



RADIO TEST REPORT

FCC ID : Z8H89FT0078
Equipment : XV2-21X Indoor Wi-Fi 6 Access Point
Brand Name : Cambium Networks
Model Name : XV2-21X
Applicant : Cambium Networks Inc.
3800 Golf Road, Suite 360 Rolling Meadows, IL
60008, USA
Manufacturer : Cambium Networks, Ltd.
Ashburton, TQ13 7UP, UK
Standard : 47 CFR FCC Part 15.247

The product was received on Jun. 10, 2022, and testing was started from Jun. 13, 2022 and completed on Jul. 20, 2022. We, Sporton International Inc. Hsinchu Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

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



Approved by: Sam Chen

Sporton International Inc. Hsinchu Laboratory
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Photographs of EUT v01



Summary of Test Result

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

Declaration of Conformity:

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

Comments and Explanations:

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

Reviewed by: Sam Chen

Report Producer: Jessie Wei



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

Ant.	Port		Brand	Model Name	Antenna Type	Connector	Gain (dBi)
	WLAN 2.4GHz	WLAN 5GHz					
1	1	-	Gemtek	WRTQ-369AX	PIFA	MHF	Note1
2	2	-	Gemtek	WRTQ-369AX	PIFA	MHF	
3	-	2	Gemtek	WRTQ-369AX	PIFA	MHF	
4	-	1	Gemtek	WRTQ-369AX	PIFA	MHF	

Note1:

Ant.	Antenna Gain (dBi)					Cable Loss (dB)				
	WLAN 2.4GHz	WLAN 5GHz UNII 1	WLAN 5GHz UNII 2A	WLAN 5GHz UNII 2C	WLAN 5GHz UNII 3	WLAN 2.4GHz	WLAN 5GHz UNII 1	WLAN 5GHz UNII 2A	WLAN 5GHz UNII 2C	WLAN 5GHz UNII 3
1	5.65	-	-	-	-	0.6	-	-	-	-
2	5	-	-	-	-	0.35	-	-	-	-
3	-	6.32	7.2	7.76	7.79	-	0.9	0.9	0.9	0.9
4	-	6.92	6.89	8.16	8.15	-	0.4	0.4	0.4	0.4

Ant.	Net Gain (dBi)				
	WLAN 2.4GHz	WLAN 5GHz UNII 1	WLAN 5GHz UNII 2A	WLAN 5GHz UNII 2C	WLAN 5GHz UNII 3
1	5.05	-	-	-	-
2	4.65	-	-	-	-
3	-	5.42	6.3	6.86	6.89
4	-	6.52	6.49	7.76	7.75

Note2: The above information was declared by manufacturer.

Note3: The EUT doesn't enable the DFS band at this time.



Note4: Directional gain information

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

Ex.

Directional Gain (NSS1) formula :

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

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

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

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

Where ;

$$G1 = 10 ; G2 = 10 ;$$

$$2.4G \ G1 = 5.05 \text{ dBi}; G2 = 4.65 \text{ dBi}; DG = 7.86 \text{ dBi}$$

$$5G \text{ Band1} \ G1 = 5.42 \text{ dBi}; G2 = 6.52 \text{ dBi}; DG = 9.00 \text{ dBi}$$

$$5G \text{ Band2} \ G1 = 6.3 \text{ dBi}; G2 = 6.49 \text{ dBi}; DG = 9.41 \text{ dBi}$$

$$5G \text{ Band3} \ G1 = 6.86 \text{ dBi}; G2 = 7.76 \text{ dBi}; DG = 10.33 \text{ dBi}$$

$$5G \text{ Band4} \ G1 = 6.89 \text{ dBi}; G2 = 7.75 \text{ dBi}; DG = 10.34 \text{ dBi}$$

Note5: For 2.4GHz function:

For IEEE 802.11 b/g/n/VHT/ax (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 (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

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11b	0.648	1.88	1.415m	1k
802.11g	0.941	0.26	1.985m	1k
802.11ax HEW20	0.915	0.39	5.455m	300
802.11ax HEW40	0.914	0.39	5.455m	300

Note:

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

1.1.4 EUT Operational Condition

EUT Power Type	From PoE			
Beamforming Function	<input checked="" type="checkbox"/>	With beamforming	<input type="checkbox"/>	Without beamforming
	The product has beamforming function for n/VHT/ax in 2.4GHz, n/ac/ax in 5GHz.			
Function	<input checked="" type="checkbox"/>	Point-to-multipoint	<input type="checkbox"/>	Point-to-point
Test Software Version	QSPR Version 5.0-00199			

Note: The above information was declared by manufacturer.

1.1.5 Table for EUT supports functions

Function
AP
Bridge
Mesh

Note 1: After evaluating, AP Mode was selected to test and record in the report.

Note 2: 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	TH03-CB	Owen Hsu	23.5~23.9 / 56~59	Jun. 24, 2022~ Jul. 20, 2022
Radiated below 1GHz	03CH05-CB	Bruce Yang	24.5~25.6 / 57~60	Jun. 18, 2022
Radiated above 1GHz	03CH02-CB	Simmon Cheng	24.5~25.6 / 56~59	Jun. 13, 2022~ Jul. 04, 2022
AC Conduction	CO01-CB	Allen Chung	22~23 / 51~52	Jun. 27, 2022

1.4 Measurement Uncertainty

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

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	3.4 dB	Confidence levels of 95%
Radiated Emission (9kHz ~ 30MHz)	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

<Non-Beamforming Mode>

Mode	Power Setting
802.11b_Nss1,(1Mbps)_2TX	-
2412MHz	23
2417MHz	24
2437MHz	27
2457MHz	26
2462MHz	25
802.11g_Nss1,(6Mbps)_2TX	-
2412MHz	22
2417MHz	24
2437MHz	27
2457MHz	25
2462MHz	22
802.11ax HEW20_Nss1,(MCS0)_2TX	-
2412MHz	21
2417MHz	24
2437MHz	27.5
2457MHz	24
2462MHz	20
802.11ax HEW40_Nss1,(MCS0)_2TX	-
2422MHz	20
2427MHz	20
2437MHz	23
2447MHz	18
2452MHz	18



<Beamforming Mode>

Mode	Power Setting
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-
2412MHz	21
2417MHz	24
2437MHz	25.5
2457MHz	24
2462MHz	20
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-
2422MHz	20
2427MHz	20
2437MHz	23
2447MHz	18
2452MHz	18

Note1: 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.
 Note2: The EUT supports beamforming and CDD modes, and the CDD mode is the worst case. Therefore, all test items are evaluated in the report. The beamforming mode only evaluates the output power.

2.2 The Worst Case Measurement Configuration

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

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



The Worst Case Mode for Following Conformance Tests	
Tests Item	Emissions in Restricted Frequency Bands
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.
Operating Mode < 1GHz	Normal Link
1	EUT in Z axis
2	EUT in Y axis
3	EUT in X axis
For operating mode 1 is the worst case and it was record in this test report.	
Operating Mode > 1GHz	CTX
The EUT was performed at X axis, Y axis and Z axis position, and the worst case was found at X axis. So the measurement will follow this same test configuration.	
1	EUT in X axis

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation
Operating Mode	
1	WLAN 2.4GHz + WLAN 5GHz
Refer to Sporton Test Report No.: FA261015 for Co-location RF Exposure Evaluation.	

Note: The EUT was powered by PoE, and the PoE was for measurement only, it would not be marketed.

Equipment	Brand Name	Model Name	FCC ID
PoE	Cambium Networks	NET-P15-56IN	N/A



2.3 EUT Operation during Test

For CTX Mode:

The EUT was programmed to be in continuously transmitting mode.

For Normal Link Mode:

During the test, the EUT operation to normal function.

2.4 Accessories

Wall-mounted rack*1, Iron sheet for rack*1

2.5 Support Equipment

For AC Conduction:

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	PoE	Cambium Networks	NET-P15-56IN	N/A
B	PoE NB	DELL	E6430	N/A
C	2.4G NB	DELL	T3400	N/A
D	5G NB	DELL	E6430	N/A

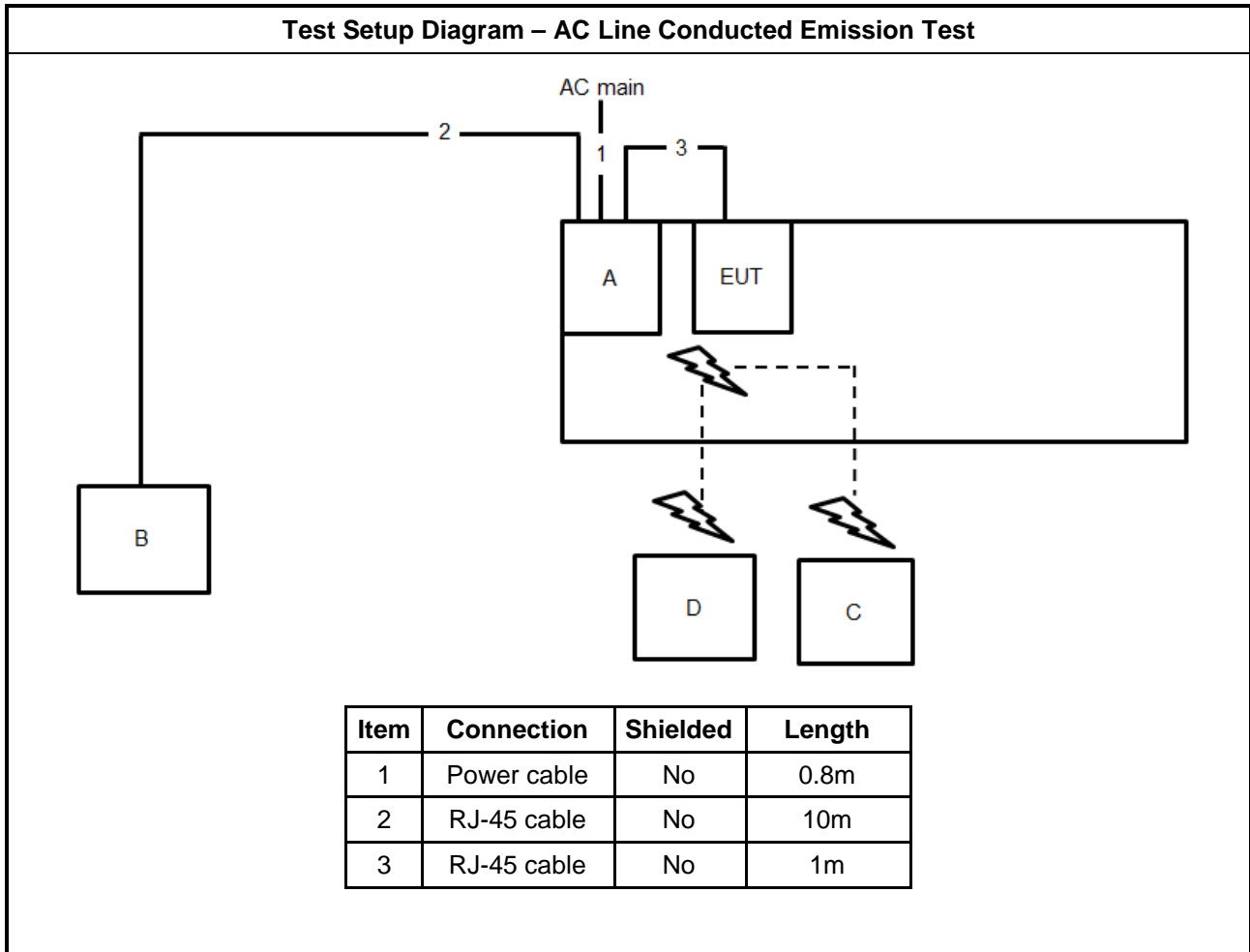
For Radiated (below 1GHz):

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	PoE NB	DELL	E4300	N/A
B	PoE	Cambium Networks	NET-P15-56IN	N/A
C	2.4G NB	DELL	E4300	N/A
D	5G NB	DELL	E4300	N/A

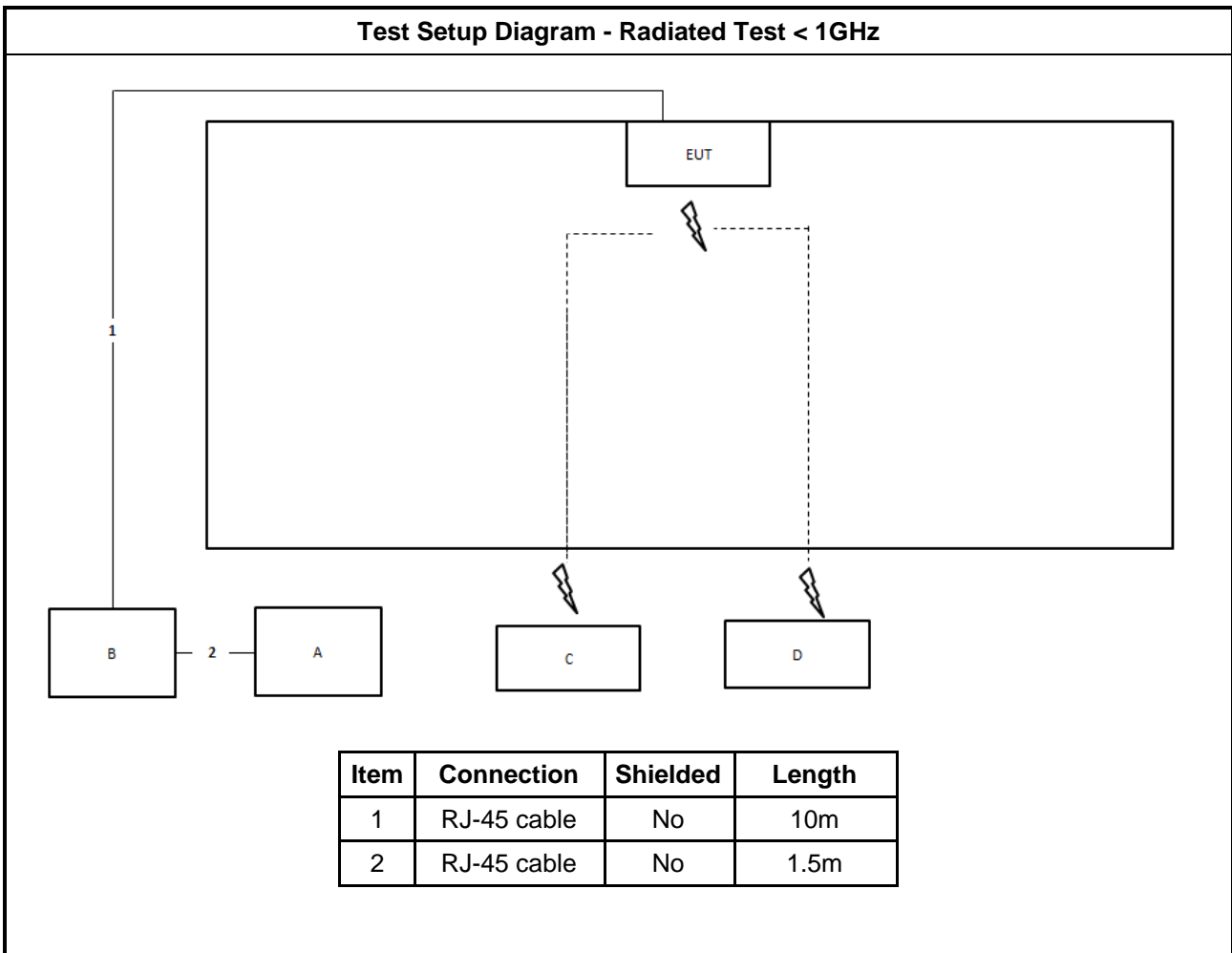
For Radiated (above 1GHz) and RF Conducted:

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	Notebook	DELL	E4300	N/A
B	PoE	Cambium	NET-P15-56IN	N/A

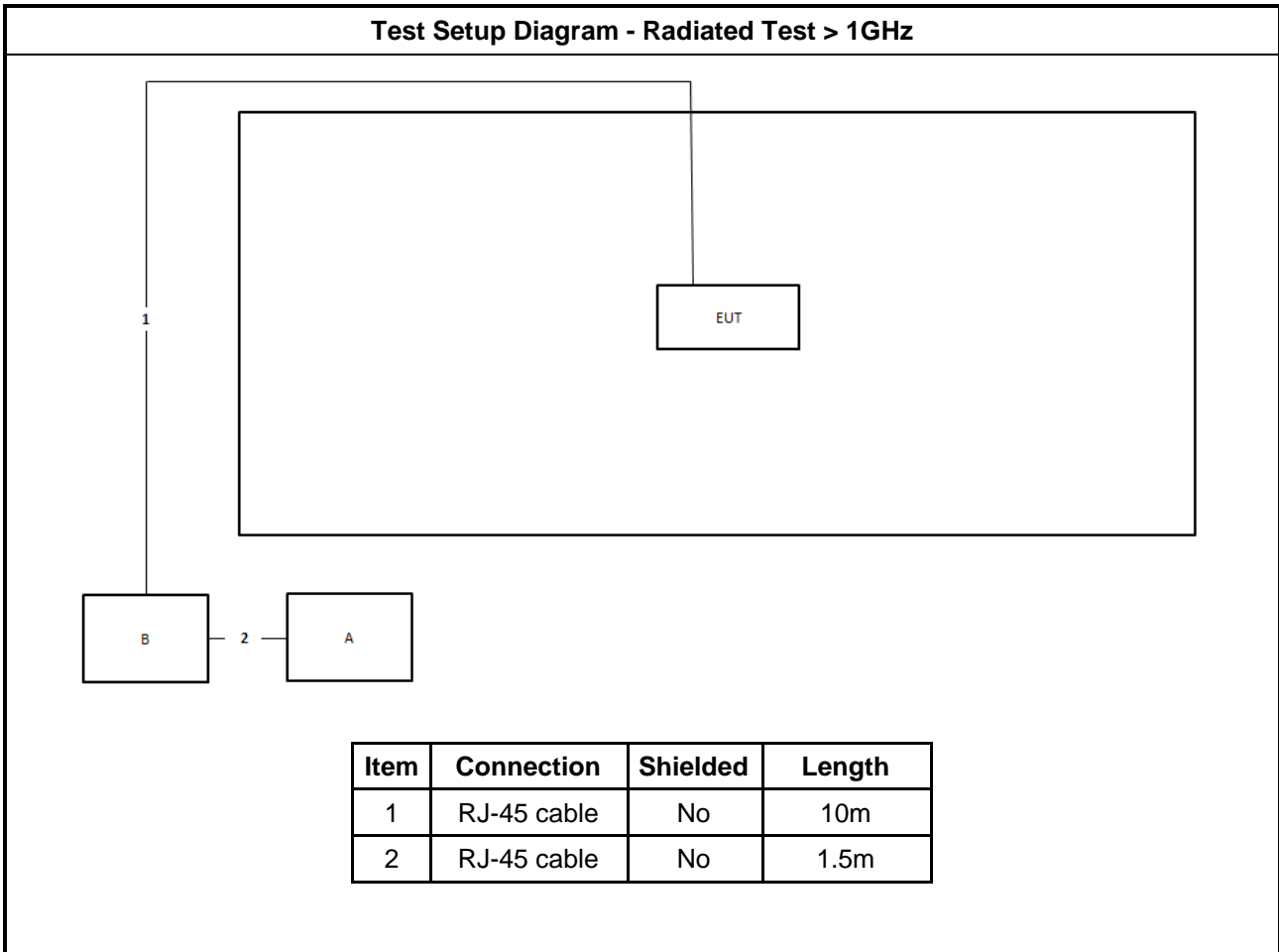
2.6 Test Setup Diagram



Test Setup Diagram - Radiated Test < 1GHz



Test Setup Diagram - Radiated Test > 1GHz





3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

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

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

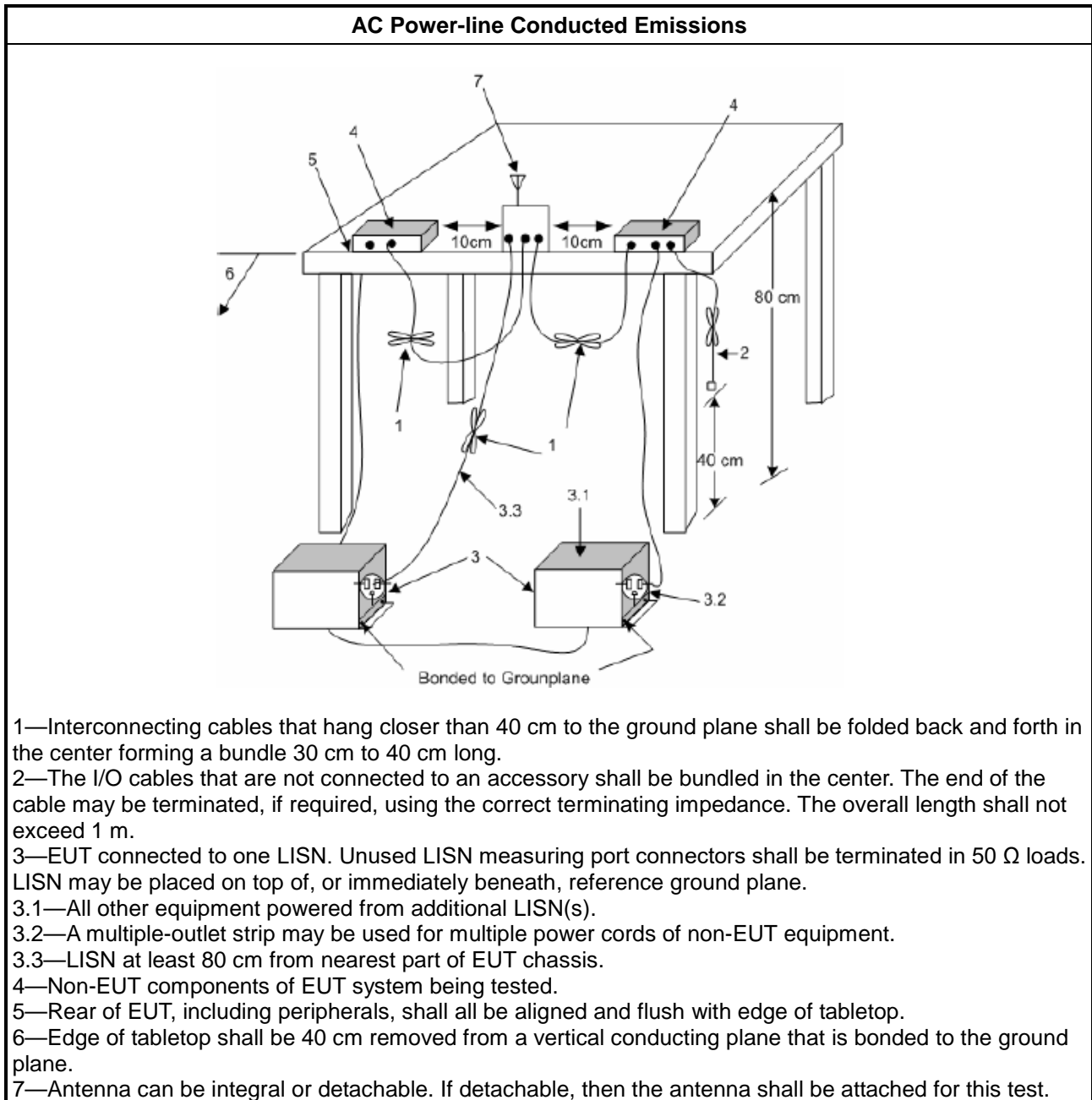
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

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

3.1.4 Test Setup



3.1.5 Measurement Results Calculation

The measured Level is calculated using:

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

3.1.6 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

3.2 DTS Bandwidth

3.2.1 6dB Bandwidth Limit

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

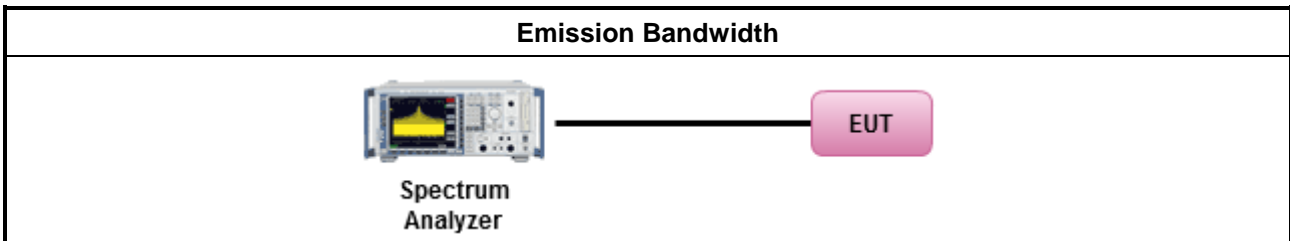
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

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

3.2.4 Test Setup



3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B



3.3 Maximum Conducted Output Power

3.3.1 Maximum Conducted Output Power Limit

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

3.3.2 Measuring Instruments

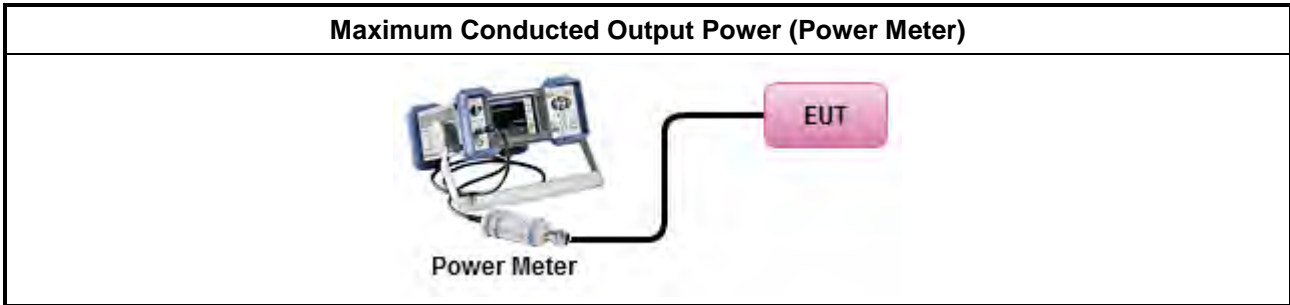
Refer a test equipment and calibration data table in this test report.



3.3.3 Test Procedures

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

3.3.4 Test Setup



3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C



3.4 Power Spectral Density

3.4.1 Power Spectral Density Limit

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

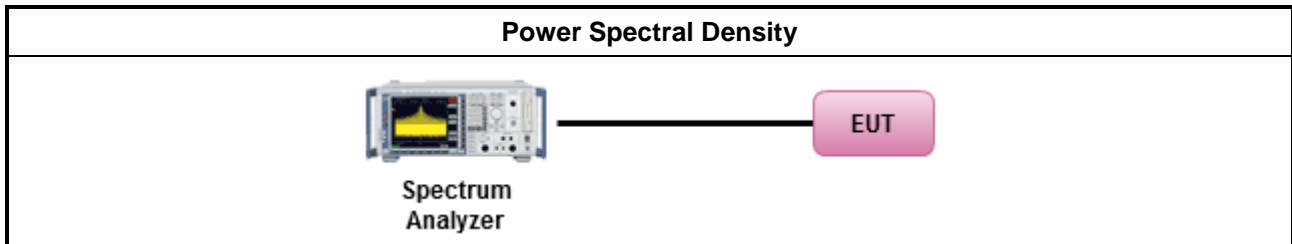
3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

Test Method			
<ul style="list-style-type: none"> Peak power spectral density procedures that the same method as used to determine the conducted output power. If maximum peak conducted output power was measured to demonstrate compliance to the output power limit, then the peak PSD procedure below (Method PKPSD) shall be used. If maximum conducted output power was measured to demonstrate compliance to the output power limit, then one of the average PSD procedures shall be used, as applicable based on the following criteria (the peak PSD procedure is also an acceptable option). 			
<input checked="" type="checkbox"/> Refer as FCC KDB 558074, clause 8.4 & C63.10 clause 11.10 Method Max. PSD.			
<ul style="list-style-type: none"> For conducted measurement. <ul style="list-style-type: none"> If The EUT supports multiple transmit chains using options given below: <table border="1"> <tbody> <tr> <td> <input 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> 	<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.

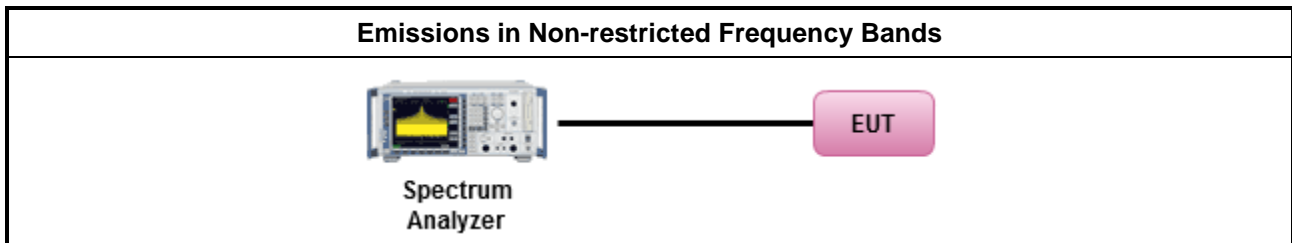
3.5.2 Measuring Instruments

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"> Refer as FCC KDB 558074, clause 8.5 for unwanted emissions into non-restricted bands.

3.5.4 Test Setup



3.5.5 Test Result of Emissions in Non-restricted Frequency Bands

Refer as Appendix E



3.6 Emissions in Restricted Frequency Bands

3.6.1 Emissions in Restricted Frequency Bands Limit

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

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

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

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

3.6.2 Measuring Instruments

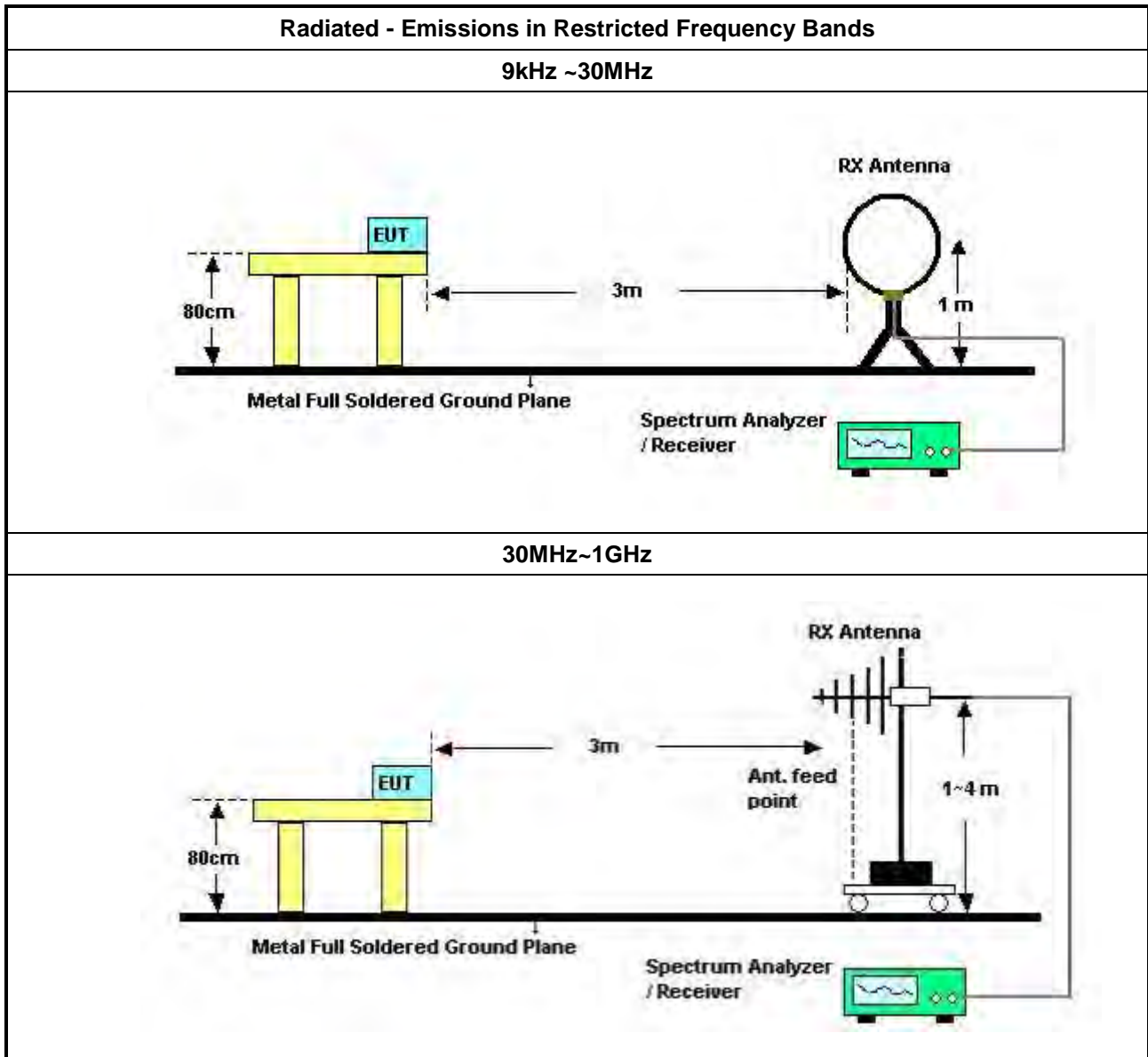
Refer a test equipment and calibration data table in this test report.

