Testing Laboratory 3787

RADIO TEST REPORT

FCC ID	:	O6ZP21KW
Equipment	:	Wireless Streaming Device
Brand Name	:	DIRECTV
Model Name	:	P21KW-500
Applicant	:	HUMAX Co., Ltd. HUMAX BLDG., 2, Yeongmun-ro, Cheoin-gu , Yongin-si, Gyeonggi-do, South Korea
Manufacturer	:	HUMAX Co., Ltd. HUMAX BLDG., 2, Yeongmun-ro, Cheoin-gu , Yongin-si, Gyeonggi-do, South Korea
Standard	:	47 CFR FCC Part 15.247

The product was received on Oct. 11, 2022, and testing was started from Oct. 13, 2022 and completed on Nov. 30, 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
No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302010, Taiwan (R.O.C.)

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History of this test report

Report No.	Version	Description	Issued Date
FR2O0619AA	01	Initial issue of report	Nov. 09, 2022
FR2O0619AA	02	Revising test result for Emissions in Restricted Frequency Bands below 1GHz and Photographs of EUT.	Dec. 02, 2022

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: Vicky Huang

1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
2400-2483.5	b, g, n (HT20),ax (HEW20)	2412-2462	1-11 [11]

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	802.11ax HEW20	20	2TX

Note:
- 11b mode uses a combination of DSSS-DBPSK, DQPSK, CCK modulation.
- 11g andHT20 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
- HEW20 use a combination of OFDMA-BPSK, QPSK, 16QAM, 64QAM, 256QAM modulation.
- BWch is the nominal channel bandwidth.

1.1.2 Antenna Information

Ant.	Port			Brand	Model Name	Antenna Type	Connector	Gain (dBi)
	2.4GHz	5GHz	Bluetooth					
1	1	1	1	Galtronics	DB1	PCB Antenna	N/A	Note1
2	2	2	-	Galtronics	DB2	PCB Antenna	N/A	

Note1:

Ant.	Antenna Gain (dBi)					
	WLAN 2.4GHz	WLAN 5GHz UNII 1	WLAN 5GHz UNII 2A	WLAN 5GHz UNII 2C	WLAN 5GHz UNII 3	Bluetooth
1	4.471	3.208	3.208	3.937	3.684	4.471
2	2.976	3.4	3.783	4.269	3.872	-

Note1: The above information was declared by manufacturer.
Note2: Directional gain information

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

Ex.

Directional Gain (NSS1) formula : $DirectionalGain = 10 \cdot \log\left[\frac{\sum_{j=1}^{N_{sp}}\left\{\sum_{k=1}^{N_{ANT}} g_{j,k}\right\}^2}{N_{ANT}}\right]$

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

$g_{j,k} = (Nss1(g1,1) + Nss1(g1,2))^2$

$DG = 10 \log[(Nss1(g1,1) + Nss1(g1,2))^2 / N_{ANT}] => 10 \log[(10^{G1/20} + 10^{G2/20})^2 / N_{ANT}]$

Where ;

G1 = Ant 1 Gain ; G2 = Ant 2 Gain

(NSS1)

2.4GHz DG = 6.766 dBi

5 GHz U-NII-1 DG = 6.315 dBi

5 GHz U-NII-2A DG = 6.511 dBi

5 GHz U-NII-2C DG = 7.115 dBi

5 GHz U-NII-3 DG = 6.789 dBi

For 2.4GHz function:

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

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

Port 1 and Port 2 could transmit/receive simultaneously.

For 5GHz function:

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

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

Port 1 and Port 2 could transmit/receive simultaneously.

For Bluetooth function

For Bluetooth mode (1TX/1RX):

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

1.1.3 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11b	0.957	0.19	12.42m	100
802.11g	0.958	0.19	2.065m	1k
802.11ax HEW20	0.986	0.06	n/a (DC>=0.98)	n/a (DC>=0.98)

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

1.1.4 EUT Operational Condition

EUT Power Type	From Power Adapter			
Beamforming Function	☒	With beamforming	☐	Without beamforming
	The product has beamforming function for 11n in 2.4GHz and 11n/VHT in 5GHz.			
Function	☒	Point-to-multipoint	☐	Point-to-point
Support RU	☒	Full RU	☐	Partial RU
Test Software Version	TeraTerm v4.75, accessMTool v3.2.0.2			

Note: The above information was declared by manufacturer.

1.2 Applicable Standards

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

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

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

- FCC KDB 558074 D01 v05r02
- FCC KDB 662911 D03 v01
- 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	23.5~24.1 / 52~59	Oct. 15, 2022~ Oct. 17, 2022
Radiated (below 1GHz)	03CH05-CB	RJ Huang	22.4~24.4 / 56~60	Oct. 27, 2022~ Nov. 30, 2022
Radiated (above 1GHz)	03CH03-CB	RJ Huang	23.1~23.6 / 56~60	Oct. 13, 2022~ Oct. 27, 2022
AC Conduction	CO02-CB	Elvin Yeh	22~24 / 58~61	Oct. 28, 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%	Confidence levels of 95%

2 Test Configuration of EUT

2.1 Test Channel Mode

Mode	Power Setting
802.11b_Nss1,(1Mbps)_2TX	-
2412MHz	87
2437MHz	94
2462MHz	85
802.11g_Nss1,(6Mbps)_2TX	-
2412MHz	64
2417MHz	69
2437MHz	82
2457MHz	71
2462MHz	64
802.11ax HEW20_Nss1,(MCS0)_2TX	-
2412MHz	62
2417MHz	69
2437MHz	75
2457MHz	72
2462MHz	64
802.11n HT20-BF_Nss1,(MCS0)_2TX	-
2412MHz	62
2417MHz	69
2437MHz	75
2457MHz	72
2462MHz	64

Note:
- Evaluated HEW20 mode only, due to similar modulation. The power setting of HT20 mode are the same or lower than HEW20.
- The EUT supports non-beamforming and beamforming modes, after evaluating, the non-beamforming mode has been selected to execute all tests. The beamforming mode evaluates the output power only.

2.2 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
Tests Item	AC power-line conducted emissions
Condition	AC power-line conducted measurement for line and neutral Test Voltage: 120Vac / 60Hz
Operating Mode	CTX
1	WLAN 2.4G
2	WLAN 5G
3	Bluetooth
For operating mode 1 is the worst case and it was record in this test report.	

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

The Worst Case Mode for Following Conformance Tests	
Tests Item	Emissions in Restricted Frequency Bands
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.
Operating Mode < 1GHz	CTX
The EUT was performed at X axis, Y axis and Z axis position, and the worst case was found at Z axis from Emissions in Restricted Frequency Bands above 1GHz. So the measurement will follow this same test configuration.	
1	EUT at Z-axis+WLAN 2.4G
2	EUT at Z-axis+WLAN 5G
3	EUT at Z-axis+Bluetooth
For operating mode 3 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. The worst case was found at X axis for bandedge, Z axis for harmonic, so it was selected to perform test and its test result was written in the report.	
1	EUT in X axis for bandedge / EUT in Z axis for harmonic

2.3 EUT Operation during Test

For CTX Mode:

non-beamforming mode:

The EUT was programmed to be in continuously transmitting mode.

beamforming mode:

For Conducted Mode:

The EUT was programmed to be in continuously transmitting mode.

For Radiated Mode:

During the test, the following programs under WIN 7 were executed.
The program was executed as follows:
1. During the test, the EUT operation to normal function.
2. Executed command fixed test channel under DOS.
3. Executed "Lantest.exe" to link with the remote workstation to transmit and receive packet by Wireless and transmit duty cycle no less than 98%.

2.4 Accessories

Accessories			
Equipment Name	**Brand Name**	**Model Name**	**Rating**
Adapter	HONOTO	EPS21R0-500	INPUT: 100-240V ~ 50/60Hz, Max.0.3A OUTPUT: 5V, 1.5A, 7.5W

2.5 Support Equipment

For AC Conduction:

Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
A	Test fixture	HUMAX	N/A	N/A
B	Test fixture	HUMAX	N/A	N/A
C	SIO BOX	HUMAX	N/A	N/A
D	USB TO LAN Dongle	ASUSTOR	AS-U2.5G2	N/A
E	LAN & RS232 NB	DELL	FS-108	N/A

For Radiated below 1GHz:

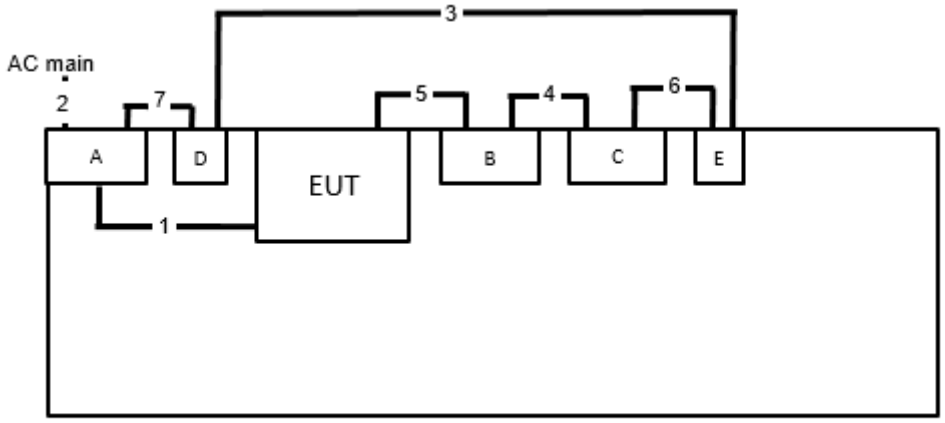
Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
A	Fixture	HUMAX	P21KW USB Adapter B/D REV.:02	N/A

For Radiated above 1GHz and RF Conducted:

Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
A	Fixture	HUMAX	P21KW USB Adapter B/D REV.:02	N/A
B	USB to LAN HUB	TOTOLINK	U1003	N/A
C	NB	DELL	E4300	N/A

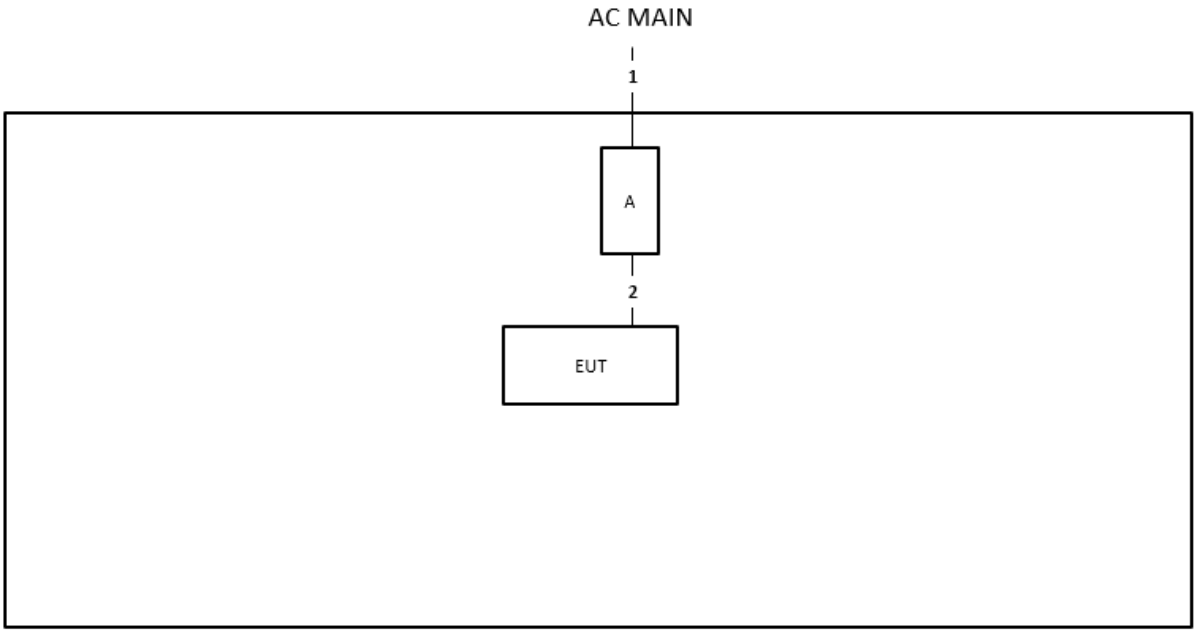
2.6 Test Setup Diagram

Test Setup Diagram – AC Line Conducted Emission Test



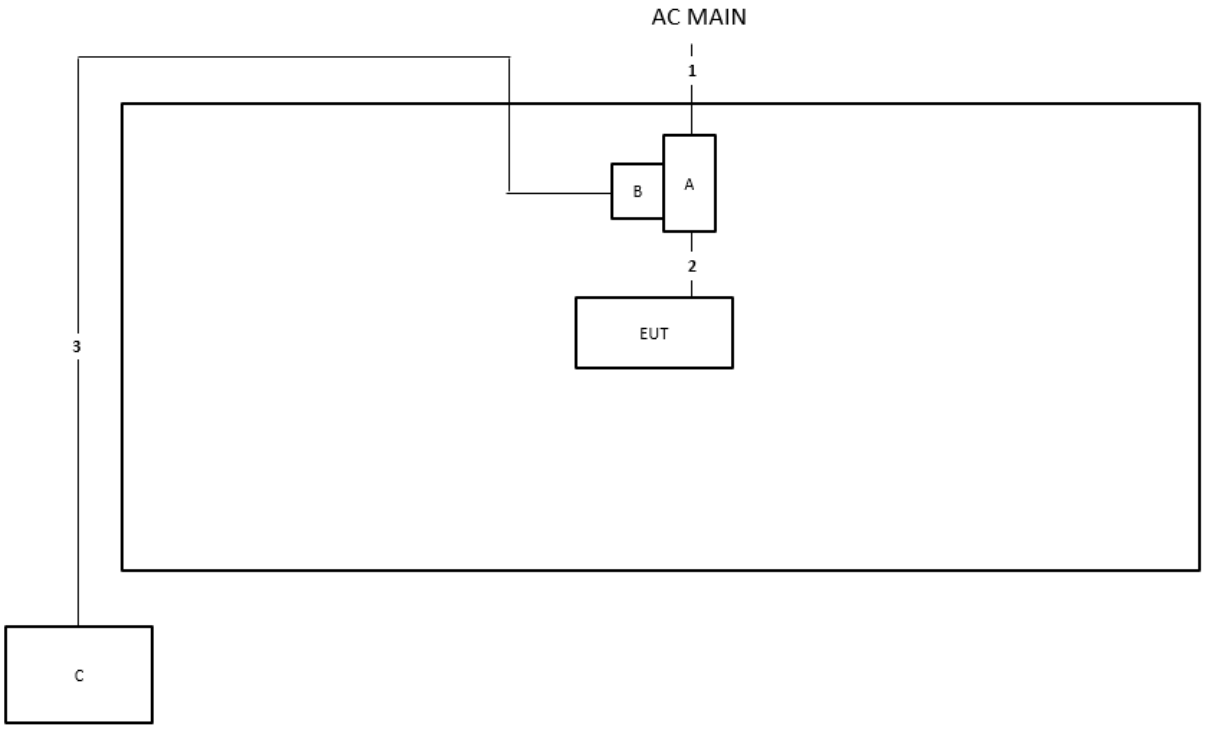
Item	Connection	Shielded	Length
1	USB Cable(Type C) cable	Yes	0.25m
2	AC power cable	Yes	1.8m
3	Cat5e RJ-45 cable	No	1.5m
4	Flexible flat cable	No	0.5m
5	Flexible flat cable	No	0.25m
6	RS232 cable	No	1.7m
7	USB Cable(Type C) cable	Yes	0.1m

Test Setup Diagram - Radiated Test < 1GHz



Item	Connection	Shielded	Length
1	Power cable	No	1.8m
2	Type-C cable	Yes	0.3m

Test Setup Diagram - Radiated Test > 1GHz



Item	Connection	Shielded	Length
1	Power cable	No	1.8m
2	Type-C cable	Yes	0.3m
3	RJ-45 cable	No	10m

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

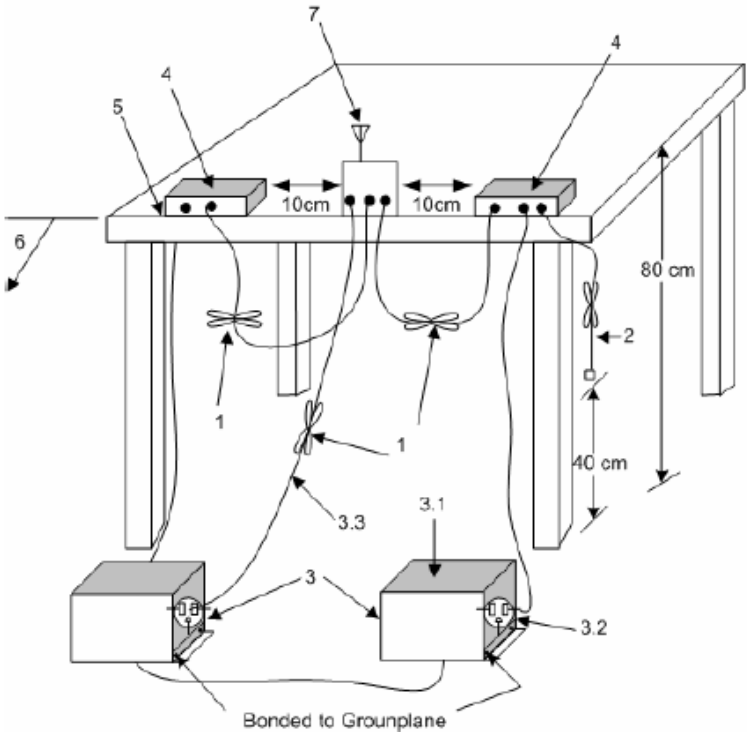
Refer a test equipment and calibration data table in this test report.

3.1.3 Test Procedures

Test Method
☒ Refer as ANSI C63.10-2013, clause 6.2 for AC power-line conducted emissions.

3.1.4 Test Setup

AC Power-line Conducted Emissions



1—Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 cm to 40 cm long.
2—The I/O cables that are not connected to an accessory shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
3—EUT connected to one LISN. Unused LISN measuring port connectors shall be terminated in 50 Ω loads. LISN may be placed on top of, or immediately beneath, reference ground plane.
3.1—All other equipment powered from additional LISN(s).
3.2—A multiple-outlet strip may be used for multiple power cords of non-EUT equipment.
3.3—LISN at least 80 cm from nearest part of EUT chassis.
4—Non-EUT components of EUT system being tested.
5—Rear of EUT, including peripherals, shall all be aligned and flush with edge of tabletop.
6—Edge of tabletop shall be 40 cm removed from a vertical conducting plane that is bonded to the ground plane.
7—Antenna can be integral or detachable. If detachable, then the antenna shall be attached for this test.

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:
▪ 6 dB bandwidth ≥ 500 kHz.

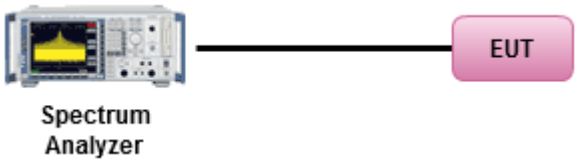
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

Test Method	
▪ For the emission bandwidth shall be measured using one of the options below:	
	☒ Refer as FCC KDB 558074, clause 8.2 & C63.10 clause 11.8.1 Option 1 for 6 dB bandwidth measurement.
	☐ Refer as FCC KDB 558074, clause 8.2 & C63.10 clause 11.8.2 Option 2 for 6 dB bandwidth measurement.
	☐ Refer as ANSI C63.10, clause 6.9.1 for occupied bandwidth testing.

3.2.4 Test Setup

Emission Bandwidth


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		
	▪ If $G_{TX} \leq 6$ dBi, then $P_{Out} \leq 30$ dBm (1 W)	
	▪ Point-to-multipoint systems (P2M): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 – (G_{TX} – 6)$ dBm	
	▪ Point-to-point systems (P2P): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 – (G_{TX} – 6)/3$ dBm	
	▪ Smart antenna system (SAS):	
		- Single beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 – (G_{TX} – 6)/3$ dBm
		- Overlap beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 – (G_{TX} – 6)/3$ dBm
		- 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	
▪ Maximum Peak Conducted Output Power	
	☐ Refer as FCC KDB 558074, clause 8.3.1.1 & C63.10 clause 11.9.1.1 (RBW ≥ EBW method).
	☐ Refer as FCC KDB 558074, clause 8.3.1.3 & C63.10 clause 11.9.1.3 (peak power meter).
▪ Maximum Conducted Output Power	
	[duty cycle ≥ 98% or external video / power trigger]
	☐ Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.2 Method AVGSA-1.
	☐ 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
	☐ Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.4 Method AVGSA-2.
	☐ Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.5 Method AVGSA-2A (alternative)
	☐ Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.6 Method AVGSA-3
	☐ 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)
	☐ 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).
	☒ 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).
▪ For conducted measurement.	
	▪ 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.
	▪ If multiple transmit chains, EIRP calculation could be following as methods: $P_{total} = P_1 + P_2 + \ldots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$

3.3.4 Test Setup

Maximum Conducted Output Power (Power Meter)


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
▪ Power Spectral Density (PSD) ≤ 8 dBm/3kHz

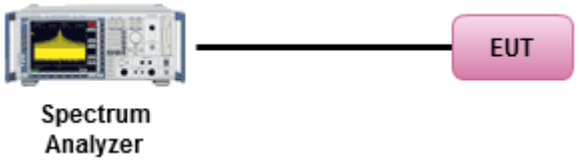
3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

Test Method		
▪ 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).		
	☒ Refer as FCC KDB 558074, clause 8.4 & C63.10 clause 11.10 Method Max. PSD.	
▪ For conducted measurement.		
	▪ If The EUT supports multiple transmit chains using options given below:	
		☒ 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.
		☐ 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,
		☐ 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

Power Spectral Density


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

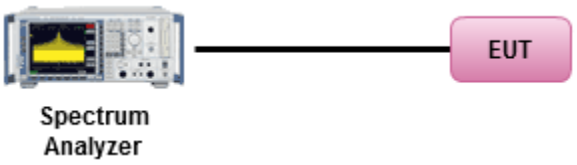
Refer a test equipment and calibration data table in this test report.

3.5.3 Test Procedures

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

3.5.4 Test Setup

Emissions in Non-restricted Frequency Bands



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.

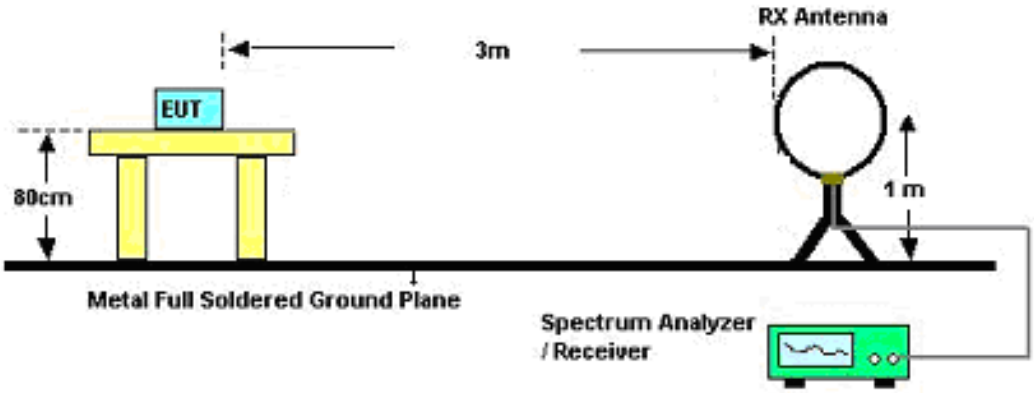
3.6.3 Test Procedures

Test Method
▪ The average emission levels shall be measured in [duty cycle ≥ 98 or duty factor].
▪ 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.
▪ For the transmitter unwanted emissions shall be measured using following options below:
▪ Refer as FCC KDB 558074, clause 8.6 for unwanted emissions into restricted bands.
☐ Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.1(trace averaging for duty cycle ≥98%).
☐ Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.2(trace averaging + duty factor).
☒ Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.3(Reduced VBW≥1/T).
☐ Refer as ANSI C63.10, clause 11.12.2.5.3 (Reduced VBW). VBW ≥ 1/T, where T is pulse time.
☐ Refer as ANSI C63.10, clause 7.5 average value of pulsed emissions.
☒ Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.4 measurement procedure peak limit.
▪ For the transmitter band-edge emissions shall be measured using following options below:
▪ 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.
▪ Refer as FCC KDB 558074, clause 8.7 (ANSI C63.10, clause 6.10.6) for marker-delta method for band-edge measurements.
▪ 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).
▪ 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
▪ 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.

