



RADIO TEST REPORT

FCC ID : 2ABLKU10XE
Equipment : GigaSpire BLAST u10xe
Brand Name : Calix
Model Name : u10xe GS4237
Applicant : Calix Inc.
1035 N. McDowell Blvd. Petaluma, CA94954 U.S.A
Manufacturer : NEWEB VIET NAM CO., LTD.
Land Lot CN01, Dong Van III Industrial zone,
Dong Van Ward, Duy Tien Town, Ha Nam Province,
VietNam
Standard : 47 CFR FCC Part 15.247

The product was received on Nov. 15, 2022, and testing was started from Nov. 16, 2022 and completed on Apr. 20, 2023. We, Sporton International Inc. Hsinchu Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

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

Approved by: Rex Liao

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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TEL : 886-3-656-9065
FAX : 886-3-656-9085
Report Template No.: CB-A10_10 Ver1.3



Summary of Test Result

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

Conformity Assessment Condition:

1. The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacturee who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.
2. The measurement uncertainty please refer to each test result in the chapter "Measurement Uncertainty".

Disclaimer:

1. The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.
2. The test configuration, test mode and test software were written in this test report are declared by the manufacturer.

Reviewed by: Sam Chen

Report Producer: Sophia Shiung



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	802.11ac VHT20	20	2TX
2.4-2.4835GHz	802.11ac 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	802.11ac VHT40	40	2TX
2.4-2.4835GHz	802.11ac 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	WLAN 6GHz					
1	1	3	-	WNC	81XKAC15.GFB	Dipole	I-PEX	Note 1
2	2	4	-	WNC	81XKAC15.GFC	Dipole	I-PEX	
3	-	1	-	WNC	81XKAC15.GGA	Dipole	I-PEX	
4	-	2	-	WNC	81XKAC15.GGA	Dipole	I-PEX	
5	-	-	1	WNC	81XKAC15.GFD	Dipole	I-PEX	
6	-	-	2	WNC	81XKAC15.GFE	Dipole	I-PEX	
7	-	-	3	WNC	81XKAC15.GFF	Dipole	I-PEX	
8	-	-	4	WNC	81XKAC15.GFG	Dipole	I-PEX	

Note 1:

Ant.	Antenna Gain (dBi)				
	WLAN 2.4GHz	WLAN 5GHz UNII 1	WLAN 5GHz UNII 2A	WLAN 5GHz UNII 2C	WLAN 5GHz UNII 3
1	2.88	0.9	1.02	3.27	1.99
2	3.07	0.72	0.74	2.25	1.46
3	-	1.13	2	2.99	3.26
4	-	0.82	1.2	1.82	2.95

Ant.	Antenna Gain (dBi)			
	WLAN 6GHz UNII 5	WLAN 6GHz UNII 6	WLAN 6GHz UNII 7	WLAN 6GHz UNII 8
5	3.00	3.70	3.11	3.23
6	3.68	3.56	3.60	3.60
7	4.75	4.70	4.90	4.93
8	4.84	4.55	4.21	3.93

Item	Directional gain (dBi)				
	WLAN 2.4GHz	WLAN 5GHz			
	2.45GHz	5.2GHz	5.3GHz	5.6GHz	5.785GHz
2T1S	4.76	-	-	-	-
2T2S	3.07	-	-	-	-
4T1S	-	3.32	4.34	6.76	7.06
4T2S	-	1.13	2	3.76	4.06
4T4S	-	1.13	2	3.27	3.26

Note 2: The above information (except antenna 1~4 gain and directional gain) was declared by manufacturer.

Note 3: For 2.4GHz / 5GHz, the antenna gain and directional gain are measured which follow the procedure of KDB 662911 D03.

**Note 4: 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 (4TX/4RX):**

Port 1~4 can be used as transmitting/receiving antenna.

Port 1~4 could transmit/receive simultaneously.

For 6GHz function:**For IEEE 802.11ax (4TX/4RX):**

Port 1~4 can be used as transmitting/receiving antenna.

Port 1~4 could transmit/receive simultaneously.

1.1.3 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11b	0.762	1.18	8.625m	300
802.11g	0.941	0.26	1.976m	1k
802.11ax HEW20	0.798	0.98	5.446m	300
802.11ax HEW40	0.797	0.99	5.445m	300

Note:

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

1.1.4 EUT Operational Condition

EUT Power Type	From power adapter and UPS			
Beamforming Function	☒	With beamforming	☐	Without beamforming
	The product has beamforming function for n/VHT/ax in 2.4GHz, n/ac/ax in 5GHz and ax in 6GHz.			
Function	☒	Point-to-multipoint	☐	Point-to-point
Support RU	☒	Full RU	☐	Partial RU
Test Software Version	QSPR V5.0-00199			

Note: The above information was declared by manufacturer.

1.1.5 Table for EUT supports functions

Function
AP
Repeater

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 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	23.4~24.5 / 62~69	Nov. 24, 2022~ Jan. 12, 2023
Radiated < 1GHz	03CH05-CB	Chris Lee	23.8~24.9 / 55~58	Dec. 05, 2022~ Dec. 14, 2022
Radiated > 1GHz	03CH01-CB	Gordon Hung	21.2~23 / 64~69	Nov. 16, 2022~ Jan. 19, 2023
	03CH04-CB		21.6~22.5 / 62~68	
Radiated (For Co-location)	03CH04-CB		22~23.4 / 66~67	Apr. 20, 2023
AC Conduction	CO01-CB	Joe Chu	23~24 / 56~57	Dec. 19, 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

1. Evaluated HEW20 / HEW40 mode only, due to similar modulation. The power setting of HT20 / HT40 / VHT20 / VHT40 modes are the same or lower than HEW20 / HEW40.
2. The EUT supports non-beamforming and beamforming modes, after evaluating, the non-beamforming mode has been evaluated to be the worst case, so it was selected to test. 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	Normal Link
1	EUT + Adapter (Powering) + UPS (Without powering)

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 After evaluating, EUT in Y axis was the worst case. So the measurement will follow this same test configuration.
1	EUT in Y axis + Adapter (Powering) + UPS (Powering)
Operating Mode > 1GHz	CTX After evaluating, EUT in Y axis was the worst case. So the measurement will follow this same test configuration.
1	EUT in Y axis



The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Radiated Emission Co-location
Test Condition	Radiated measurement
Operating Mode	Normal Link
1	WLAN 2.4GHz + WLAN 5GHz
Refer to Appendix G for Radiated Emission Co-location.	

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 + WLAN 6GHz
Refer to Sporton Test Report No.: FA2N1015 for Co-location RF Exposure Evaluation.	

Note: The UPS was for measurement only and would not be marketed. Its information is shown as below:

Equipment	Brand	Model
UPS	CyberPower	CSN75A12V3

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

Accessories			
Equipment Name	Brand Holder	Model Name	Rating
Adapter	Chenzhou Frecom	F65L1-120450SPAU	Input: 100-240V~50/60Hz, 1.8A Output: 12.0V, 4.5A, 54.0W



2.5 Support Equipment

For AC Conduction:

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	10G WAN PC	DELL	T3400	N/A
B	1G LAN NB	DELL	E6430	N/A
C	OLT	CALIX	NGPOIV2-4	N/A
D	Switch	ZXYEL	GS1210-12	N/A
E	OLT NB	DELL	E6430	N/A
F	Phone 1	SAMPO	HT-B 907WL	N/A
G	Phone 2	SAMPO	HT-B 907WL	N/A
H	2.4G NB	DELL	E6430	N/A
I	5G NB	DELL	E6430	N/A
J	6G Client	WNC	LRV2	N/A
K	Flash disk3.0	SanDisk	Msip-rem-tad-sdcz73	N/A
L	UPS	CyberPower	CSN75A12V3	N/A

For Radiated (below 1GHz):

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	10G WAN PC	HP	SGH8190LP1	N/A
B	NB (WiFi 2.4G)	DELL	E4300	N/A
C	NB (WiFi 5G)	DELL	E4300	N/A
D	RX Driver (WiFi 6E)	WNC	LRV2	N/A
E	OLT PC	HP	SGH8190LP1	N/A
F	UPS	CyberPower	CSN75A12V3	N/A
G	Phone	TENDEL	K-311	N/A
H	Phone	TENDEL	K-311	N/A
I	Converter	OPTCORE	10G Ethernet Media Converter	N/A
J	1G LAN NB	DELL	E4300	N/A
K	Flash disk3.0	Silicon Power	B06	N/A
L	OLT	Calix	NGPOIV2-4	N/A
M	Transceiver module	Calix	XGS-PON OLT N1 ITEMP	N/A

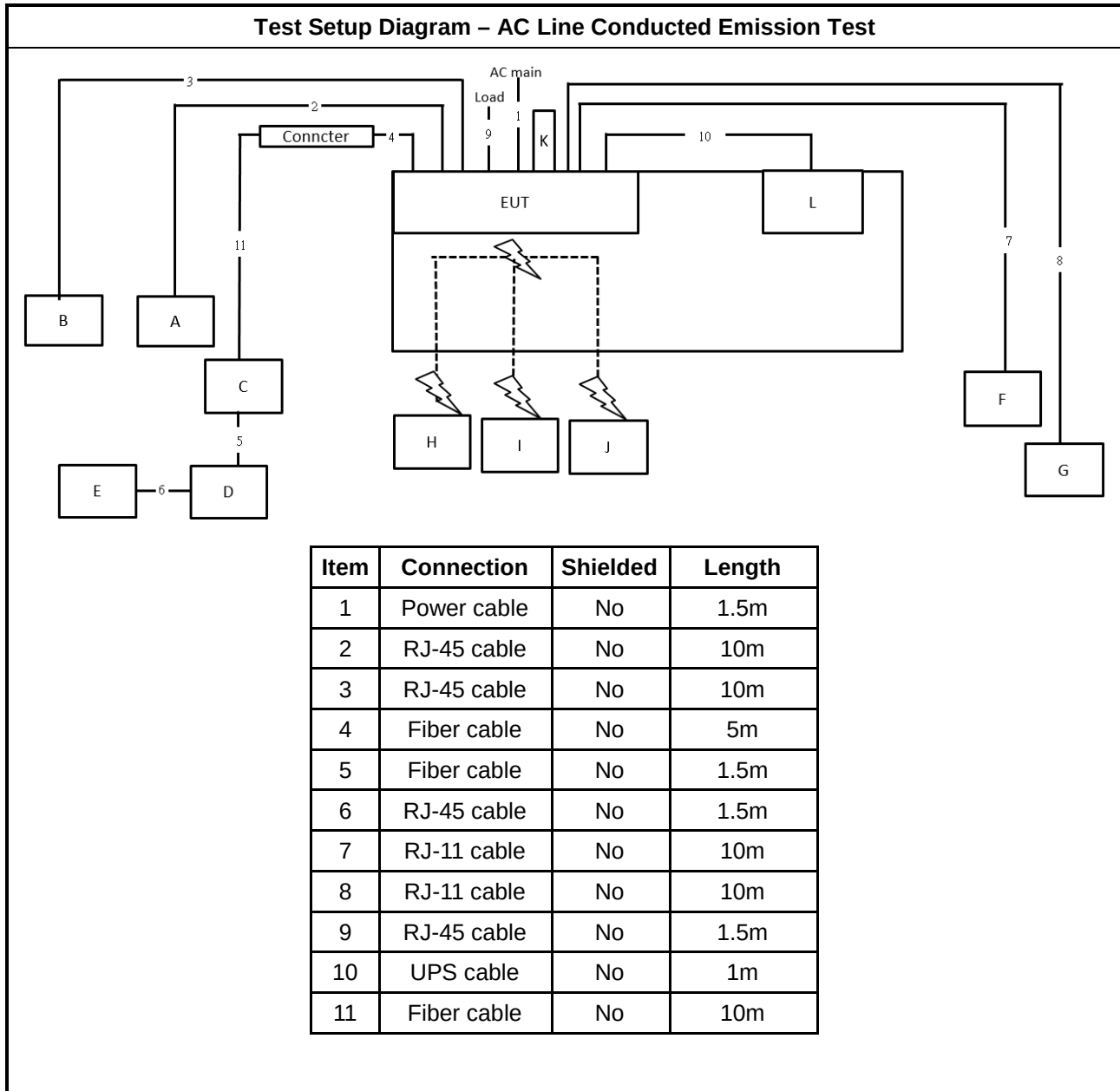
**For Radiated (above 1GHz):**

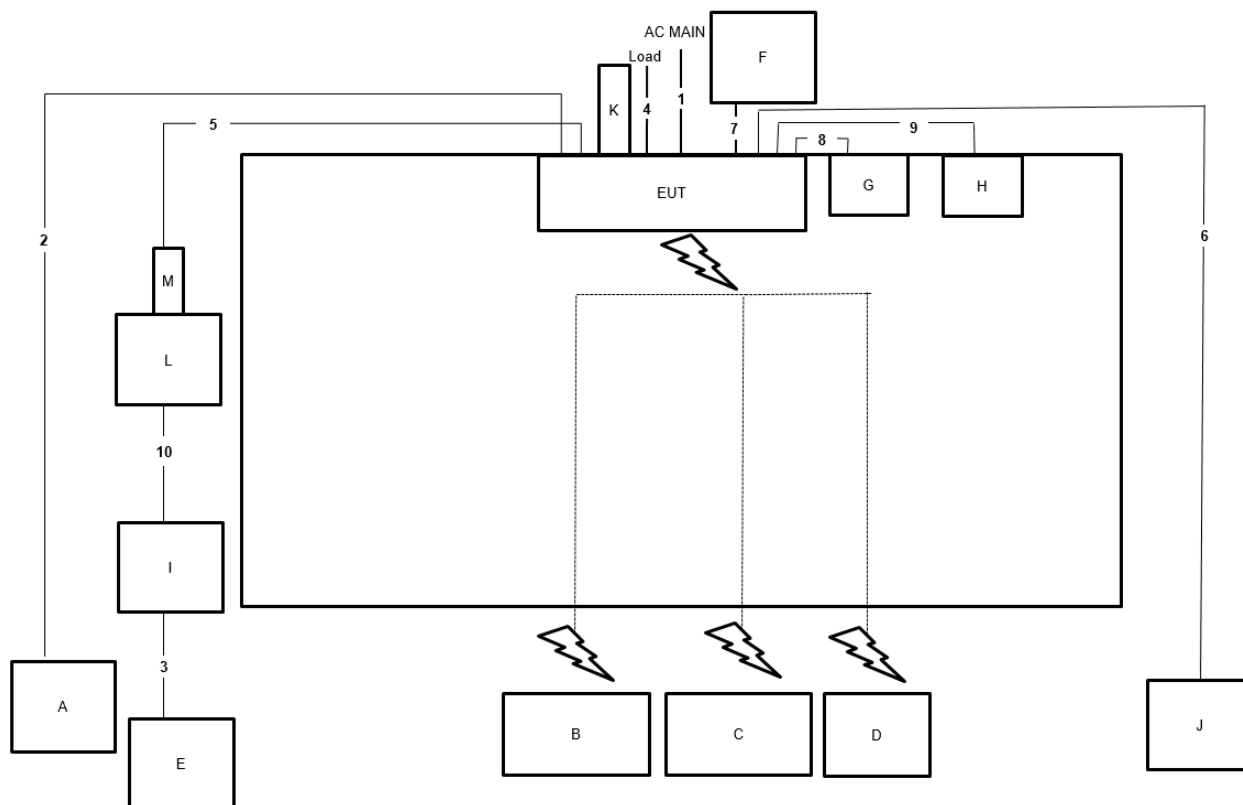
Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	NB	DELL	E4300	N/A

For RF Conducted:

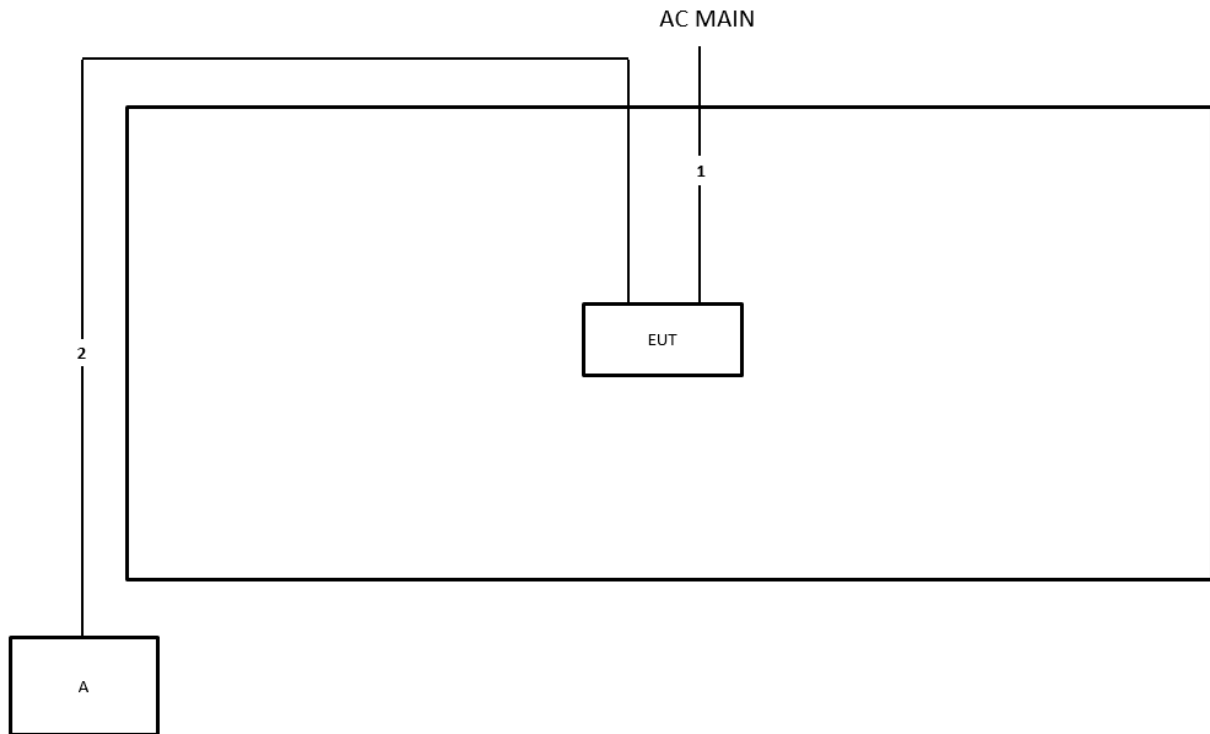
Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	NB	DELL	E4300	N/A

2.6 Test Setup Diagram



Test Setup Diagram - Radiated Test < 1GHz


Item	Connection	Shielded	Length
1	Power cable	No	1.5m
2	RJ-45 cable	No	10m
3	RJ-45 cable	No	1.5m
4	RJ-45 cable*3	No	1.5m
5	Fiber cable	No	10m
6	RJ-45 cable	No	10m
7	UPS cable	No	1m
8	RJ-11 cable	No	1m
9	RJ-11 cable	No	1m
10	Transceiver cable	Yes	1m

Test Setup Diagram - Radiated Test > 1GHz


Item	Connection	Shielded	Length
1	Power cable	No	1.5m
2	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.		

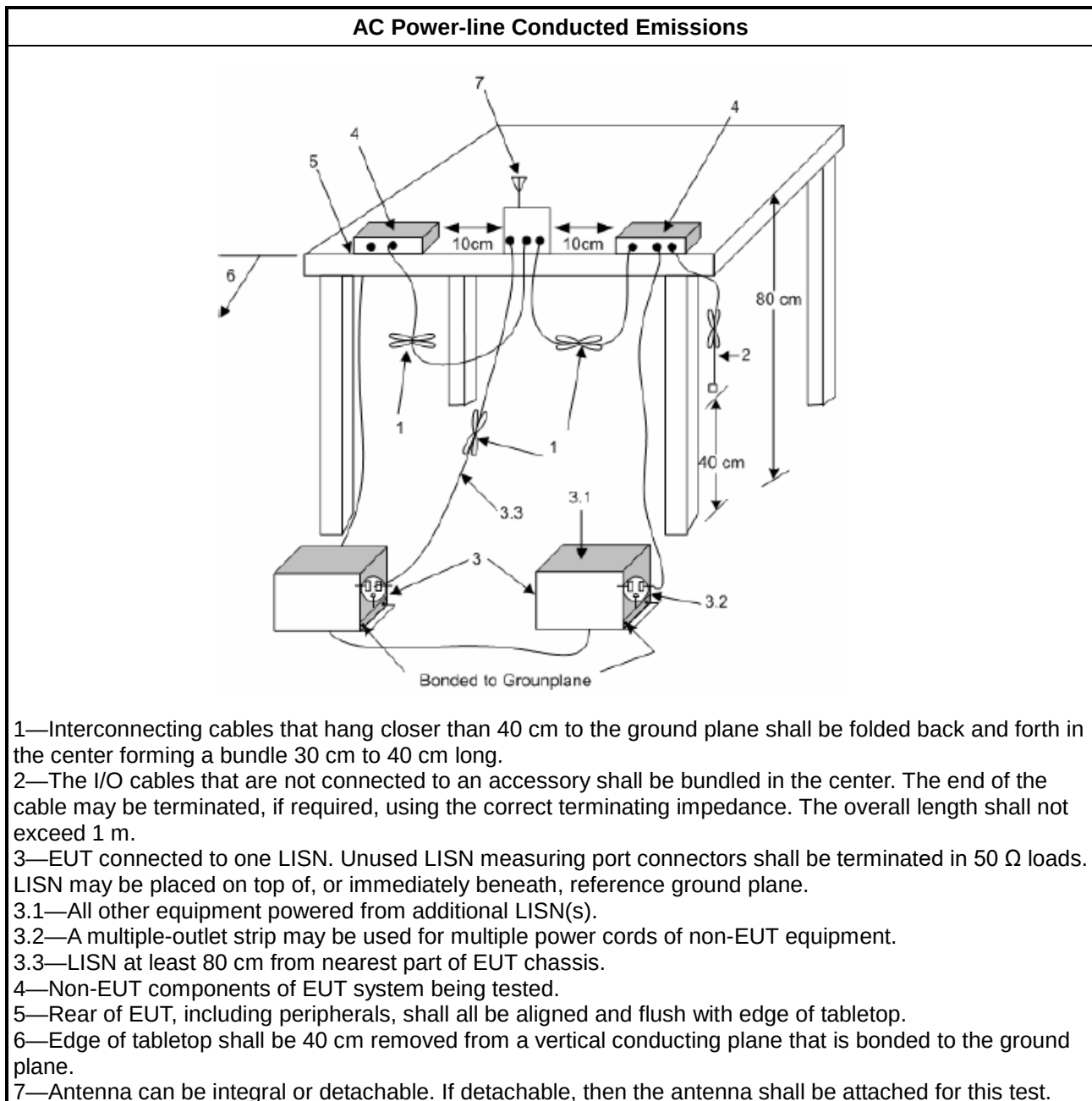
3.1.2 Measuring Instruments

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



3.1.5 Measurement Results Calculation

The measured Level is calculated using:

- Corrected Reading: LISN Factor (LISN) + Attenuator (AT/AUX) + Cable Loss (CL) + Read Level (Raw) = Level
- 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 $\geq$ 500 kHz.