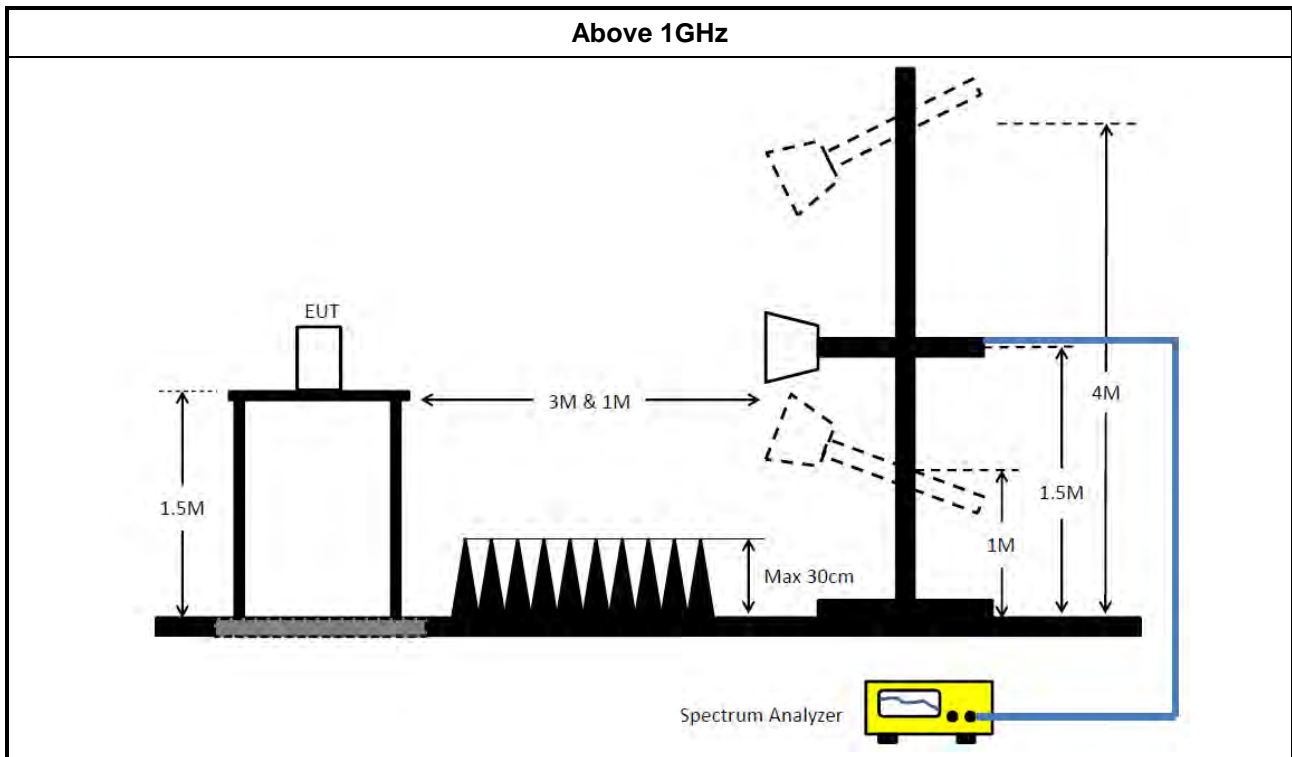


3.6.3 Test Procedures

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

3.6.4 Test Setup





3.6.5 Measurement Results Calculation

The measured Level is calculated using:

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

3.6.6 Emissions in Restricted Frequency Bands (Below 30MHz)

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

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

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

3.6.7 Test Result of Emissions in Restricted Frequency Bands

Refer as Appendix F



4 Test Equipment and Calibration Data

Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
EMI Receiver	Agilent	N9038A	My52260123	9kHz ~ 8.4GHz	Feb. 22, 2022	Feb. 21, 2023	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-50-1 6-2	04083	150kHz ~ 100MHz	Feb. 09, 2022	Feb. 08, 2023	Conduction (CO01-CB)
LISN	Schwarzbeck	NSLK 8127	8127647	9kHz ~ 30MHz	Apr. 12, 2022	Apr. 11, 2023	Conduction (CO01-CB)
Pulse Limiter	Rohde&Schwarz	ESH3-Z2	100430	9kHz ~ 30MHz	Feb. 10, 2022	Feb. 09, 2023	Conduction (CO01-CB)
COND Cable	Woken	Cable	Low cable-CO01	9kHz ~ 30MHz	May 18, 2022	May 17, 2023	Conduction (CO01-CB)
Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conduction (CO01-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	May 14, 2022	May 13, 2023	Radiation (03CH05-CB)
3m Semi Anechoic Chamber NSA	TDK	SAC-3M	03CH05-CB	30 MHz ~ 1 GHz	Aug. 09, 2021	Aug. 08, 2022	Radiation (03CH05-CB)
Bilog Antenna with 6dB Attenuator	TESEQ & EMCI	CBL 6112D & N-6-06	35236 & AT-N0610	30MHz ~ 2GHz	Mar. 25, 2022	Mar. 24, 2023	Radiation (03CH05-CB)
Pre-Amplifier	EMCI	EMC330N	980331	20MHz ~ 3GHz	Apr. 26, 2022	Apr. 25, 2023	Radiation (03CH05-CB)
Spectrum Analyzer	R&S	FSP40	100304	9kHz ~ 40GHz	Mar. 14, 2022	Mar. 13, 2023	Radiation (03CH05-CB)
EMI Test Receiver	R&S	ESCS	826547/017	9kHz ~ 2.75GHz	Jun. 17, 2022	Jun. 16, 2023	Radiation (03CH05-CB)
RF Cable-low	Woken	RG402	Low Cable-04+23	30MHz~1GHz	Oct. 13, 2021	Oct. 12, 2022	Radiation (03CH05-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH05-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	BBHA9170252	15GHz ~ 40GHz	Aug. 05, 2021	Aug. 04, 2022	Radiation (03CH02-CB)
Pre-Amplifier	Agilent	83017A	MY39501305	1GHz ~ 26.5GHz	Jul. 12, 2021	Jul. 11, 2022	Radiation (03CH02-CB)
Spectrum analyzer	R&S	FSU	100015	9kHz~26GHz	Oct. 25, 2021	Oct. 24, 2022	Radiation (03CH02-CB)
RF Cable-high	Woken	RG402	High Cable-18	1GHz ~ 18GHz	Oct. 04, 2021	Oct. 03, 2022	Radiation (03CH02-CB)
RF Cable-high	Woken	RG402	High Cable-18+19	1GHz ~ 18GHz	Oct. 04, 2021	Oct. 03, 2022	Radiation (03CH02-CB)



Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
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)
Spectrum analyzer	R&S	FSV40	101028	9kHz~40GHz	Jan. 07, 2022	Jan. 06, 2023	Conducted (TH03-CB)
Power Sensor	Anritsu	MA2411B	1726195	300MHz~40GHz	Aug. 22, 2021	Aug. 21, 2022	Conducted (TH03-CB)
Power Meter	Anritsu	ML2495A	1035008	300MHz~40GHz	Aug. 22, 2021	Aug. 21, 2022	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-11	1 GHz ~18 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-12	1 GHz ~18 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-13	1 GHz ~18 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-14	1 GHz ~18 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-15	1 GHz ~18 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH03-CB)
Switch	SPTCB	SP-SWI	SWI-03	1 GHz ~26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	SWI-03-P1	1 GHz ~26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	SWI-03-P2	1 GHz ~26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	SWI-03-P3	1 GHz ~26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	SWI-03-P4	1 GHz ~26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	SWI-03-P5	1 GHz ~26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH03-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conducted (TH03-CB)

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

NCR means Non-Calibration required.

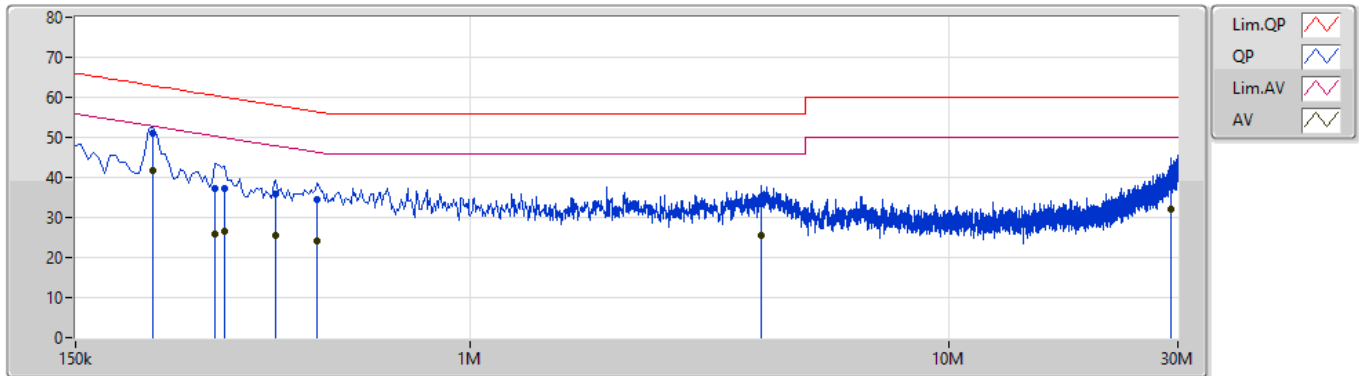


Summary

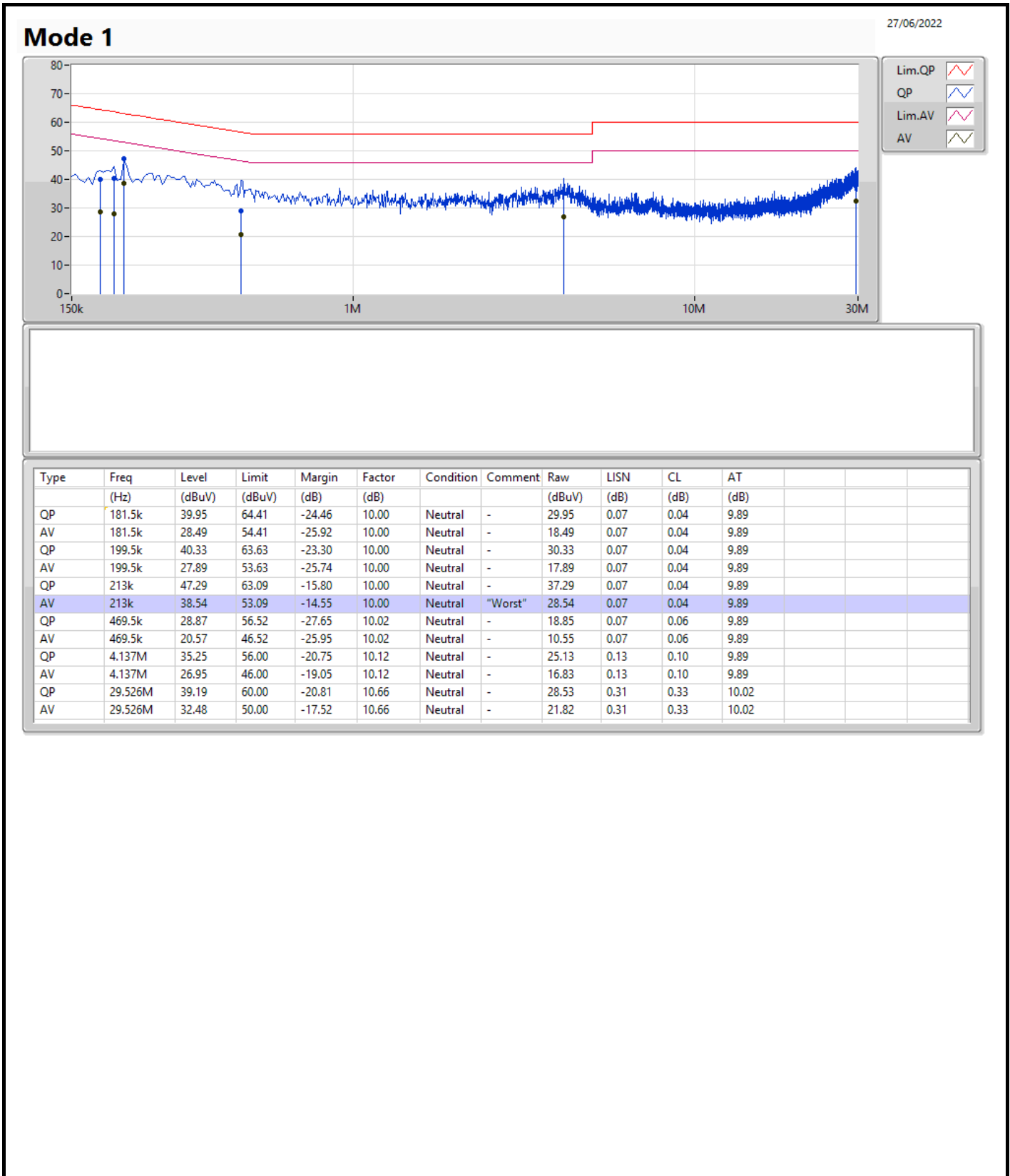
Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	AV	217.5k	41.82	52.92	-11.10	Line

Mode 1

27/06/2022



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)
QP	217.5k	51.06	62.92	-11.86	9.99	Line	-	41.07	0.06	0.04	9.89
AV	217.5k	41.82	52.92	-11.10	9.99	Line	"Worst"	31.83	0.06	0.04	9.89
QP	294k	37.19	60.42	-23.23	10.00	Line	-	27.19	0.06	0.05	9.89
AV	294k	25.91	50.42	-24.51	10.00	Line	-	15.91	0.06	0.05	9.89
QP	307.5k	37.39	60.03	-22.64	10.00	Line	-	27.39	0.06	0.05	9.89
AV	307.5k	26.64	50.03	-23.39	10.00	Line	-	16.64	0.06	0.05	9.89
QP	393k	35.95	58.01	-22.06	10.01	Line	-	25.94	0.06	0.06	9.89
AV	393k	25.47	48.01	-22.54	10.01	Line	-	15.46	0.06	0.06	9.89
QP	478.5k	34.51	56.36	-21.85	10.01	Line	-	24.50	0.06	0.06	9.89
AV	478.5k	24.23	46.36	-22.13	10.01	Line	-	14.22	0.06	0.06	9.89
QP	4.061M	33.42	56.00	-22.58	10.11	Line	-	23.31	0.12	0.10	9.89
AV	4.061M	25.56	46.00	-20.44	10.11	Line	-	15.45	0.12	0.10	9.89
QP	29.049M	39.10	60.00	-20.90	10.73	Line	-	28.37	0.39	0.33	10.01
AV	29.049M	32.15	50.00	-17.85	10.73	Line	-	21.42	0.39	0.33	10.01



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	9M	13.475M	13M5G1D	7.025M	12.825M
802.11g_Nss1,(6Mbps)_2TX	16.325M	16.525M	16M5D1D	13.2M	16.45M
802.11ax HEW20_Nss1,(MCS0)_2TX	18.825M	19M	19M0D1D	13.45M	18.9M
802.11ax HEW40_Nss1,(MCS0)_2TX	38.05M	38.1M	38M1D1D	36.3M	37.8M

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	7.6M	13.45M	7.025M	13.475M
2437MHz	Pass	500k	7.775M	13.25M	9M	12.85M
2462MHz	Pass	500k	8.05M	13.075M	8.575M	12.825M
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	16.325M	16.525M	16.325M	16.5M
2437MHz	Pass	500k	16M	16.45M	13.2M	16.45M
2462MHz	Pass	500k	16.3M	16.5M	16.3M	16.5M
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	18.55M	19M	17.6M	18.9M
2437MHz	Pass	500k	17.425M	18.925M	13.45M	18.9M
2462MHz	Pass	500k	18.475M	18.925M	18.825M	18.9M
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	500k	38.05M	38.05M	37.7M	37.85M
2437MHz	Pass	500k	37.35M	38.1M	37.35M	37.95M
2452MHz	Pass	500k	37.3M	37.9M	36.3M	37.8M

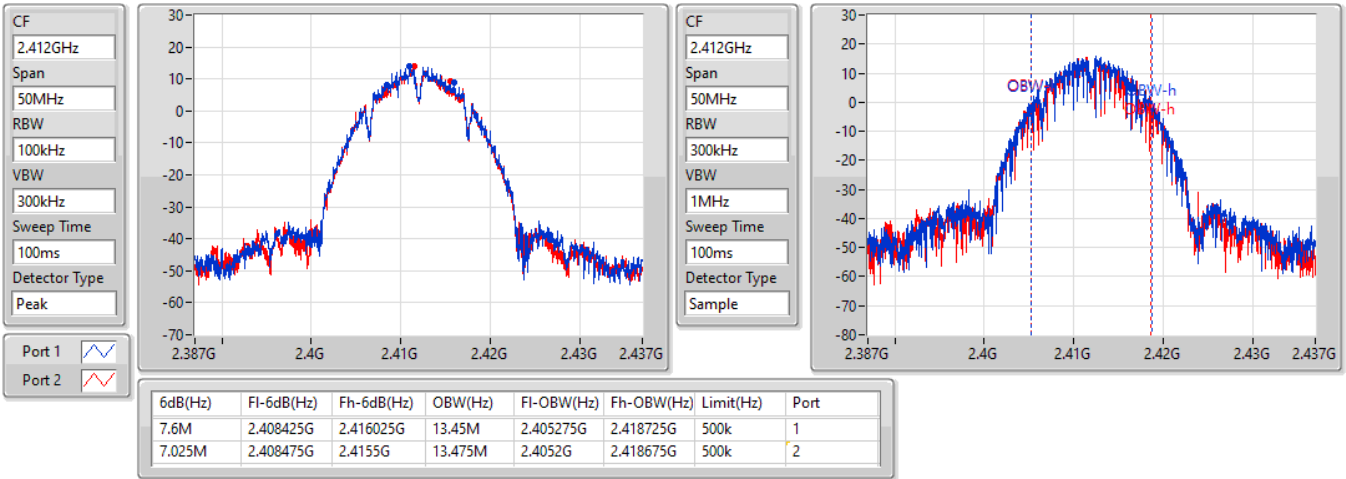
Port X-N dB = Port X 6dB down bandwidth;
Port X-OBW = Port X 99% occupied bandwidth

802.11b_Nss1,(1Mbps)_2TX

EBW

2412MHz

24/06/2022

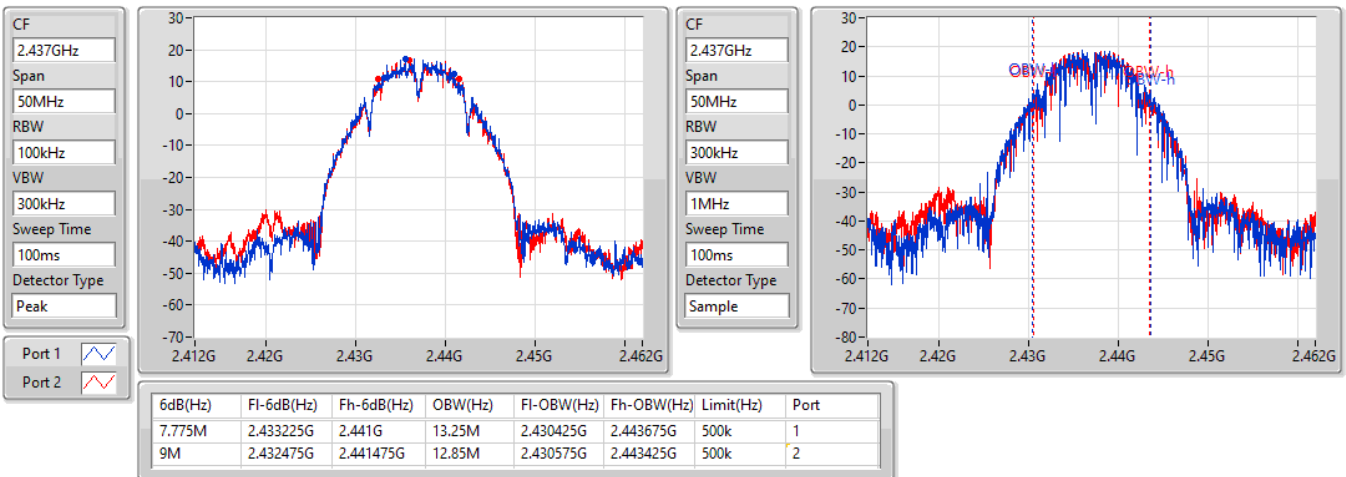


802.11b_Nss1,(1Mbps)_2TX

EBW

2437MHz

24/06/2022



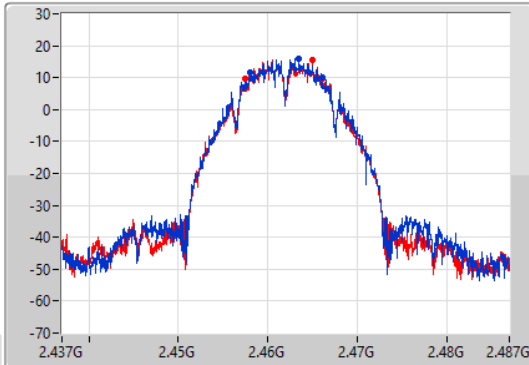
802.11b_Nss1,(1Mbps)_2TX

EBW

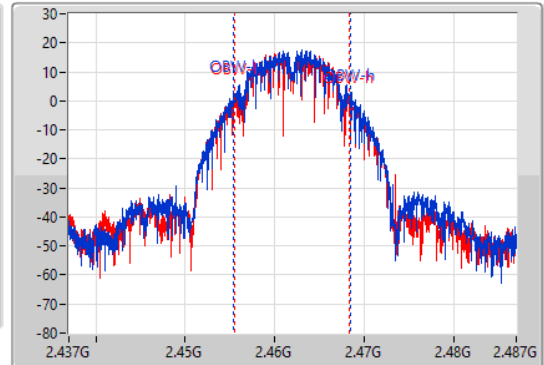
2462MHz

24/06/2022

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



CF
2.462GHz
Span
50MHz
RBW
300kHz
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
8.05M	2.458G	2.46605G	13.075M	2.45545G	2.468525G	500k	1
8.575M	2.457475G	2.46605G	12.825M	2.4555G	2.468325G	500k	2

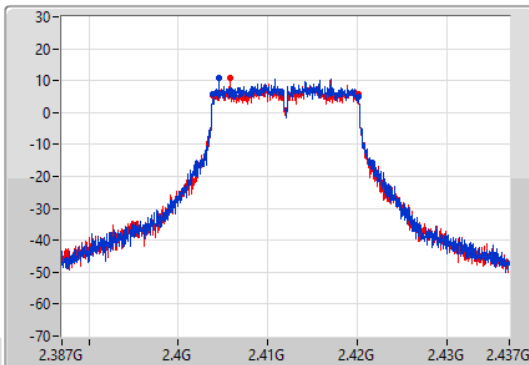
802.11g_Nss1,(6Mbps)_2TX

EBW

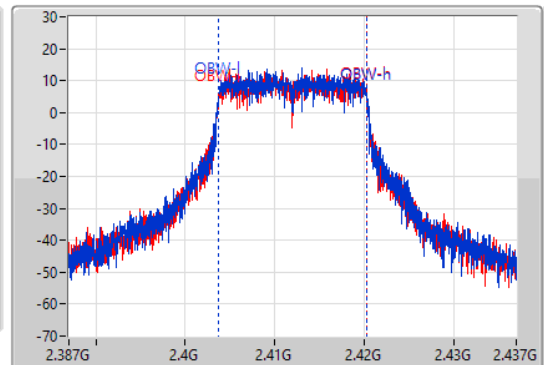
2412MHz

24/06/2022

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



CF
2.412GHz
Span
50MHz
RBW
300kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Sample



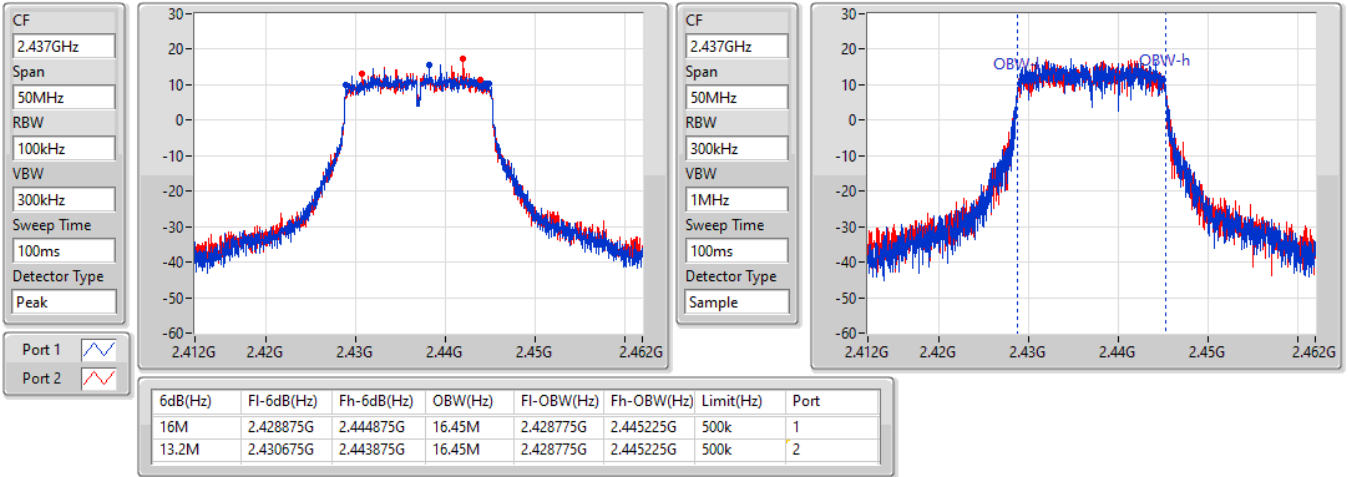
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.325M	2.40385G	2.420175G	16.525M	2.40375G	2.420275G	500k	1
16.325M	2.40385G	2.420175G	16.5M	2.40375G	2.42025G	500k	2

