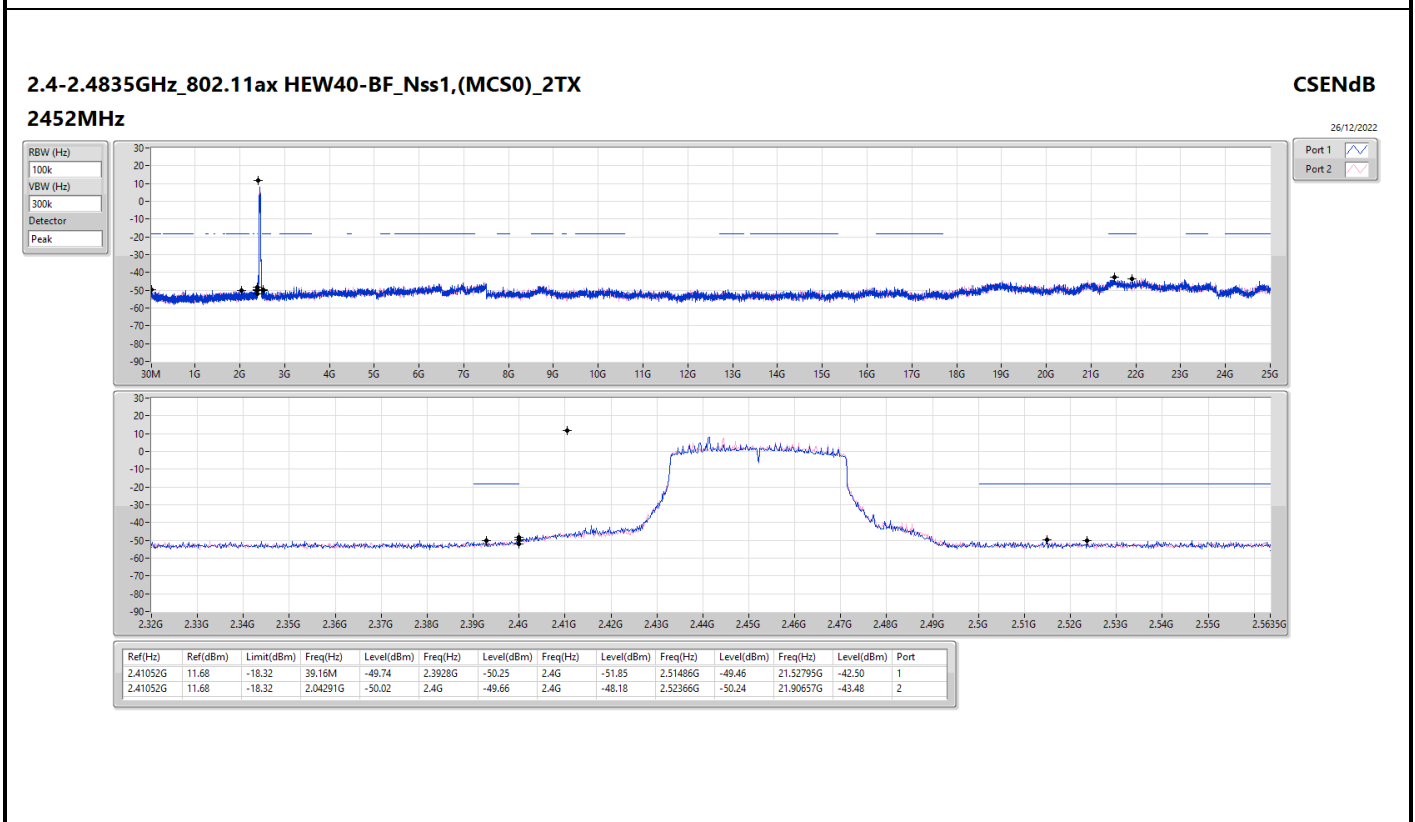
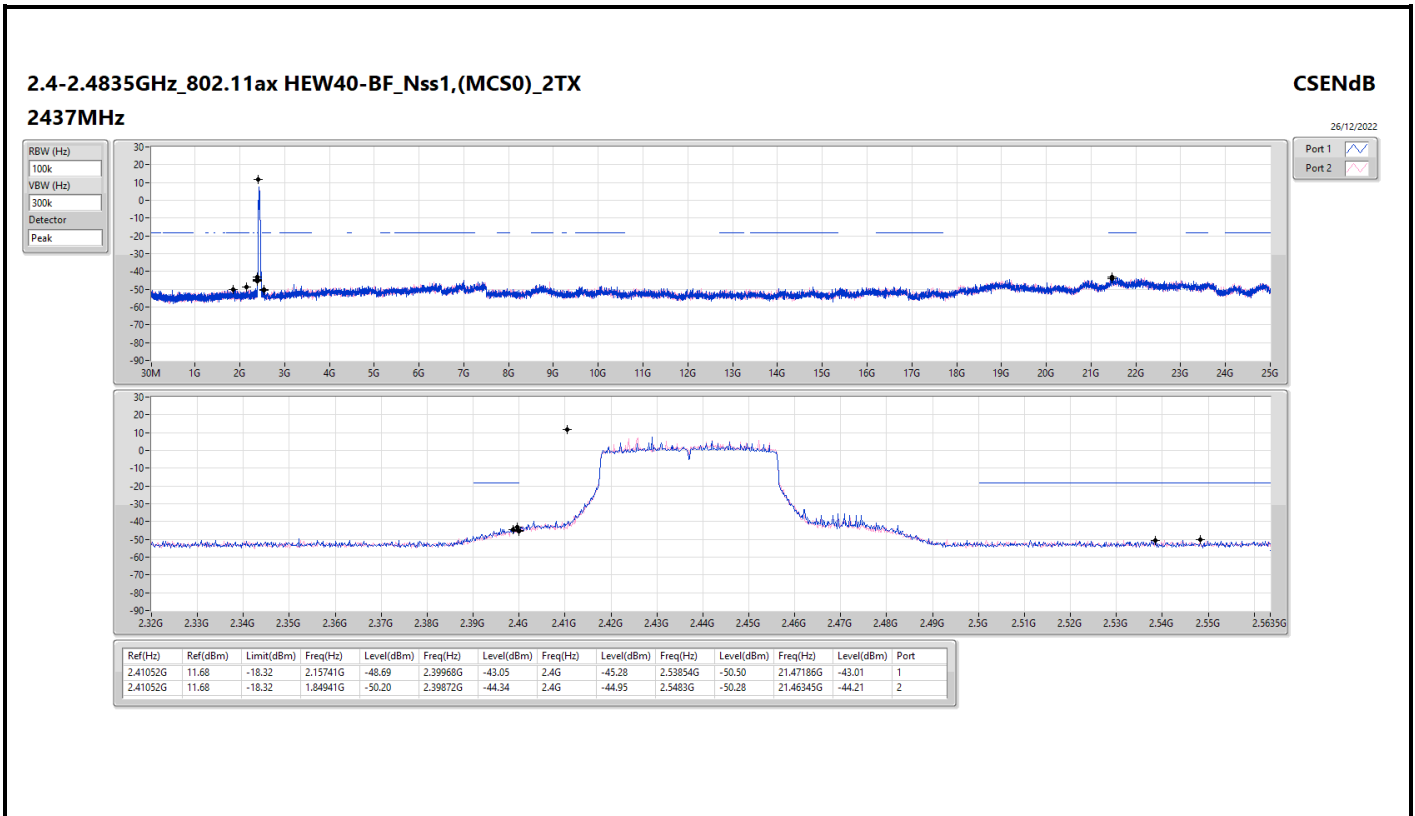












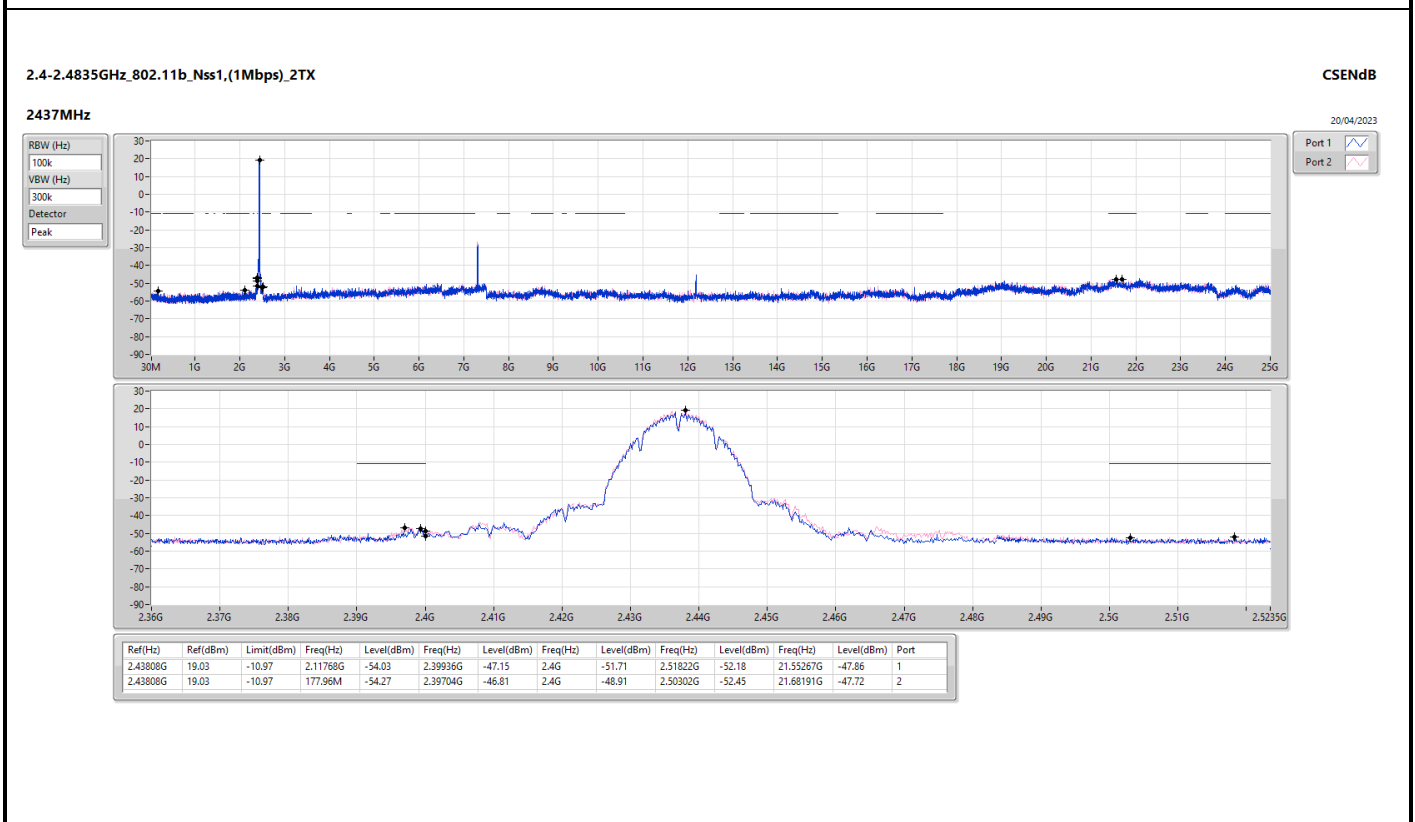
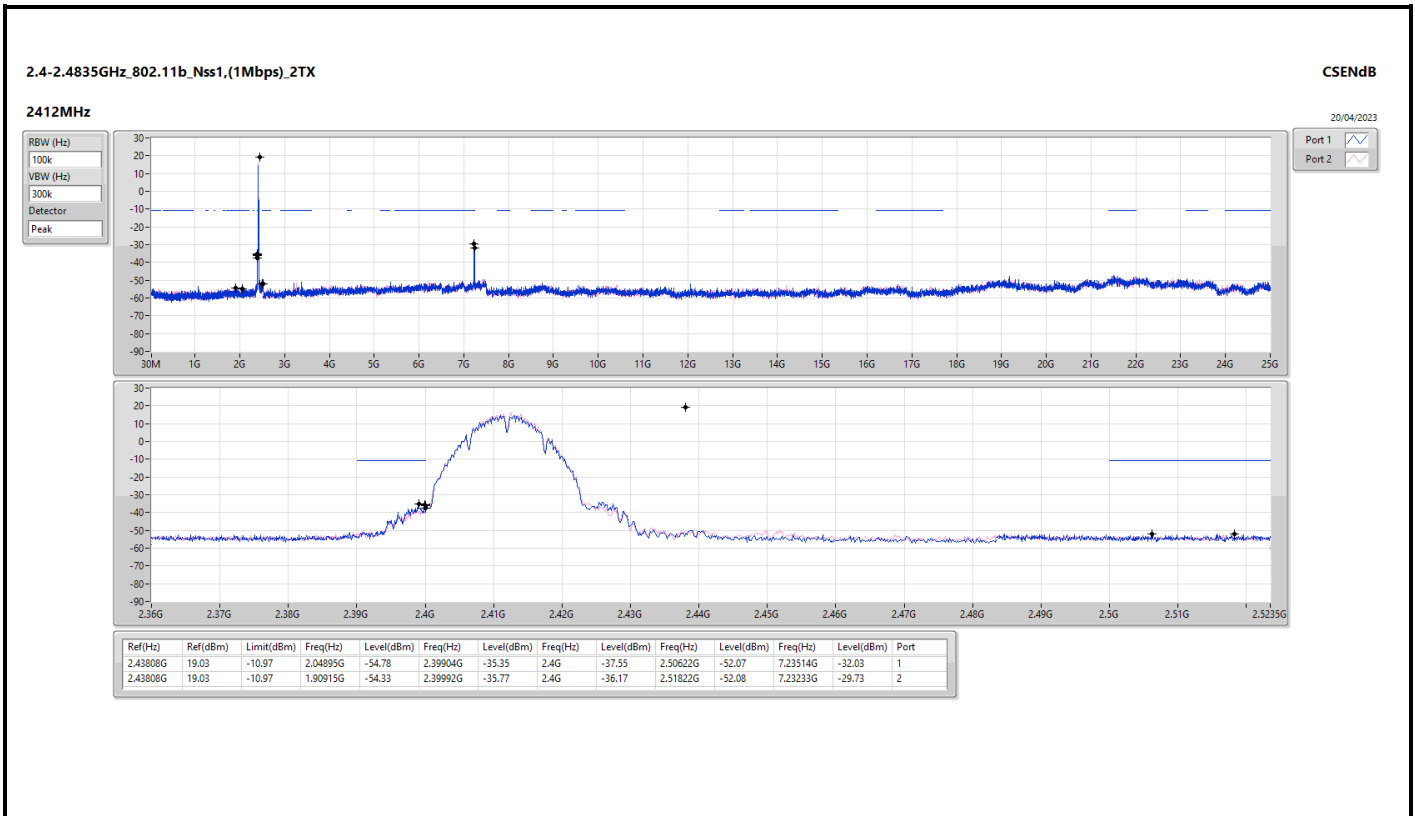
Summary

Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
802.11b_Nss1,(1Mbps)_2TX	Pass	2.43808G	19.03	-10.97	2.04895G	-54.78	2.39904G	-35.35	2.4G	-37.55	2.50622G	-52.07	7.23514G	-32.03	1
802.11g_Nss1,(6Mbps)_2TX	Pass	2.44208G	14.66	-15.34	2.08506G	-54.08	2.39992G	-27.04	2.4G	-25.03	2.51046G	-52.00	7.22952G	-36.95	1
802.11ax HEW20_Nss1,(MCS0)_2TX	Pass	2.44075G	13.02	-16.98	2.12118G	-54.63	2.39992G	-27.42	2.4G	-25.64	2.51222G	-51.69	7.23795G	-39.54	2
802.11ax HEW20_Nss2,(MCS0)_2TX	Pass	2.44459G	15.80	-14.20	1.96623G	-54.35	2.4G	-23.60	2.4G	-26.30	2.5107G	-51.04	7.23233G	-40.87	1
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	Pass	2.43808G	14.28	-15.72	2.18176G	-49.92	2.39976G	-23.89	2.4G	-24.55	2.51542G	-46.71	7.24637G	-41.14	2
802.11ax HEW40_Nss1,(MCS0)_2TX	Pass	2.44075G	7.96	-22.04	215.49M	-55.12	2.4G	-28.43	2.4G	-30.53	2.5403G	-53.39	7.24992G	-42.48	1
802.11ax HEW40_Nss2,(MCS0)_2TX	Pass	2.44576G	6.04	-23.96	2.19291G	-53.08	2.39984G	-31.51	2.4G	-29.04	2.55854G	-54.72	7.24992G	-43.88	2
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	Pass	2.42538G	10.26	-19.74	2.11505G	-49.28	2.39984G	-29.20	2.4G	-30.15	2.54062G	-49.42	21.51112G	-42.71	1

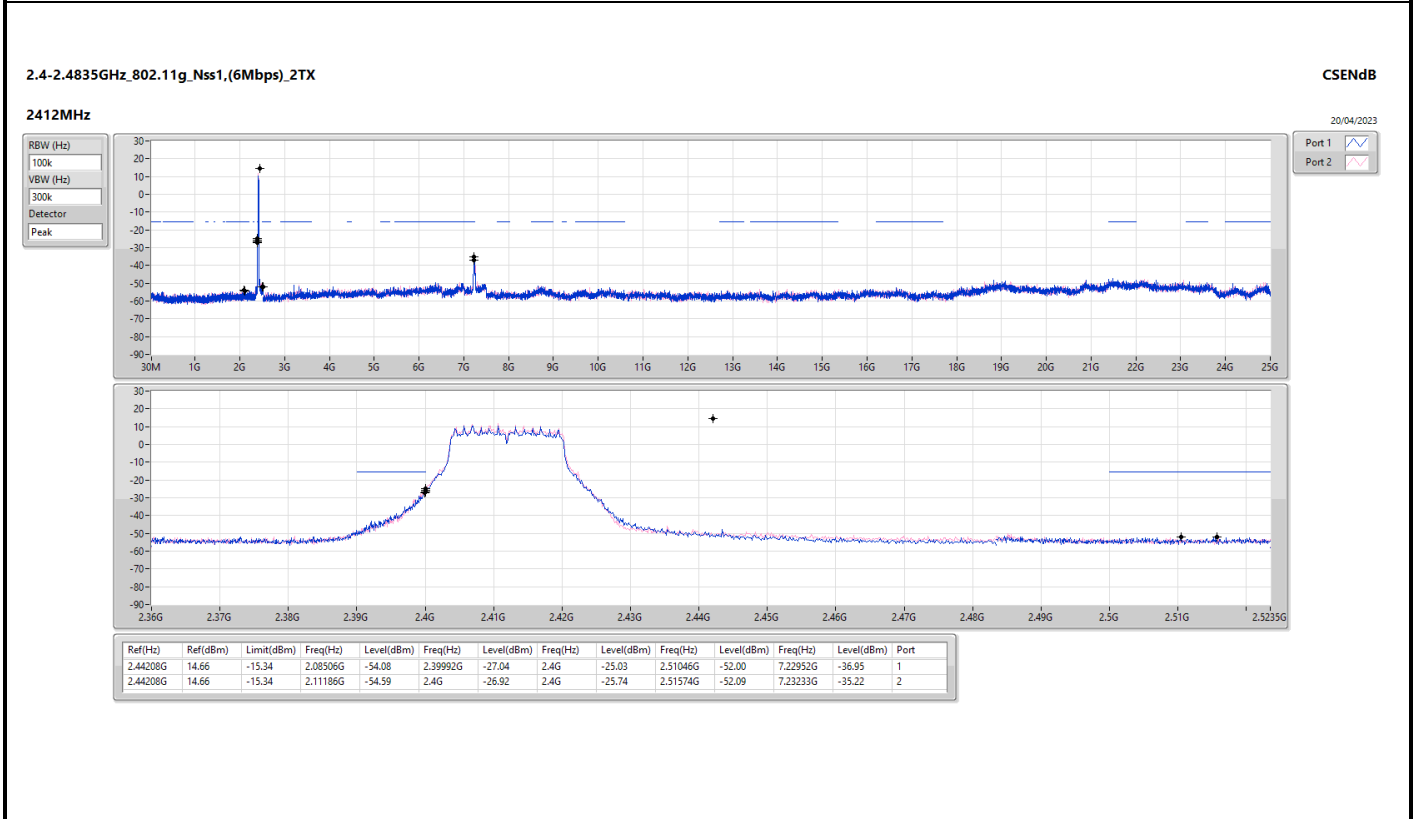
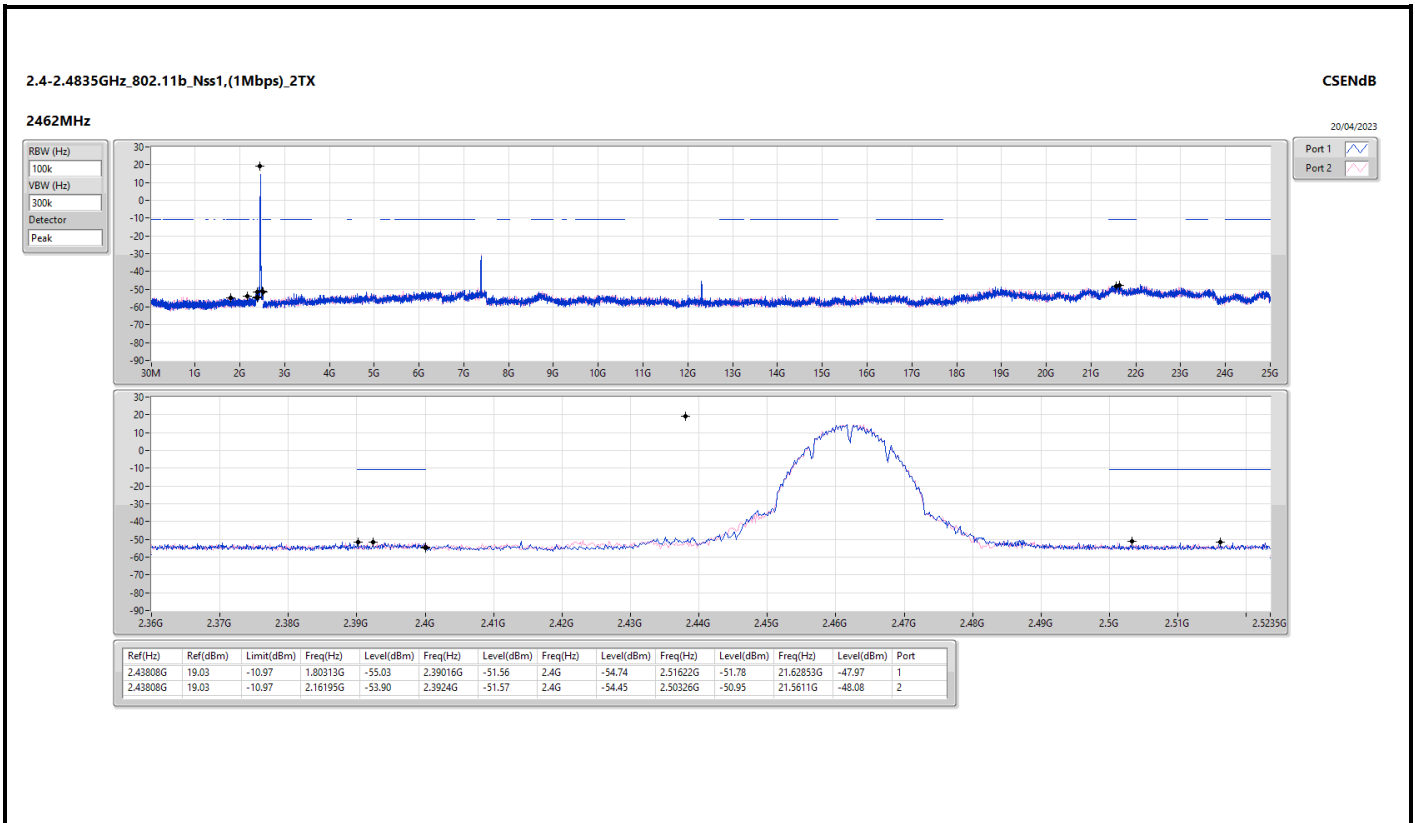