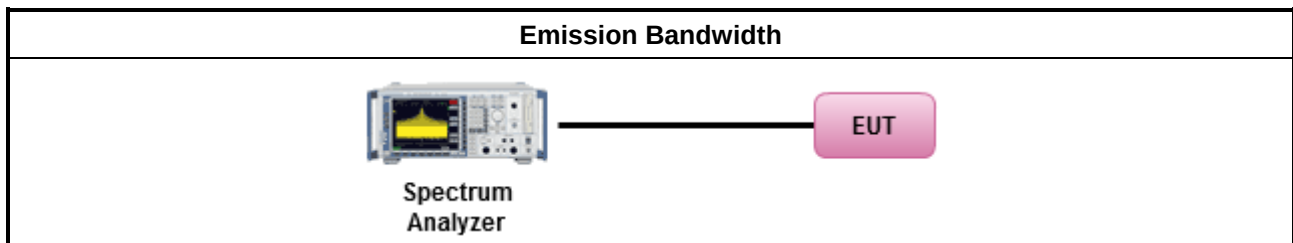
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

Test Method
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



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.	

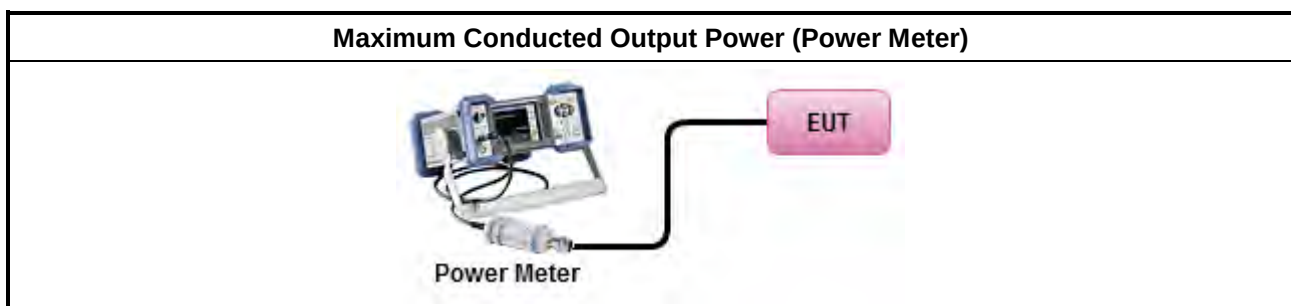
3.3.2 Measuring Instruments

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: $P_{total} = P_1 + P_2 + \dots + P_n$ (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
▪ Power Spectral Density (PSD) ≤ 8 dBm/3kHz

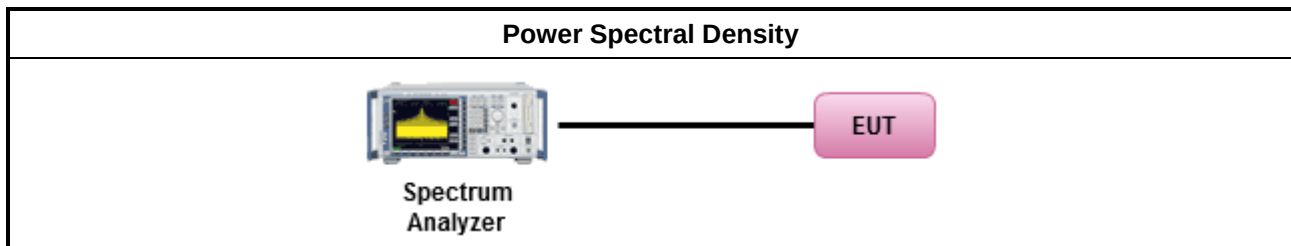
3.4.2 Measuring Instruments

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



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.	

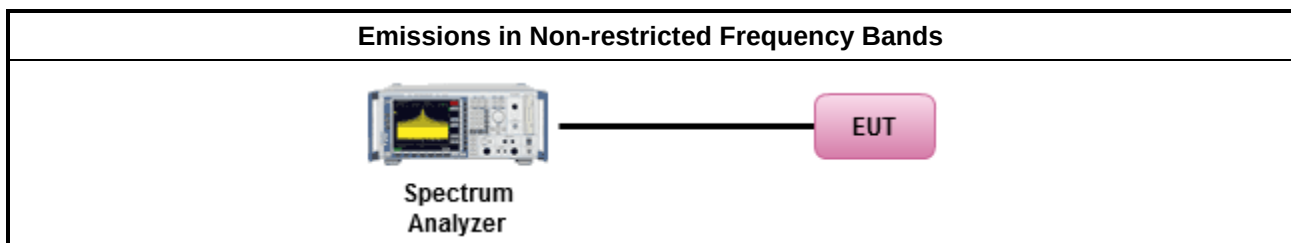
3.5.2 Measuring Instruments

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



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

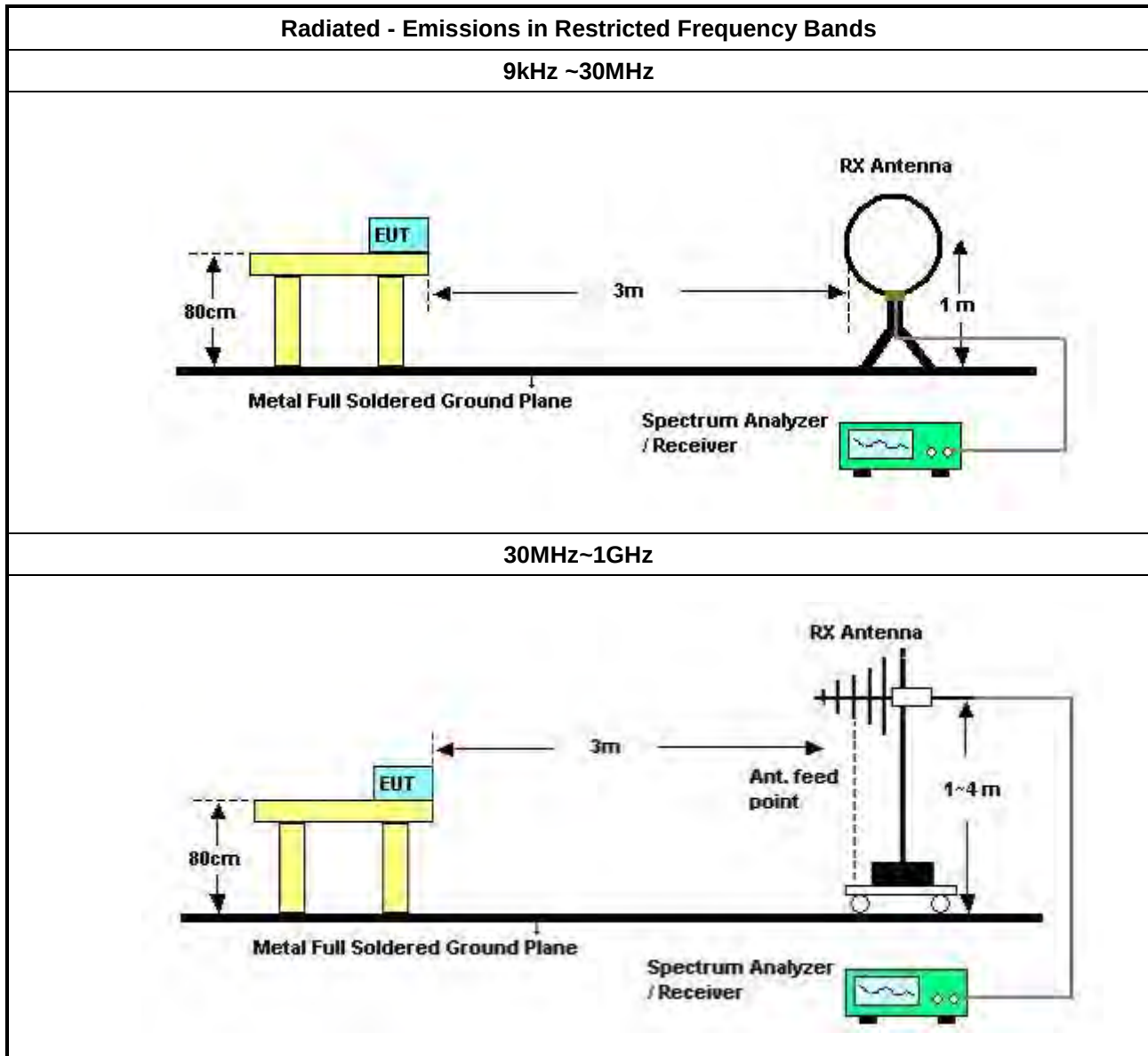
Refer a test equipment and calibration data table in this test report.

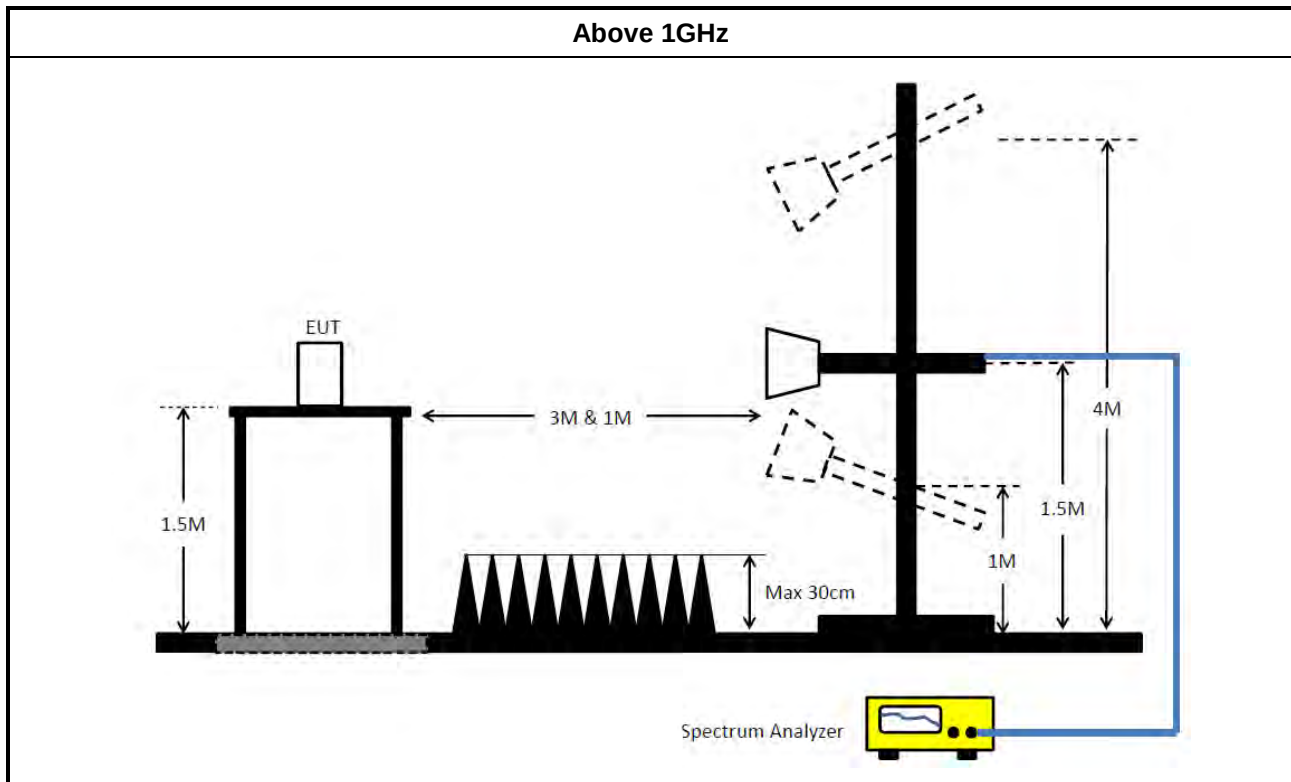


3.6.3 Test Procedures

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 $\geq 98\%$).
	☐ 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 $\geq 1/T$).
	☐ Refer as ANSI C63.10, clause 11.12.2.5.3 (Reduced VBW). VBW $\geq 1/T$, 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





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-50-16-2	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	Oct. 18, 2022	Oct. 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	30MHz ~ 1GHz	Aug. 03, 2022	Aug. 02, 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	03CH01-CB	1GHz ~18GHz 3m	May 06, 2022	May 05, 2023	Radiation (03CH01-CB)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1370	1GHz~18GHz	Jun. 23, 2022	Jun. 22, 2023	Radiation (03CH01-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Aug. 22, 2022	Aug. 21, 2023	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02121	1GHz ~ 26.5GHz	May 19, 2022	May 18, 2023	Radiation (03CH01-CB)
Pre-Amplifier	EM	EM18G40GA	060874	18GHz ~ 40GHz	Aug. 23 2022	Aug. 22 2023	Radiation (03CH01-CB)
Spectrum Analyzer	R&S	FSP40	100056	9kHz ~ 40GHz	May 06, 2022	May 05, 2023	Radiation (03CH01-CB)



Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
RF Cable-high	Woken	RG402	High Cable-16	1 GHz ~ 18 GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH01-CB)
RF Cable-high	Woken	RG402	High Cable-16+17	1 GHz ~ 18 GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH01-CB)
High Cable	Woken	WCA0929M	40G#5+7	1GHz ~ 40 GHz	Dec. 14, 2021	Dec. 13, 2022	Radiation (03CH01-CB)
High Cable	Woken	WCA0929M	40G#5+6	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH01-CB)
High Cable	Woken	WCA0929M	40G#5	1GHz ~ 40 GHz	Dec. 08, 2021	Dec. 07, 2022	Radiation (03CH01-CB)
High Cable	Woken	WCA0929M	40G#5	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH01-CB)
High Cable	Woken	WCA0929M	40G#7	1GHz ~ 40 GHz	Dec. 14, 2021	Dec. 13, 2022	Radiation (03CH01-CB)
High Cable	Woken	WCA0929M	40G#6	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH01-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH01-CB)
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH04-CB	1GHz ~18GHz 3m	Feb. 24, 2022	Feb. 23, 2023	Radiation (03CH04-CB)
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH04-CB	1GHz ~18GHz 3m	Feb. 23, 2023	Feb. 22, 2024	Radiation (03CH04-CB)
Horn Antenna	ETS-Lindgren	3115	00143147	750MHz~18GHz	Oct. 12, 2022	Oct. 11, 2023	Radiation (03CH04-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Aug. 22, 2022	Aug. 21, 2023	Radiation (03CH04-CB)
Pre-Amplifier	Agilent	83017A	MY53270063	0.5GHz ~ 26.5GHz	Jul. 01, 2022	Jun. 30, 2023	Radiation (03CH04-CB)
Pre-Amplifier	EM	EM18G40GA	060874	18GHz ~ 40GHz	Aug. 23 2022	Aug. 22 2023	Radiation (03CH04-CB)
Spectrum Analyzer	R&S	FSP40	100142	9kHz~40GHz	Mar. 28, 2022	Mar. 27, 2023	Radiation (03CH04-CB)
Spectrum Analyzer	R&S	FSP40	100142	9kHz~40GHz	Mar. 21, 2023	Mar. 20, 2024	Radiation (03CH04-CB)
RF Cable-high	Woken	RG402	High Cable-21	1GHz - 18GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH04-CB)
RF Cable-high	Woken	RG402	High Cable-21+67	1GHz - 18GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH04-CB)
High Cable	Woken	WCA0929M	40G#5+7	1GHz ~ 40 GHz	Dec. 14, 2021	Dec. 13, 2022	Radiation (03CH04-CB)
High Cable	Woken	WCA0929M	40G#5+6	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH04-CB)



Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
High Cable	Woken	WCA0929M	40G#5	1GHz ~ 40 GHz	Dec. 08, 2021	Dec. 07, 2022	Radiation (03CH04-CB)
High Cable	Woken	WCA0929M	40G#5	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH04-CB)
High Cable	Woken	WCA0929M	40G#7	1GHz ~ 40 GHz	Dec. 14, 2021	Dec. 13, 2022	Radiation (03CH04-CB)
High Cable	Woken	WCA0929M	40G#6	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH04-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH04-CB)
Spectrum analyzer	R&S	FSV40	101028	9kHz~40GHz	Jan. 07, 2022	Jan. 06, 2023	Conducted (TH03-CB)
Spectrum analyzer	R&S	FSV40	101028	9kHz~40GHz	Dec. 30, 2022	Dec. 29, 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.



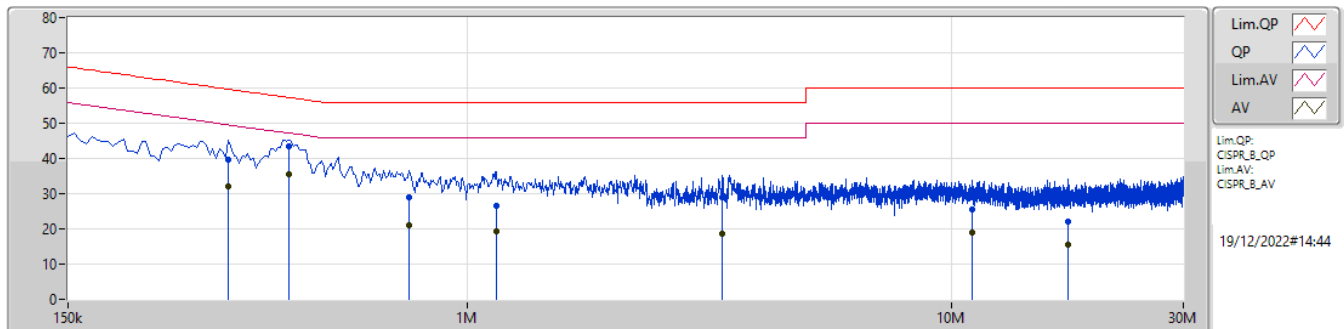
Conducted Emissions at Powerline

Appendix A

Summary

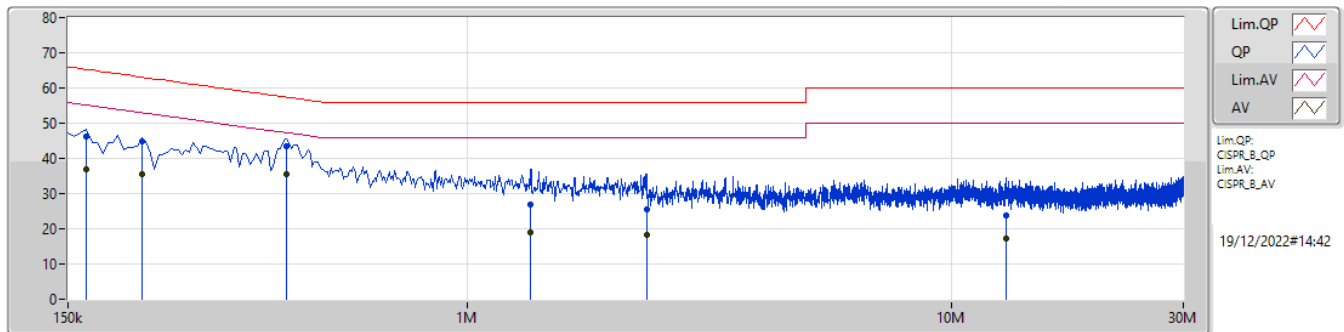
Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	AV	429k	35.67	47.28	-11.61	Line

Mode 1



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)						
QP	321k	39.71	59.67	-19.96	10.00	Line	-	29.71	0.06	0.05	9.89						
AV	321k	31.96	49.67	-17.71	10.00	Line	-	21.96	0.06	0.05	9.89						
QP	429k	43.43	57.28	-13.85	10.01	Line	-	33.42	0.06	0.06	9.89						
AV	429k	35.67	47.28	-11.61	10.01	Line	"Worst"	25.66	0.06	0.06	9.89						
QP	757.5k	28.80	56.00	-27.20	10.01	Line	-	18.79	0.07	0.05	9.89						
AV	757.5k	21.19	46.00	-24.81	10.01	Line	-	11.18	0.07	0.05	9.89						
QP	1.145M	26.48	56.00	-29.52	10.01	Line	-	16.47	0.07	0.05	9.89						
AV	1.145M	19.16	46.00	-26.84	10.01	Line	-	9.15	0.07	0.05	9.89						
QP	3.363M	28.91	56.00	-27.09	10.10	Line	-	18.81	0.11	0.10	9.89						
AV	3.363M	18.45	46.00	-27.55	10.10	Line	-	8.35	0.11	0.10	9.89						
QP	10.991M	25.47	60.00	-34.53	10.31	Line	-	15.16	0.23	0.16	9.92						
AV	10.991M	19.04	50.00	-30.96	10.31	Line	-	8.73	0.23	0.16	9.92						
QP	17.318M	22.15	60.00	-37.85	10.42	Line	-	11.73	0.28	0.19	9.95						
AV	17.318M	15.68	50.00	-34.32	10.42	Line	-	5.26	0.28	0.19	9.95						