802.11g_Nss1,(6Mbps)_2TX

EBW

2437MHz

24/06/2022

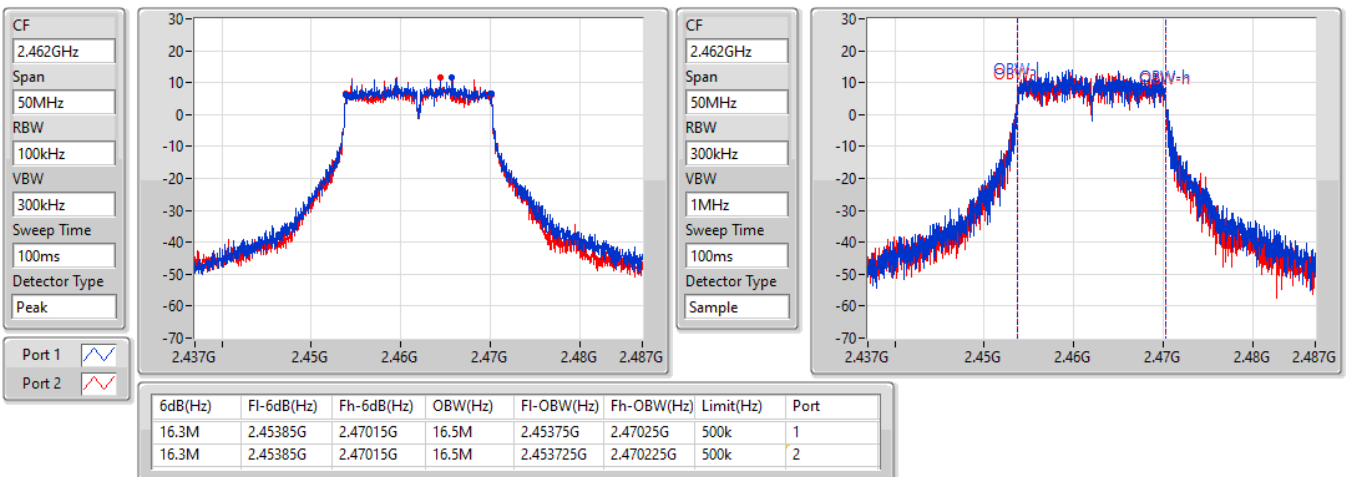


802.11g_Nss1,(6Mbps)_2TX

EBW

2462MHz

24/06/2022

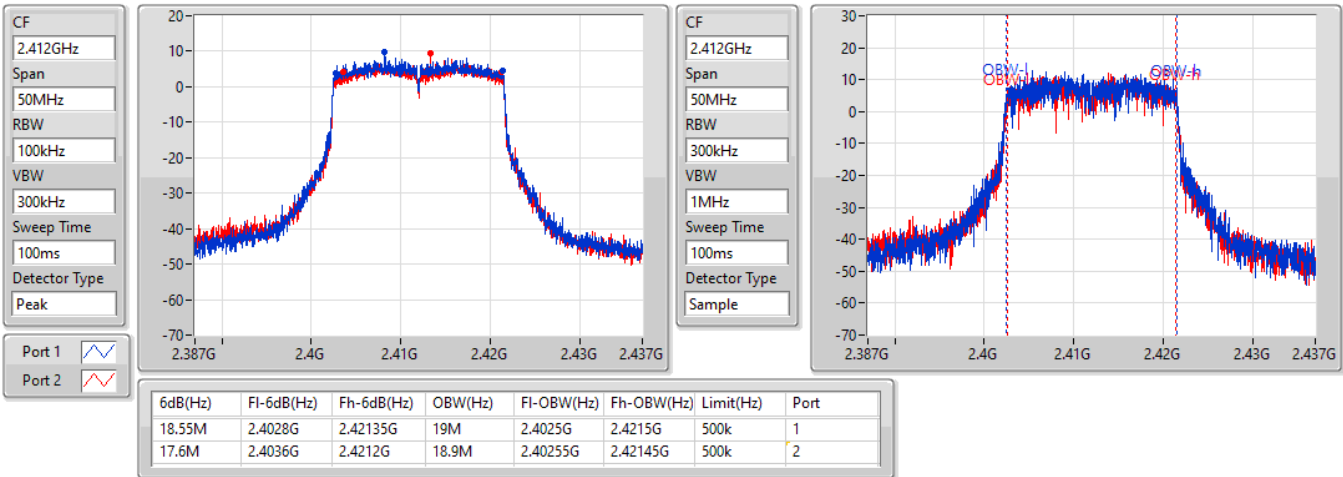


802.11ax HEW20_Nss1,(MCS0)_2TX

EBW

2412MHz

24/06/2022

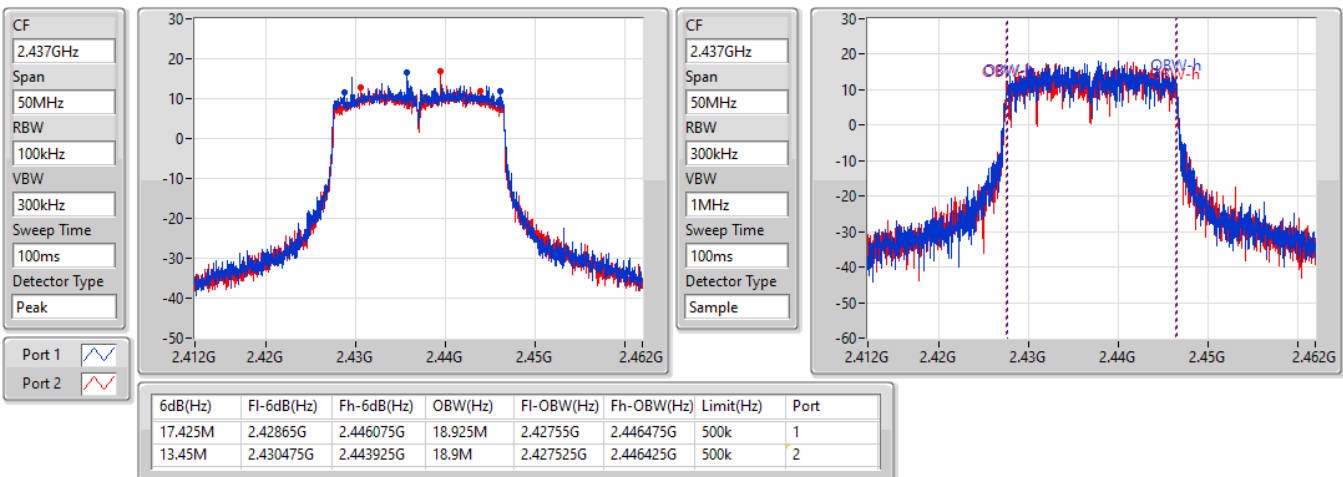


802.11ax HEW20_Nss1,(MCS0)_2TX

EBW

2437MHz

24/06/2022

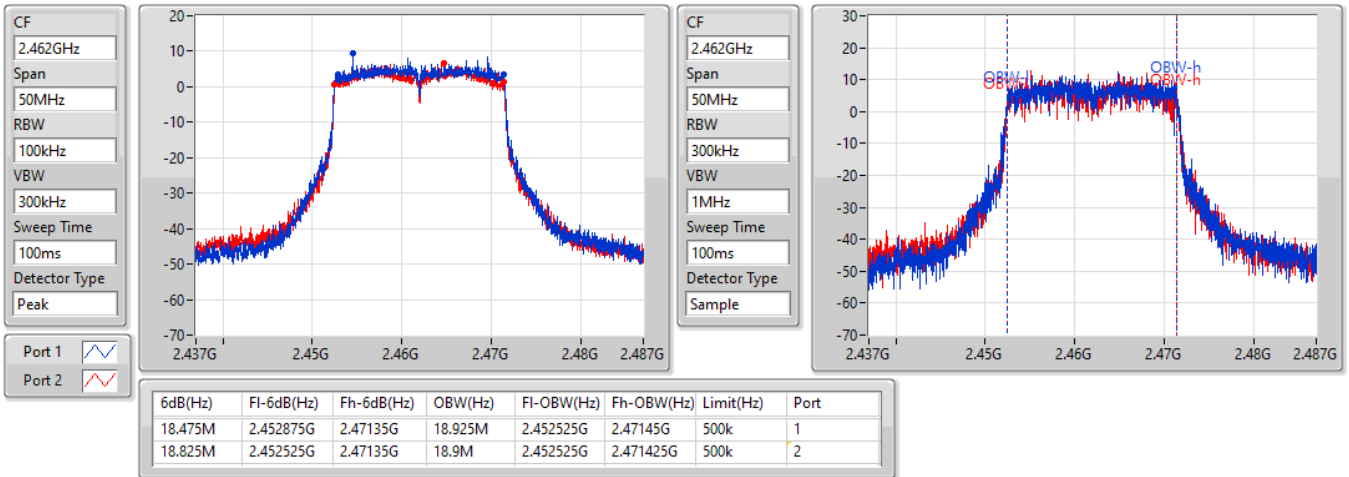


802.11ax HEW20_Nss1,(MCS0)_2TX

EBW

2462MHz

24/06/2022

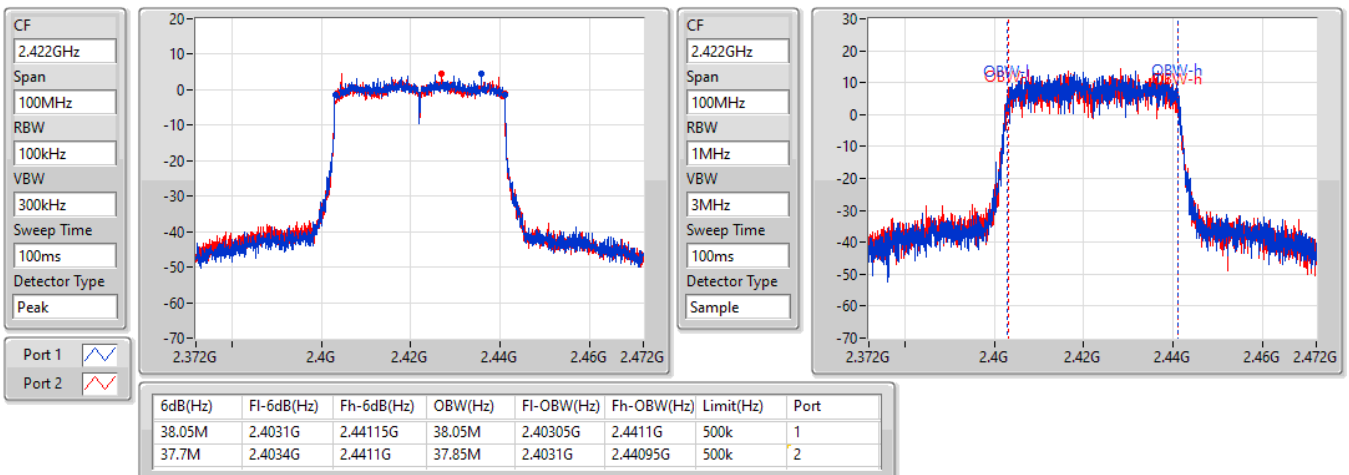


802.11ax HEW40_Nss1,(MCS0)_2TX

EBW

2422MHz

24/06/2022

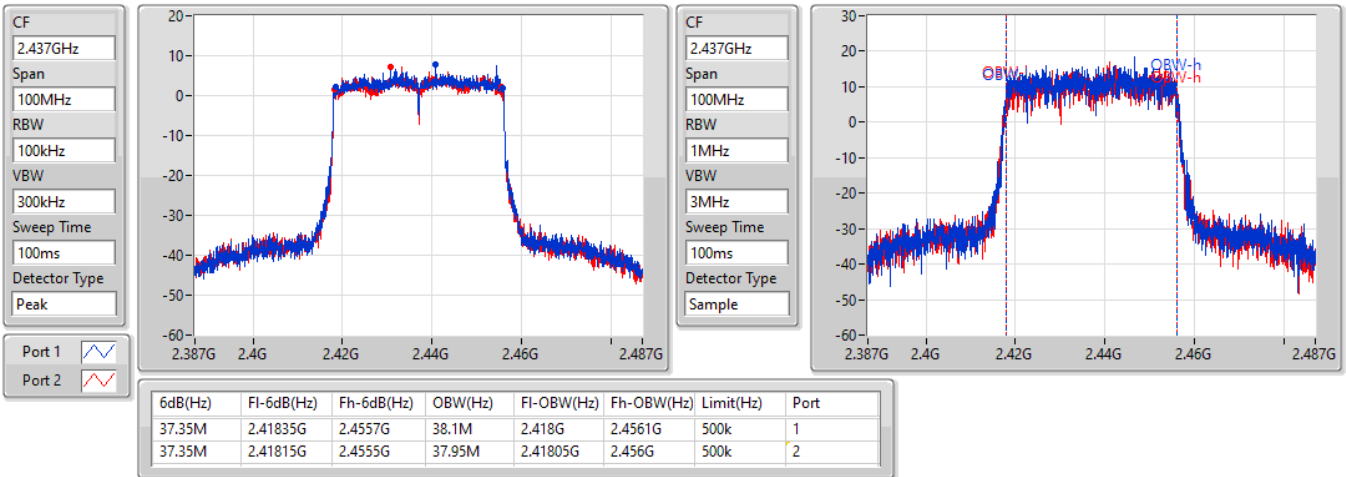


802.11ax HEW40_Nss1,(MCS0)_2TX

EBW

2437MHz

24/06/2022

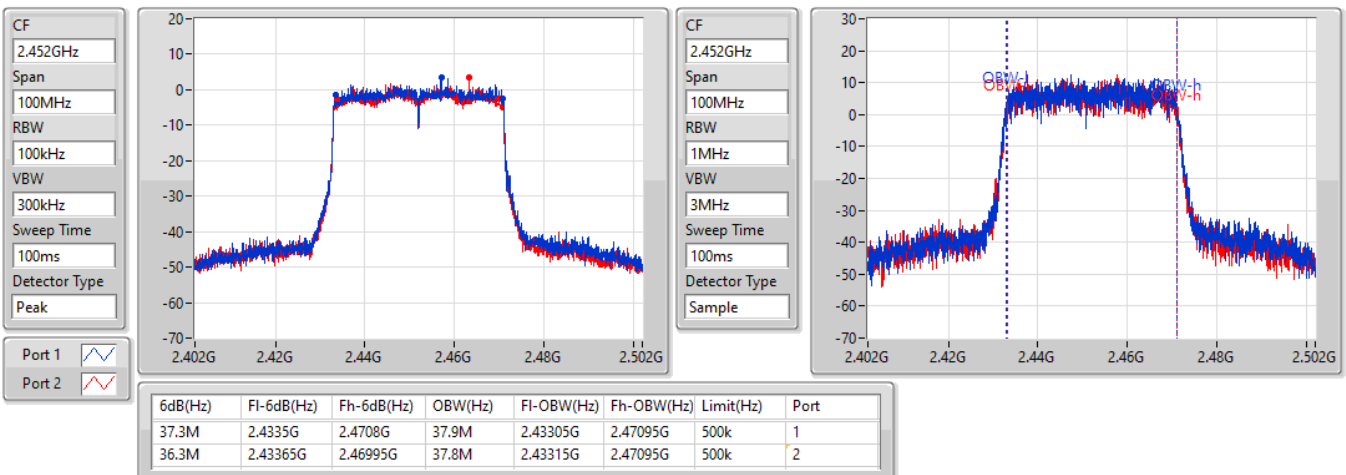


802.11ax HEW40_Nss1,(MCS0)_2TX

EBW

2452MHz

24/06/2022





<Non-Beamforming Mode>

Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11b_Nss1,(1Mbps)_2TX	29.51	0.89331
802.11g_Nss1,(6Mbps)_2TX	29.51	0.89331
802.11ax HEW20_Nss1,(MCS0)_2TX	29.85	0.96605
802.11ax HEW40_Nss1,(MCS0)_2TX	25.50	0.35481



Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	5.05	23.15	22.66	25.92	30.00
2437MHz	Pass	5.05	26.60	26.40	29.51	30.00
2462MHz	Pass	5.05	25.30	24.91	28.12	30.00
2417MHz	Pass	5.05	24.18	23.73	26.97	30.00
2457MHz	Pass	5.05	26.07	25.81	28.95	30.00
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	5.05	22.48	21.97	25.24	30.00
2437MHz	Pass	5.05	26.51	26.48	29.51	30.00
2462MHz	Pass	5.05	22.73	22.05	25.41	30.00
2417MHz	Pass	5.05	23.92	23.91	26.93	30.00
2457MHz	Pass	5.05	25.41	25.07	28.25	30.00
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	5.05	21.23	20.64	23.96	30.00
2437MHz	Pass	5.05	27.00	26.67	29.85	30.00
2462MHz	Pass	5.05	20.48	19.80	23.16	30.00
2417MHz	Pass	5.05	24.06	23.53	26.81	30.00
2457MHz	Pass	5.05	24.04	23.70	26.88	30.00
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	5.05	19.99	19.60	22.81	30.00
2437MHz	Pass	5.05	22.67	22.30	25.50	30.00
2452MHz	Pass	5.05	18.10	17.67	20.90	30.00
2427MHz	Pass	5.05	19.94	19.67	22.82	30.00
2447MHz	Pass	5.05	17.95	17.80	20.89	30.00

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



<Beamforming Mode>

Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	27.99	0.62951
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	25.50	0.35481



Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	7.86	21.23	20.64	23.96	28.14
2437MHz	Pass	7.86	25.19	24.76	27.99	28.14
2462MHz	Pass	7.86	20.48	19.80	23.16	28.14
2417MHz	Pass	7.86	24.06	23.53	26.81	28.14
2457MHz	Pass	7.86	24.04	23.70	26.88	28.14
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	7.86	19.99	19.60	22.81	28.14
2437MHz	Pass	7.86	22.67	22.30	25.50	28.14
2452MHz	Pass	7.86	18.10	17.67	20.90	28.14
2427MHz	Pass	7.86	19.94	19.67	22.82	28.14
2447MHz	Pass	7.86	17.95	17.80	20.89	28.14

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



Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
802.11b_Nss1,(1Mbps)_2TX	5.38
802.11g_Nss1,(6Mbps)_2TX	2.93
802.11ax HEW20_Nss1,(MCS0)_2TX	2.11
802.11ax HEW40_Nss1,(MCS0)_2TX	-4.32

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	7.86	1.14	0.27	2.43	6.14
2437MHz	Pass	7.86	-1.96	-1.38	1.26	6.14
2462MHz	Pass	7.86	4.82	1.72	5.38	6.14
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	7.86	-4.44	-5.36	-2.76	6.14
2437MHz	Pass	7.86	-0.49	1.66	2.93	6.14
2462MHz	Pass	7.86	-4.62	-4.33	-2.29	6.14
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	7.86	-5.65	-4.36	-3.34	6.14
2437MHz	Pass	7.86	0.32	-0.09	2.11	6.14
2462MHz	Pass	7.86	-5.72	-5.50	-3.67	6.14
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	7.86	-8.60	-8.61	-6.45	6.14
2437MHz	Pass	7.86	-5.75	-5.95	-4.32	6.14
2452MHz	Pass	7.86	-10.26	-10.65	-8.27	6.14

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

802.11b_Nss1,(1Mbps)_2TX

PSD

2412MHz

24/06/2022

CF
2.412GHz

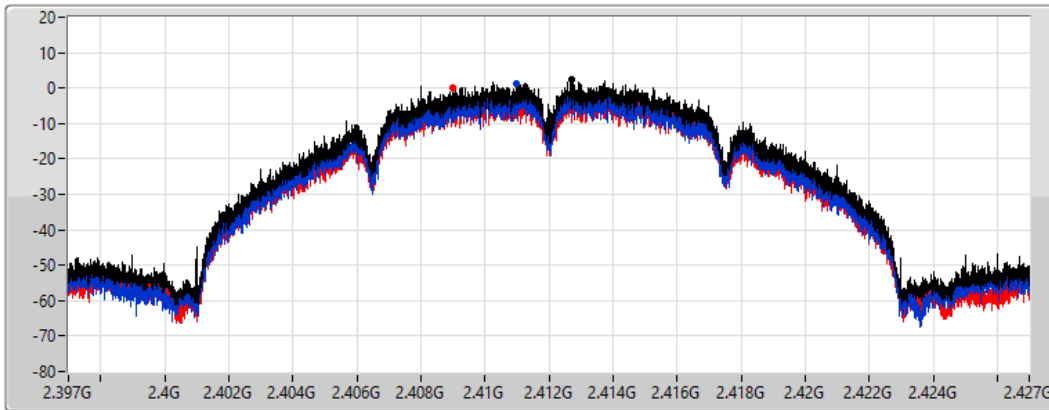
Span
30MHz


RBW
3kHz


VBW
10kHz


Sweep Time
3.4s

Detector Type
Peak



Sum 

Port 1 

Port 2 

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
2.43	2.43	1.14	0.27

802.11b_Nss1,(1Mbps)_2TX

PSD

2437MHz

24/06/2022

CF
2.437GHz

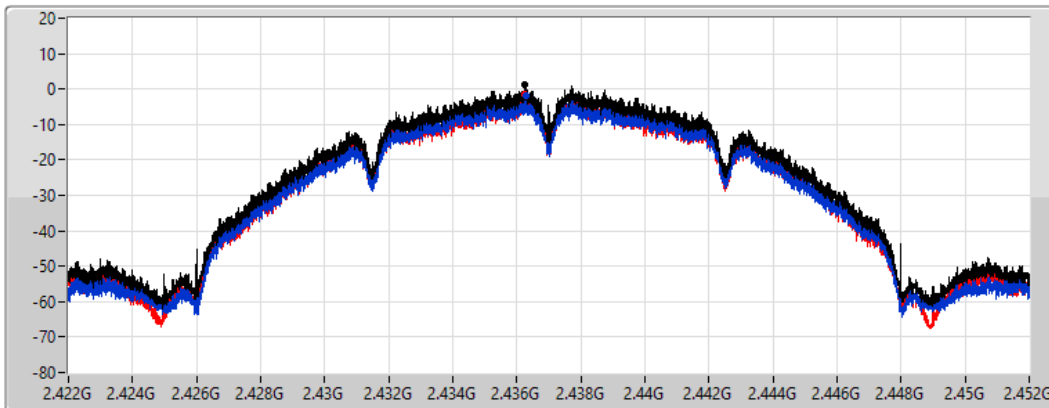
Span
30MHz


RBW
3kHz


VBW
10kHz


Sweep Time
3.4s

Detector Type
RMS



Sum 

Port 1 

Port 2 

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
1.26	1.26	-1.96	-1.38

802.11b_Nss1,(1Mbps)_2TX

PSD

2462MHz

24/06/2022

CF
2.462GHz

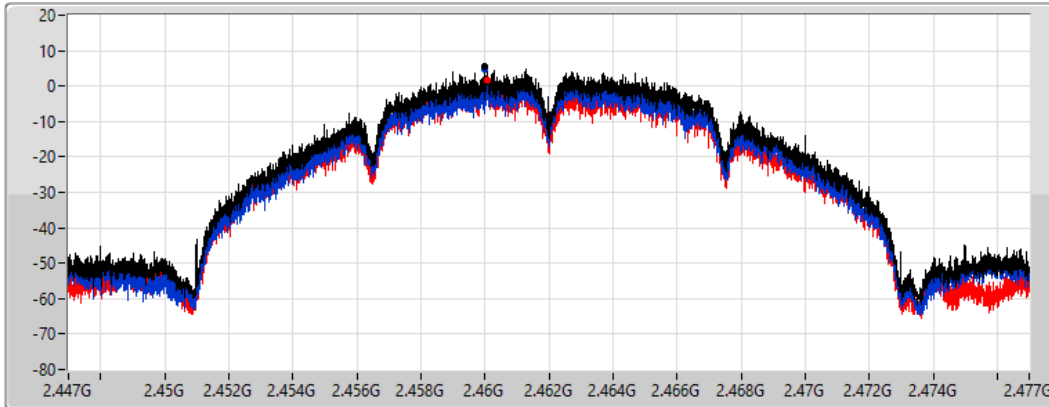
Span
30MHz


RBW
3kHz


VBW
10kHz


Sweep Time
3.4s

Detector Type
Peak



Sum 

Port 1 

Port 2 

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
5.38	5.38	4.82	1.72

802.11g_Nss1,(6Mbps)_2TX

PSD

2412MHz

24/06/2022

CF
2.412GHz

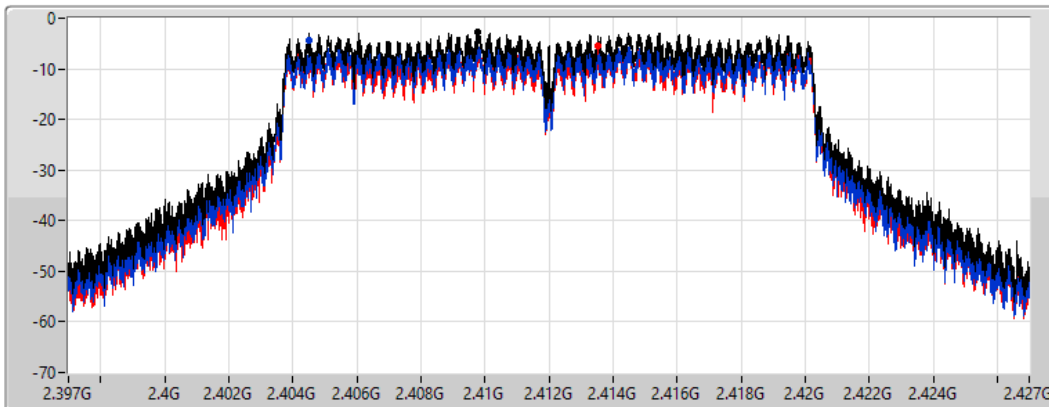
Span
30MHz


RBW
3kHz


VBW
10kHz


Sweep Time
3.4s

Detector Type
Peak



Sum 

Port 1 

Port 2 

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-2.76	-2.76	-4.44	-5.36

802.11g_Nss1,(6Mbps)_2TX

PSD

2437MHz

24/06/2022

CF
2.437GHz

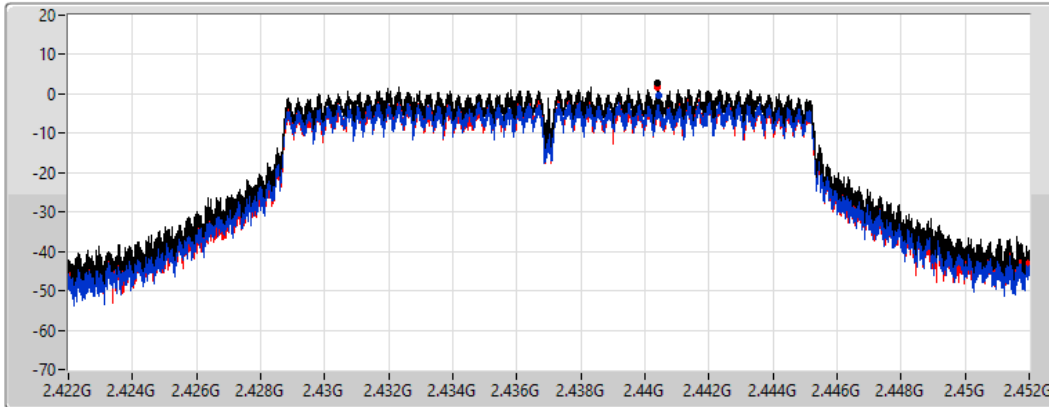
Span
30MHz

RBW
3kHz

VBW
10kHz

Sweep Time
3.4s

Detector Type
Peak



Sum

Port 1

Port 2

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
2.93	2.93	-0.49	1.66

802.11g_Nss1,(6Mbps)_2TX

PSD

2462MHz

24/06/2022

CF
2.462GHz

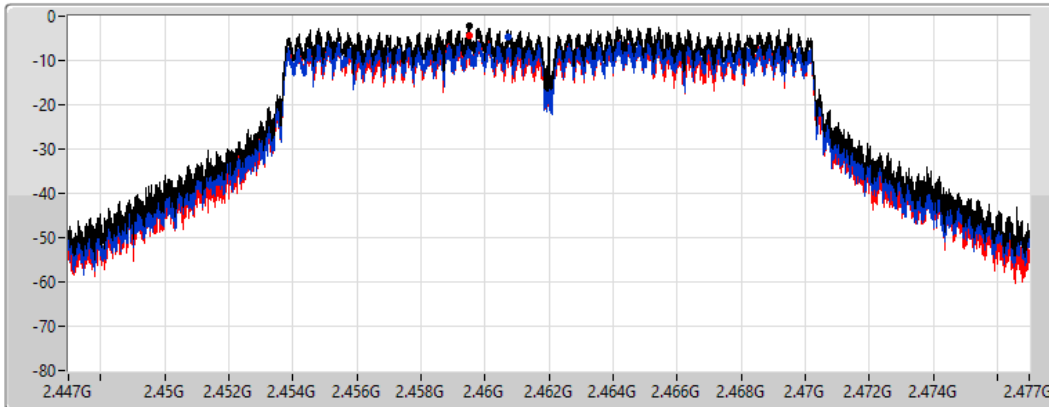
Span
30MHz

RBW
3kHz

VBW
10kHz

Sweep Time
3.4s

Detector Type
Peak



Sum

Port 1

Port 2

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-2.29	-2.29	-4.62	-4.33

802.11ax HEW20_Nss1,(MCS0)_2TX

PSD

2412MHz

24/06/2022

CF
2.412GHz

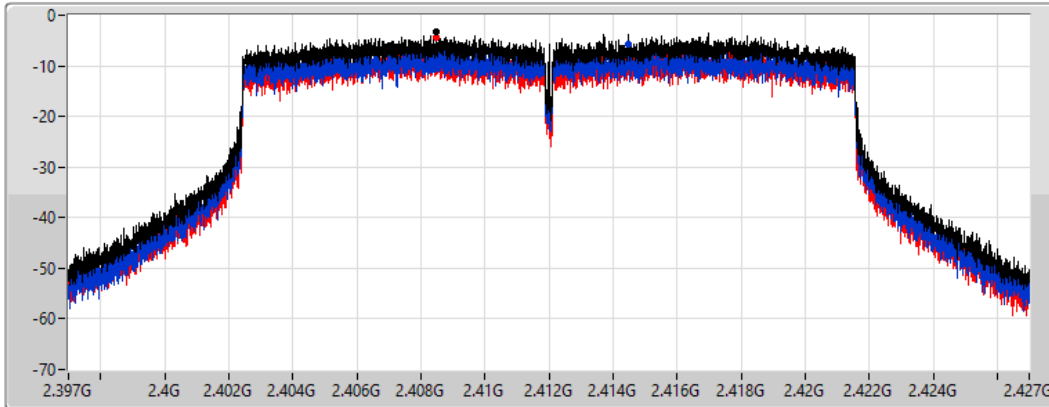
Span
30MHz


RBW
3kHz


VBW
10kHz


Sweep Time
3.4s

Detector Type
Peak



Sum 

Port 1 

Port 2 

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-3.34	-3.34	-5.65	-4.36

802.11ax HEW20_Nss1,(MCS0)_2TX

PSD

2437MHz

19/07/2022

CF
2.437GHz

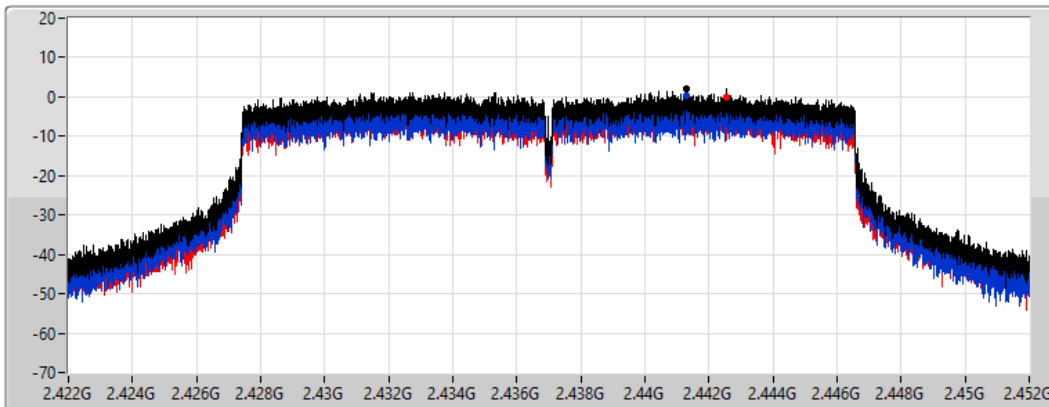
Span
30MHz


RBW
3kHz


VBW
10kHz


Sweep Time
4.424357ms

Detector Type
Peak



Sum 

Port 1 

Port 2 

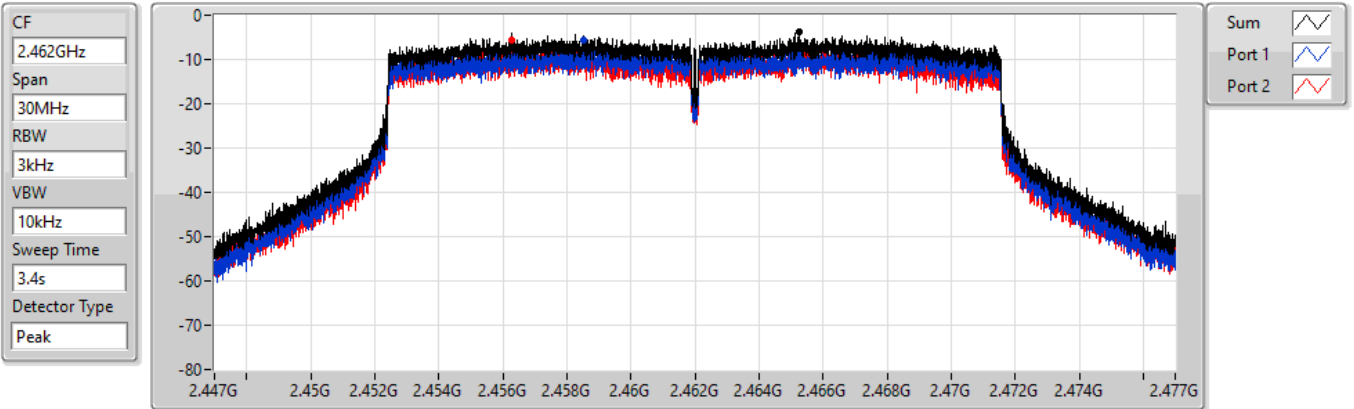
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
2.11	2.11	0.32	-0.09

802.11ax HEW20_Nss1,(MCS0)_2TX

PSD

2462MHz

24/06/2022



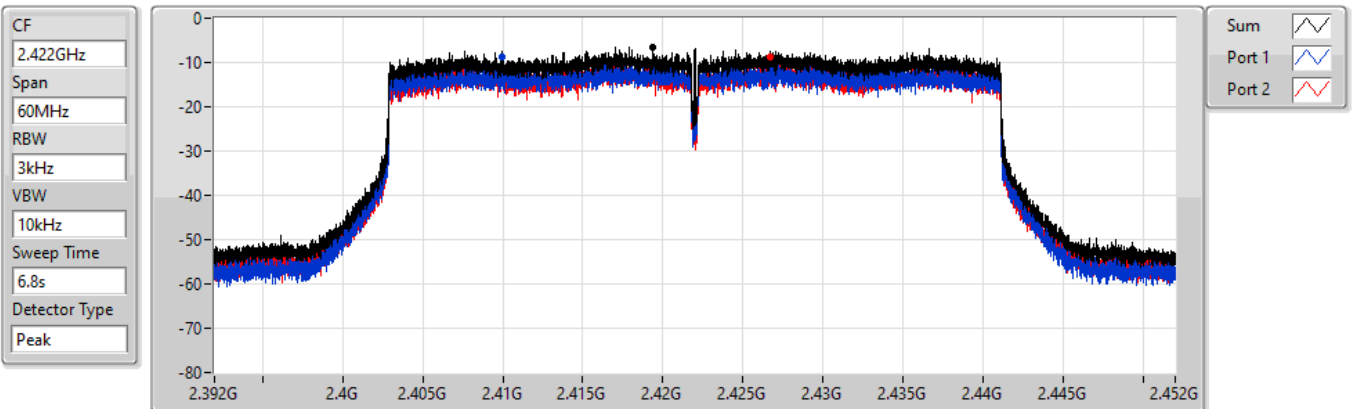
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-3.67	-3.67	-5.72	-5.50