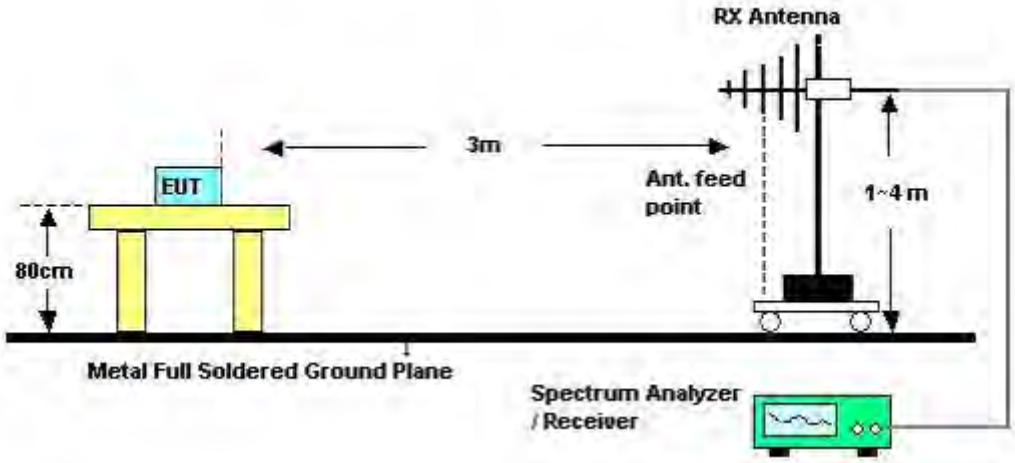
3.6.4 Test Setup

Radiated - Emissions in Restricted Frequency Bands

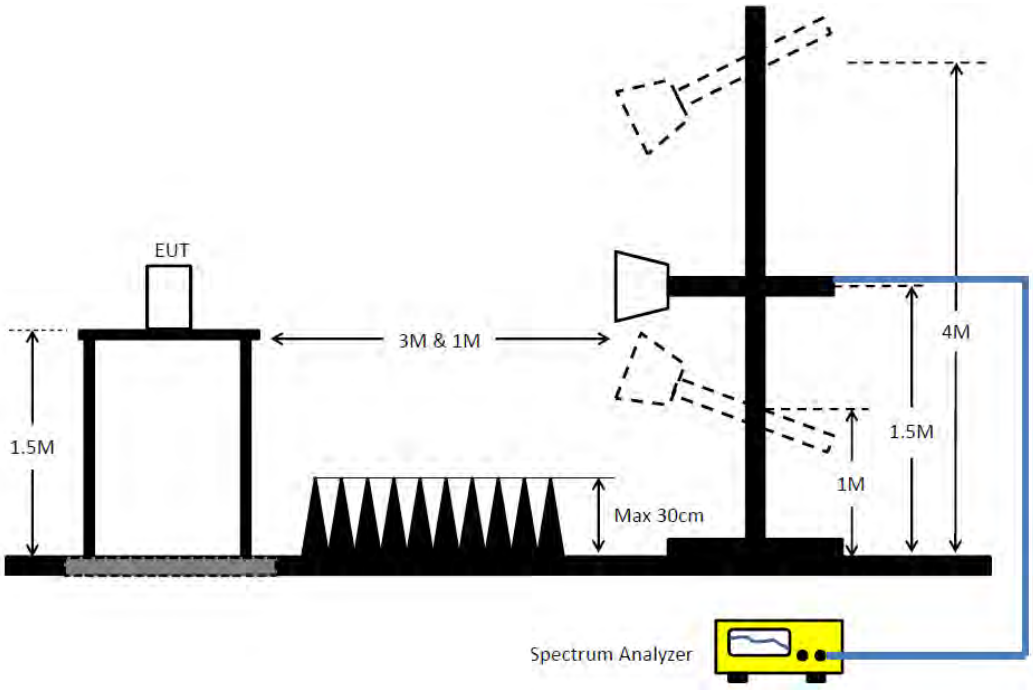
9kHz ~30MHz



30MHz~1GHz



Above 1GHz



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
LISN	Schwarzbeck	NSLK 8127	8127650	9kHz ~ 30MHz	Jan. 07, 2022	Jan. 06, 2023	Conduction (CO02-CB)
LISN	Schwarzbeck	NSLK 8127	8127478	9kHz ~ 30MHz	Dec. 22, 2021	Dec. 21, 2022	Conduction (CO02-CB)
EMI Receiver	Agilent	N9038A	MY52260140	9kHz ~ 8.4GHz	May 06, 2022	May 05, 2023	Conduction (CO02-CB)
COND Cable	Woken	Cable	2	0.15MHz ~ 30MHz	Oct. 18, 2022	Oct. 17, 2023	Conduction (CO02-CB)
Pulse Limiter	Schwarzbeck	VTSD 9561F-N	00378	9kHz ~ 30MHz	Oct. 18, 2022	Oct. 17, 2023	Conduction (CO02-CB)
Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conduction (CO02-CB)
3m Semi Anechoic Chamber NSA	TDK	SAC-3M	03CH05-CB	30 MHz ~ 1 GHz	Aug. 03, 2022	Aug. 02, 2023	Radiation (03CH05-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	May 14, 2022	May 13, 2023	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. 03, 2022	Oct. 02, 2023	Radiation (03CH05-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH05-CB)
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH03-CB	1GHz ~18GHz 3m	May 05, 2022	May 04, 2023	Radiation (03CH03-CB)
Horn Antenna	ETS·Lindgren	3115	6821	750MHz~18GHz	Jan. 21, 2022	Jan. 20, 2023	Radiation (03CH03-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Aug. 22, 2022	Aug. 21, 2023	Radiation (03CH03-CB)
Pre-Amplifier	Agilent	8449B	3008A02097	1GHz ~ 26.5GHz	Jul. 01, 2022	Jun. 30, 2023	Radiation (03CH03-CB)
Pre-Amplifier	MITEQ	TTA1840-35 -HG	1864479	18GHz ~ 40GHz	Jul. 20, 2022	Jul. 19, 2023	Radiation (03CH03-CB)
Spectrum Analyzer	R&S	FSP40	100019	9kHz ~ 40GHz	Jun. 10, 2022	Jun. 09, 2023	Radiation (03CH03-CB)

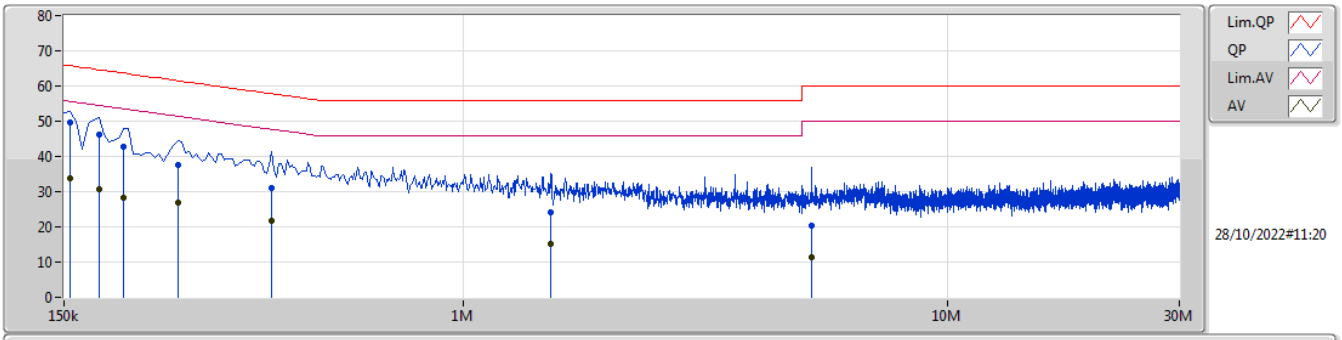
Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
RF Cable-high	Woken	RG402	High Cable-20+29	1GHz ~ 18GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH03-CB)
RF Cable-high	Woken	RG402	High Cable-29	1GHz ~ 18GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH03-CB)
High Cable	Woken	WCA0929M	40G#5+7	1GHz ~ 40 GHz	Dec. 14, 2021	Dec. 13, 2022	Radiation (03CH03-CB)
High Cable	Woken	WCA0929M	40G#5	1GHz ~ 40 GHz	Dec. 08, 2021	Dec. 07, 2022	Radiation (03CH03-CB)
High Cable	Woken	WCA0929M	40G#7	1GHz ~ 40 GHz	Dec. 14, 2021	Dec. 13, 2022	Radiation (03CH03-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH03-CB)
Spectrum analyzer	R&S	FSV40	101028	9kHz~40GHz	Jan. 07, 2022	Jan. 06, 2023	Conducted (TH03-CB)
Power Sensor	Anritsu	MA2411B	1531344	300MHz~40GHz	Jul. 31, 2022	Jul. 30, 2023	Conducted (TH03-CB)
Power Meter	Anritsu	ML2495A	1728002	300MHz~40GHz	Jul. 31, 2022	Jul. 30, 2023	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-11	1 GHz –18 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-12	1 GHz –18 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-13	1 GHz –18 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-14	1 GHz –18 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-15	1 GHz –18 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (TH03-CB)
Switch	SPTCB	SP-SWI	SWI-03	1 GHz –26.5 GHz	Oct. 04, 2022	Oct. 03, 2023	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

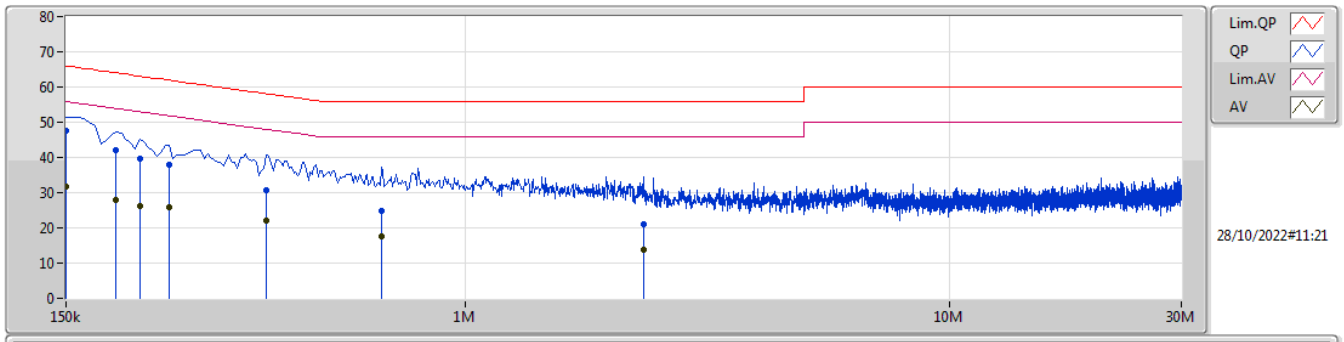
Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	QP	154.5k	49.76	65.75	-15.99	Line

Mode 1



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	154.5k	49.76	65.75	-15.99	10.29	Line	"Worst"	39.47	0.12	0.08	10.09
AV	154.5k	33.72	55.75	-22.03	10.29	Line	-	23.43	0.12	0.08	10.09
QP	177k	46.22	64.62	-18.40	10.29	Line	-	35.93	0.12	0.10	10.07
AV	177k	30.80	54.62	-23.82	10.29	Line	-	20.51	0.12	0.10	10.07
QP	199.5k	42.90	63.63	-20.73	10.29	Line	-	32.61	0.12	0.11	10.06
AV	199.5k	28.30	53.63	-25.33	10.29	Line	-	18.01	0.12	0.11	10.06
QP	258k	37.68	61.49	-23.81	10.28	Line	-	27.40	0.12	0.12	10.04
AV	258k	26.79	51.49	-24.70	10.28	Line	-	16.51	0.12	0.12	10.04
QP	402k	31.12	57.82	-26.70	10.28	Line	-	20.84	0.12	0.15	10.01
AV	402k	21.88	47.82	-25.94	10.28	Line	-	11.60	0.12	0.15	10.01
QP	1.518M	23.99	56.00	-32.01	10.21	Line	-	13.78	0.16	0.19	9.86
AV	1.518M	15.29	46.00	-30.71	10.21	Line	-	5.08	0.16	0.19	9.86
QP	5.24M	20.29	60.00	-39.71	10.32	Line	-	9.97	0.26	0.20	9.86
AV	5.24M	11.34	50.00	-38.66	10.32	Line	-	1.02	0.26	0.20	9.86

Mode 1



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	150k	47.49	66.00	-18.51	10.33	Neutral	"Worst"	37.16	0.16	0.08	10.09
AV	150k	31.76	56.00	-24.24	10.33	Neutral	-	21.43	0.16	0.08	10.09
QP	190.5k	42.12	64.01	-21.89	10.34	Neutral	-	31.78	0.16	0.11	10.07
AV	190.5k	27.76	54.01	-26.25	10.34	Neutral	-	17.42	0.16	0.11	10.07
QP	213k	39.58	63.09	-23.51	10.33	Neutral	-	29.25	0.16	0.11	10.06
AV	213k	26.15	53.09	-26.94	10.33	Neutral	-	15.82	0.16	0.11	10.06
QP	244.5k	38.00	61.95	-23.95	10.33	Neutral	-	27.67	0.16	0.12	10.05
AV	244.5k	25.74	51.95	-26.21	10.33	Neutral	-	15.41	0.16	0.12	10.05
QP	388.5k	30.78	58.10	-27.32	10.32	Neutral	-	20.46	0.16	0.15	10.01
AV	388.5k	22.10	48.10	-26.00	10.32	Neutral	-	11.78	0.16	0.15	10.01
QP	672k	24.71	56.00	-31.29	10.29	Neutral	-	14.42	0.17	0.17	9.95
AV	672k	17.73	46.00	-28.27	10.29	Neutral	-	7.44	0.17	0.17	9.95
QP	2.328M	21.14	56.00	-34.86	10.22	Neutral	-	10.92	0.20	0.19	9.83
AV	2.328M	13.94	46.00	-32.06	10.22	Neutral	-	3.72	0.20	0.19	9.83

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	9.975M	17.141M	17M1G1D	8M	12.844M
802.11g_Nss1,(6Mbps)_2TX	16.325M	18.166M	18M2D1D	16.275M	16.492M
802.11ax HEW20_Nss1,(MCS0)_2TX	17.6M	18.166M	18M2D1D	17.125M	17.741M

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

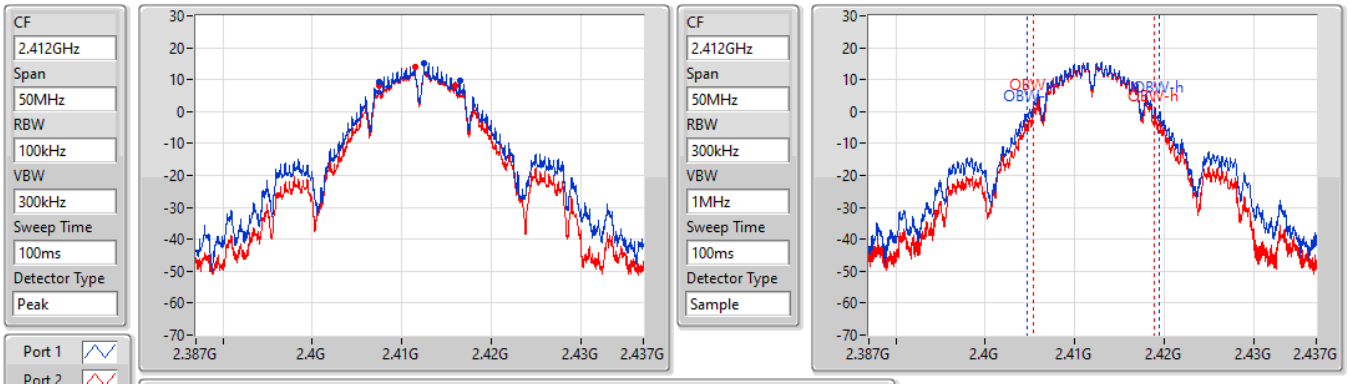
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	9M	14.743M	8.525M	13.443M
2437MHz	Pass	500k	9.975M	17.141M	9.5M	16.242M
2462MHz	Pass	500k	8.525M	13.593M	8M	12.844M
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	16.275M	16.667M	16.3M	16.517M
2437MHz	Pass	500k	16.325M	18.166M	16.325M	17.466M
2462MHz	Pass	500k	16.3M	16.617M	16.325M	16.492M
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	17.525M	17.791M	17.55M	17.766M
2437MHz	Pass	500k	17.55M	18.166M	17.6M	18.066M
2462MHz	Pass	500k	17.125M	17.766M	17.325M	17.741M

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

802.11b_Nss1,(1Mbps)_2TX EBW

2412MHz

15/10/2022

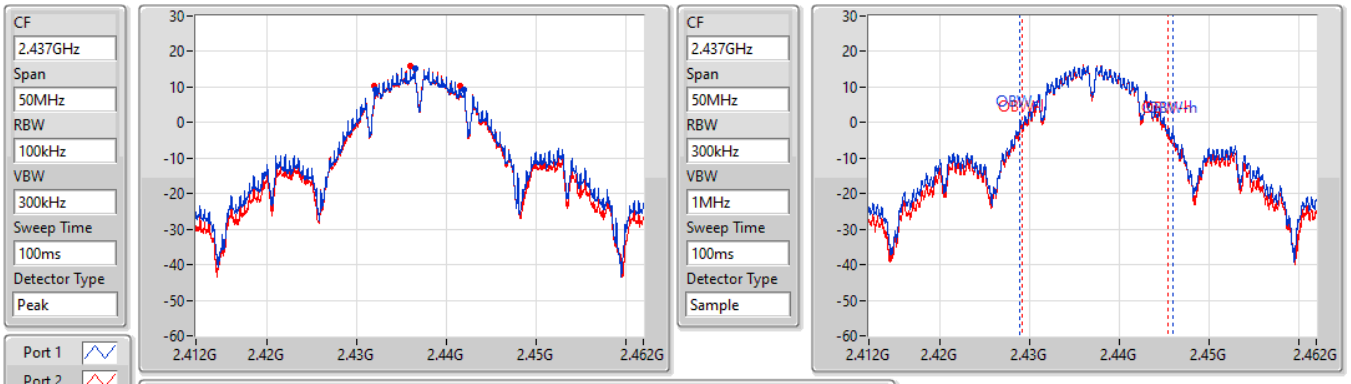


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
9M	2.407475G	2.416475G	14.743M	2.404754G	2.419496G	500k	1
8.525M	2.4075G	2.416025G	13.443M	2.405403G	2.418847G	500k	2

802.11b_Nss1,(1Mbps)_2TX EBW

2437MHz

15/10/2022

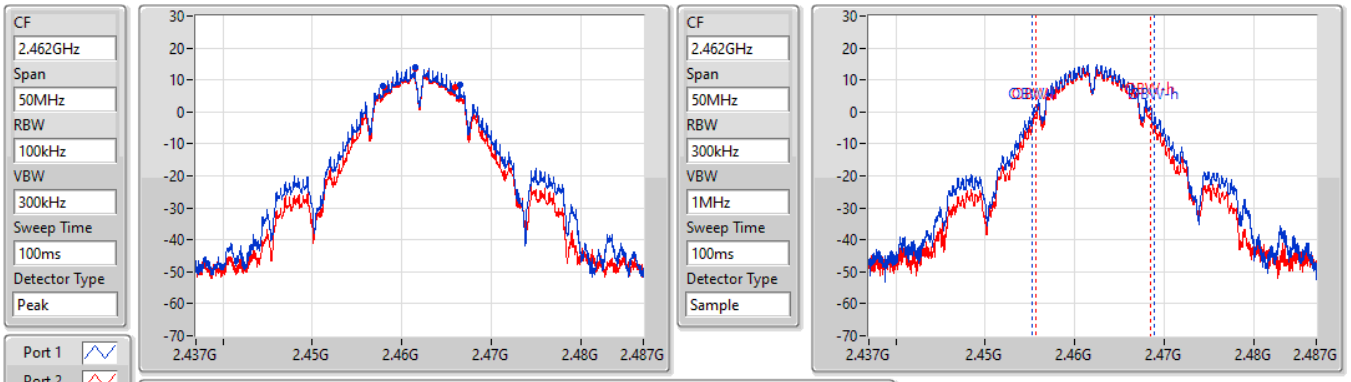


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
9.975M	2.432G	2.441975G	17.141M	2.428854G	2.445996G	500k	1
9.5M	2.431975G	2.441475G	16.242M	2.429154G	2.445396G	500k	2

802.11b_Nss1,(1Mbps)_2TX EBW

2462MHz

15/10/2022

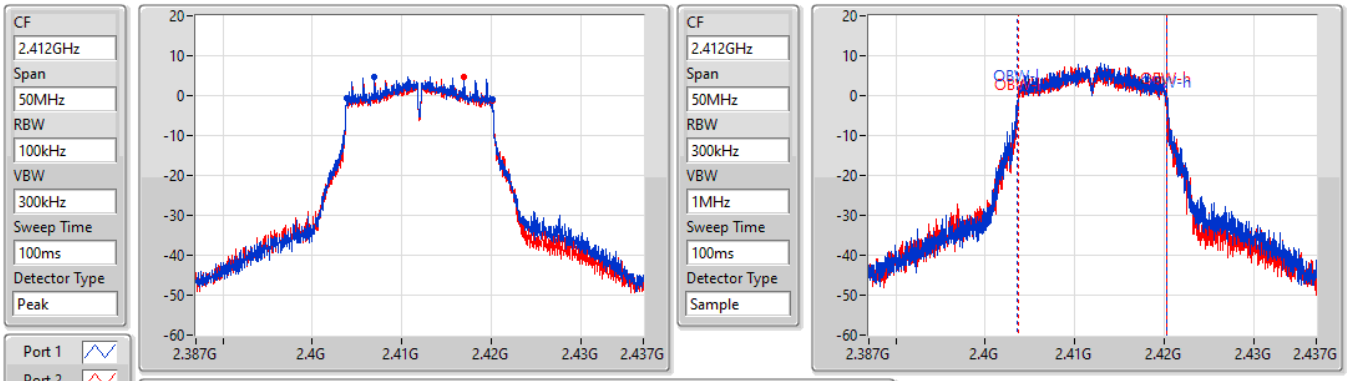


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
8.525M	2.45795G	2.466475G	13.593M	2.455303G	2.468897G	500k	1
8M	2.457975G	2.465975G	12.844M	2.455603G	2.468447G	500k	2

802.11g_Nss1,(6Mbps)_2TX EBW

2412MHz

15/10/2022

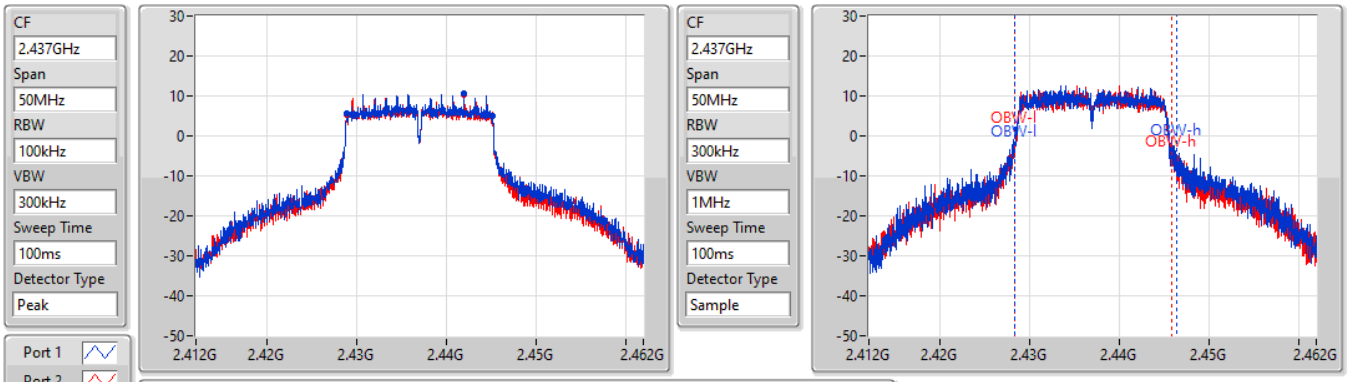


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.275M	2.40385G	2.420125G	16.667M	2.403629G	2.420296G	500k	1
16.3M	2.403825G	2.420125G	16.517M	2.403704G	2.420221G	500k	2

802.11g_Nss1,(6Mbps)_2TX EBW

2437MHz

15/10/2022

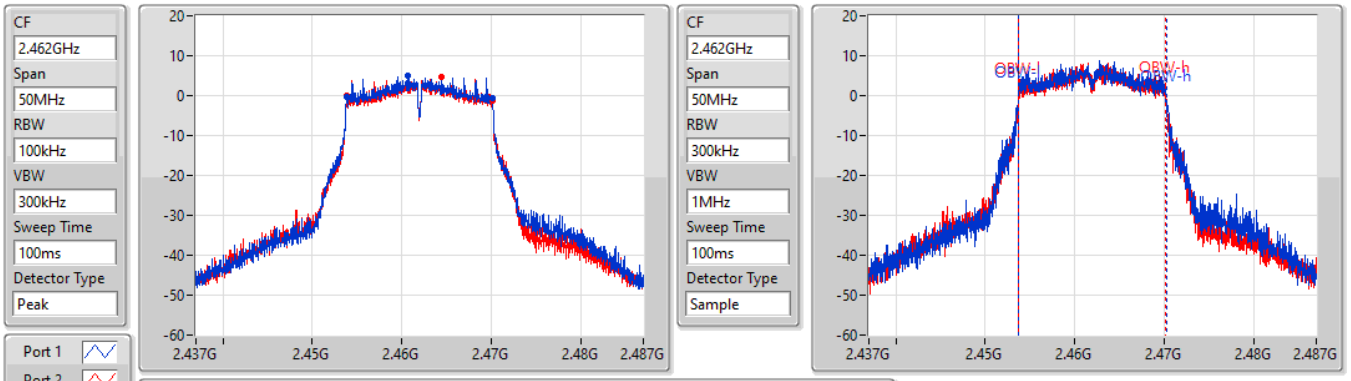


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.325M	2.428825G	2.44515G	18.166M	2.428229G	2.446395G	500k	1
16.325M	2.428825G	2.44515G	17.466M	2.428354G	2.445821G	500k	2

802.11g_Nss1,(6Mbps)_2TX EBW

2462MHz

15/10/2022

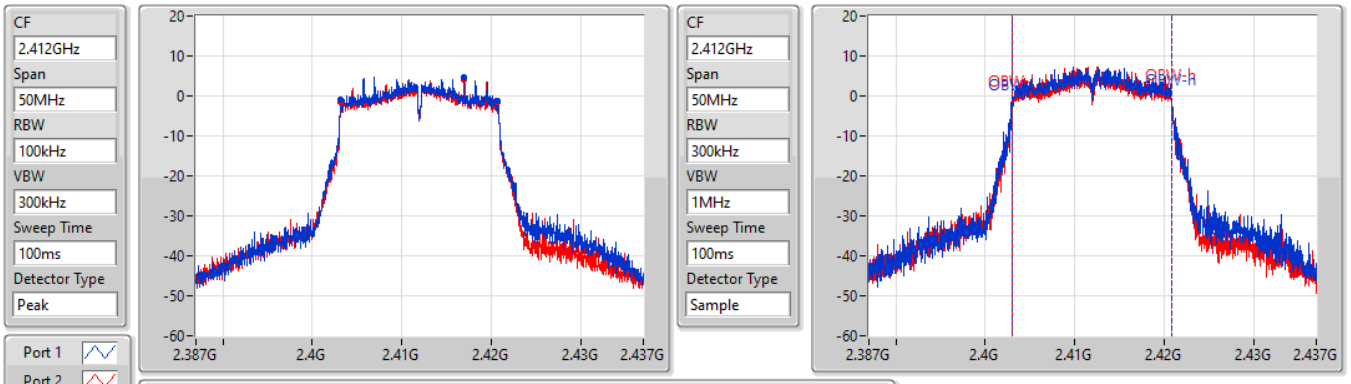


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.3M	2.453825G	2.470125G	16.617M	2.453654G	2.470271G	500k	1
16.325M	2.453825G	2.47015G	16.492M	2.453704G	2.470196G	500k	2

802.11ax HEW20_Nss1,(MCS0)_2TX EBW

2412MHz

15/10/2022

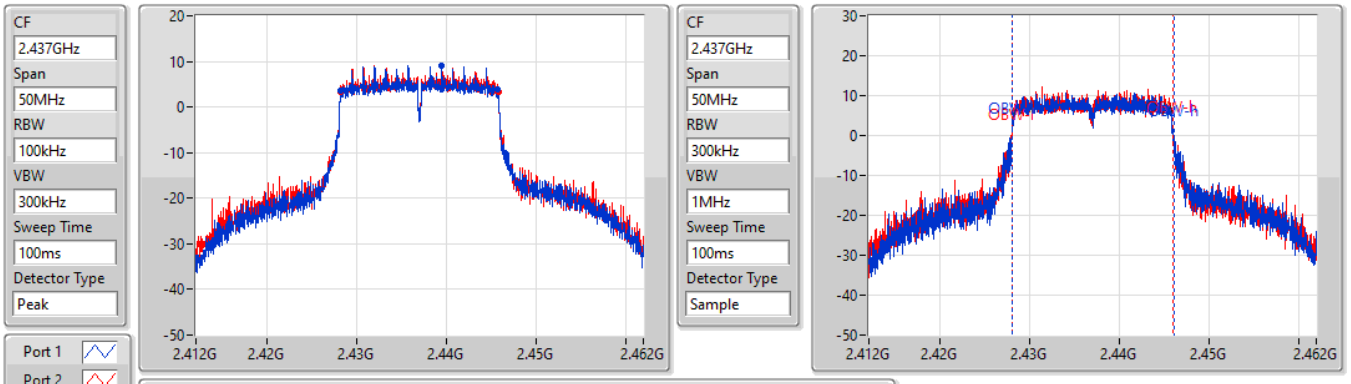


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.525M	2.403225G	2.42075G	17.791M	2.403079G	2.420871G	500k	1
17.55M	2.4032G	2.42075G	17.766M	2.403079G	2.420846G	500k	2