Mode 1



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)						
QP	163.5k	46.16	65.27	-19.11	10.00	Neutral	-	36.16	0.07	0.04	9.89						
AV	163.5k	36.92	55.27	-18.35	10.00	Neutral	-	26.92	0.07	0.04	9.89						
QP	213k	44.98	63.09	-18.11	10.00	Neutral	-	34.98	0.07	0.04	9.89						
AV	213k	35.51	53.09	-17.58	10.00	Neutral	-	25.51	0.07	0.04	9.89						
QP	424.5k	43.29	57.36	-14.07	10.02	Neutral	-	33.27	0.07	0.06	9.89						
AV	424.5k	35.47	47.36	-11.89	10.02	Neutral	"Worst"	25.45	0.07	0.06	9.89						
QP	1.352M	26.90	56.00	-29.10	10.04	Neutral	-	16.86	0.09	0.06	9.89						
AV	1.352M	18.99	46.00	-27.01	10.04	Neutral	-	8.95	0.09	0.06	9.89						
QP	2.342M	25.65	56.00	-30.35	10.09	Neutral	-	15.56	0.11	0.09	9.89						
AV	2.342M	18.16	46.00	-27.84	10.09	Neutral	-	8.07	0.11	0.09	9.89						
QP	12.962M	23.92	60.00	-36.08	10.36	Neutral	-	13.56	0.26	0.17	9.93						
AV	12.962M	17.11	50.00	-32.89	10.36	Neutral	-	6.75	0.26	0.17	9.93						

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	9.05M	14.304M	14M3G1D	7.075M	12.957M
802.11g_Nss1,(6Mbps)_2TX	16.3M	17.076M	17M1D1D	16M	16.354M
802.11ax HEW20_Nss1,(MCS0)_2TX	18.925M	19.027M	19M0D1D	18.575M	18.905M
802.11ax HEW40_Nss1,(MCS0)_2TX	37.95M	37.76M	37M8D1D	37.6M	37.662M

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

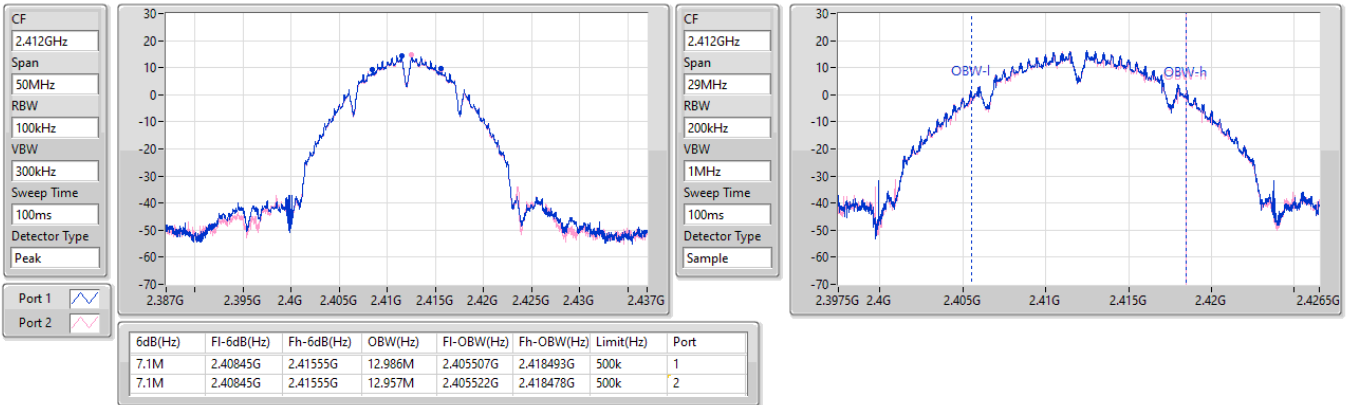
Result

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	7.1M	12.986M	7.1M	12.957M
2437MHz	Pass	500k	8.05M	14M	9.05M	14.304M
2462MHz	Pass	500k	7.075M	13.029M	7.125M	13.072M
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	16.3M	16.354M	16.3M	16.376M
2437MHz	Pass	500k	16.025M	17.076M	16M	17.013M
2462MHz	Pass	500k	16.3M	16.376M	16.3M	16.397M
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	18.775M	18.905M	18.675M	18.905M
2437MHz	Pass	500k	18.925M	19.027M	18.575M	19.027M
2462MHz	Pass	500k	18.9M	18.905M	18.925M	18.905M
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	500k	37.85M	37.711M	37.9M	37.711M
2437MHz	Pass	500k	37.85M	37.76M	37.95M	37.76M
2452MHz	Pass	500k	37.8M	37.76M	37.6M	37.662M

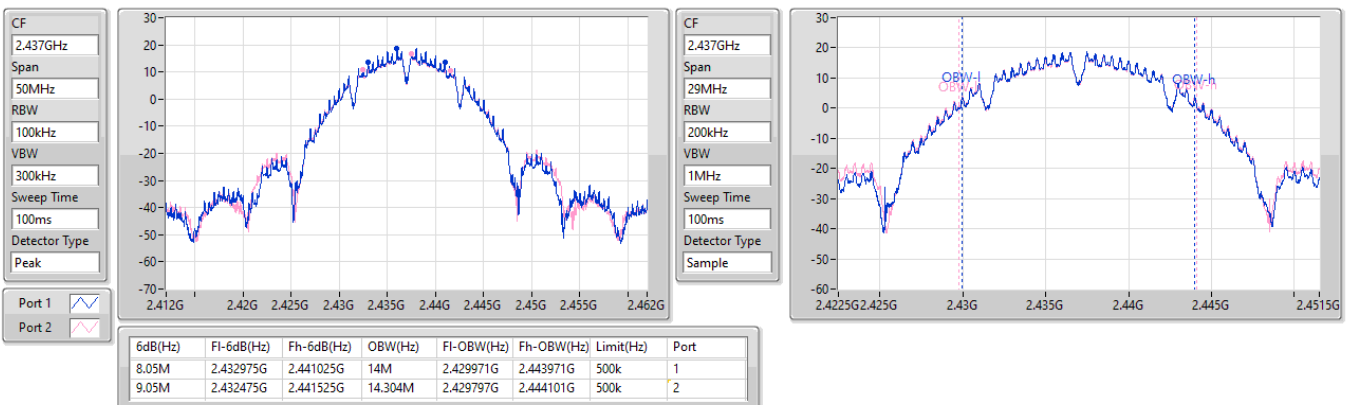
Port X-N dB = Port X 6dB down bandwidth;
Port X-OBW = Port X 99% occupied bandwidth

2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_2TX
EBW
2412MHz

10/12/2022

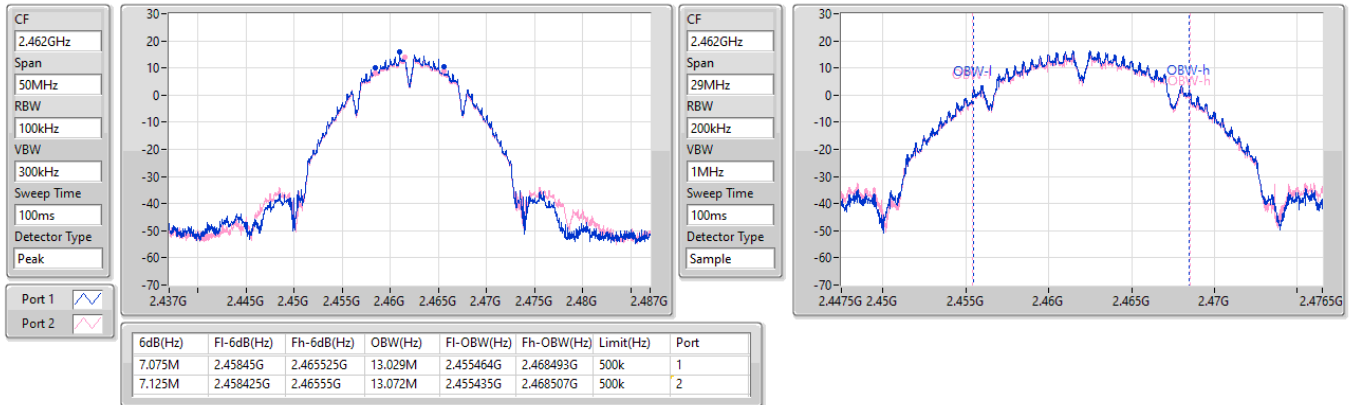

2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_2TX
EBW
2437MHz

10/12/2022

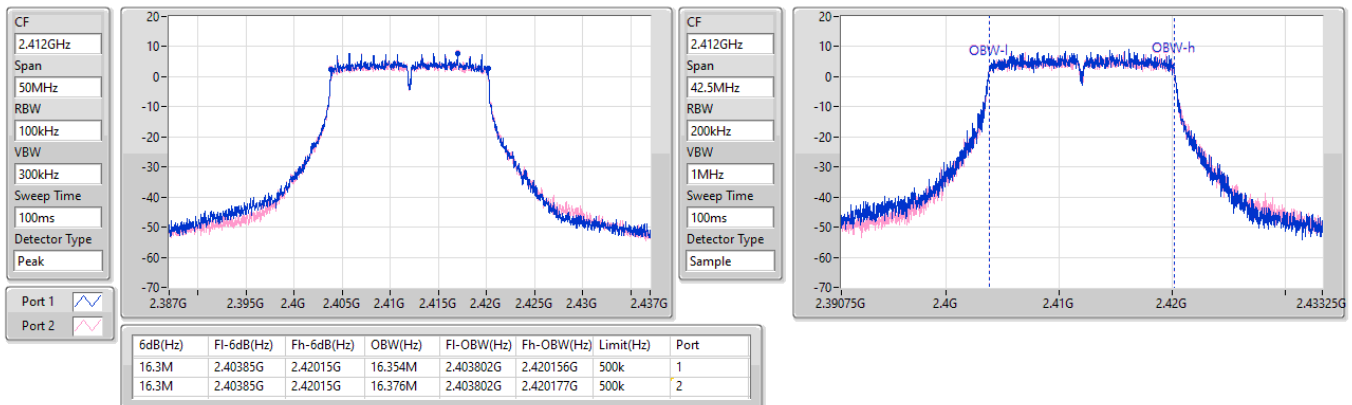


2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_2TX
EBW
2462MHz

10/12/2022

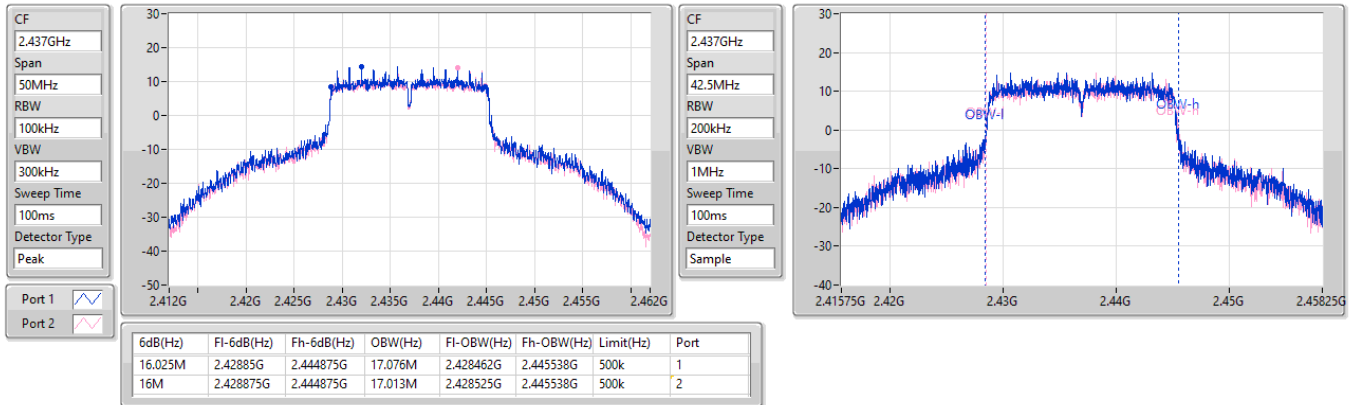

2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_2TX
EBW
2412MHz

10/12/2022

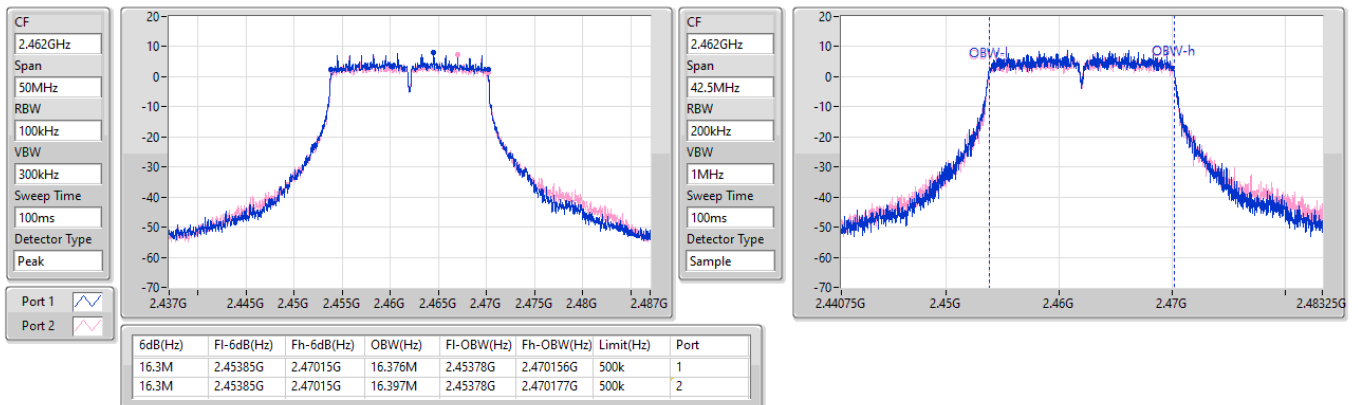


2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_2TX
EBW
2437MHz

10/12/2022

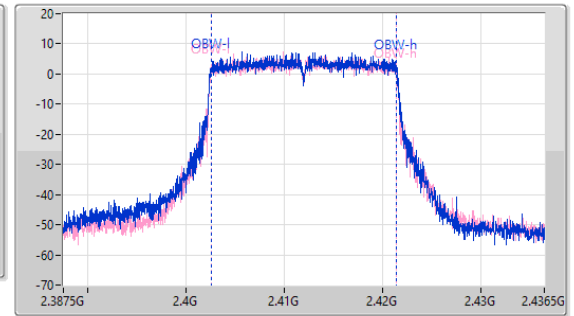
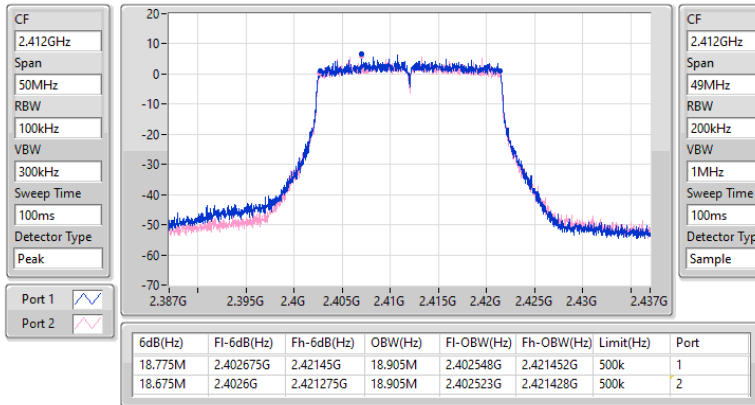

2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_2TX
EBW
2462MHz

10/12/2022

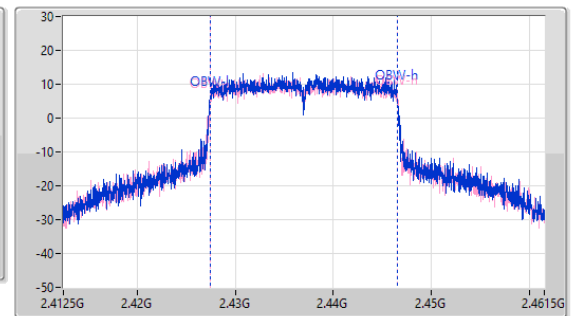
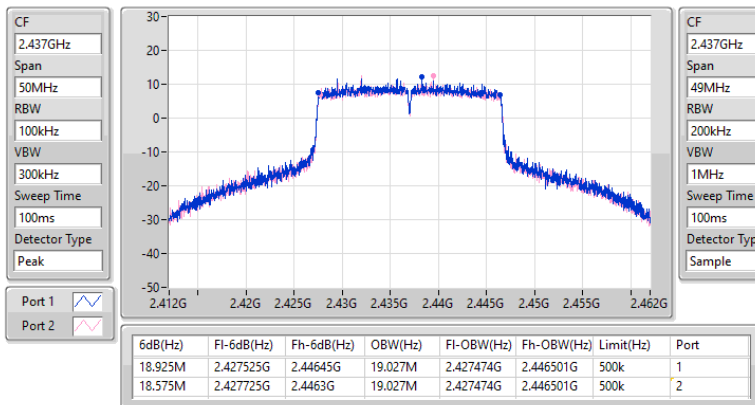


2.4-2.4835GHz_802.11ax HEW20_Nss1,(MCS0)_2TX
2412MHz
EBW

10/12/2022

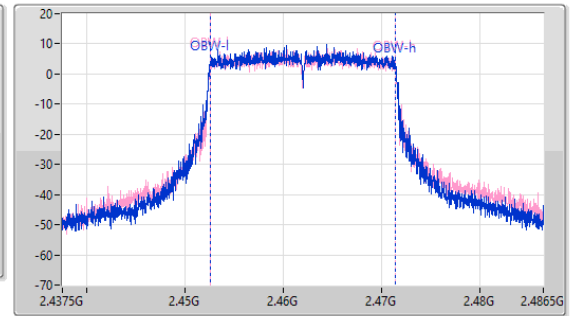
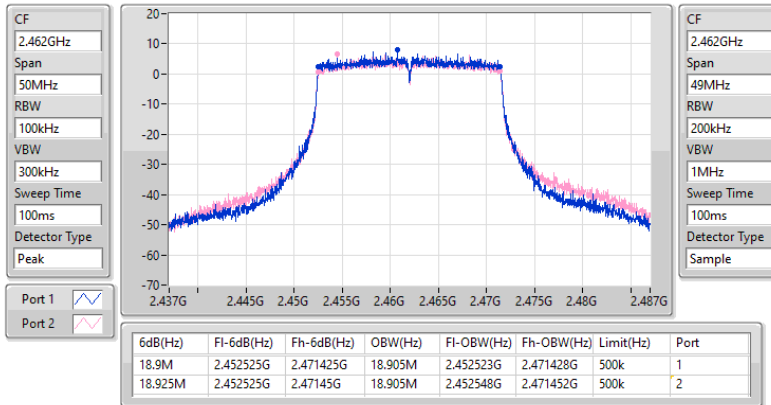

2.4-2.4835GHz_802.11ax HEW20_Nss1,(MCS0)_2TX
2437MHz
EBW

10/12/2022

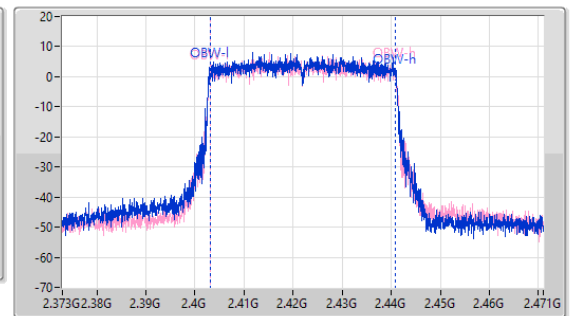
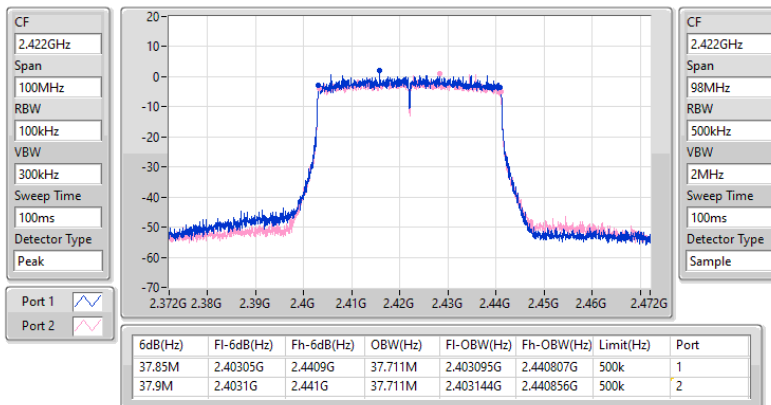