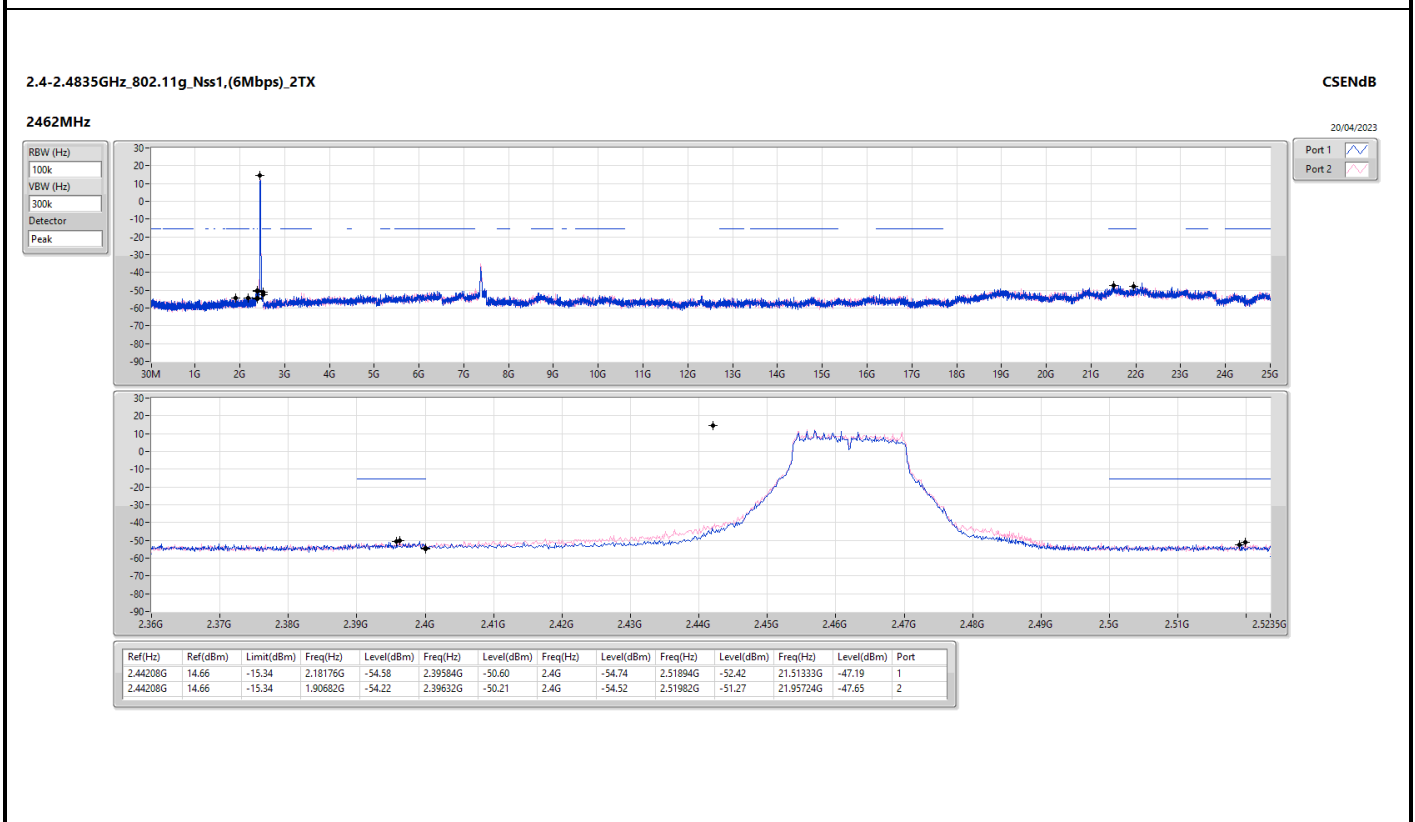
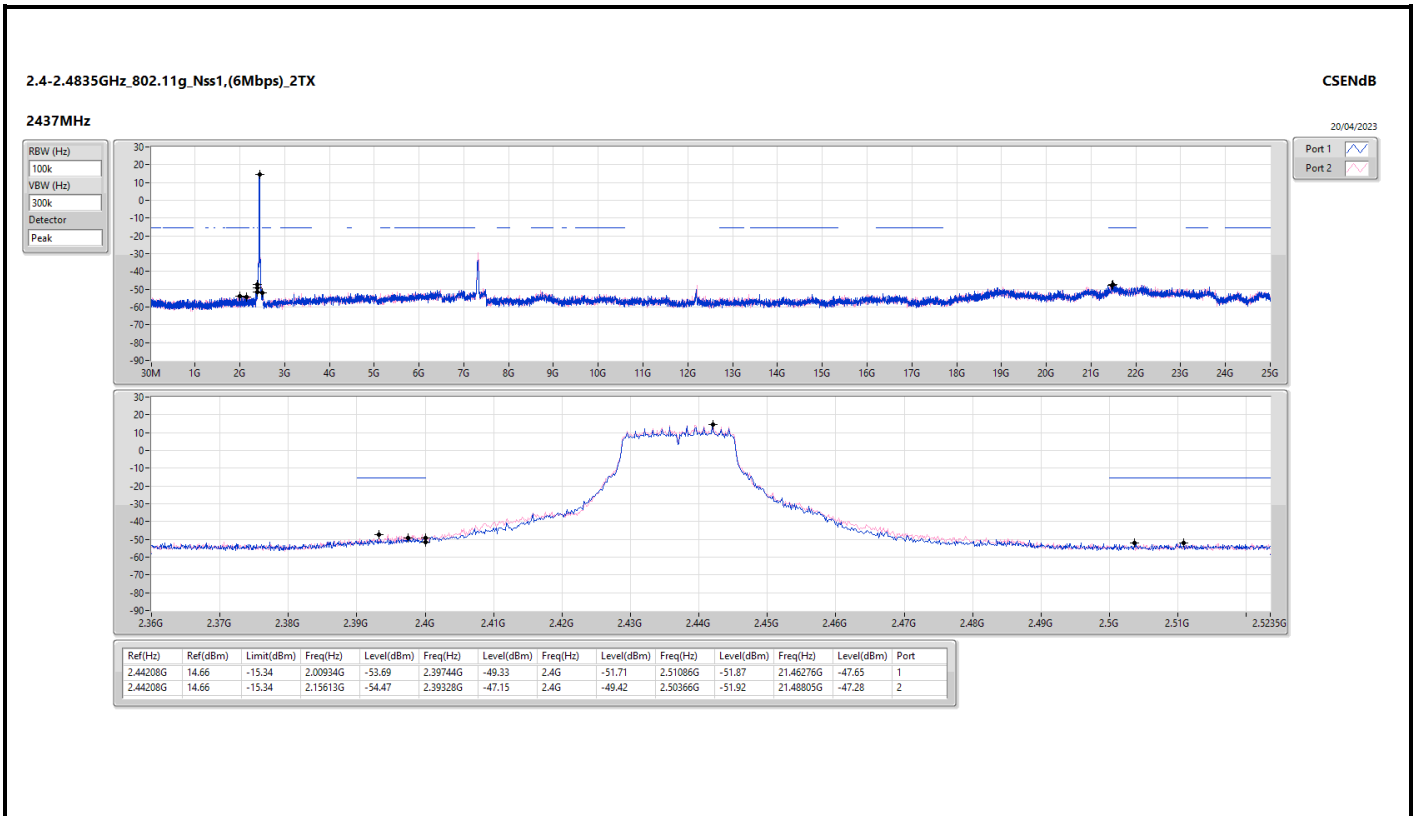
Result

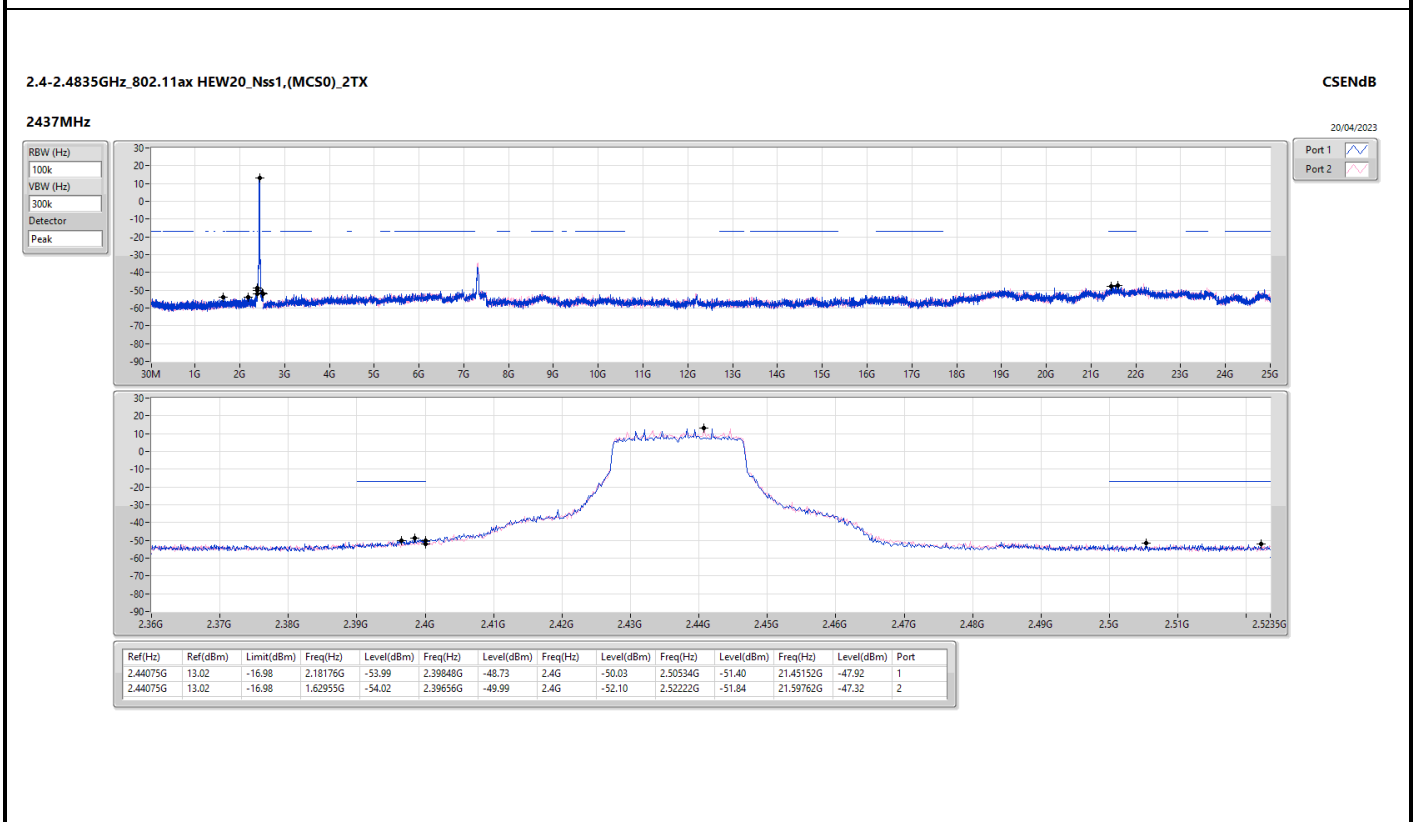
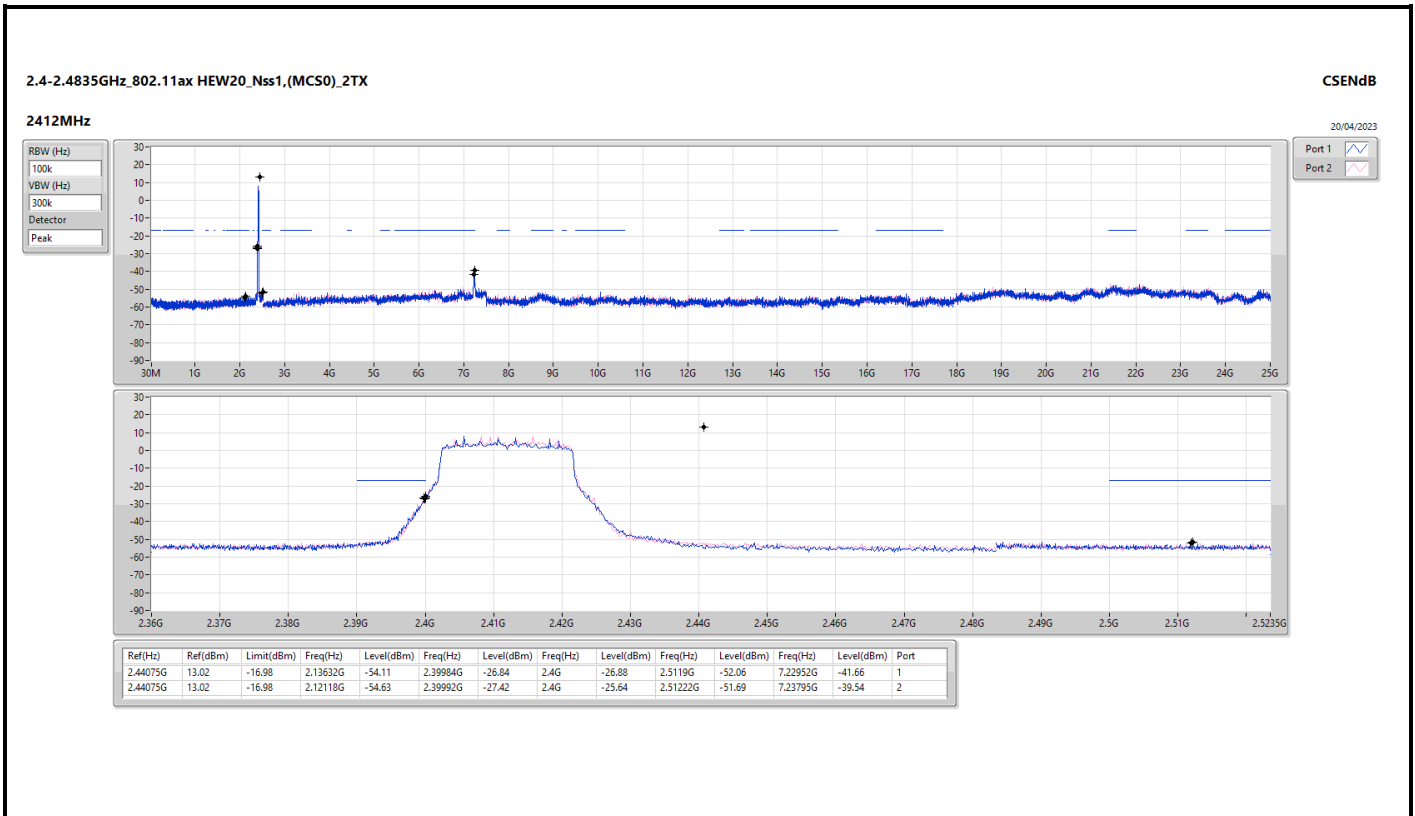
Table with 16 columns: Mode, Result, Ref (Hz), Ref (dBm), Limit (dBm), Freq (Hz), Level (dBm), Freq (Hz), Level (dBm), Freq (Hz), Level (dBm), Freq (Hz), Level (dBm), Freq (Hz), Level (dBm), Port. Rows include test configurations like 802.11b\_Nss1, 802.11g\_Nss1, 802.11ax HEW20, etc.

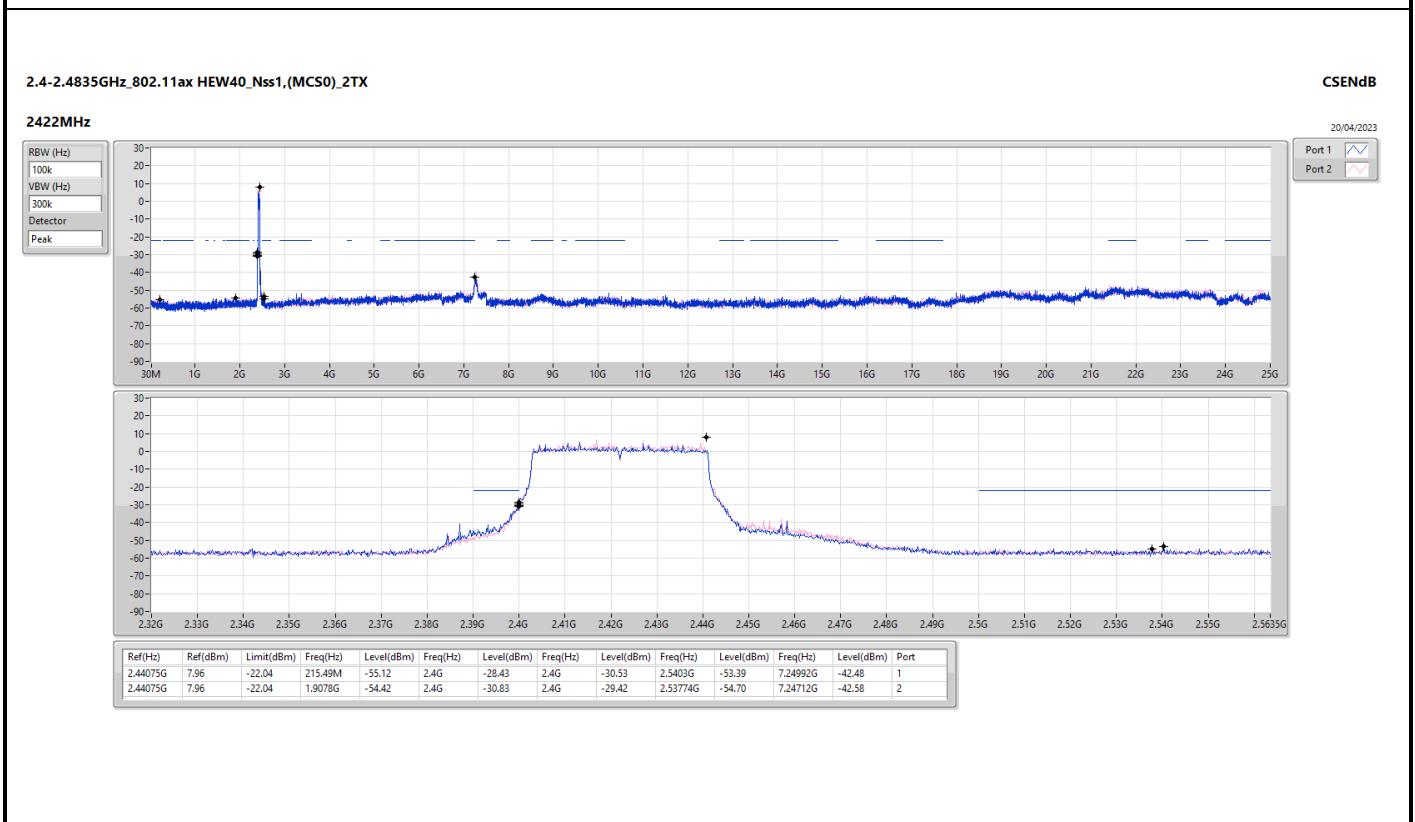
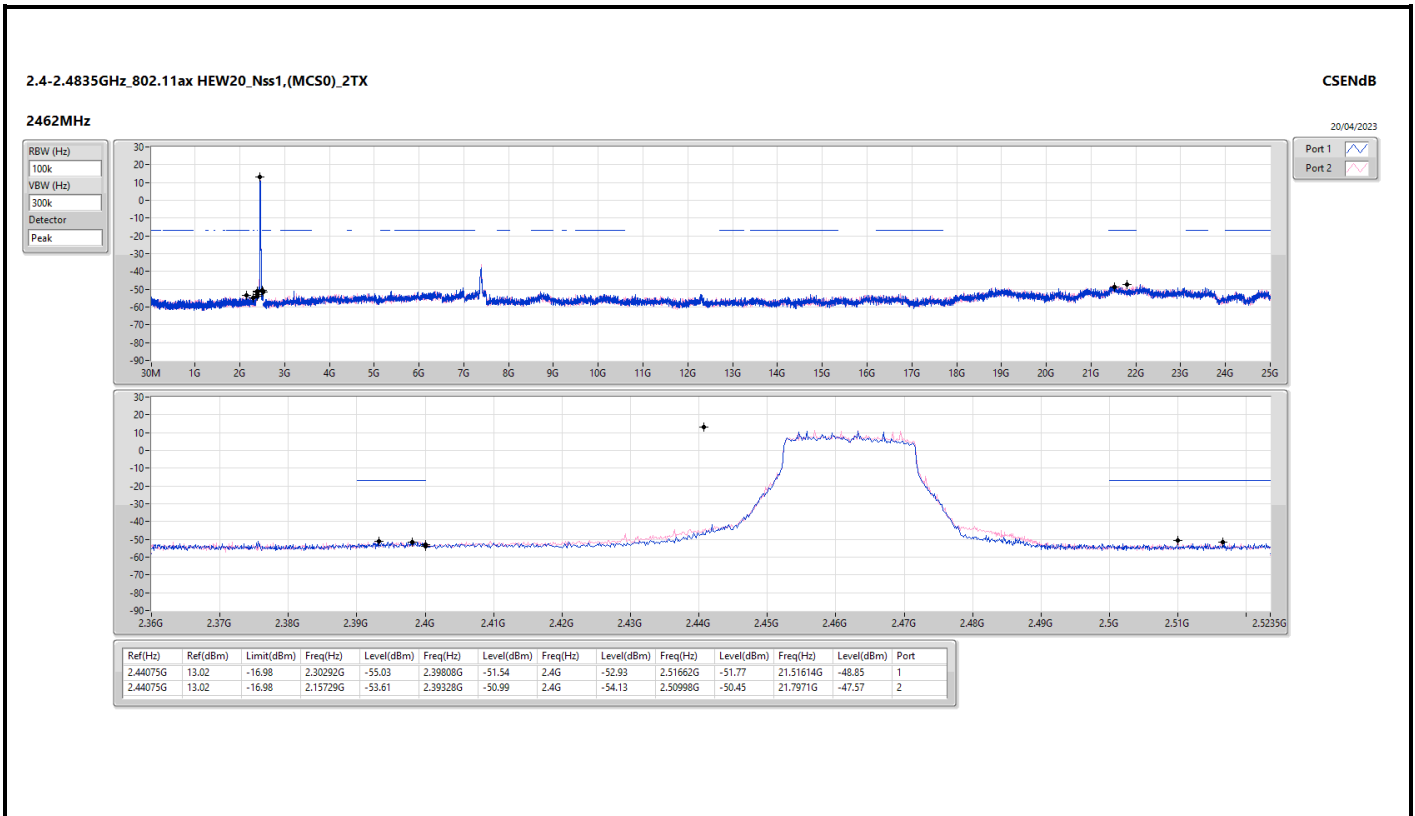


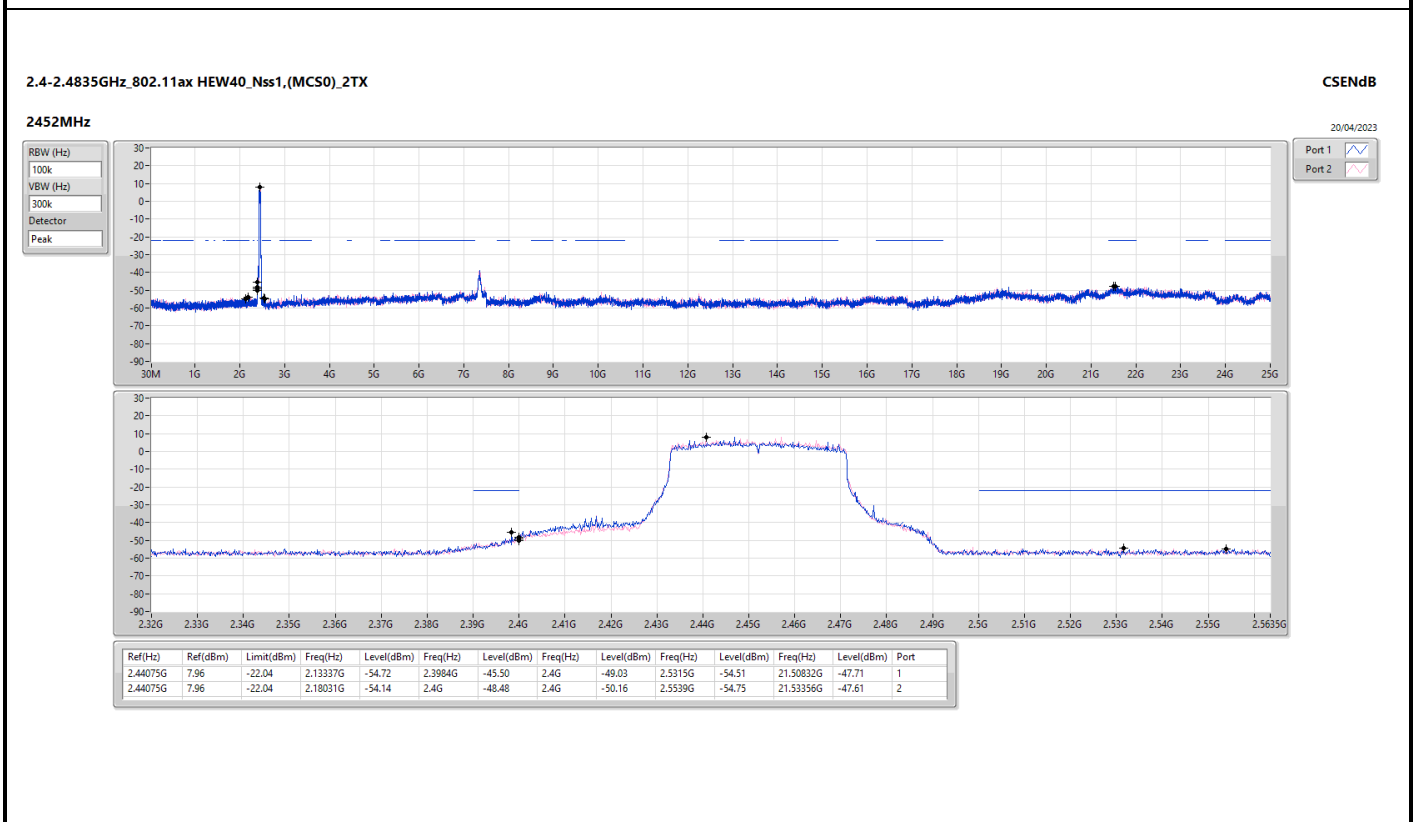
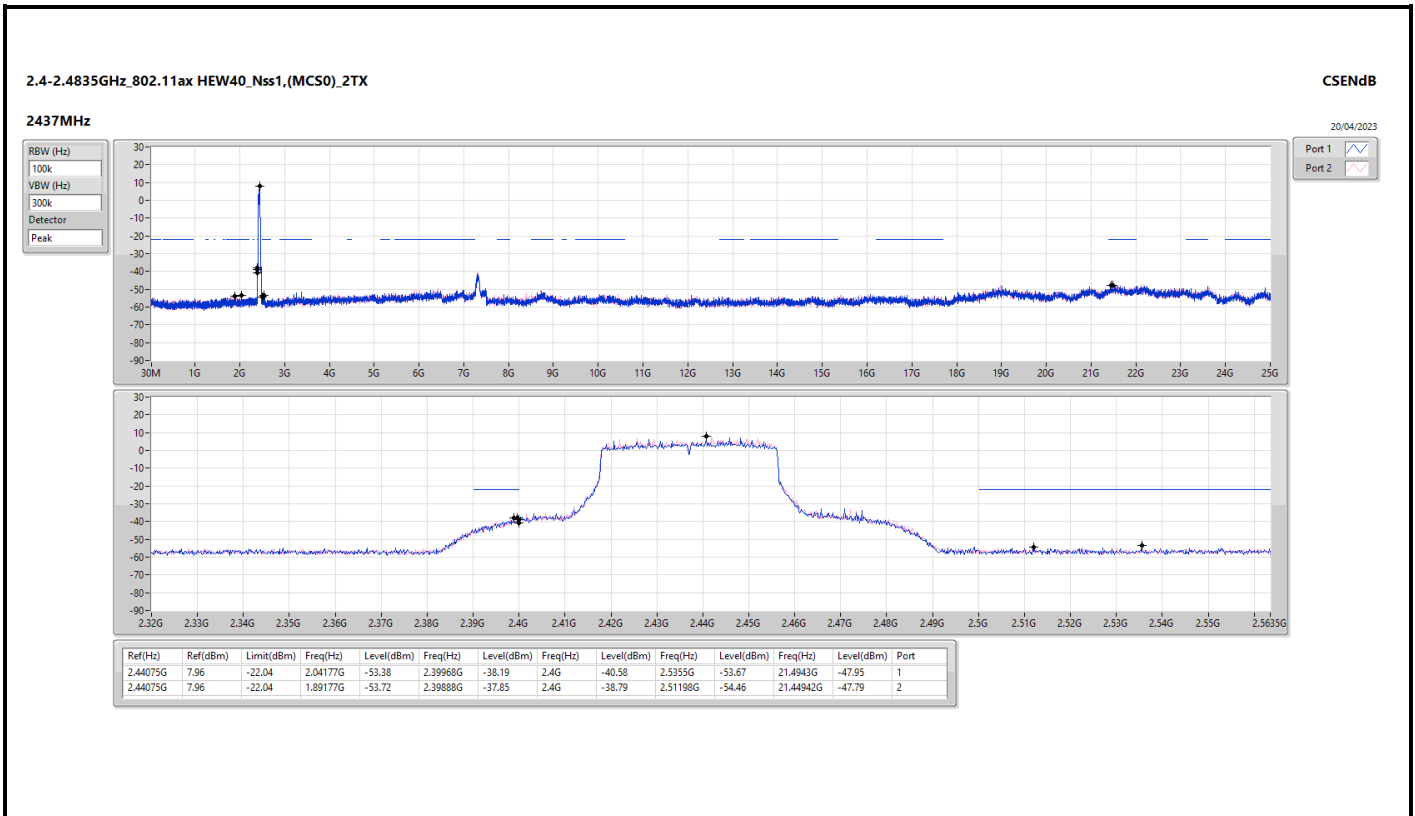