802.11ax HEW20_Nss1,(MCS0)_2TX EBW

2437MHz

15/10/2022

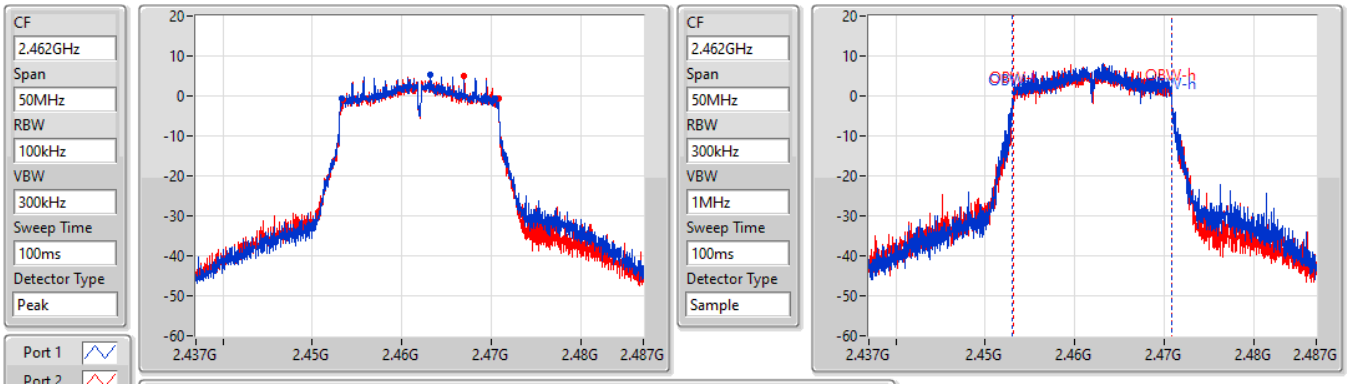


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.55M	2.4282G	2.44575G	18.166M	2.42798G	2.446145G	500k	1
17.6M	2.428175G	2.445775G	18.066M	2.427955G	2.44602G	500k	2

802.11ax HEW20_Nss1,(MCS0)_2TX **EBW**

2462MHz

15/10/2022



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.125M	2.45325G	2.470375G	17.766M	2.453079G	2.470846G	500k	1
17.325M	2.45345G	2.470775G	17.741M	2.453104G	2.470846G	500k	2

Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11b_Nss1,(1Mbps)_2TX	27.12	0.51523
802.11g_Nss1,(6Mbps)_2TX	24.25	0.26607
802.11ax HEW20_Nss1,(MCS0)_2TX	23.41	0.21928
802.11n HT20-BF_Nss1,(MCS0)_2TX	23.41	0.21928

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	4.471	22.96	22.26	25.63	30.00
2437MHz	Pass	4.471	24.17	24.04	27.12	30.00
2462MHz	Pass	4.471	22.12	21.46	24.81	30.00
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	4.471	16.26	15.89	19.09	30.00
2417MHz	Pass	4.471	17.71	17.47	20.60	30.00
2437MHz	Pass	4.471	21.37	21.11	24.25	30.00
2457MHz	Pass	4.471	18	18.04	21.03	30.00
2462MHz	Pass	4.471	16.47	16.12	19.31	30.00
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	4.471	15.9	15.37	18.65	30.00
2417MHz	Pass	4.471	17.46	17.81	20.65	30.00
2437MHz	Pass	4.471	20.29	20.5	23.41	30.00
2457MHz	Pass	4.471	18.68	18.55	21.63	30.00
2462MHz	Pass	4.471	16.37	16.13	19.26	30.00
802.11n HT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	6.766	15.9	15.37	18.65	29.23
2417MHz	Pass	6.766	17.46	17.81	20.65	29.23
2437MHz	Pass	6.766	20.29	20.5	23.41	29.23
2457MHz	Pass	6.766	18.68	18.55	21.63	29.23
2462MHz	Pass	6.766	16.37	16.13	19.26	29.23

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

Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
802.11b_Nss1,(1Mbps)_2TX	4.18
802.11g_Nss1,(6Mbps)_2TX	-1.56
802.11ax HEW20_Nss1,(MCS0)_2TX	-3.42

RBW = 3kHz;

Result

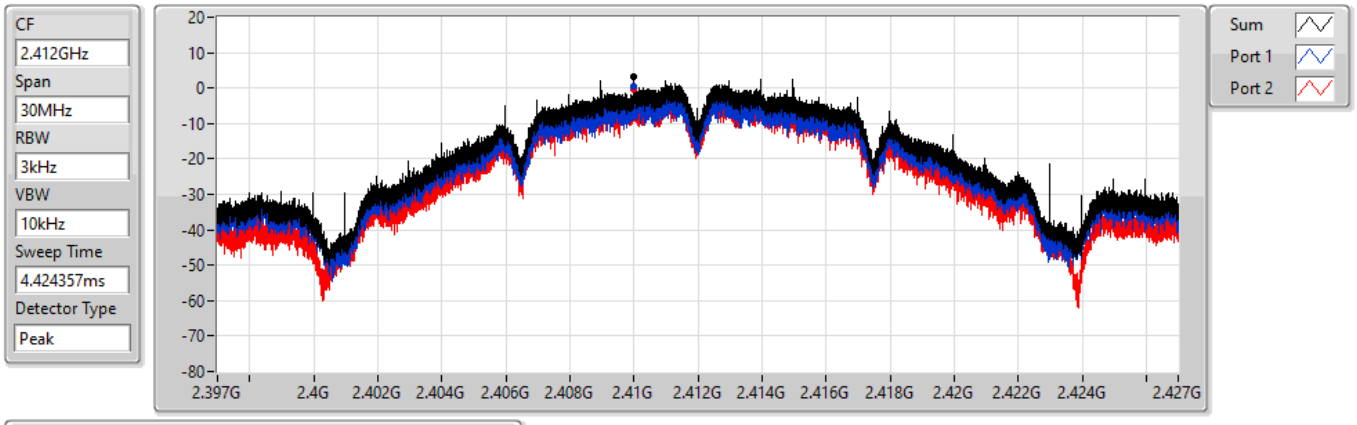
Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	6.766	0.48	-0.13	3.20	7.23
2437MHz	Pass	6.766	1.22	2.49	4.18	7.23
2462MHz	Pass	6.766	-0.39	-0.94	1.72	7.23
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	6.766	-7.86	-8.55	-5.18	7.23
2437MHz	Pass	6.766	-4.49	-4.23	-1.56	7.23
2462MHz	Pass	6.766	-7.66	-8.53	-5.16	7.23
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	6.766	-7.69	-9.17	-6.29	7.23
2437MHz	Pass	6.766	-5.08	-4.75	-3.42	7.23
2462MHz	Pass	6.766	-7.86	-9.02	-6.36	7.23

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

15/10/2022

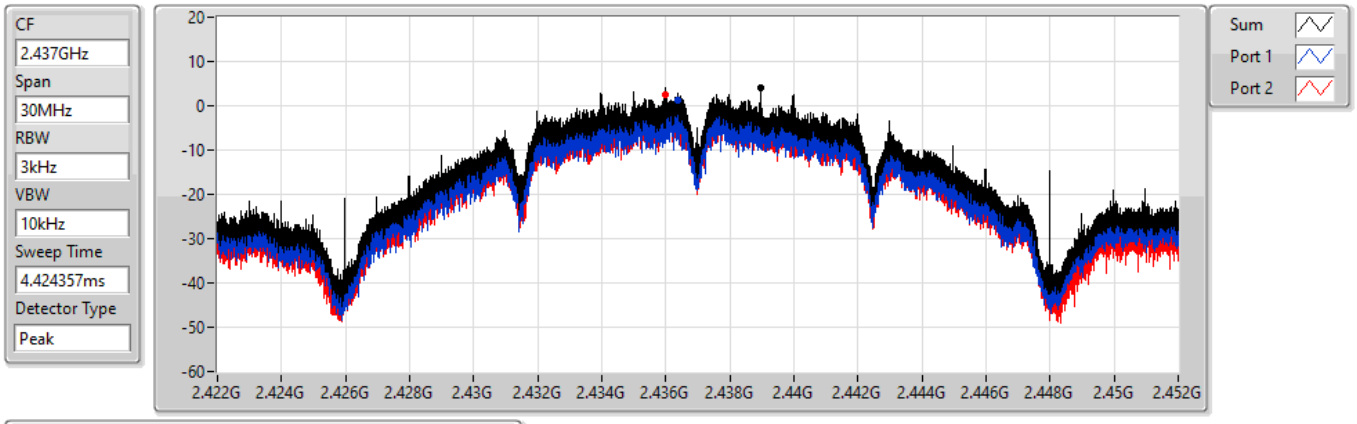


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
3.20	3.20	0.48	-0.13

802.11b_Nss1,(1Mbps)_2TX PSD

2437MHz

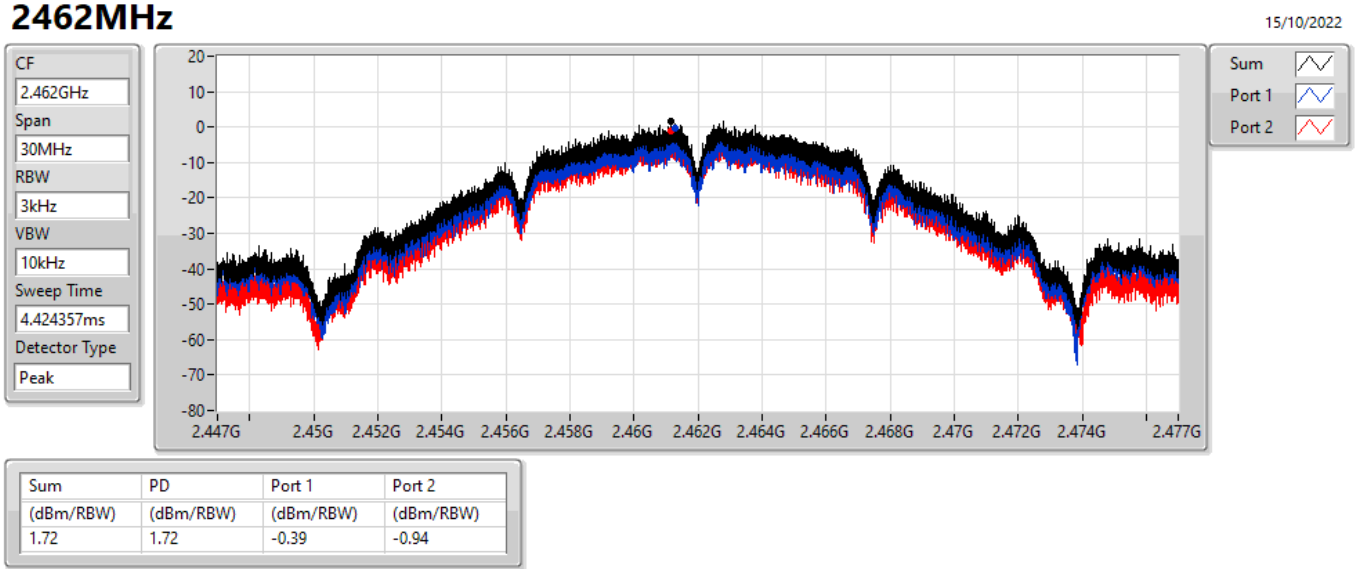
15/10/2022



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
4.18	4.18	1.22	2.49

802.11b_Nss1,(1Mbps)_2TX PSD

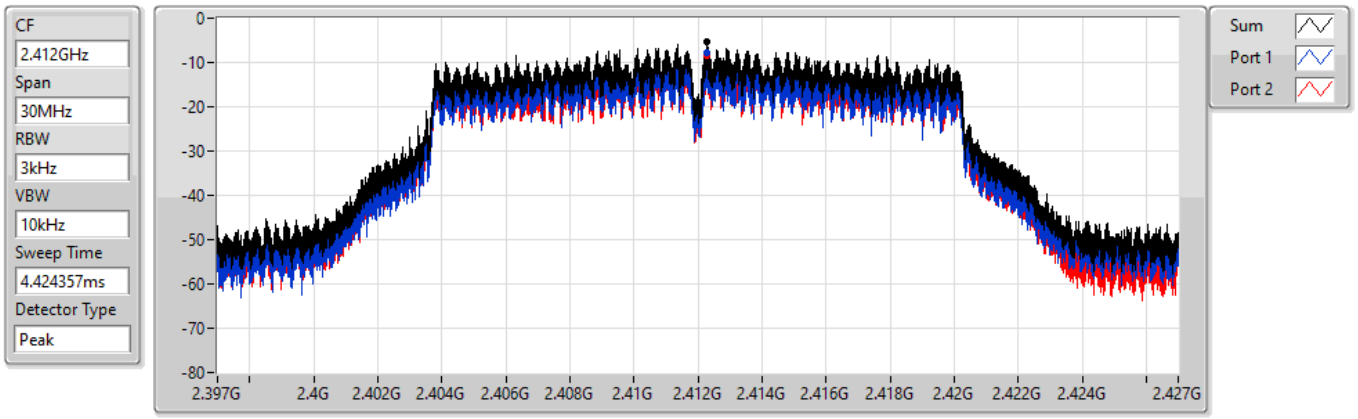
2462MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
1.72	1.72	-0.39	-0.94

802.11g_Nss1,(6Mbps)_2TX PSD

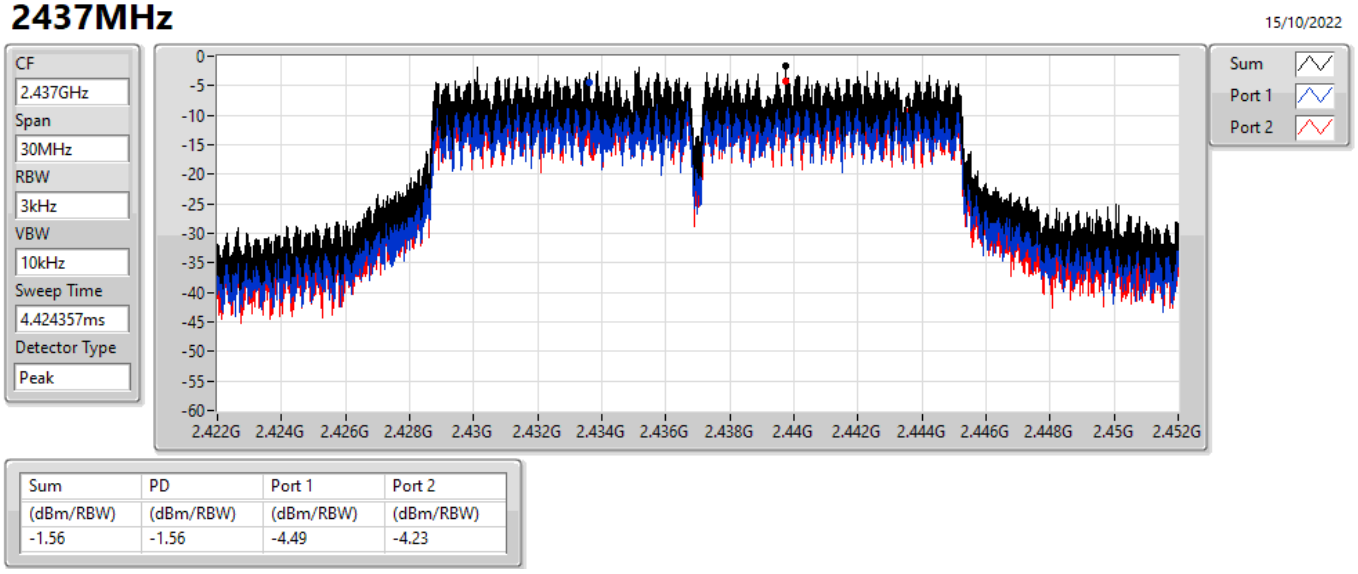
2412MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-5.18	-5.18	-7.86	-8.55

802.11g_Nss1,(6Mbps)_2TX PSD

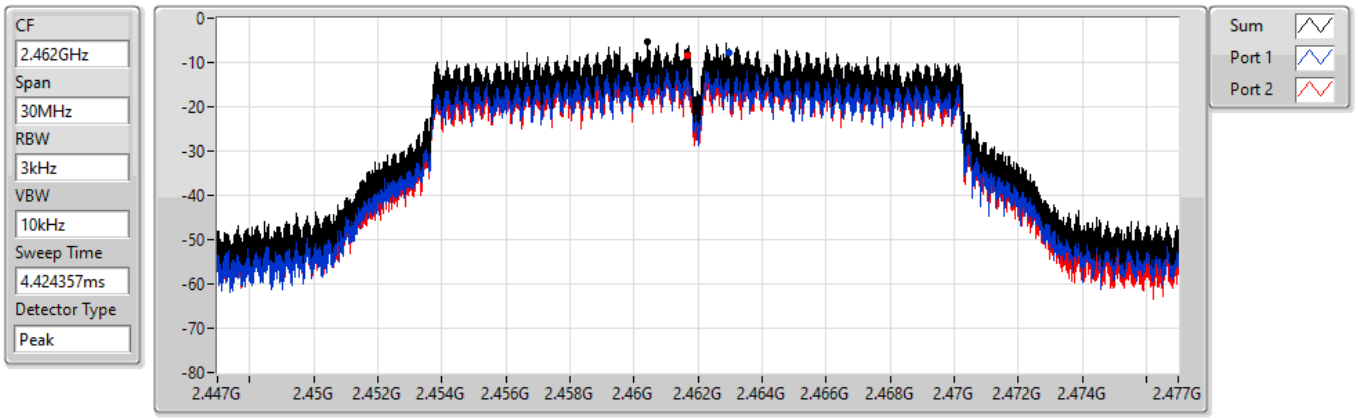
2437MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-1.56	-1.56	-4.49	-4.23

802.11g_Nss1,(6Mbps)_2TX PSD

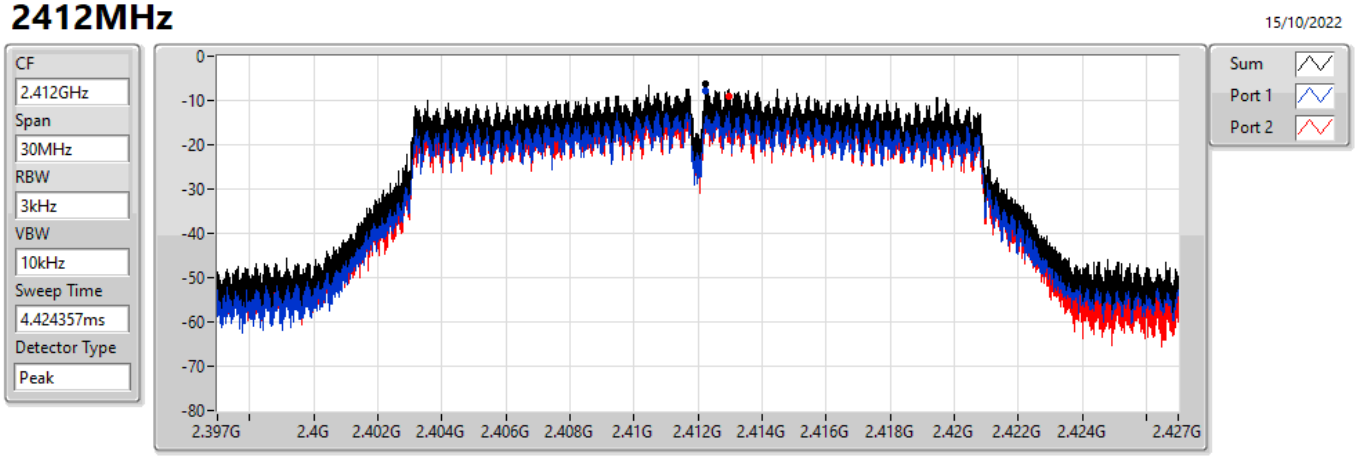
2462MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-5.16	-5.16	-7.66	-8.53

802.11ax HEW20_Nss1,(MCS0)_2TX PSD

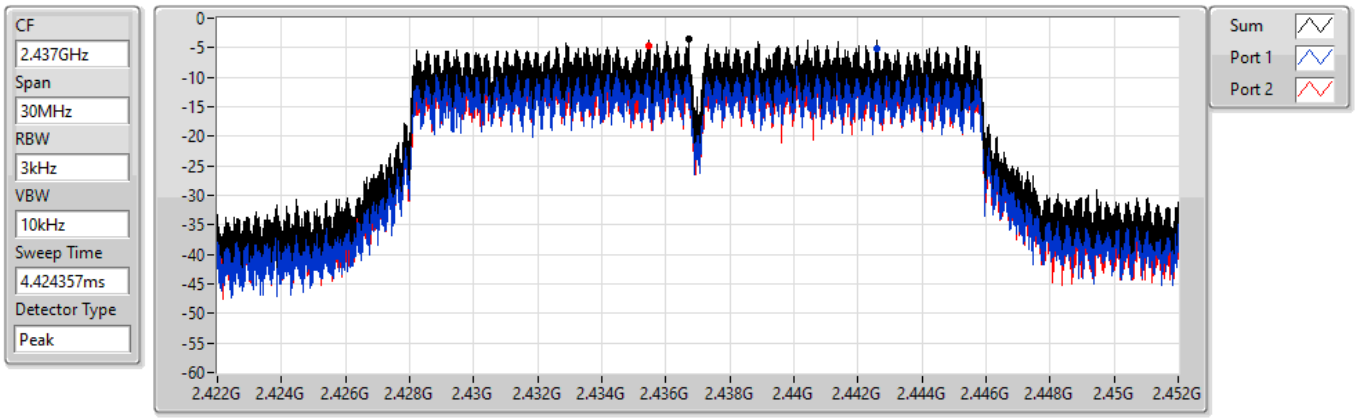
2412MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-6.29	-6.29	-7.69	-9.17

802.11ax HEW20_Nss1,(MCS0)_2TX PSD

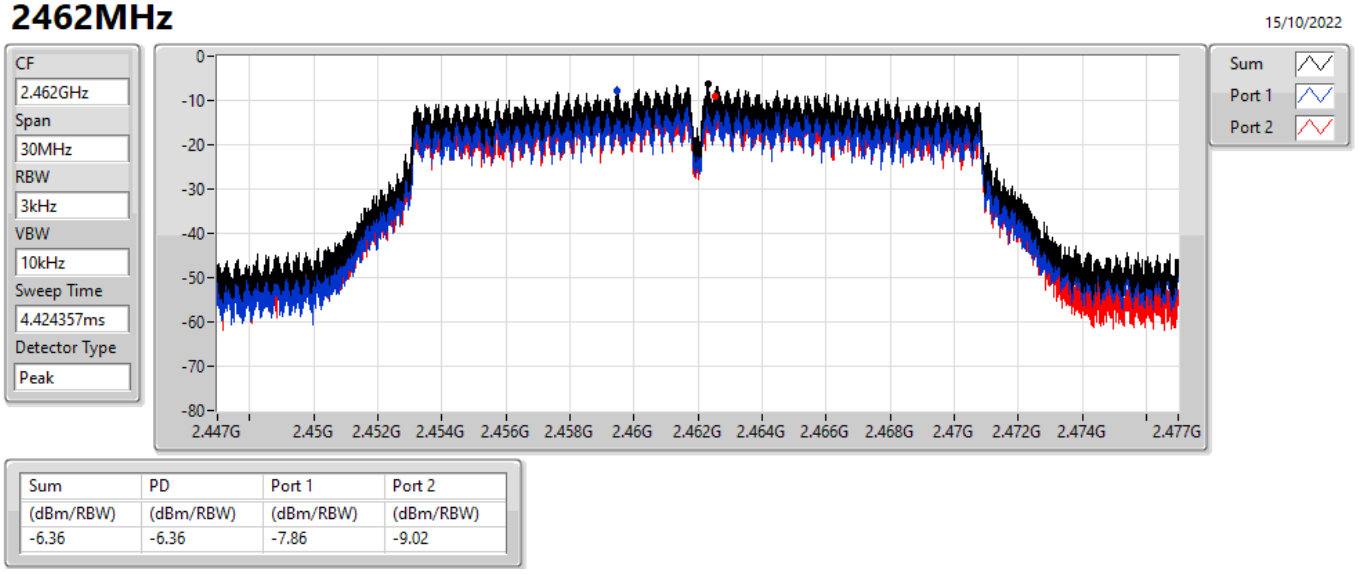
2437MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-3.42	-3.42	-5.08	-4.75

802.11ax HEW20_Nss1,(MCS0)_2TX PSD

2462MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-6.36	-6.36	-7.86	-9.02