802.11ax HEW40_Nss1,(MCS0)_2TX

PSD

2422MHz

24/06/2022



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-6.45	-6.45	-8.60	-8.61

802.11ax HEW40_Nss1,(MCS0)_2TX

PSD

2437MHz

24/06/2022

CF
2.437GHz

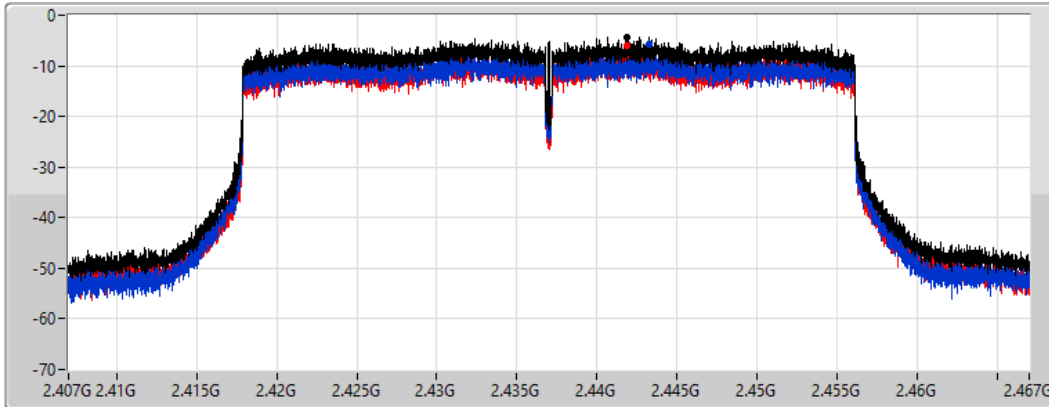
Span
60MHz


RBW
3kHz


VBW
10kHz


Sweep Time
6.8s

Detector Type
Peak



Sum 

Port 1 

Port 2 

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-4.32	-4.32	-5.75	-5.95

802.11ax HEW40_Nss1,(MCS0)_2TX

PSD

2452MHz

24/06/2022

CF
2.452GHz

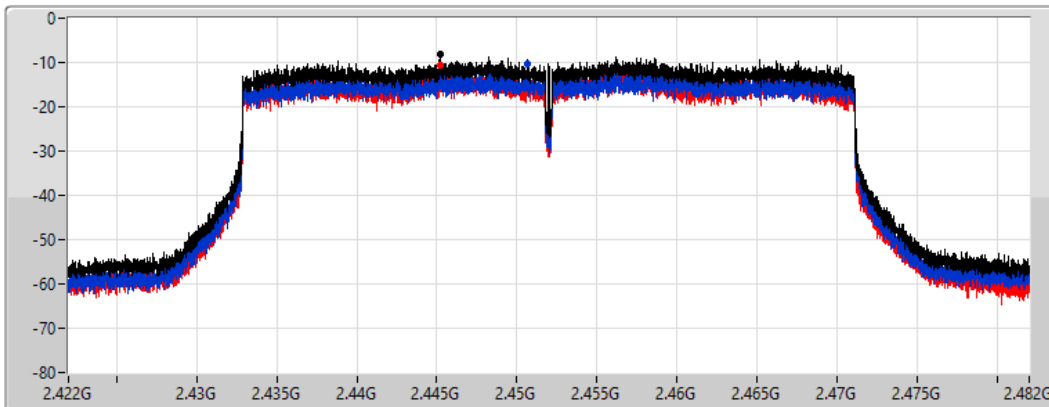
Span
60MHz


RBW
3kHz


VBW
10kHz


Sweep Time
6.8s

Detector Type
Peak



Sum 

Port 1 

Port 2 

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-8.27	-8.27	-10.26	-10.65



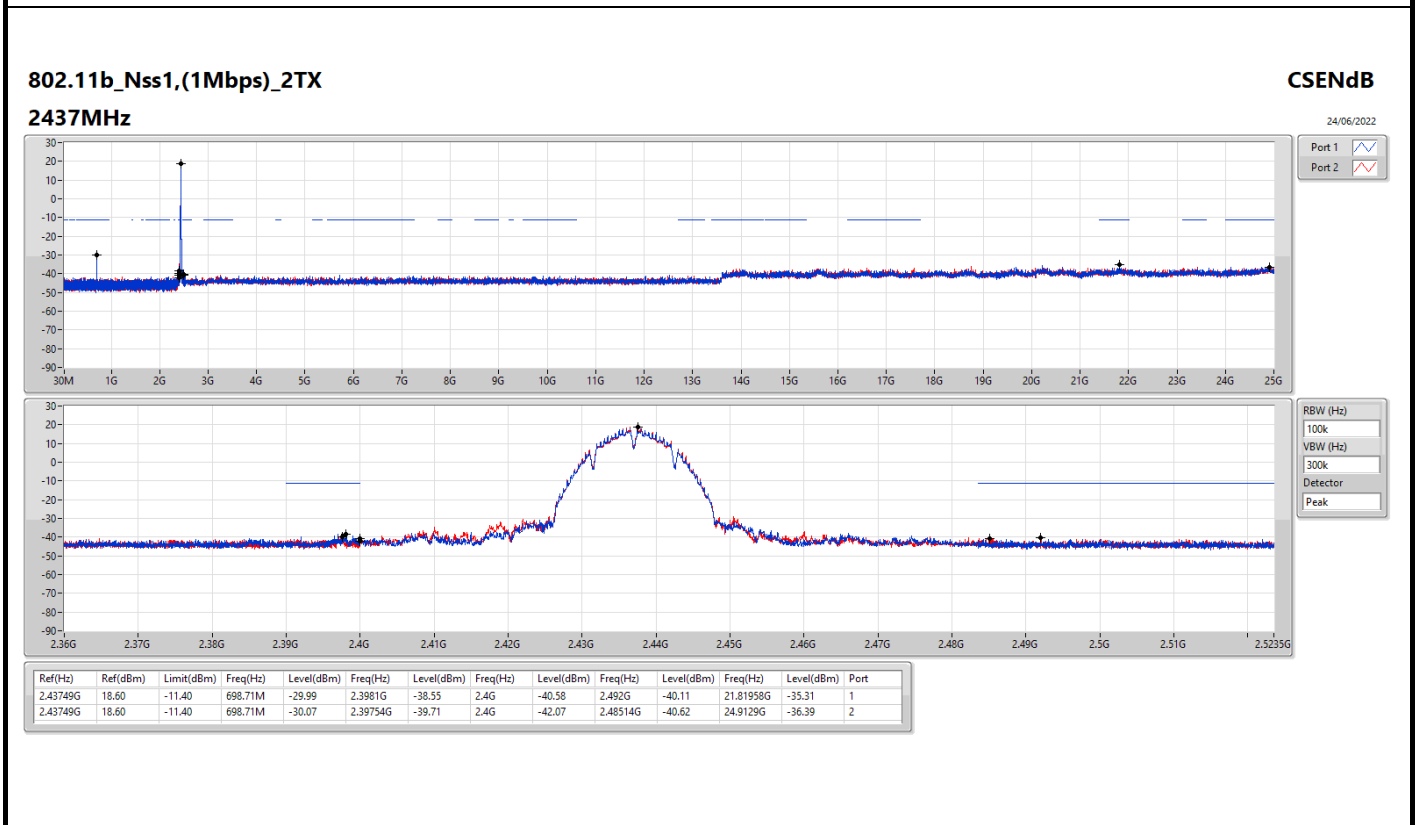
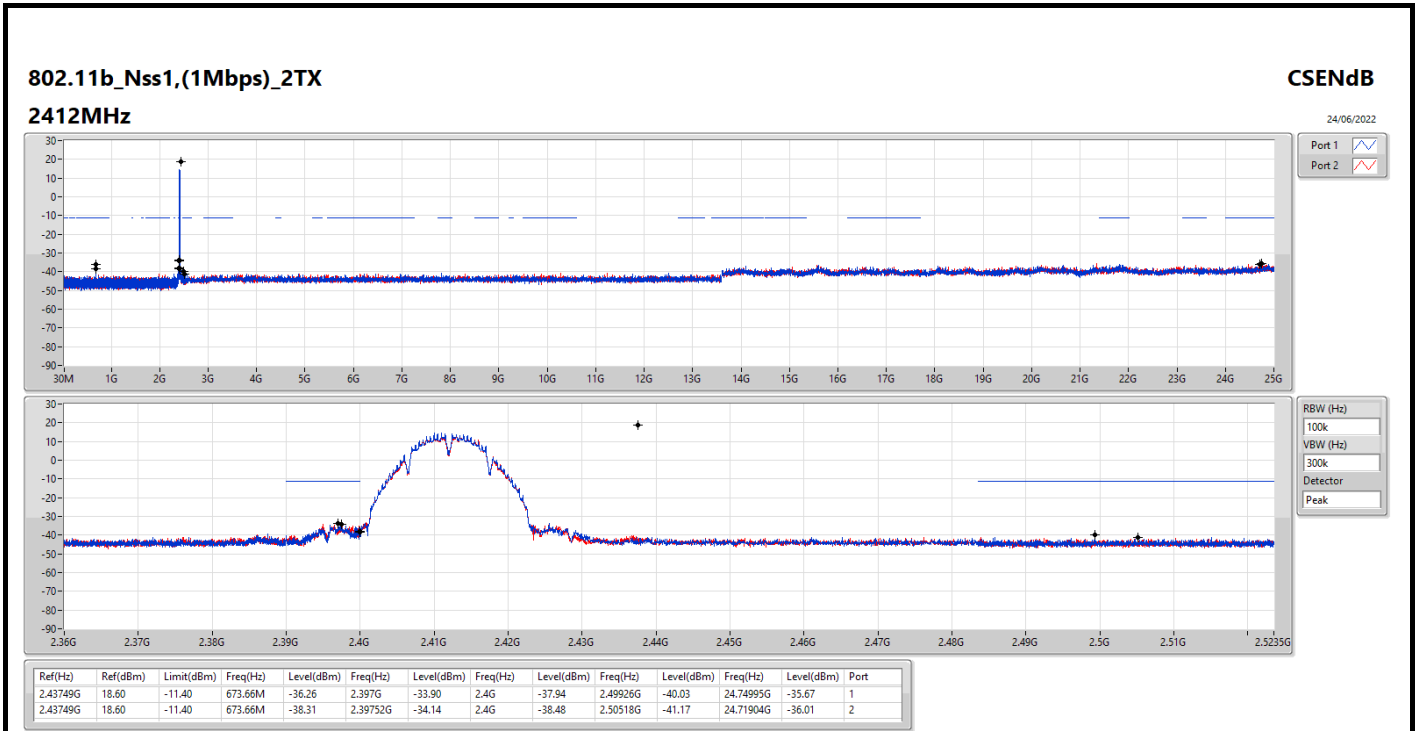
Summary

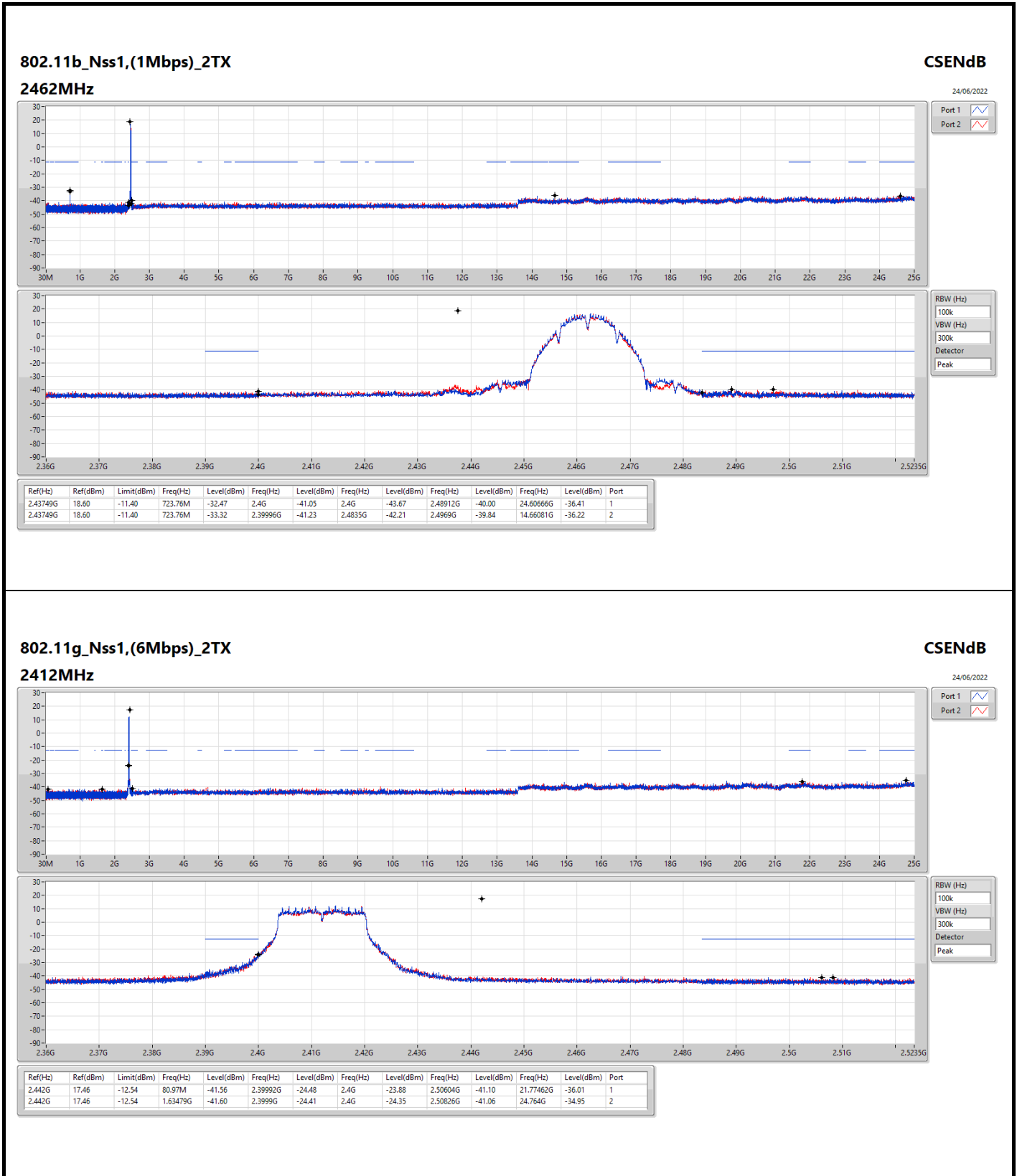
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
802.11b_Nss1,(1Mbps)_2TX	Pass	2.43749G	18.60	-11.40	698.71M	-29.99	2.3981G	-38.55	2.4G	-40.58	2.492G	-40.11	21.81958G	-35.31	1
802.11g_Nss1,(6Mbps)_2TX	Pass	2.442G	17.46	-12.54	80.97M	-41.56	2.39992G	-24.48	2.4G	-23.88	2.50604G	-41.10	21.77462G	-36.01	1
802.11ax HEW20_Nss1,(MCS0)_2TX	Pass	2.44451G	16.77	-13.23	593.86M	-41.45	2.39982G	-22.45	2.4G	-25.25	2.50878G	-41.44	24.86514G	-36.04	1
802.11ax HEW40_Nss1,(MCS0)_2TX	Pass	2.42948G	8.48	-21.52	1.81248G	-41.21	2.39956G	-30.65	2.4G	-29.47	2.49866G	-40.46	24.74198G	-35.77	2



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	2.43749G	18.60	-11.40	673.66M	-36.26	2.397G	-33.90	2.4G	-37.94	2.49926G	-40.03	24.74995G	-35.67	1
2412MHz	Pass	2.43749G	18.60	-11.40	673.66M	-38.31	2.39752G	-34.14	2.4G	-38.48	2.50518G	-41.17	24.71904G	-36.01	2
2437MHz	Pass	2.43749G	18.60	-11.40	698.71M	-29.99	2.3981G	-38.55	2.4G	-40.58	2.492G	-40.11	21.81958G	-35.31	1
2437MHz	Pass	2.43749G	18.60	-11.40	698.71M	-30.07	2.39754G	-39.71	2.4G	-42.07	2.48514G	-40.62	24.9129G	-36.39	2
2462MHz	Pass	2.43749G	18.60	-11.40	723.76M	-32.47	2.4G	-41.05	2.4G	-43.67	2.48912G	-40.00	24.60666G	-36.41	1
2462MHz	Pass	2.43749G	18.60	-11.40	723.76M	-33.32	2.39996G	-41.23	2.4835G	-42.21	2.4969G	-39.84	14.66081G	-36.22	2
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.442G	17.46	-12.54	80.97M	-41.56	2.39992G	-24.48	2.4G	-23.88	2.50604G	-41.10	21.77462G	-36.01	1
2412MHz	Pass	2.442G	17.46	-12.54	1.63479G	-41.60	2.3999G	-24.41	2.4G	-24.35	2.50826G	-41.06	24.764G	-34.95	2
2437MHz	Pass	2.442G	17.46	-12.54	697.84M	-38.06	2.39826G	-40.01	2.4G	-41.07	2.48376G	-40.41	24.764G	-35.50	1
2437MHz	Pass	2.442G	17.46	-12.54	696.09M	-38.87	2.39834G	-39.19	2.4G	-39.53	2.49826G	-40.39	24.70781G	-36.44	2
2462MHz	Pass	2.442G	17.46	-12.54	499.79M	-41.51	2.39248G	-41.63	2.4835G	-38.82	2.48448G	-37.59	24.84266G	-36.08	1
2462MHz	Pass	2.442G	17.46	-12.54	668.42M	-41.98	2.39064G	-40.64	2.4835G	-42.48	2.48424G	-38.69	24.80895G	-36.40	2
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.44451G	16.77	-13.23	593.86M	-41.45	2.39982G	-22.45	2.4G	-25.25	2.50878G	-41.44	24.86514G	-36.04	1
2412MHz	Pass	2.44451G	16.77	-13.23	2.11069G	-41.99	2.39988G	-23.74	2.4G	-23.73	2.51182G	-40.07	24.6488G	-36.17	2
2437MHz	Pass	2.44451G	16.77	-13.23	700.17M	-39.54	2.39988G	-38.46	2.4G	-38.15	2.49598G	-40.30	21.97972G	-36.43	1
2437MHz	Pass	2.44451G	16.77	-13.23	699.29M	-38.29	2.39998G	-34.70	2.4G	-37.14	2.48442G	-40.19	21.81396G	-35.62	2
2462MHz	Pass	2.44451G	16.77	-13.23	2.19224G	-42.03	2.39078G	-41.01	2.4835G	-39.48	2.4841G	-39.31	24.64319G	-36.28	1
2462MHz	Pass	2.44451G	16.77	-13.23	528.33M	-41.69	2.3909G	-41.99	2.4835G	-41.71	2.48542G	-39.70	24.87357G	-35.13	2
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	2.42948G	8.48	-21.52	908.79M	-41.80	2.39992G	-30.91	2.4G	-31.10	2.48738G	-40.42	24.84014G	-36.10	1
2422MHz	Pass	2.42948G	8.48	-21.52	1.81248G	-41.21	2.39956G	-30.65	2.4G	-29.47	2.49866G	-40.46	24.74198G	-35.77	2
2437MHz	Pass	2.42948G	8.48	-21.52	357.76M	-42.17	2.39896G	-33.69	2.4G	-34.74	2.48362G	-37.56	24.82051G	-35.39	1
2437MHz	Pass	2.42948G	8.48	-21.52	1.93929G	-41.63	2.39996G	-34.85	2.4G	-36.83	2.48386G	-37.26	24.86819G	-35.57	2
2452MHz	Pass	2.42948G	8.48	-21.52	2.08213G	-41.87	2.39568G	-41.68	2.4835G	-39.51	2.48666G	-37.76	21.72147G	-35.90	1
2452MHz	Pass	2.42948G	8.48	-21.52	2.04291G	-41.57	2.3958G	-40.81	2.4835G	-41.29	2.48578G	-38.33	21.9851G	-36.21	2



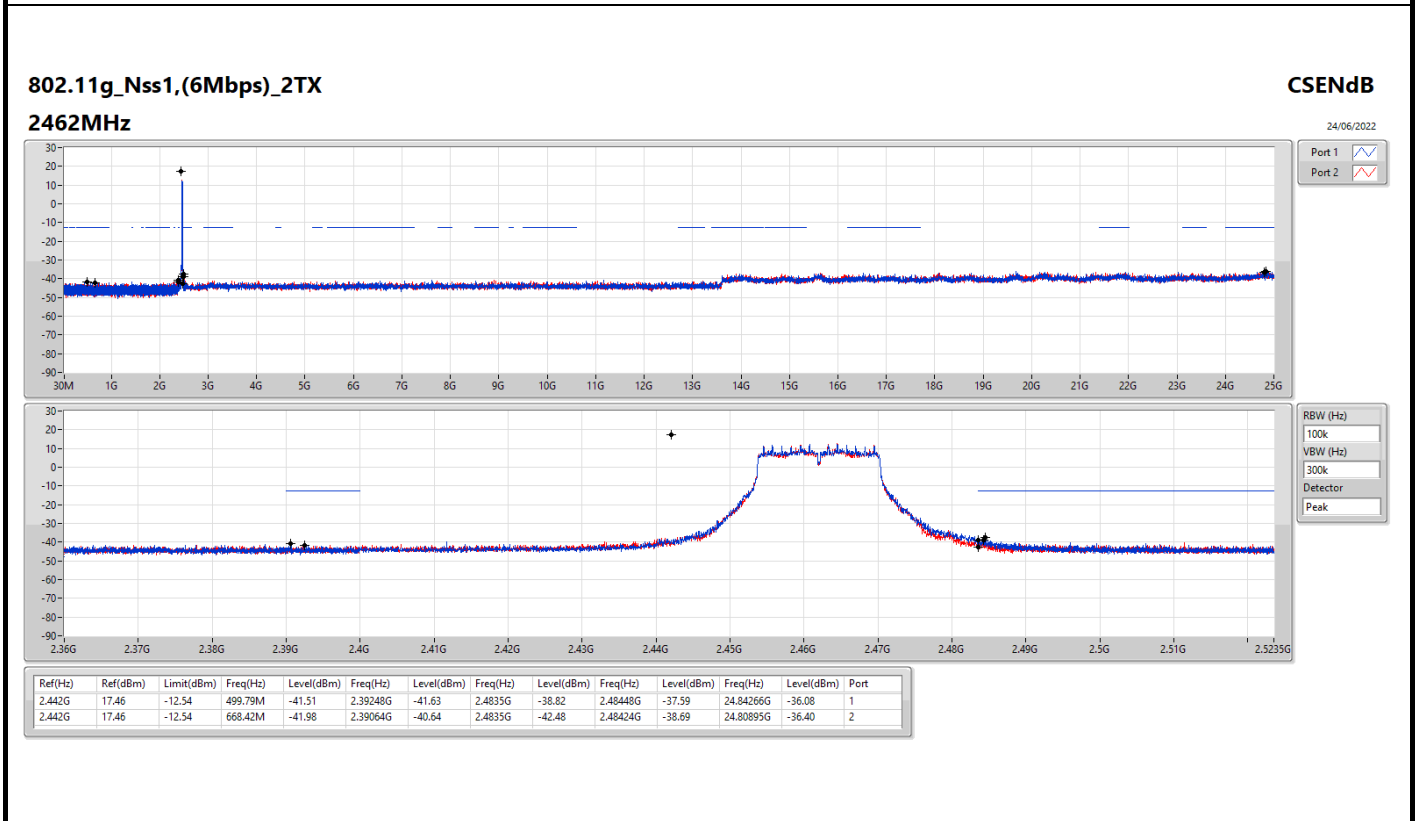
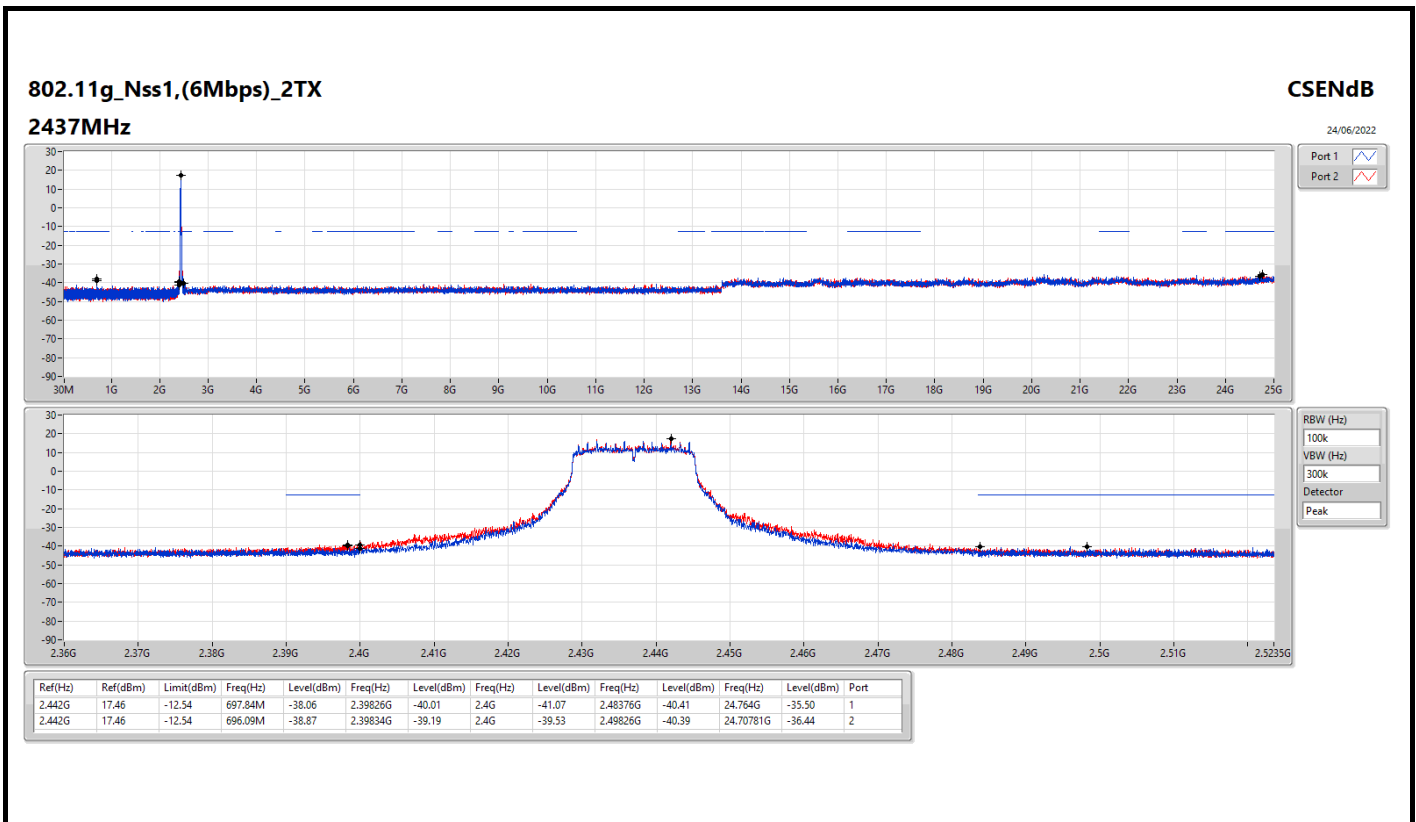