2.4-2.4835GHz_802.11ax HEW20_Nss1,(MCS0)_2TX
EBW
2462MHz

10/12/2022

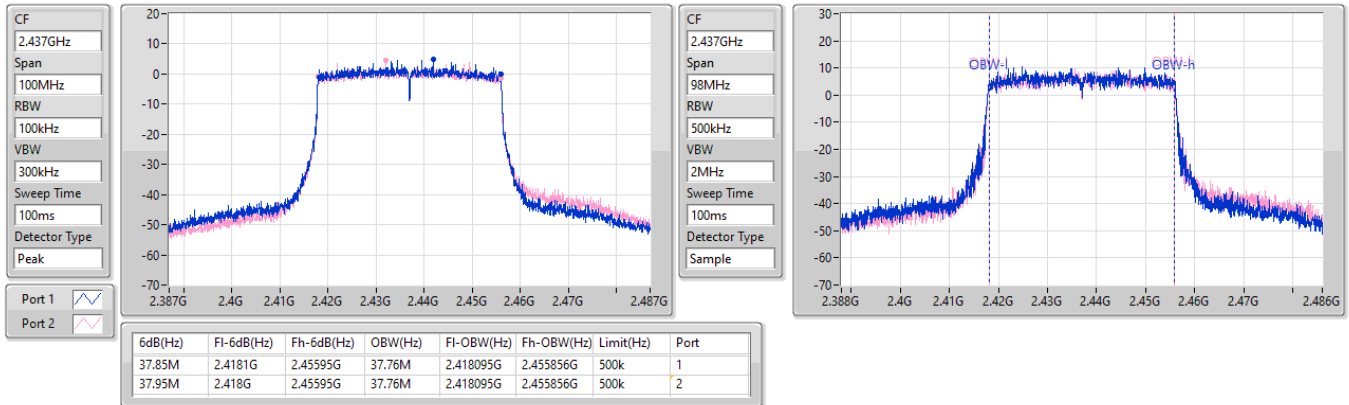

2.4-2.4835GHz_802.11ax HEW40_Nss1,(MCS0)_2TX
EBW
2422MHz

10/12/2022

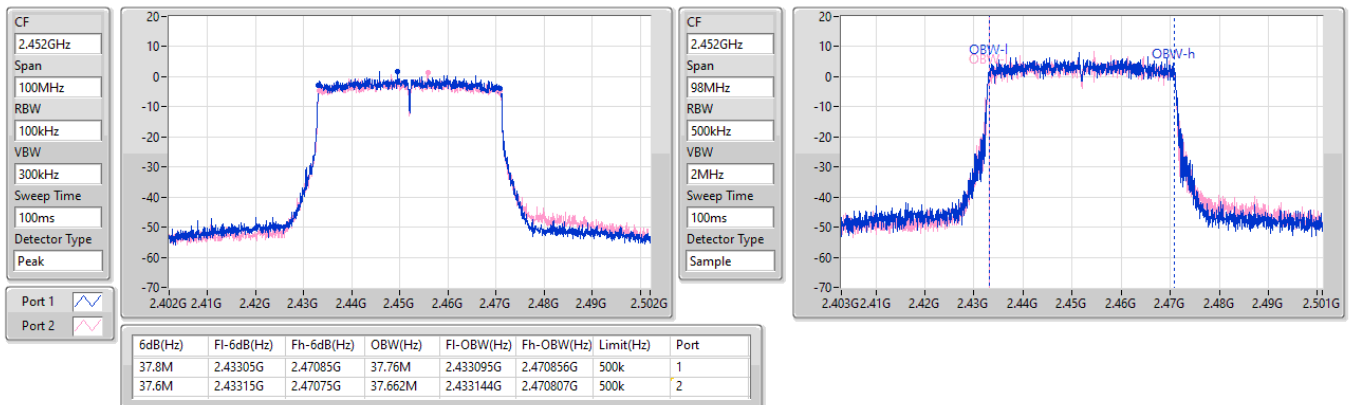


2.4-2.4835GHz_802.11ax HEW40_Nss1,(MCS0)_2TX
EBW
2437MHz

10/12/2022


2.4-2.4835GHz_802.11ax HEW40_Nss1,(MCS0)_2TX
EBW
2452MHz

10/12/2022





Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11b_Nss1,(1Mbps)_2TX	29.92	0.98175
802.11g_Nss1,(6Mbps)_2TX	27.98	0.62806
802.11ax HEW20_Nss1,(MCS0)_2TX	27.34	0.54200
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	27.34	0.54200
802.11ax HEW40_Nss1,(MCS0)_2TX	22.69	0.18578
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	22.69	0.18578

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	3.07	24.49	24.30	27.41	30.00
2437MHz	Pass	3.07	27.03	26.79	29.92	30.00
2462MHz	Pass	3.07	24.55	23.91	27.25	30.00
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	3.07	20.67	20.11	23.41	30.00
2437MHz	Pass	3.07	24.86	25.07	27.98	30.00
2462MHz	Pass	3.07	19.60	19.18	22.41	30.00
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	3.07	20.10	19.77	22.95	30.00
2437MHz	Pass	3.07	24.84	23.74	27.34	30.00
2462MHz	Pass	3.07	20.22	19.68	22.97	30.00
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	3.07	18.53	17.63	21.11	30.00
2437MHz	Pass	3.07	19.96	19.39	22.69	30.00
2452MHz	Pass	3.07	17.74	17.12	20.45	30.00
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	4.76	20.10	19.77	22.95	30.00
2437MHz	Pass	4.76	24.84	23.74	27.34	30.00
2462MHz	Pass	4.76	20.22	19.68	22.97	30.00
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	4.76	18.53	17.63	21.11	30.00
2437MHz	Pass	4.76	19.96	19.39	22.69	30.00
2452MHz	Pass	4.76	17.74	17.12	20.45	30.00

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

Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
802.11b_Nss1,(1Mbps)_2TX	2.01
802.11g_Nss1,(6Mbps)_2TX	-0.57
802.11ax HEW20_Nss1,(MCS0)_2TX	-0.93
802.11ax HEW40_Nss1,(MCS0)_2TX	-8.78

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	4.76	-1.77	-1.09	0.23	8.00
2437MHz	Pass	4.76	-0.29	-0.86	2.01	8.00
2462MHz	Pass	4.76	-0.95	-4.41	0.64	8.00
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	4.76	-6.55	-8.15	-5.57	8.00
2437MHz	Pass	4.76	-1.98	-3.17	-0.57	8.00
2462MHz	Pass	4.76	-9.06	-9.61	-6.91	8.00
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	4.76	-7.06	-7.34	-4.91	8.00
2437MHz	Pass	4.76	-2.14	-3.87	-0.93	8.00
2462MHz	Pass	4.76	-7.29	-8.07	-5.90	8.00
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	4.76	-11.87	-12.09	-10.59	8.00
2437MHz	Pass	4.76	-9.95	-10.61	-8.78	8.00
2452MHz	Pass	4.76	-11.67	-12.65	-10.65	8.00

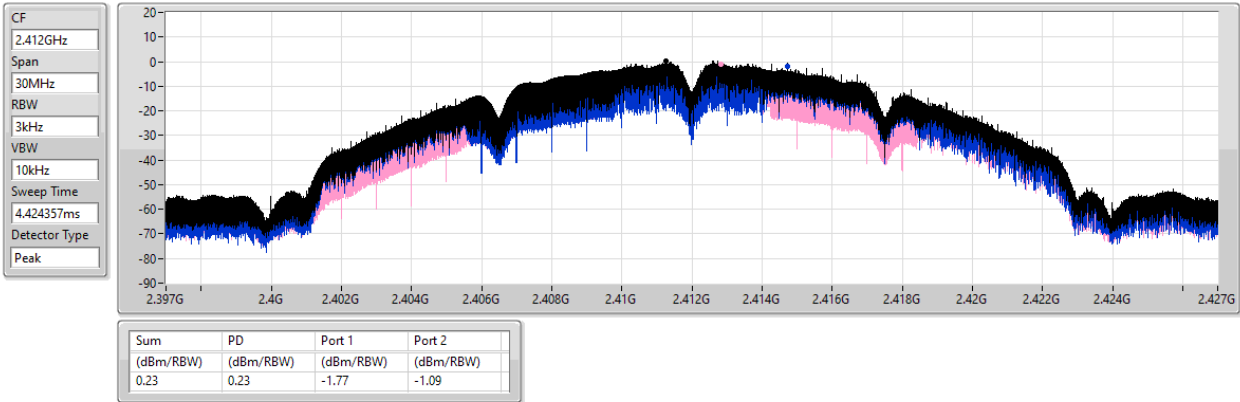
DG = Directional Gain; RBW = 3kHz;
 PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; Port X = Port X Power Density;