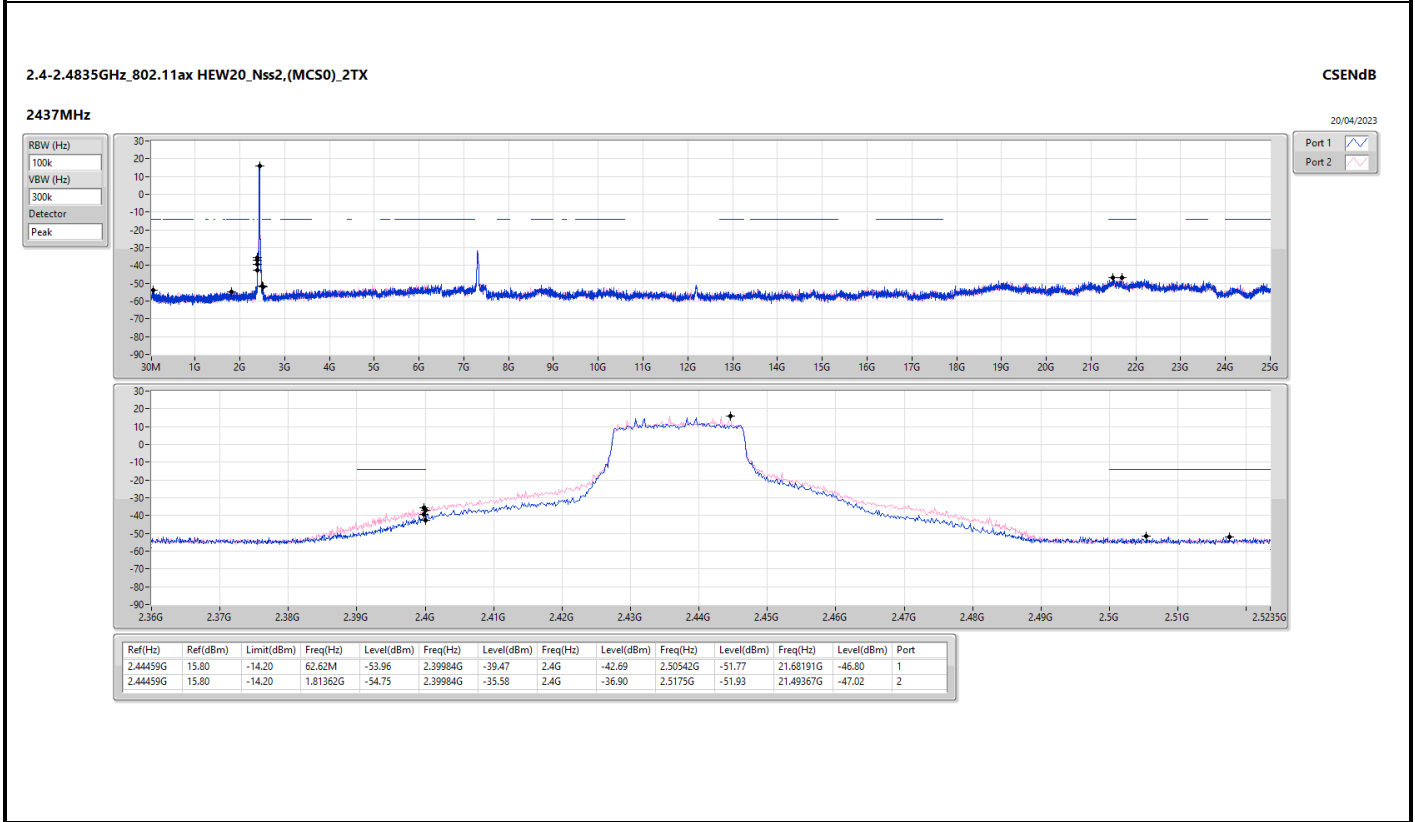
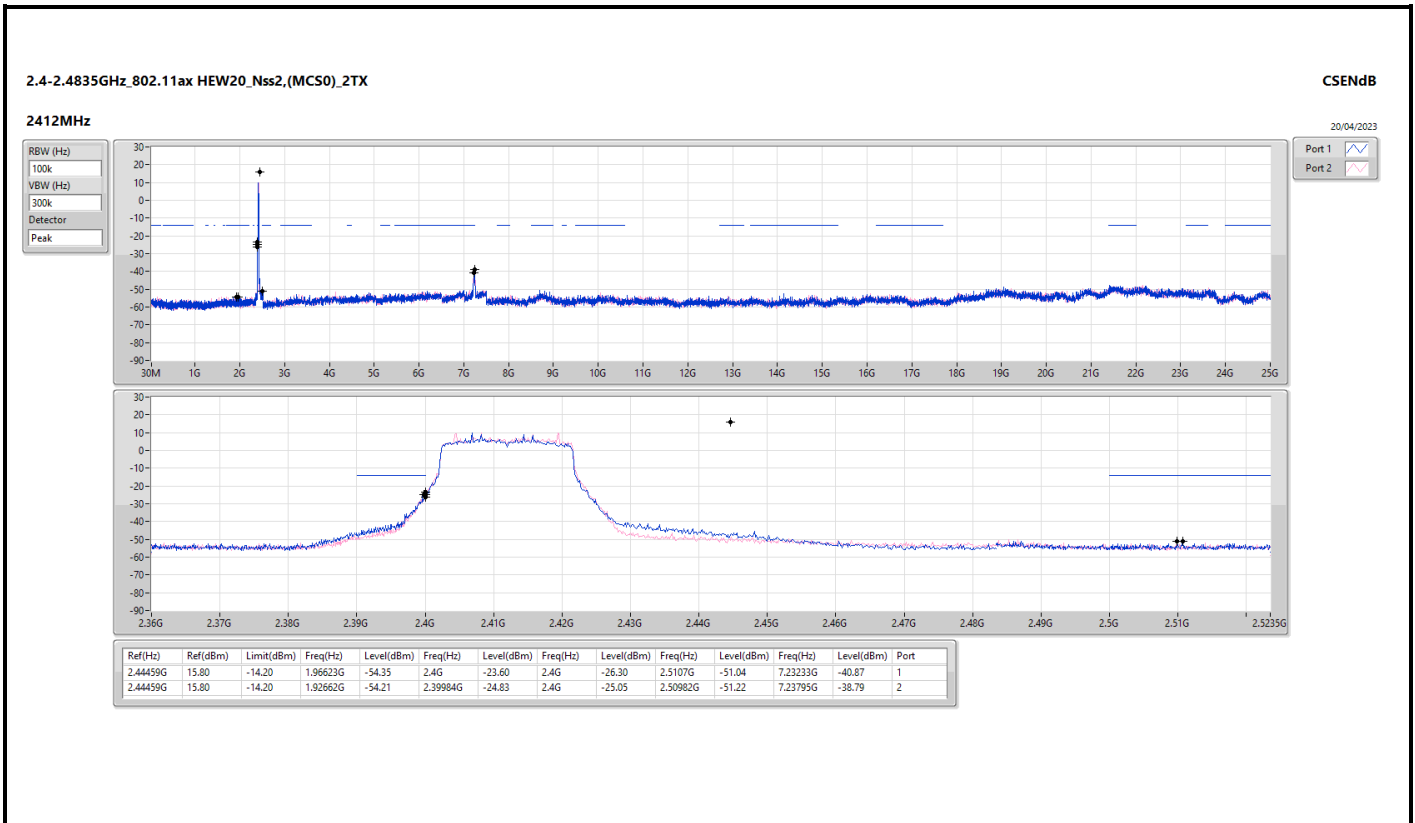


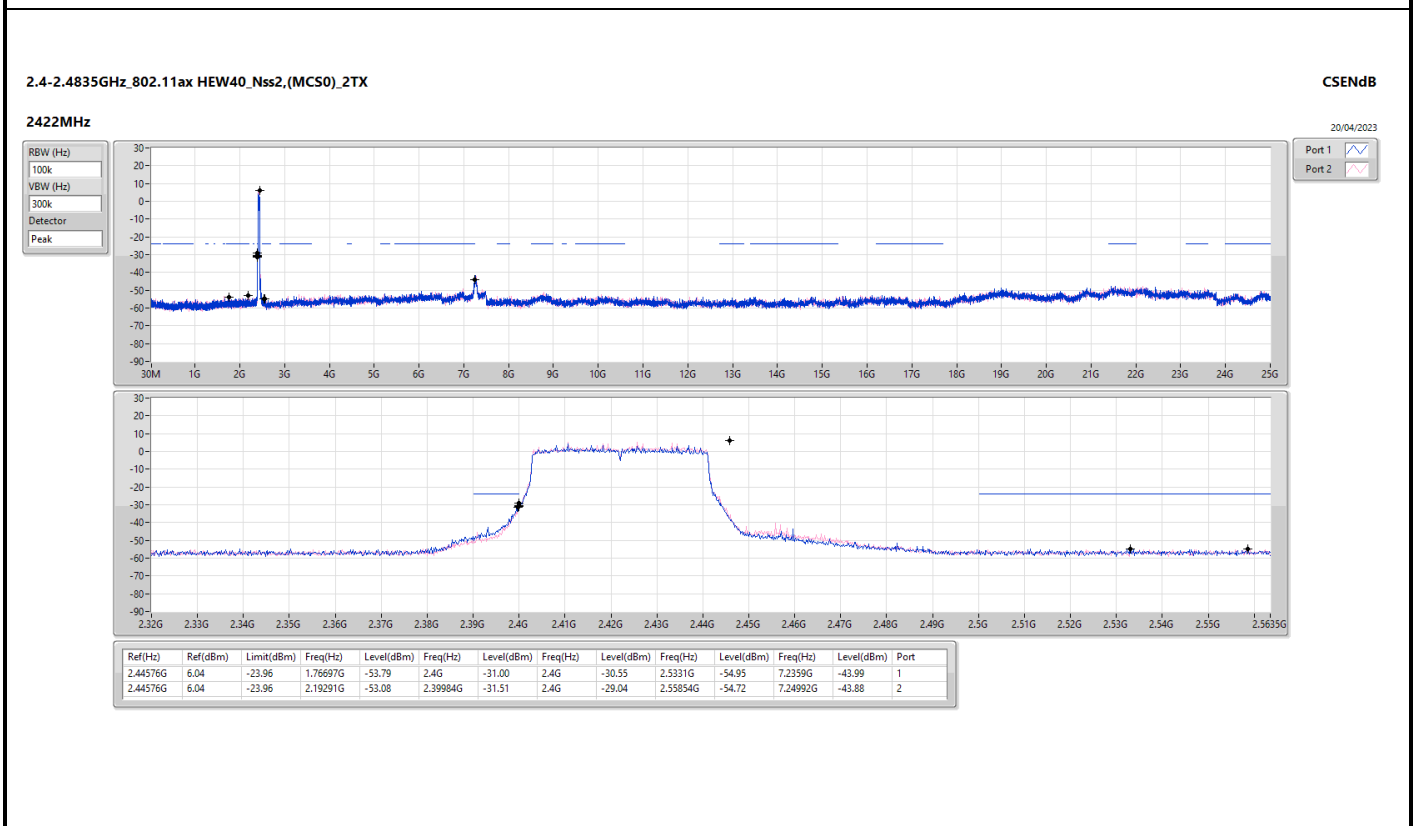
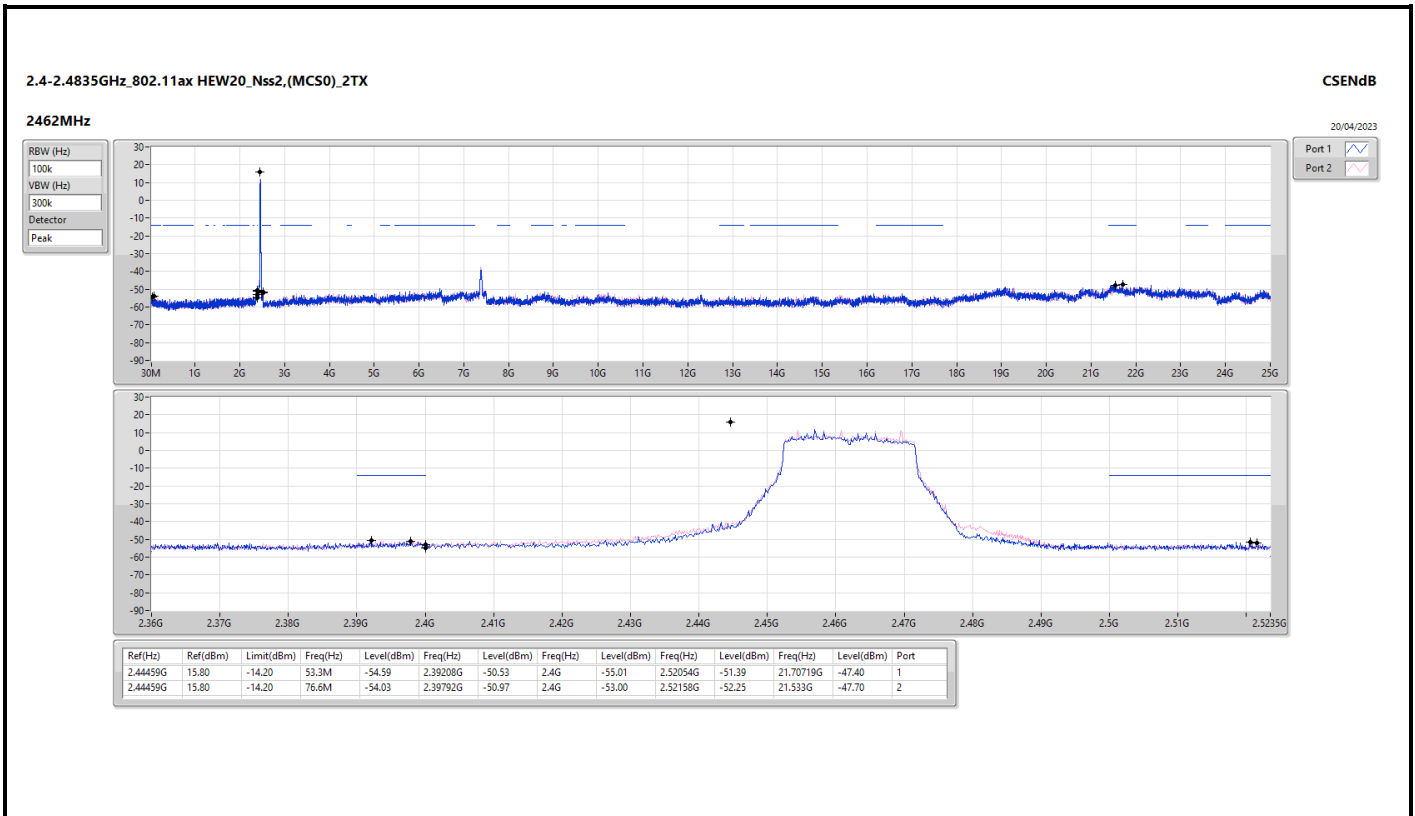


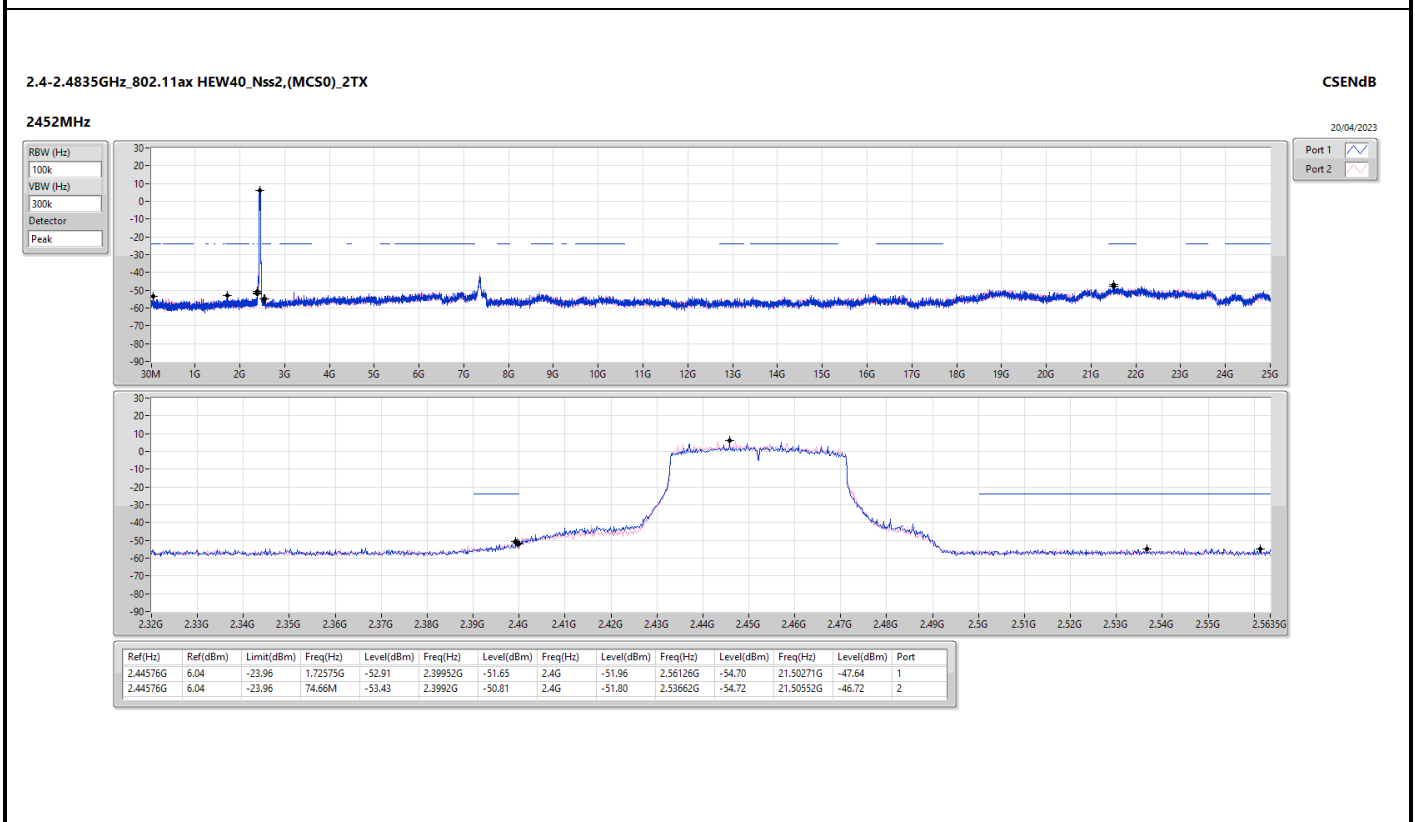
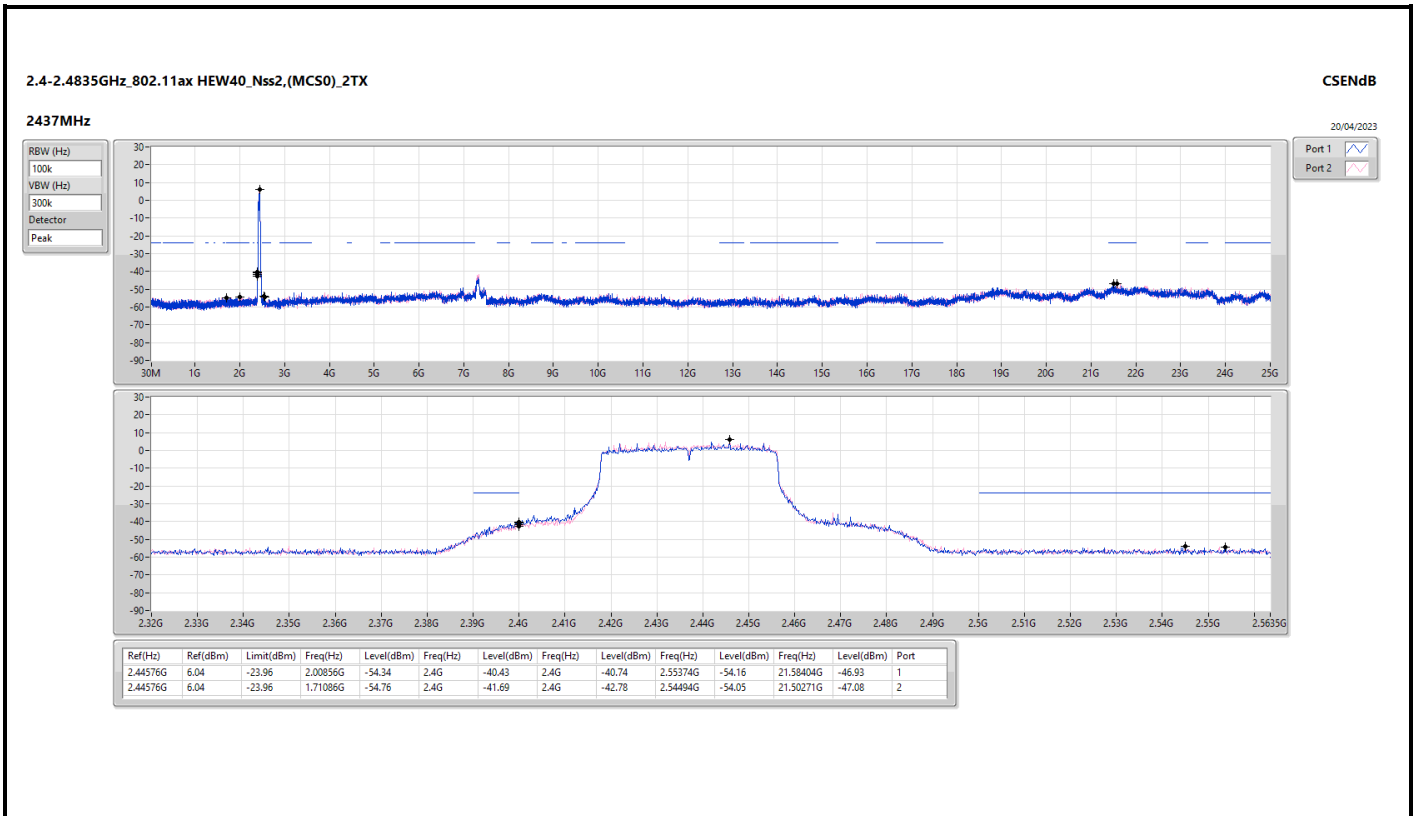