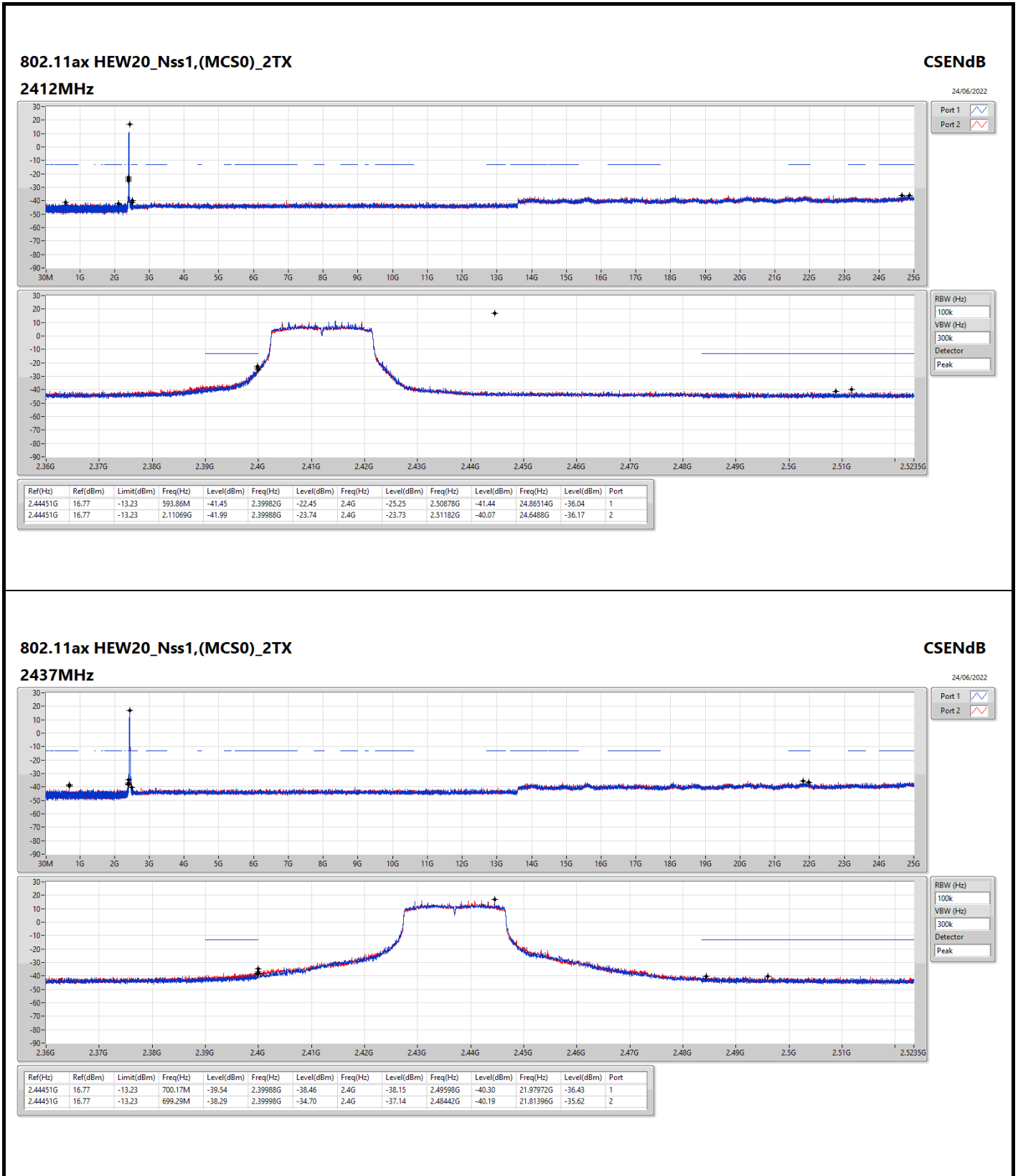
802.11g_Nss1,(6Mbps)_2TX

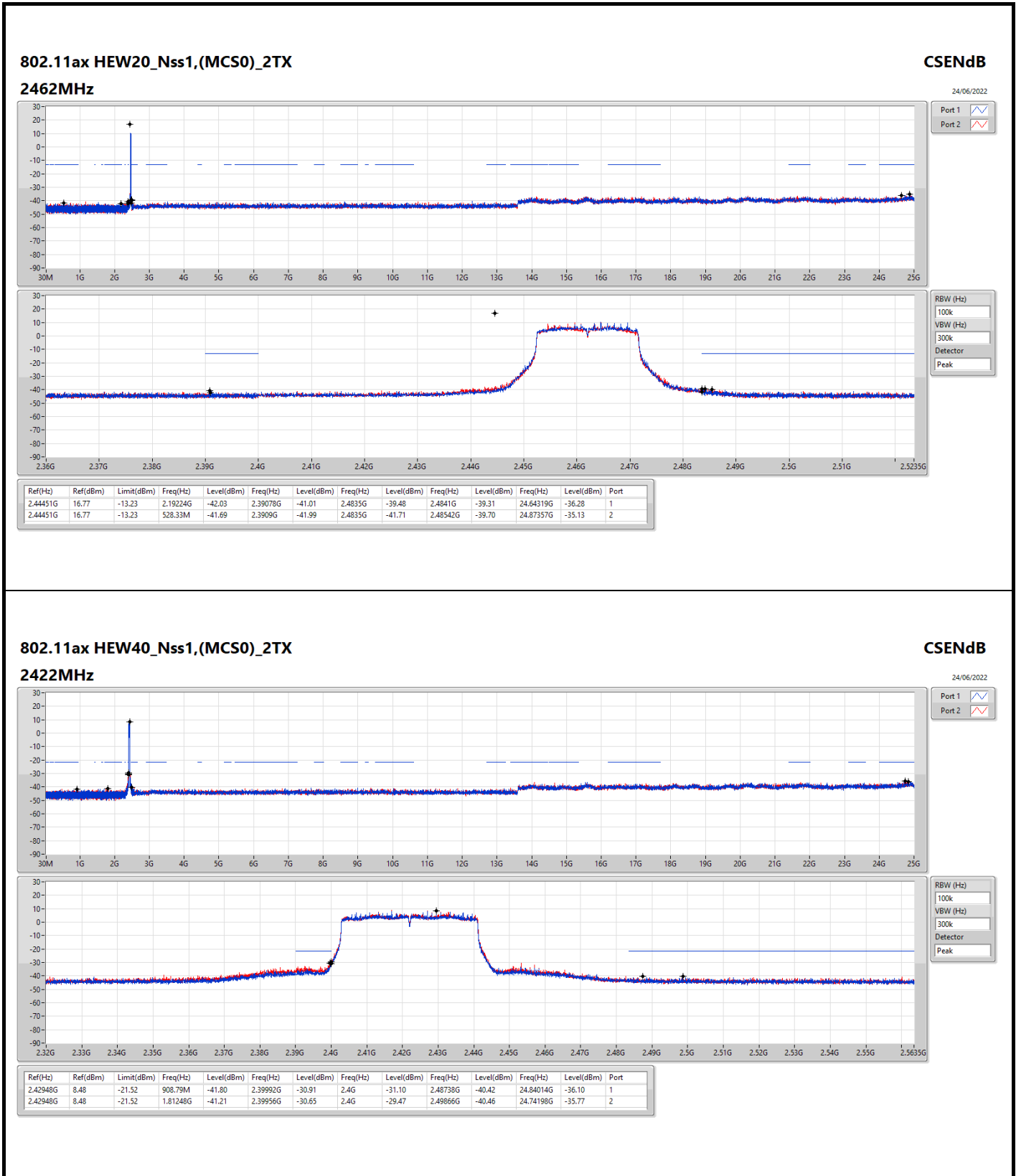
2412MHz

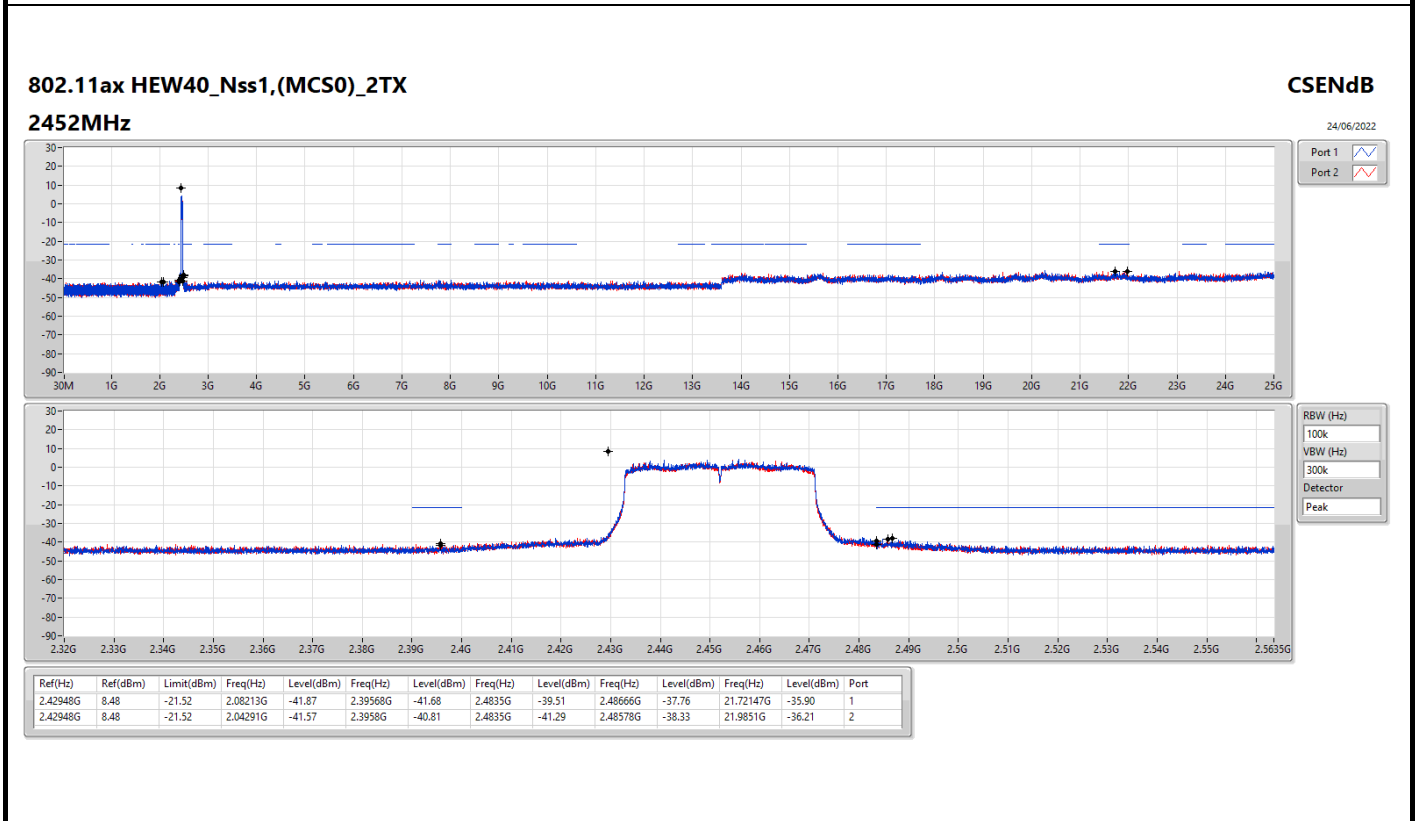
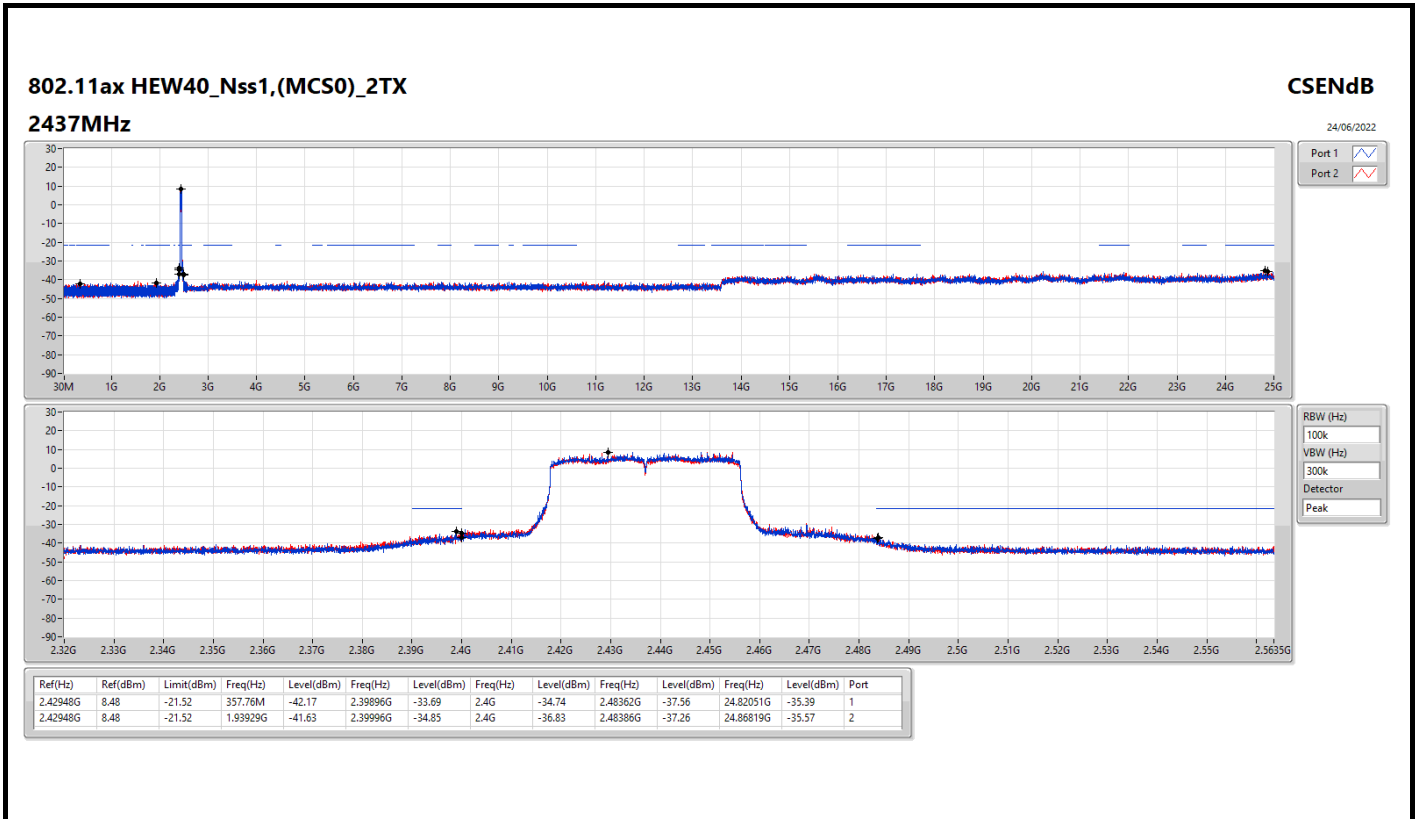
CSENdB

24/06/2022







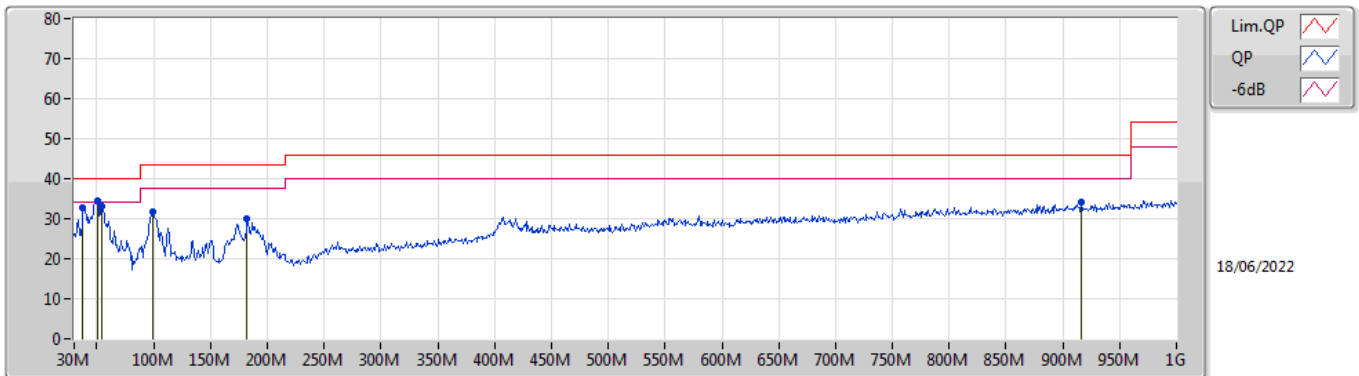




Summary

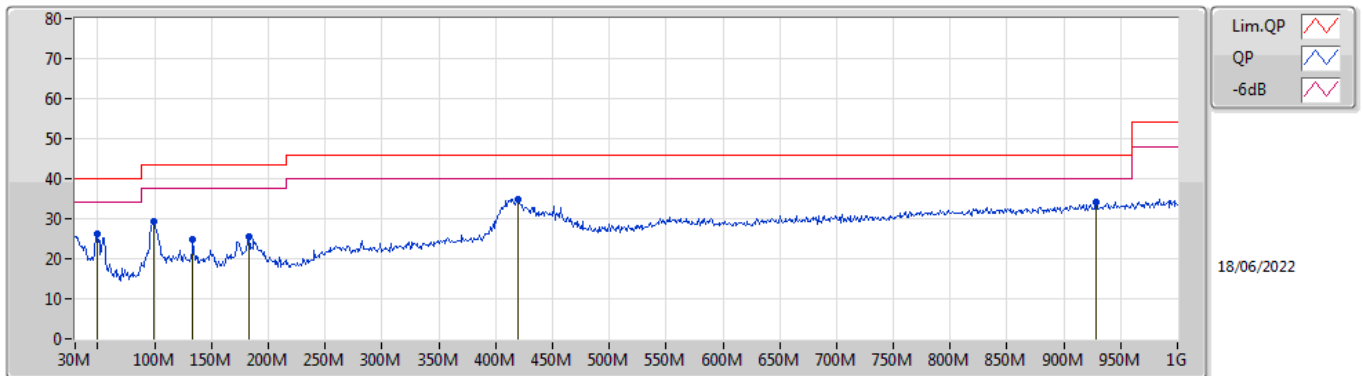
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition
Mode 1	Pass	PK	50.37M	34.57	40.00	-5.43	Vertical

Mode 1



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB/m)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV/m)	AF (dB/m)	CL (dB)	PA (dB)
PK	37.76M	32.59	40.00	-7.41	-10.97	3	Vertical	295	1.50	-	43.56	19.85	0.90	31.72
PK	50.37M	34.57	40.00	-5.43	-16.84	3	Vertical	0	1.50	"Worst"	51.41	13.92	1.10	31.86
PK	54.25M	33.06	40.00	-6.94	-17.98	3	Vertical	0	1.50	-	51.04	12.81	1.10	31.89
PK	98.87M	31.79	43.50	-11.71	-14.09	3	Vertical	50	1.25	-	45.88	16.40	1.48	31.97
PK	182.29M	29.99	43.50	-13.51	-14.96	3	Vertical	128	1.25	-	44.95	14.93	2.11	32.00
PK	916.58M	34.05	46.00	-11.95	-0.90	3	Vertical	44	1.25	-	34.95	26.19	5.40	32.49

Mode 1



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB/m)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV/m)	AF (dB/m)	CL (dB)	PA (dB)
PK	49.4M	26.34	40.00	-13.66	-16.49	3	Horizontal	236	2.00	-	42.83	14.28	1.09	31.86
PK	98.87M	29.41	43.50	-14.09	-14.09	3	Horizontal	82	3.00	-	43.50	16.40	1.48	31.97
PK	133.79M	24.78	43.50	-18.72	-12.84	3	Horizontal	69	3.00	-	37.62	17.42	1.74	32.00
PK	183.26M	25.37	43.50	-18.13	-14.99	3	Horizontal	128	1.50	-	40.36	14.89	2.12	32.00
PK	419.94M	34.98	46.00	-11.02	-6.51	3	Horizontal	174	1.25	"Worst"	41.49	22.37	3.32	32.20
PK	928.22M	34.03	46.00	-11.97	-0.79	3	Horizontal	359	3.00	-	34.82	26.22	5.47	32.48

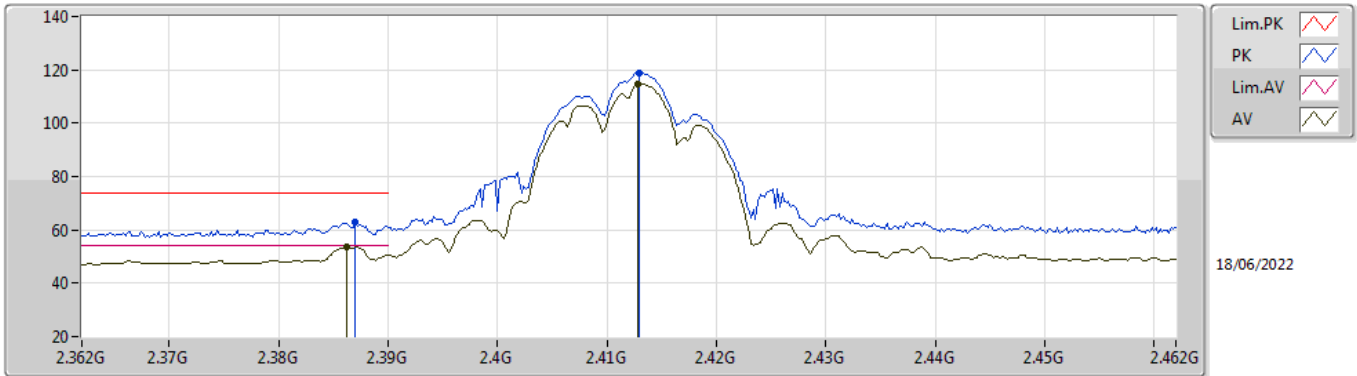


Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-
802.11b_Nss1,(1Mbps)_2TX	Pass	AV	2.3866G	53.96	54.00	-0.04	3	Horizontal	181	1.80	-

802.11b_Nss1,(1Mbps)_2TX

2412MHz_TX

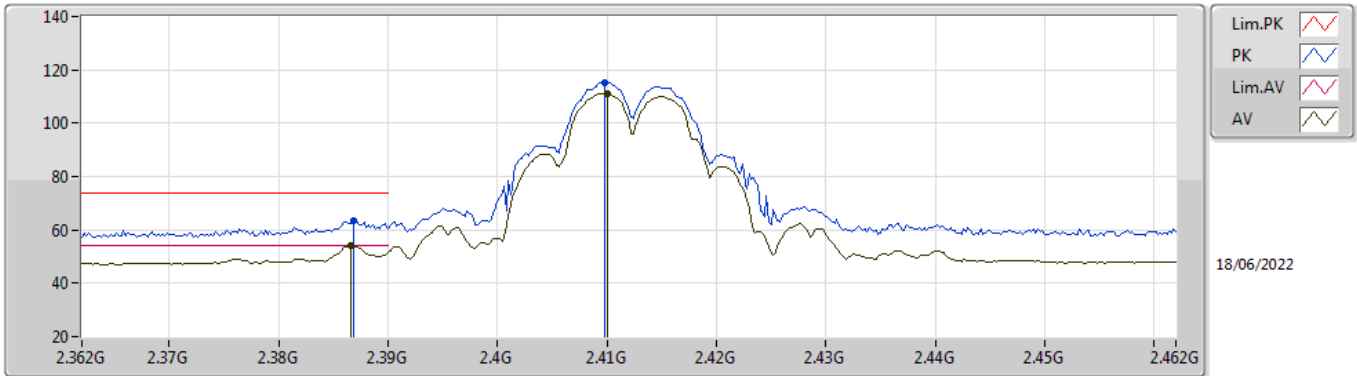


EUT_X_2TX
Setting 23
02-B-G-4

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	2.387G	62.71	74.00	-11.29	31.55	3	Vertical	181	1.80	-	28.37	2.79	-
AV	2.3862G	53.64	54.00	-0.36	22.48	3	Vertical	181	1.80	-	28.37	2.79	-
PK	2.413G	118.94	Inf	-Inf	87.73	3	Vertical	181	1.80	-	28.40	2.81	-
AV	2.4128G	114.56	Inf	-Inf	83.35	3	Vertical	181	1.80	-	28.40	2.81	-

802.11b_Nss1,(1Mbps)_2TX

2412MHz_TX

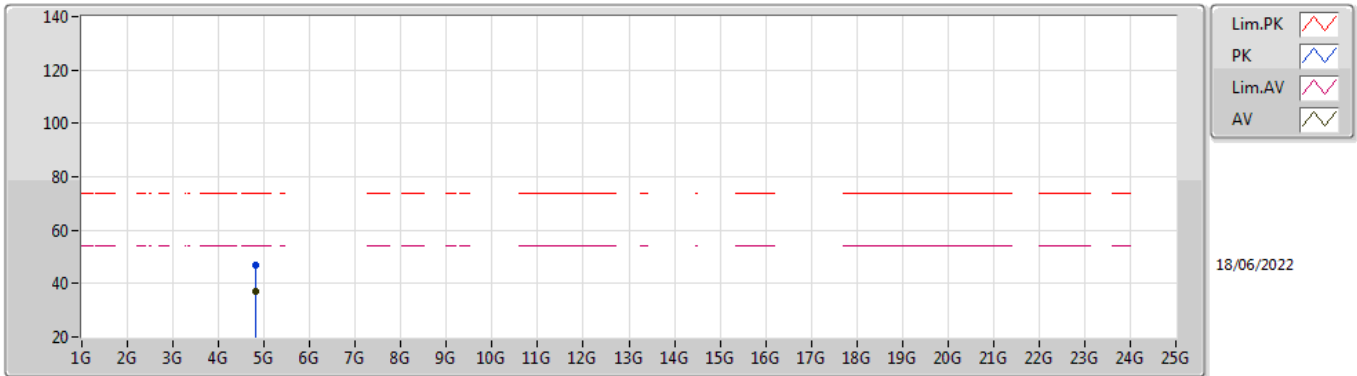


EUT_X_2TX
Setting 23
02-B-G-4

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	2.3868G	63.27	74.00	-10.73	32.11	3	Horizontal	181	1.80	-	28.37	2.79	-
AV	2.3866G	53.96	54.00	-0.04	22.80	3	Horizontal	181	1.80	-	28.37	2.79	-
PK	2.4098G	115.21	Inf	-Inf	84.00	3	Horizontal	181	1.80	-	28.40	2.81	-
AV	2.41G	111.05	Inf	-Inf	79.84	3	Horizontal	181	1.80	-	28.40	2.81	-

802.11b_Nss1,(1Mbps)_2TX

2412MHz_TX

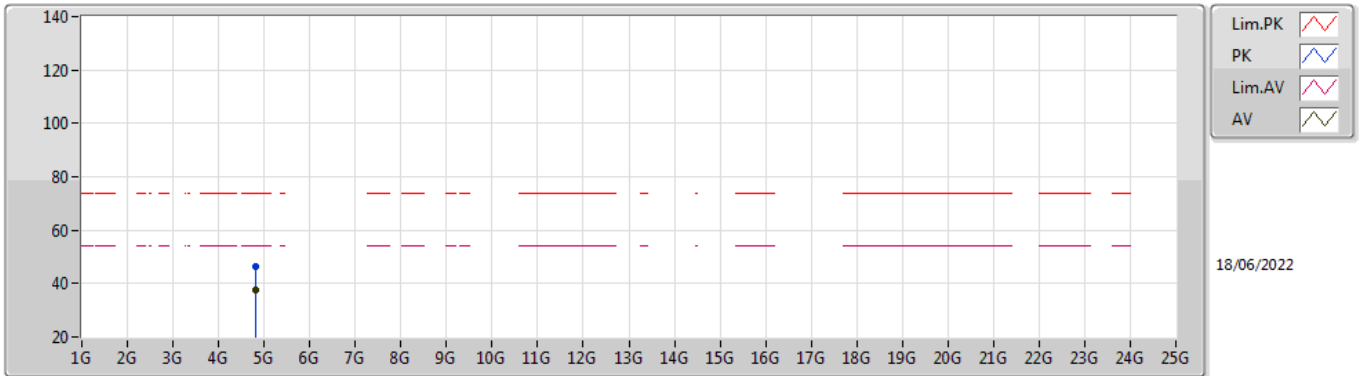


EUT X_2TX
Setting 23
02-B-G-4

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	4.82396G	46.65	74.00	-27.35	40.83	3	Vertical	164	1.82	-	32.94	5.10	32.22
AV	4.8239G	36.93	54.00	-17.07	31.11	3	Vertical	164	1.82	-	32.94	5.10	32.22

802.11b_Nss1,(1Mbps)_2TX

2412MHz_TX

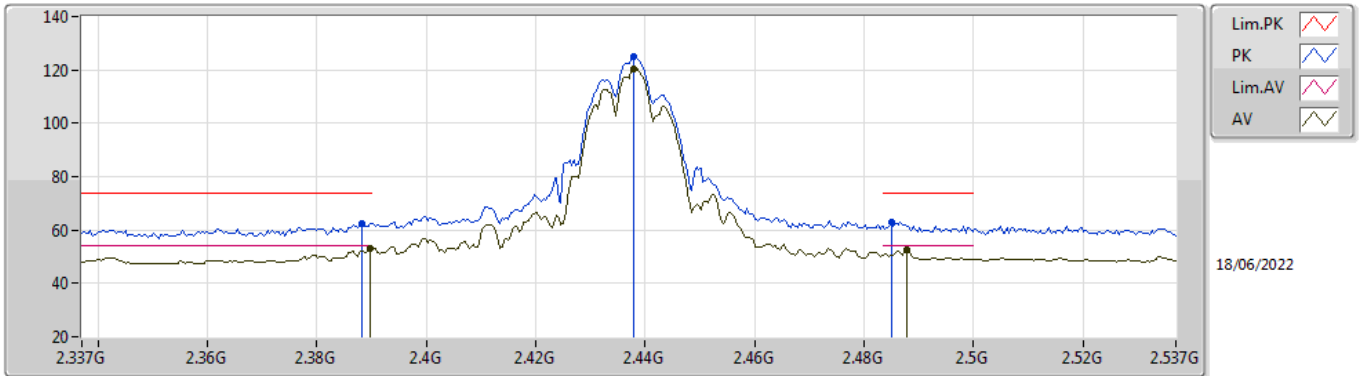


EUT X_2TX
Setting 23
02-B-G-4

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	4.82572G	46.53	74.00	-27.47	40.70	3	Horizontal	254	1.65	-	32.95	5.10	32.22
AV	4.82396G	37.82	54.00	-16.18	32.00	3	Horizontal	254	1.65	-	32.94	5.10	32.22

802.11b_Nss1,(1Mbps)_2TX

2437MHz_TX

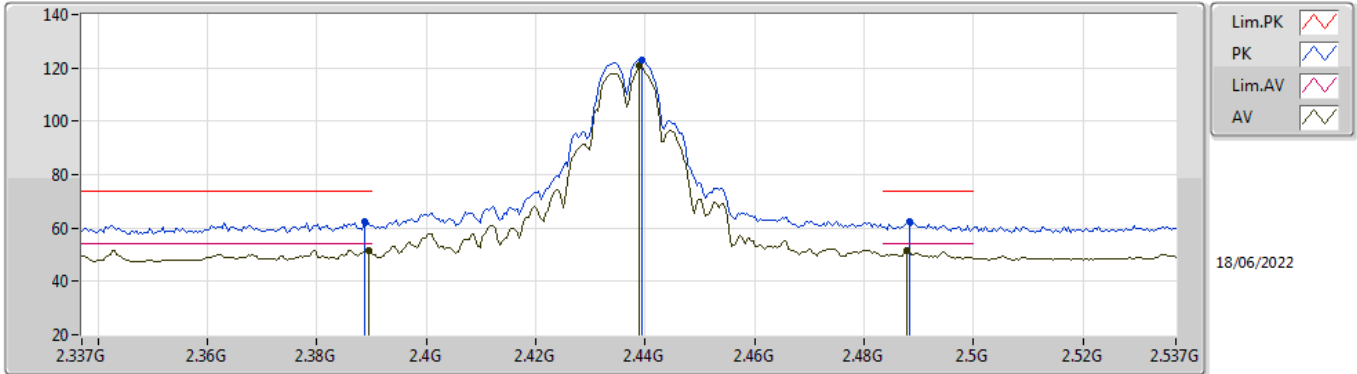


EUT_X_2TX
Setting 29
02-B-G-4

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	2.3882G	62.52	74.00	-11.48	31.35	3	Vertical	249	3.00	-	28.38	2.79	-
AV	2.3898G	53.17	54.00	-0.83	22.00	3	Vertical	249	3.00	-	28.38	2.79	-
PK	2.4378G	124.90	Inf	-Inf	93.66	3	Vertical	249	3.00	-	28.40	2.84	-
AV	2.4378G	120.44	Inf	-Inf	89.20	3	Vertical	249	3.00	-	28.40	2.84	-
PK	2.485G	63.09	74.00	-10.91	31.66	3	Vertical	249	3.00	-	28.54	2.89	-
AV	2.4878G	52.79	54.00	-1.21	21.35	3	Vertical	249	3.00	-	28.55	2.89	-

802.11b_Nss1,(1Mbps)_2TX

2437MHz_TX

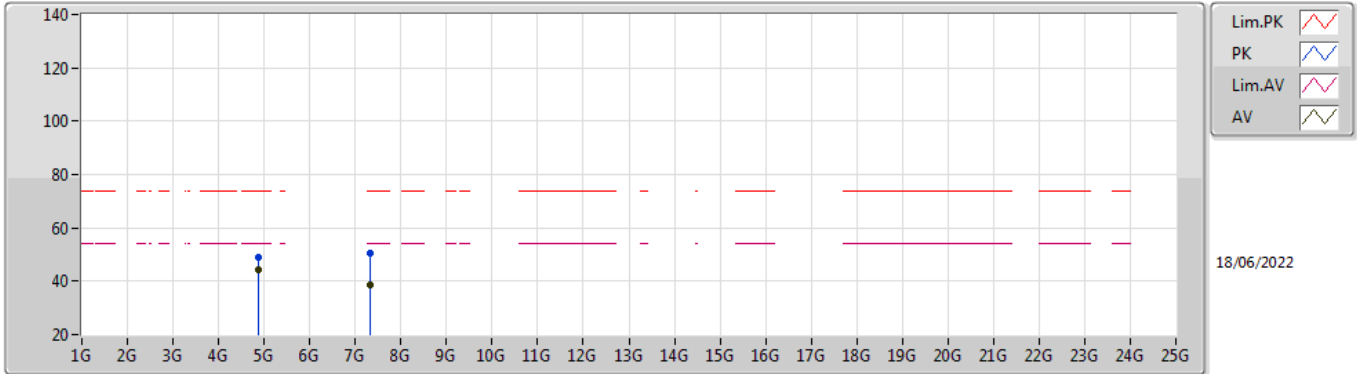


EUT_X_2TX
Setting 29
02-B-G-4

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	62.17	74.00	-11.83	31.00	3	Horizontal	203	1.06	-	28.38	2.79	-
AV	2.3894G	51.81	54.00	-2.19	20.64	3	Horizontal	203	1.06	-	28.38	2.79	-
PK	2.4394G	123.12	Inf	-Inf	91.88	3	Horizontal	203	1.06	-	28.40	2.84	-
AV	2.439G	120.98	Inf	-Inf	89.74	3	Horizontal	203	1.06	-	28.40	2.84	-
PK	2.4882G	62.60	74.00	-11.40	31.16	3	Horizontal	203	1.06	-	28.55	2.89	-
AV	2.4878G	51.77	54.00	-2.23	20.33	3	Horizontal	203	1.06	-	28.55	2.89	-