2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_2TX

2412MHz

PSD

10/12/2022

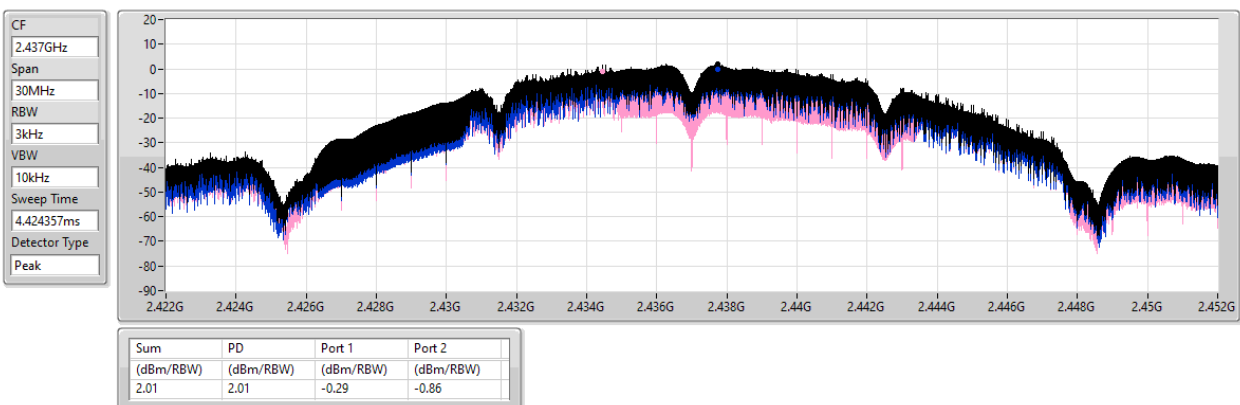


2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_2TX

2437MHz

PSD

10/12/2022

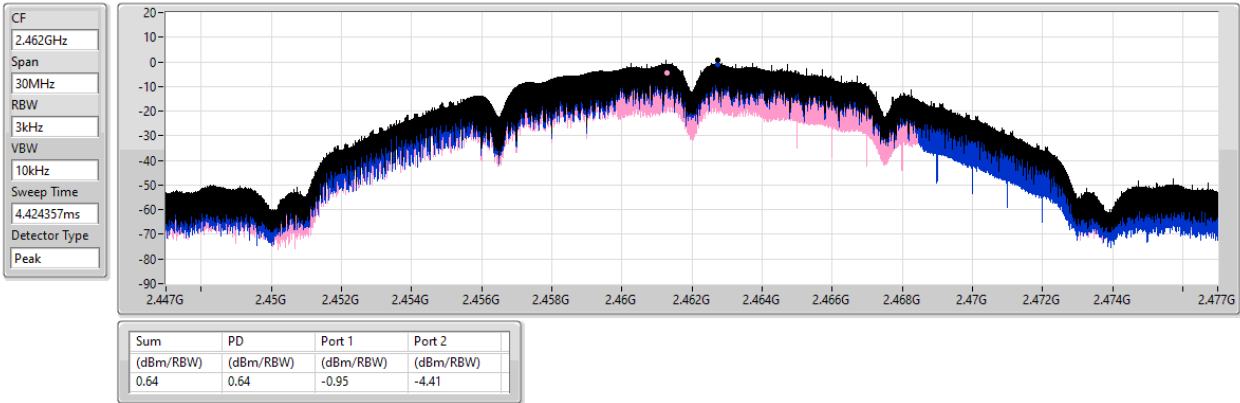


2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_2TX

2462MHz

PSD

10/12/2022

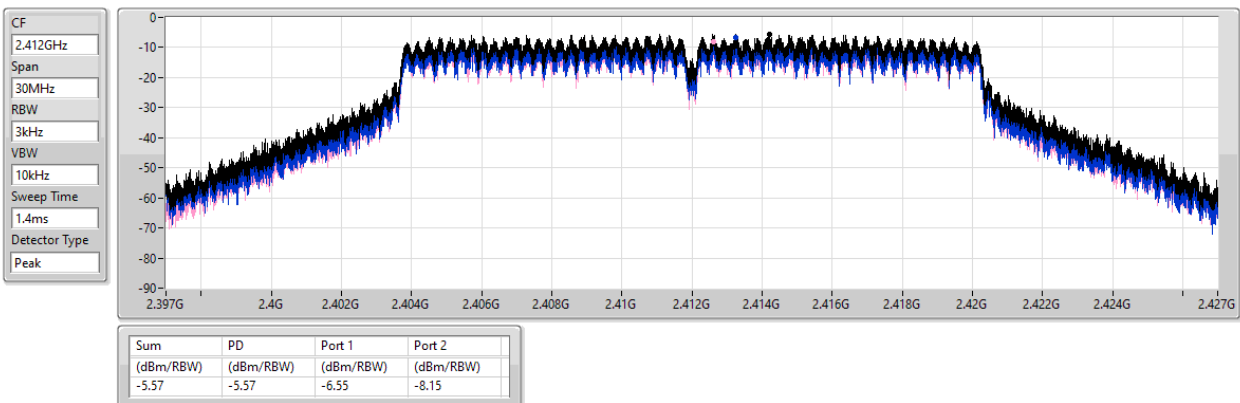


2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_2TX

2412MHz

PSD

12/01/2023

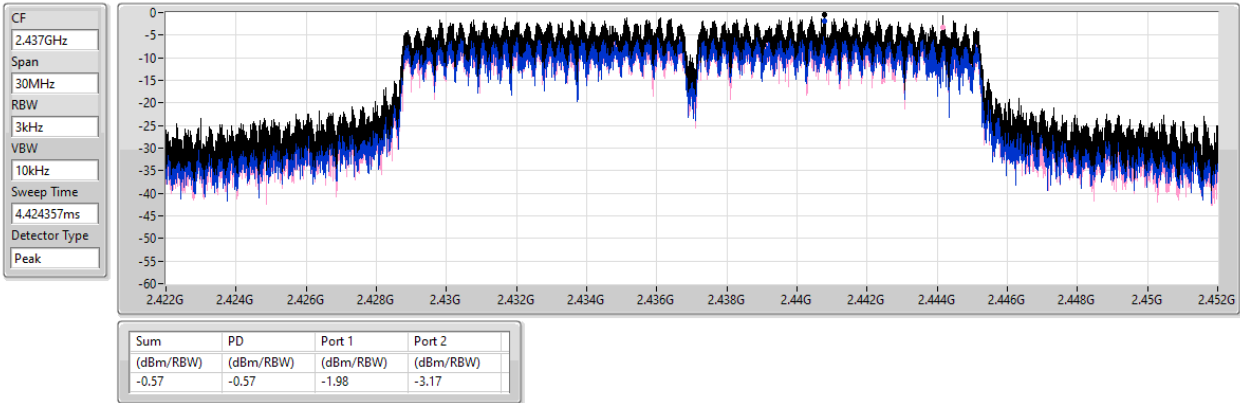


2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_2TX

2437MHz

PSD

10/12/2022

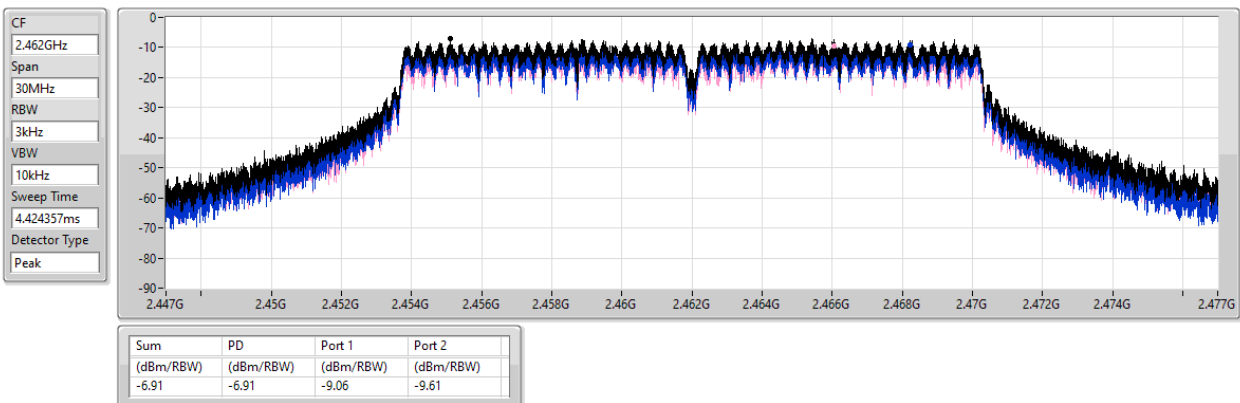


2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_2TX

2462MHz

PSD

10/12/2022

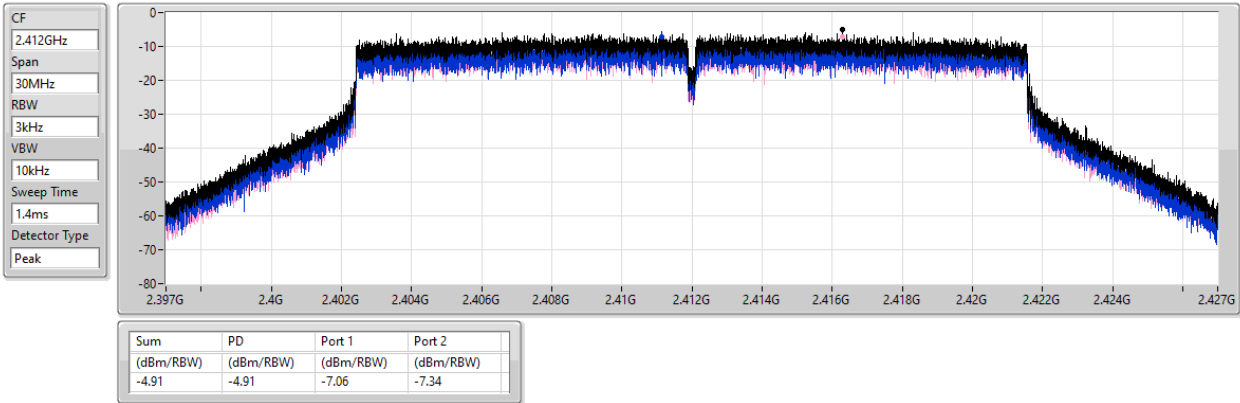


2.4-2.4835GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

2412MHz

PSD

12/01/2023

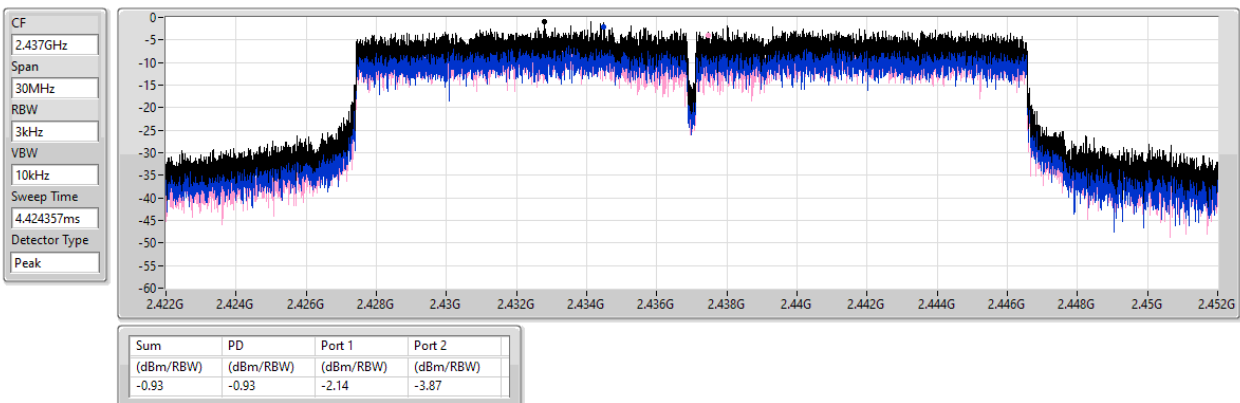


2.4-2.4835GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

2437MHz

PSD

10/12/2022

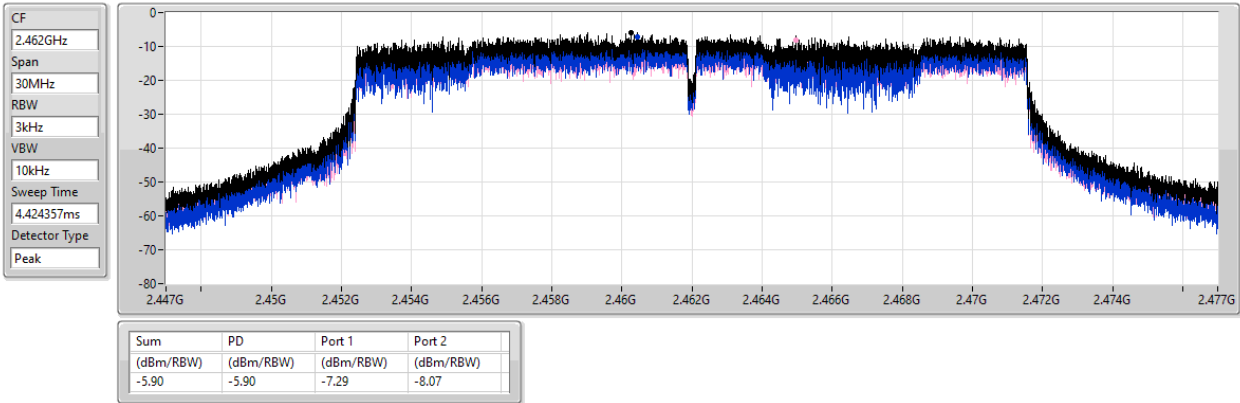


2.4-2.4835GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

2462MHz

PSD

10/12/2022

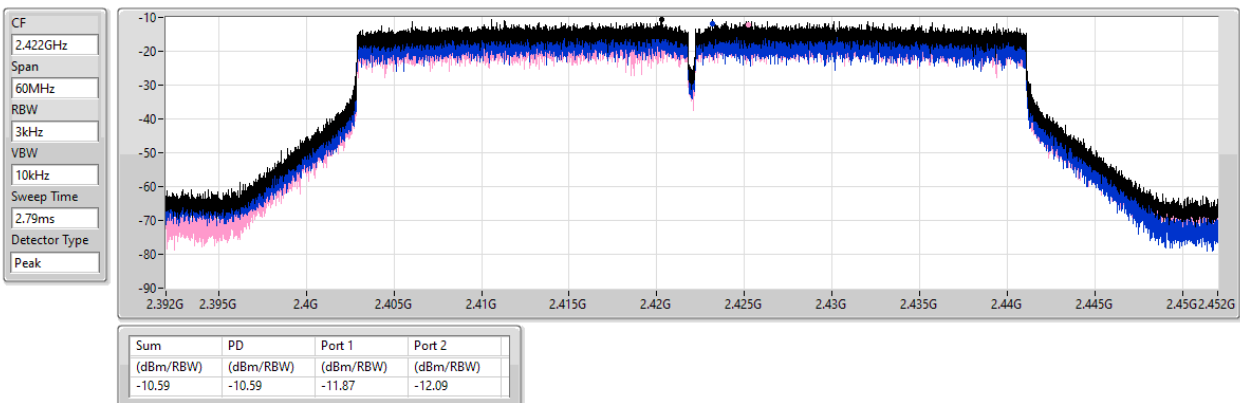


2.4-2.4835GHz_802.11ax HEW40_Nss1,(MCS0)_2TX

2422MHz

PSD

12/01/2023

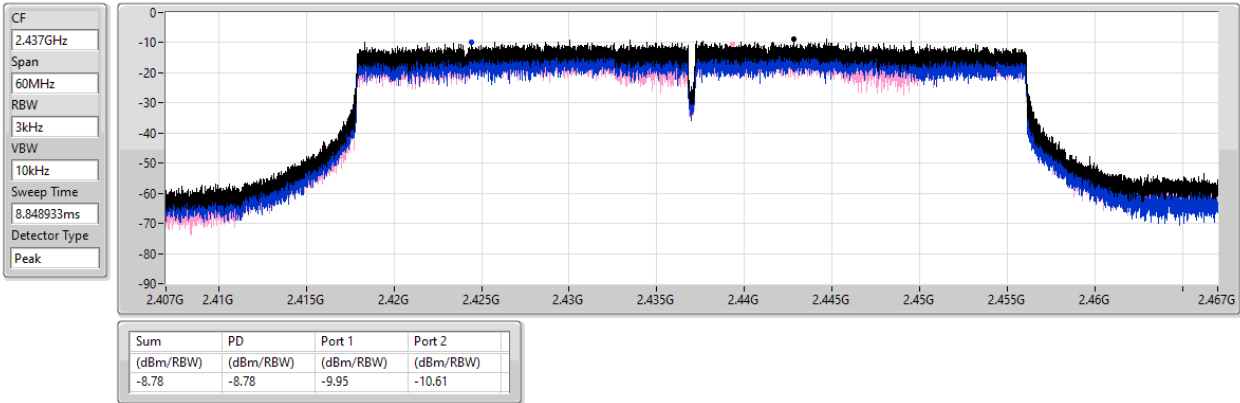


2.4-2.4835GHz_802.11ax HEW40_Nss1,(MCS0)_2TX

2437MHz

PSD

10/12/2022

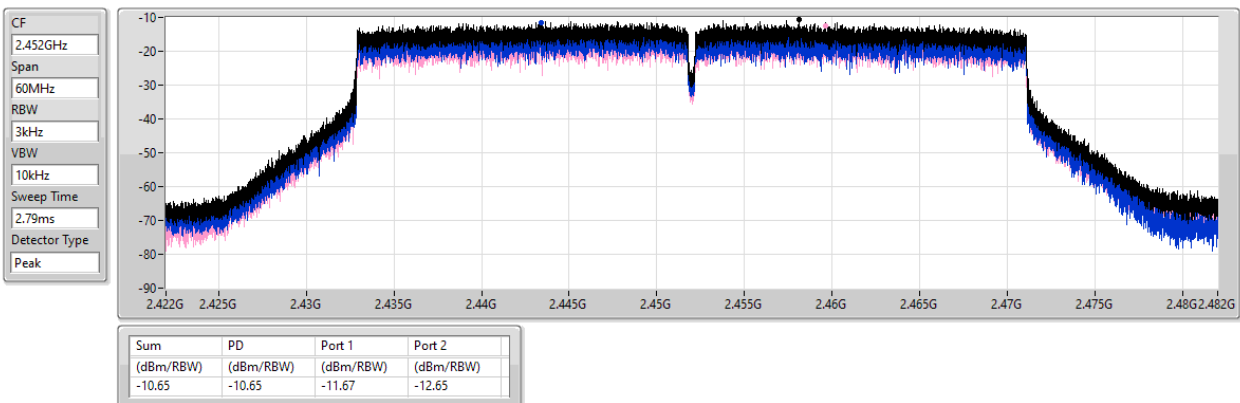


2.4-2.4835GHz_802.11ax HEW40_Nss1,(MCS0)_2TX

2452MHz

PSD

12/01/2023





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	2.43741G	16.88	-13.12	864.14M	-53.02	2.39928G	-37.11	2.4G	-37.53	2.50446G	-50.41	7.23514G	-29.63	1
802.11g_Nss1,(6Mbps)_2TX	Pass	2.4319G	14.41	-15.59	2.08273G	-53.18	2.4G	-32.41	2.4G	-31.18	2.50902G	-50.42	7.23514G	-38.32	1
802.11ax HEW20_Nss1,(MCS0)_2TX	Pass	2.43574G	13.16	-16.84	924.72M	-52.53	2.39968G	-33.47	2.4G	-31.05	2.5219G	-50.57	7.23514G	-40.89	1
802.11ax HEW40_Nss1,(MCS0)_2TX	Pass	2.43073G	4.37	-25.63	2.30397G	-52.87	2.39984G	-37.62	2.4G	-35.83	2.54014G	-50.92	7.24992G	-46.07	1

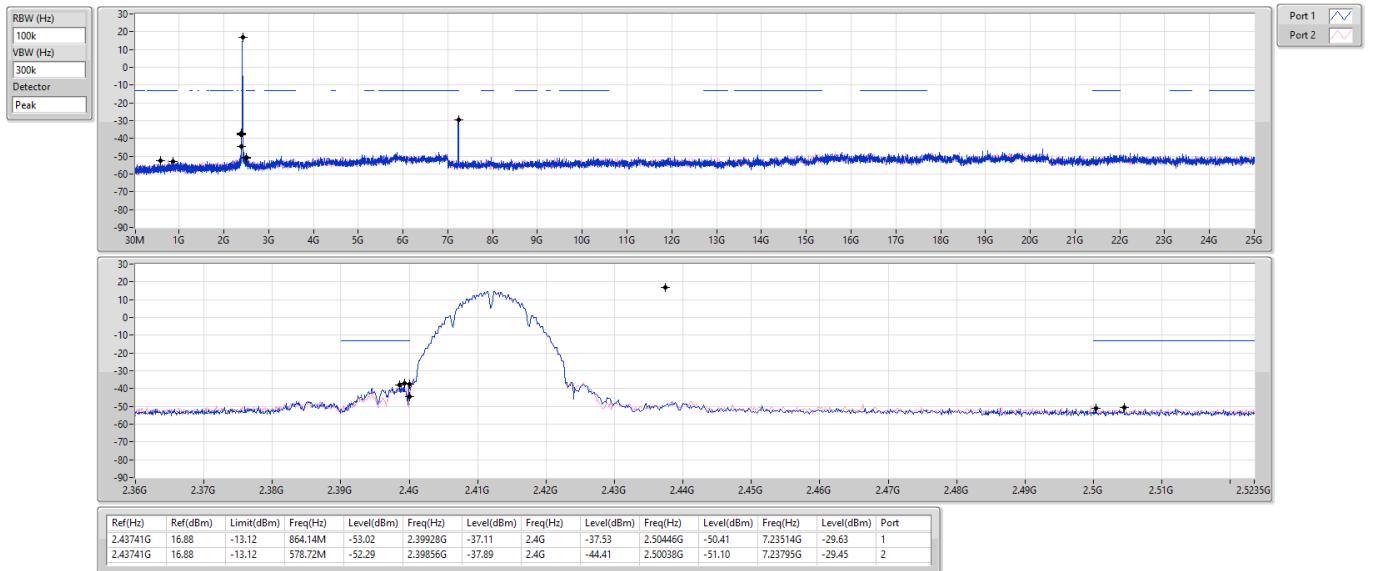
Result

Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43741G	16.88	-13.12	864.14M	-53.02	2.39928G	-37.11	2.4G	-37.53	2.50446G	-50.41	7.23514G	-29.63	1
2412MHz	Pass	2.43741G	16.88	-13.12	578.72M	-52.29	2.39856G	-37.89	2.4G	-44.41	2.50038G	-51.10	7.23795G	-29.45	2
2437MHz	Pass	2.43741G	16.88	-13.12	2.05477G	-52.54	2.39752G	-46.11	2.4G	-50.11	2.50886G	-50.67	17.67266G	-47.48	1
2437MHz	Pass	2.43741G	16.88	-13.12	907.25M	-53.18	2.39904G	-45.25	2.4G	-48.95	2.50278G	-50.93	16.46174G	-47.69	2
2462MHz	Pass	2.43741G	16.88	-13.12	2.1305G	-53.56	2.39568G	-50.84	2.4G	-51.34	2.5011G	-49.53	5.85564G	-47.07	1
2462MHz	Pass	2.43741G	16.88	-13.12	2.30758G	-53.09	2.39384G	-50.87	2.4G	-52.67	2.50126G	-50.04	17.6558G	-46.87	2
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.4319G	14.41	-15.59	2.08273G	-53.18	2.4G	-32.41	2.4G	-31.18	2.50902G	-50.42	7.23514G	-38.32	1
2412MHz	Pass	2.4319G	14.41	-15.59	843.17M	-53.08	2.39968G	-32.14	2.4G	-31.96	2.5135G	-51.80	7.23514G	-39.20	2
2437MHz	Pass	2.4319G	14.41	-15.59	2.16079G	-52.98	2.39952G	-38.33	2.4G	-40.44	2.5079G	-49.07	16.58817G	-48.11	1
2437MHz	Pass	2.4319G	14.41	-15.59	2.30641G	-51.59	2.39952G	-39.68	2.4G	-38.90	2.5039G	-49.38	6.96823G	-46.91	2
2462MHz	Pass	2.4319G	14.41	-15.59	2.30525G	-52.66	2.3904G	-51.64	2.4G	-52.62	2.50238G	-50.95	5.77416G	-47.83	1
2462MHz	Pass	2.4319G	14.41	-15.59	871.13M	-52.68	2.39392G	-51.20	2.4G	-52.99	2.51326G	-51.03	17.6839G	-47.83	2
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43574G	13.16	-16.84	924.72M	-52.53	2.39968G	-33.47	2.4G	-31.05	2.5219G	-50.57	7.23514G	-40.89	1
2412MHz	Pass	2.43574G	13.16	-16.84	951.52M	-53.39	2.39992G	-33.67	2.4G	-31.52	2.5139G	-51.37	7.23514G	-42.37	2
2437MHz	Pass	2.43574G	13.16	-16.84	2.30408G	-51.83	2.39984G	-39.89	2.4G	-38.90	2.50302G	-48.54	17.64176G	-48.19	1
2437MHz	Pass	2.43574G	13.16	-16.84	2.30408G	-52.33	2.39864G	-40.94	2.4G	-43.57	2.5031G	-49.00	16.34093G	-48.32	2
2462MHz	Pass	2.43574G	13.16	-16.84	2.30874G	-52.05	2.39544G	-51.01	2.4G	-51.95	2.5099G	-50.40	6.94294G	-47.29	1
2462MHz	Pass	2.43574G	13.16	-16.84	2.12584G	-52.80	2.39392G	-50.64	2.4G	-53.07	2.51726G	-50.88	17.67547G	-47.48	2
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	2.43073G	4.37	-25.63	2.30397G	-52.87	2.39984G	-37.62	2.4G	-35.83	2.54014G	-50.92	7.24992G	-46.07	1
2422MHz	Pass	2.43073G	4.37	-25.63	1.99024G	-53.22	2.4G	-36.62	2.4G	-38.20	2.54334G	-50.68	7.24431G	-45.68	2
2437MHz	Pass	2.43073G	4.37	-25.63	934.55M	-52.73	2.39792G	-44.70	2.4G	-45.22	2.55774G	-49.80	24.02962G	-48.25	1
2437MHz	Pass	2.43073G	4.37	-25.63	2.30054G	-52.62	2.3992G	-48.10	2.4G	-47.74	2.5627G	-51.32	17.64644G	-48.13	2
2452MHz	Pass	2.43073G	4.37	-25.63	2.30855G	-53.12	2.39472G	-51.01	2.4G	-52.37	2.53166G	-50.77	17.66326G	-47.78	1
2452MHz	Pass	2.43073G	4.37	-25.63	1.97192G	-53.27	2.39408G	-51.07	2.4G	-53.11	2.50046G	-49.26	16.38438G	-47.46	2

2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_2TX

2412MHz

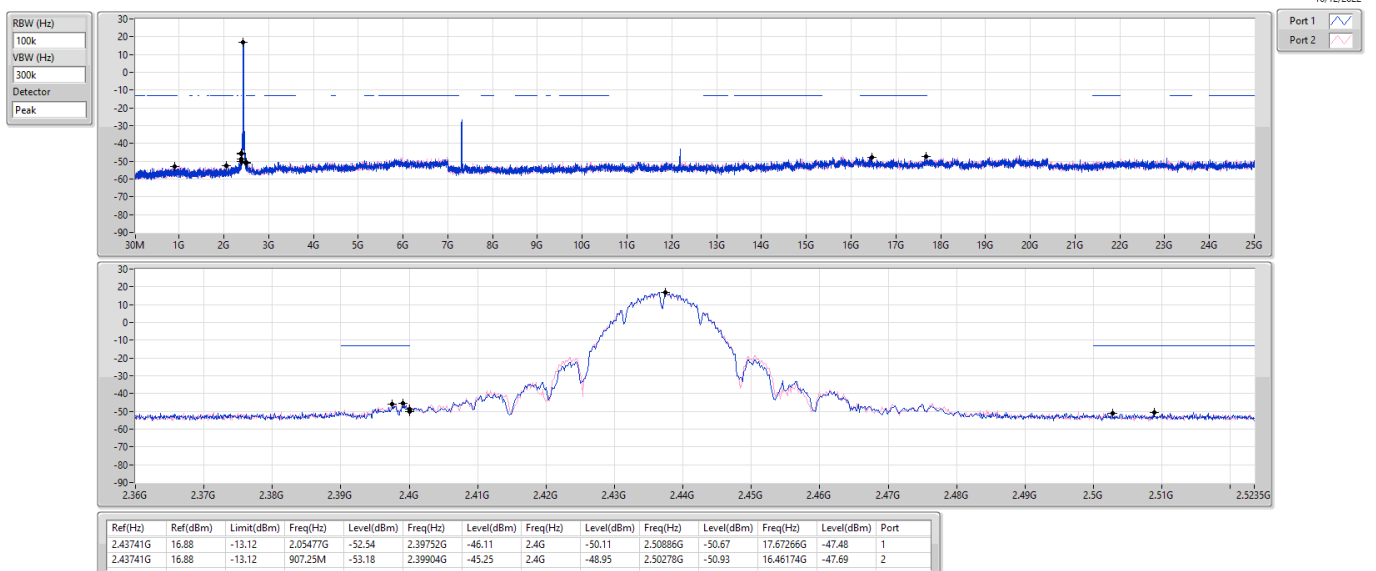
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2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_2TX