Summary

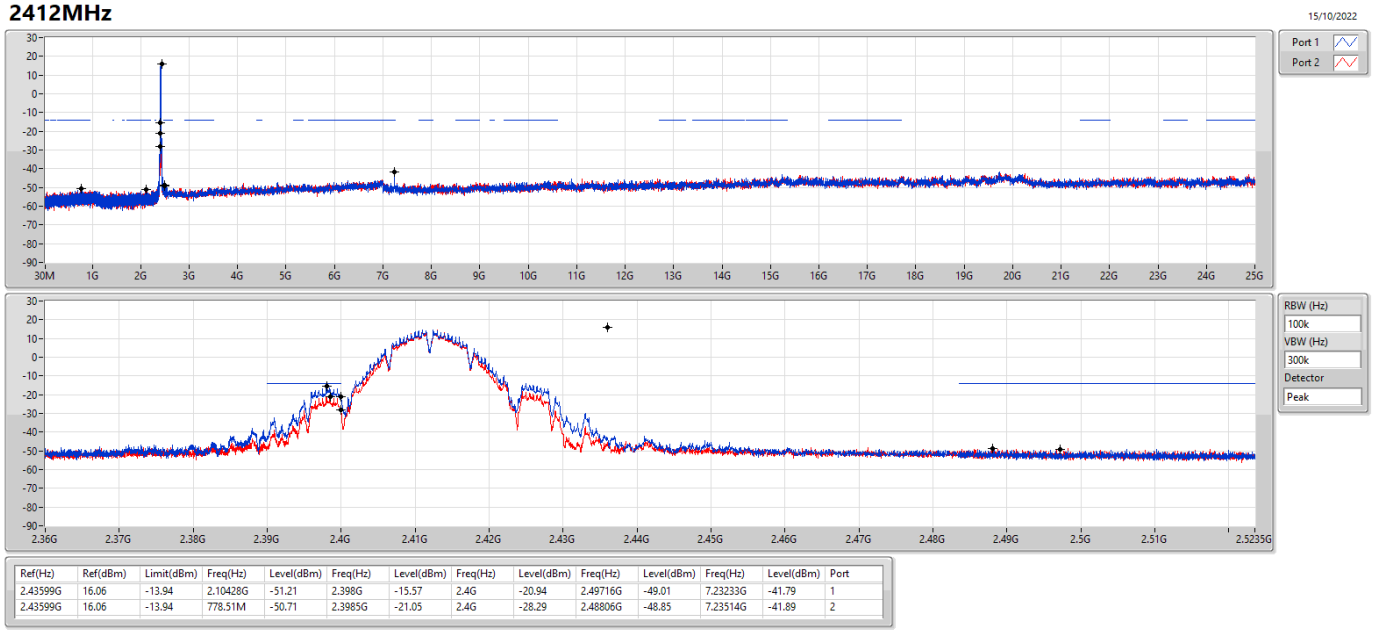
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
802.11b_Nss1,(1Mbps)_2TX	Pass	2.43599G	16.06	-13.94	2.10428G	-51.21	2.398G	-15.57	2.4G	-20.94	2.49716G	-49.01	7.23233G	-41.79	1
802.11g_Nss1,(6Mbps)_2TX	Pass	2.442G	10.56	-19.44	541.14M	-51.56	2.39948G	-28.61	2.4G	-34.16	2.50004G	-49.08	23.13445G	-43.38	2
802.11ax HEW20_Nss1,(MCS0)_2TX	Pass	2.44196G	9.51	-20.49	861.81M	-50.21	2.39886G	-31.15	2.4G	-33.67	2.48392G	-48.19	24.823G	-42.85	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	2.43599G	16.06	-13.94	2.10428G	-51.21	2.398G	-15.57	2.4G	-20.94	2.49716G	-49.01	7.23233G	-41.79	1
2412MHz	Pass	2.43599G	16.06	-13.94	778.51M	-50.71	2.3985G	-21.05	2.4G	-28.29	2.48806G	-48.85	7.23514G	-41.89	2
2417MHz															
2437MHz	Pass	2.43599G	16.06	-13.94	860.06M	-50.75	2.39944G	-41.60	2.4835G	-47.94	2.48546G	-43.39	23.44069G	-43.27	1
2437MHz	Pass	2.43599G	16.06	-13.94	2.30554G	-50.63	2.39944G	-41.50	2.4G	-45.99	2.48542G	-45.80	24.1487G	-43.28	2
2457MHz															
2462MHz	Pass	2.43599G	16.06	-13.94	757.83M	-51.33	2.3987G	-49.33	2.4835G	-38.14	2.4835G	-40.02	21.95162G	-43.52	1
2462MHz	Pass	2.43599G	16.06	-13.94	825.11M	-49.28	2.3991G	-50.52	2.4835G	-47.76	2.48494G	-44.98	17.3917G	-43.72	2
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.442G	10.56	-19.44	847.54M	-51.21	2.39946G	-29.72	2.4G	-33.93	2.50266G	-48.48	23.48284G	-43.64	1
2412MHz	Pass	2.442G	10.56	-19.44	541.14M	-51.56	2.39948G	-28.61	2.4G	-34.16	2.50004G	-49.08	23.13445G	-43.38	2
2417MHz															
2437MHz	Pass	2.442G	10.56	-19.44	528.91M	-51.36	2.39888G	-36.63	2.4G	-38.32	2.48354G	-38.84	24.87919G	-43.05	1
2437MHz	Pass	2.442G	10.56	-19.44	544.06M	-51.86	2.3976G	-36.65	2.4G	-38.51	2.48542G	-39.11	15.32668G	-43.63	2
2457MHz															
2462MHz	Pass	2.442G	10.56	-19.44	868.8M	-51.52	2.39174G	-49.20	2.4835G	-40.75	2.48402G	-39.22	23.40979G	-43.24	1
2462MHz	Pass	2.442G	10.56	-19.44	915.11M	-51.68	2.39818G	-48.78	2.4835G	-42.74	2.4839G	-39.76	23.13164G	-43.21	2
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.44196G	9.51	-20.49	2.0839G	-51.52	2.3995G	-31.17	2.4G	-33.61	2.48944G	-48.84	24.67971G	-43.53	1
2412MHz	Pass	2.44196G	9.51	-20.49	861.81M	-50.21	2.39886G	-31.15	2.4G	-33.67	2.48392G	-48.19	24.823G	-42.85	2
2417MHz															
2437MHz	Pass	2.44196G	9.51	-20.49	703.08M	-51.43	2.3968G	-39.39	2.4G	-41.57	2.48412G	-41.02	14.82938G	-43.59	1
2437MHz	Pass	2.44196G	9.51	-20.49	810.26M	-50.85	2.3997G	-37.24	2.4G	-39.29	2.4876G	-39.01	15.24801G	-42.16	2
2457MHz															
2462MHz	Pass	2.44196G	9.51	-20.49	659.39M	-50.72	2.39258G	-48.84	2.4835G	-39.25	2.48356G	-35.75	16.9787G	-43.06	1
2462MHz	Pass	2.44196G	9.51	-20.49	761.62M	-51.87	2.39466G	-48.98	2.4835G	-41.03	2.48454G	-36.08	24.80614G	-43.51	2

802.11b_Nss1,(1Mbps)_2TX **CSENdB**

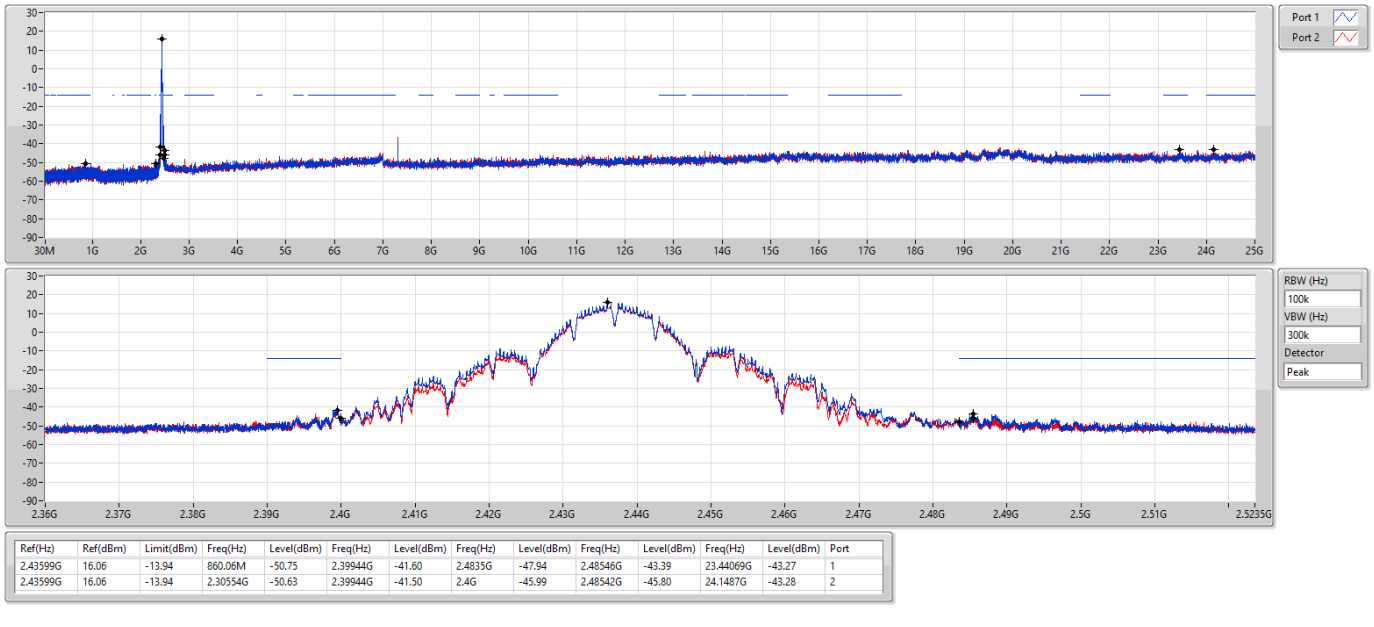
2412MHz



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
2.43599G	16.06	-13.94	2.10428G	-51.21	2.398G	-15.57	2.4G	-20.94	2.49716G	-49.01	7.23233G	-41.79	1
2.43599G	16.06	-13.94	778.51M	-50.71	2.3985G	-21.05	2.4G	-28.29	2.48806G	-48.85	7.23514G	-41.89	2

802.11b_Nss1,(1Mbps)_2TX **CSENdB**

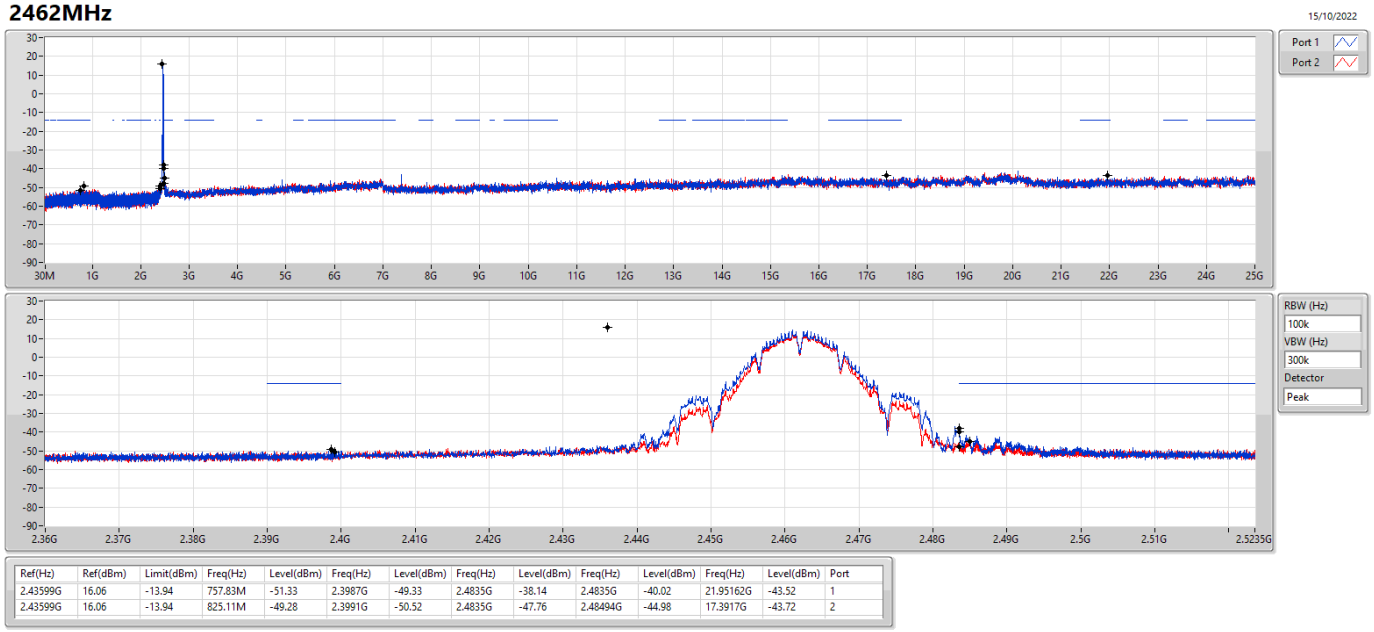
2437MHz



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
2.43599G	16.06	-13.94	860.06M	-50.75	2.39944G	-41.60	2.4835G	-47.94	2.48546G	-43.39	23.44069G	-43.27	1
2.43599G	16.06	-13.94	2.30554G	-50.63	2.39944G	-41.50	2.4G	-45.99	2.48542G	-45.80	24.1487G	-43.28	2

802.11b_Nss1,(1Mbps)_2TX **CSENdB**

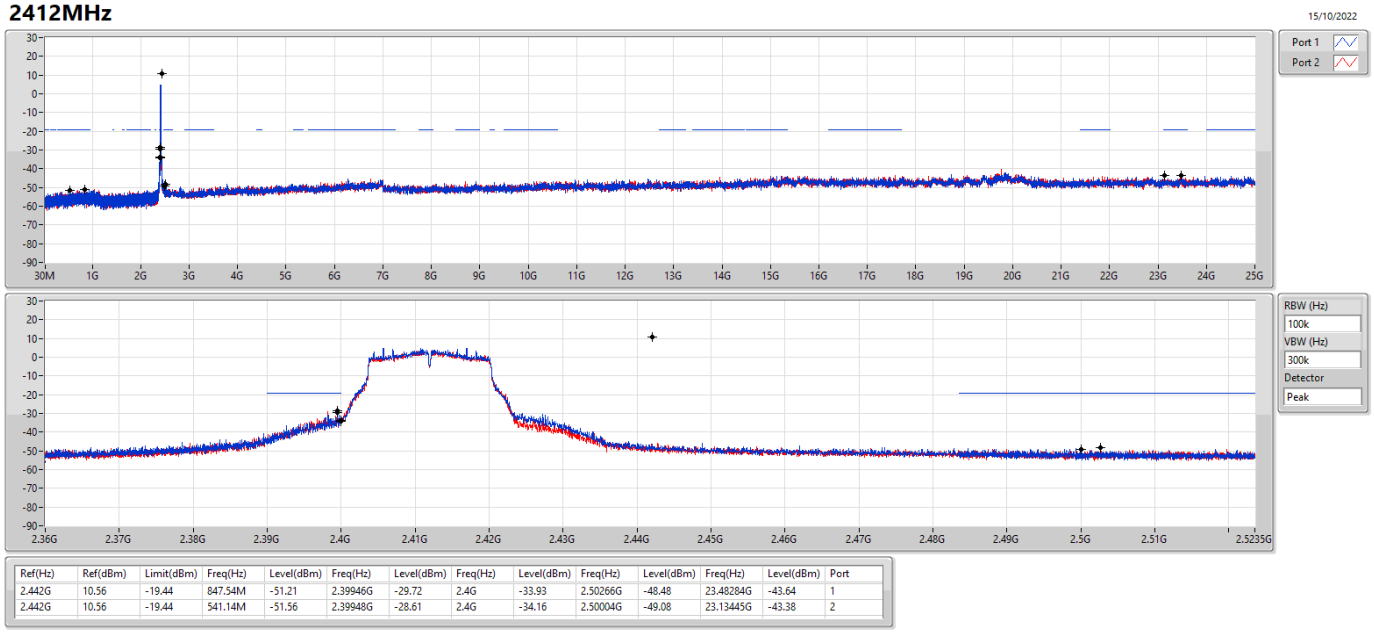
2462MHz



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
2.43599G	16.06	-13.94	757.83M	-51.33	2.3987G	-49.33	2.4835G	-38.14	2.4835G	-40.02	21.95162G	-43.52	1
2.43599G	16.06	-13.94	825.11M	-49.28	2.3991G	-50.52	2.4835G	-47.76	2.48494G	-44.98	17.3917G	-43.72	2

802.11g_Nss1,(6Mbps)_2TX **CSENdB**

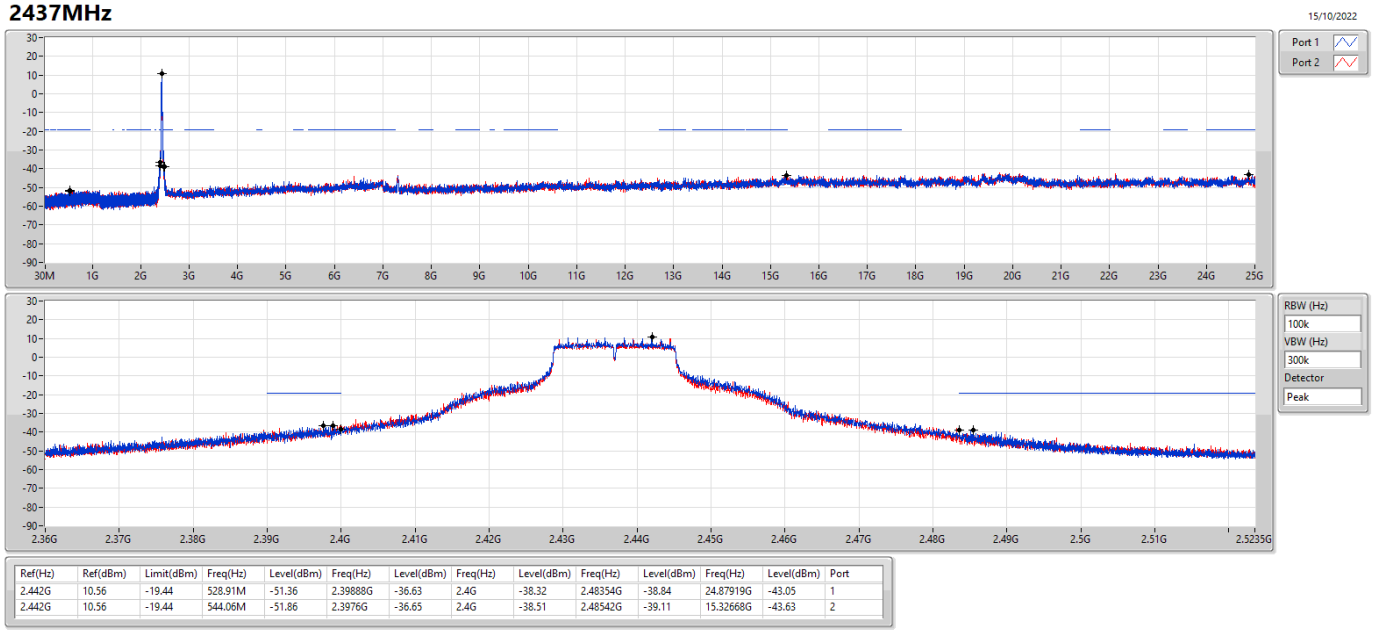
2412MHz



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
2.442G	10.56	-19.44	847.54M	-51.21	2.39946G	-29.72	2.4G	-33.93	2.50266G	-48.48	23.48284G	-43.64	1
2.442G	10.56	-19.44	541.14M	-51.56	2.39948G	-28.61	2.4G	-34.16	2.50004G	-49.08	23.13445G	-43.38	2

802.11g_Nss1,(6Mbps)_2TX **CSENdB**

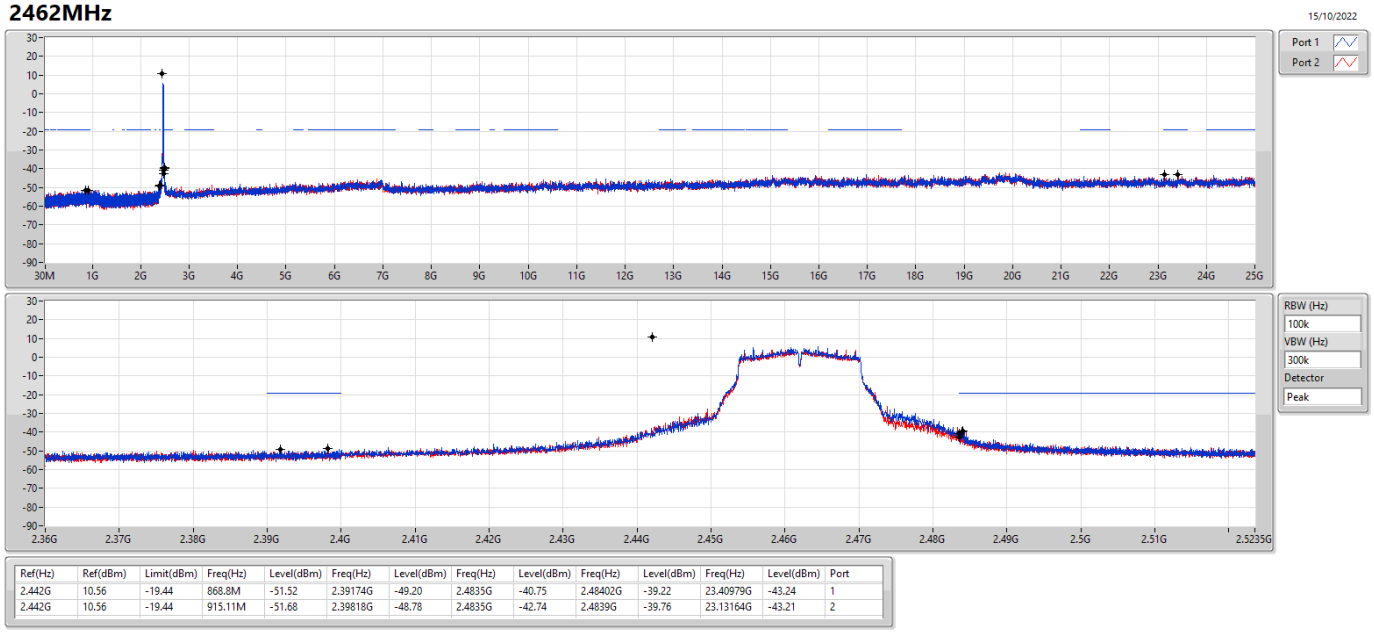
2437MHz



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
2.442G	10.56	-19.44	528.91M	-51.36	2.39888G	-36.63	2.4G	-38.32	2.48354G	-38.84	24.87919G	-43.05	1
2.442G	10.56	-19.44	544.06M	-51.86	2.3976G	-36.65	2.4G	-38.51	2.48542G	-39.11	15.32668G	-43.63	2

802.11g_Nss1,(6Mbps)_2TX **CSENdB**

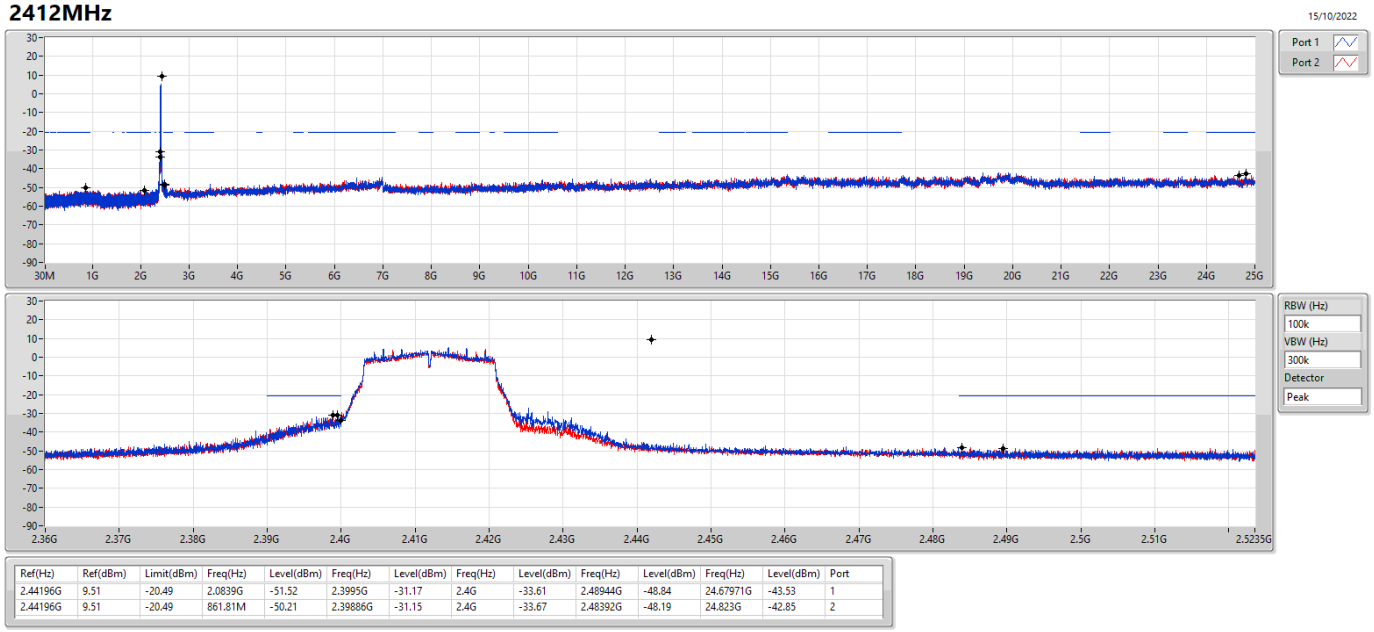
2462MHz



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
2.442G	10.56	-19.44	868.8M	-51.52	2.39174G	-49.20	2.4835G	-40.75	2.48402G	-39.22	23.40979G	-43.24	1
2.442G	10.56	-19.44	915.11M	-51.68	2.39818G	-48.78	2.4835G	-42.74	2.4839G	-39.76	23.13164G	-43.21	2

802.11ax HEW20_Nss1,(MCS0)_2TX **CSENdB**

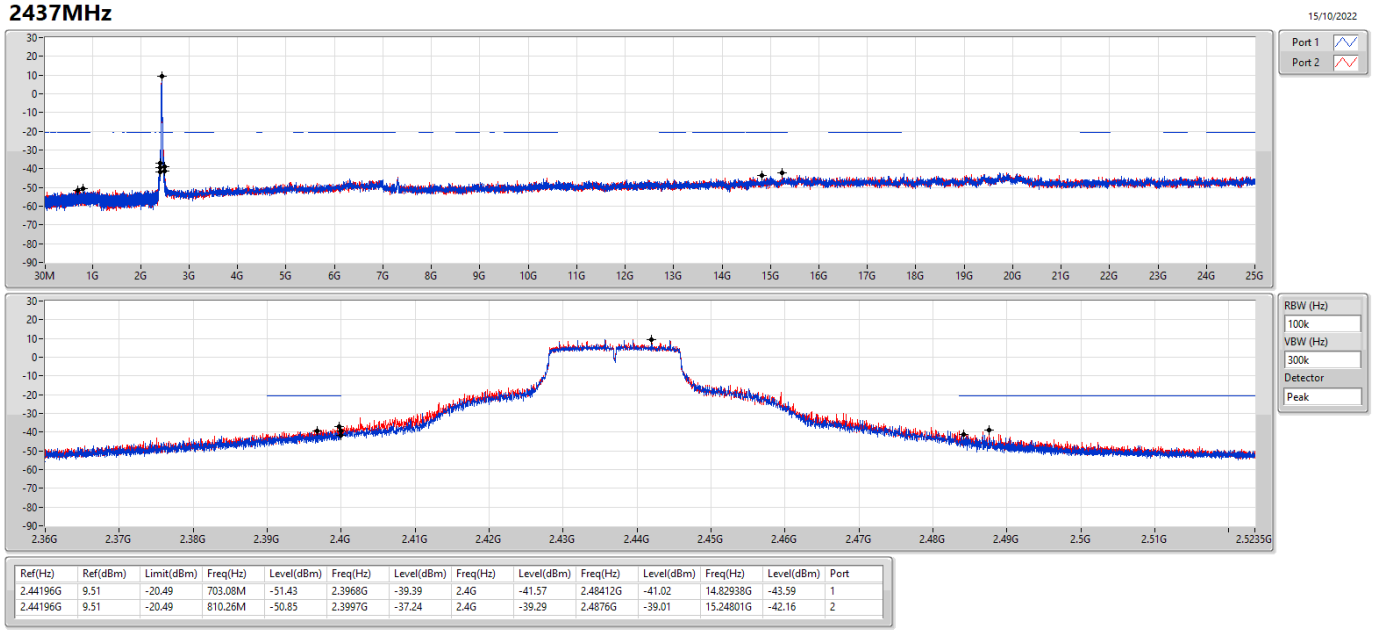
2412MHz



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
2.44196G	9.51	-20.49	2.0839G	-51.52	2.3995G	-31.17	2.4G	-33.61	2.48944G	-48.84	24.67971G	-43.53	1
2.44196G	9.51	-20.49	861.81M	-50.21	2.39886G	-31.15	2.4G	-33.67	2.48392G	-48.19	24.823G	-42.85	2