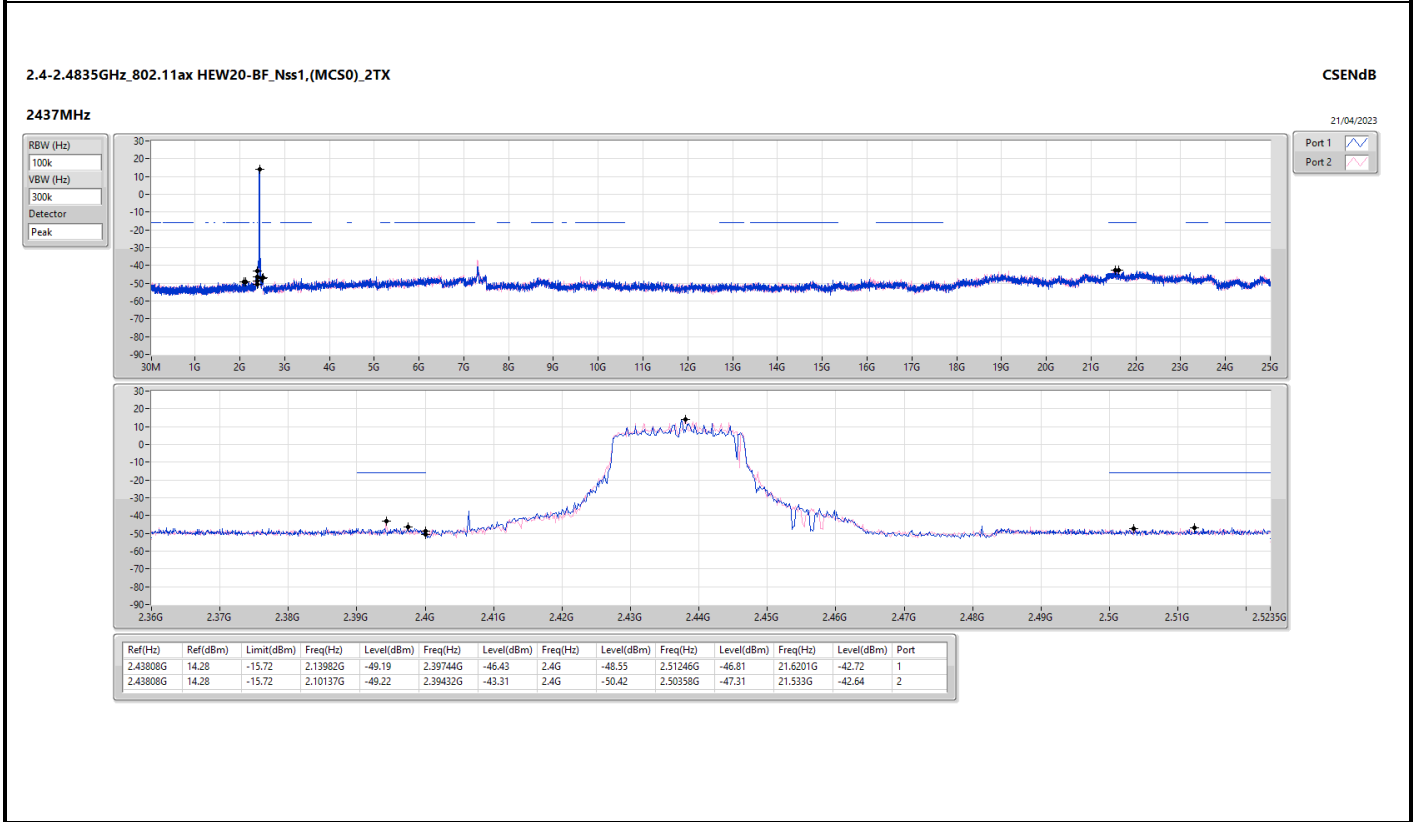
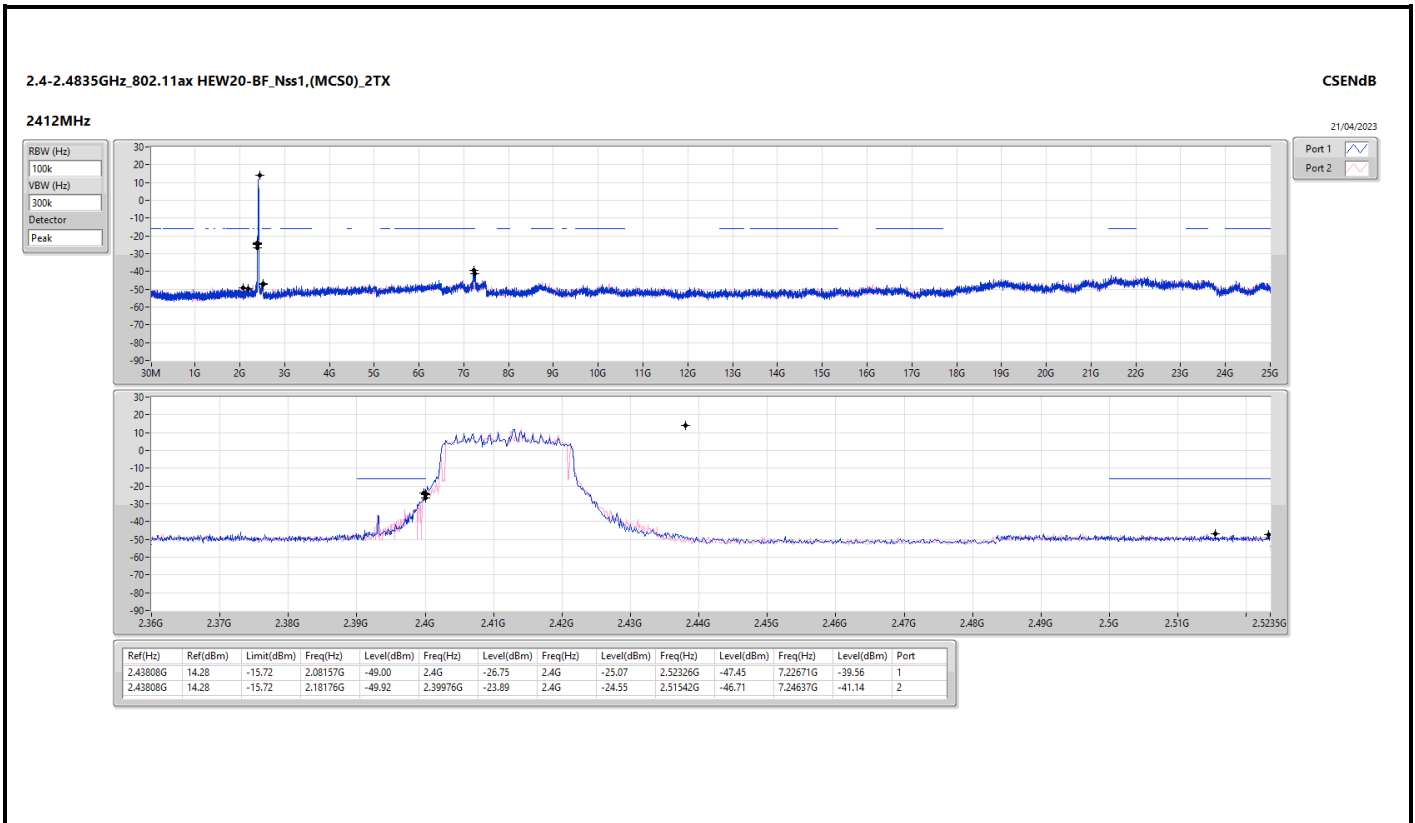


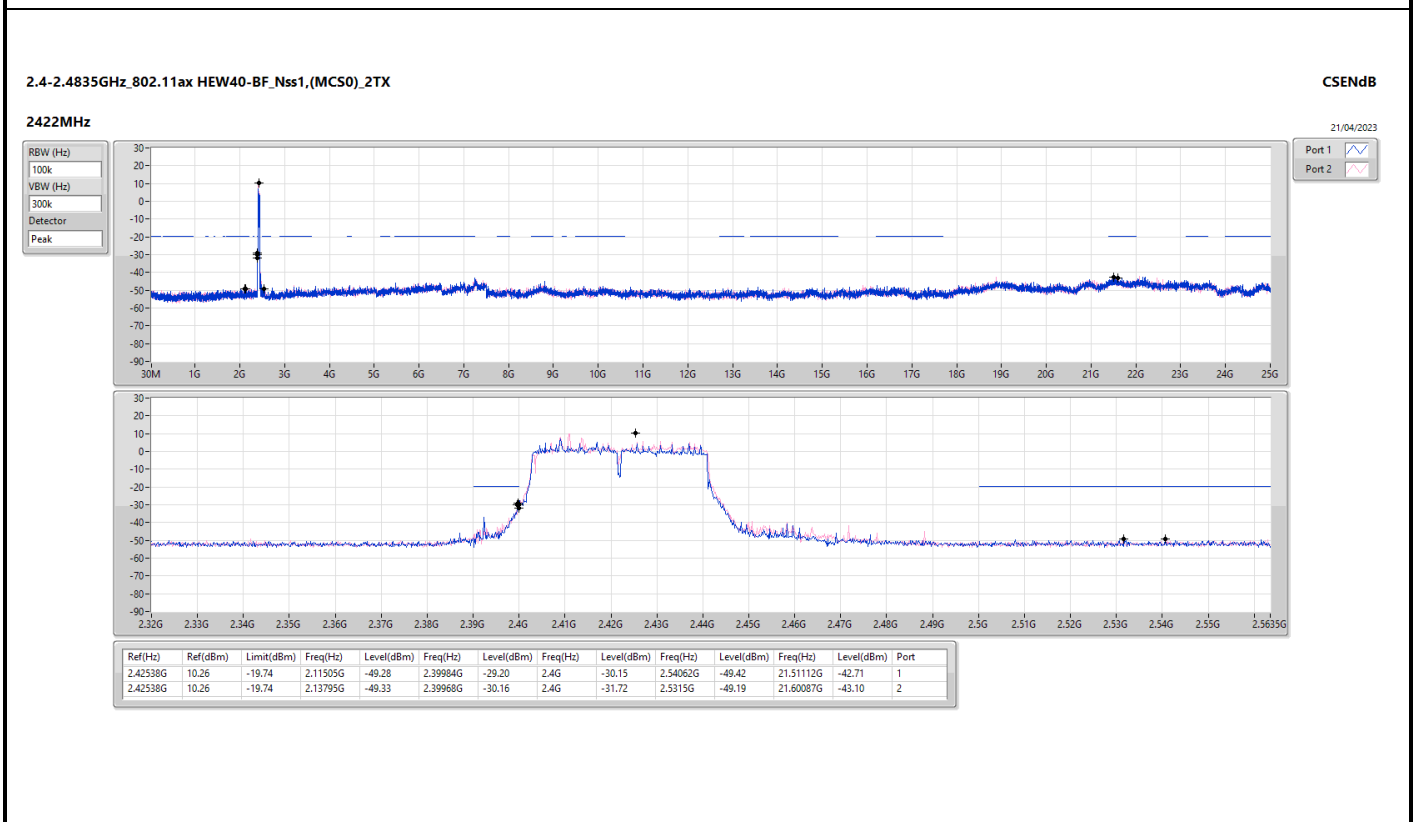
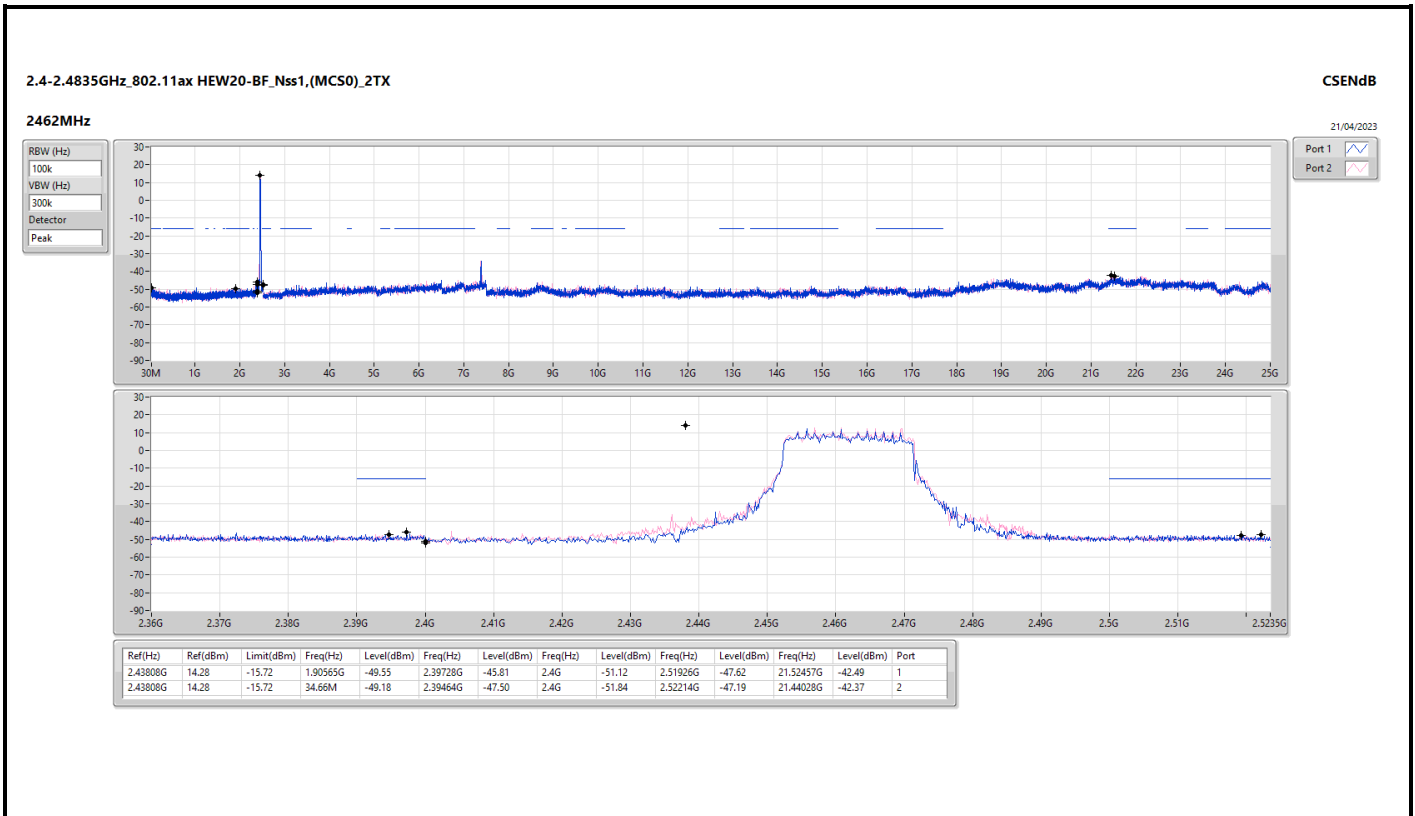


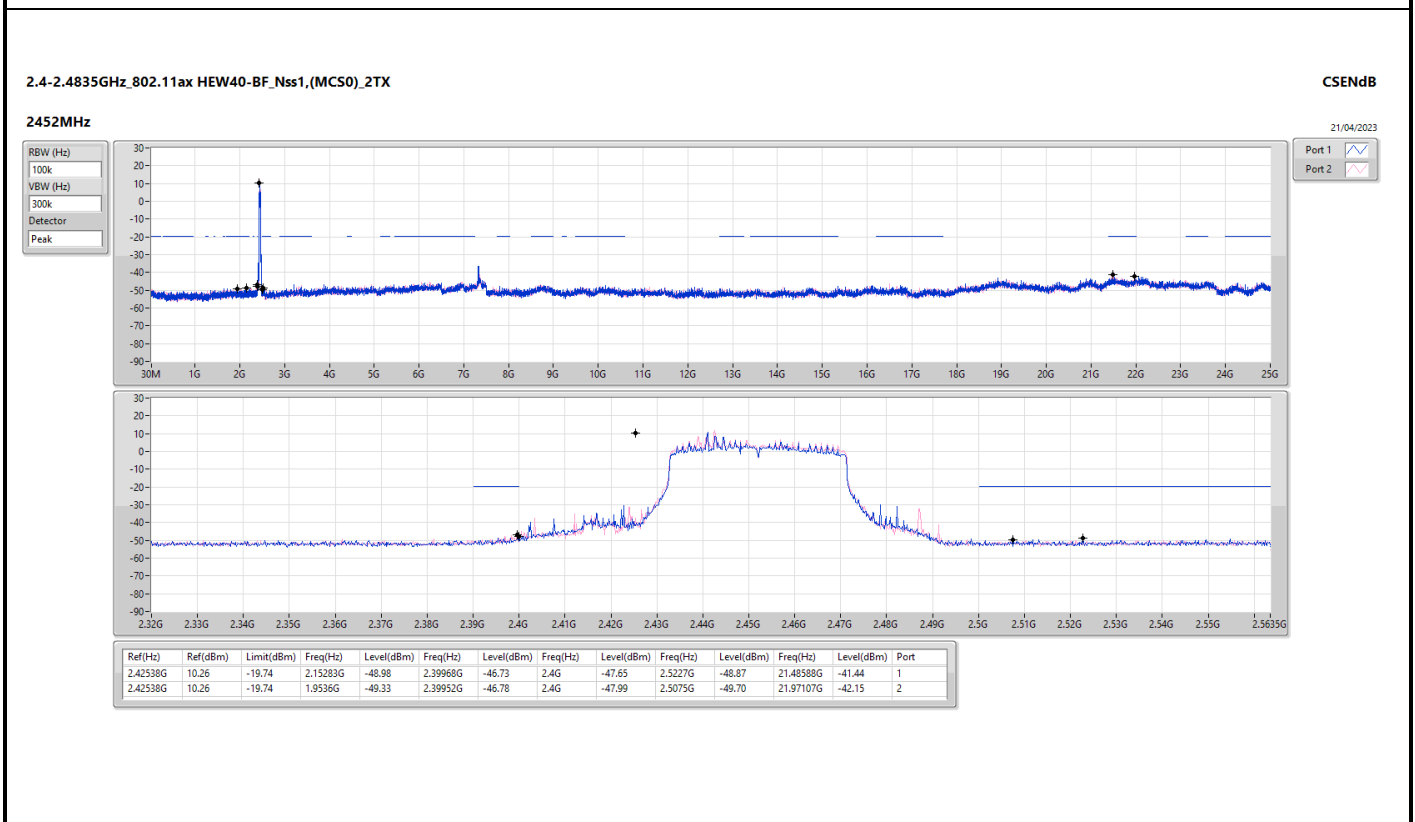
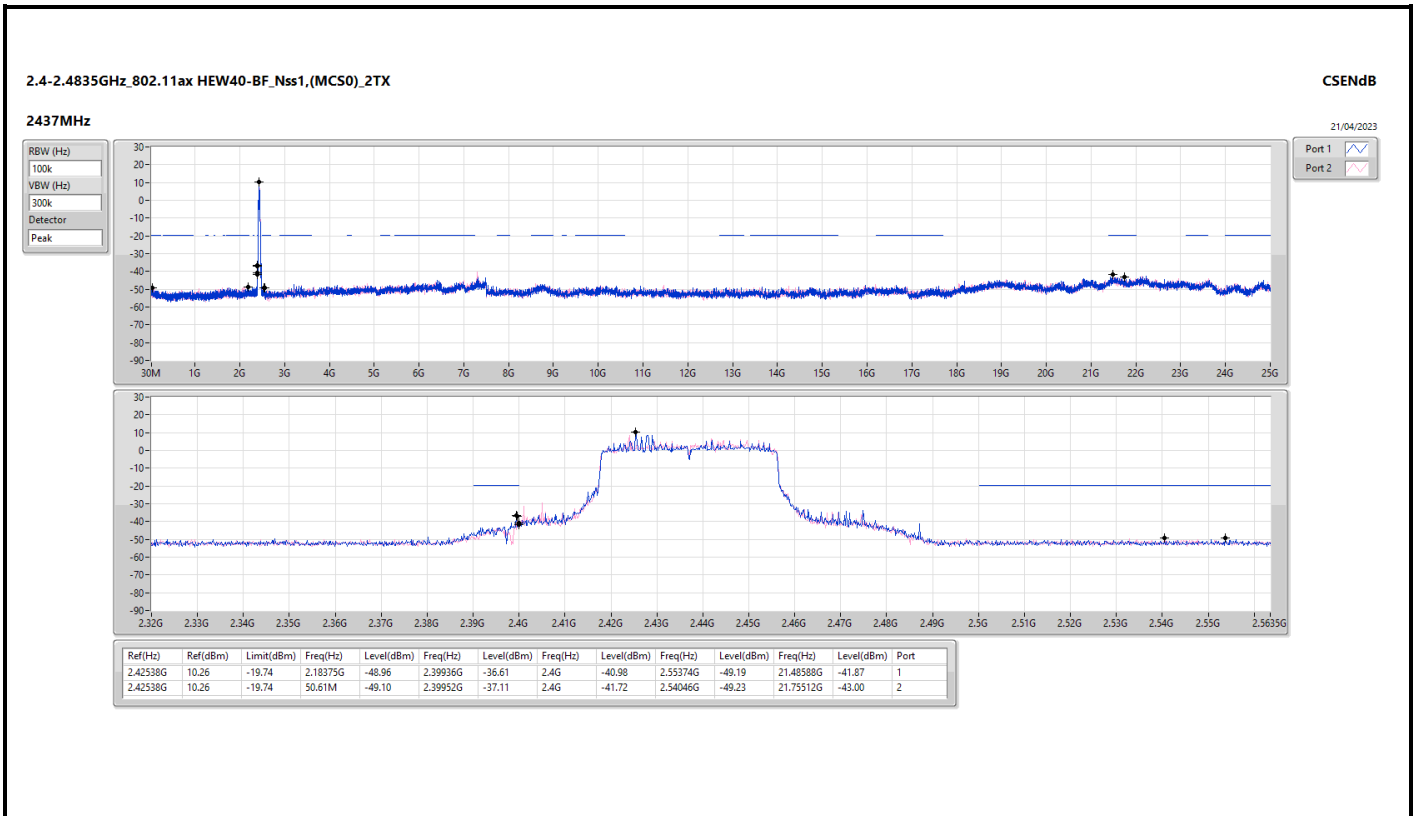










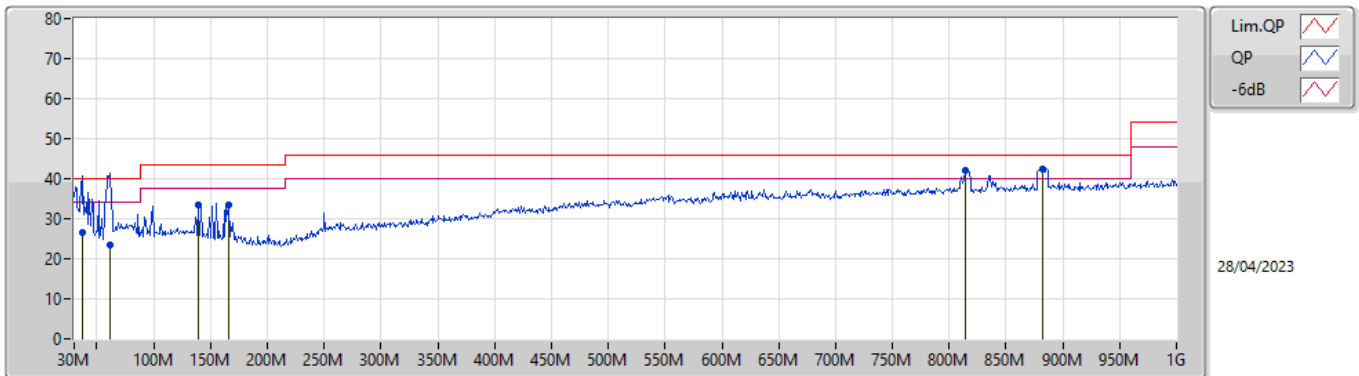




**Summary**

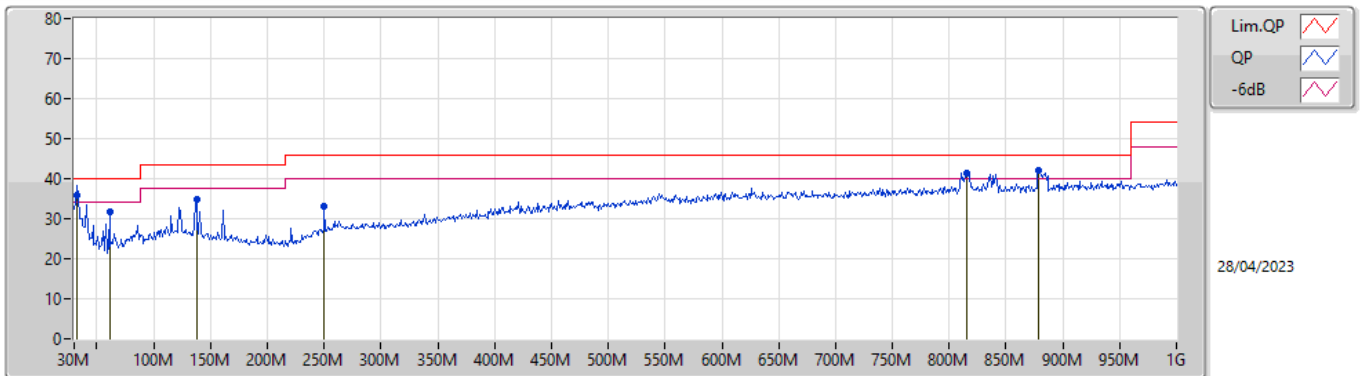
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition
Mode 4	Pass	PK	882.63M	42.56	46.00	-3.44	Vertical

Mode 4



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	37.76M	26.66	40.00	-13.34	-23.14	3	Vertical	177	1.25	-	49.80	20.23	0.69	44.06
QP	61.04M	23.42	40.00	-16.58	-30.28	3	Vertical	63	2.00	-	53.70	12.96	0.87	44.11
PK	139.61M	33.46	43.50	-10.04	-25.48	3	Vertical	58	1.00	-	58.94	17.30	1.29	44.07
PK	165.8M	33.51	43.50	-9.99	-26.62	3	Vertical	58	1.00	-	60.13	16.00	1.40	44.02
PK	814.73M	42.17	46.00	-3.83	-13.74	3	Vertical	360	1.00	-	55.91	26.12	3.10	42.96
PK	882.63M	42.56	46.00	-3.44	-13.40	3	Vertical	173	1.50	"Worst"	55.96	26.28	3.23	42.91

Mode 4



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	32.91M	35.96	40.00	-4.04	-20.54	3	Horizontal	41	1.25	-	56.50	22.83	0.65	44.02
PK	61.04M	31.68	40.00	-8.32	-30.28	3	Horizontal	34	1.25	-	61.96	12.96	0.87	44.11
PK	137.67M	34.83	43.50	-8.67	-25.43	3	Horizontal	33	1.25	-	60.26	17.38	1.28	44.09
PK	250.19M	33.14	46.00	-12.86	-23.92	3	Horizontal	48	1.25	-	57.06	18.23	1.74	43.89
PK	815.7M	41.37	46.00	-4.63	-13.73	3	Horizontal	8	2.00	-	55.10	26.13	3.10	42.96
PK	878.75M	41.98	46.00	-4.02	-13.43	3	Horizontal	0	1.00	"Worst"	55.41	26.27	3.22	42.92

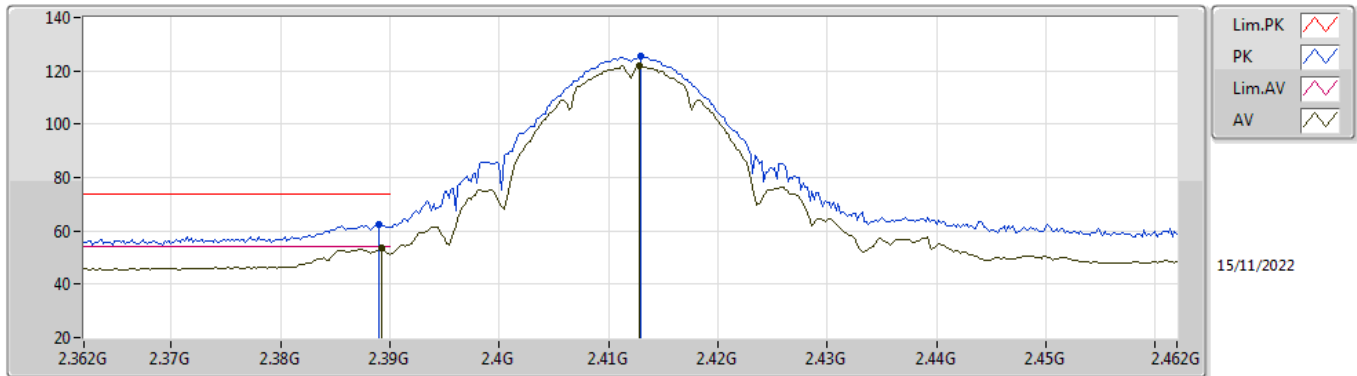


Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-
802.11ax HEW40_Nss1,(MCS0)_2TX	Pass	AV	2.4835G	53.98	54.00	-0.02	3	Vertical	193	1.63	-