2437MHz

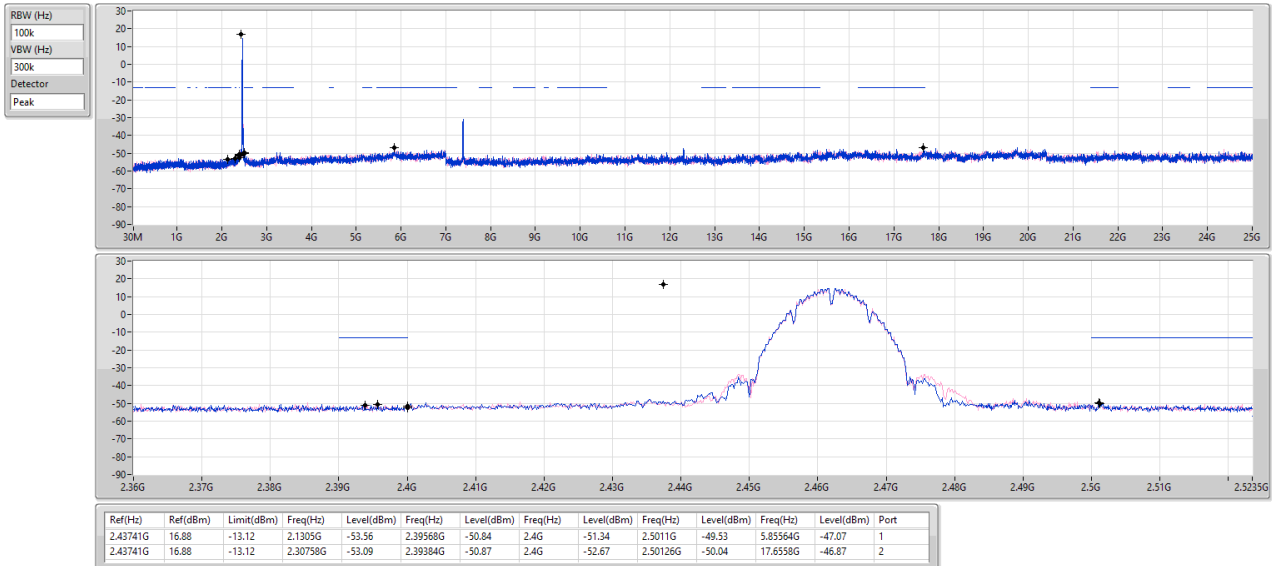
CSEndB



2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_2TX

CSEndB

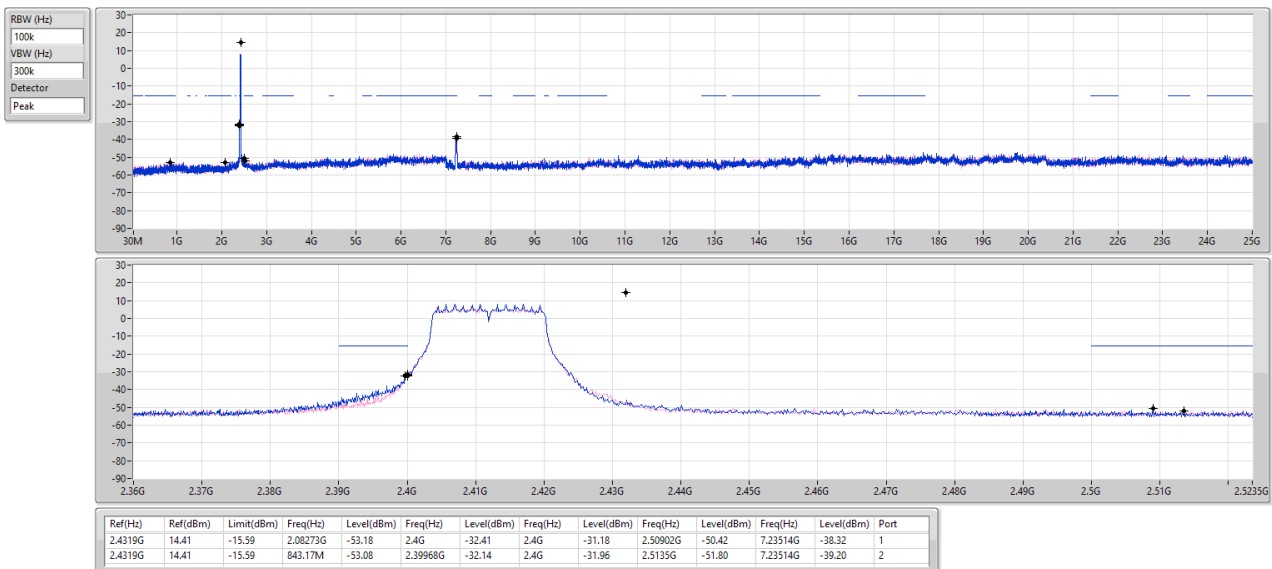
2462MHz



2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_2TX

CSEndB

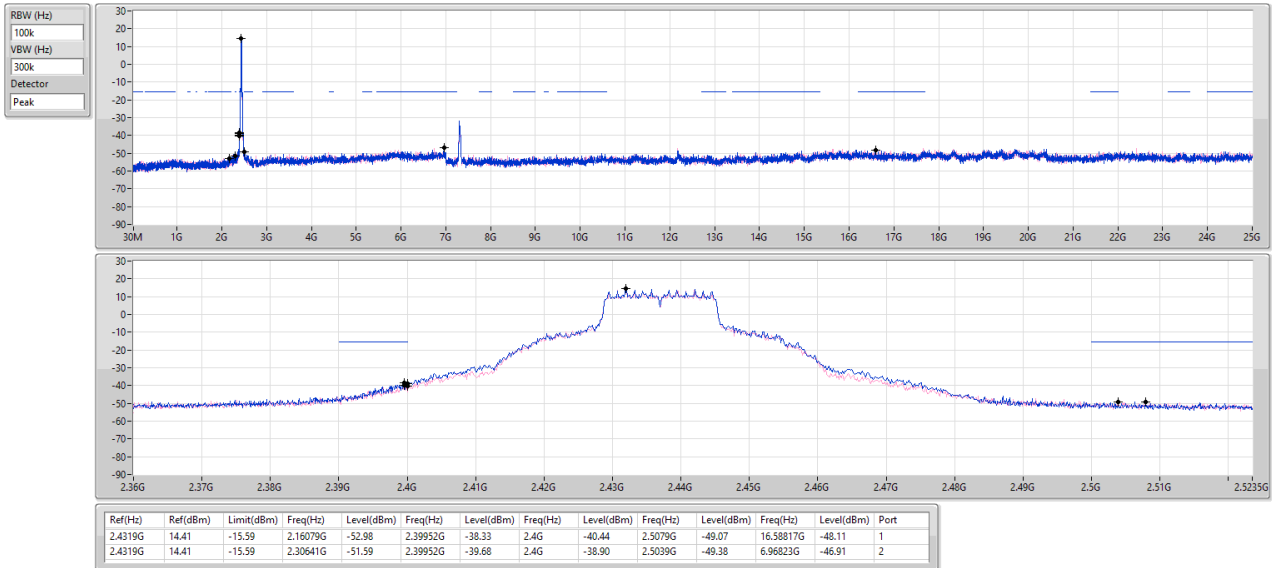
2412MHz



2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_2TX

CSEndB

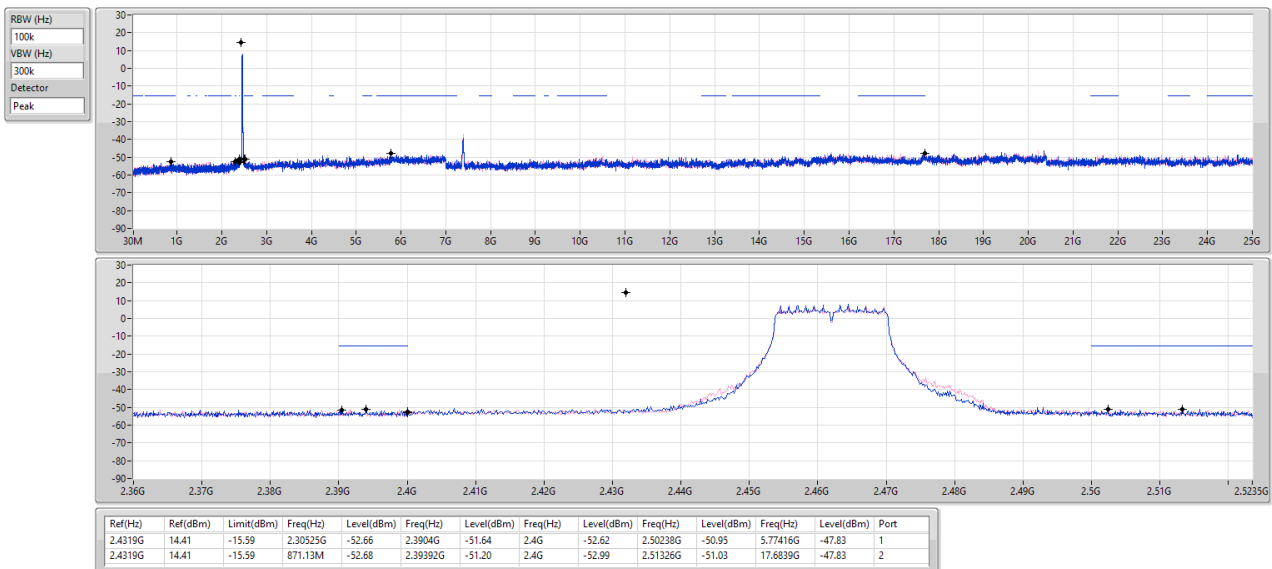
2437MHz



2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_2TX

CSEndB

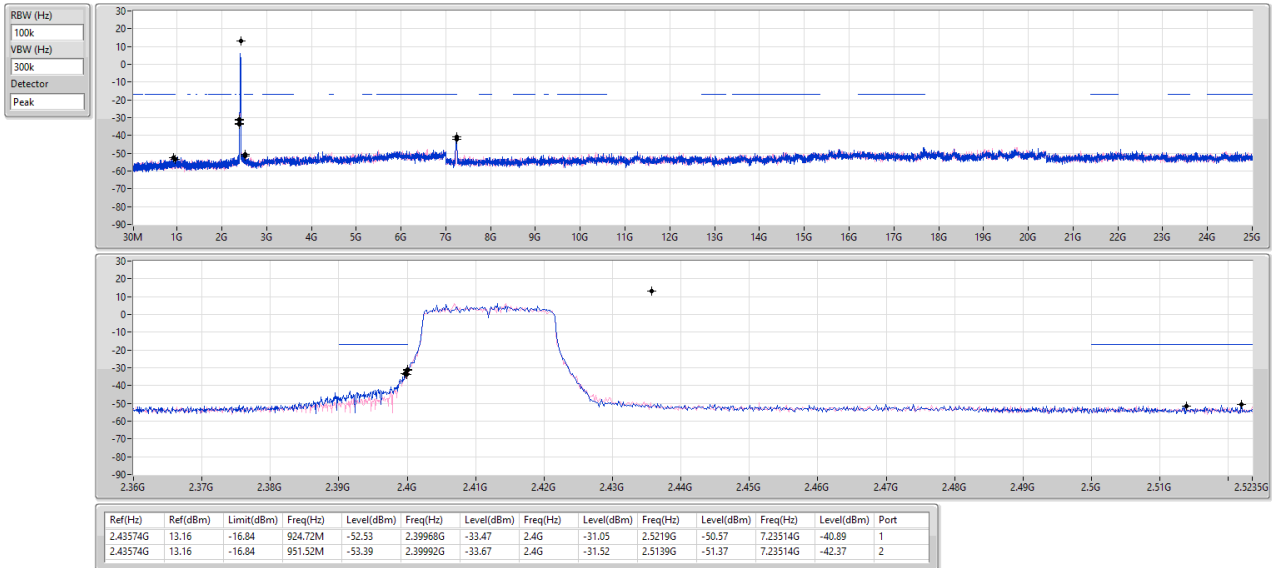
2462MHz



2.4-2.4835GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

CSEndB

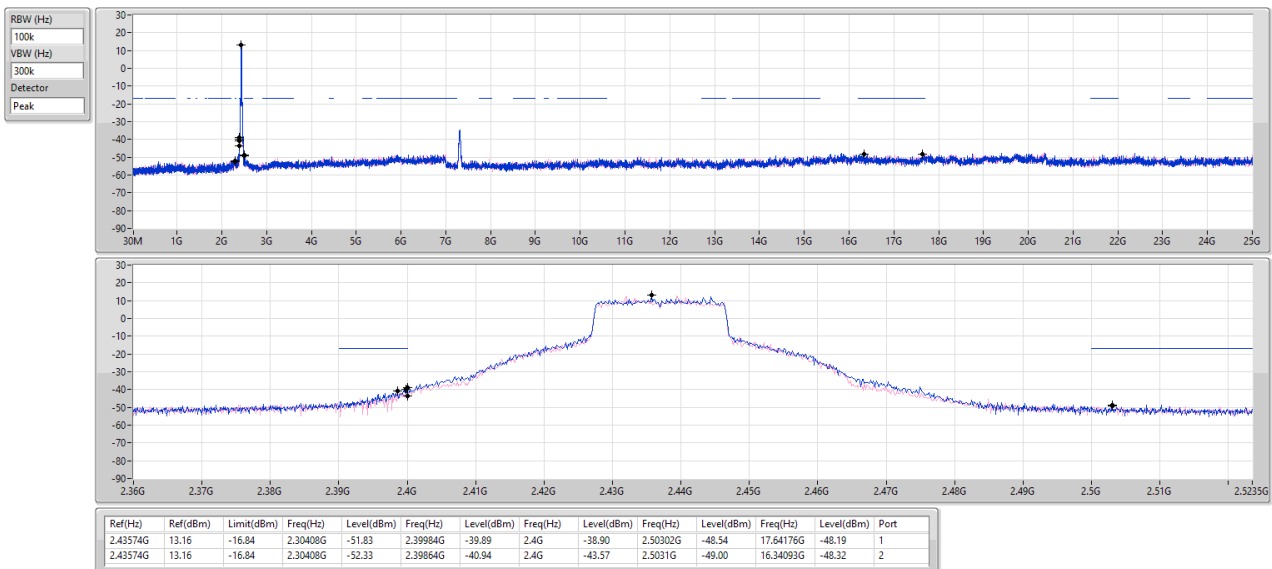
2412MHz



2.4-2.4835GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

CSEndB

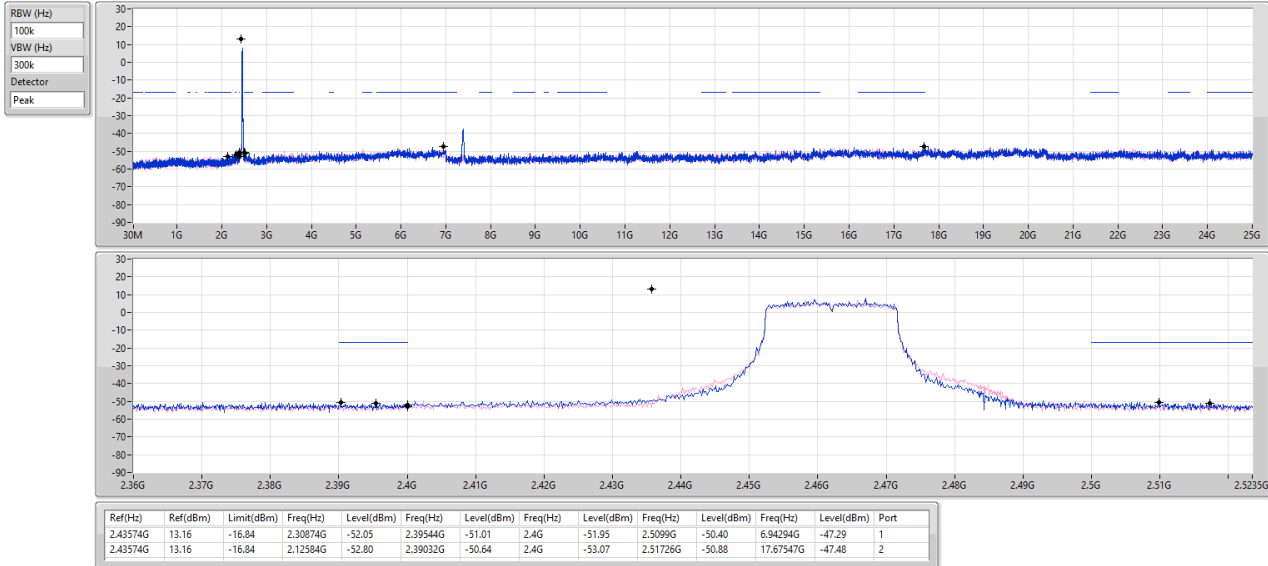
2437MHz



2.4-2.4835GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

CSEndB

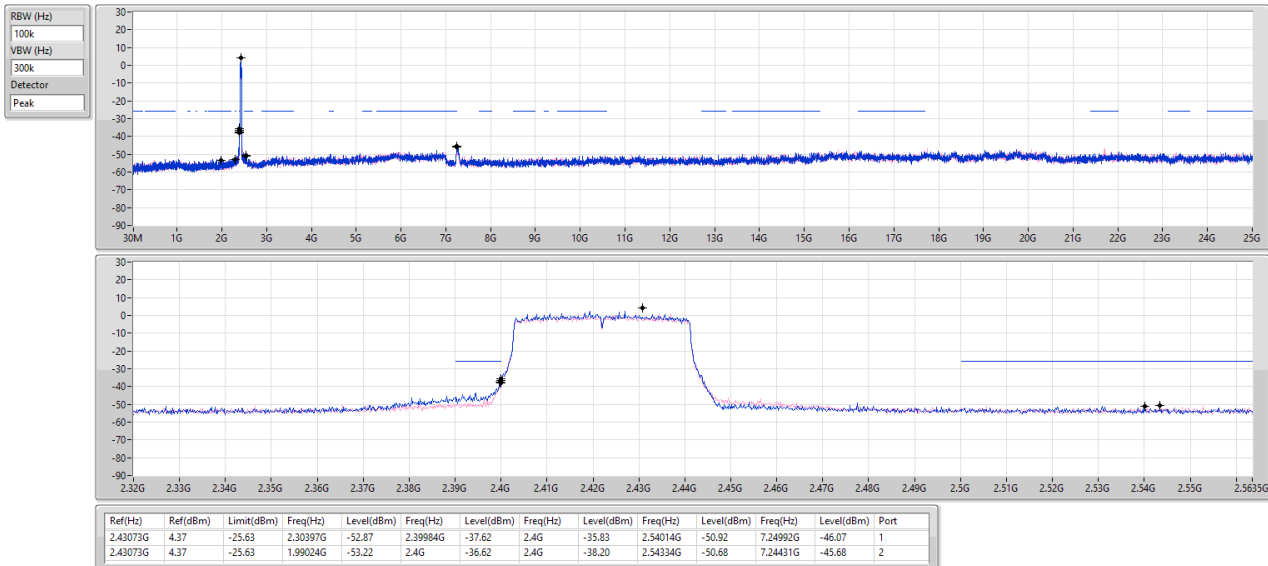
2462MHz



2.4-2.4835GHz_802.11ax HEW40_Nss1,(MCS0)_2TX

CSEndB

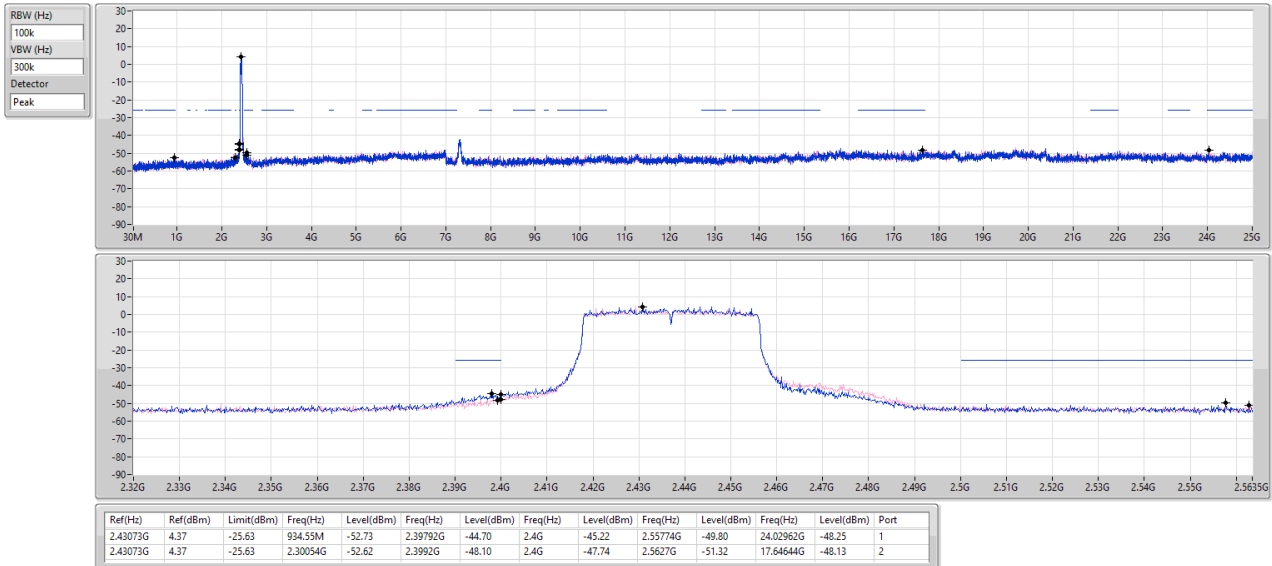
2422MHz



2.4-2.4835GHz_802.11ax HEW40_Nss1,(MCS0)_2TX

CSEndB

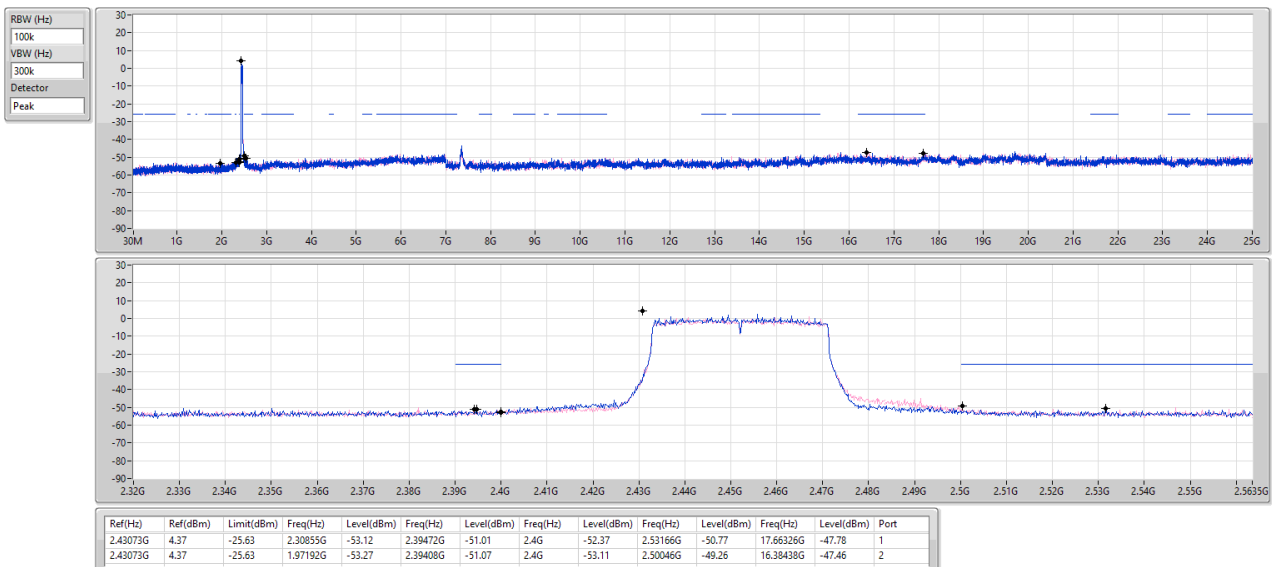
2437MHz



2.4-2.4835GHz_802.11ax HEW40_Nss1,(MCS0)_2TX

CSEndB

2452MHz





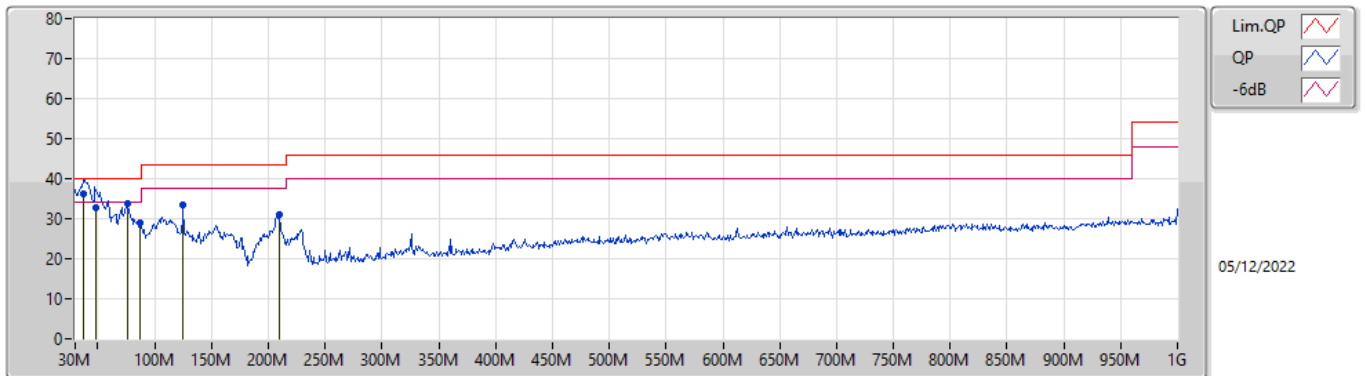
Radiated Emissions below 1GHz

Appendix F.1

Summary

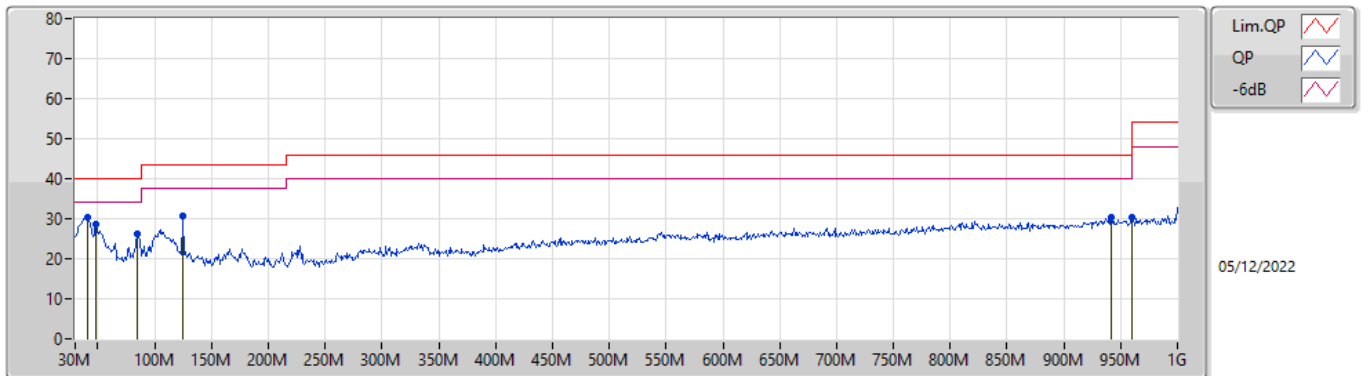
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition
Mode 1	Pass	QP	37.76M	36.26	40.00	-3.74	Vertical

Mode 1



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB/m)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV/m)	AF (dB/m)	CL (dB)	PA (dB)
QP	37.76M	36.26	40.00	-3.74	-11.34	3	Vertical	279	1.00	"Worst"	47.60	19.85	0.53	31.72
QP	48.43M	32.89	40.00	-7.11	-16.61	3	Vertical	0	1.00	-	49.50	14.59	0.65	31.85
PK	76.56M	33.77	40.00	-6.23	-18.69	3	Vertical	218	1.25	-	52.46	12.37	0.91	31.97
PK	87.23M	28.85	40.00	-11.15	-16.93	3	Vertical	104	1.50	-	45.78	14.02	1.00	31.95
PK	125.06M	33.51	43.50	-9.99	-12.81	3	Vertical	86	1.25	-	46.32	17.89	1.28	31.98
PK	209.45M	30.95	43.50	-12.55	-15.31	3	Vertical	164	1.00	-	46.26	14.93	1.78	32.02

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	40.67M	30.38	40.00	-9.62	-12.98	3	Horizontal	112	2.00	"Worst"	43.36	18.22	0.56	31.76
PK	48.43M	28.46	40.00	-11.54	-16.61	3	Horizontal	72	3.00	-	45.07	14.59	0.65	31.85
PK	84.32M	26.34	40.00	-13.66	-17.52	3	Horizontal	357	1.00	-	43.86	13.46	0.97	31.95
PK	125.06M	30.84	43.50	-12.66	-12.81	3	Horizontal	181	3.00	-	43.65	17.89	1.28	31.98
PK	941.8M	30.42	46.00	-15.58	-1.80	3	Horizontal	349	1.50	-	32.22	26.39	4.29	32.48
PK	960M	30.49	46.00	-15.51	-1.49	3	Horizontal	160	1.00	-	31.98	26.63	4.33	32.45