802.11b_Nss1,(1Mbps)_2TX

2437MHz_TX

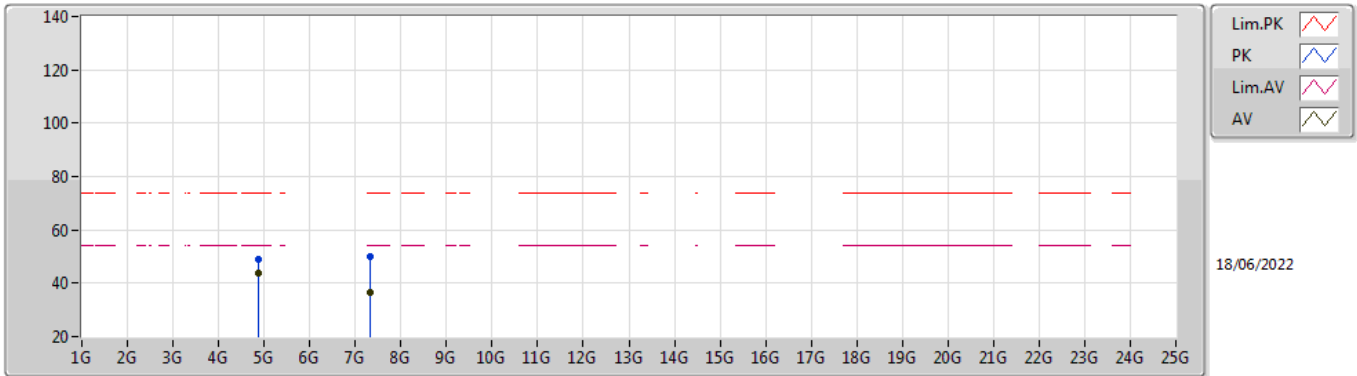


EUT_X_2TX
Setting 29
02-B-G-4

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	4.8738G	48.97	74.00	-25.03	42.93	3	Vertical	239	1.80	-	33.15	5.10	32.21
AV	4.87404G	44.07	54.00	-9.93	38.03	3	Vertical	239	1.80	-	33.15	5.10	32.21
PK	7.3118G	50.31	74.00	-23.69	40.55	3	Vertical	248	2.97	-	36.42	6.16	32.82
AV	7.31036G	38.40	54.00	-15.60	28.64	3	Vertical	248	2.97	-	36.42	6.16	32.82

802.11b_Nss1,(1Mbps)_2TX

2437MHz_TX

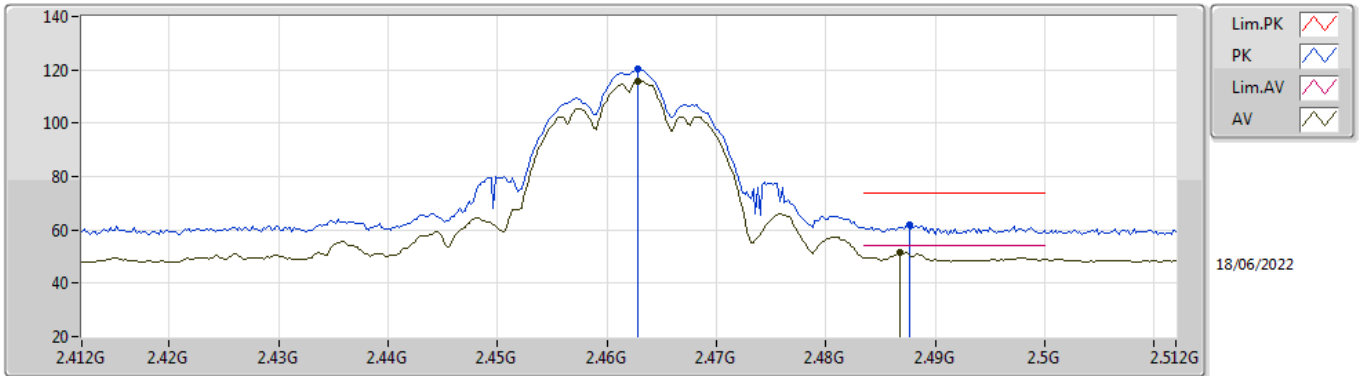


EUT_X_2TX
Setting 29
02-B-G-4

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	4.87404G	49.03	74.00	-24.97	42.99	3	Horizontal	199	1.18	-	33.15	5.10	32.21
AV	4.87396G	43.88	54.00	-10.12	37.84	3	Horizontal	199	1.18	-	33.15	5.10	32.21
PK	7.315G	50.10	74.00	-23.90	40.34	3	Horizontal	0	1.80	-	36.43	6.16	32.83
AV	7.31068G	36.51	54.00	-17.49	26.75	3	Horizontal	0	1.80	-	36.42	6.16	32.82

802.11b_Nss1,(1Mbps)_2TX

2462MHz_TX

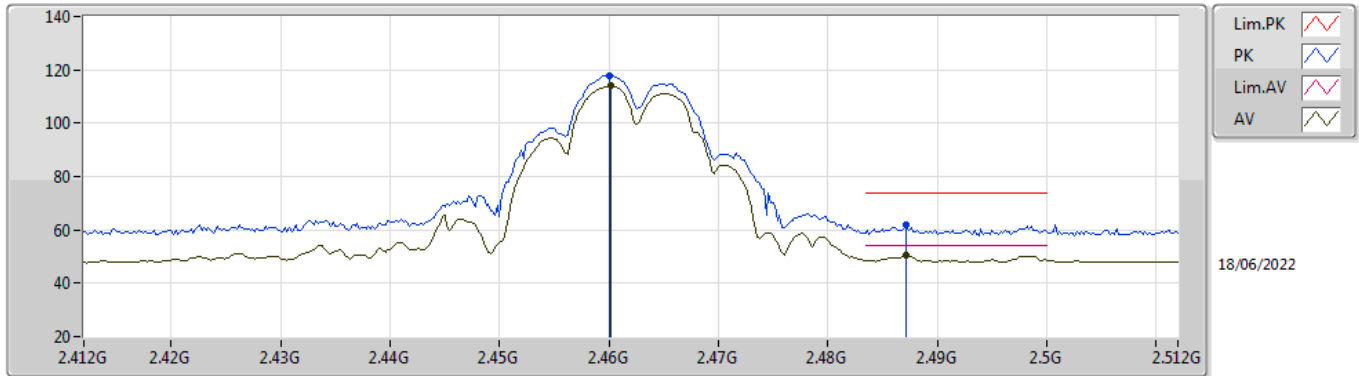


EUT_X_2TX
Setting 25
02-B-G-4

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	2.4628G	120.12	Inf	-Inf	88.81	3	Vertical	250	1.60	-	28.45	2.86	-
AV	2.4628G	115.73	Inf	-Inf	84.42	3	Vertical	250	1.60	-	28.45	2.86	-
PK	2.4876G	62.07	74.00	-11.93	30.63	3	Vertical	250	1.60	-	28.55	2.89	-
AV	2.4868G	51.46	54.00	-2.54	20.02	3	Vertical	250	1.60	-	28.55	2.89	-

802.11b_Nss1,(1Mbps)_2TX

2462MHz_TX

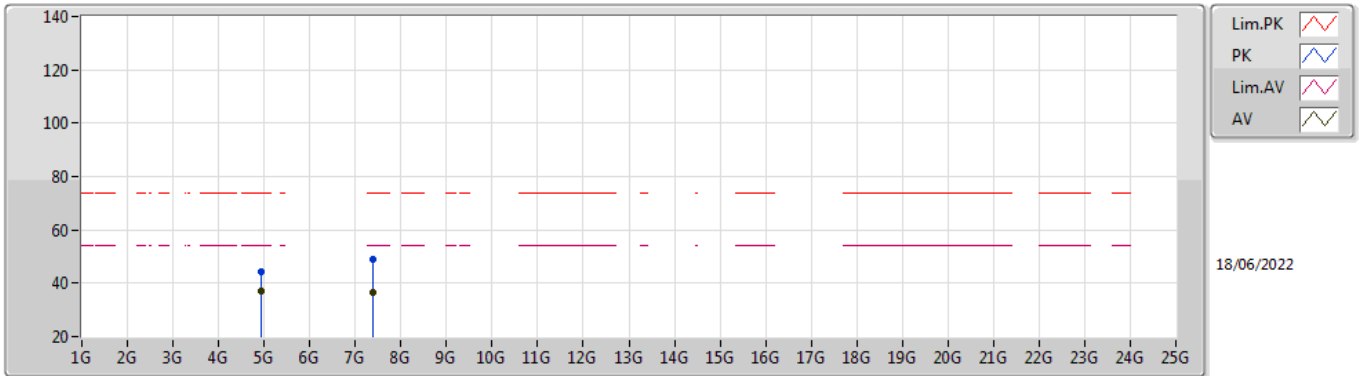


EUT_X_2TX
Setting 25
02-B-G-4

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	2.46G	117.94	Inf	-Inf	86.64	3	Horizontal	357	1.80	-	28.44	2.86	-
AV	2.4602G	113.89	Inf	-Inf	82.59	3	Horizontal	357	1.80	-	28.44	2.86	-
PK	2.4872G	61.98	74.00	-12.02	30.54	3	Horizontal	357	1.80	-	28.55	2.89	-
AV	2.4872G	50.74	54.00	-3.26	19.30	3	Horizontal	357	1.80	-	28.55	2.89	-

802.11b_Nss1,(1Mbps)_2TX

2462MHz_TX

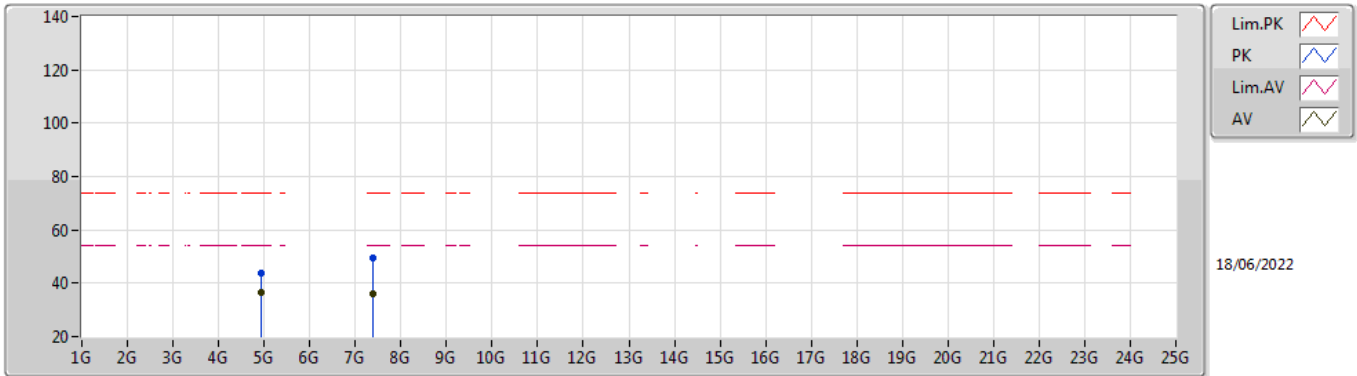


EUT_X_2TX
Setting 25
02-B-G-4

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	4.92364G	44.35	74.00	-29.65	38.19	3	Vertical	149	1.28	-	33.25	5.10	32.19
AV	4.92384G	36.99	54.00	-17.01	30.83	3	Vertical	149	1.28	-	33.25	5.10	32.19
PK	7.3828G	49.14	74.00	-24.86	39.40	3	Vertical	93	2.50	-	36.50	6.19	32.95
AV	7.3881G	36.33	54.00	-17.67	26.60	3	Vertical	93	2.50	-	36.50	6.19	32.96

802.11b_Nss1,(1Mbps)_2TX

2462MHz_TX

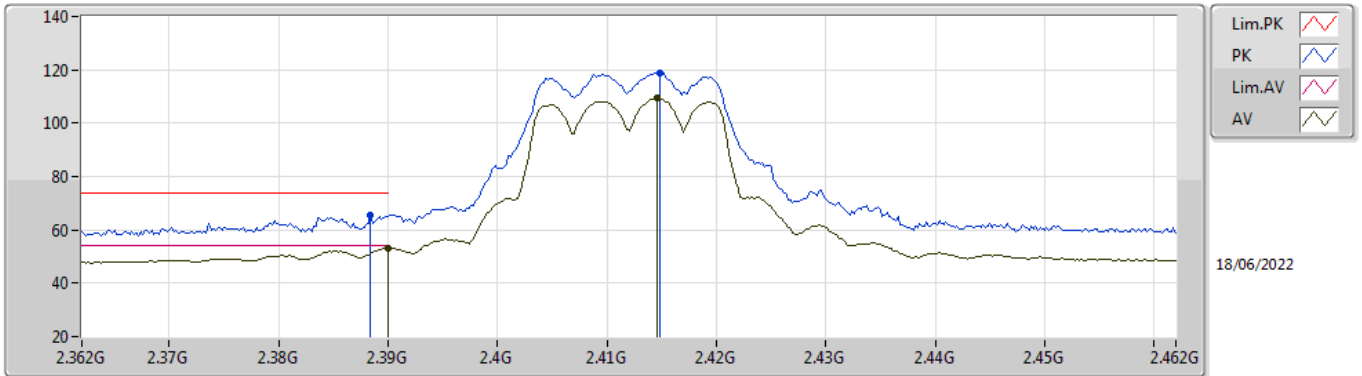


EUT_X_2TX
Setting 25
02-B-G-4

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	4.92712G	43.90	74.00	-30.10	37.74	3	Horizontal	219	2.14	-	33.25	5.10	32.19
AV	4.92406G	36.75	54.00	-17.25	30.59	3	Horizontal	219	2.14	-	33.25	5.10	32.19
PK	7.38576G	49.46	74.00	-24.54	39.72	3	Horizontal	288	1.05	-	36.50	6.19	32.95
AV	7.3817G	36.16	54.00	-17.84	26.41	3	Horizontal	288	1.05	-	36.50	6.19	32.94

802.11g_Nss1,(6Mbps)_2TX

2412MHz_TX

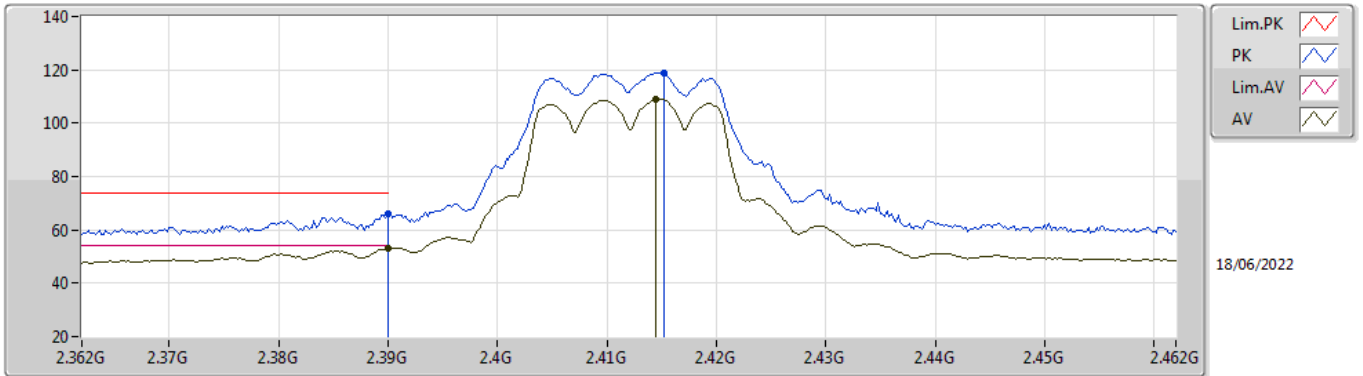


EUT_X_2TX
Setting 22
02-B-G-4

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	2.3884G	65.59	74.00	-8.41	34.42	3	Vertical	198	1.63	-	28.38	2.79	-
AV	2.39G	53.07	54.00	-0.93	21.90	3	Vertical	198	1.63	-	28.38	2.79	-
PK	2.4148G	118.78	Inf	-Inf	87.57	3	Vertical	198	1.63	-	28.40	2.81	-
AV	2.4146G	109.25	Inf	-Inf	78.04	3	Vertical	198	1.63	-	28.40	2.81	-

802.11g_Nss1,(6Mbps)_2TX

2412MHz_TX

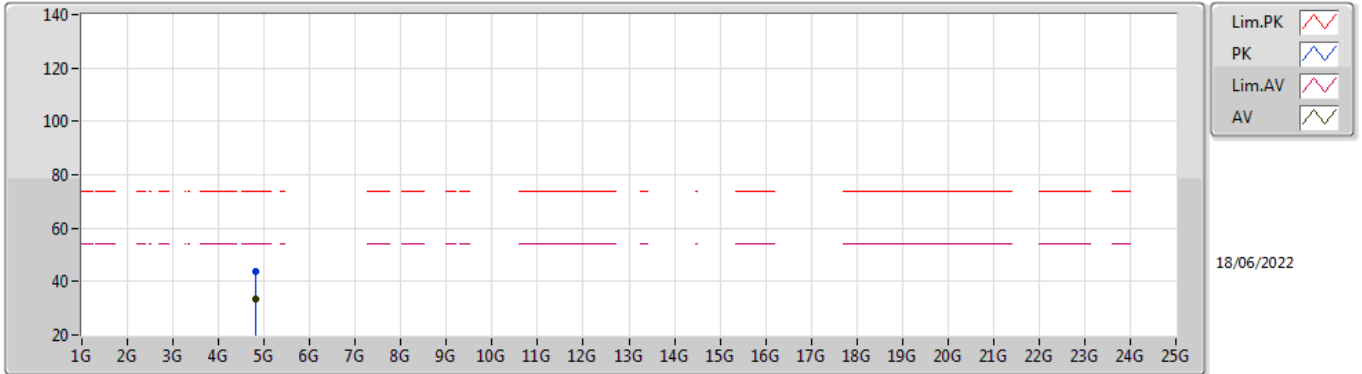


EUT_X_2TX
Setting 22
02-B-G-4

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	2.39G	66.28	74.00	-7.72	35.11	3	Horizontal	202	1.58	-	28.38	2.79	-
AV	2.39G	53.16	54.00	-0.84	21.99	3	Horizontal	202	1.58	-	28.38	2.79	-
PK	2.4152G	118.90	Inf	-Inf	87.68	3	Horizontal	202	1.58	-	28.40	2.82	-
AV	2.4144G	109.12	Inf	-Inf	77.91	3	Horizontal	202	1.58	-	28.40	2.81	-

802.11g_Nss1,(6Mbps)_2TX

2412MHz_TX

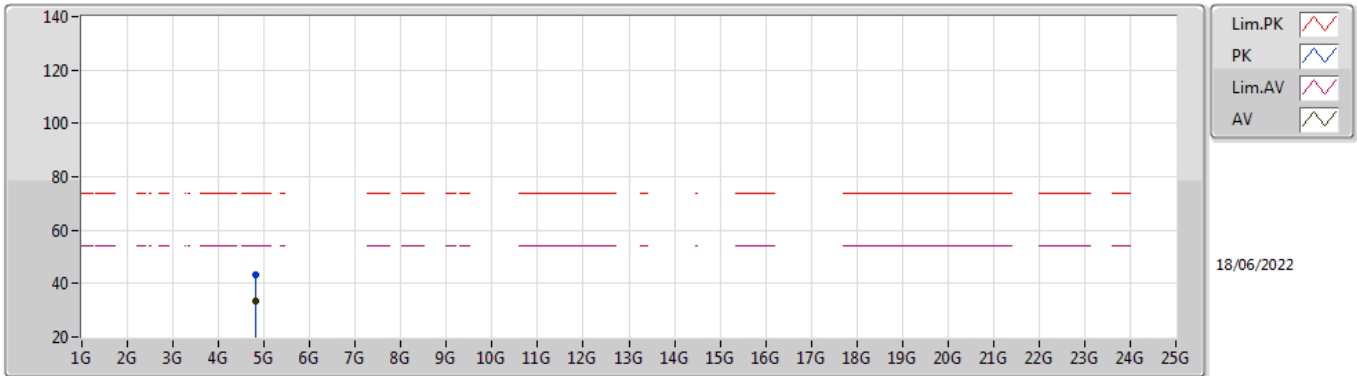


EUT X_2TX
Setting 22
02-B-G-4

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	4.82256G	43.75	74.00	-30.25	37.93	3	Vertical	56	1.96	-	32.94	5.10	32.22
AV	4.82276G	33.56	54.00	-20.44	27.74	3	Vertical	56	1.96	-	32.94	5.10	32.22

802.11g_Nss1,(6Mbps)_2TX

2412MHz_TX

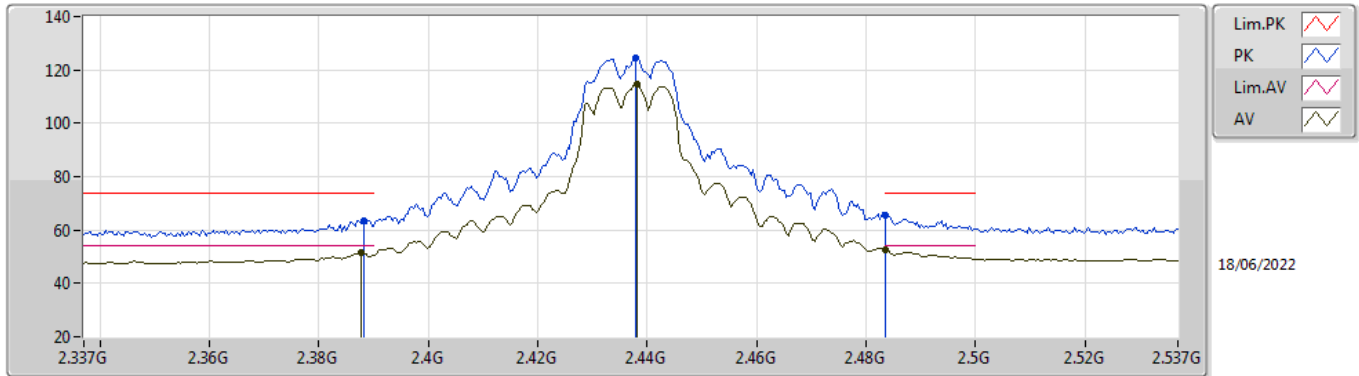


EUT X_2TX
Setting 22
02-B-G-4

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	4.82164G	43.39	74.00	-30.61	37.58	3	Horizontal	78	2.47	-	32.93	5.10	32.22
AV	4.82138G	33.55	54.00	-20.45	27.74	3	Horizontal	78	2.47	-	32.93	5.10	32.22

802.11g_Nss1,(6Mbps)_2TX

2437MHz_TX

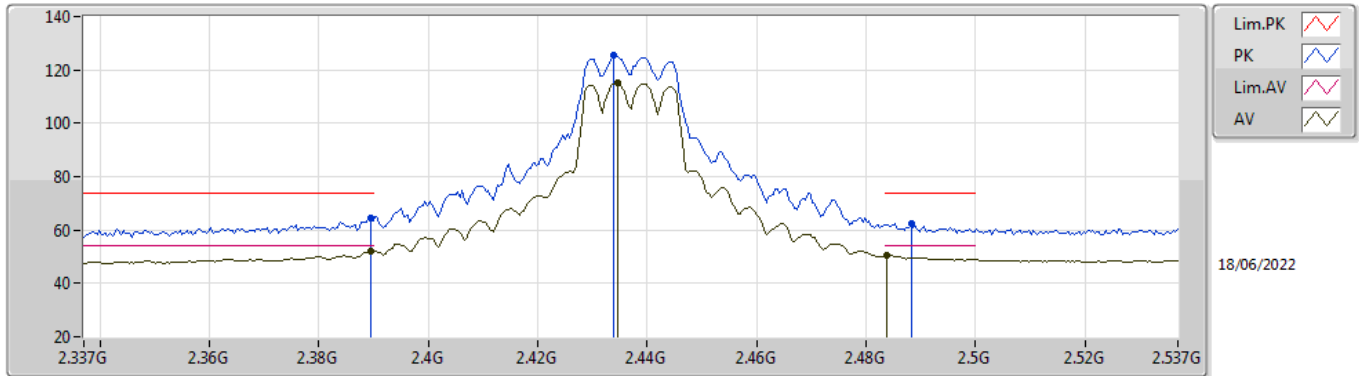


EUT_X_2TX
Setting 28
02-B-G-4

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	2.3882G	63.50	74.00	-10.50	32.33	3	Vertical	240	1.00	-	28.38	2.79	-
AV	2.3878G	51.46	54.00	-2.54	20.29	3	Vertical	240	1.00	-	28.38	2.79	-
PK	2.4378G	124.52	Inf	-Inf	93.28	3	Vertical	240	1.00	-	28.40	2.84	-
AV	2.4382G	114.41	Inf	-Inf	83.17	3	Vertical	240	1.00	-	28.40	2.84	-
PK	2.4835G	65.60	74.00	-8.40	34.19	3	Vertical	240	1.00	-	28.53	2.88	-
AV	2.4835G	52.46	54.00	-1.54	21.05	3	Vertical	240	1.00	-	28.53	2.88	-

802.11g_Nss1,(6Mbps)_2TX

2437MHz_TX

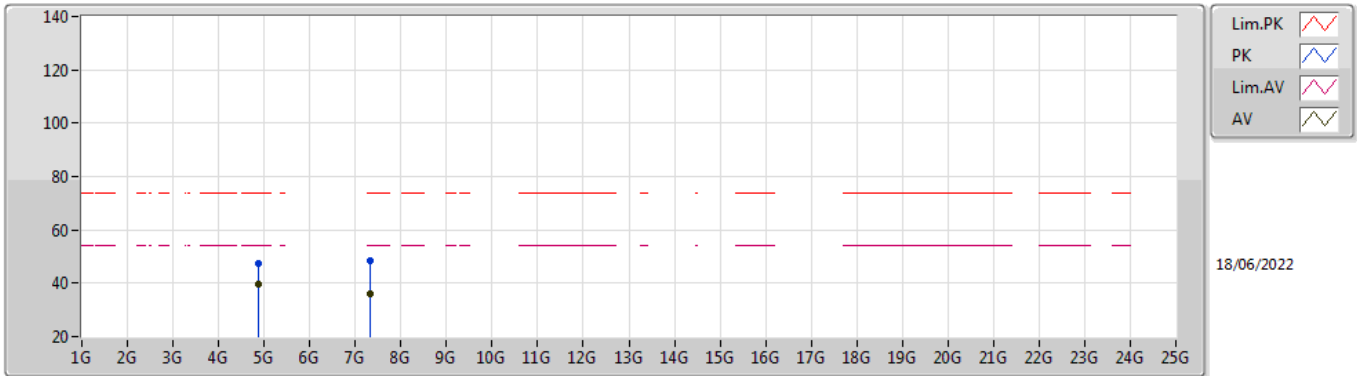


EUT_X_2TX
Setting 28
02-B-G-4

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	2.3894G	64.72	74.00	-9.28	33.55	3	Horizontal	205	1.79	-	28.38	2.79	-
AV	2.3894G	52.08	54.00	-1.92	20.91	3	Horizontal	205	1.79	-	28.38	2.79	-
PK	2.4338G	125.33	Inf	-Inf	94.10	3	Horizontal	205	1.79	-	28.40	2.83	-
AV	2.4346G	115.07	Inf	-Inf	83.84	3	Horizontal	205	1.79	-	28.40	2.83	-
PK	2.4882G	62.18	74.00	-11.82	30.74	3	Horizontal	205	1.79	-	28.55	2.89	-
AV	2.4838G	50.62	54.00	-3.38	19.20	3	Horizontal	205	1.79	-	28.54	2.88	-

802.11g_Nss1,(6Mbps)_2TX

2437MHz_TX

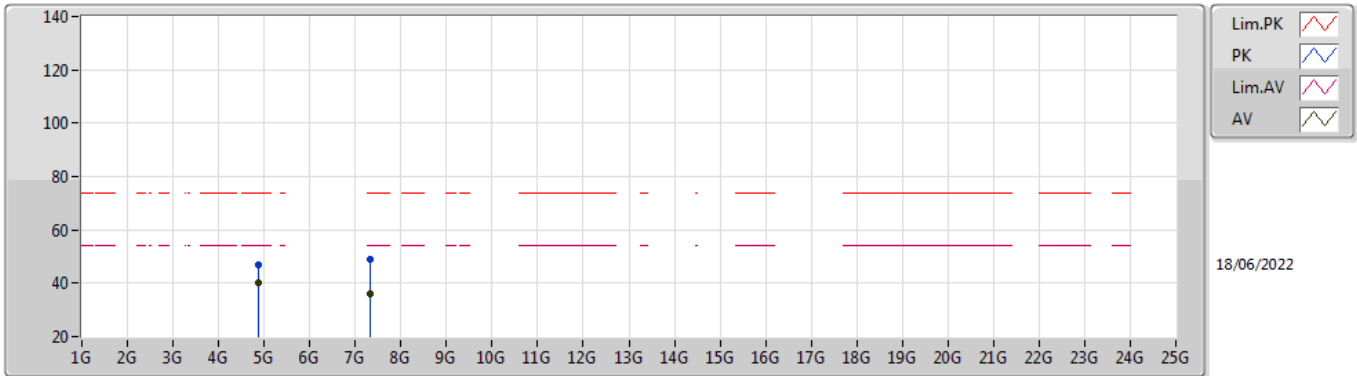


EUT_X_2TX
Setting 28
02-B-G-4

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	4.87148G	47.54	74.00	-26.46	41.51	3	Vertical	243	1.67	-	33.14	5.10	32.21
AV	4.87214G	39.91	54.00	-14.09	33.88	3	Vertical	243	1.67	-	33.14	5.10	32.21
PK	7.3132G	48.62	74.00	-25.38	38.85	3	Vertical	329	1.03	-	36.43	6.16	32.82
AV	7.31274G	36.05	54.00	-17.95	26.28	3	Vertical	329	1.03	-	36.43	6.16	32.82

802.11g_Nss1,(6Mbps)_2TX

2437MHz_TX

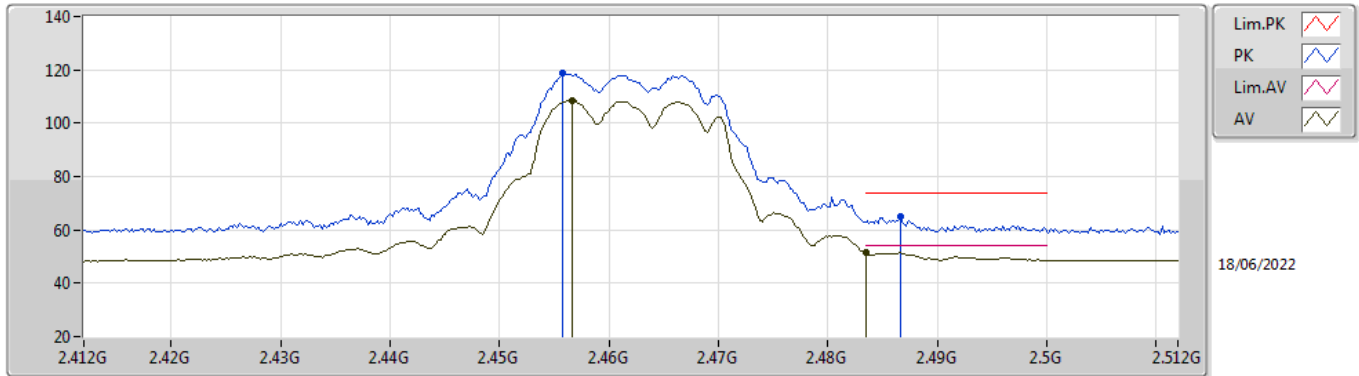


EUT_X_2TX
Setting 28
02-B-G-4

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	4.87158G	47.15	74.00	-26.85	41.12	3	Horizontal	339	2.59	-	33.14	5.10	32.21
AV	4.87192G	39.96	54.00	-14.04	33.93	3	Horizontal	339	2.59	-	33.14	5.10	32.21
PK	7.31102G	48.97	74.00	-25.03	39.21	3	Horizontal	96	1.76	-	36.42	6.16	32.82
AV	7.31498G	35.91	54.00	-18.09	26.15	3	Horizontal	96	1.76	-	36.43	6.16	32.83