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

2412MHz\_TX



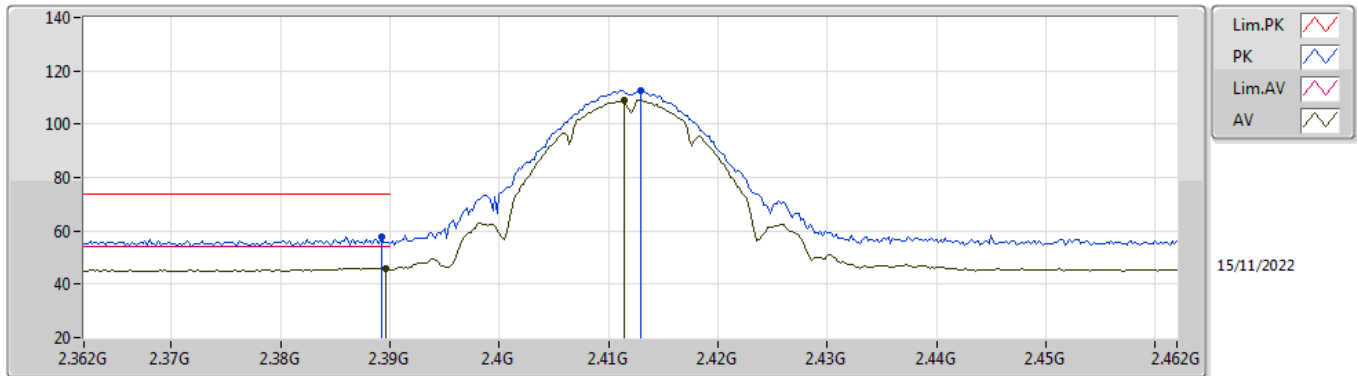
EUT\_Z\_2TX  
Setting 27  
03-C-E-5

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	2.389G	62.25	74.00	-11.75	30.00	3	Vertical	189	1.48	-	28.26	3.99	-
AV	2.3892G	53.46	54.00	-0.54	21.21	3	Vertical	189	1.48	-	28.26	3.99	-
PK	2.413G	125.52	Inf	-Inf	93.21	3	Vertical	189	1.48	-	28.30	4.01	-
AV	2.4128G	121.69	Inf	-Inf	89.38	3	Vertical	189	1.48	-	28.30	4.01	-



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

2412MHz\_TX

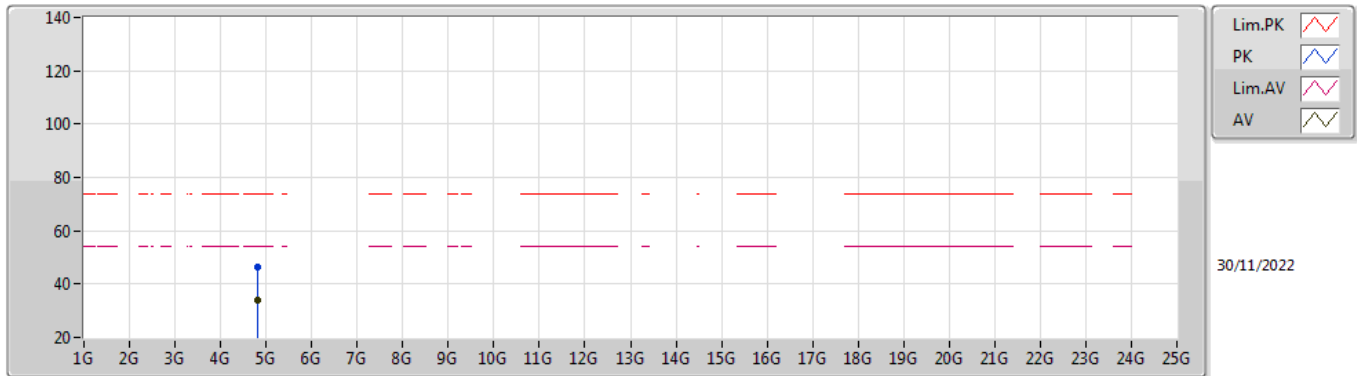


EUT\_Z\_2TX  
 Setting 27  
 03-C-E-5

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	57.90	74.00	-16.10	25.65	3	Horizontal	9	1.64	-	28.26	3.99	-
AV	2.3896G	46.07	54.00	-7.93	13.82	3	Horizontal	9	1.64	-	28.26	3.99	-
PK	2.413G	112.66	Inf	-Inf	80.35	3	Horizontal	9	1.64	-	28.30	4.01	-
AV	2.4114G	109.01	Inf	-Inf	76.70	3	Horizontal	9	1.64	-	28.30	4.01	-

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

2412MHz\_TX

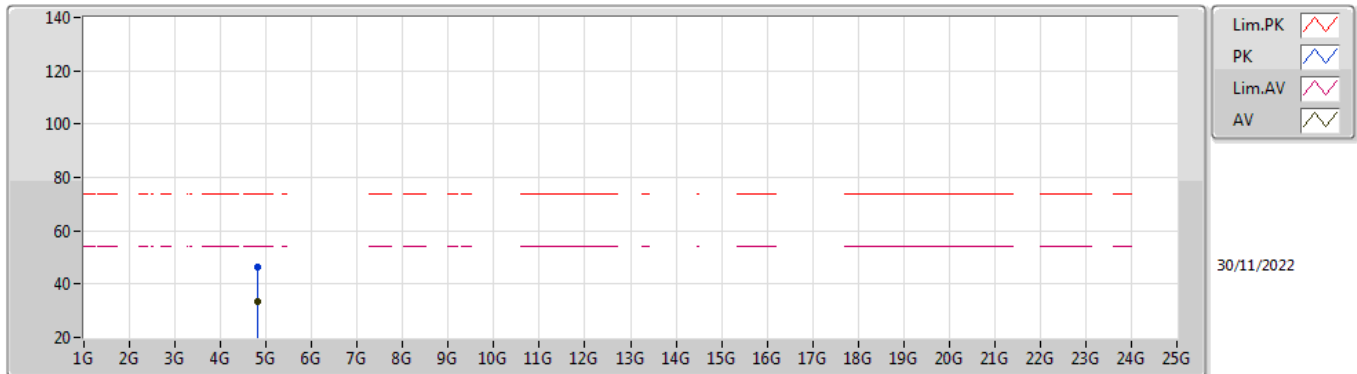


EUT Z\_2TX  
 Setting 27  
 02-F-G-4

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	4.82384G	46.17	74.00	-27.83	38.42	3	Vertical	249	1.48	-	32.94	5.61	30.80
AV	4.8212G	33.75	54.00	-20.25	26.02	3	Vertical	249	1.48	-	32.93	5.61	30.81

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

2412MHz\_TX

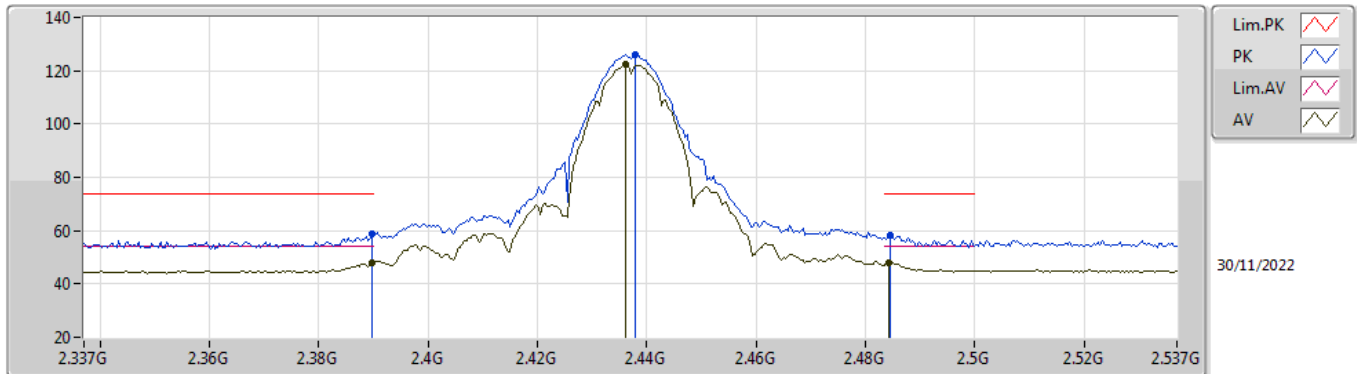


EUT Z\_2TX  
 Setting 27  
 02-F-G-4

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	4.81954G	46.20	74.00	-27.80	38.48	3	Horizontal	335	2.20	-	32.92	5.61	30.81
AV	4.8228G	33.66	54.00	-20.34	25.91	3	Horizontal	335	2.20	-	32.94	5.61	30.80

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

2437MHz\_TX

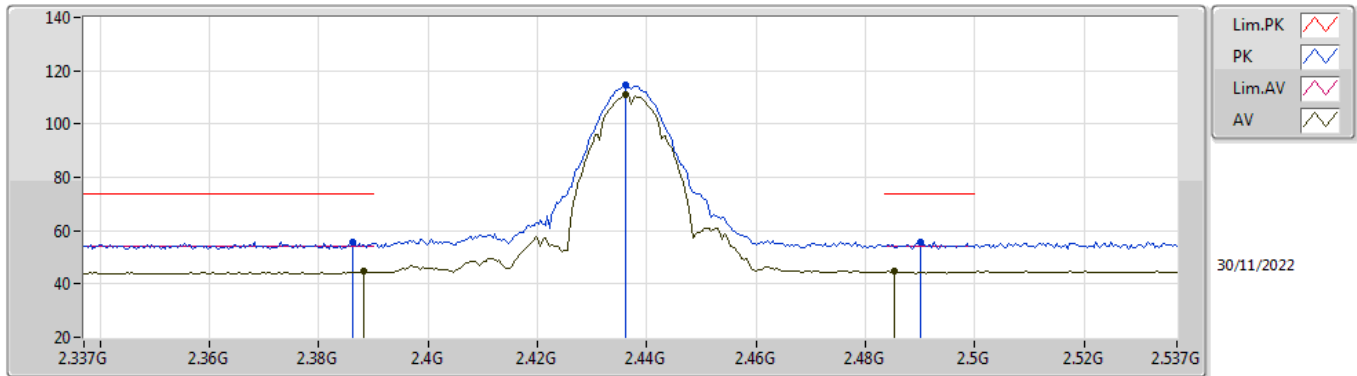


EUT\_Z\_2TX  
Setting 28  
02-F-R-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3898G	58.78	74.00	-15.22	27.21	3	Vertical	153	1.80	-	28.38	3.19	-
AV	2.3898G	47.78	54.00	-6.22	16.21	3	Vertical	153	1.80	-	28.38	3.19	-
PK	2.4378G	126.02	Inf	-Inf	94.40	3	Vertical	153	1.80	-	28.40	3.22	-
AV	2.4362G	122.17	Inf	-Inf	90.55	3	Vertical	153	1.80	-	28.40	3.22	-
PK	2.4846G	58.38	74.00	-15.62	26.60	3	Vertical	153	1.80	-	28.54	3.24	-
AV	2.4842G	48.05	54.00	-5.95	16.27	3	Vertical	153	1.80	-	28.54	3.24	-

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

2437MHz\_TX

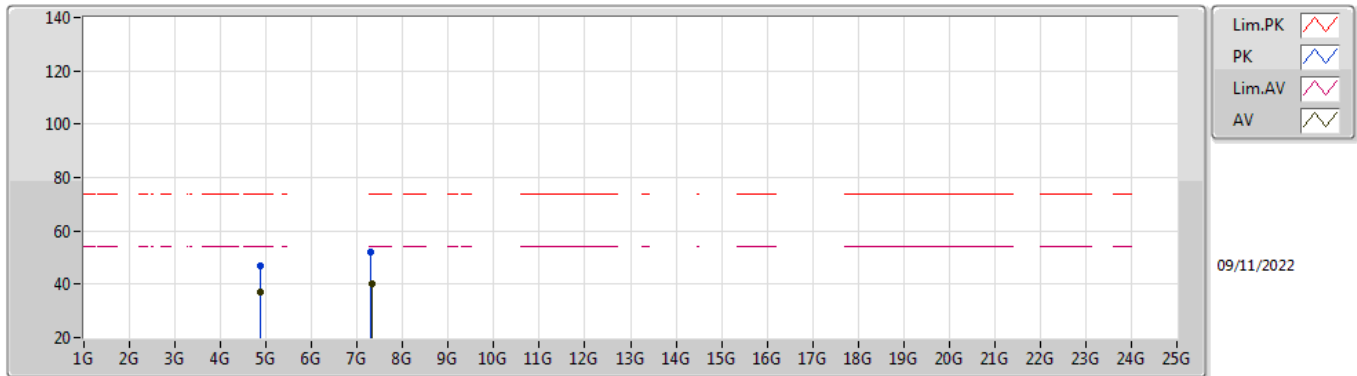


EUT\_Z\_2TX  
Setting 28  
02-F-R-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3862G	55.85	74.00	-18.15	24.29	3	Horizontal	221	1.75	-	28.37	3.19	-
AV	2.3882G	44.59	54.00	-9.41	13.02	3	Horizontal	221	1.75	-	28.38	3.19	-
PK	2.4362G	114.42	Inf	-Inf	82.80	3	Horizontal	221	1.75	-	28.40	3.22	-
AV	2.4362G	110.80	Inf	-Inf	79.18	3	Horizontal	221	1.75	-	28.40	3.22	-
PK	2.4902G	55.59	74.00	-18.41	23.78	3	Horizontal	221	1.75	-	28.56	3.25	-
AV	2.4854G	44.70	54.00	-9.30	12.92	3	Horizontal	221	1.75	-	28.54	3.24	-

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

2437MHz\_TX

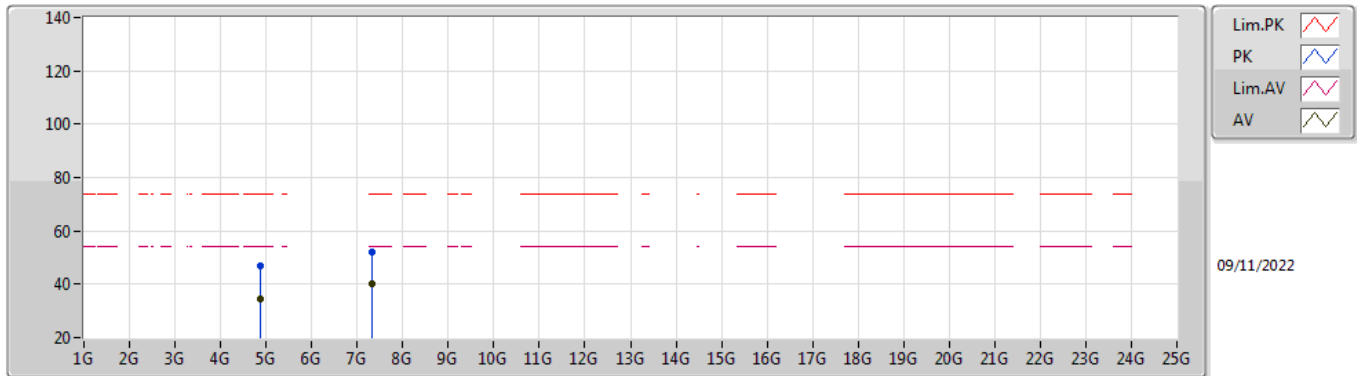


EUT\_Z\_2TX  
Setting 28  
03-C-E-5

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	4.87424G	47.02	74.00	-26.98	41.78	3	Vertical	188	1.10	-	33.60	6.54	34.90
AV	4.874G	37.27	54.00	-16.73	32.03	3	Vertical	188	1.10	-	33.60	6.54	34.90
PK	7.30236G	52.29	74.00	-21.71	41.83	3	Vertical	171	2.39	-	36.90	8.70	35.14
AV	7.32246G	40.11	54.00	-13.89	29.62	3	Vertical	171	2.39	-	36.94	8.70	35.15

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

2437MHz\_TX

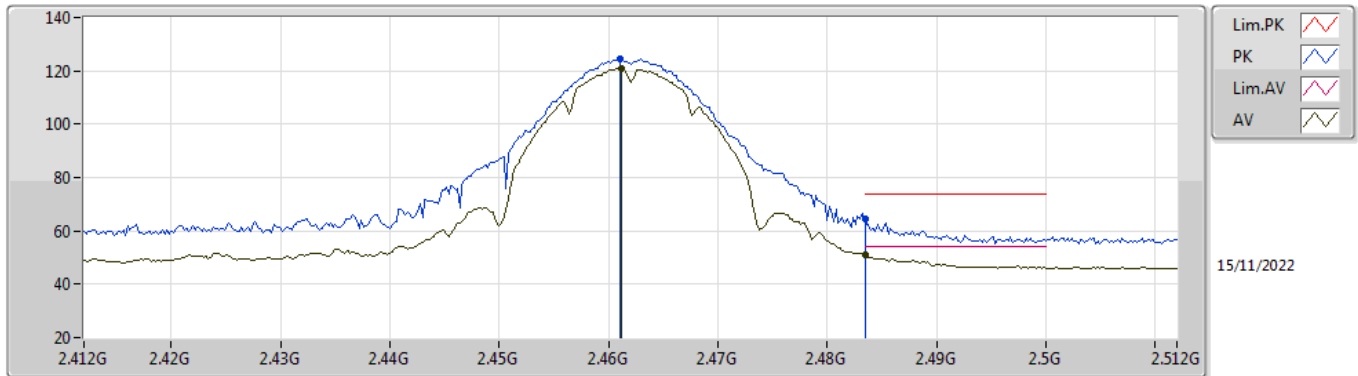


EUT\_Z\_2TX  
 Setting 28  
 03-C-E-5

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	4.87898G	46.97	74.00	-27.03	41.70	3	Horizontal	151	1.80	-	33.62	6.54	34.89
AV	4.8767G	34.49	54.00	-19.51	29.23	3	Horizontal	151	1.80	-	33.61	6.54	34.89
PK	7.3251G	52.16	74.00	-21.84	41.66	3	Horizontal	195	1.80	-	36.95	8.70	35.15
AV	7.32084G	40.33	54.00	-13.67	29.84	3	Horizontal	195	1.80	-	36.94	8.70	35.15

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

2462MHz\_TX



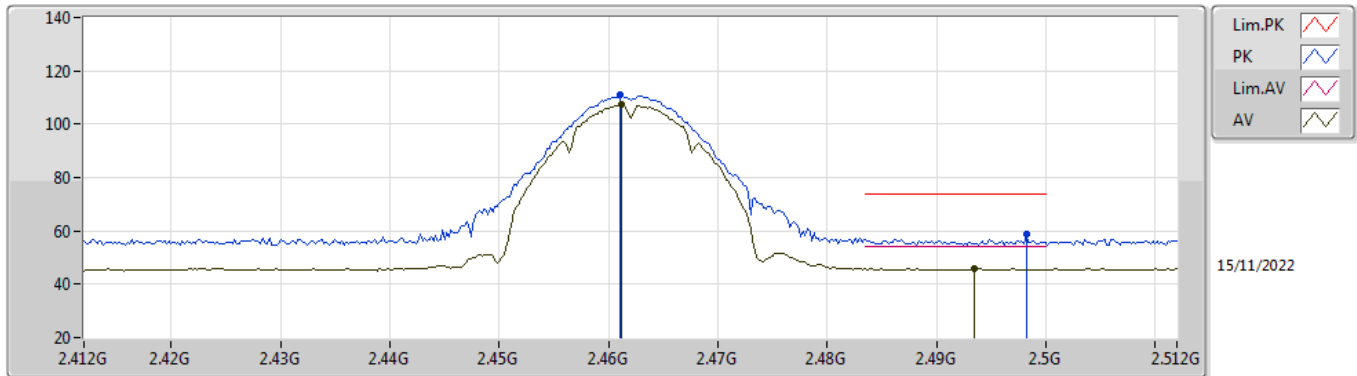
EUT\_Z\_2TX  
Setting 26  
03-C-E-5

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	2.461G	124.43	Inf	-Inf	92.03	3	Vertical	186	1.37	-	28.34	4.06	-
AV	2.4612G	120.83	Inf	-Inf	88.43	3	Vertical	186	1.37	-	28.34	4.06	-
PK	2.4835G	64.69	74.00	-9.31	32.18	3	Vertical	186	1.37	-	28.43	4.08	-
AV	2.4835G	51.24	54.00	-2.76	18.73	3	Vertical	186	1.37	-	28.43	4.08	-



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

2462MHz\_TX

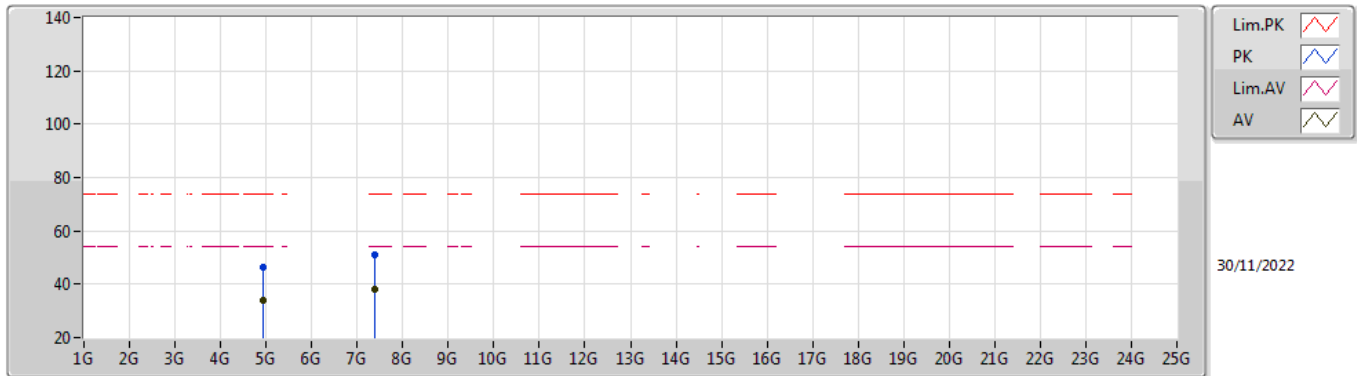


EUT\_Z\_2TX  
 Setting 26  
 03-C-E-5

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	2.461G	110.80	Inf	-Inf	78.40	3	Horizontal	12	2.35	-	28.34	4.06	-
AV	2.4612G	107.23	Inf	-Inf	74.83	3	Horizontal	12	2.35	-	28.34	4.06	-
PK	2.4982G	58.58	74.00	-15.42	25.99	3	Horizontal	12	2.35	-	28.49	4.10	-
AV	2.4934G	45.93	54.00	-8.07	13.37	3	Horizontal	12	2.35	-	28.47	4.09	-

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

2462MHz\_TX

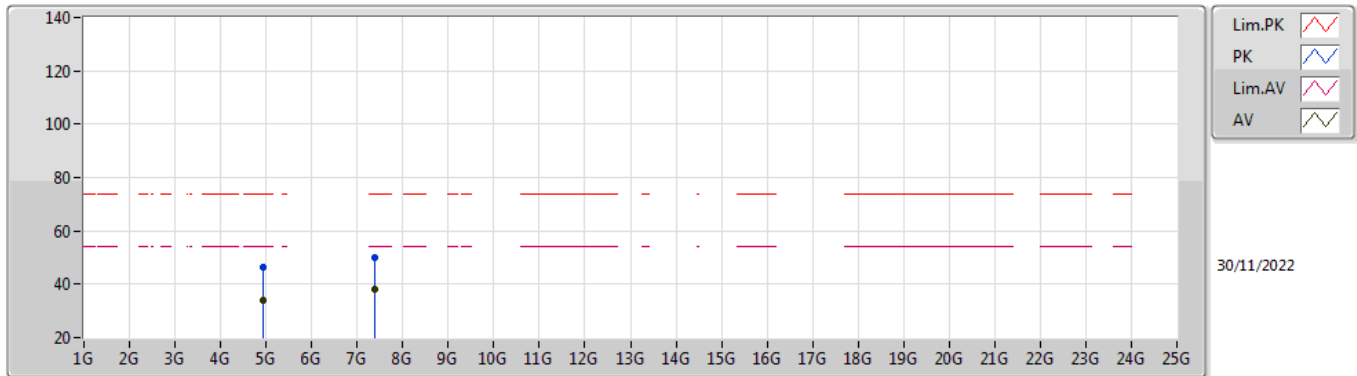


EUT\_Z\_2TX  
 Setting 26  
 02-F-G-4

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	4.92234G	46.51	74.00	-27.49	38.37	3	Vertical	258	1.19	-	33.24	5.66	30.76
AV	4.92342G	34.08	54.00	-19.92	25.93	3	Vertical	258	1.19	-	33.25	5.66	30.76
PK	7.38918G	50.79	74.00	-23.21	39.45	3	Vertical	163	1.51	-	36.50	6.81	31.97
AV	7.38432G	37.97	54.00	-16.03	26.62	3	Vertical	163	1.51	-	36.50	6.81	31.96