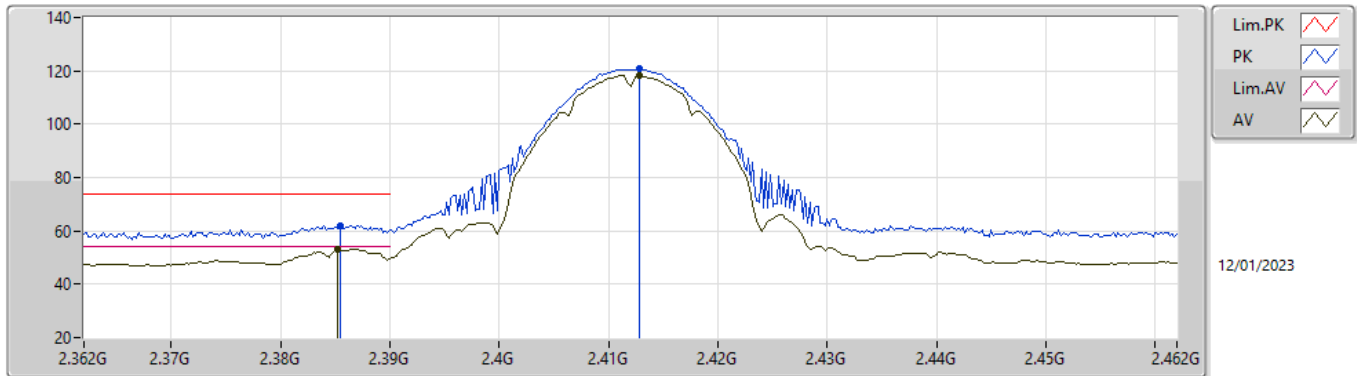


Summary

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	2.4888G	53.82	54.00	-0.18	3	Vertical	12	2.50	-

2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_2TX

2412MHz_TX

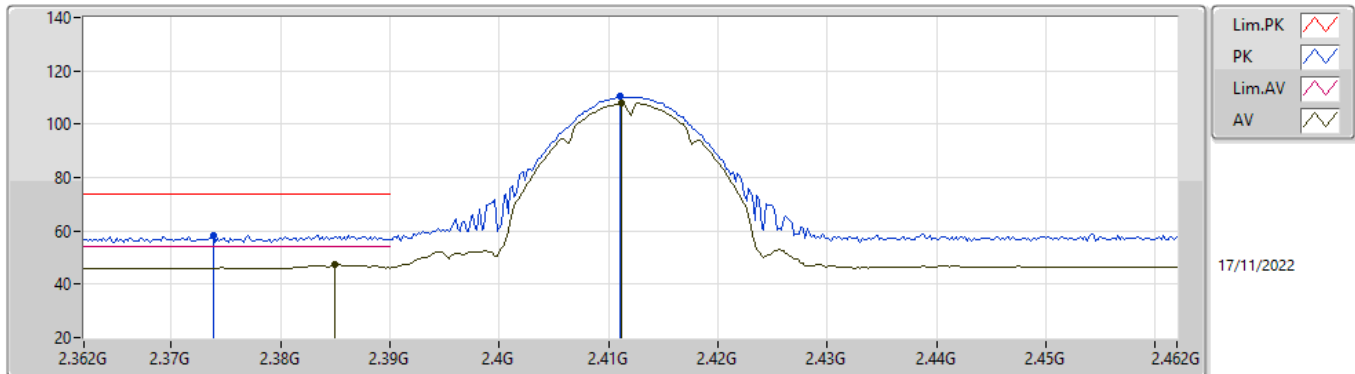


EUT Y_2TX

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	2.3854G	61.91	74.00	-12.09	30.55	3	Vertical	9	1.80	-	27.77	3.59	-
AV	2.3852G	53.20	54.00	-0.80	21.84	3	Vertical	9	1.80	-	27.77	3.59	-
PK	2.4128G	120.71	Inf	-Inf	89.27	3	Vertical	9	1.80	-	27.83	3.61	-
AV	2.4128G	118.23	Inf	-Inf	86.79	3	Vertical	9	1.80	-	27.83	3.61	-

2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_2TX

2412MHz_TX

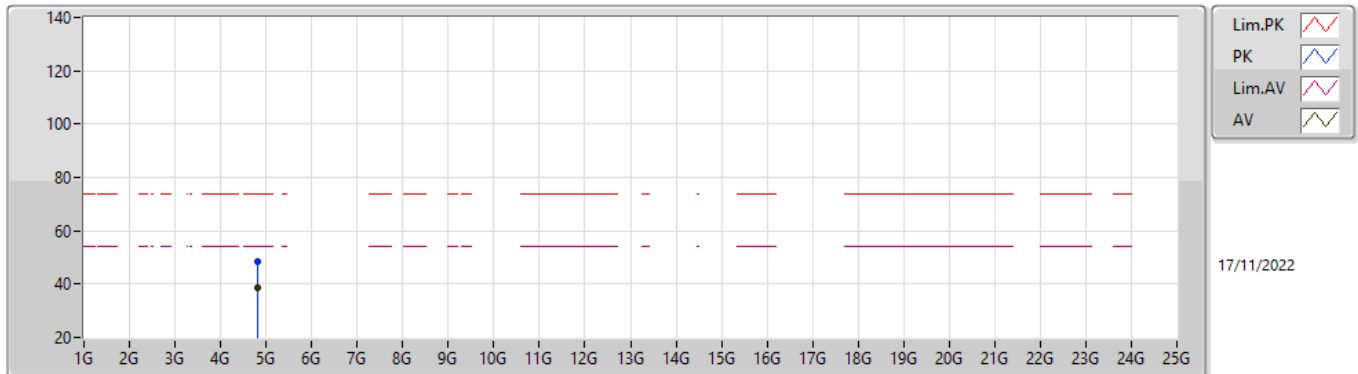


EUT Y_2TX

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	2.3738G	58.36	74.00	-15.64	27.04	3	Horizontal	360	2.02	-	27.75	3.57	-
AV	2.385G	47.18	54.00	-6.82	15.82	3	Horizontal	360	2.02	-	27.77	3.59	-
PK	2.411G	110.31	Inf	-Inf	78.88	3	Horizontal	360	2.02	-	27.82	3.61	-
AV	2.4112G	107.84	Inf	-Inf	76.41	3	Horizontal	360	2.02	-	27.82	3.61	-

2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_2TX

2412MHz_TX

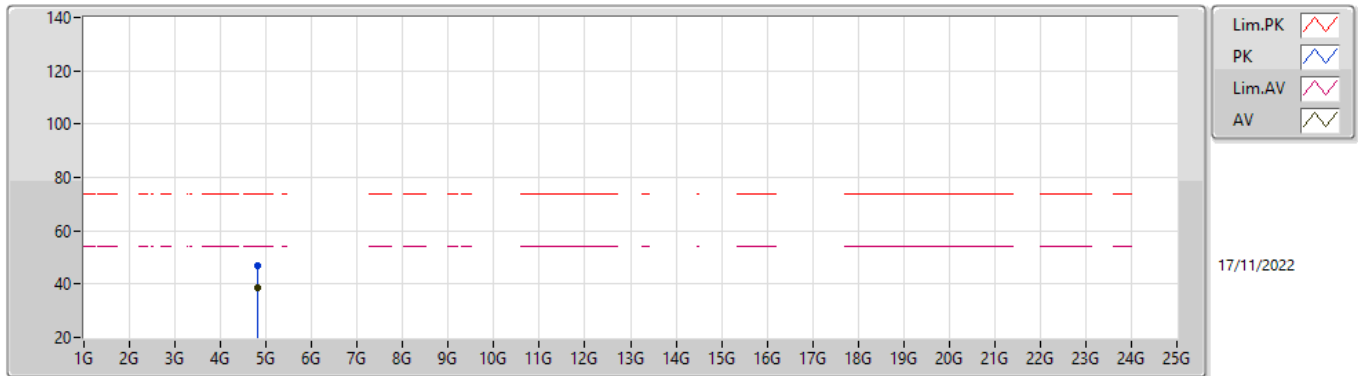


EUT Y_2TX

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	4.82394G	48.49	74.00	-25.51	42.82	3	Vertical	72	3.00	-	32.84	5.72	32.89
AV	4.824G	38.73	54.00	-15.27	33.06	3	Vertical	72	3.00	-	32.84	5.72	32.89

2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_2TX

2412MHz_TX

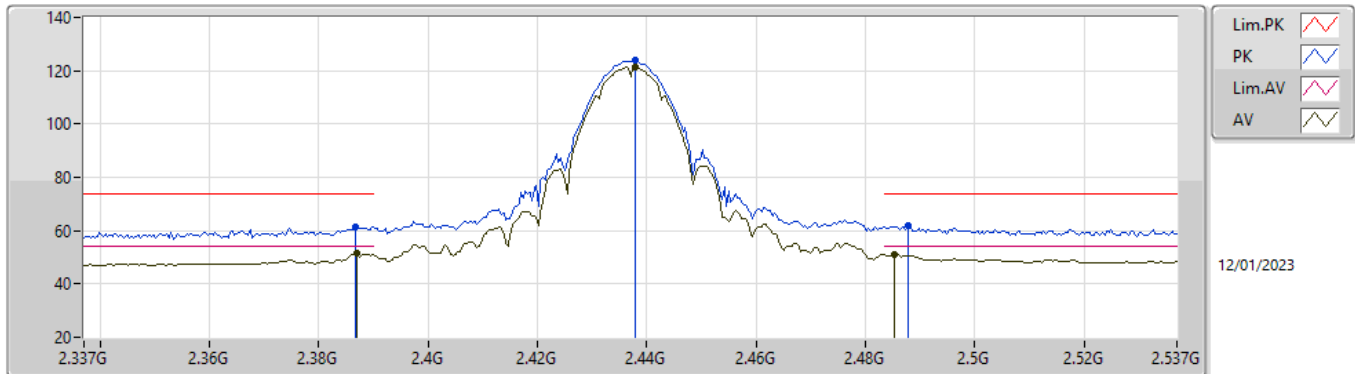


EUT Y_2TX

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	4.82346G	46.89	74.00	-27.11	41.22	3	Horizontal	335	1.60	-	32.84	5.72	32.89
AV	4.824G	38.73	54.00	-15.27	33.06	3	Horizontal	335	1.60	-	32.84	5.72	32.89

2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_2TX

2437MHz_TX

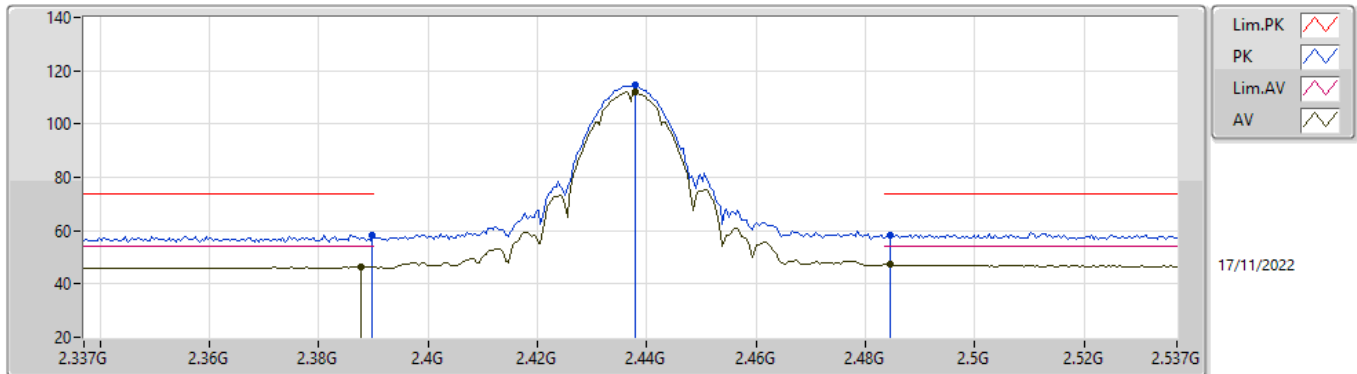


EUT Y_2TX

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3866G	61.35	74.00	-12.65	29.99	3	Vertical	210	1.80	-	27.77	3.59	-
AV	2.387G	51.44	54.00	-2.56	20.08	3	Vertical	210	1.80	-	27.77	3.59	-
PK	2.4378G	123.86	Inf	-Inf	92.36	3	Vertical	210	1.80	-	27.88	3.62	-
AV	2.4378G	121.40	Inf	-Inf	89.90	3	Vertical	210	1.80	-	27.88	3.62	-
PK	2.4878G	61.88	74.00	-12.12	30.11	3	Vertical	210	1.80	-	28.13	3.64	-
AV	2.4854G	51.24	54.00	-2.76	19.49	3	Vertical	210	1.80	-	28.11	3.64	-

2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_2TX

2437MHz_TX

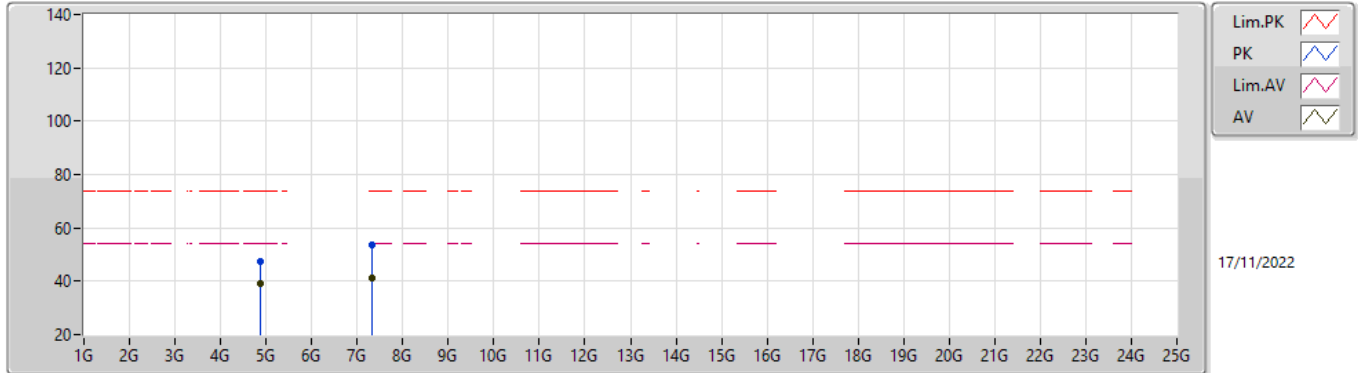


EUT Y_2TX

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3898G	58.30	74.00	-15.70	26.93	3	Horizontal	65	2.93	-	27.78	3.59	-
AV	2.3878G	46.48	54.00	-7.52	15.11	3	Horizontal	65	2.93	-	27.78	3.59	-
PK	2.4378G	114.42	Inf	-Inf	82.92	3	Horizontal	65	2.93	-	27.88	3.62	-
AV	2.4378G	111.97	Inf	-Inf	80.47	3	Horizontal	65	2.93	-	27.88	3.62	-
PK	2.4846G	58.33	74.00	-15.67	26.58	3	Horizontal	65	2.93	-	28.11	3.64	-
AV	2.4846G	47.56	54.00	-6.44	15.81	3	Horizontal	65	2.93	-	28.11	3.64	-

2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_2TX

2437MHz_TX

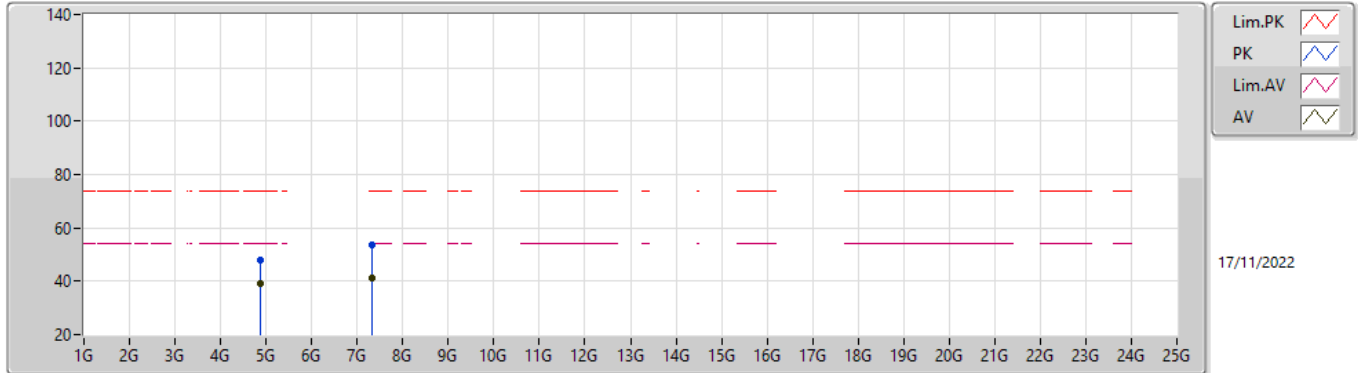


EUT Y_2TX

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	4.87406G	47.52	74.00	-26.48	41.63	3	Vertical	202	2.62	-	33.00	5.77	32.88
AV	4.874G	39.35	54.00	-14.65	33.46	3	Vertical	202	2.62	-	33.00	5.77	32.88
PK	7.31916G	53.43	74.00	-20.57	41.86	3	Vertical	59	2.94	-	37.60	7.16	33.19
AV	7.32546G	41.09	54.00	-12.91	29.52	3	Vertical	59	2.94	-	37.60	7.16	33.19

2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_2TX

2437MHz_TX

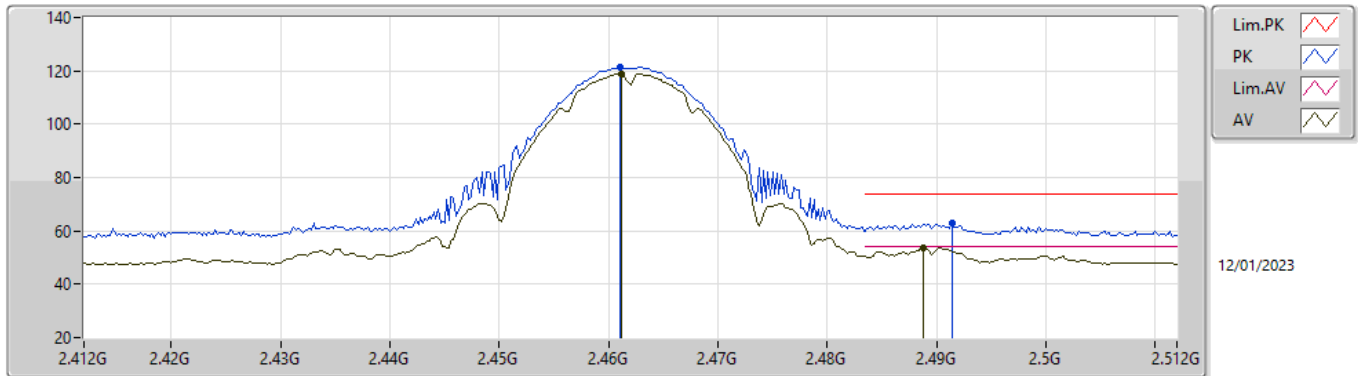


EUT Y_2TX

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	4.874G	48.16	74.00	-25.84	42.27	3	Horizontal	70	1.80	-	33.00	5.77	32.88
AV	4.874G	39.31	54.00	-14.69	33.42	3	Horizontal	70	1.80	-	33.00	5.77	32.88
PK	7.3218G	53.78	74.00	-20.22	42.21	3	Horizontal	212	1.80	-	37.60	7.16	33.19
AV	7.326G	41.08	54.00	-12.92	29.51	3	Horizontal	212	1.80	-	37.60	7.16	33.19

2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_2TX

2462MHz_TX

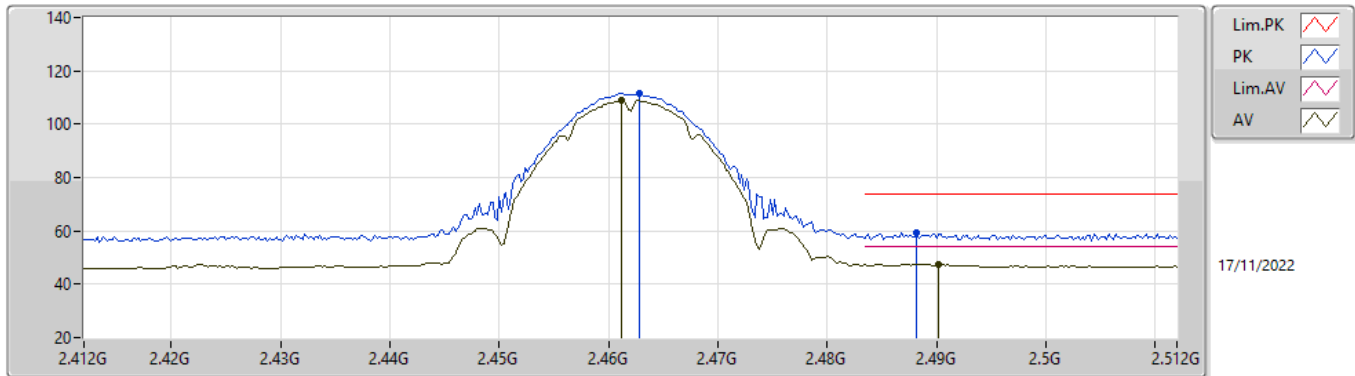


EUT Y_2TX

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.461G	121.39	Inf	-Inf	89.79	3	Vertical	12	2.50	-	27.97	3.63	-
AV	2.4612G	118.97	Inf	-Inf	87.37	3	Vertical	12	2.50	-	27.97	3.63	-
PK	2.4914G	62.82	74.00	-11.18	31.02	3	Vertical	12	2.50	-	28.15	3.65	-
AV	2.4888G	53.82	54.00	-0.18	22.05	3	Vertical	12	2.50	-	28.13	3.64	-