802.11g_Nss1,(6Mbps)_2TX

2462MHz_TX

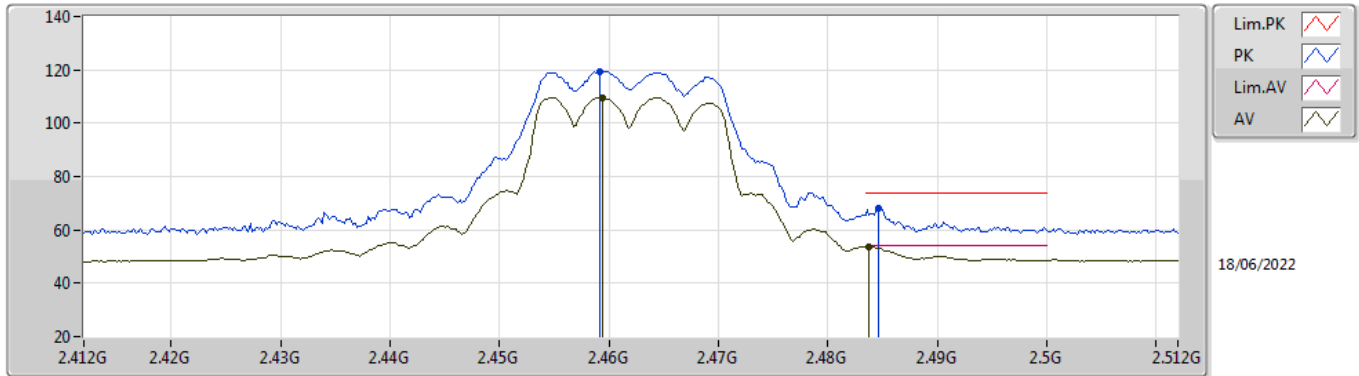


EUT_X_2TX
Setting 22
02-B-G-4

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	2.4558G	118.69	Inf	-Inf	87.41	3	Vertical	255	2.65	-	28.42	2.86	-
AV	2.4566G	108.47	Inf	-Inf	77.18	3	Vertical	255	2.65	-	28.43	2.86	-
PK	2.4866G	64.98	74.00	-9.02	33.54	3	Vertical	255	2.65	-	28.55	2.89	-
AV	2.4835G	51.38	54.00	-2.62	19.97	3	Vertical	255	2.65	-	28.53	2.88	-

802.11g_Nss1,(6Mbps)_2TX

2462MHz_TX

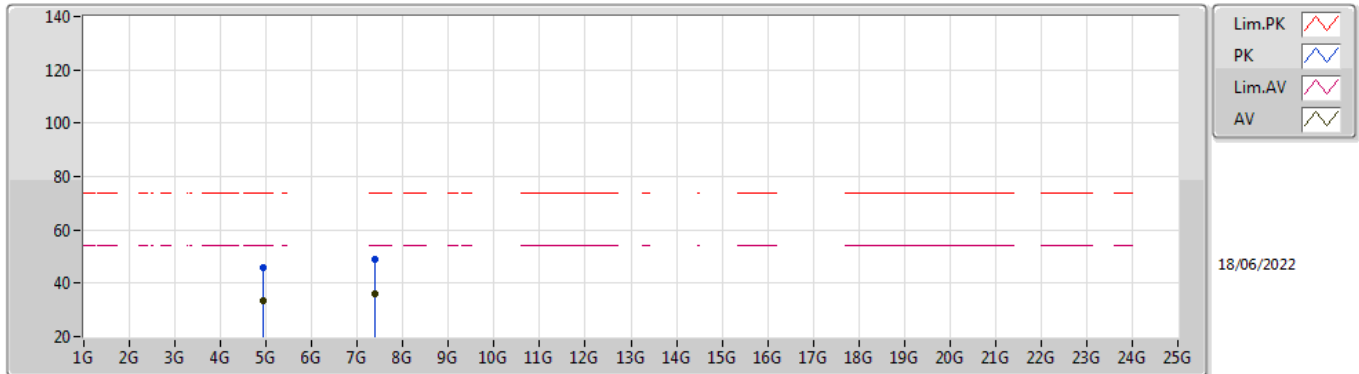


EUT X_2TX
Setting 22
02-B-G-4

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	2.4592G	119.50	Inf	-Inf	88.20	3	Horizontal	325	1.18	-	28.44	2.86	-
AV	2.4594G	109.59	Inf	-Inf	78.29	3	Horizontal	325	1.18	-	28.44	2.86	-
PK	2.4846G	67.94	74.00	-6.06	36.52	3	Horizontal	325	1.18	-	28.54	2.88	-
AV	2.4838G	53.85	54.00	-0.15	22.43	3	Horizontal	325	1.18	-	28.54	2.88	-

802.11g_Nss1,(6Mbps)_2TX

2462MHz_TX

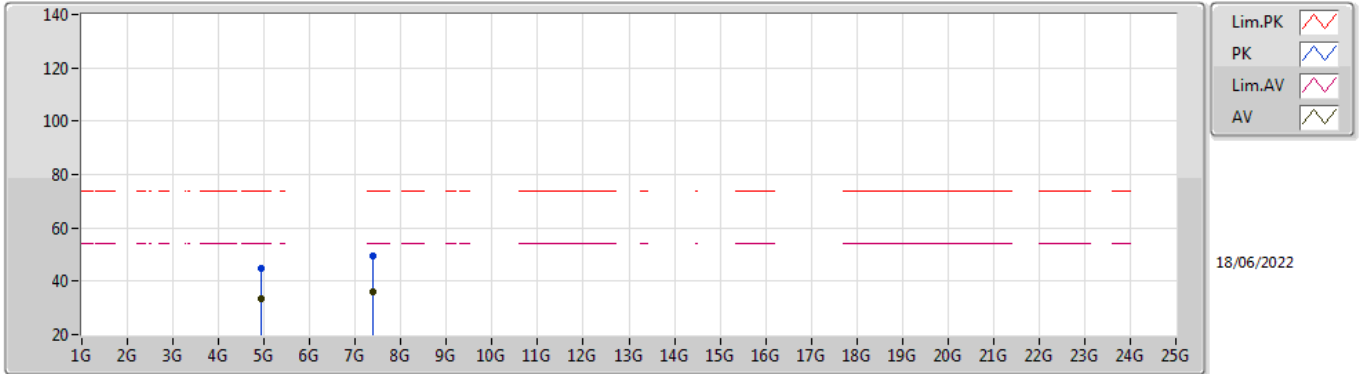


EUT X_2TX
Setting 22
02-B-G-4

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	4.92714G	45.76	74.00	-28.24	39.60	3	Vertical	46	1.29	-	33.25	5.10	32.19
AV	4.92594G	33.59	54.00	-20.41	27.43	3	Vertical	46	1.29	-	33.25	5.10	32.19
PK	7.38668G	49.01	74.00	-24.99	39.27	3	Vertical	231	2.00	-	36.50	6.19	32.95
AV	7.38652G	36.12	54.00	-17.88	26.38	3	Vertical	231	2.00	-	36.50	6.19	32.95

802.11g_Nss1,(6Mbps)_2TX

2462MHz_TX

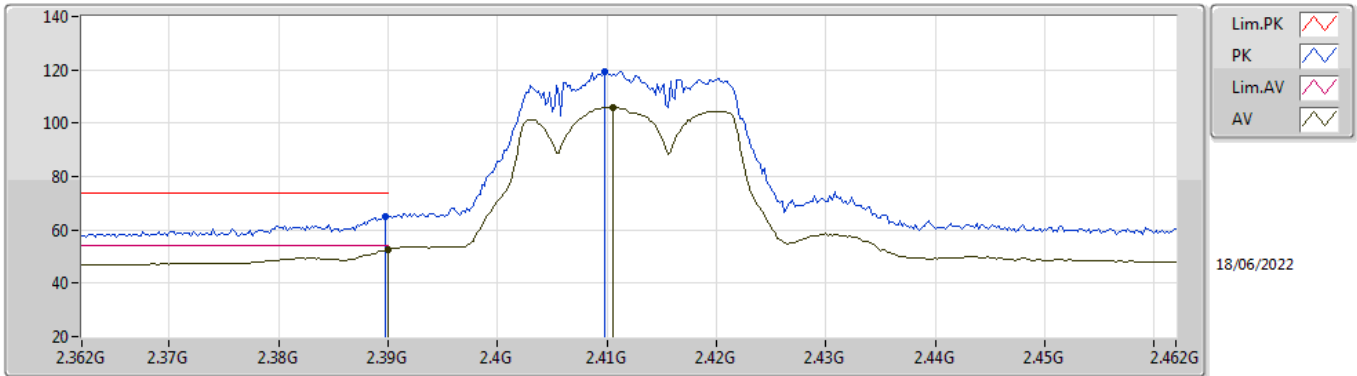


EUT X_2TX
Setting 22
02-B-G-4

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	4.92398G	44.93	74.00	-29.07	38.77	3	Horizontal	145	1.69	-	33.25	5.10	32.19
AV	4.92786G	33.59	54.00	-20.41	27.42	3	Horizontal	145	1.69	-	33.26	5.10	32.19
PK	7.38128G	49.29	74.00	-24.71	39.54	3	Horizontal	269	2.34	-	36.50	6.19	32.94
AV	7.38534G	36.02	54.00	-17.98	26.28	3	Horizontal	269	2.34	-	36.50	6.19	32.95

802.11ax HEW20_Nss1,(MCS0)_2TX

2412MHz_TX

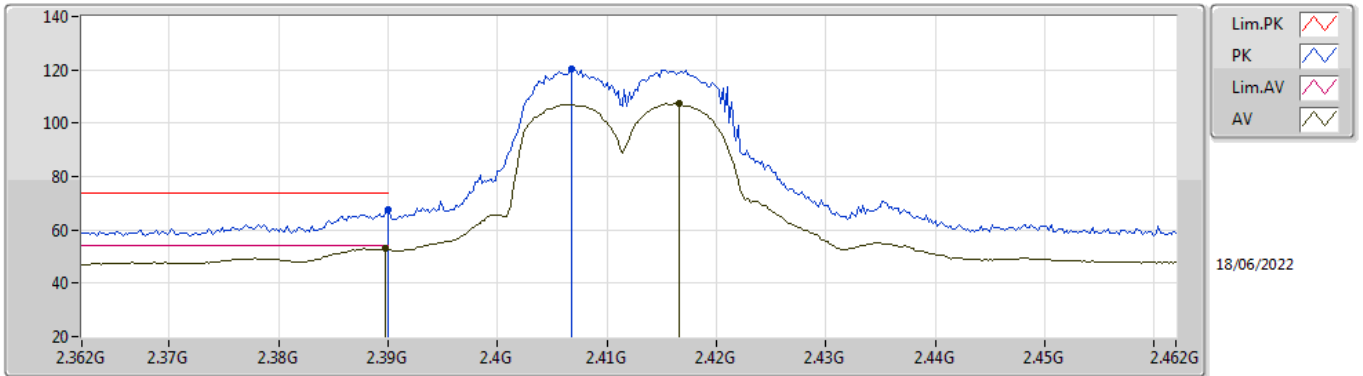


EUT X_2TX
Setting 21
02-B-G-4

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	64.79	74.00	-9.21	33.62	3	Vertical	248	2.49	-	28.38	2.79	-
AV	2.39G	52.74	54.00	-1.26	21.57	3	Vertical	248	2.49	-	28.38	2.79	-
PK	2.4098G	119.56	Inf	-Inf	88.35	3	Vertical	248	2.49	-	28.40	2.81	-
AV	2.4106G	106.10	Inf	-Inf	74.89	3	Vertical	248	2.49	-	28.40	2.81	-

802.11ax HEW20_Nss1,(MCS0)_2TX

2412MHz_TX

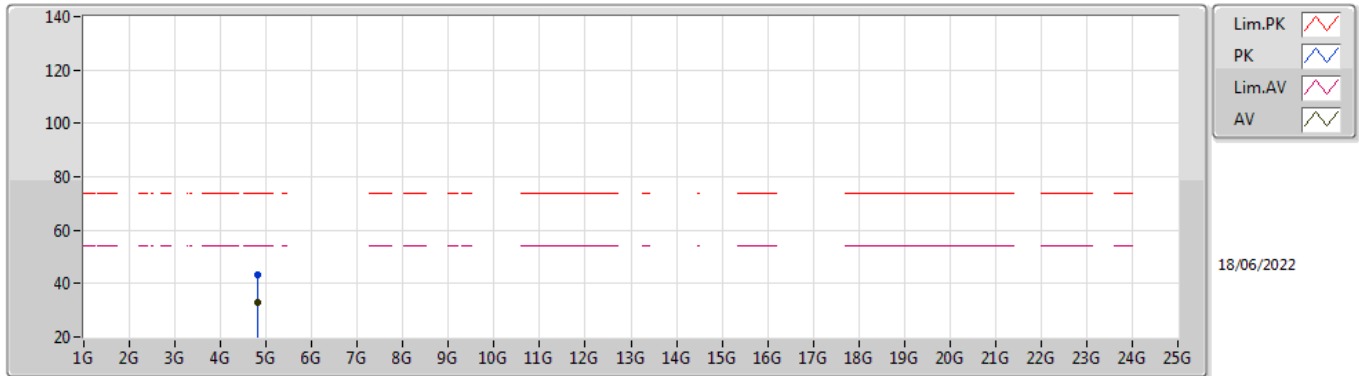


EUT X_2TX
Setting 21
02-B-G-4

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	2.39G	67.58	74.00	-6.42	36.41	3	Horizontal	193	2.03	-	28.38	2.79	-
AV	2.3898G	52.88	54.00	-1.12	21.71	3	Horizontal	193	2.03	-	28.38	2.79	-
PK	2.4068G	120.56	Inf	-Inf	89.35	3	Horizontal	193	2.03	-	28.40	2.81	-
AV	2.4166G	107.24	Inf	-Inf	76.02	3	Horizontal	193	2.03	-	28.40	2.82	-

802.11ax HEW20_Nss1,(MCS0)_2TX

2412MHz_TX

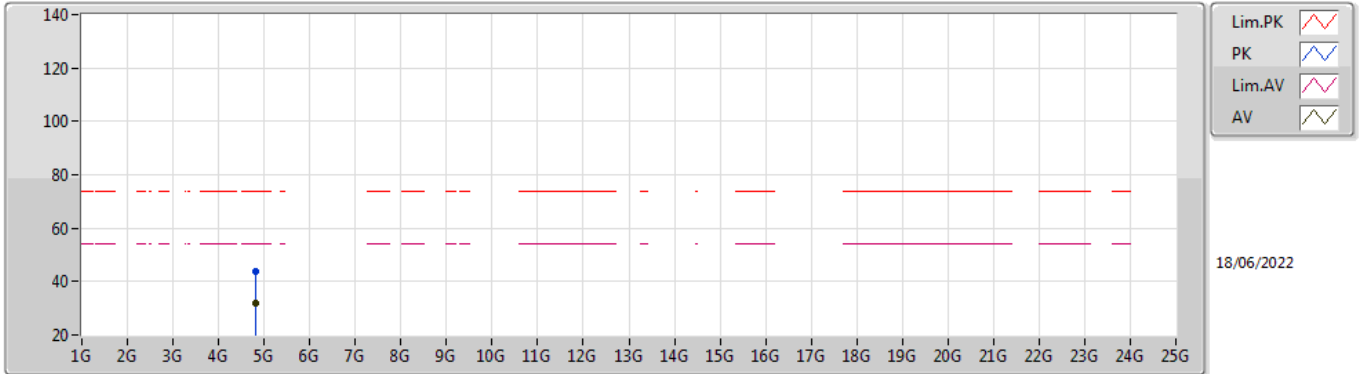


EUT X_2TX
Setting 21
02-B-G-4

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	4.82452G	43.37	74.00	-30.63	37.54	3	Vertical	309	2.70	-	32.95	5.10	32.22
AV	4.82374G	32.91	54.00	-21.09	27.09	3	Vertical	309	2.70	-	32.94	5.10	32.22

802.11ax HEW20_Nss1,(MCS0)_2TX

2412MHz_TX

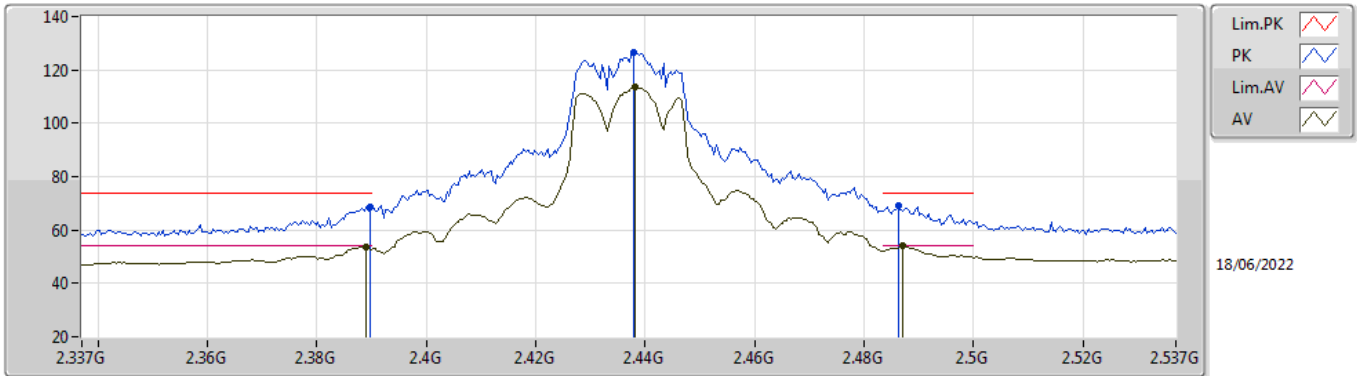


EUT X_2TX
Setting 21
02-B-G-4

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	4.82158G	43.69	74.00	-30.31	37.88	3	Horizontal	116	2.40	-	32.93	5.10	32.22
AV	4.82576G	32.04	54.00	-21.96	26.21	3	Horizontal	116	2.40	-	32.95	5.10	32.22

802.11ax HEW20_Nss1,(MCS0)_2TX

2437MHz_TX

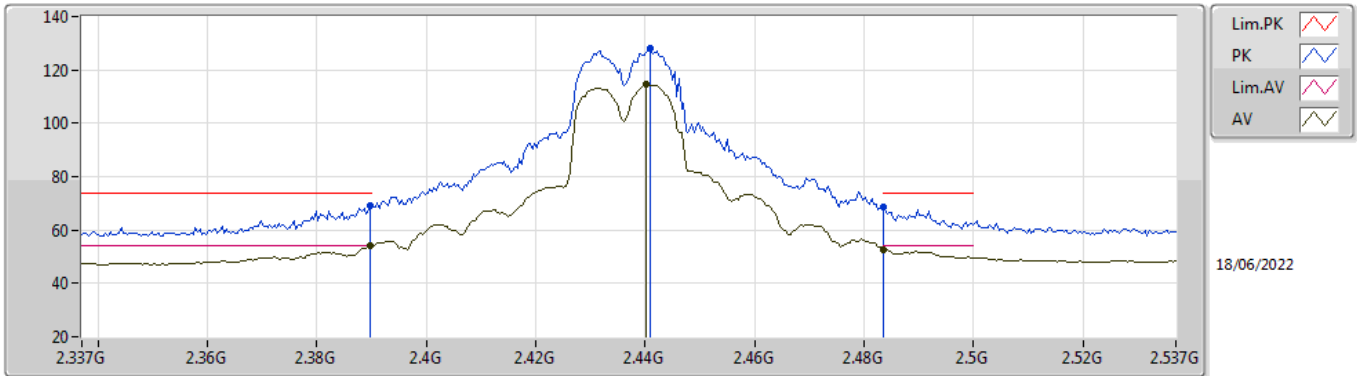


EUT_X_2TX
Setting 28
02-B-G-4

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	68.86	74.00	-5.14	37.69	3	Vertical	242	1.00	-	28.38	2.79	-
AV	2.389G	53.86	54.00	-0.14	22.69	3	Vertical	242	1.00	-	28.38	2.79	-
PK	2.4378G	126.74	Inf	-Inf	95.50	3	Vertical	242	1.00	-	28.40	2.84	-
AV	2.4382G	113.39	Inf	-Inf	82.15	3	Vertical	242	1.00	-	28.40	2.84	-
PK	2.4862G	69.05	74.00	-4.95	37.62	3	Vertical	242	1.00	-	28.54	2.89	-
AV	2.487G	53.91	54.00	-0.09	22.47	3	Vertical	242	1.00	-	28.55	2.89	-

802.11ax HEW20_Nss1,(MCS0)_2TX

2437MHz_TX

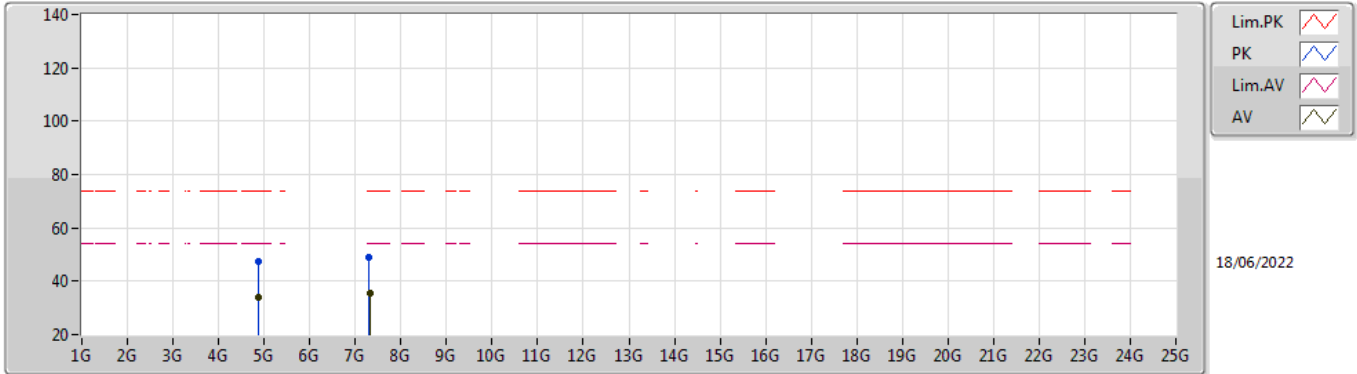


EUT_X_2TX
Setting 28
02-B-G-4

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	69.14	74.00	-4.86	37.97	3	Horizontal	189	2.20	-	28.38	2.79	-
AV	2.3898G	53.92	54.00	-0.08	22.75	3	Horizontal	189	2.20	-	28.38	2.79	-
PK	2.441G	128.24	Inf	-Inf	97.00	3	Horizontal	189	2.20	-	28.40	2.84	-
AV	2.4402G	114.41	Inf	-Inf	83.17	3	Horizontal	189	2.20	-	28.40	2.84	-
PK	2.4835G	68.78	74.00	-5.22	37.37	3	Horizontal	189	2.20	-	28.53	2.88	-
AV	2.4835G	52.67	54.00	-1.33	21.26	3	Horizontal	189	2.20	-	28.53	2.88	-

802.11ax HEW20_Nss1,(MCS0)_2TX

2437MHz_TX

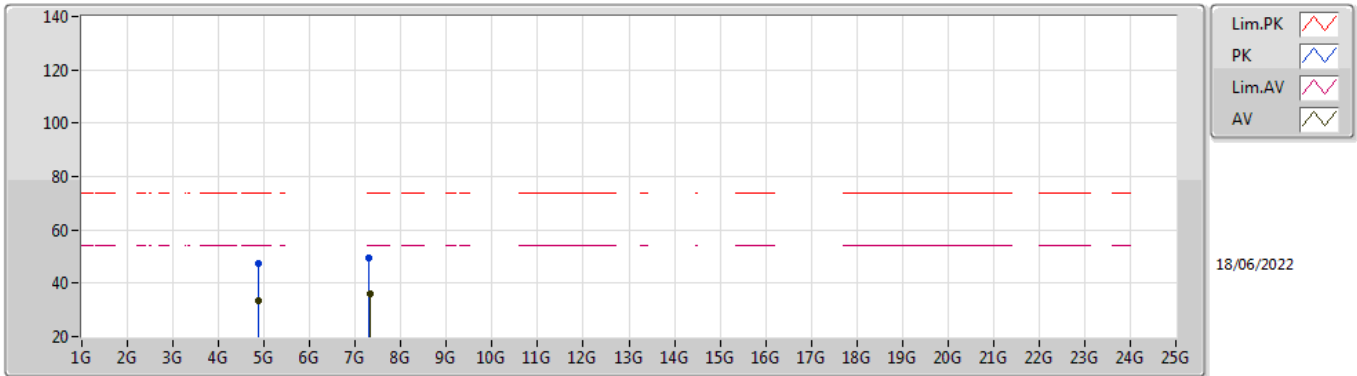


EUT_X_2TX
Setting 28
02-B-G-4

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	4.87584G	47.55	74.00	-26.45	41.50	3	Vertical	244	1.80	-	33.15	5.10	32.20
AV	4.8771G	33.75	54.00	-20.25	27.70	3	Vertical	244	1.80	-	33.15	5.10	32.20
PK	7.3062G	48.98	74.00	-25.02	39.23	3	Vertical	185	2.09	-	36.41	6.15	32.81
AV	7.31394G	35.76	54.00	-18.24	26.00	3	Vertical	185	2.09	-	36.43	6.16	32.83

802.11ax HEW20_Nss1,(MCS0)_2TX

2437MHz_TX

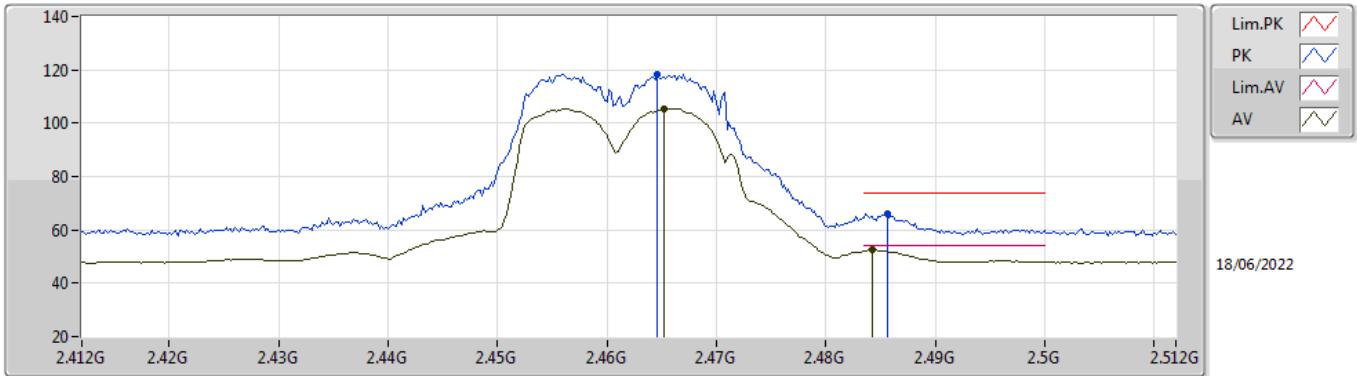


EUT X_2TX
Setting 28
02-B-G-4

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	4.87674G	47.40	74.00	-26.60	41.35	3	Horizontal	104	1.42	-	33.15	5.10	32.20
AV	4.8772G	33.58	54.00	-20.42	27.53	3	Horizontal	104	1.42	-	33.15	5.10	32.20
PK	7.30744G	49.32	74.00	-24.68	39.57	3	Horizontal	358	2.52	-	36.41	6.15	32.81
AV	7.31188G	35.81	54.00	-18.19	26.05	3	Horizontal	358	2.52	-	36.42	6.16	32.82

802.11ax HEW20_Nss1,(MCS0)_2TX

2462MHz_TX

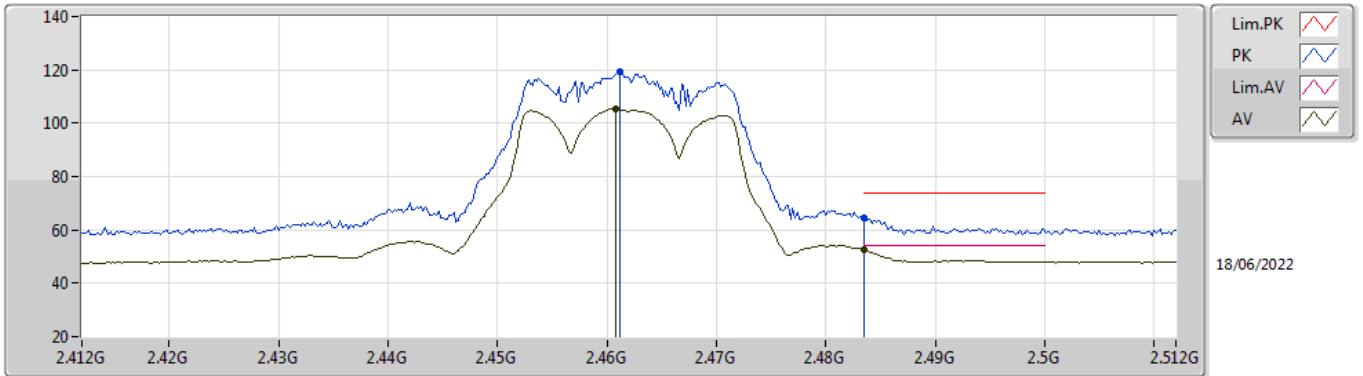


EUT_X_2TX
Setting 20
02-B-G-4

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	2.4646G	118.53	Inf	-Inf	87.21	3	Vertical	255	2.69	-	28.46	2.86	-
AV	2.4652G	105.50	Inf	-Inf	74.17	3	Vertical	255	2.69	-	28.46	2.87	-
PK	2.4856G	65.90	74.00	-8.10	34.47	3	Vertical	255	2.69	-	28.54	2.89	-
AV	2.4842G	52.70	54.00	-1.30	21.28	3	Vertical	255	2.69	-	28.54	2.88	-

802.11ax HEW20_Nss1,(MCS0)_2TX

2462MHz_TX

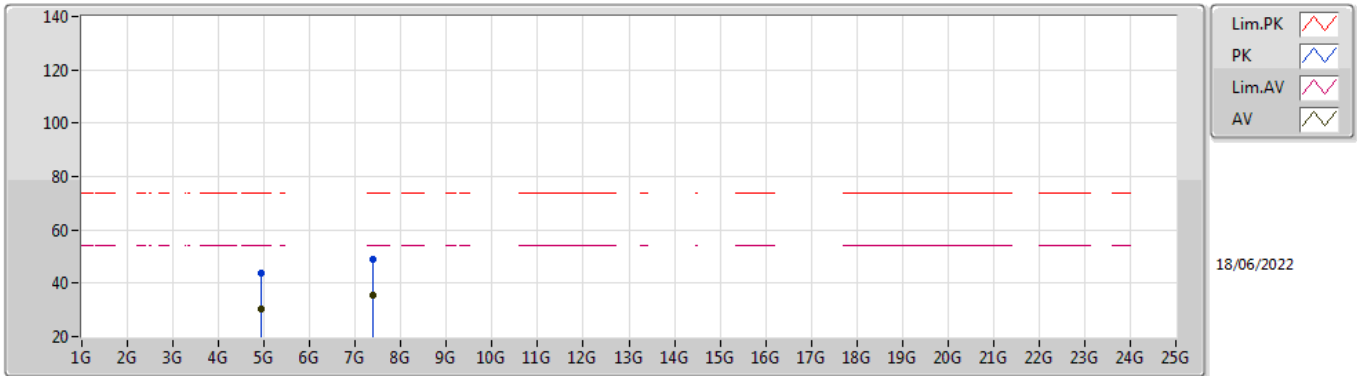


EUT X_2TX
Setting 20
02-B-G-4

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	2.4612G	119.14	Inf	-Inf	87.84	3	Horizontal	326	1.21	-	28.44	2.86	-
AV	2.4608G	105.59	Inf	-Inf	74.29	3	Horizontal	326	1.21	-	28.44	2.86	-
PK	2.4835G	64.61	74.00	-9.39	33.20	3	Horizontal	326	1.21	-	28.53	2.88	-
AV	2.4835G	52.34	54.00	-1.66	20.93	3	Horizontal	326	1.21	-	28.53	2.88	-