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

2462MHz\_TX

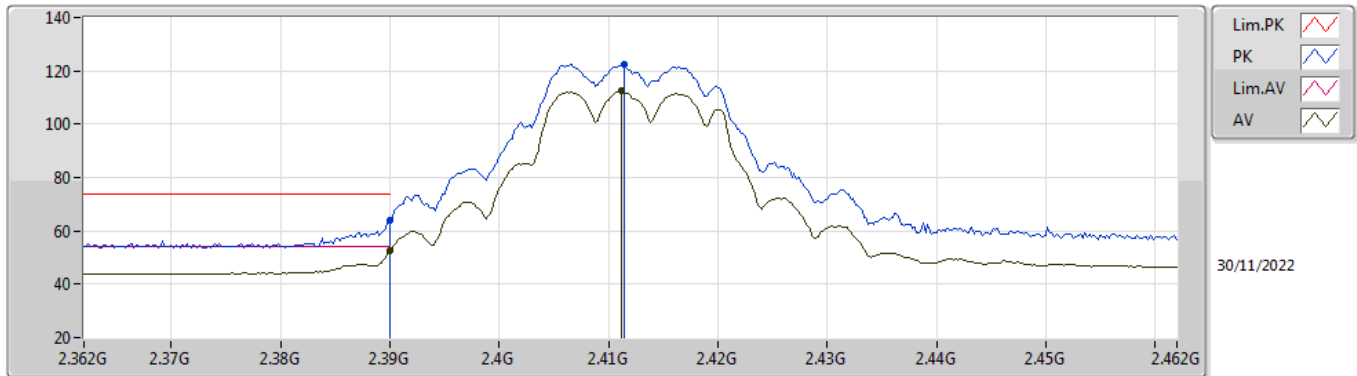


EUT\_Z\_2TX  
 Setting 26  
 02-F-G-4

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	4.9227G	46.19	74.00	-27.81	38.04	3	Horizontal	231	1.01	-	33.25	5.66	30.76
AV	4.924G	33.87	54.00	-20.13	25.72	3	Horizontal	231	1.01	-	33.25	5.66	30.76
PK	7.38248G	50.03	74.00	-23.97	38.68	3	Horizontal	214	2.61	-	36.50	6.81	31.96
AV	7.38608G	37.95	54.00	-16.05	26.60	3	Horizontal	214	2.61	-	36.50	6.81	31.96

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

2412MHz\_TX

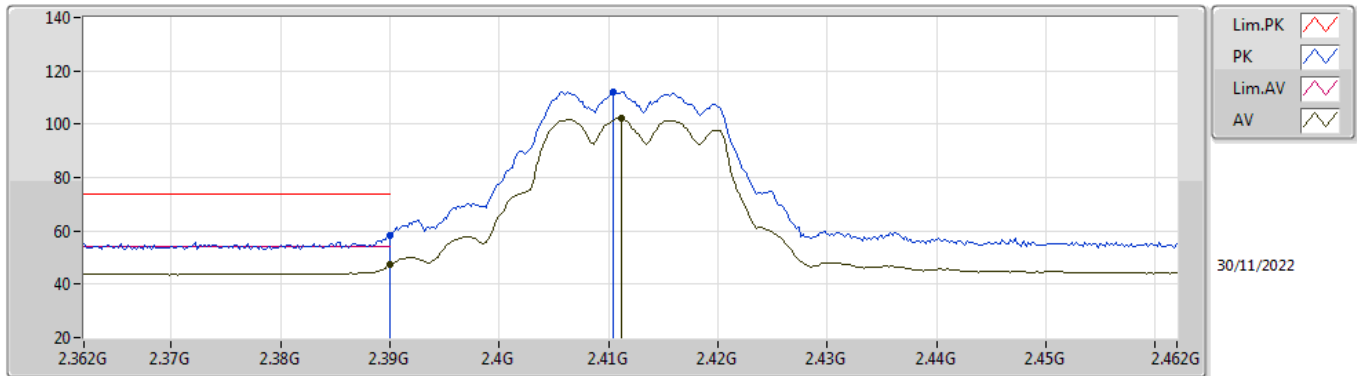


EUT\_Z\_2TX  
Setting 23  
02-F-R-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.39G	63.79	74.00	-10.21	32.21	3	Vertical	155	1.80	-	28.38	3.20	-
AV	2.39G	52.83	54.00	-1.17	21.25	3	Vertical	155	1.80	-	28.38	3.20	-
PK	2.4114G	122.30	Inf	-Inf	90.69	3	Vertical	155	1.80	-	28.40	3.21	-
AV	2.4112G	112.34	Inf	-Inf	80.73	3	Vertical	155	1.80	-	28.40	3.21	-

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

2412MHz\_TX

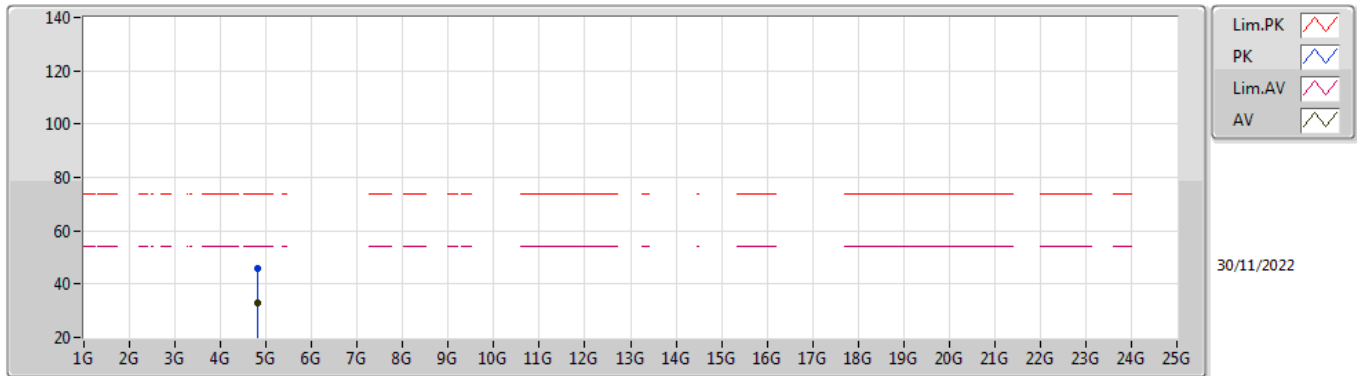


EUT\_Z\_2TX  
Setting 23  
02-F-R-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.39G	58.28	74.00	-15.72	26.70	3	Horizontal	222	1.78	-	28.38	3.20	-
AV	2.39G	47.27	54.00	-6.73	15.69	3	Horizontal	222	1.78	-	28.38	3.20	-
PK	2.4104G	112.32	Inf	-Inf	80.71	3	Horizontal	222	1.78	-	28.40	3.21	-
AV	2.4112G	102.15	Inf	-Inf	70.54	3	Horizontal	222	1.78	-	28.40	3.21	-

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

2412MHz\_TX

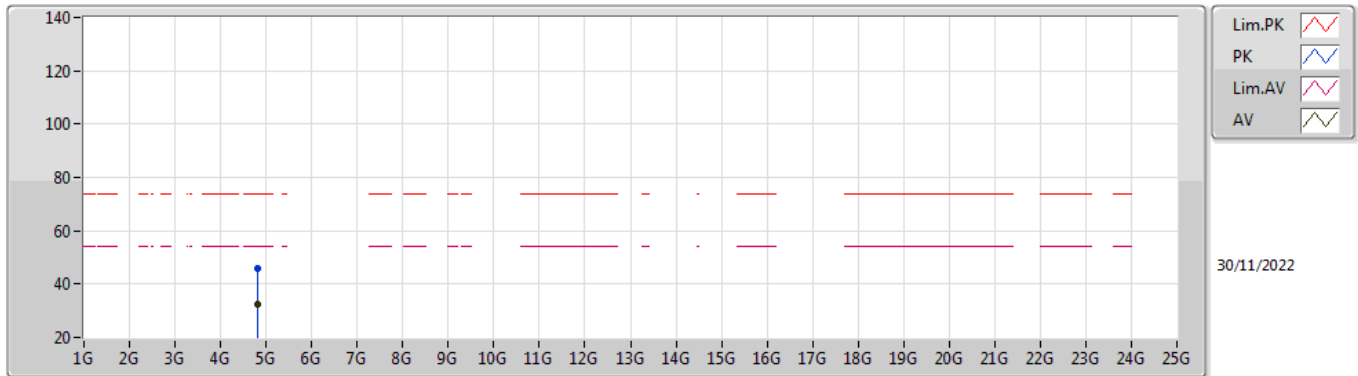


EUT Z\_2TX  
 Setting 23  
 02-F-G-4

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	4.81946G	45.86	74.00	-28.14	38.14	3	Vertical	150	2.88	-	32.92	5.61	30.81
AV	4.822G	32.84	54.00	-21.16	25.10	3	Vertical	150	2.88	-	32.93	5.61	30.80

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

2412MHz\_TX

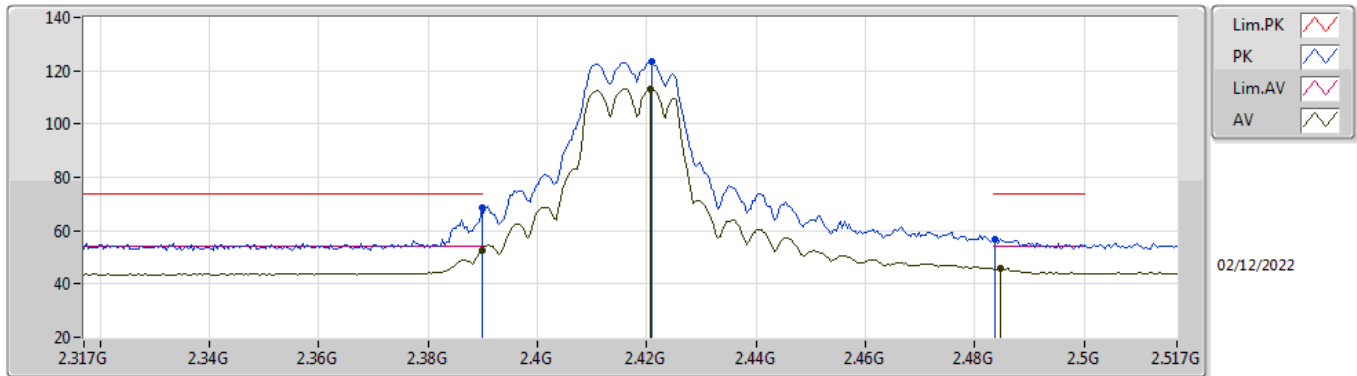


EUT Z\_2TX  
 Setting 23  
 02-F-G-4

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	4.81998G	45.88	74.00	-28.12	38.16	3	Horizontal	336	2.70	-	32.92	5.61	30.81
AV	4.8236G	32.67	54.00	-21.33	24.92	3	Horizontal	336	2.70	-	32.94	5.61	30.80

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

2417MHz\_TX



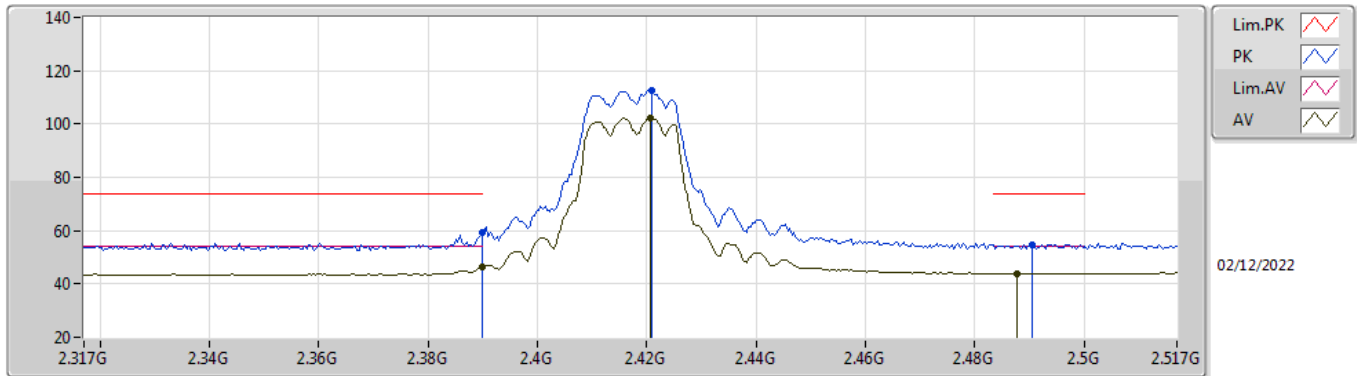
EUT\_Z\_2TX  
 Setting 24  
 02-F-W-4

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3898G	68.62	74.00	-5.38	37.05	3	Vertical	162	1.02	-	28.38	3.19	-
AV	2.3898G	52.76	54.00	-1.24	21.19	3	Vertical	162	1.02	-	28.38	3.19	-
PK	2.421G	123.25	Inf	-Inf	91.64	3	Vertical	162	1.02	-	28.40	3.21	-
AV	2.4206G	113.04	Inf	-Inf	81.43	3	Vertical	162	1.02	-	28.40	3.21	-
PK	2.4838G	56.89	74.00	-17.11	25.11	3	Vertical	162	1.02	-	28.54	3.24	-
AV	2.4846G	45.79	54.00	-8.21	14.01	3	Vertical	162	1.02	-	28.54	3.24	-



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

2417MHz\_TX

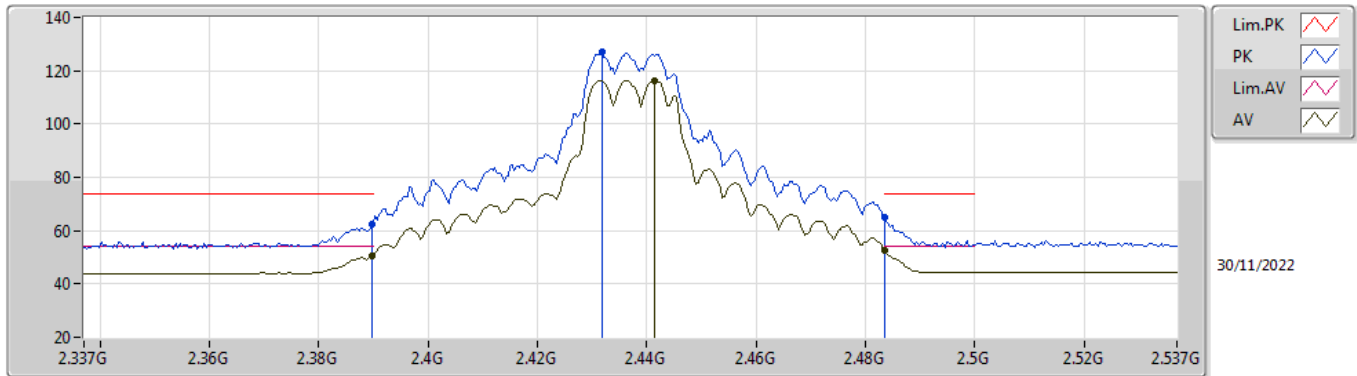


EUT\_Z\_2TX  
Setting 24  
02-F-W-4

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3898G	59.24	74.00	-14.76	27.67	3	Horizontal	225	1.00	-	28.38	3.19	-
AV	2.3898G	46.35	54.00	-7.65	14.78	3	Horizontal	225	1.00	-	28.38	3.19	-
PK	2.421G	112.49	Inf	-Inf	80.88	3	Horizontal	225	1.00	-	28.40	3.21	-
AV	2.4206G	102.33	Inf	-Inf	70.72	3	Horizontal	225	1.00	-	28.40	3.21	-
PK	2.4906G	54.89	74.00	-19.11	23.08	3	Horizontal	225	1.00	-	28.56	3.25	-
AV	2.4878G	44.02	54.00	-9.98	12.23	3	Horizontal	225	1.00	-	28.55	3.24	-

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

2437MHz\_TX

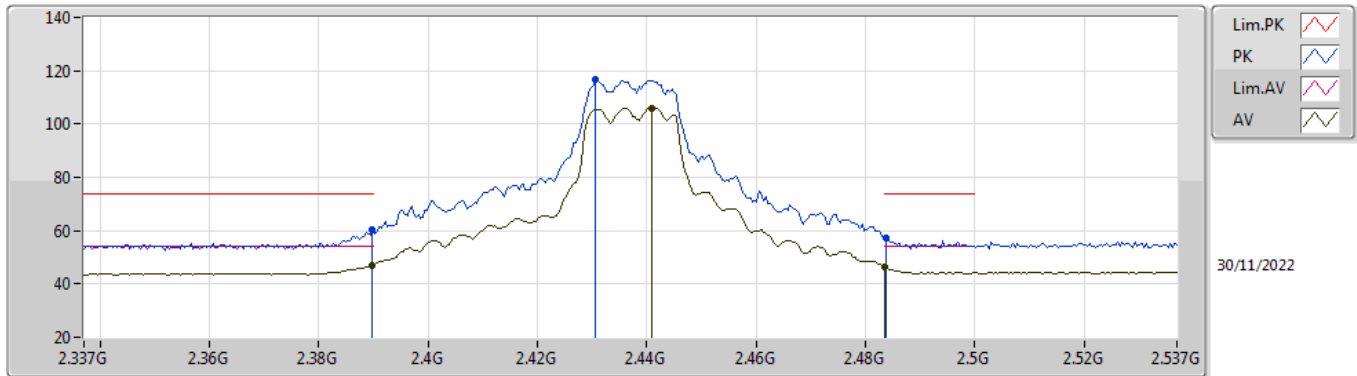


EUT\_Z\_2TX  
Setting 28  
02-F-R-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3898G	62.27	74.00	-11.73	30.70	3	Vertical	156	1.80	-	28.38	3.19	-
AV	2.3898G	50.62	54.00	-3.38	19.05	3	Vertical	156	1.80	-	28.38	3.19	-
PK	2.4318G	127.12	Inf	-Inf	95.50	3	Vertical	156	1.80	-	28.40	3.22	-
AV	2.4414G	116.42	Inf	-Inf	84.80	3	Vertical	156	1.80	-	28.40	3.22	-
PK	2.4835G	64.99	74.00	-9.01	33.22	3	Vertical	156	1.80	-	28.53	3.24	-
AV	2.4835G	52.70	54.00	-1.30	20.93	3	Vertical	156	1.80	-	28.53	3.24	-

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

2437MHz\_TX

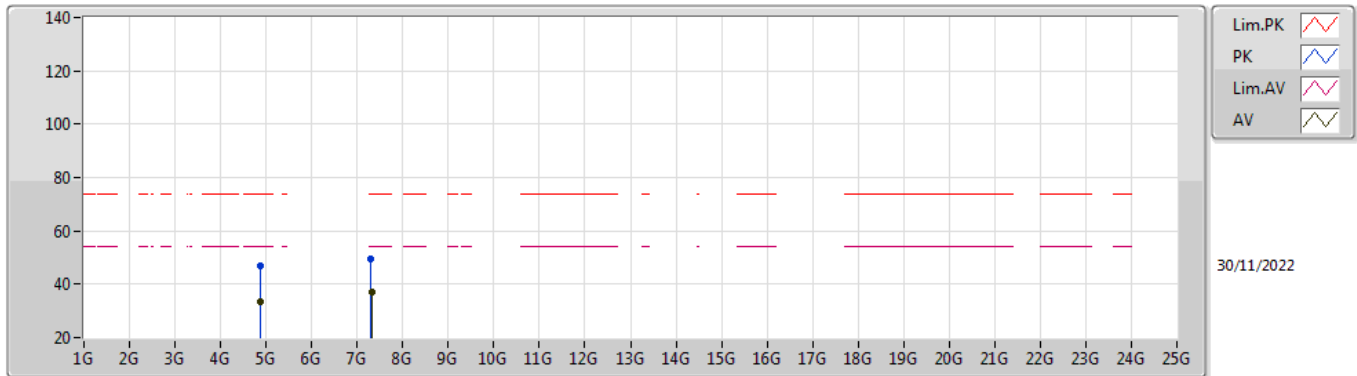


EUT\_Z\_2TX  
 Setting 28  
 02-F-R-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3898G	60.19	74.00	-13.81	28.62	3	Horizontal	223	1.38	-	28.38	3.19	-
AV	2.3898G	47.05	54.00	-6.95	15.48	3	Horizontal	223	1.38	-	28.38	3.19	-
PK	2.4306G	116.66	Inf	-Inf	85.04	3	Horizontal	223	1.38	-	28.40	3.22	-
AV	2.441G	106.09	Inf	-Inf	74.47	3	Horizontal	223	1.38	-	28.40	3.22	-
PK	2.4838G	57.45	74.00	-16.55	25.67	3	Horizontal	223	1.38	-	28.54	3.24	-
AV	2.4835G	46.15	54.00	-7.85	14.38	3	Horizontal	223	1.38	-	28.53	3.24	-

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

2437MHz\_TX

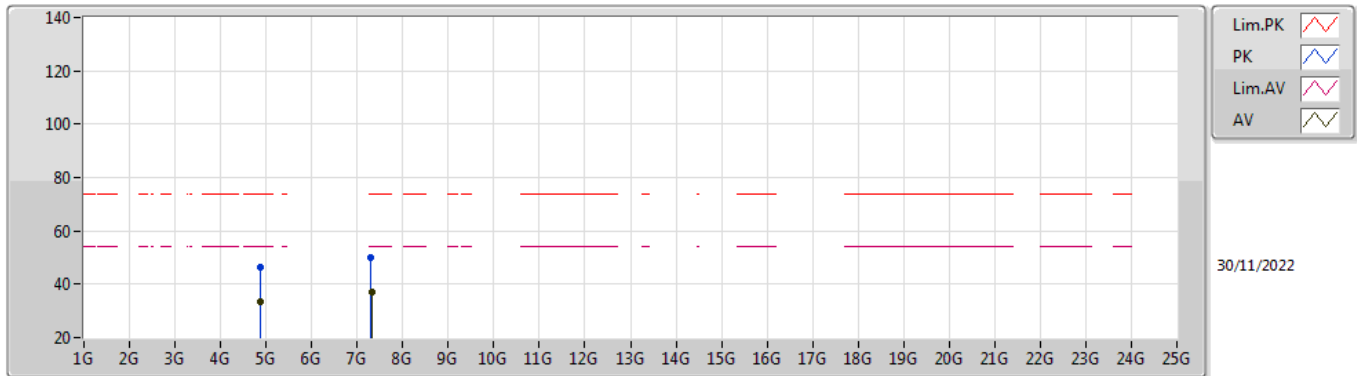


EUT\_Z\_2TX  
 Setting 28  
 02-F-G-4

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	4.87866G	46.72	74.00	-27.28	38.70	3	Vertical	218	1.20	-	33.16	5.64	30.78
AV	4.87254G	33.36	54.00	-20.64	25.35	3	Vertical	218	1.20	-	33.15	5.64	30.78
PK	7.30722G	49.70	74.00	-24.30	38.36	3	Vertical	184	1.42	-	36.41	6.85	31.92
AV	7.3148G	36.97	54.00	-17.03	25.62	3	Vertical	184	1.42	-	36.43	6.84	31.92

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

2437MHz\_TX

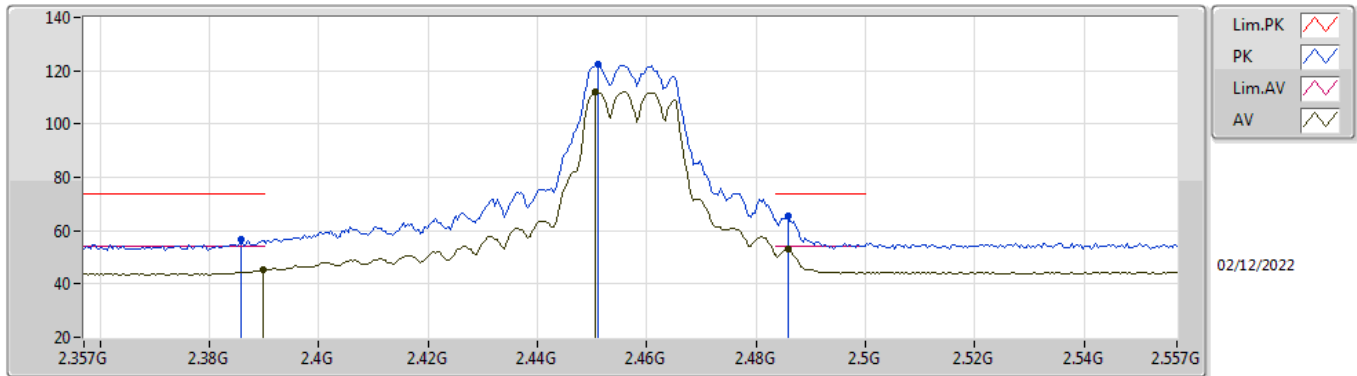


EUT\_Z\_2TX  
 Setting 28  
 02-F-G-4

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	4.87678G	46.42	74.00	-27.58	38.41	3	Horizontal	62	2.71	-	33.15	5.64	30.78
AV	4.8734G	33.35	54.00	-20.65	25.34	3	Horizontal	62	2.71	-	33.15	5.64	30.78
PK	7.3093G	50.03	74.00	-23.97	38.68	3	Horizontal	200	2.28	-	36.42	6.85	31.92
AV	7.31278G	36.93	54.00	-17.07	25.58	3	Horizontal	200	2.28	-	36.43	6.84	31.92

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

2457MHz\_TX

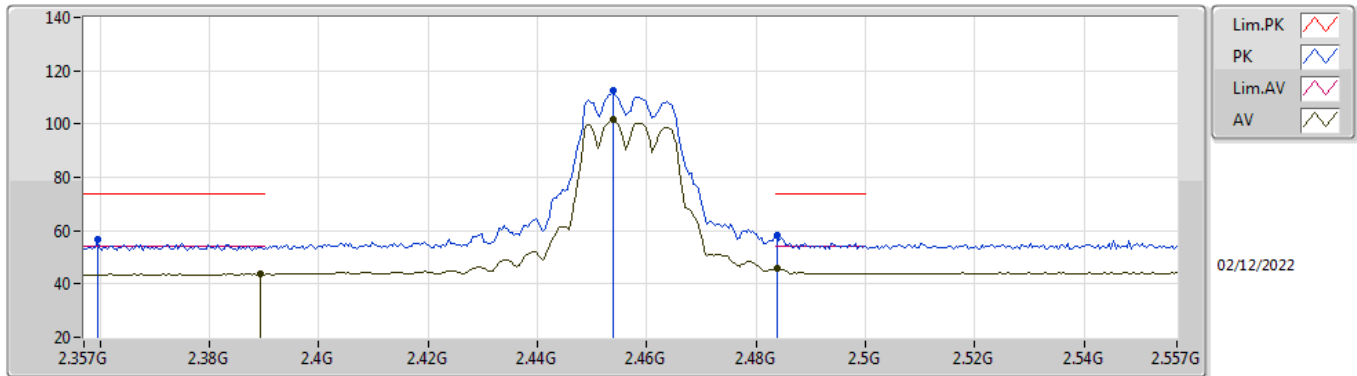


EUT\_Z\_2TX  
 Setting 24  
 02-F-W-4

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	2.3858G	56.51	74.00	-17.49	24.95	3	Vertical	163	1.38	-	28.37	3.19	-
AV	2.3898G	45.32	54.00	-8.68	13.75	3	Vertical	163	1.38	-	28.38	3.19	-
PK	2.451G	122.66	Inf	-Inf	91.03	3	Vertical	163	1.38	-	28.40	3.23	-
AV	2.4506G	112.16	Inf	-Inf	80.53	3	Vertical	163	1.38	-	28.40	3.23	-
PK	2.4858G	65.62	74.00	-8.38	33.84	3	Vertical	163	1.38	-	28.54	3.24	-
AV	2.4858G	53.11	54.00	-0.89	21.33	3	Vertical	163	1.38	-	28.54	3.24	-