802.11ax HEW20_Nss1,(MCS0)_2TX **CSENdB**

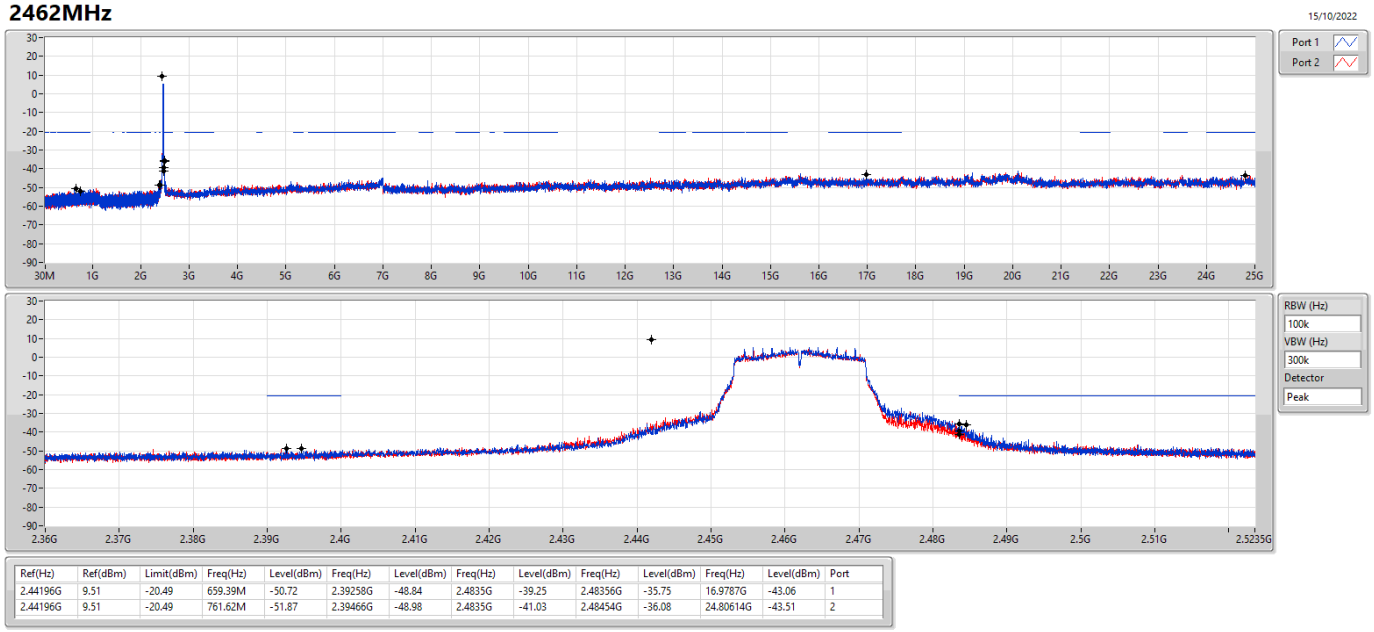
2437MHz



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
2.44196G	9.51	-20.49	703.08M	-51.43	2.3968G	-39.39	2.4G	-41.57	2.48412G	-41.02	14.82938G	-43.59	1
2.44196G	9.51	-20.49	810.26M	-50.85	2.3997G	-37.24	2.4G	-39.29	2.4876G	-39.01	15.24801G	-42.16	2

802.11ax HEW20_Nss1,(MCS0)_2TX **CSENdB**

2462MHz

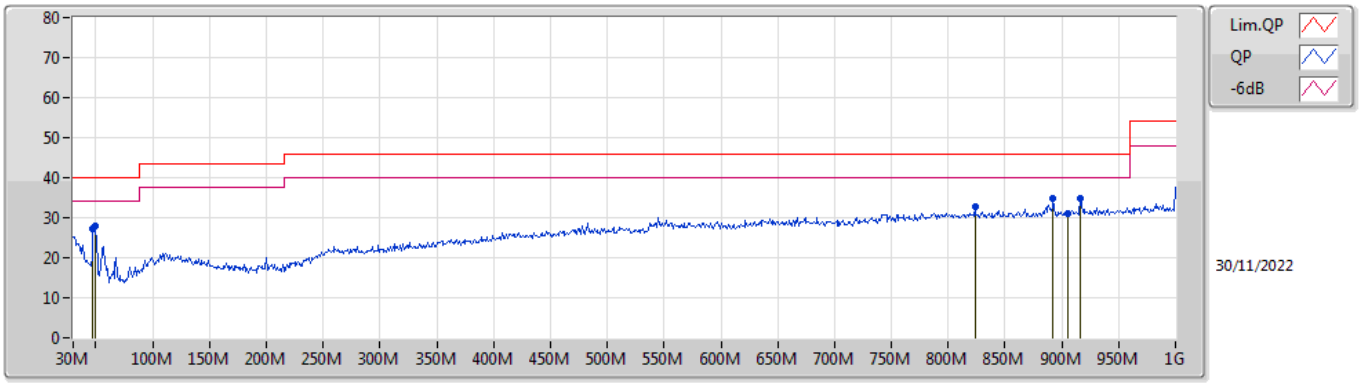


Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.44196G	9.51	-20.49	659.39M	-50.72	2.39258G	-48.84	2.4835G	-39.25	2.48356G	-35.75	16.9787G	-43.06	1
2.44196G	9.51	-20.49	761.62M	-51.87	2.39466G	-48.98	2.4835G	-41.03	2.48454G	-36.08	24.80614G	-43.51	2

Summary

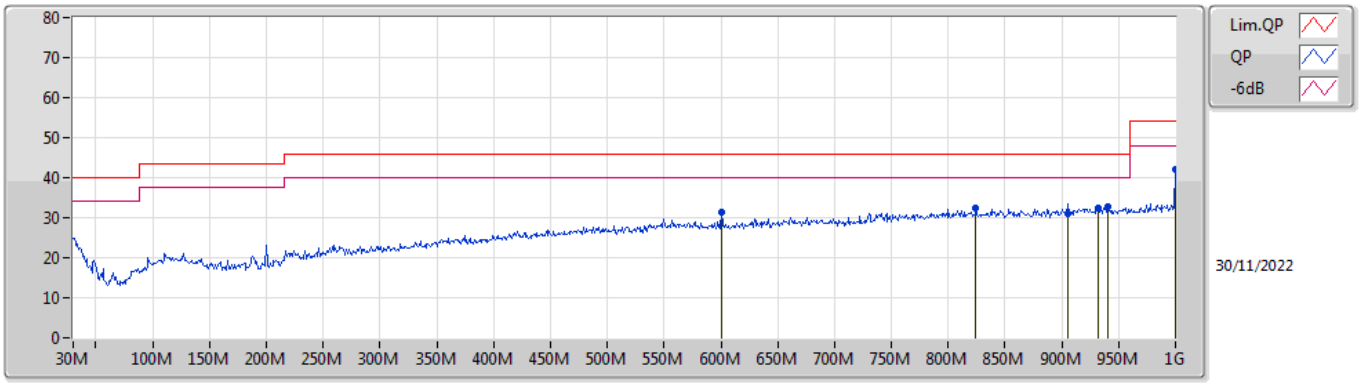
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition
Mode 3	Pass	PK	892.33M	35.00	46.00	-11.00	Vertical

Mode 3



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB/m)	(m)		(°)	(m)		(dBuV/m)	(dB/m)	(dB)	(dB)
PK	47.46M	27.24	40.00	-12.76	-16.29	3	Vertical	0	1.50	-	43.53	14.91	0.64	31.84
PK	49.4M	27.90	40.00	-12.10	-16.92	3	Vertical	23	1.50	-	44.82	14.28	0.66	31.86
PK	823.46M	32.82	46.00	-13.18	-2.93	3	Vertical	210	1.00	-	35.75	25.58	3.99	32.50
PK	892.33M	35.00	46.00	-11.00	-2.19	3	Vertical	351	1.50	"Worst"	37.19	26.16	4.14	32.49
PK	904.94M	30.91	46.00	-15.09	-2.11	3	Vertical	297	1.50	-	33.02	26.20	4.18	32.49
PK	916.58M	34.99	46.00	-11.01	-2.09	3	Vertical	276	1.00	-	37.08	26.19	4.21	32.49

Mode 3



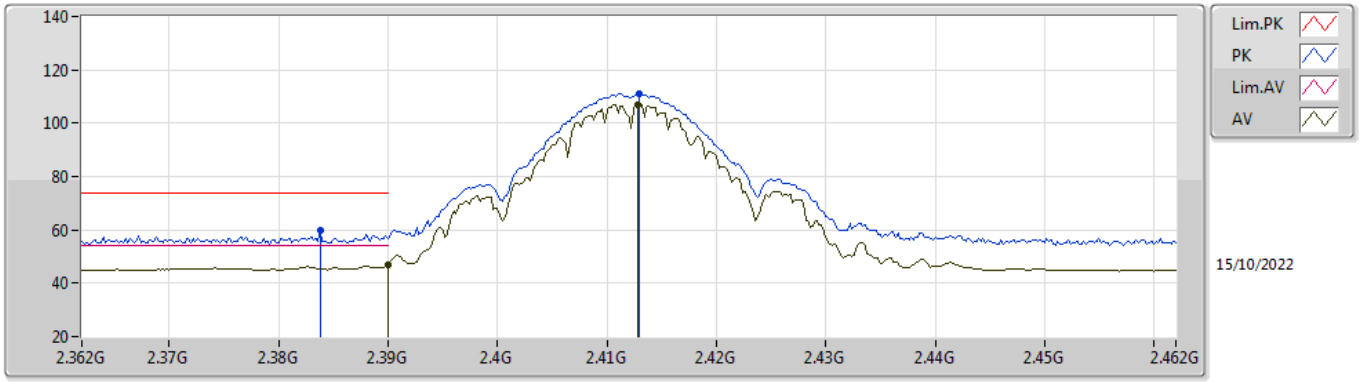
Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB/m)	(m)		(°)	(m)		(dBuV/m)	(dB/m)	(dB)	(dB)
PK	600.36M	31.34	46.00	-14.66	-4.98	3	Horizontal	49	1.50	-	36.32	24.24	3.29	32.51
PK	824.43M	32.29	46.00	-13.71	-2.92	3	Horizontal	139	1.25	-	35.21	25.59	3.99	32.50
PK	904.94M	31.11	46.00	-14.89	-2.11	3	Horizontal	0	1.50	-	33.22	26.20	4.18	32.49
PK	932.1M	32.34	46.00	-13.66	-1.94	3	Horizontal	242	1.00	-	34.28	26.28	4.26	32.48
PK	940.83M	32.60	46.00	-13.40	-1.81	3	Horizontal	160	1.50	"Worst"	34.41	26.38	4.29	32.48
PK	1G	42.14	74.00	-31.86	-0.89	3	Horizontal	134	1.50	-	43.03	27.06	4.39	32.34

Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-
802.11g_Nss1,(6Mbps)_2TX	Pass	AV	2.4835G	53.98	54.00	-0.02	3	Vertical	82	1.26	-

802.11b_Nss1,(1Mbps)_2TX

2412MHz_TX

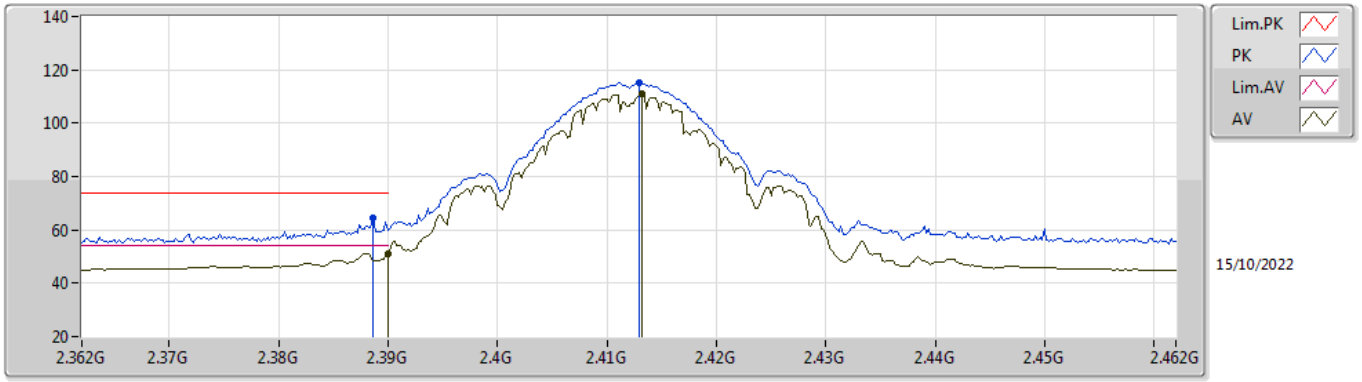


EUT X_2TX
Setting 87
03-D-G-2

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.3838G	59.68	74.00	-14.32	27.46	3	Vertical	238	1.71	-	28.24	3.98	-
AV	2.39G	47.09	54.00	-6.91	14.84	3	Vertical	238	1.71	-	28.26	3.99	-
PK	2.413G	111.27	Inf	-Inf	78.96	3	Vertical	238	1.71	-	28.30	4.01	-
AV	2.4128G	107.02	Inf	-Inf	74.71	3	Vertical	238	1.71	-	28.30	4.01	-

802.11b_Nss1,(1Mbps)_2TX

2412MHz_TX

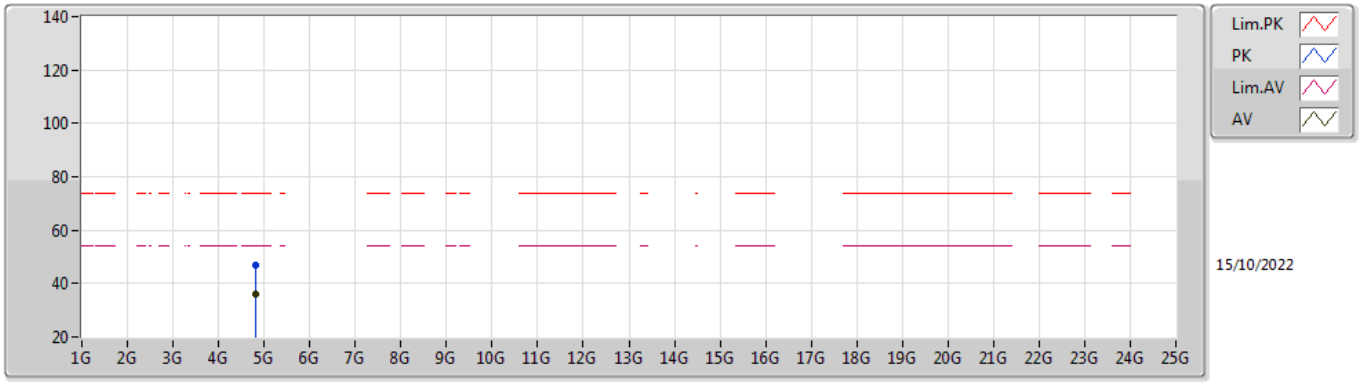


EUT X_2TX
Setting 87
03-D-G-2

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.3886G	64.25	74.00	-9.75	32.01	3	Horizontal	170	2.88	-	28.25	3.99	-
AV	2.39G	51.25	54.00	-2.75	19.00	3	Horizontal	170	2.88	-	28.26	3.99	-
PK	2.413G	115.20	Inf	-Inf	82.89	3	Horizontal	170	2.88	-	28.30	4.01	-
AV	2.4132G	110.79	Inf	-Inf	78.48	3	Horizontal	170	2.88	-	28.30	4.01	-

802.11b_Nss1,(1Mbps)_2TX

2412MHz_TX

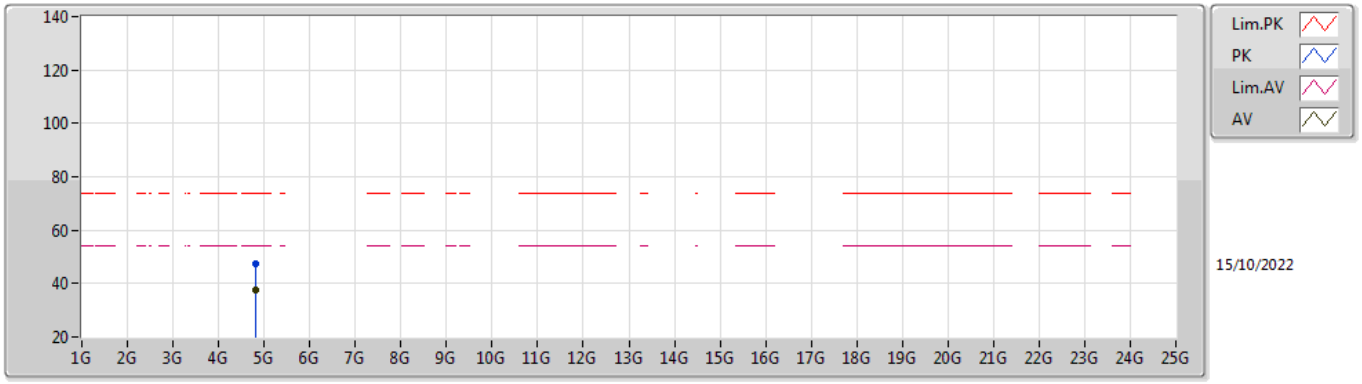


EUT Z_2TX
Setting 87
03-D-G-2

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.82419G	47.00	74.00	-27.00	42.04	3	Vertical	318	2.07	-	33.35	6.51	34.90
AV	4.82411G	36.28	54.00	-17.72	31.33	3	Vertical	318	2.07	-	33.34	6.51	34.90

802.11b_Nss1,(1Mbps)_2TX

2412MHz_TX

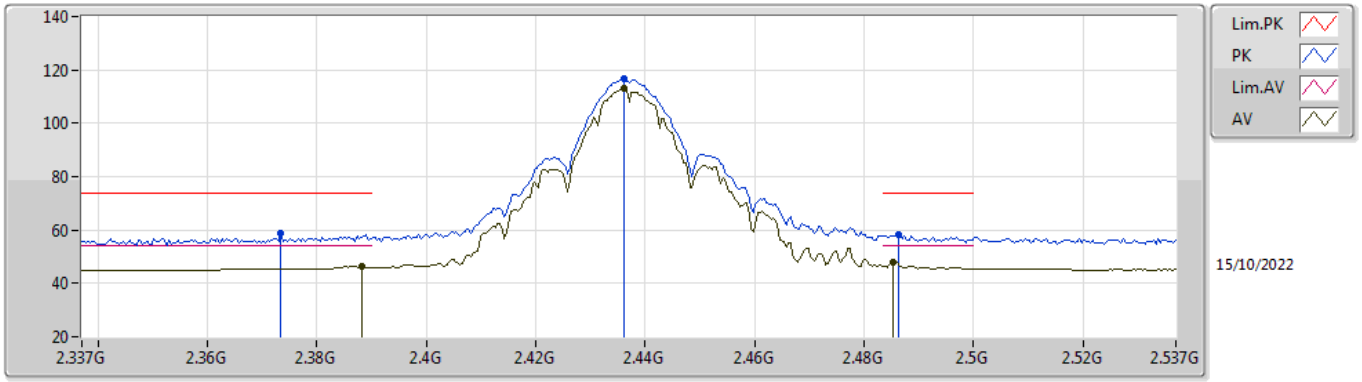


EUT Z_2TX
Setting 87
03-D-G-2

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.82401G	47.50	74.00	-26.50	42.55	3	Horizontal	251	2.01	-	33.34	6.51	34.90
AV	4.82416G	37.41	54.00	-16.59	32.46	3	Horizontal	251	2.01	-	33.34	6.51	34.90

802.11b_Nss1,(1Mbps)_2TX

2437MHz_TX

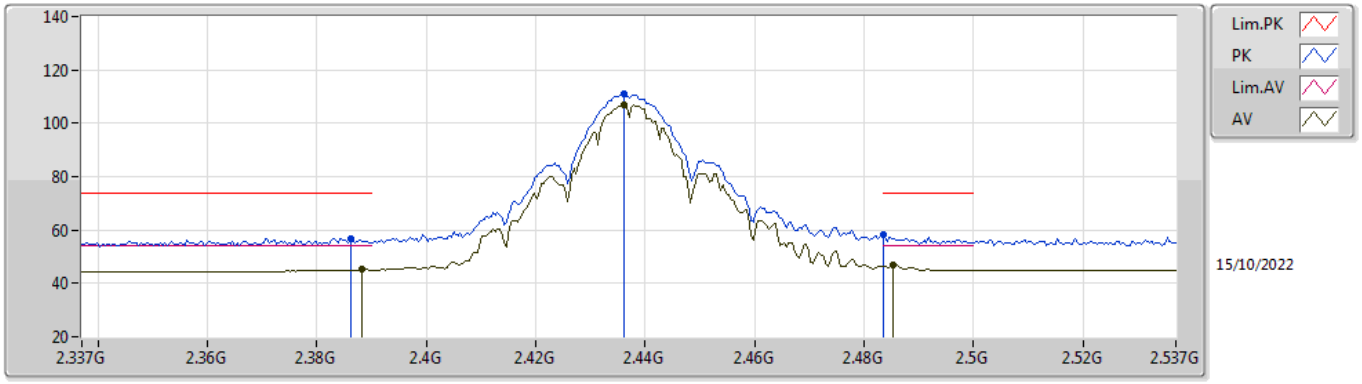


EUT X_2TX
Setting 94
03-D-G-2

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.3734G	58.58	74.00	-15.42	26.42	3	Vertical	80	1.59	-	28.19	3.97	-
AV	2.3882G	46.58	54.00	-7.42	14.34	3	Vertical	80	1.59	-	28.25	3.99	-
PK	2.4362G	116.68	Inf	-Inf	84.34	3	Vertical	80	1.59	-	28.30	4.04	-
AV	2.4362G	112.86	Inf	-Inf	80.52	3	Vertical	80	1.59	-	28.30	4.04	-
PK	2.4862G	58.26	74.00	-15.74	25.73	3	Vertical	80	1.59	-	28.44	4.09	-
AV	2.4854G	47.98	54.00	-6.02	15.45	3	Vertical	80	1.59	-	28.44	4.09	-

802.11b_Nss1,(1Mbps)_2TX

2437MHz_TX

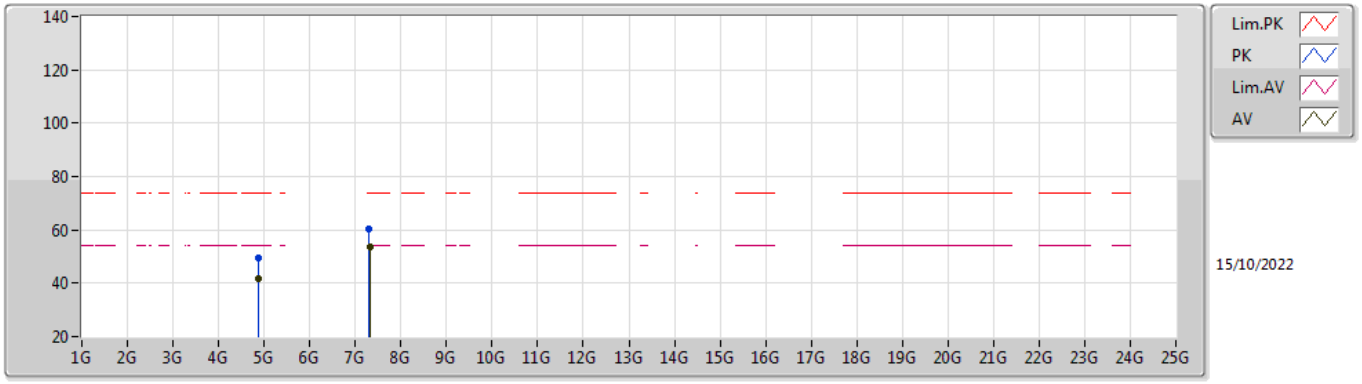


EUT X_2TX
Setting 94
03-D-G-2

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.3862G	56.93	74.00	-17.07	24.70	3	Horizontal	171	2.51	-	28.24	3.99	-
AV	2.3882G	45.25	54.00	-8.75	13.01	3	Horizontal	171	2.51	-	28.25	3.99	-
PK	2.4362G	111.18	Inf	-Inf	78.84	3	Horizontal	171	2.51	-	28.30	4.04	-
AV	2.4362G	107.04	Inf	-Inf	74.70	3	Horizontal	171	2.51	-	28.30	4.04	-
PK	2.4835G	58.13	74.00	-15.87	25.62	3	Horizontal	171	2.51	-	28.43	4.08	-
AV	2.4854G	46.92	54.00	-7.08	14.39	3	Horizontal	171	2.51	-	28.44	4.09	-

802.11b_Nss1,(1Mbps)_2TX

2437MHz_TX

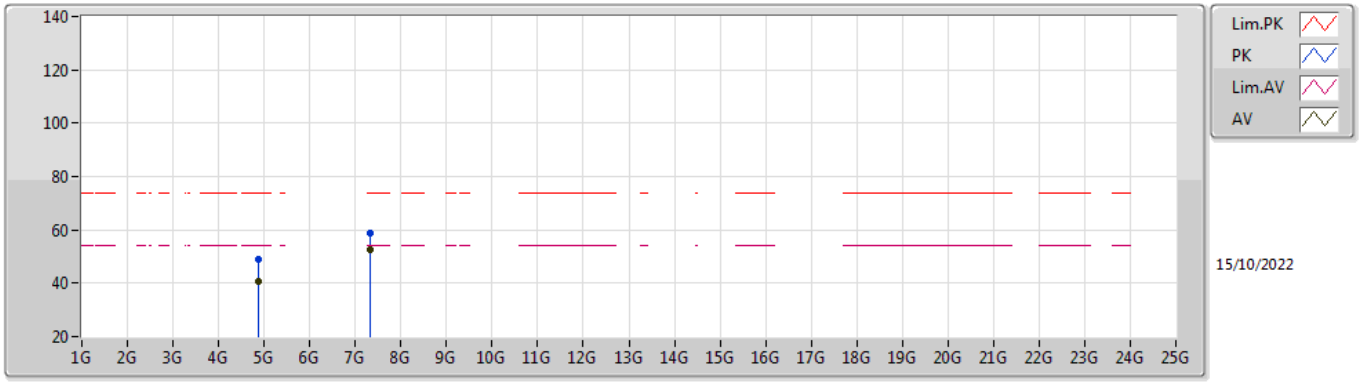


EUT Z_2TX
Setting 94
03-D-G-2

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.87411G	49.42	74.00	-24.58	44.18	3	Vertical	308	1.01	-	33.60	6.54	34.90
AV	4.87412G	41.87	54.00	-12.13	36.63	3	Vertical	308	1.01	-	33.60	6.54	34.90
PK	7.31012G	60.14	74.00	-13.86	49.66	3	Vertical	36	1.80	-	36.92	8.70	35.14
AV	7.31038G	53.73	54.00	-0.27	43.25	3	Vertical	36	1.80	-	36.92	8.70	35.14

802.11b_Nss1,(1Mbps)_2TX

2437MHz_TX

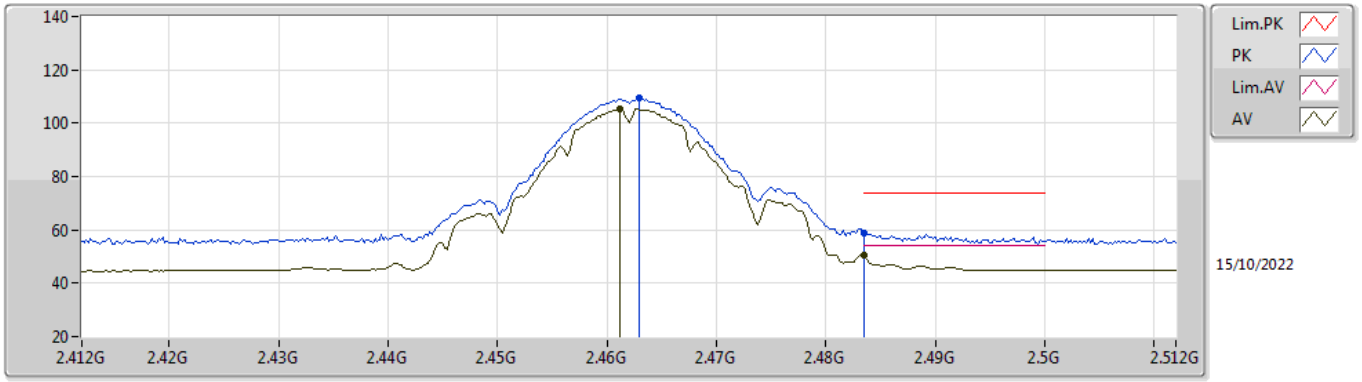


EUT Z_2TX
Setting 94
03-D-G-2

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.8743G	48.74	74.00	-25.26	43.50	3	Horizontal	283	1.78	-	33.60	6.54	34.90
AV	4.8742G	40.48	54.00	-13.52	35.24	3	Horizontal	283	1.78	-	33.60	6.54	34.90
PK	7.31022G	58.89	74.00	-15.11	48.41	3	Horizontal	150	1.80	-	36.92	8.70	35.14
AV	7.3105G	52.46	54.00	-1.54	41.98	3	Horizontal	150	1.80	-	36.92	8.70	35.14