802.11ax HEW20_Nss1,(MCS0)_2TX

2462MHz_TX

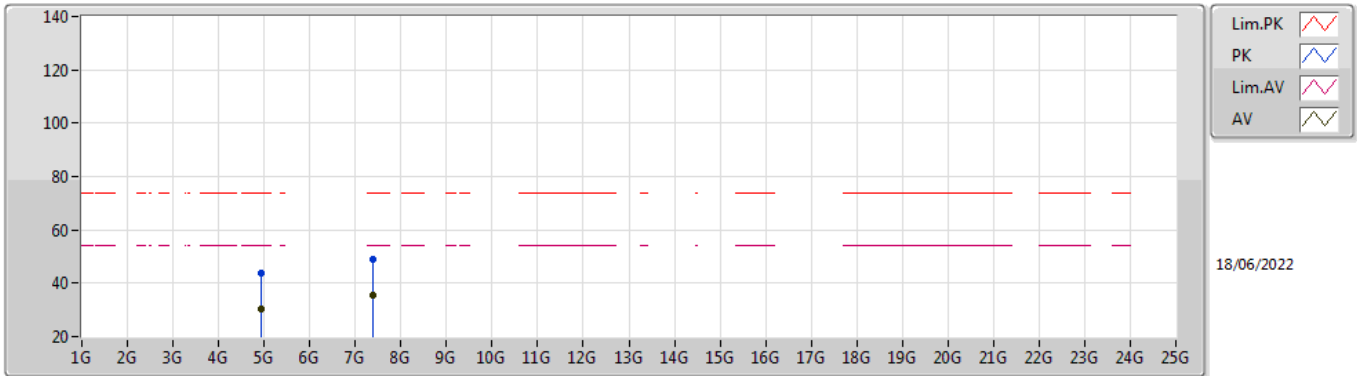


EUT_X_2TX
Setting 20
02-B-G-4

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	4.92702G	43.98	74.00	-30.02	37.82	3	Vertical	266	1.26	-	33.25	5.10	32.19
AV	4.92728G	30.23	54.00	-23.77	24.07	3	Vertical	266	1.26	-	33.25	5.10	32.19
PK	7.3847G	49.21	74.00	-24.79	39.47	3	Vertical	239	1.37	-	36.50	6.19	32.95
AV	7.38152G	35.68	54.00	-18.32	25.93	3	Vertical	239	1.37	-	36.50	6.19	32.94

802.11ax HEW20_Nss1,(MCS0)_2TX

2462MHz_TX

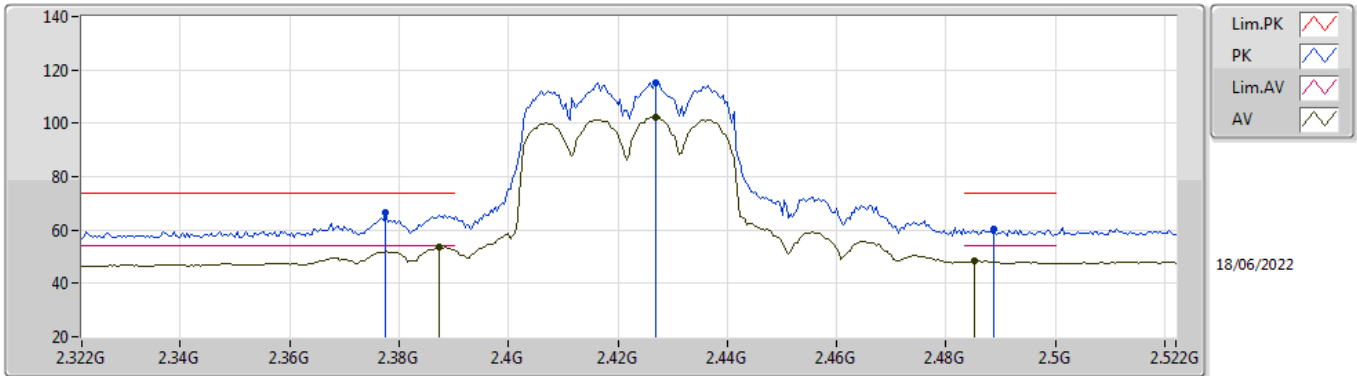


EUT X_2TX
Setting 20
02-B-G-4

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	4.9263G	43.73	74.00	-30.27	37.57	3	Horizontal	44	1.46	-	33.25	5.10	32.19
AV	4.92556G	30.21	54.00	-23.79	24.05	3	Horizontal	44	1.46	-	33.25	5.10	32.19
PK	7.3828G	48.86	74.00	-25.14	39.12	3	Horizontal	305	2.55	-	36.50	6.19	32.95
AV	7.38364G	35.60	54.00	-18.40	25.86	3	Horizontal	305	2.55	-	36.50	6.19	32.95

802.11ax HEW40_Nss1,(MCS0)_2TX

2422MHz_TX

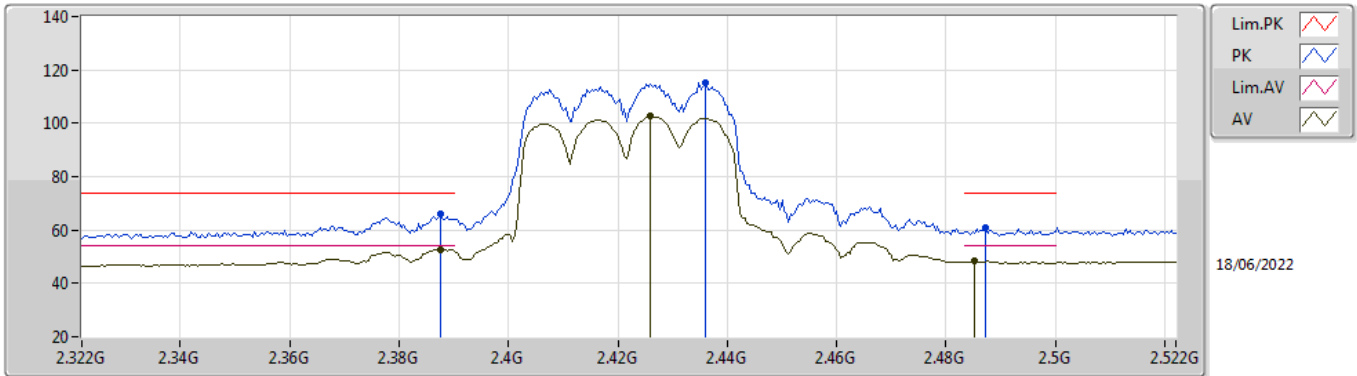


EUT_X_2TX
Setting 20
02-B-G-4

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	2.3776G	66.64	74.00	-7.36	35.49	3	Vertical	242	1.80	-	28.36	2.79	-
AV	2.3872G	53.62	54.00	-0.38	22.46	3	Vertical	242	1.80	-	28.37	2.79	-
PK	2.4268G	115.40	Inf	-Inf	84.17	3	Vertical	242	1.80	-	28.40	2.83	-
AV	2.4268G	102.38	Inf	-Inf	71.15	3	Vertical	242	1.80	-	28.40	2.83	-
PK	2.4888G	60.11	74.00	-13.89	28.66	3	Vertical	242	1.80	-	28.56	2.89	-
AV	2.4852G	48.26	54.00	-5.74	16.83	3	Vertical	242	1.80	-	28.54	2.89	-

802.11ax HEW40_Nss1,(MCS0)_2TX

2422MHz_TX

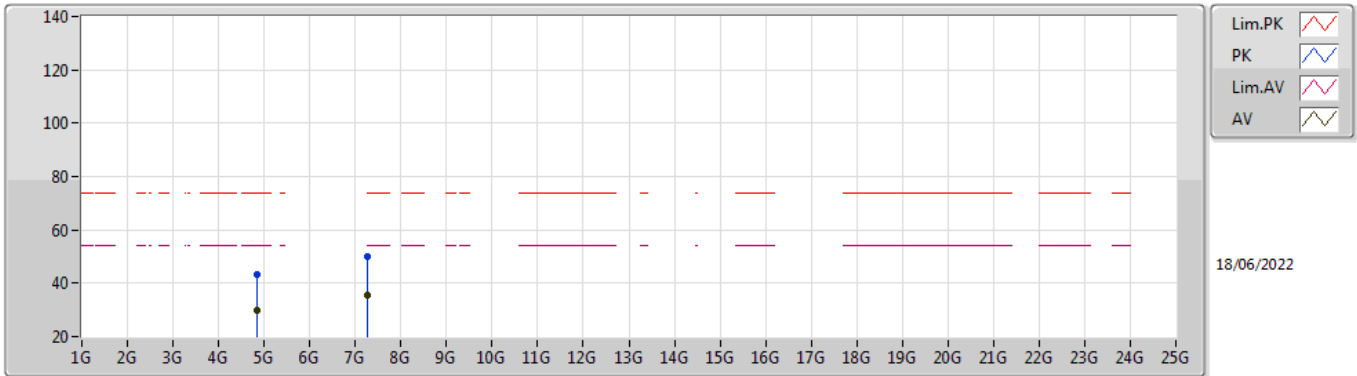


EUT_X_2TX
Setting 20
02-B-G-4

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	2.3876G	66.29	74.00	-7.71	35.12	3	Horizontal	241	1.77	-	28.38	2.79	-
AV	2.3876G	52.83	54.00	-1.17	21.66	3	Horizontal	241	1.77	-	28.38	2.79	-
PK	2.436G	115.31	Inf	-Inf	84.07	3	Horizontal	241	1.77	-	28.40	2.84	-
AV	2.426G	102.63	Inf	-Inf	71.40	3	Horizontal	241	1.77	-	28.40	2.83	-
PK	2.4872G	60.72	74.00	-13.28	29.28	3	Horizontal	241	1.77	-	28.55	2.89	-
AV	2.4852G	48.37	54.00	-5.63	16.94	3	Horizontal	241	1.77	-	28.54	2.89	-

802.11ax HEW40_Nss1,(MCS0)_2TX

2422MHz_TX

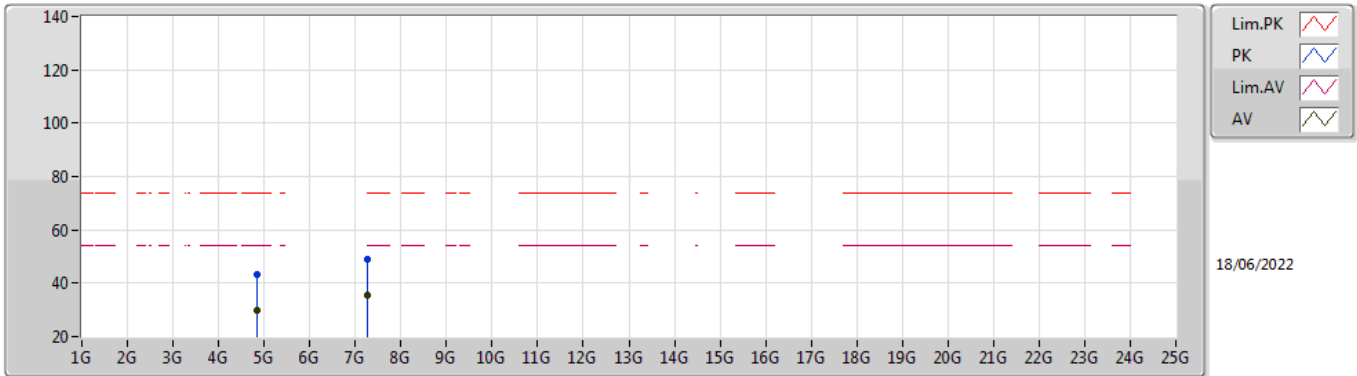


EUT_X_2TX
Setting 20
02-B-G-4

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	4.84708G	43.36	74.00	-30.64	37.40	3	Vertical	78	2.96	-	33.08	5.10	32.22
AV	4.84798G	29.83	54.00	-24.17	23.85	3	Vertical	78	2.96	-	33.09	5.10	32.21
PK	7.26864G	50.07	74.00	-23.93	40.42	3	Vertical	210	1.34	-	36.27	6.13	32.75
AV	7.26146G	35.37	54.00	-18.63	25.72	3	Vertical	210	1.34	-	36.25	6.13	32.73

802.11ax HEW40_Nss1,(MCS0)_2TX

2422MHz_TX

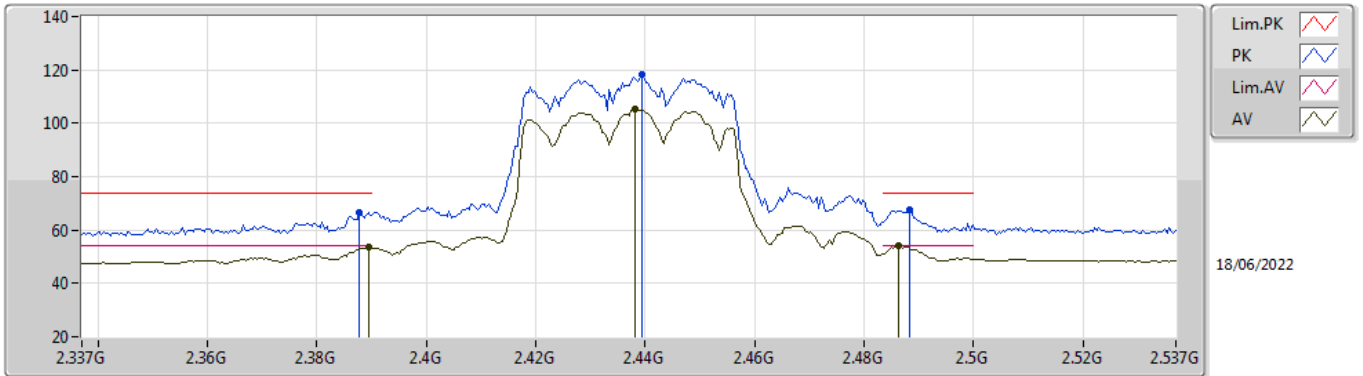


EUT X_2TX
Setting 20
02-B-G-4

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	4.8415G	43.37	74.00	-30.63	37.44	3	Horizontal	106	1.97	-	33.05	5.10	32.22
AV	4.84656G	29.89	54.00	-24.11	23.93	3	Horizontal	106	1.97	-	33.08	5.10	32.22
PK	7.26316G	48.75	74.00	-25.25	39.11	3	Horizontal	12	1.67	-	36.25	6.13	32.74
AV	7.26138G	35.39	54.00	-18.61	25.74	3	Horizontal	12	1.67	-	36.25	6.13	32.73

802.11ax HEW40_Nss1,(MCS0)_2TX

2437MHz_TX

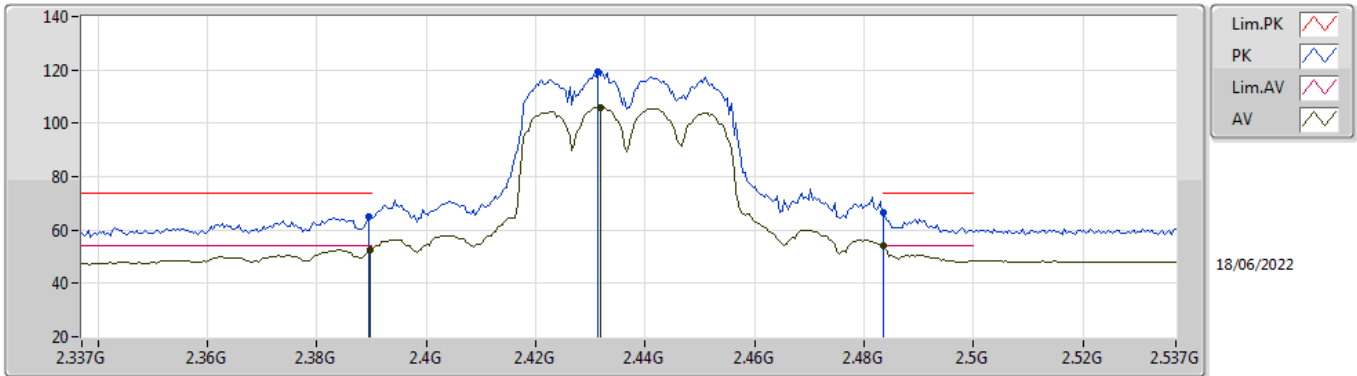


EUT_X_2TX
Setting 23
02-B-G-4

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	2.3878G	66.56	74.00	-7.44	35.39	3	Vertical	240	1.00	-	28.38	2.79	-
AV	2.3894G	53.45	54.00	-0.55	22.28	3	Vertical	240	1.00	-	28.38	2.79	-
PK	2.4394G	118.53	Inf	-Inf	87.29	3	Vertical	240	1.00	-	28.40	2.84	-
AV	2.4382G	105.34	Inf	-Inf	74.10	3	Vertical	240	1.00	-	28.40	2.84	-
PK	2.4882G	67.35	74.00	-6.65	35.91	3	Vertical	240	1.00	-	28.55	2.89	-
AV	2.4862G	53.96	54.00	-0.04	22.53	3	Vertical	240	1.00	-	28.54	2.89	-

802.11ax HEW40_Nss1,(MCS0)_2TX

2437MHz_TX

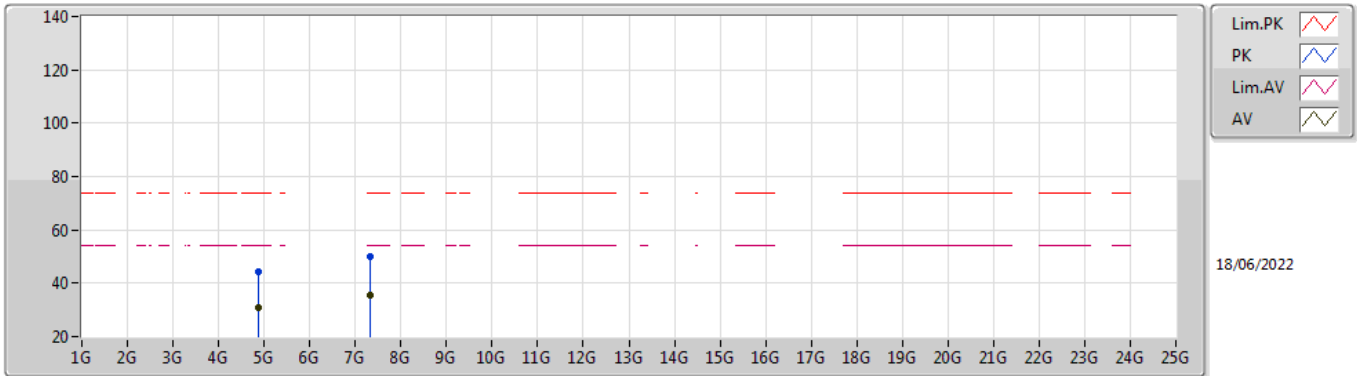


EUT X_2TX
Setting 23
02-B-G-4

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	2.3894G	65.24	74.00	-8.76	34.07	3	Horizontal	204	1.79	-	28.38	2.79	-
AV	2.3898G	52.67	54.00	-1.33	21.50	3	Horizontal	204	1.79	-	28.38	2.79	-
PK	2.4314G	119.29	Inf	-Inf	88.06	3	Horizontal	204	1.79	-	28.40	2.83	-
AV	2.4318G	106.03	Inf	-Inf	74.80	3	Horizontal	204	1.79	-	28.40	2.83	-
PK	2.4835G	66.42	74.00	-7.58	35.01	3	Horizontal	204	1.79	-	28.53	2.88	-
AV	2.4835G	53.90	54.00	-0.10	22.49	3	Horizontal	204	1.79	-	28.53	2.88	-

802.11ax HEW40_Nss1,(MCS0)_2TX

2437MHz_TX

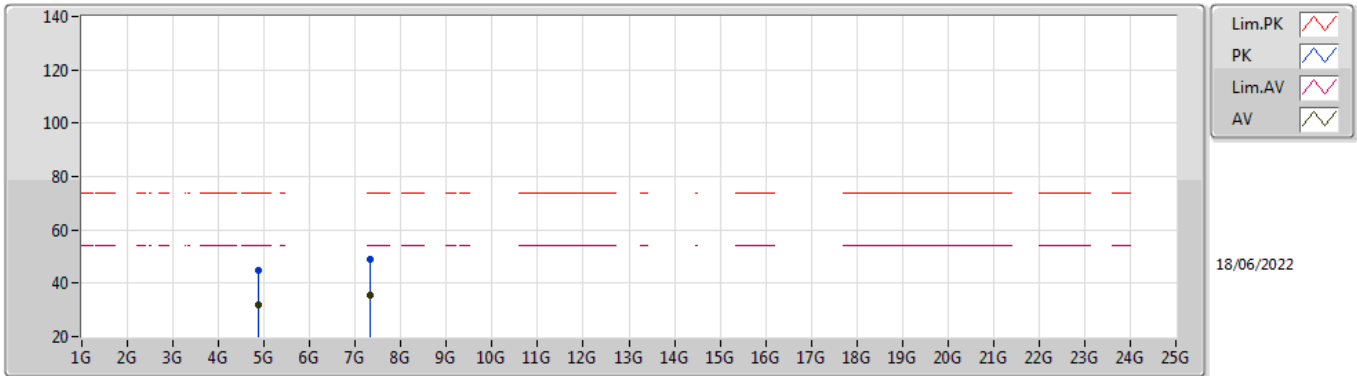


EUT_X_2TX
Setting 23
02-B-G-4

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	4.87308G	44.24	74.00	-29.76	38.20	3	Vertical	169	2.51	-	33.15	5.10	32.21
AV	4.87546G	31.03	54.00	-22.97	24.98	3	Vertical	169	2.51	-	33.15	5.10	32.20
PK	7.3116G	49.90	74.00	-24.10	40.14	3	Vertical	208	2.50	-	36.42	6.16	32.82
AV	7.3157G	35.62	54.00	-18.38	25.86	3	Vertical	208	2.50	-	36.43	6.16	32.83

802.11ax HEW40_Nss1,(MCS0)_2TX

2437MHz_TX

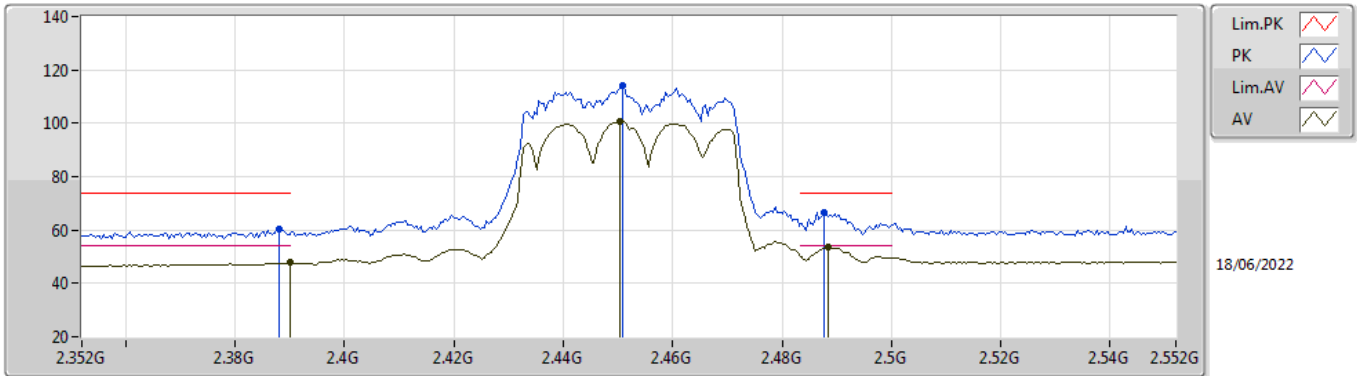


EUT_X_2TX
Setting 23
02-B-G-4

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	4.87588G	44.58	74.00	-29.42	38.53	3	Horizontal	232	2.50	-	33.15	5.10	32.20
AV	4.87342G	31.93	54.00	-22.07	25.89	3	Horizontal	232	2.50	-	33.15	5.10	32.21
PK	7.31052G	49.09	74.00	-24.91	39.33	3	Horizontal	318	1.11	-	36.42	6.16	32.82
AV	7.31324G	35.49	54.00	-18.51	25.73	3	Horizontal	318	1.11	-	36.43	6.16	32.83

802.11ax HEW40_Nss1,(MCS0)_2TX

2452MHz_TX

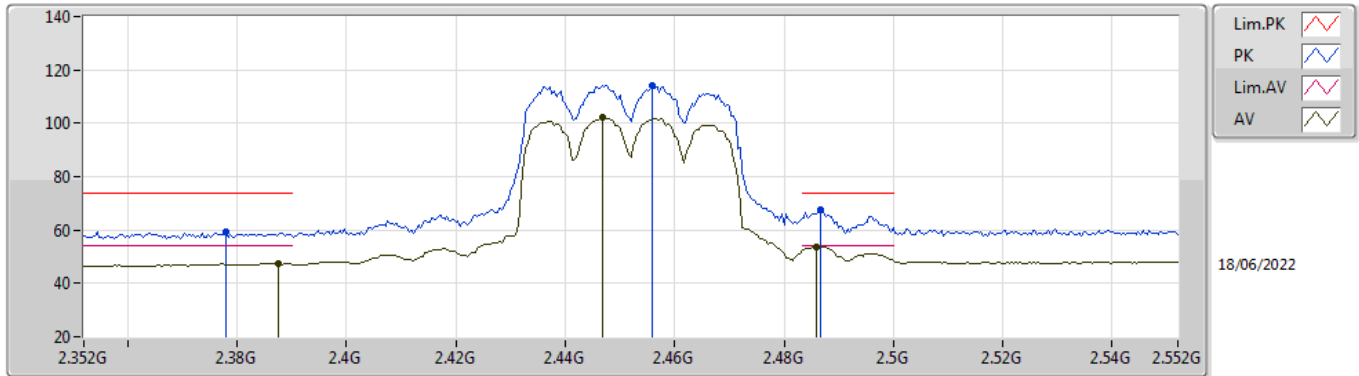


EUT X_2TX
Setting 18
02-B-G-4

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	2.388G	60.25	74.00	-13.75	29.08	3	Vertical	246	3.00	-	28.38	2.79	-
AV	2.39G	47.70	54.00	-6.30	16.53	3	Vertical	246	3.00	-	28.38	2.79	-
PK	2.4508G	114.04	Inf	-Inf	82.79	3	Vertical	246	3.00	-	28.40	2.85	-
AV	2.4504G	100.59	Inf	-Inf	69.34	3	Vertical	246	3.00	-	28.40	2.85	-
PK	2.4876G	66.37	74.00	-7.63	34.93	3	Vertical	246	3.00	-	28.55	2.89	-
AV	2.4884G	53.49	54.00	-0.51	22.05	3	Vertical	246	3.00	-	28.55	2.89	-

802.11ax HEW40_Nss1,(MCS0)_2TX

2452MHz_TX

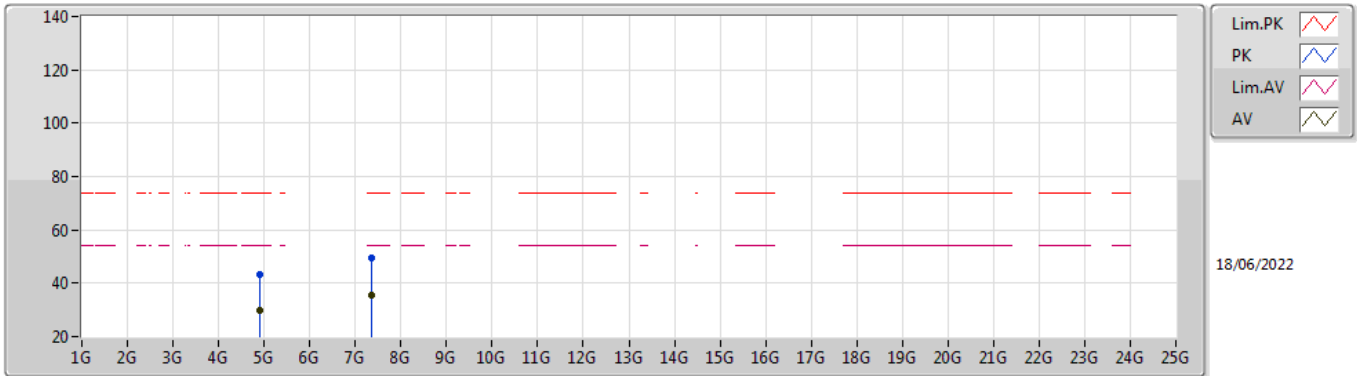


EUT X_2TX
Setting 18
02-B-G-4

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	2.378G	59.27	74.00	-14.73	28.12	3	Horizontal	335	1.19	-	28.36	2.79	-
AV	2.3876G	47.38	54.00	-6.62	16.21	3	Horizontal	335	1.19	-	28.38	2.79	-
PK	2.456G	114.36	Inf	-Inf	83.08	3	Horizontal	335	1.19	-	28.42	2.86	-
AV	2.4468G	102.13	Inf	-Inf	70.88	3	Horizontal	335	1.19	-	28.40	2.85	-
PK	2.4868G	67.82	74.00	-6.18	36.38	3	Horizontal	335	1.19	-	28.55	2.89	-
AV	2.486G	53.87	54.00	-0.13	22.44	3	Horizontal	335	1.19	-	28.54	2.89	-

802.11ax HEW40_Nss1,(MCS0)_2TX

2452MHz_TX

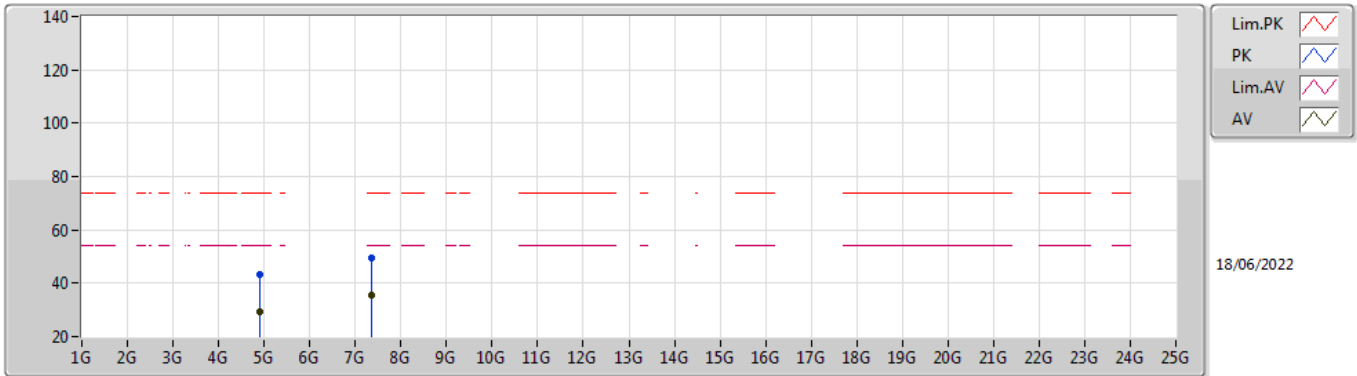


EUT X_2TX
Setting 18
02-B-G-4

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	4.90474G	43.11	74.00	-30.89	36.99	3	Vertical	298	1.85	-	33.21	5.10	32.19
AV	4.90624G	29.60	54.00	-24.40	23.48	3	Vertical	298	1.85	-	33.21	5.10	32.19
PK	7.35574G	49.62	74.00	-24.38	39.84	3	Vertical	121	2.76	-	36.50	6.18	32.90
AV	7.35866G	35.54	54.00	-18.46	25.76	3	Vertical	121	2.76	-	36.50	6.18	32.90

802.11ax HEW40_Nss1,(MCS0)_2TX

2452MHz_TX



EUT_X_2TX
Setting 18
02-B-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	4.90598G	43.22	74.00	-30.78	37.10	3	Horizontal	124	2.83	-	33.21	5.10	32.19
AV	4.90618G	29.53	54.00	-24.47	23.41	3	Horizontal	124	2.83	-	33.21	5.10	32.19
PK	7.35484G	49.57	74.00	-24.43	39.79	3	Horizontal	119	2.58	-	36.50	6.18	32.90
AV	7.3519G	35.61	54.00	-18.39	25.82	3	Horizontal	119	2.58	-	36.50	6.18	32.89