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

2457MHz\_TX

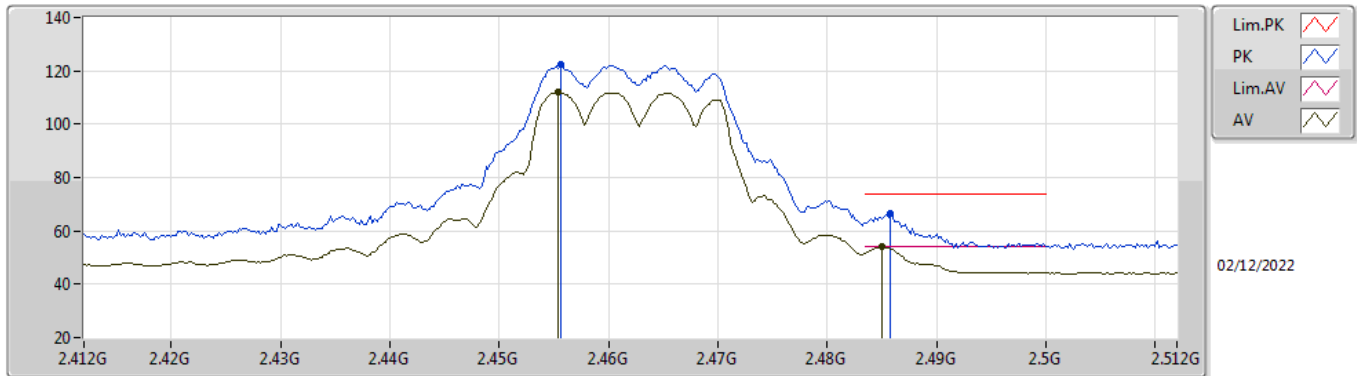


EUT\_Z\_2TX  
 Setting 24  
 02-F-W-4

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	2.3594G	56.54	74.00	-17.46	25.04	3	Horizontal	347	2.81	-	28.32	3.18	-
AV	2.3894G	43.77	54.00	-10.23	12.20	3	Horizontal	347	2.81	-	28.38	3.19	-
PK	2.4538G	112.41	Inf	-Inf	80.76	3	Horizontal	347	2.81	-	28.42	3.23	-
AV	2.4538G	101.59	Inf	-Inf	69.94	3	Horizontal	347	2.81	-	28.42	3.23	-
PK	2.4838G	58.51	74.00	-15.49	26.73	3	Horizontal	347	2.81	-	28.54	3.24	-
AV	2.4838G	45.77	54.00	-8.23	13.99	3	Horizontal	347	2.81	-	28.54	3.24	-

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

2462MHz\_TX



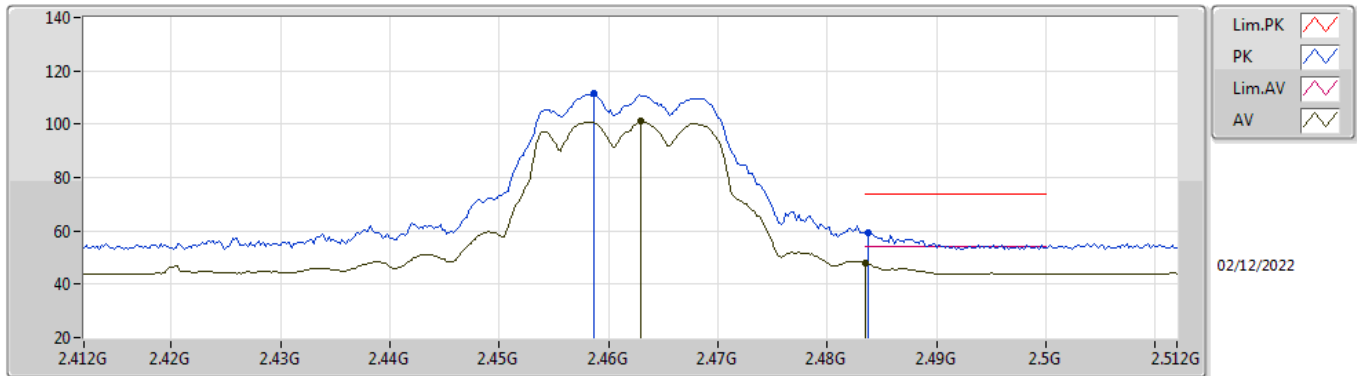
EUT\_Z\_2TX  
Setting 23.5  
02-F-W-4

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	122.28	Inf	-Inf	90.63	3	Vertical	166	1.79	-	28.42	3.23	-
AV	2.4554G	112.19	Inf	-Inf	80.54	3	Vertical	166	1.79	-	28.42	3.23	-
PK	2.4858G	66.40	74.00	-7.60	34.62	3	Vertical	166	1.79	-	28.54	3.24	-
AV	2.485G	53.94	54.00	-0.06	22.16	3	Vertical	166	1.79	-	28.54	3.24	-



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

2462MHz\_TX

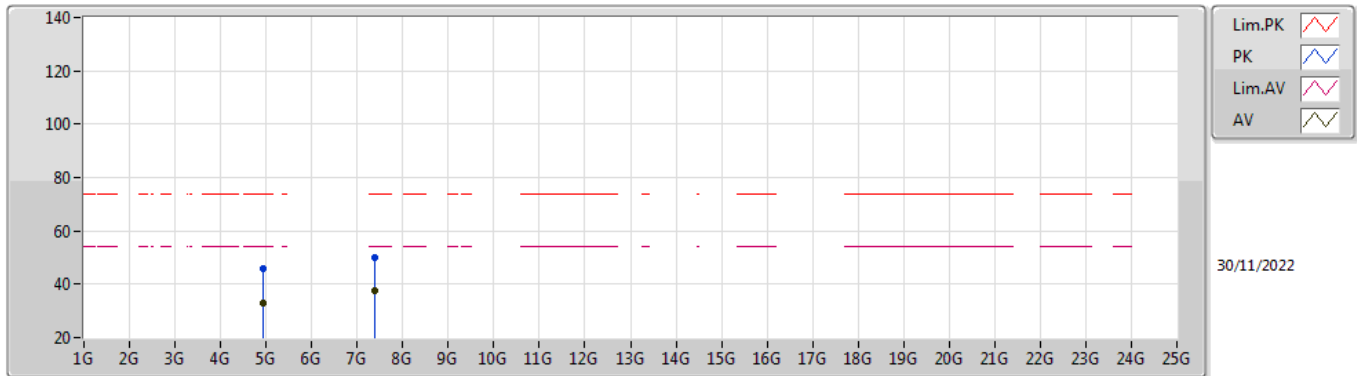


EUT\_Z\_2TX  
 Setting 23.5  
 02-F-W-4

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	2.4586G	111.38	Inf	-Inf	79.72	3	Horizontal	342	2.50	-	28.43	3.23	-
AV	2.463G	100.97	Inf	-Inf	69.29	3	Horizontal	342	2.50	-	28.45	3.23	-
PK	2.4838G	59.30	74.00	-14.70	27.52	3	Horizontal	342	2.50	-	28.54	3.24	-
AV	2.4835G	47.94	54.00	-6.06	16.17	3	Horizontal	342	2.50	-	28.53	3.24	-

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

2462MHz\_TX

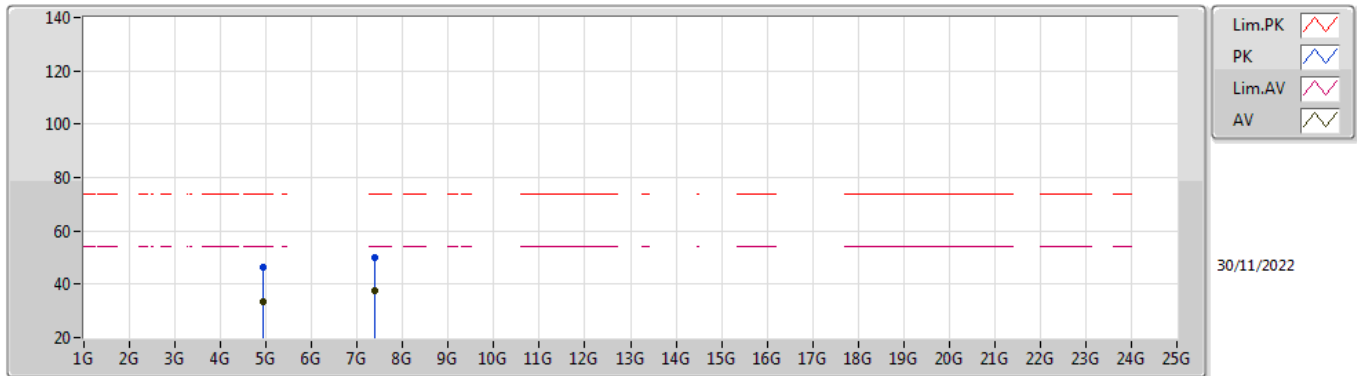


EUT\_Z\_2TX  
 Setting 23.5  
 02-F-G-4

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	4.92088G	46.03	74.00	-27.97	37.89	3	Vertical	13	1.44	-	33.24	5.66	30.76
AV	4.92338G	33.18	54.00	-20.82	25.03	3	Vertical	13	1.44	-	33.25	5.66	30.76
PK	7.38354G	50.12	74.00	-23.88	38.77	3	Vertical	328	1.55	-	36.50	6.81	31.96
AV	7.38594G	37.49	54.00	-16.51	26.14	3	Vertical	328	1.55	-	36.50	6.81	31.96

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

2462MHz\_TX

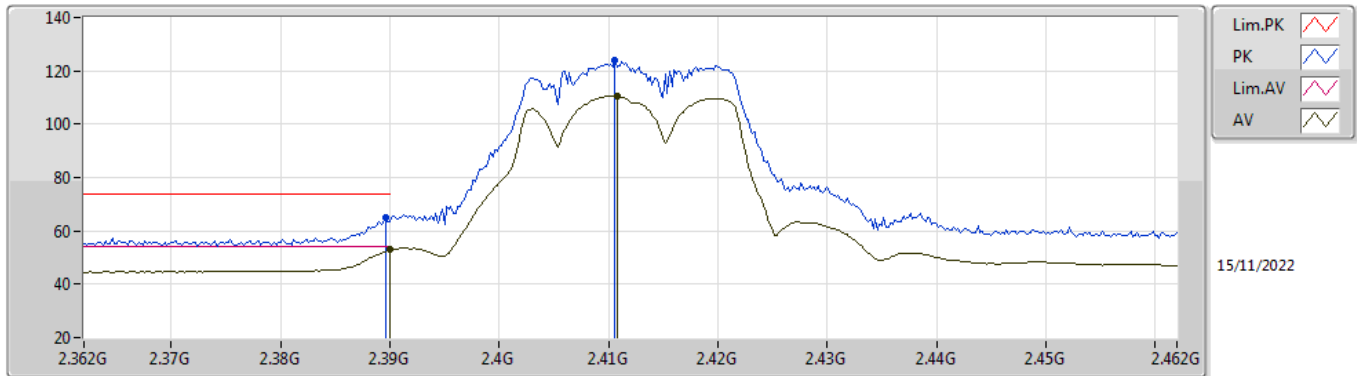


EUT\_Z\_2TX  
 Setting 23.5  
 02-F-G-4

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	4.92632G	46.13	74.00	-27.87	37.98	3	Horizontal	280	2.20	-	33.25	5.66	30.76
AV	4.92414G	33.30	54.00	-20.70	25.15	3	Horizontal	280	2.20	-	33.25	5.66	30.76
PK	7.38148G	50.17	74.00	-23.83	38.82	3	Horizontal	104	2.45	-	36.50	6.81	31.96
AV	7.38204G	37.43	54.00	-16.57	26.08	3	Horizontal	104	2.45	-	36.50	6.81	31.96

2.4-2.4835GHz\_802.11ax HEW20\_Nss1,(MCS0)\_2TX

2412MHz\_TX

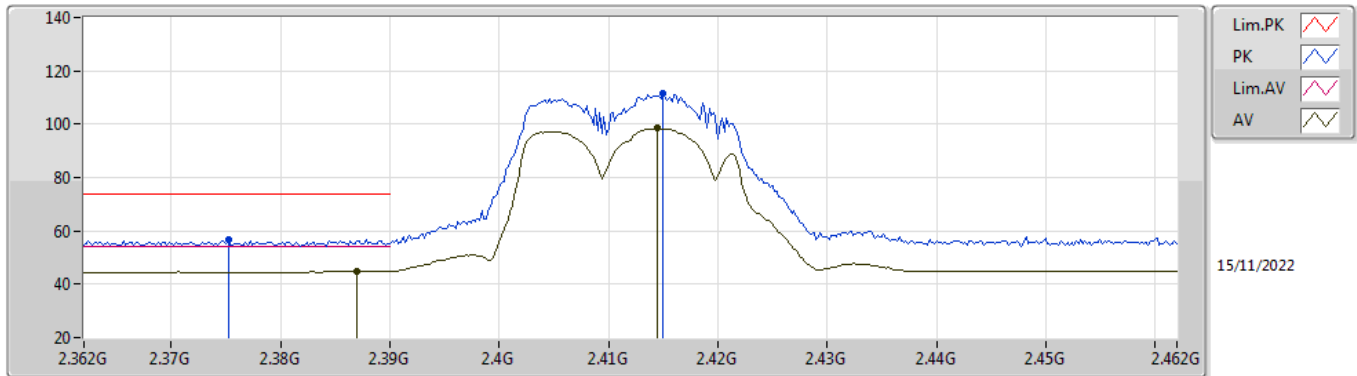


EUT\_Z\_2TX  
Setting 22.5  
03-C-E-5

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	2.3896G	64.78	74.00	-9.22	32.53	3	Vertical	195	1.88	-	28.26	3.99	-
AV	2.39G	52.85	54.00	-1.15	20.60	3	Vertical	195	1.88	-	28.26	3.99	-
PK	2.4106G	123.94	Inf	-Inf	91.63	3	Vertical	195	1.88	-	28.30	4.01	-
AV	2.4108G	110.65	Inf	-Inf	78.34	3	Vertical	195	1.88	-	28.30	4.01	-

2.4-2.4835GHz\_802.11ax HEW20\_Nss1,(MCS0)\_2TX

2412MHz\_TX

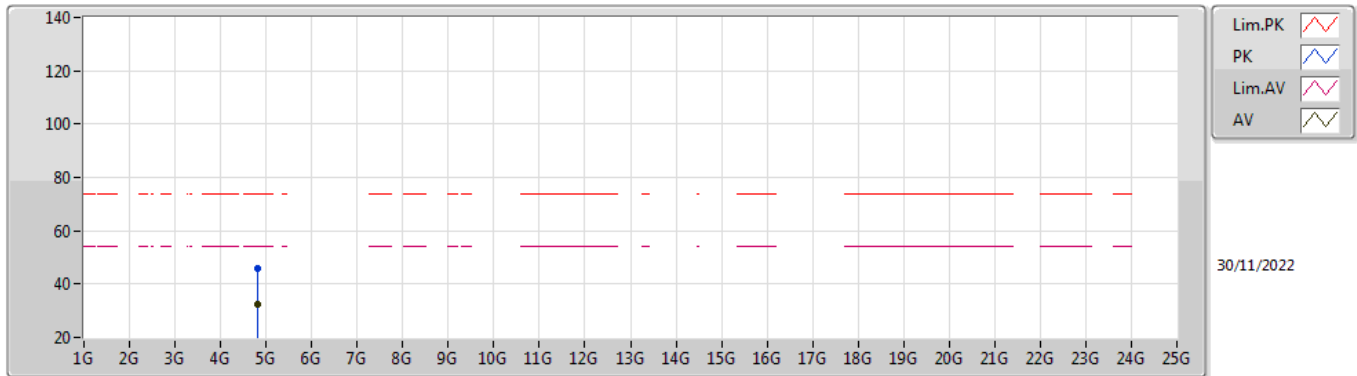


EUT\_Z\_2TX  
 Setting 22.5  
 03-C-E-5

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	2.3752G	56.83	74.00	-17.17	24.65	3	Horizontal	345	2.58	-	28.20	3.98	-
AV	2.387G	44.86	54.00	-9.14	12.62	3	Horizontal	345	2.58	-	28.25	3.99	-
PK	2.415G	111.75	Inf	-Inf	79.44	3	Horizontal	345	2.58	-	28.30	4.01	-
AV	2.4144G	98.42	Inf	-Inf	66.11	3	Horizontal	345	2.58	-	28.30	4.01	-

2.4-2.4835GHz\_802.11ax HEW20\_Nss1,(MCS0)\_2TX

2412MHz\_TX

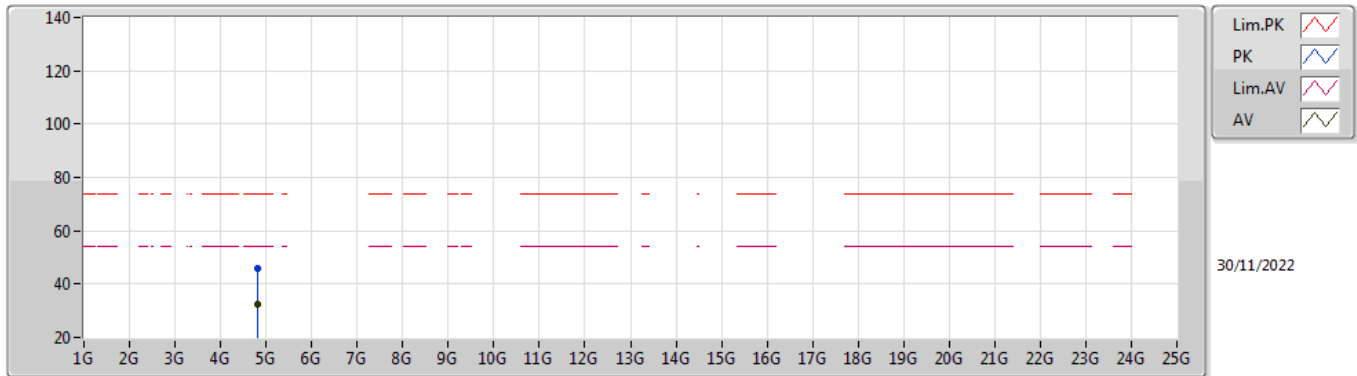


EUT Z\_2TX  
 Setting 22.5  
 02-F-G-4

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	4.82494G	45.88	74.00	-28.12	38.12	3	Vertical	228	2.25	-	32.95	5.61	30.80
AV	4.82244G	32.34	54.00	-21.66	24.60	3	Vertical	228	2.25	-	32.93	5.61	30.80

2.4-2.4835GHz\_802.11ax HEW20\_Nss1,(MCS0)\_2TX

2412MHz\_TX

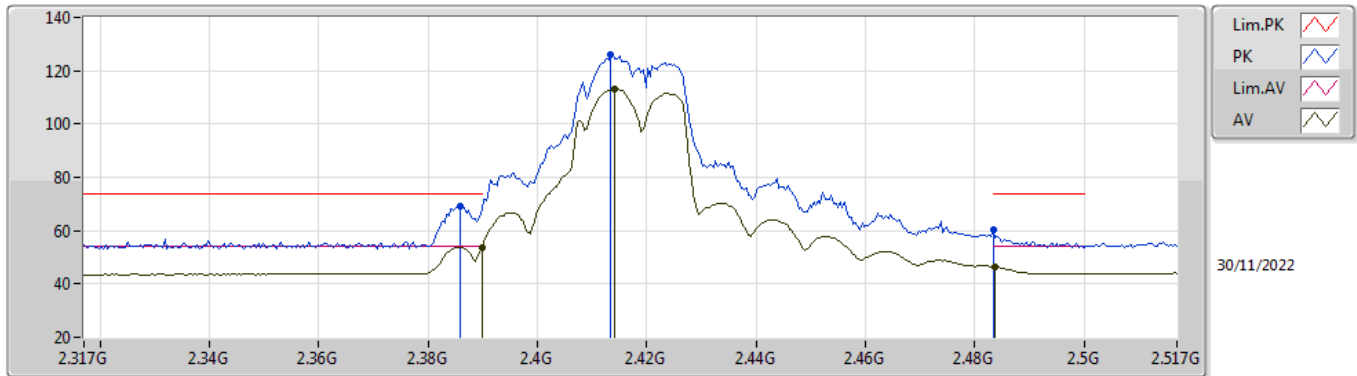


EUT Z\_2TX  
 Setting 22.5  
 02-F-G-4

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	4.8207G	45.83	74.00	-28.17	38.11	3	Horizontal	164	1.15	-	32.92	5.61	30.81
AV	4.82248G	32.38	54.00	-21.62	24.64	3	Horizontal	164	1.15	-	32.93	5.61	30.80

2.4-2.4835GHz\_802.11ax HEW20\_Nss1,(MCS0)\_2TX

2417MHz\_TX



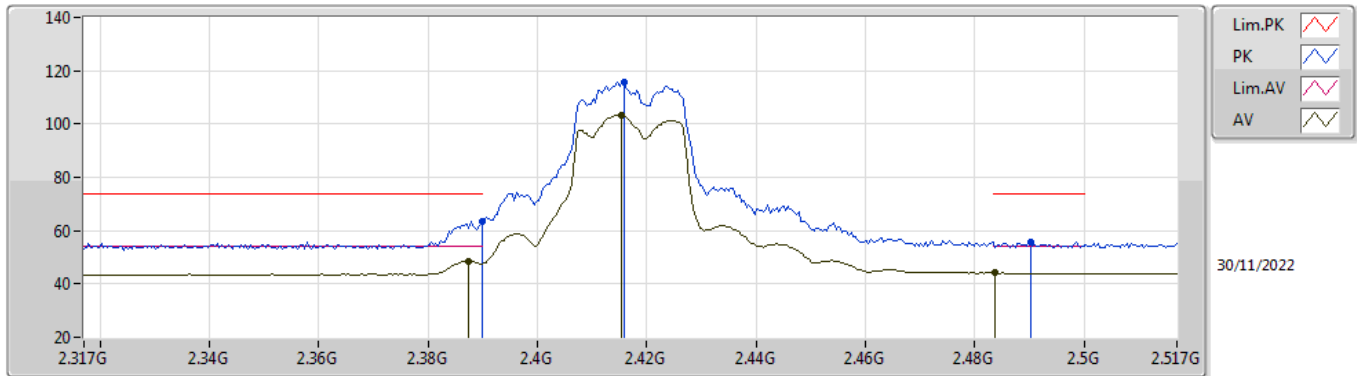
EUT Z\_2TX  
 Setting 25  
 02-F-G-4

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	2.3858G	69.33	74.00	-4.67	37.77	3	Vertical	165	1.63	-	28.37	3.19	-
AV	2.3898G	53.79	54.00	-0.21	22.22	3	Vertical	165	1.63	-	28.38	3.19	-
PK	2.4134G	125.94	Inf	-Inf	94.33	3	Vertical	165	1.63	-	28.40	3.21	-
AV	2.4142G	113.04	Inf	-Inf	81.43	3	Vertical	165	1.63	-	28.40	3.21	-
PK	2.4835G	60.20	74.00	-13.80	28.43	3	Vertical	165	1.63	-	28.53	3.24	-
AV	2.4838G	46.44	54.00	-7.56	14.66	3	Vertical	165	1.63	-	28.54	3.24	-



2.4-2.4835GHz\_802.11ax HEW20\_Nss1,(MCS0)\_2TX

2417MHz\_TX

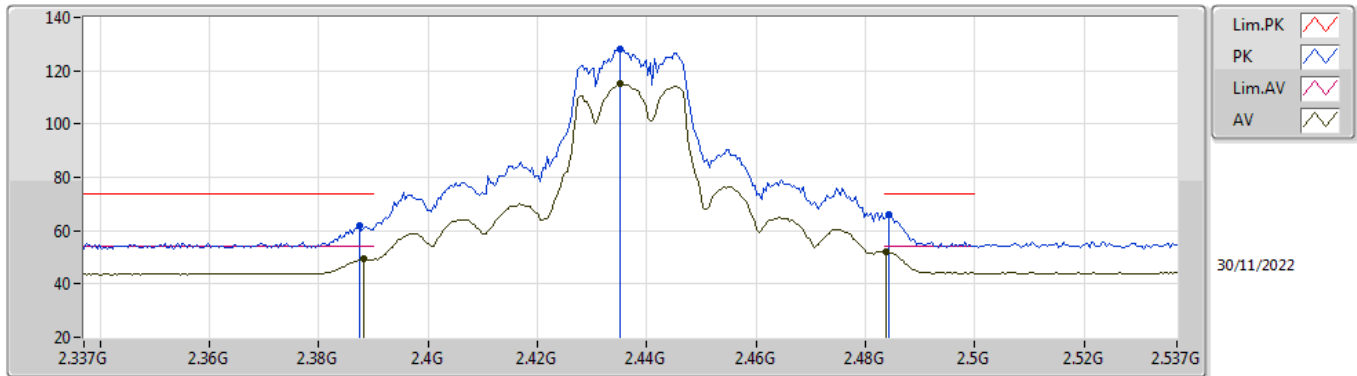


EUT Z\_2TX  
Setting 25  
02-F-G-4

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3898G	63.37	74.00	-10.63	31.80	3	Horizontal	224	1.37	-	28.38	3.19	-
AV	2.3874G	48.58	54.00	-5.42	17.02	3	Horizontal	224	1.37	-	28.37	3.19	-
PK	2.4158G	115.65	Inf	-Inf	84.04	3	Horizontal	224	1.37	-	28.40	3.21	-
AV	2.4154G	103.33	Inf	-Inf	71.72	3	Horizontal	224	1.37	-	28.40	3.21	-
PK	2.4902G	55.55	74.00	-18.45	23.74	3	Horizontal	224	1.37	-	28.56	3.25	-
AV	2.4838G	44.12	54.00	-9.88	12.34	3	Horizontal	224	1.37	-	28.54	3.24	-