802.11b_Nss1,(1Mbps)_2TX

2462MHz_TX

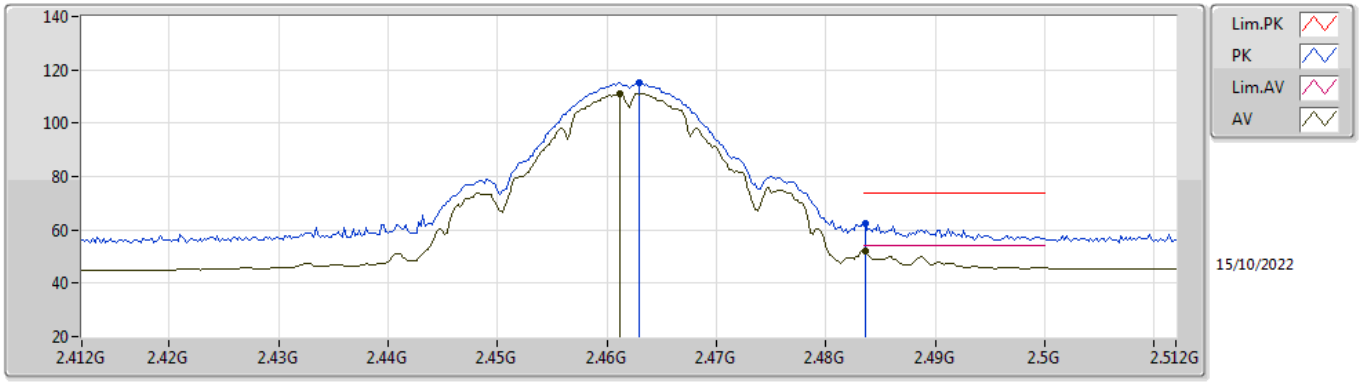


EUT X_2TX
Setting 85
03-D-G-2

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.463G	109.39	Inf	-Inf	76.98	3	Vertical	292	1.73	-	28.35	4.06	-
AV	2.4612G	105.36	Inf	-Inf	72.96	3	Vertical	292	1.73	-	28.34	4.06	-
PK	2.4835G	58.97	74.00	-15.03	26.46	3	Vertical	292	1.73	-	28.43	4.08	-
AV	2.4835G	50.74	54.00	-3.26	18.23	3	Vertical	292	1.73	-	28.43	4.08	-

802.11b_Nss1,(1Mbps)_2TX

2462MHz_TX

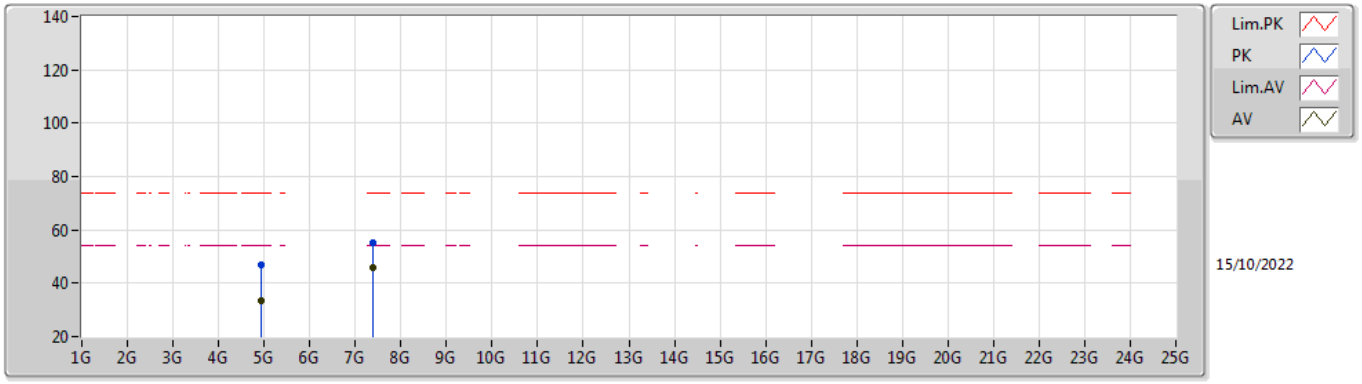


EUT X_2TX
Setting 85
03-D-G-2

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.463G	115.25	Inf	-Inf	82.84	3	Horizontal	15	2.79	-	28.35	4.06	-
AV	2.4612G	111.14	Inf	-Inf	78.74	3	Horizontal	15	2.79	-	28.34	4.06	-
PK	2.4836G	62.53	74.00	-11.47	30.02	3	Horizontal	15	2.79	-	28.43	4.08	-
AV	2.4836G	52.05	54.00	-1.95	19.54	3	Horizontal	15	2.79	-	28.43	4.08	-

802.11b_Nss1,(1Mbps)_2TX

2462MHz_TX

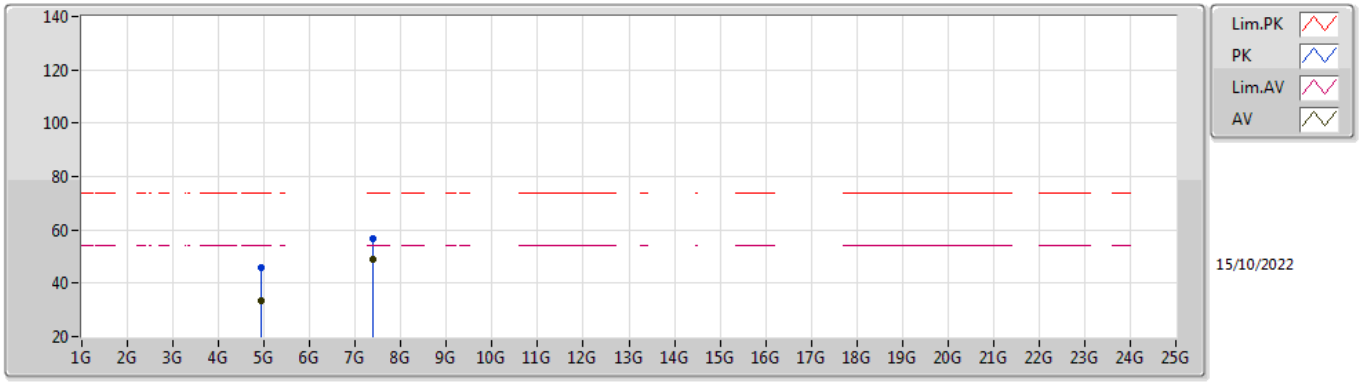


EUT Z_2TX
Setting 85
03-D-G-2

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.92419G	46.79	74.00	-27.21	41.37	3	Vertical	111	2.54	-	33.75	6.56	34.89
AV	4.92419G	33.61	54.00	-20.39	28.19	3	Vertical	111	2.54	-	33.75	6.56	34.89
PK	7.38538G	55.38	74.00	-18.62	44.86	3	Vertical	170	2.59	-	37.00	8.70	35.18
AV	7.38492G	45.72	54.00	-8.28	35.20	3	Vertical	170	2.59	-	37.00	8.70	35.18

802.11b_Nss1,(1Mbps)_2TX

2462MHz_TX

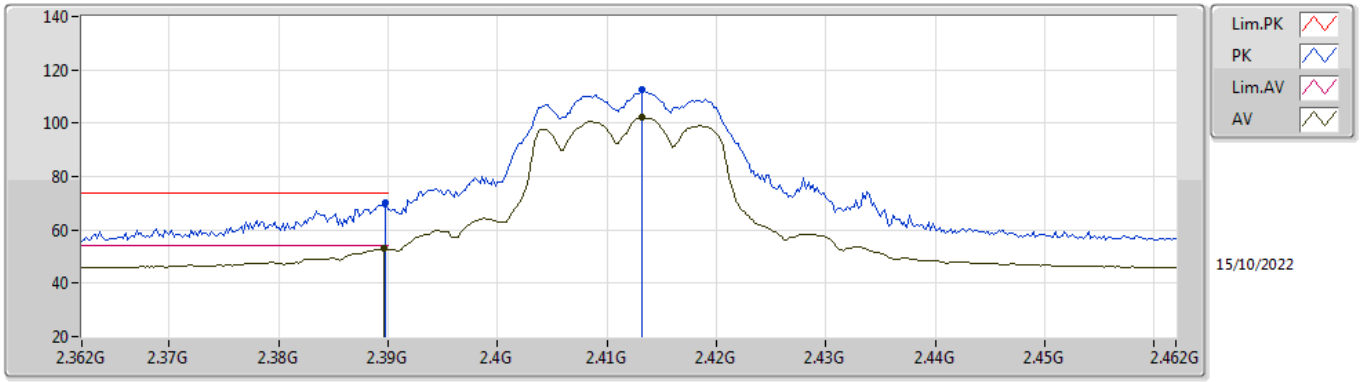


EUT Z_2TX
Setting 85
03-D-G-2

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.92394G	46.03	74.00	-27.97	40.61	3	Horizontal	16	1.28	-	33.75	6.56	34.89
AV	4.92407G	33.61	54.00	-20.39	28.19	3	Horizontal	16	1.28	-	33.75	6.56	34.89
PK	7.38538G	56.90	74.00	-17.10	46.38	3	Horizontal	58	1.80	-	37.00	8.70	35.18
AV	7.3869G	49.11	54.00	-4.89	38.59	3	Horizontal	58	1.80	-	37.00	8.70	35.18

802.11g_Nss1,(6Mbps)_2TX

2412MHz_TX

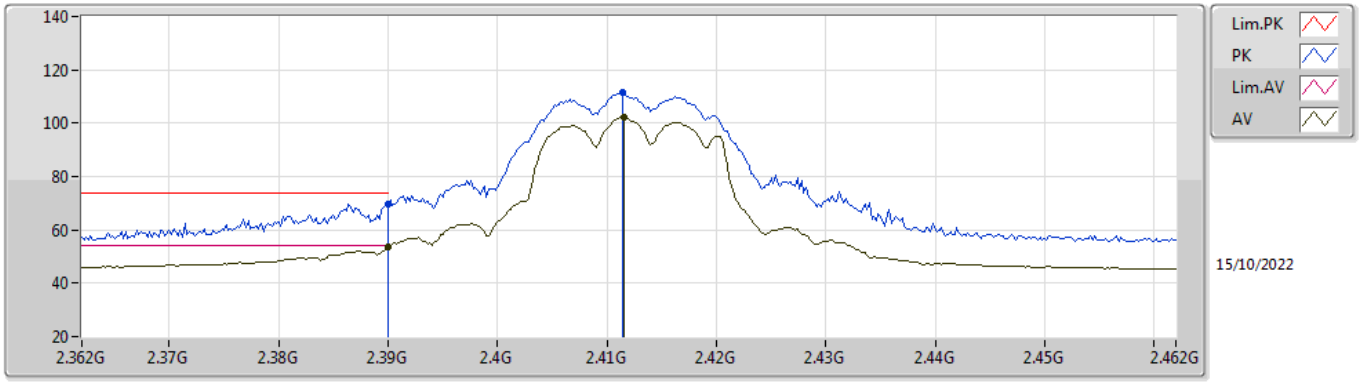


EUT X_2TX
Setting 64
03-D-G-2

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.3898G	69.94	74.00	-4.06	37.69	3	Vertical	67	1.12	-	28.26	3.99	-
AV	2.3896G	53.03	54.00	-0.97	20.78	3	Vertical	67	1.12	-	28.26	3.99	-
PK	2.4132G	112.36	Inf	-Inf	80.05	3	Vertical	67	1.12	-	28.30	4.01	-
AV	2.4132G	102.42	Inf	-Inf	70.11	3	Vertical	67	1.12	-	28.30	4.01	-

802.11g_Nss1,(6Mbps)_2TX

2412MHz_TX

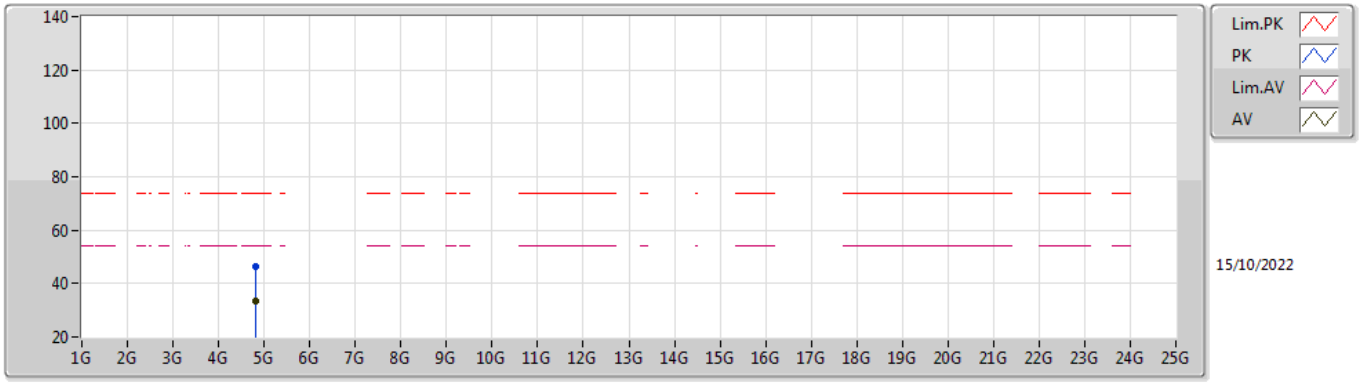


EUT X_2TX
Setting 64
03-D-G-2

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA	
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)	
PK	2.39G	69.60	74.00	-4.40	37.35	3	Horizontal	169	2.90	-	28.26	3.99	-	
AV	2.39G	53.50	54.00	-0.50	21.25	3	Horizontal	169	2.90	-	28.26	3.99	-	
PK	2.4114G	111.70	Inf	-Inf	79.39	3	Horizontal	169	2.90	-	28.30	4.01	-	
AV	2.4116G	102.27	Inf	-Inf	69.96	3	Horizontal	169	2.90	-	28.30	4.01	-	

802.11g_Nss1,(6Mbps)_2TX

2412MHz_TX

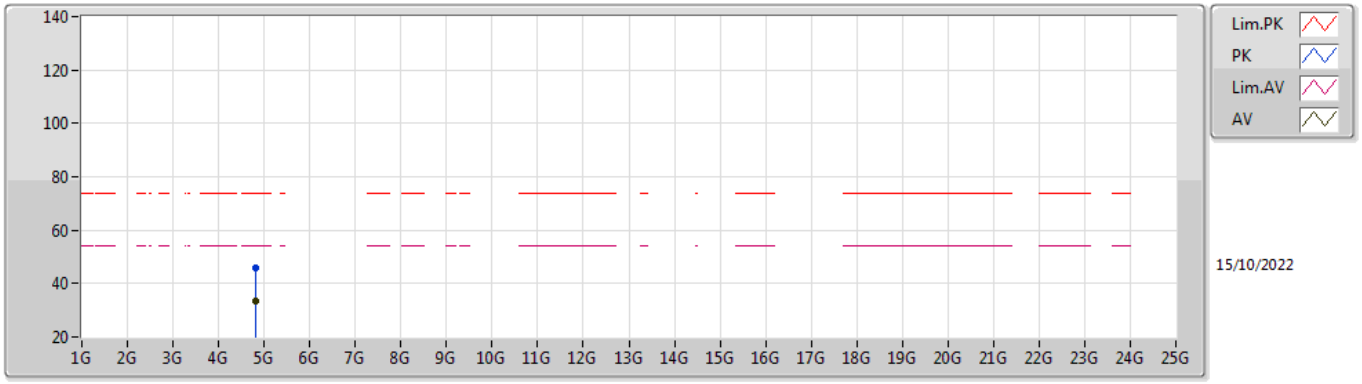


EUT Z_2TX
Setting 64
03-D-G-2

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.82464G	46.37	74.00	-27.63	41.41	3	Vertical	110	2.12	-	33.35	6.51	34.90
AV	4.82438G	33.55	54.00	-20.45	28.59	3	Vertical	110	2.12	-	33.35	6.51	34.90

802.11g_Nss1,(6Mbps)_2TX

2412MHz_TX

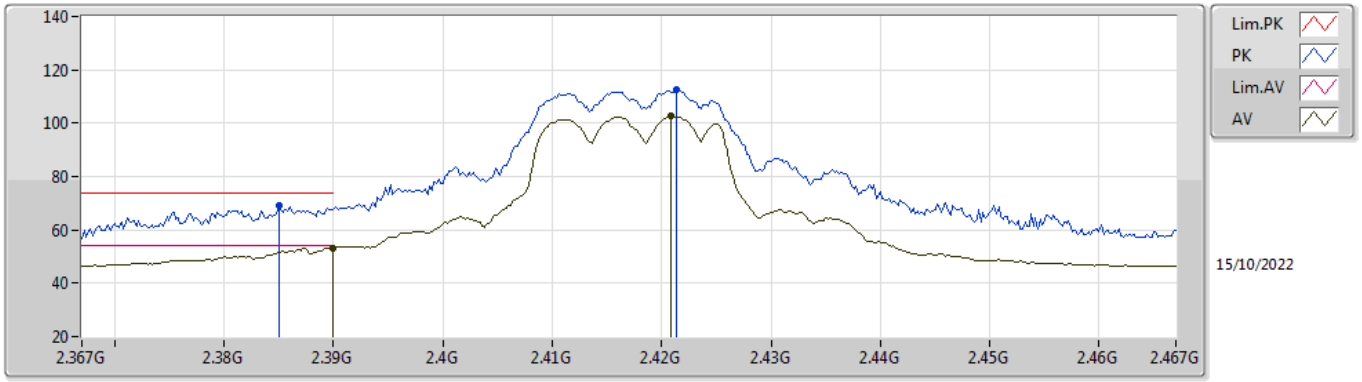


EUT Z_2TX
Setting 64
03-D-G-2

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.8198G	45.99	74.00	-28.01	41.06	3	Horizontal	243	2.48	-	33.32	6.51	34.90
AV	4.82472G	33.53	54.00	-20.47	28.57	3	Horizontal	243	2.48	-	33.35	6.51	34.90

802.11g_Nss1,(6Mbps)_2TX

2417MHz_TX

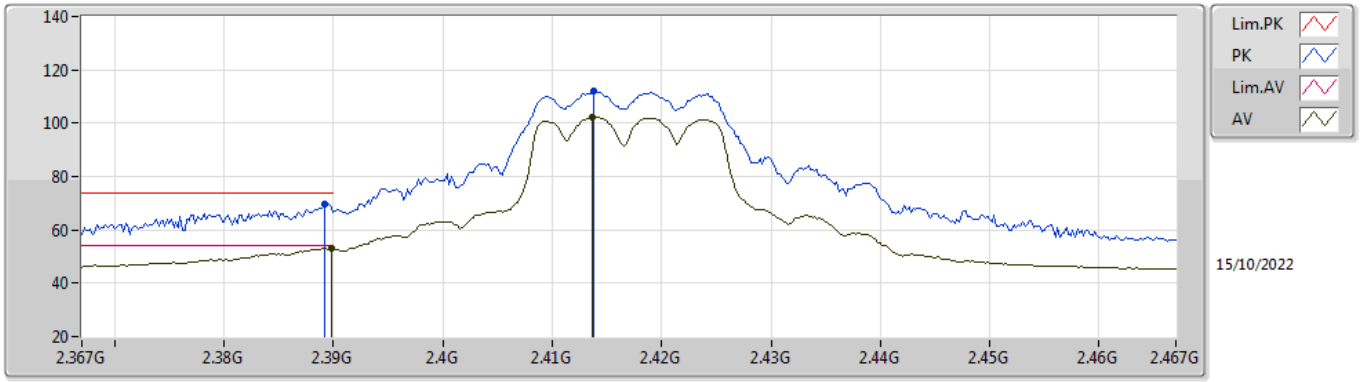


EUT X_2TX
Setting 69
03-D-G-2

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.385G	69.11	74.00	-4.89	36.88	3	Vertical	78	1.00	-	28.24	3.99	-
AV	2.39G	53.35	54.00	-0.65	21.10	3	Vertical	78	1.00	-	28.26	3.99	-
PK	2.4214G	112.77	Inf	-Inf	80.45	3	Vertical	78	1.00	-	28.30	4.02	-
AV	2.4208G	102.52	Inf	-Inf	70.20	3	Vertical	78	1.00	-	28.30	4.02	-

802.11g_Nss1,(6Mbps)_2TX

2417MHz_TX

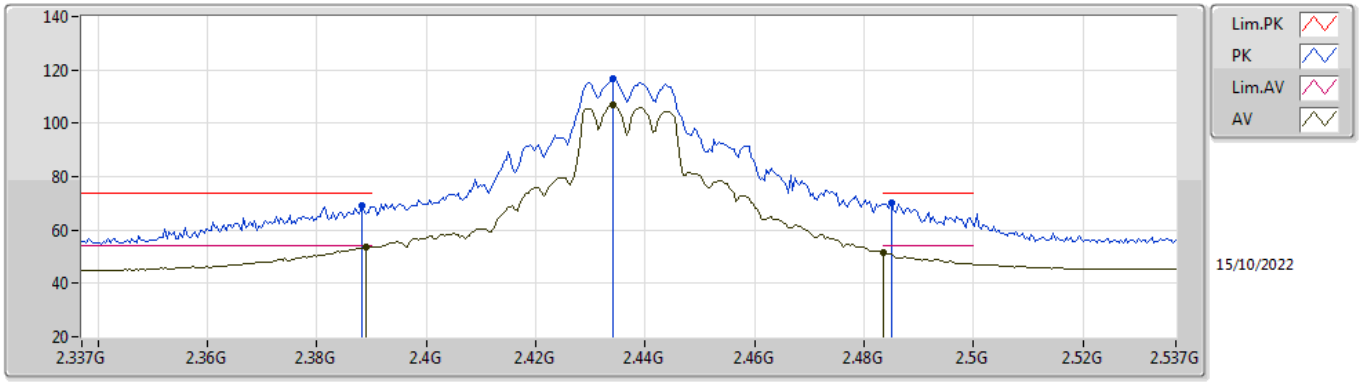


EUT X_2TX
Setting 69
03-D-G-2

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.3892G	69.51	74.00	-4.49	37.26	3	Horizontal	170	2.89	-	28.26	3.99	-
AV	2.3898G	53.29	54.00	-0.71	21.04	3	Horizontal	170	2.89	-	28.26	3.99	-
PK	2.4138G	111.96	Inf	-Inf	79.65	3	Horizontal	170	2.89	-	28.30	4.01	-
AV	2.4136G	102.32	Inf	-Inf	70.01	3	Horizontal	170	2.89	-	28.30	4.01	-

802.11g_Nss1,(6Mbps)_2TX

2437MHz_TX

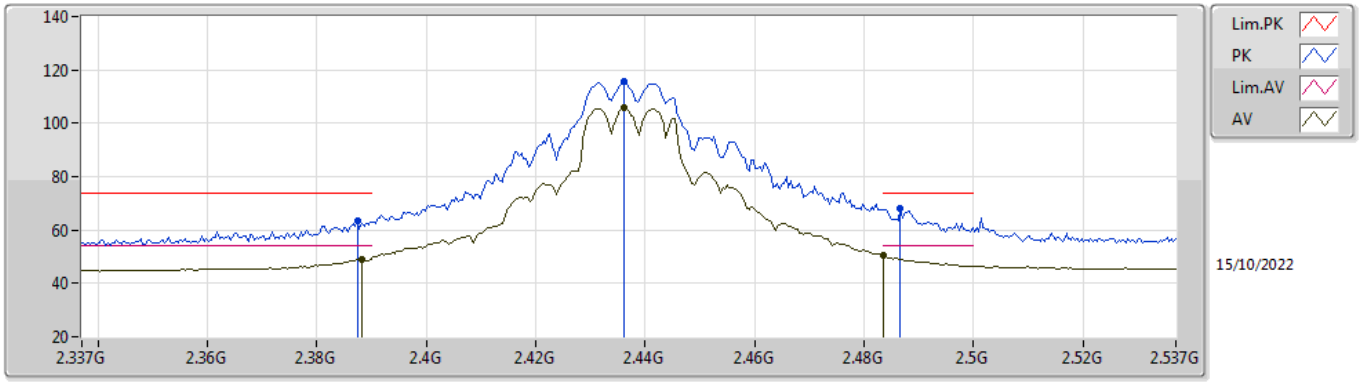


EUT X_2TX
Setting 82
03-D-G-2

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.3882G	68.90	74.00	-5.10	36.66	3	Vertical	76	1.58	-	28.25	3.99	-
AV	2.389G	53.63	54.00	-0.37	21.38	3	Vertical	76	1.58	-	28.26	3.99	-
PK	2.4342G	116.62	Inf	-Inf	84.29	3	Vertical	76	1.58	-	28.30	4.03	-
AV	2.4342G	106.71	Inf	-Inf	74.38	3	Vertical	76	1.58	-	28.30	4.03	-
PK	2.485G	70.16	74.00	-3.84	37.64	3	Vertical	76	1.58	-	28.44	4.08	-
AV	2.4835G	51.61	54.00	-2.39	19.10	3	Vertical	76	1.58	-	28.43	4.08	-

802.11g_Nss1,(6Mbps)_2TX

2437MHz_TX

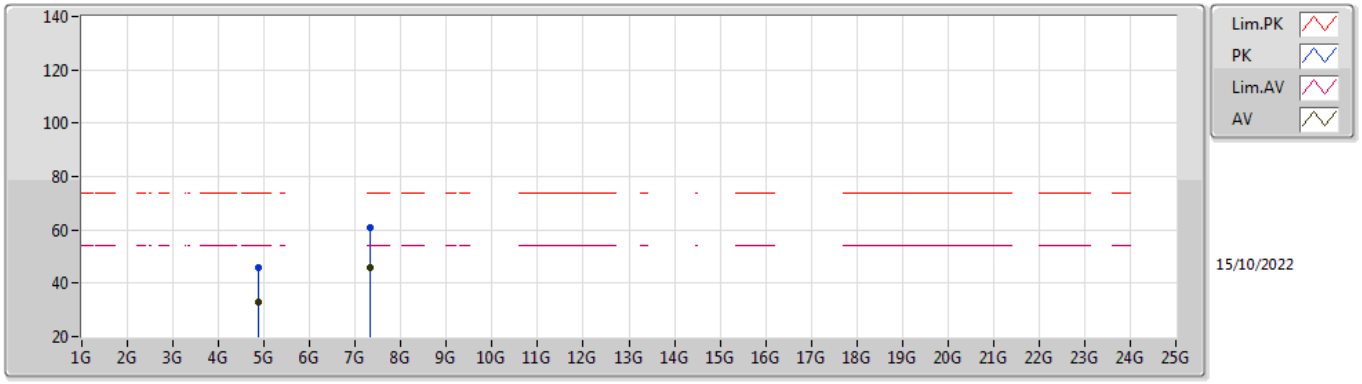


EUT X_2TX
Setting 82
03-D-G-2

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.3874G	63.26	74.00	-10.74	31.02	3	Horizontal	16	2.84	-	28.25	3.99	-
AV	2.3882G	49.21	54.00	-4.79	16.97	3	Horizontal	16	2.84	-	28.25	3.99	-
PK	2.4362G	115.63	Inf	-Inf	83.29	3	Horizontal	16	2.84	-	28.30	4.04	-
AV	2.4362G	105.83	Inf	-Inf	73.49	3	Horizontal	16	2.84	-	28.30	4.04	-
PK	2.4866G	68.21	74.00	-5.79	35.67	3	Horizontal	16	2.84	-	28.45	4.09	-
AV	2.4835G	50.68	54.00	-3.32	18.17	3	Horizontal	16	2.84	-	28.43	4.08	-

802.11g_Nss1,(6Mbps)_2TX

2437MHz_TX

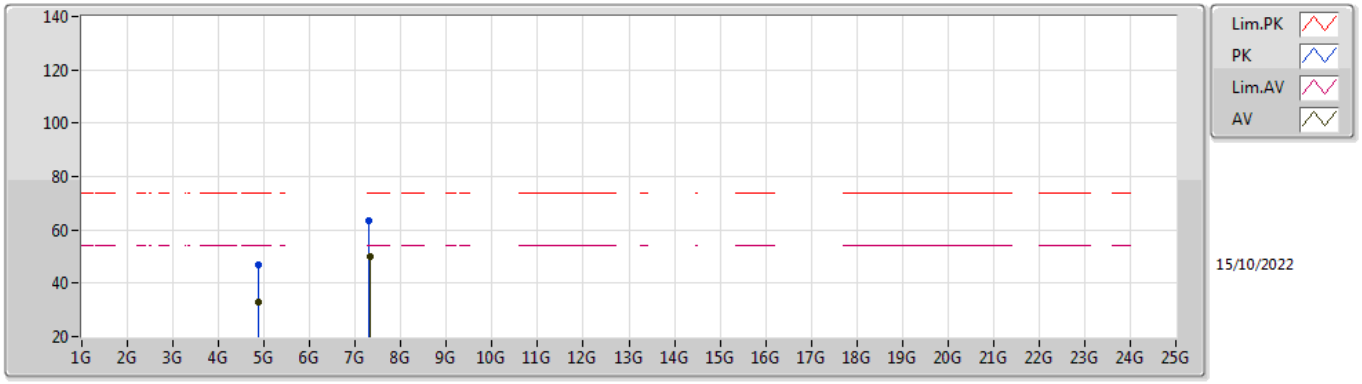


EUT Z_2TX
Setting 82
03-D-G-2

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.87316G	45.75	74.00	-28.25	40.52	3	Vertical	16	2.73	-	33.59	6.54	34.90
AV	4.87724G	32.84	54.00	-21.16	27.58	3	Vertical	16	2.73	-	33.61	6.54	34.89
PK	7.31412G	60.70	74.00	-13.30	50.21	3	Vertical	179	1.80	-	36.93	8.70	35.14
AV	7.3149G	45.91	54.00	-8.09	35.42	3	Vertical	179	1.80	-	36.93	8.70	35.14

802.11g_Nss1,(6Mbps)_2TX

2437MHz_TX

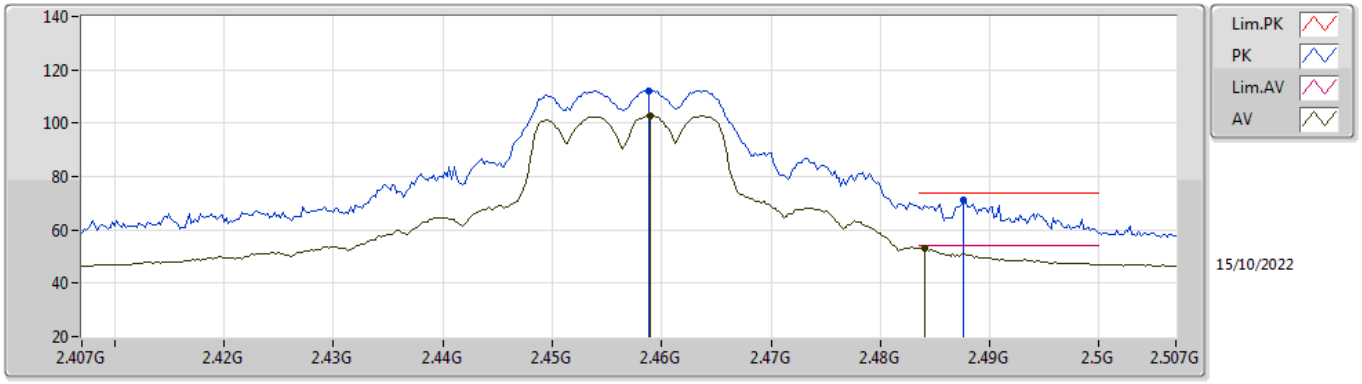


EUT Z_2TX
Setting 82
03-D-G-2

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.88468G	46.86	74.00	-27.14	41.57	3	Horizontal	130	2.68	-	33.64	6.54	34.89
AV	4.87556G	32.81	54.00	-21.19	27.56	3	Horizontal	130	2.68	-	33.60	6.54	34.89
PK	7.30512G	63.37	74.00	-10.63	52.90	3	Horizontal	271	2.91	-	36.91	8.70	35.14
AV	7.3107G	49.96	54.00	-4.04	39.48	3	Horizontal	271	2.91	-	36.92	8.70	35.14

802.11g_Nss1,(6Mbps)_2TX

2457MHz_TX

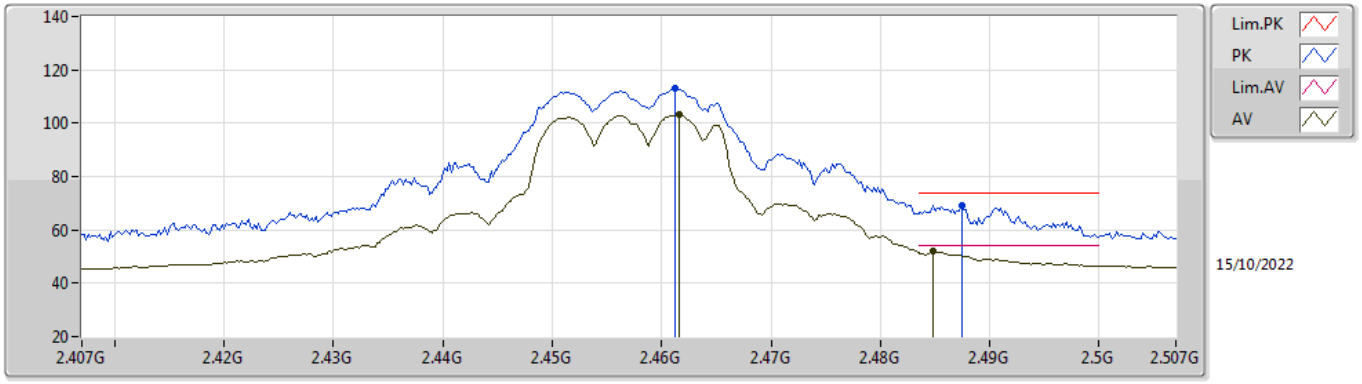


EUT X_2TX
Setting 71
03-D-G-2

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.4588G	112.29	Inf	-Inf	79.89	3	Vertical	85	1.22	-	28.34	4.06	-
AV	2.459G	102.81	Inf	-Inf	70.41	3	Vertical	85	1.22	-	28.34	4.06	-
PK	2.4876G	71.18	74.00	-2.82	38.64	3	Vertical	85	1.22	-	28.45	4.09	-
AV	2.484G	53.30	54.00	-0.70	20.78	3	Vertical	85	1.22	-	28.44	4.08	-

802.11g_Nss1,(6Mbps)_2TX

2457MHz_TX

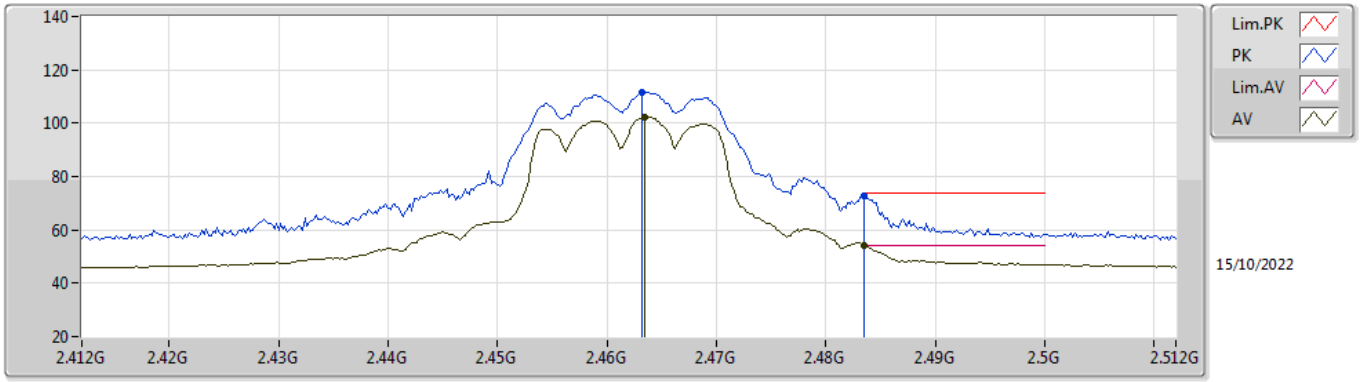


EUT X_2TX
Setting 71
03-D-G-2

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.4612G	113.05	Inf	-Inf	80.65	3	Horizontal	14	2.79	-	28.34	4.06	-
AV	2.4616G	103.04	Inf	-Inf	70.63	3	Horizontal	14	2.79	-	28.35	4.06	-
PK	2.4874G	69.14	74.00	-4.86	36.60	3	Horizontal	14	2.79	-	28.45	4.09	-
AV	2.4848G	51.98	54.00	-2.02	19.46	3	Horizontal	14	2.79	-	28.44	4.08	-

802.11g_Nss1,(6Mbps)_2TX

2462MHz_TX

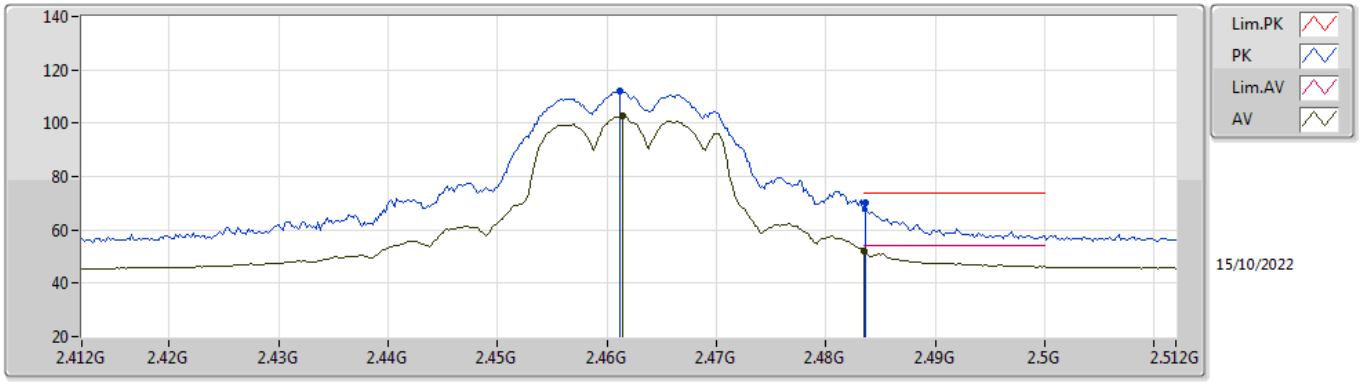


EUT X_2TX
Setting 64
03-D-G-2

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.4632G	111.72	Inf	-Inf	79.31	3	Vertical	82	1.26	-	28.35	4.06	-
AV	2.4634G	102.17	Inf	-Inf	69.76	3	Vertical	82	1.26	-	28.35	4.06	-
PK	2.4835G	72.78	74.00	-1.22	40.27	3	Vertical	82	1.26	-	28.43	4.08	-
AV	2.4835G	53.98	54.00	-0.02	21.47	3	Vertical	82	1.26	-	28.43	4.08	-

802.11g_Nss1,(6Mbps)_2TX

2462MHz_TX

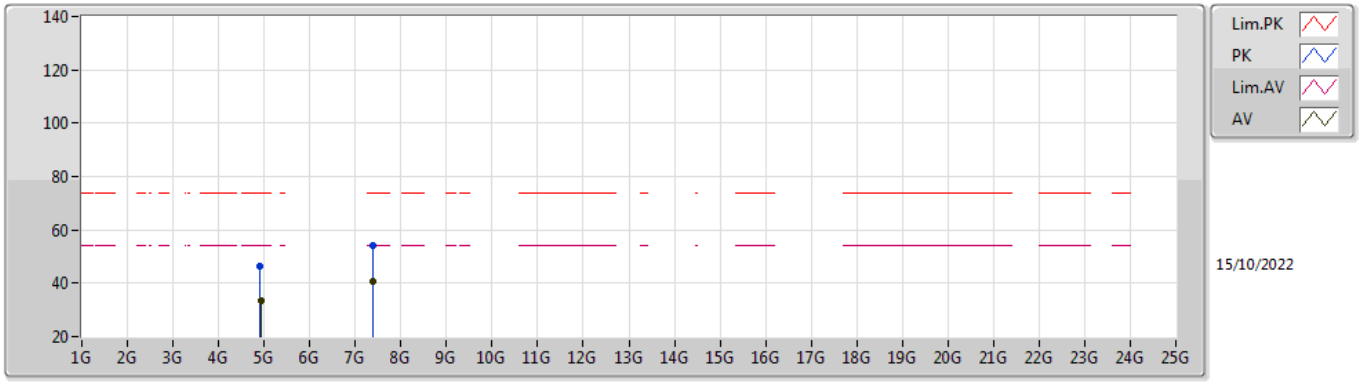


EUT X_2TX
Setting 64
03-D-G-2

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.4612G	112.24	Inf	-Inf	79.84	3	Horizontal	16	2.80	-	28.34	4.06	-
AV	2.4614G	102.65	Inf	-Inf	70.24	3	Horizontal	16	2.80	-	28.35	4.06	-
PK	2.4836G	70.18	74.00	-3.82	37.67	3	Horizontal	16	2.80	-	28.43	4.08	-
AV	2.4835G	52.19	54.00	-1.81	19.68	3	Horizontal	16	2.80	-	28.43	4.08	-

802.11g_Nss1,(6Mbps)_2TX

2462MHz_TX

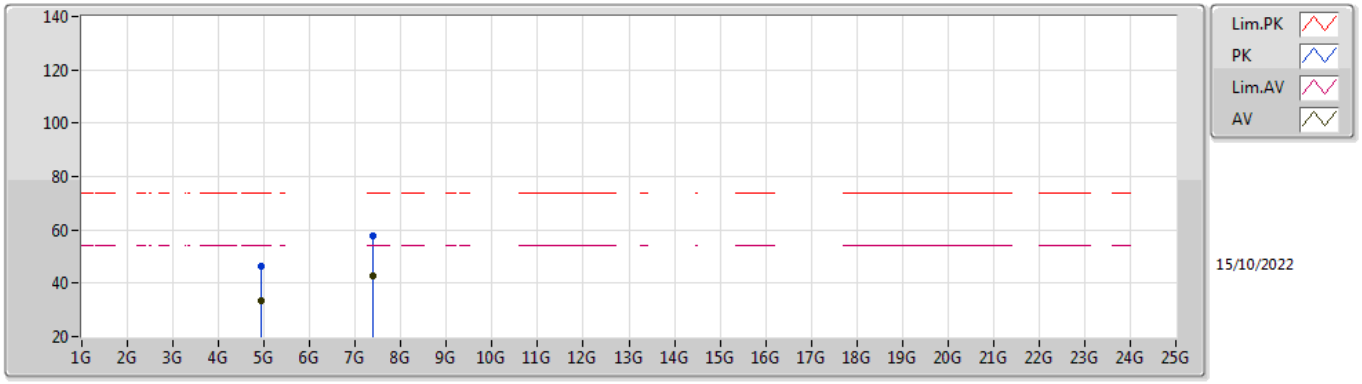


EUT Z_2TX
Setting 64
03-D-G-2

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.91908G	46.14	74.00	-27.86	40.73	3	Vertical	240	1.86	-	33.74	6.56	34.89
AV	4.92562G	33.31	54.00	-20.69	27.89	3	Vertical	240	1.86	-	33.75	6.56	34.89
PK	7.38174G	54.05	74.00	-19.95	43.53	3	Vertical	252	2.08	-	37.00	8.70	35.18
AV	7.38768G	40.81	54.00	-13.19	30.29	3	Vertical	252	2.08	-	37.00	8.70	35.18

802.11g_Nss1,(6Mbps)_2TX

2462MHz_TX

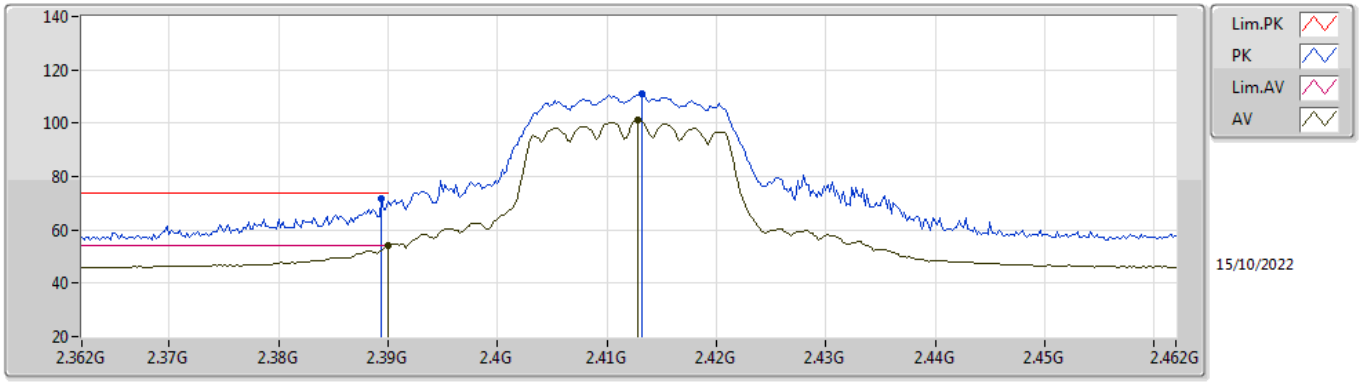


EUT Z_2TX
Setting 64
03-D-G-2

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.92622G	46.43	74.00	-27.57	41.01	3	Horizontal	93	1.23	-	33.75	6.56	34.89
AV	4.92952G	33.32	54.00	-20.68	27.89	3	Horizontal	93	1.23	-	33.76	6.56	34.89
PK	7.39326G	57.95	74.00	-16.05	47.43	3	Horizontal	287	2.12	-	37.00	8.70	35.18
AV	7.3875G	42.82	54.00	-11.18	32.30	3	Horizontal	287	2.12	-	37.00	8.70	35.18

802.11ax HEW20_Nss1,(MCS0)_2TX

2412MHz_TX

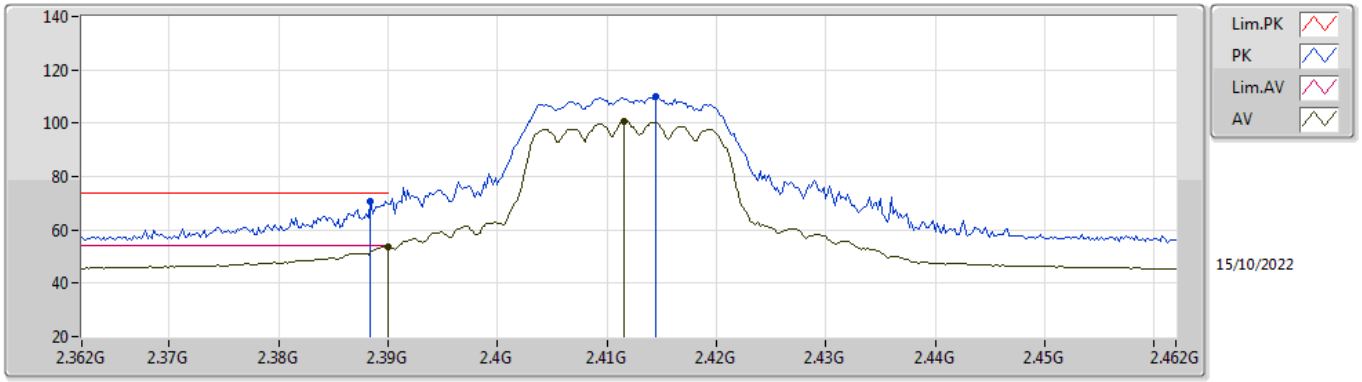


EUT X_2TX
Setting 62
03-D-G-2

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.3894G	71.76	74.00	-2.24	39.51	3	Vertical	78	1.10	-	28.26	3.99	-
AV	2.39G	53.90	54.00	-0.10	21.65	3	Vertical	78	1.10	-	28.26	3.99	-
PK	2.4132G	110.87	Inf	-Inf	78.56	3	Vertical	78	1.10	-	28.30	4.01	-
AV	2.4128G	101.14	Inf	-Inf	68.83	3	Vertical	78	1.10	-	28.30	4.01	-

802.11ax HEW20_Nss1,(MCS0)_2TX

2412MHz_TX

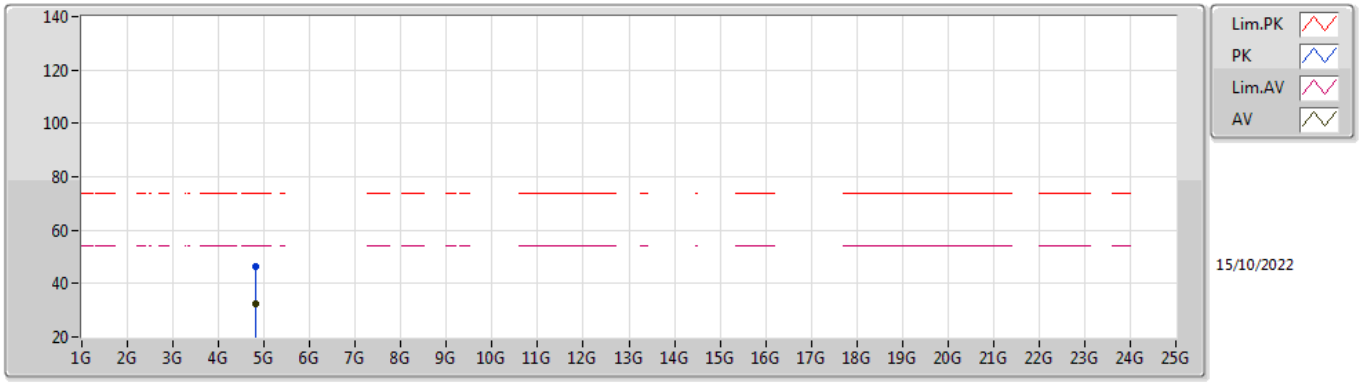


EUT X_2TX
Setting 62
03-D-G-2

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.3884G	70.77	74.00	-3.23	38.53	3	Horizontal	171	2.88	-	28.25	3.99	-
AV	2.39G	53.69	54.00	-0.31	21.44	3	Horizontal	171	2.88	-	28.26	3.99	-
PK	2.4144G	109.90	Inf	-Inf	77.59	3	Horizontal	171	2.88	-	28.30	4.01	-
AV	2.4116G	100.91	Inf	-Inf	68.60	3	Horizontal	171	2.88	-	28.30	4.01	-

802.11ax HEW20_Nss1,(MCS0)_2TX

2412MHz_TX

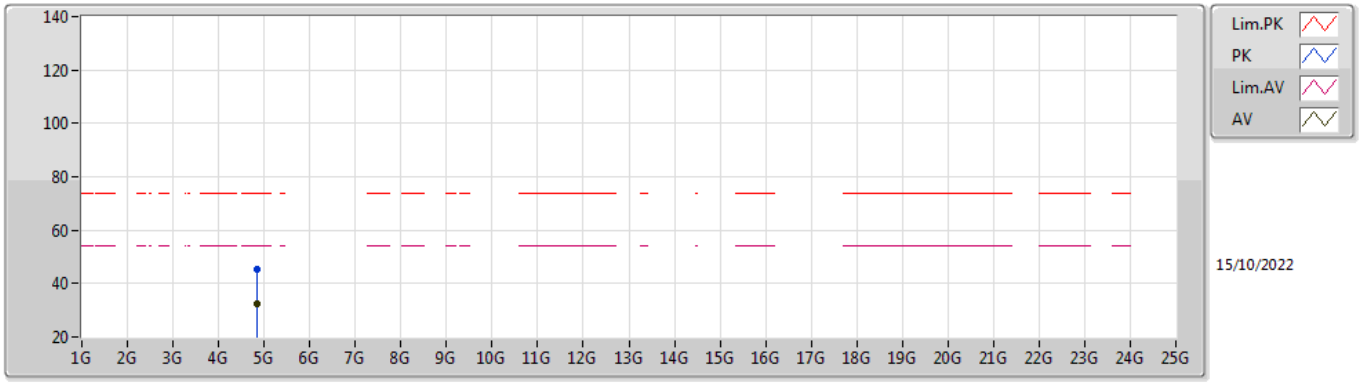


EUT Z_2TX
Setting 62
03-D-G-2

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.82846G	46.21	74.00	-27.79	41.23	3	Vertical	62	1.65	-	33.37	6.51	34.90
AV	4.82344G	32.58	54.00	-21.42	27.63	3	Vertical	62	1.65	-	33.34	6.51	34.90

802.11ax HEW20_Nss1,(MCS0)_2TX

2412MHz_TX

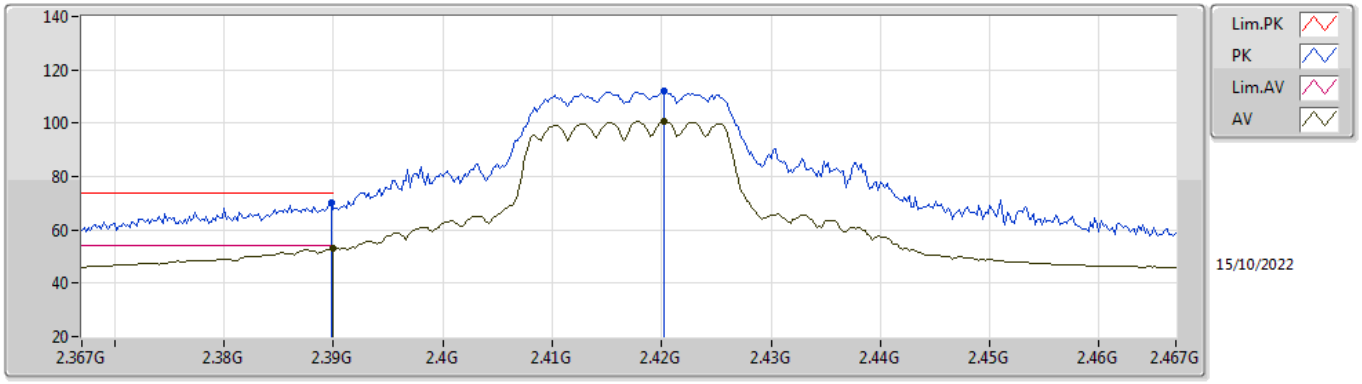


EUT Z_2TX
Setting 62
03-D-G-2

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.82866G	45.47	74.00	-28.53	40.49	3	Horizontal	40	1.72	-	33.37	6.51	34.90
AV	4.82862G	32.64	54.00	-21.36	27.66	3	Horizontal	40	1.72	-	33.37	6.51	34.90