2.4-2.4835GHz\_802.11ax HEW20\_Nss1,(MCS0)\_2TX

2437MHz\_TX

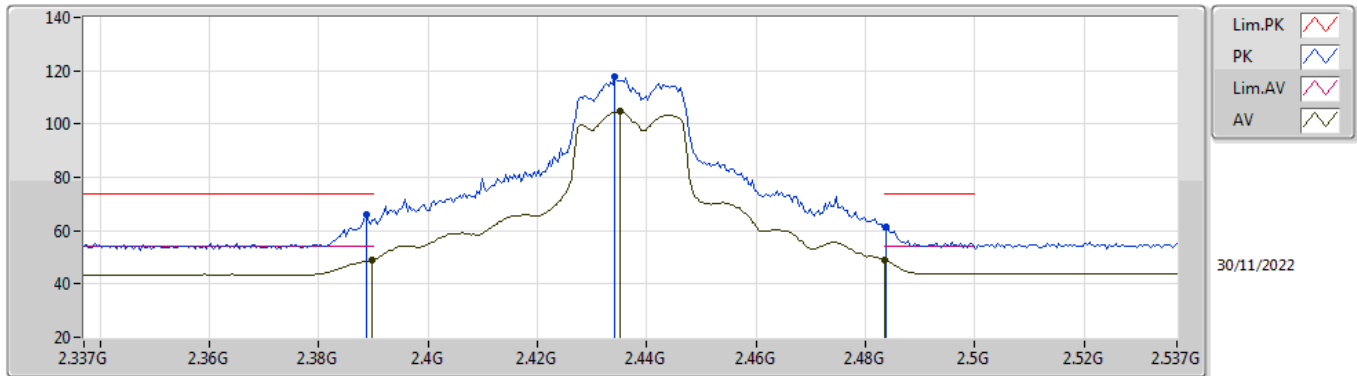


EUT Z\_2TX  
 Setting 27.5  
 02-F-G-4

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3874G	61.85	74.00	-12.15	30.29	3	Vertical	156	1.80	-	28.37	3.19	-
AV	2.3882G	49.29	54.00	-4.71	17.72	3	Vertical	156	1.80	-	28.38	3.19	-
PK	2.435G	128.08	Inf	-Inf	96.46	3	Vertical	156	1.80	-	28.40	3.22	-
AV	2.435G	114.92	Inf	-Inf	83.30	3	Vertical	156	1.80	-	28.40	3.22	-
PK	2.4842G	65.94	74.00	-8.06	34.16	3	Vertical	156	1.80	-	28.54	3.24	-
AV	2.4838G	52.31	54.00	-1.69	20.53	3	Vertical	156	1.80	-	28.54	3.24	-

2.4-2.4835GHz\_802.11ax HEW20\_Nss1,(MCS0)\_2TX

2437MHz\_TX

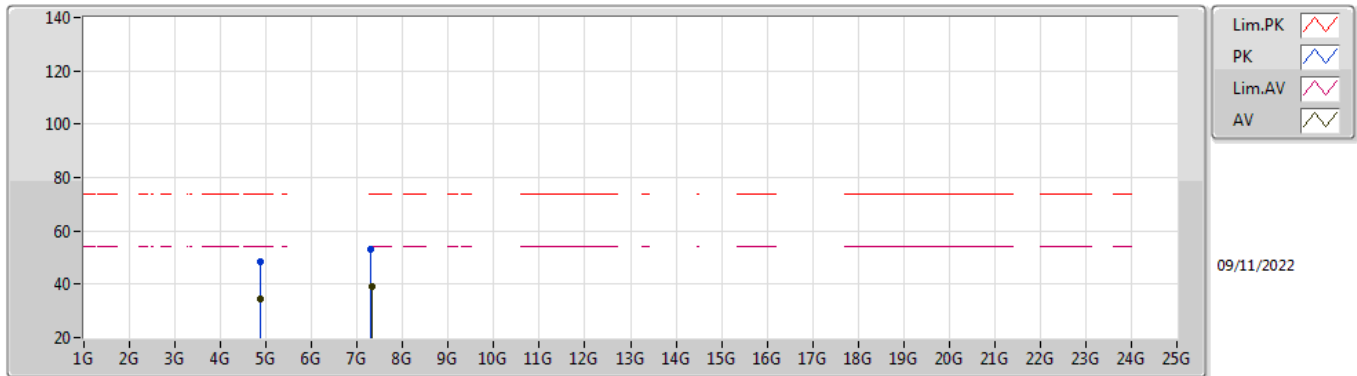


EUT Z\_2TX  
 Setting 27.5  
 02-F-G-4

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3886G	65.83	74.00	-8.17	34.26	3	Horizontal	223	1.22	-	28.38	3.19	-
AV	2.3898G	48.92	54.00	-5.08	17.35	3	Horizontal	223	1.22	-	28.38	3.19	-
PK	2.4342G	117.86	Inf	-Inf	86.24	3	Horizontal	223	1.22	-	28.40	3.22	-
AV	2.435G	104.59	Inf	-Inf	72.97	3	Horizontal	223	1.22	-	28.40	3.22	-
PK	2.4838G	61.63	74.00	-12.37	29.85	3	Horizontal	223	1.22	-	28.54	3.24	-
AV	2.4835G	49.02	54.00	-4.98	17.25	3	Horizontal	223	1.22	-	28.53	3.24	-

2.4-2.4835GHz\_802.11ax HEW20\_Nss1,(MCS0)\_2TX

2437MHz\_TX

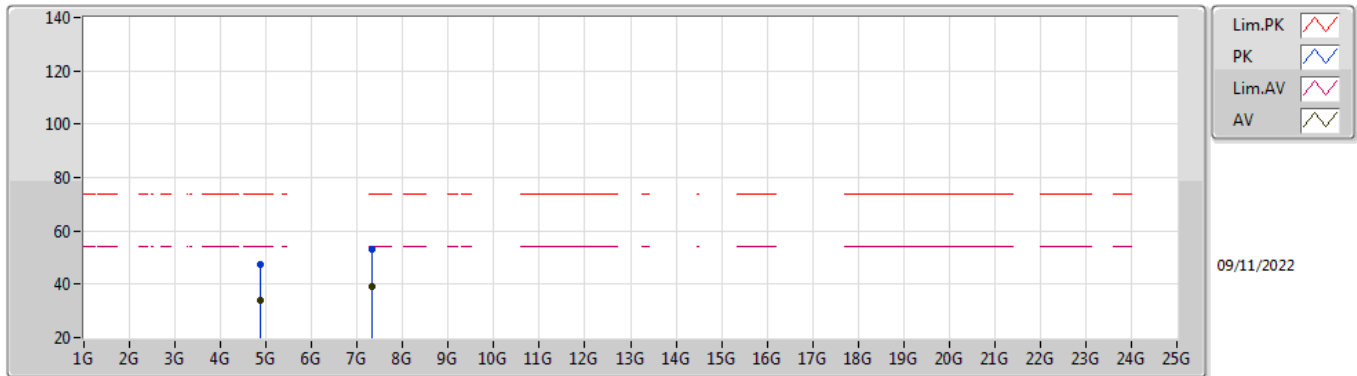


EUT\_Z\_2TX  
 Setting 27.5  
 03-C-E-5

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	4.87442G	48.22	74.00	-25.78	42.98	3	Vertical	228	2.54	-	33.60	6.54	34.90
AV	4.88414G	34.34	54.00	-19.66	29.05	3	Vertical	228	2.54	-	33.64	6.54	34.89
PK	7.30848G	52.88	74.00	-21.12	42.40	3	Vertical	84	1.80	-	36.92	8.70	35.14
AV	7.32108G	39.29	54.00	-14.71	28.80	3	Vertical	84	1.80	-	36.94	8.70	35.15

2.4-2.4835GHz\_802.11ax HEW20\_Nss1,(MCS0)\_2TX

2437MHz\_TX

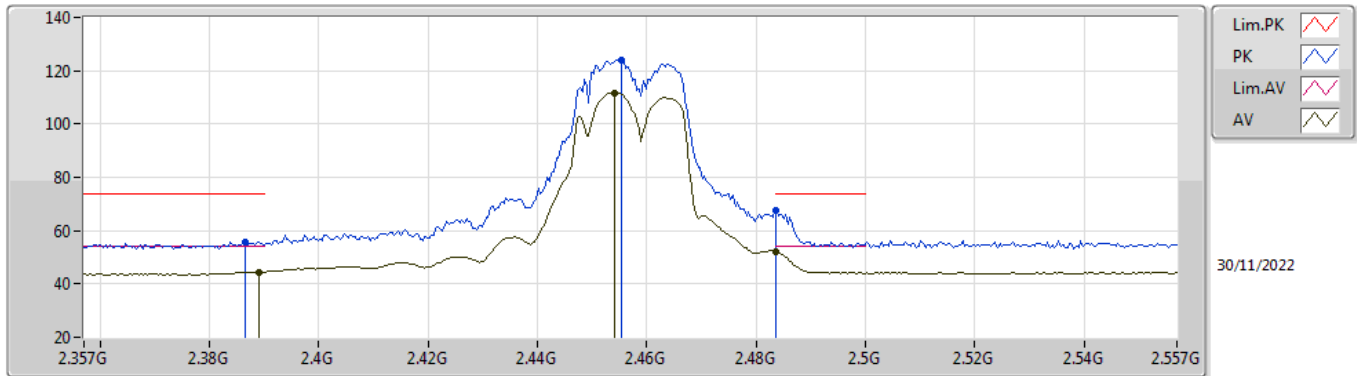


EUT\_Z\_2TX  
 Setting 27.5  
 03-C-E-5

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	4.87826G	47.55	74.00	-26.45	42.29	3	Horizontal	120	1.80	-	33.61	6.54	34.89
AV	4.88504G	34.21	54.00	-19.79	28.92	3	Horizontal	120	1.80	-	33.64	6.54	34.89
PK	7.31724G	53.05	74.00	-20.95	42.57	3	Horizontal	204	1.85	-	36.93	8.70	35.15
AV	7.32396G	39.14	54.00	-14.86	28.64	3	Horizontal	204	1.85	-	36.95	8.70	35.15

2.4-2.4835GHz\_802.11ax HEW20\_Nss1,(MCS0)\_2TX

2457MHz\_TX

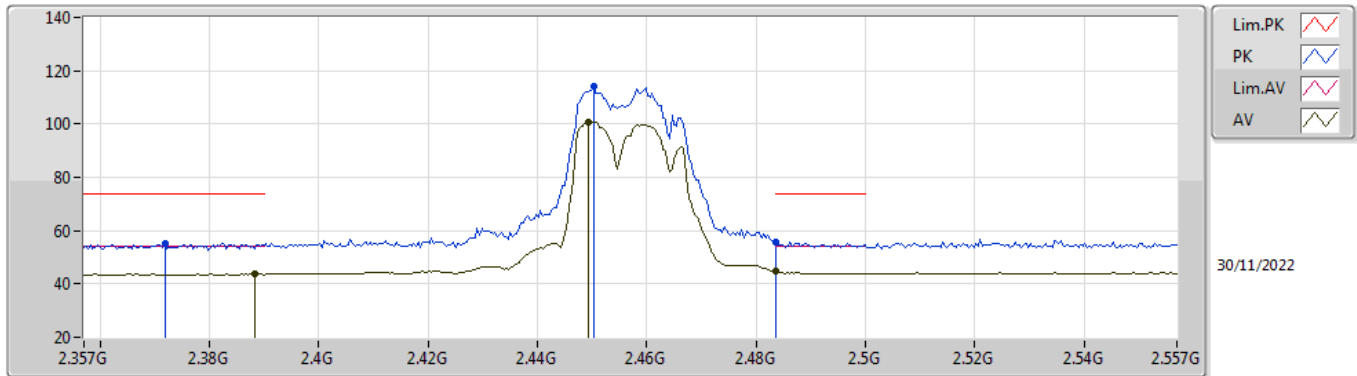


EUT Z\_2TX  
Setting 24  
02-F-G-4

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	55.68	74.00	-18.32	24.12	3	Vertical	164	2.46	-	28.37	3.19	-
AV	2.389G	44.54	54.00	-9.46	12.97	3	Vertical	164	2.46	-	28.38	3.19	-
PK	2.4554G	124.01	Inf	-Inf	92.36	3	Vertical	164	2.46	-	28.42	3.23	-
AV	2.4542G	111.74	Inf	-Inf	80.09	3	Vertical	164	2.46	-	28.42	3.23	-
PK	2.4835G	67.38	74.00	-6.62	35.61	3	Vertical	164	2.46	-	28.53	3.24	-
AV	2.4835G	52.12	54.00	-1.88	20.35	3	Vertical	164	2.46	-	28.53	3.24	-

2.4-2.4835GHz\_802.11ax HEW20\_Nss1,(MCS0)\_2TX

2457MHz\_TX

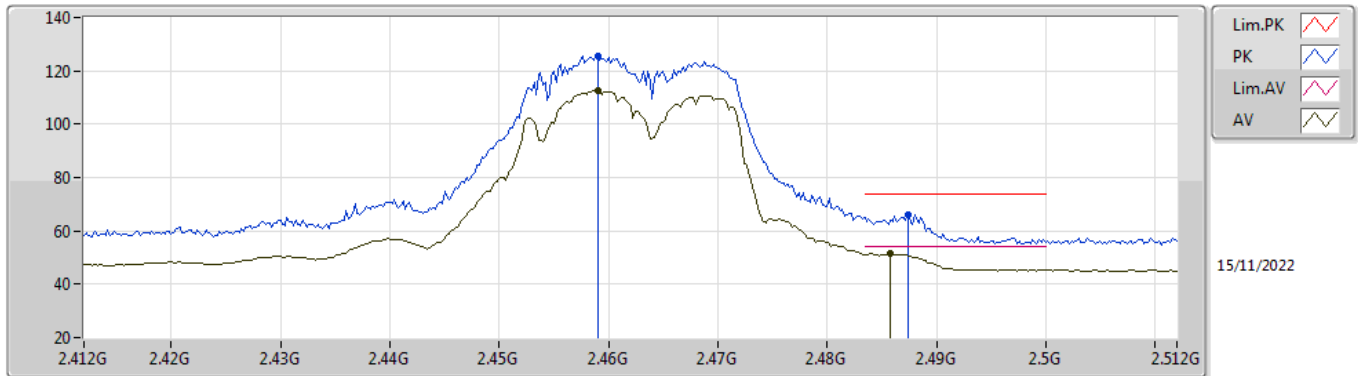


EUT Z\_2TX  
 Setting 24  
 02-F-G-4

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3718G	55.31	74.00	-18.69	23.78	3	Horizontal	344	2.82	-	28.34	3.19	-
AV	2.3882G	43.75	54.00	-10.25	12.18	3	Horizontal	344	2.82	-	28.38	3.19	-
PK	2.4502G	114.10	Inf	-Inf	82.47	3	Horizontal	344	2.82	-	28.40	3.23	-
AV	2.4494G	100.69	Inf	-Inf	69.07	3	Horizontal	344	2.82	-	28.40	3.22	-
PK	2.4835G	55.71	74.00	-18.29	23.94	3	Horizontal	344	2.82	-	28.53	3.24	-
AV	2.4835G	44.66	54.00	-9.34	12.89	3	Horizontal	344	2.82	-	28.53	3.24	-

2.4-2.4835GHz\_802.11ax HEW20\_Nss1,(MCS0)\_2TX

2462MHz\_TX



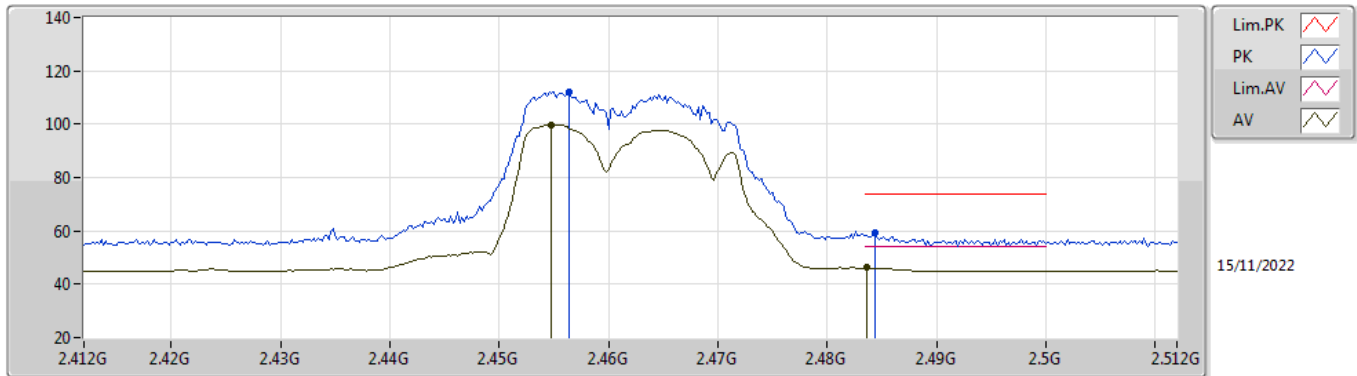
EUT\_Z\_2TX  
Setting 23.5  
03-C-E-5

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	2.459G	125.49	Inf	-Inf	93.09	3	Vertical	160	1.96	-	28.34	4.06	-
AV	2.459G	112.57	Inf	-Inf	80.17	3	Vertical	160	1.96	-	28.34	4.06	-
PK	2.4874G	65.95	74.00	-8.05	33.41	3	Vertical	160	1.96	-	28.45	4.09	-
AV	2.4858G	51.33	54.00	-2.67	18.80	3	Vertical	160	1.96	-	28.44	4.09	-



2.4-2.4835GHz\_802.11ax HEW20\_Nss1,(MCS0)\_2TX

2462MHz\_TX

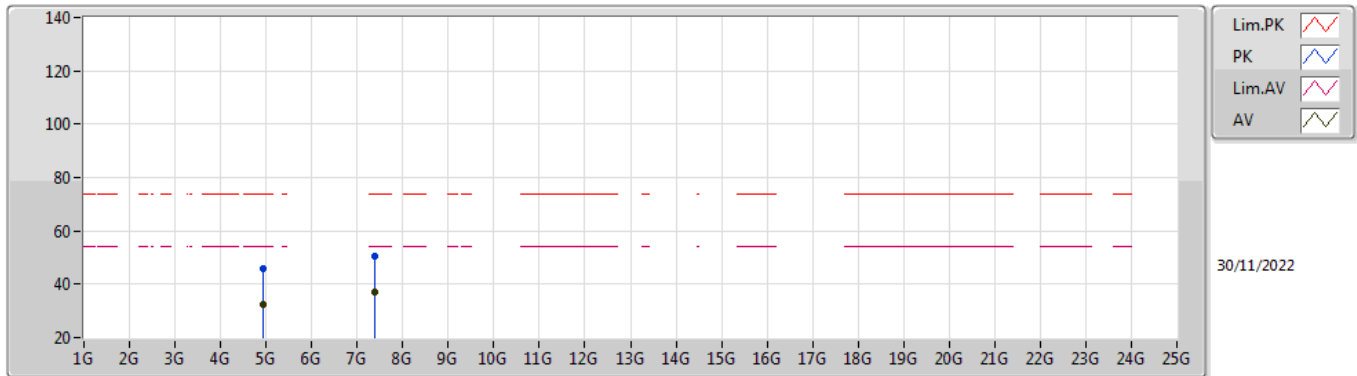


EUT\_Z\_2TX  
 Setting 23.5  
 03-C-E-5

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	2.4564G	112.22	Inf	-Inf	79.83	3	Horizontal	17	2.57	-	28.33	4.06	-
AV	2.4548G	99.81	Inf	-Inf	67.44	3	Horizontal	17	2.57	-	28.32	4.05	-
PK	2.4844G	59.25	74.00	-14.75	26.73	3	Horizontal	17	2.57	-	28.44	4.08	-
AV	2.4836G	46.14	54.00	-7.86	13.63	3	Horizontal	17	2.57	-	28.43	4.08	-

2.4-2.4835GHz\_802.11ax HEW20\_Nss1,(MCS0)\_2TX

2462MHz\_TX

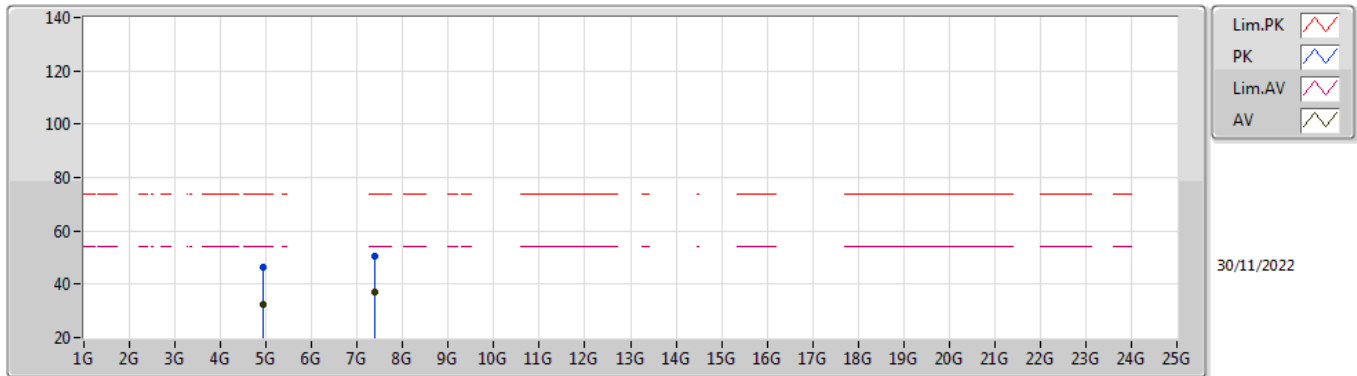


EUT\_Z\_2TX  
 Setting 23.5  
 02-F-G-4

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	4.92768G	45.92	74.00	-28.08	37.76	3	Vertical	299	1.83	-	33.26	5.66	30.76
AV	4.92406G	32.60	54.00	-21.40	24.45	3	Vertical	299	1.83	-	33.25	5.66	30.76
PK	7.3851G	50.53	74.00	-23.47	39.18	3	Vertical	172	1.31	-	36.50	6.81	31.96
AV	7.38898G	36.93	54.00	-17.07	25.59	3	Vertical	172	1.31	-	36.50	6.81	31.97

2.4-2.4835GHz\_802.11ax HEW20\_Nss1,(MCS0)\_2TX

2462MHz\_TX

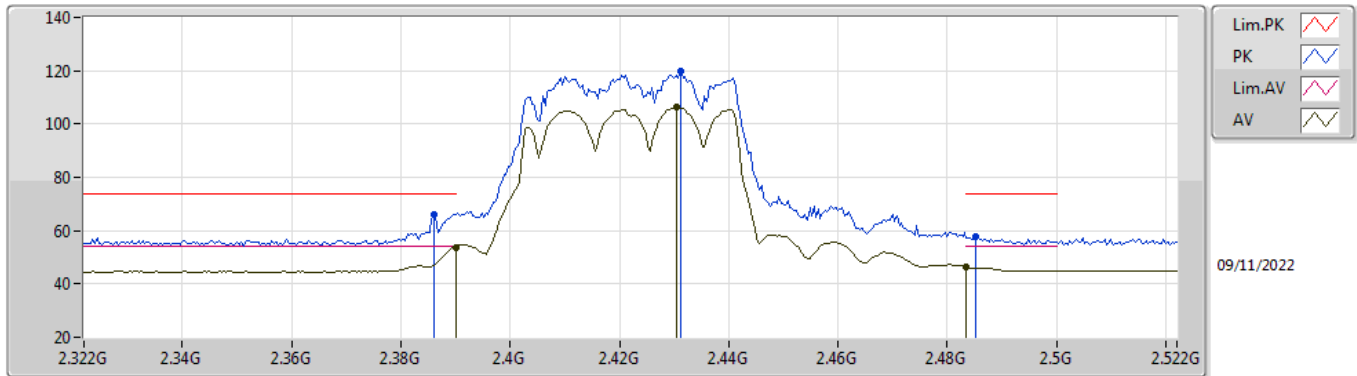


EUT\_Z\_2TX  
 Setting 23.5  
 02-F-G-4

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	4.92586G	46.19	74.00	-27.81	38.04	3	Horizontal	77	1.07	-	33.25	5.66	30.76
AV	4.92494G	32.62	54.00	-21.38	24.47	3	Horizontal	77	1.07	-	33.25	5.66	30.76
PK	7.39062G	50.72	74.00	-23.28	39.39	3	Horizontal	83	1.17	-	36.50	6.80	31.97
AV	7.386G	37.04	54.00	-16.96	25.69	3	Horizontal	83	1.17	-	36.50	6.81	31.96

2.4-2.4835GHz\_802.11ax HEW40\_Nss1,(MCS0)\_2TX

2422MHz\_TX



EUT\_Z\_2TX  
 Setting 19.5  
 03-C-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	2.386G	65.99	74.00	-8.01	33.76	3	Vertical	195	1.40	-	28.24	3.99	-
AV	2.39G	53.87	54.00	-0.13	21.62	3	Vertical	195	1.40	-	28.26	3.99	-
PK	2.4312G	119.68	Inf	-Inf	87.35	3	Vertical	195	1.40	-	28.30	4.03	-
AV	2.4304G	106.35	Inf	-Inf	74.02	3	Vertical	195	1.40	-	28.30	4.03	-
PK	2.4852G	57.79	74.00	-16.21	25.26	3	Vertical	195	1.40	-	28.44	4.09	-
AV	2.4835G	46.22	54.00	-7.78	13.71	3	Vertical	195	1.40	-	28.43	4.08	-