802.11ax HEW20_Nss1,(MCS0)_2TX

2417MHz_TX

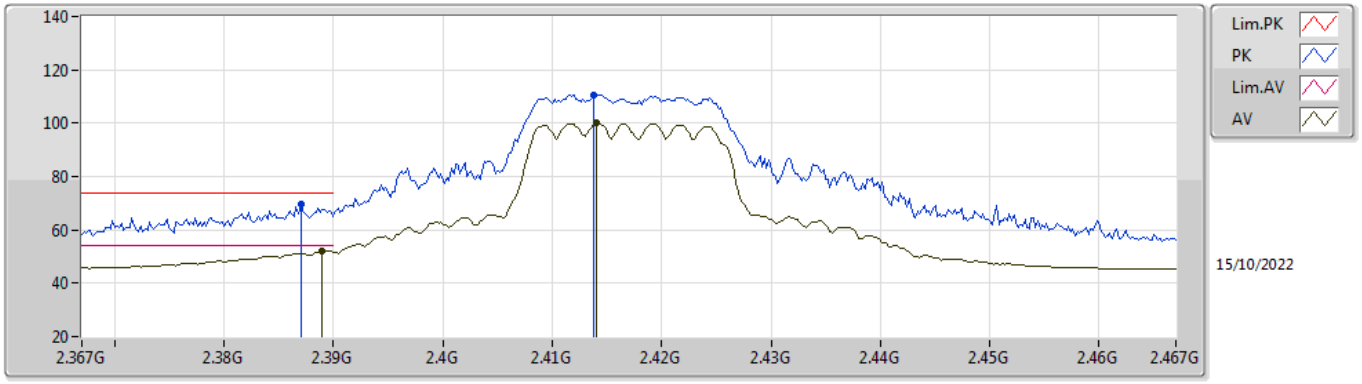


EUT X_2TX
Setting 69
03-D-G-2

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.3898G	70.31	74.00	-3.69	38.06	3	Vertical	80	1.00	-	28.26	3.99	-
AV	2.39G	53.00	54.00	-1.00	20.75	3	Vertical	80	1.00	-	28.26	3.99	-
PK	2.4202G	111.90	Inf	-Inf	79.58	3	Vertical	80	1.00	-	28.30	4.02	-
AV	2.4202G	100.60	Inf	-Inf	68.28	3	Vertical	80	1.00	-	28.30	4.02	-

802.11ax HEW20_Nss1,(MCS0)_2TX

2417MHz_TX

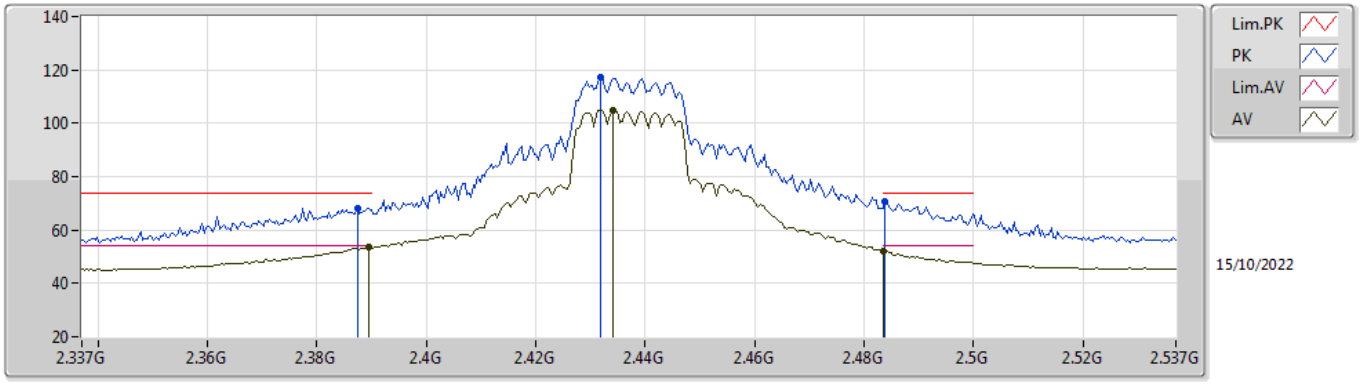


EUT X_2TX
Setting 69
03-D-G-2

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA	
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)	
PK	2.387G	69.47	74.00	-4.53	37.23	3	Horizontal	172	2.88	-	28.25	3.99	-	
AV	2.389G	52.18	54.00	-1.82	19.93	3	Horizontal	172	2.88	-	28.26	3.99	-	
PK	2.4138G	110.54	Inf	-Inf	78.23	3	Horizontal	172	2.88	-	28.30	4.01	-	
AV	2.414G	99.96	Inf	-Inf	67.65	3	Horizontal	172	2.88	-	28.30	4.01	-	

802.11ax HEW20_Nss1,(MCS0)_2TX

2437MHz_TX

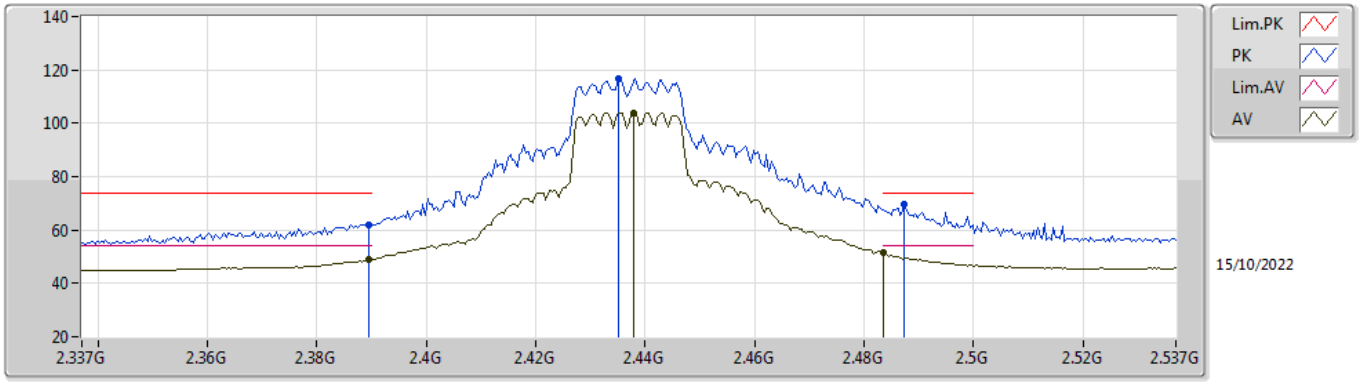


EUT X_2TX
Setting 75
03-D-G-2

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.3874G	68.30	74.00	-5.70	36.06	3	Vertical	78	1.60	-	28.25	3.99	-
AV	2.3894G	53.50	54.00	-0.50	21.25	3	Vertical	78	1.60	-	28.26	3.99	-
PK	2.4318G	117.41	Inf	-Inf	85.08	3	Vertical	78	1.60	-	28.30	4.03	-
AV	2.4342G	104.95	Inf	-Inf	72.62	3	Vertical	78	1.60	-	28.30	4.03	-
PK	2.4838G	70.82	74.00	-3.18	38.30	3	Vertical	78	1.60	-	28.44	4.08	-
AV	2.4835G	52.22	54.00	-1.78	19.71	3	Vertical	78	1.60	-	28.43	4.08	-

802.11ax HEW20_Nss1,(MCS0)_2TX

2437MHz_TX

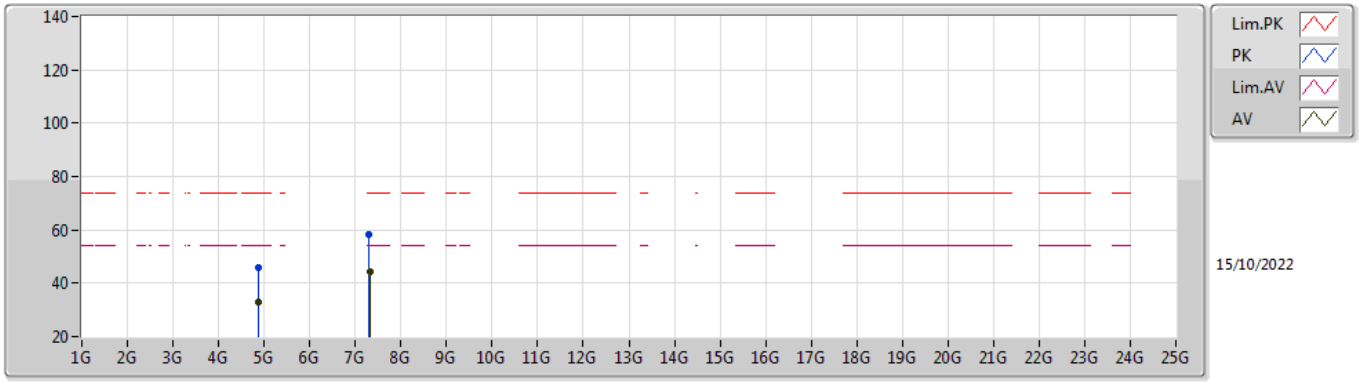


EUT X_2TX
Setting 75
03-D-G-2

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.3894G	62.12	74.00	-11.88	29.87	3	Horizontal	16	2.83	-	28.26	3.99	-
AV	2.3894G	49.19	54.00	-4.81	16.94	3	Horizontal	16	2.83	-	28.26	3.99	-
PK	2.435G	116.57	Inf	-Inf	84.23	3	Horizontal	16	2.83	-	28.30	4.04	-
AV	2.4378G	104.00	Inf	-Inf	71.66	3	Horizontal	16	2.83	-	28.30	4.04	-
PK	2.4874G	69.41	74.00	-4.59	36.87	3	Horizontal	16	2.83	-	28.45	4.09	-
AV	2.4835G	51.56	54.00	-2.44	19.05	3	Horizontal	16	2.83	-	28.43	4.08	-

802.11ax HEW20_Nss1,(MCS0)_2TX

2437MHz_TX

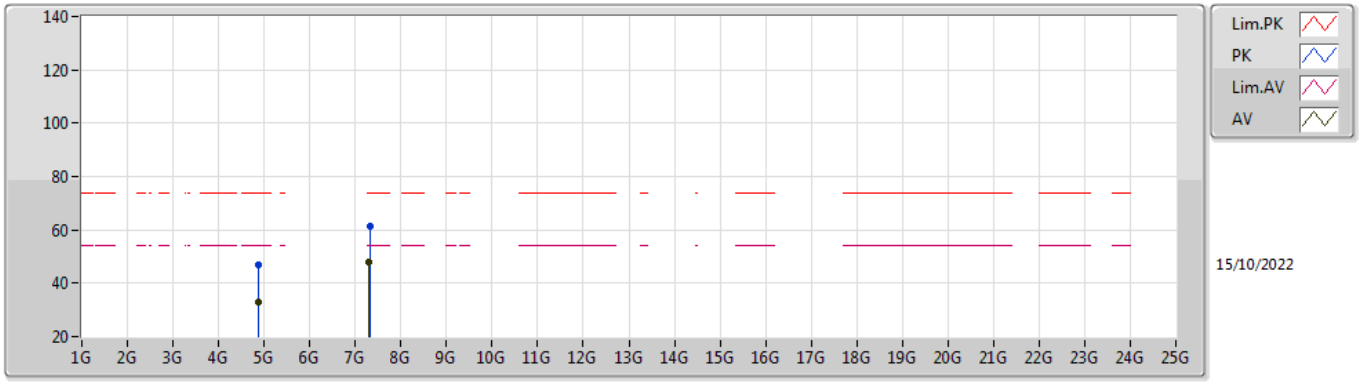


EUT Z_2TX
Setting 75
03-D-G-2

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.8741G	45.83	74.00	-28.17	40.59	3	Vertical	237	1.63	-	33.60	6.54	34.90
AV	4.8763G	32.89	54.00	-21.11	27.63	3	Vertical	237	1.63	-	33.61	6.54	34.89
PK	7.30902G	58.15	74.00	-15.85	47.67	3	Vertical	183	2.08	-	36.92	8.70	35.14
AV	7.31148G	44.20	54.00	-9.80	33.72	3	Vertical	183	2.08	-	36.92	8.70	35.14

802.11ax HEW20_Nss1,(MCS0)_2TX

2437MHz_TX

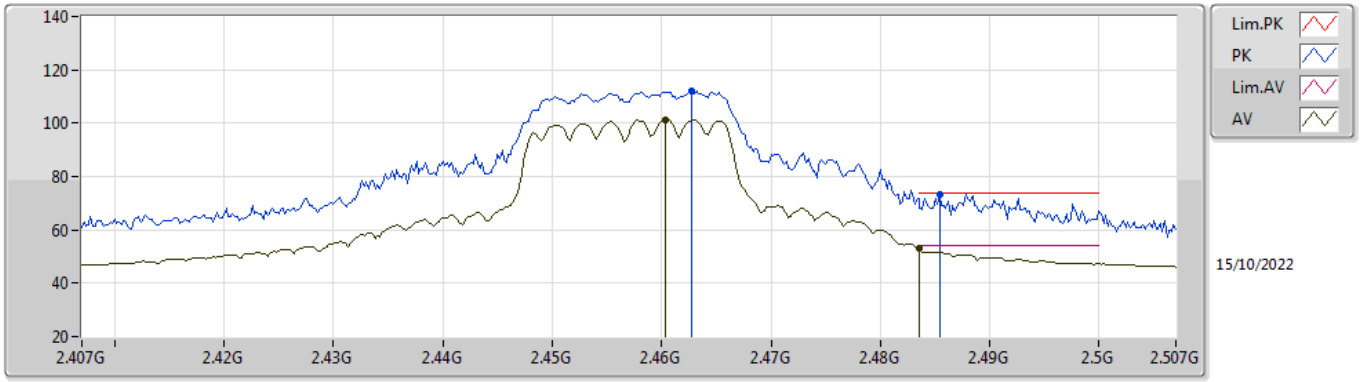


EUT Z_2TX
Setting 75
03-D-G-2

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.86918G	46.93	74.00	-27.07	41.72	3	Horizontal	39	2.78	-	33.58	6.53	34.90
AV	4.87438G	32.97	54.00	-21.03	27.73	3	Horizontal	39	2.78	-	33.60	6.54	34.90
PK	7.31442G	61.45	74.00	-12.55	50.96	3	Horizontal	272	2.92	-	36.93	8.70	35.14
AV	7.3096G	47.83	54.00	-6.17	37.35	3	Horizontal	272	2.92	-	36.92	8.70	35.14

802.11ax HEW20_Nss1,(MCS0)_2TX

2457MHz_TX

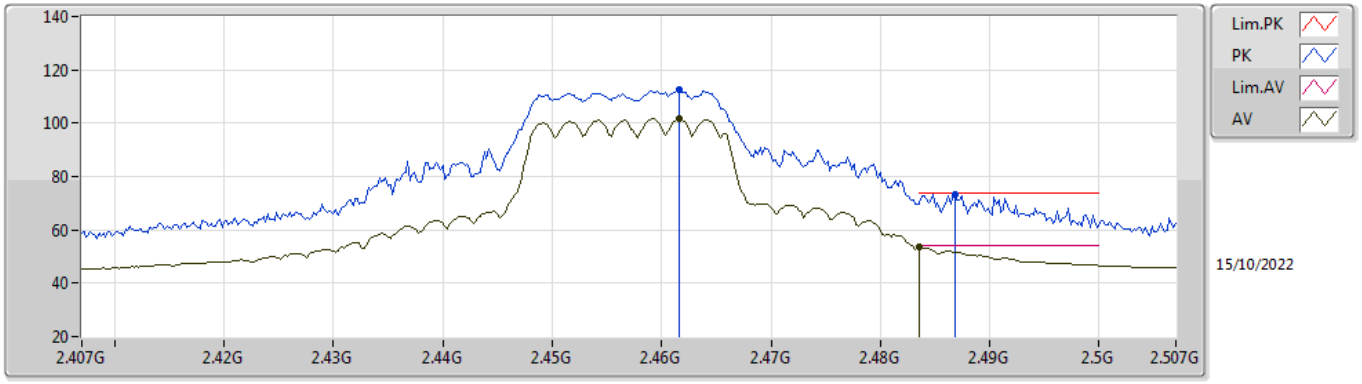


EUT X_2TX
Setting 72
03-D-G-2

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.4628G	111.98	Inf	-Inf	79.57	3	Vertical	77	1.42	-	28.35	4.06	-
AV	2.4604G	101.28	Inf	-Inf	68.88	3	Vertical	77	1.42	-	28.34	4.06	-
PK	2.4854G	73.51	74.00	-0.49	40.98	3	Vertical	77	1.42	-	28.44	4.09	-
AV	2.4835G	53.02	54.00	-0.98	20.51	3	Vertical	77	1.42	-	28.43	4.08	-

802.11ax HEW20_Nss1,(MCS0)_2TX

2457MHz_TX

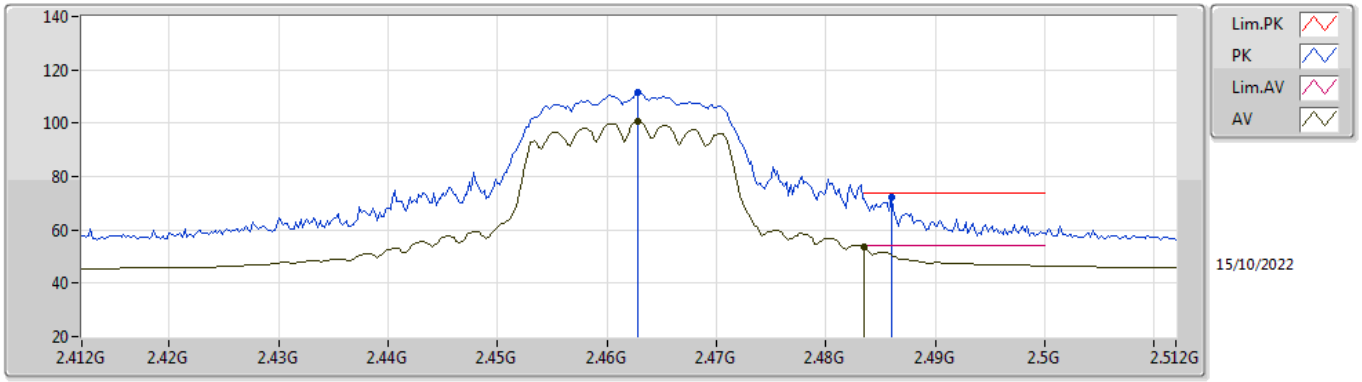


EUT X_2TX
Setting 72
03-D-G-2

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA	
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)	
PK	2.4616G	112.34	Inf	-Inf	79.93	3	Horizontal	15	2.78	-	28.35	4.06	-	
AV	2.4616G	101.61	Inf	-Inf	69.20	3	Horizontal	15	2.78	-	28.35	4.06	-	
PK	2.4868G	73.39	74.00	-0.61	40.85	3	Horizontal	15	2.78	-	28.45	4.09	-	
AV	2.4836G	53.37	54.00	-0.63	20.86	3	Horizontal	15	2.78	-	28.43	4.08	-	

802.11ax HEW20_Nss1,(MCS0)_2TX

2462MHz_TX

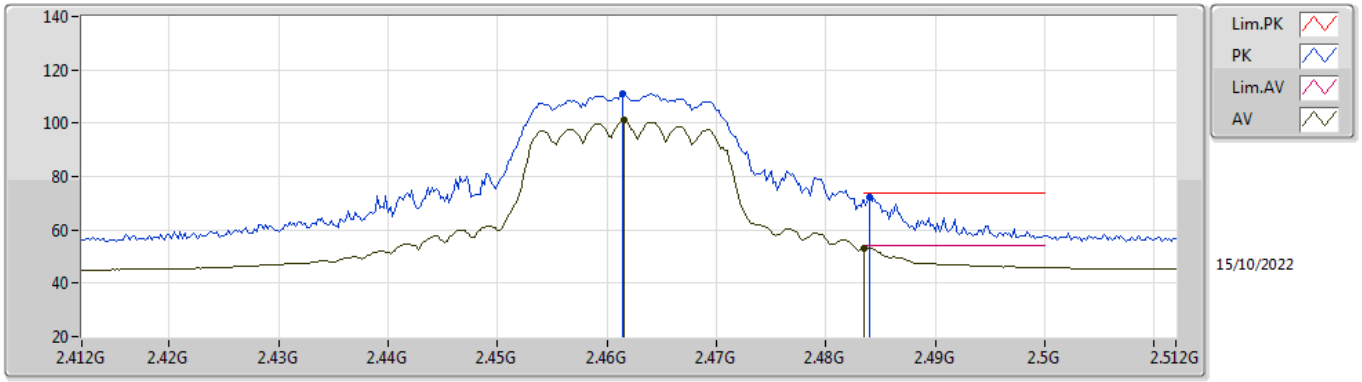


EUT X_2TX
Setting 64
03-D-G-2

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.4628G	111.39	Inf	-Inf	78.98	3	Vertical	83	1.41	-	28.35	4.06	-
AV	2.4628G	100.69	Inf	-Inf	68.28	3	Vertical	83	1.41	-	28.35	4.06	-
PK	2.486G	72.01	74.00	-1.99	39.48	3	Vertical	83	1.41	-	28.44	4.09	-
AV	2.4835G	53.63	54.00	-0.37	21.12	3	Vertical	83	1.41	-	28.43	4.08	-

802.11ax HEW20_Nss1,(MCS0)_2TX

2462MHz_TX

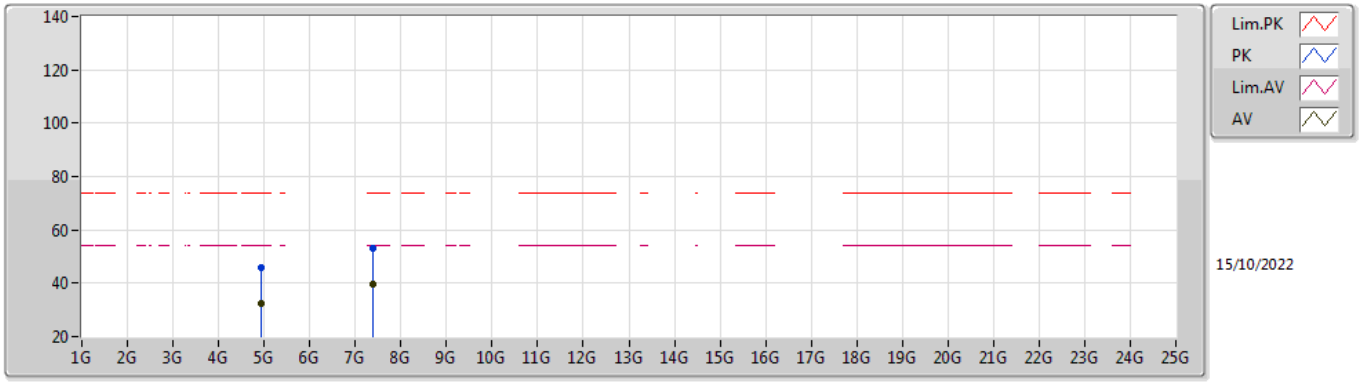


EUT X_2TX
Setting 64
03-D-G-2

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.4614G	111.11	Inf	-Inf	78.70	3	Horizontal	16	2.79	-	28.35	4.06	-
AV	2.4616G	101.19	Inf	-Inf	68.78	3	Horizontal	16	2.79	-	28.35	4.06	-
PK	2.484G	72.39	74.00	-1.61	39.87	3	Horizontal	16	2.79	-	28.44	4.08	-
AV	2.4835G	52.99	54.00	-1.01	20.48	3	Horizontal	16	2.79	-	28.43	4.08	-

802.11ax HEW20_Nss1,(MCS0)_2TX

2462MHz_TX

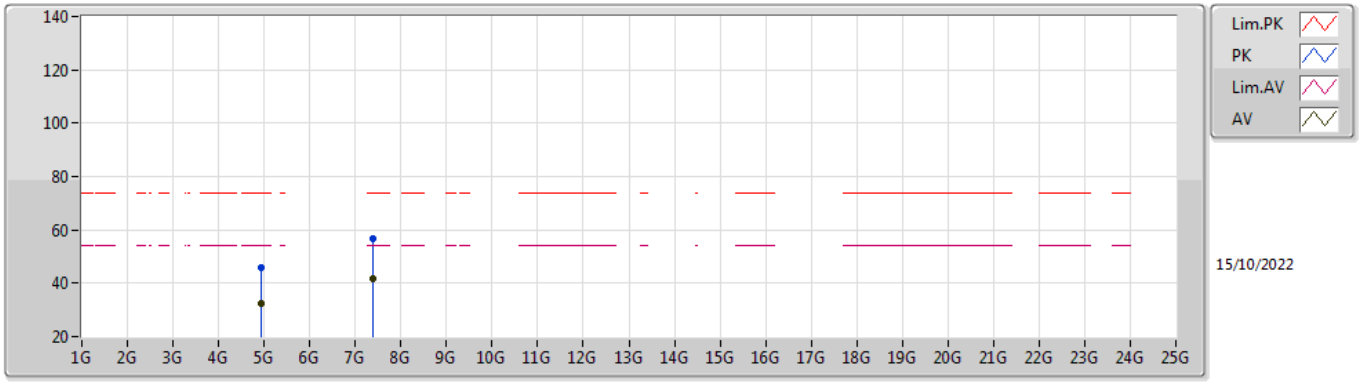


EUT Z_2TX
Setting 64
03-D-G-2

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.92842G	45.77	74.00	-28.23	40.34	3	Vertical	344	2.09	-	33.76	6.56	34.89
AV	4.92766G	32.42	54.00	-21.58	26.99	3	Vertical	344	2.09	-	33.76	6.56	34.89
PK	7.38678G	53.33	74.00	-20.67	42.81	3	Vertical	159	2.17	-	37.00	8.70	35.18
AV	7.3841G	39.63	54.00	-14.37	29.11	3	Vertical	159	2.17	-	37.00	8.70	35.18

802.11ax HEW20_Nss1,(MCS0)_2TX

2462MHz_TX



EUT Z_2TX
Setting 64
03-D-G-2

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.9285G	45.71	74.00	-28.29	40.28	3	Horizontal	295	2.32	-	33.76	6.56	34.89
AV	4.9271G	32.42	54.00	-21.58	27.00	3	Horizontal	295	2.32	-	33.75	6.56	34.89
PK	7.38224G	56.71	74.00	-17.29	46.19	3	Horizontal	263	2.01	-	37.00	8.70	35.18
AV	7.38446G	41.67	54.00	-12.33	31.15	3	Horizontal	263	2.01	-	37.00	8.70	35.18