2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_2TX

2462MHz_TX

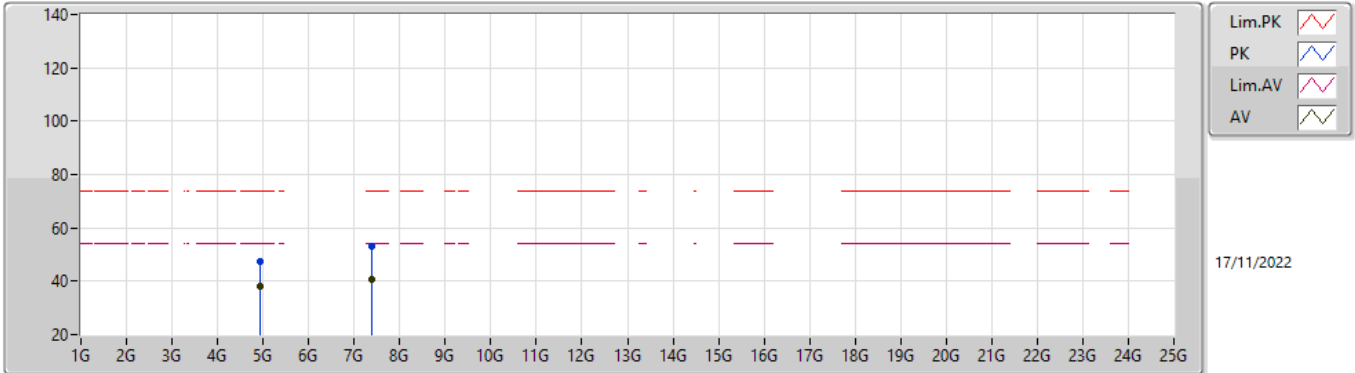


EUT V_2TX

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	111.31	Inf	-Inf	79.70	3	Horizontal	360	2.43	-	27.98	3.63	-
AV	2.4612G	108.89	Inf	-Inf	77.29	3	Horizontal	360	2.43	-	27.97	3.63	-
PK	2.4882G	59.26	74.00	-14.74	27.49	3	Horizontal	360	2.43	-	28.13	3.64	-
AV	2.4902G	47.58	54.00	-6.42	15.79	3	Horizontal	360	2.43	-	28.14	3.65	-

2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_2TX

2462MHz_TX

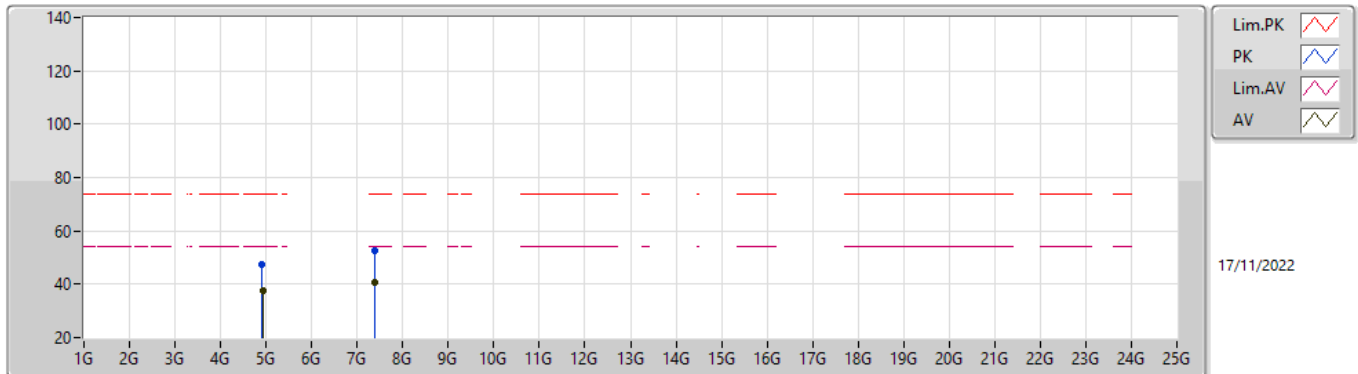


EUT Y_2TX

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	4.92418G	47.51	74.00	-26.49	41.56	3	Vertical	53	1.80	-	33.00	5.82	32.87
AV	4.92388G	37.89	54.00	-16.11	31.94	3	Vertical	53	1.80	-	33.00	5.82	32.87
PK	7.37598G	53.08	74.00	-20.92	41.56	3	Vertical	320	1.00	-	37.55	7.19	33.22
AV	7.3713G	40.56	54.00	-13.44	29.02	3	Vertical	320	1.00	-	37.56	7.19	33.21

2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_2TX

2462MHz_TX

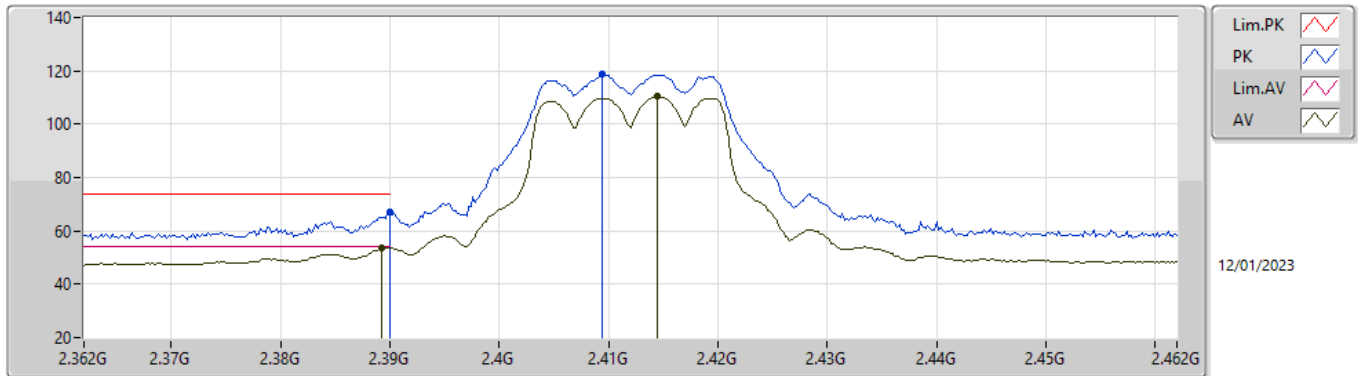


EUT Y_2TX

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	4.91206G	47.20	74.00	-26.80	41.26	3	Horizontal	76	1.67	-	33.00	5.81	32.87
AV	4.92394G	37.84	54.00	-16.16	31.89	3	Horizontal	76	1.67	-	33.00	5.82	32.87
PK	7.39218G	52.60	74.00	-21.40	41.10	3	Horizontal	336	1.60	-	37.52	7.20	33.22
AV	7.37148G	40.74	54.00	-13.26	29.20	3	Horizontal	336	1.60	-	37.56	7.19	33.21

2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_2TX

2412MHz_TX

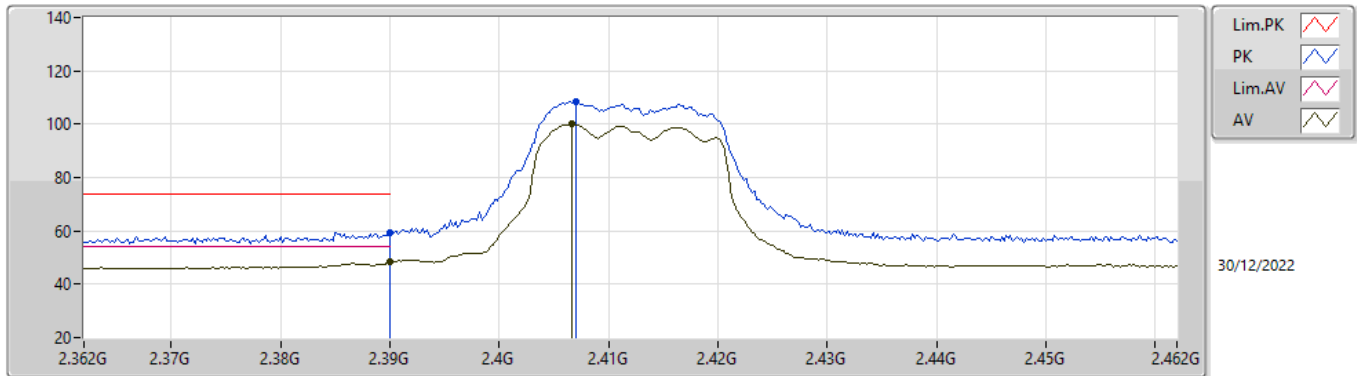


EUT Y_2TX

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	67.32	74.00	-6.68	36.48	3	Vertical	203	1.99	-	27.64	3.20	-
AV	2.3892G	53.80	54.00	-0.20	22.97	3	Vertical	203	1.99	-	27.64	3.19	-
PK	2.4094G	118.62	Inf	-Inf	87.71	3	Vertical	203	1.99	-	27.70	3.21	-
AV	2.4144G	110.33	Inf	-Inf	79.42	3	Vertical	203	1.99	-	27.70	3.21	-

2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_2TX

2412MHz_TX

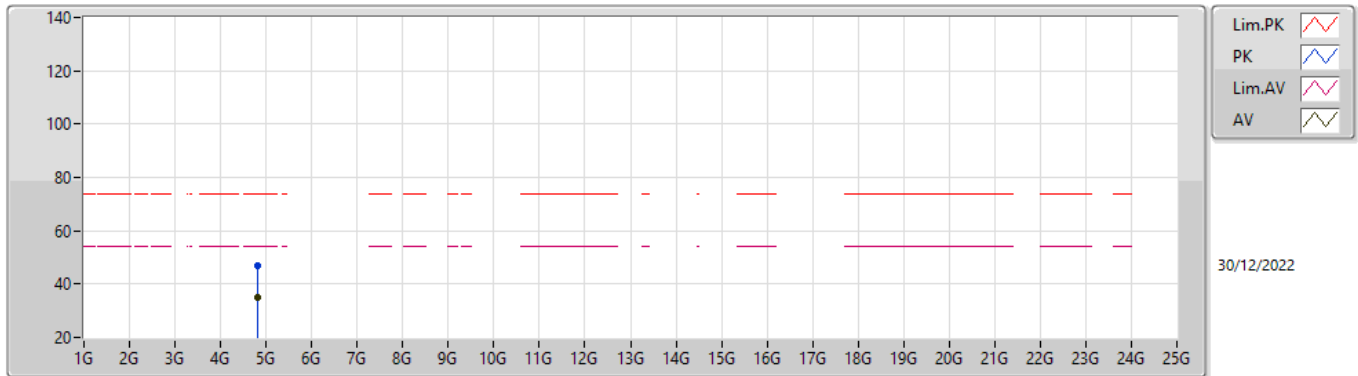


EUT Y_2TX

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.39G	59.36	74.00	-14.64	28.52	3	Horizontal	342	2.51	-	27.64	3.20	-
AV	2.39G	48.21	54.00	-5.79	17.37	3	Horizontal	342	2.51	-	27.64	3.20	-
PK	2.407G	108.42	Inf	-Inf	77.51	3	Horizontal	342	2.51	-	27.70	3.21	-
AV	2.4066G	100.06	Inf	-Inf	69.15	3	Horizontal	342	2.51	-	27.70	3.21	-

2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_2TX

2412MHz_TX

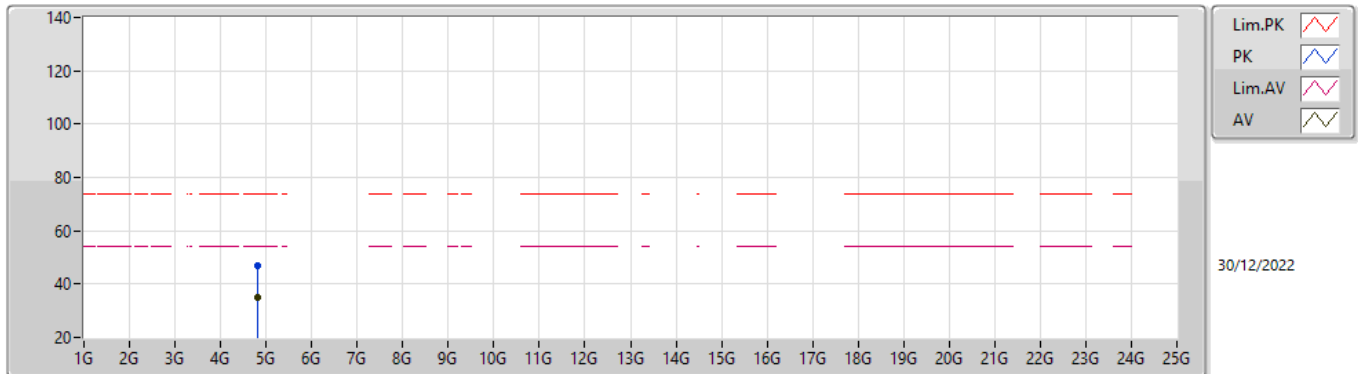


EUT Y_2TX

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	4.82552G	46.75	74.00	-27.25	41.45	3	Vertical	196	1.81	-	32.65	5.30	32.65
AV	4.82384G	34.97	54.00	-19.03	29.67	3	Vertical	196	1.81	-	32.65	5.30	32.65

2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_2TX

2412MHz_TX

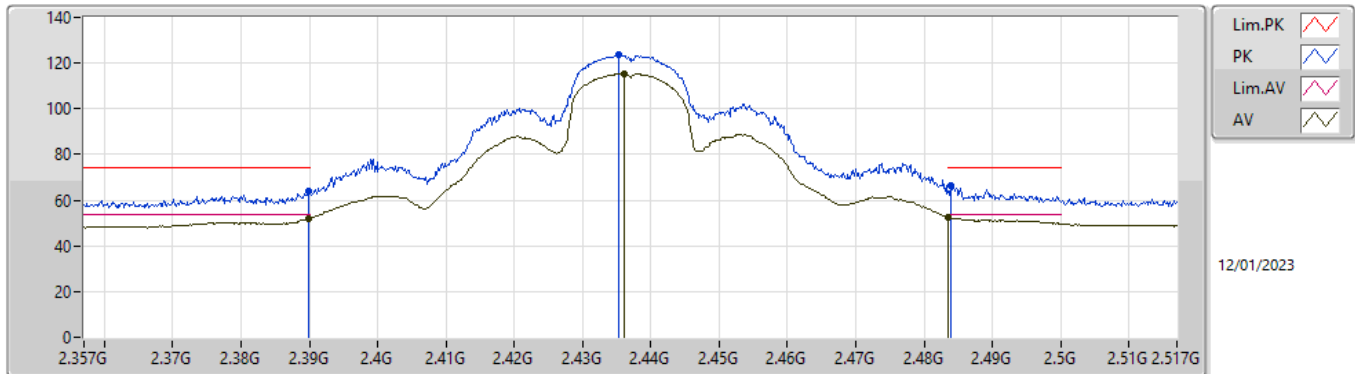


EUT Y_2TX

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	4.81772G	46.68	74.00	-27.32	41.39	3	Horizontal	140	2.04	-	32.64	5.30	32.65
AV	4.81888G	34.95	54.00	-19.05	29.66	3	Horizontal	140	2.04	-	32.64	5.30	32.65

2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_2TX

2437MHz_TX

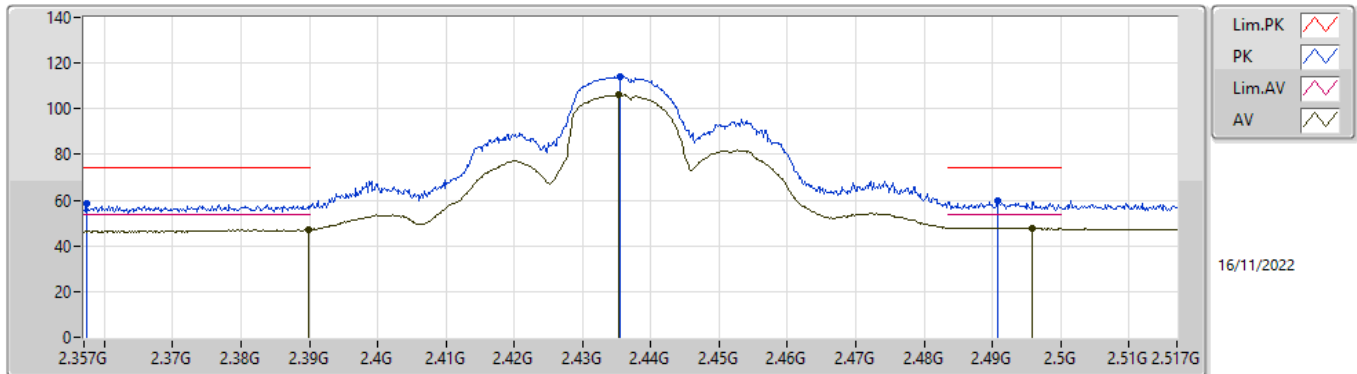


EUT Y_2TX

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	64.26	74.00	-9.74	32.89	3	Vertical	212	1.80	26	27.78	3.59	-
AV	2.3898G	52.12	54.00	-1.88	20.75	3	Vertical	212	1.80	26	27.78	3.59	-
PK	2.43524G	123.73	Inf	-Inf	92.24	3	Vertical	212	1.80	26	27.87	3.62	-
AV	2.43604G	115.28	Inf	-Inf	83.79	3	Vertical	212	1.80	26	27.87	3.62	-
PK	2.48388G	66.48	74.00	-7.52	34.74	3	Vertical	212	1.80	26	28.10	3.64	-
AV	2.4835G	52.40	54.00	-1.60	20.66	3	Vertical	212	1.80	26	28.10	3.64	-

2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_2TX

2437MHz_TX

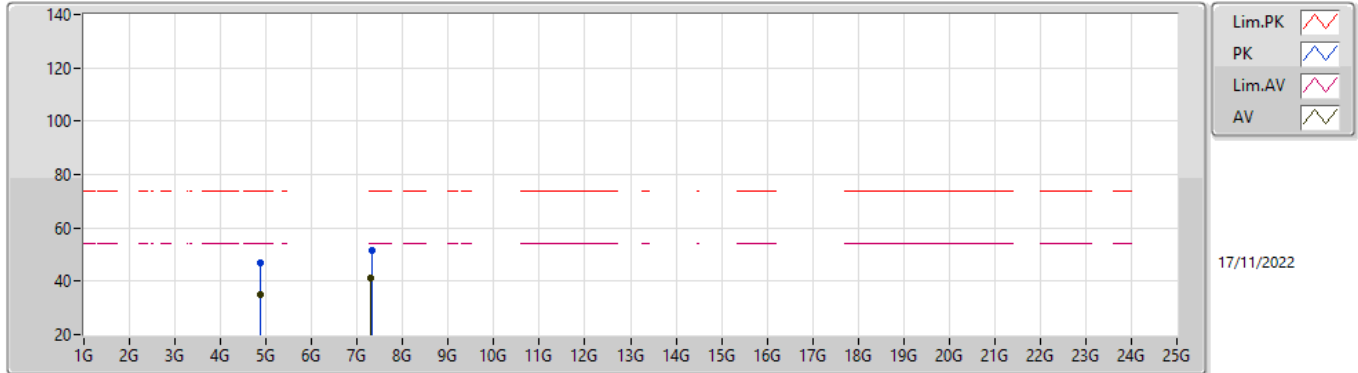


EUT Y_2TX

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	2.35732G	58.26	74.00	-15.74	26.99	3	Horizontal	63	2.93	26	27.71	3.56	-
AV	2.38996G	47.33	54.00	-6.67	15.96	3	Horizontal	63	2.93	26	27.78	3.59	-
PK	2.4354G	114.00	Inf	-Inf	82.51	3	Horizontal	63	2.93	26	27.87	3.62	-
AV	2.43524G	105.94	Inf	-Inf	74.45	3	Horizontal	63	2.93	26	27.87	3.62	-
PK	2.49076G	59.53	74.00	-14.47	27.74	3	Horizontal	63	2.93	26	28.14	3.65	-
AV	2.49588G	47.96	54.00	-6.04	16.13	3	Horizontal	63	2.93	26	28.18	3.65	-

2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_2TX

2437MHz_TX

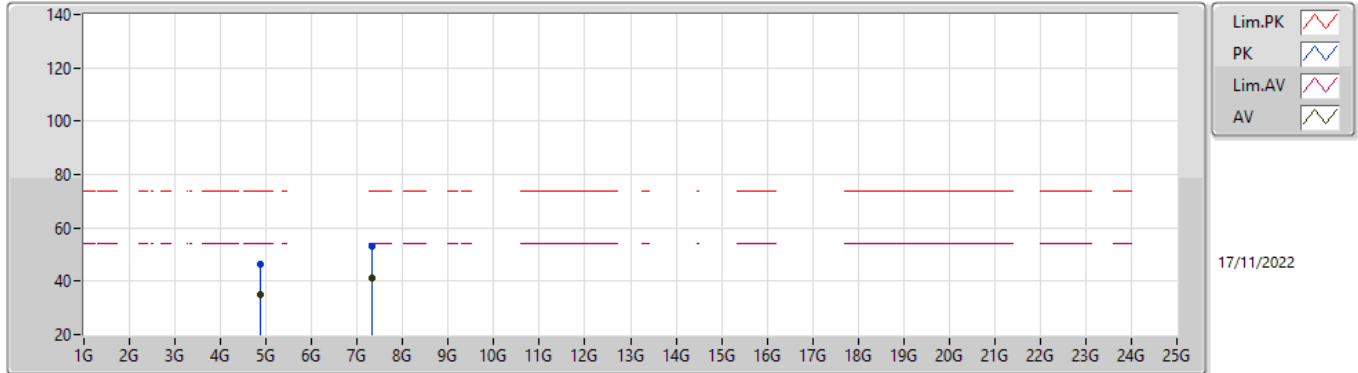


EUT Y_2TX

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	4.86086G	47.01	74.00	-26.99	41.13	3	Vertical	76	2.03	-	33.00	5.76	32.88
AV	4.86482G	34.95	54.00	-19.05	29.07	3	Vertical	76	2.03	-	33.00	5.76	32.88
PK	7.32462G	51.80	74.00	-22.20	40.23	3	Vertical	18	2.51	-	37.60	7.16	33.19
AV	7.30494G	41.06	54.00	-12.94	29.49	3	Vertical	18	2.51	-	37.60	7.15	33.18

2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_2TX

2437MHz_TX

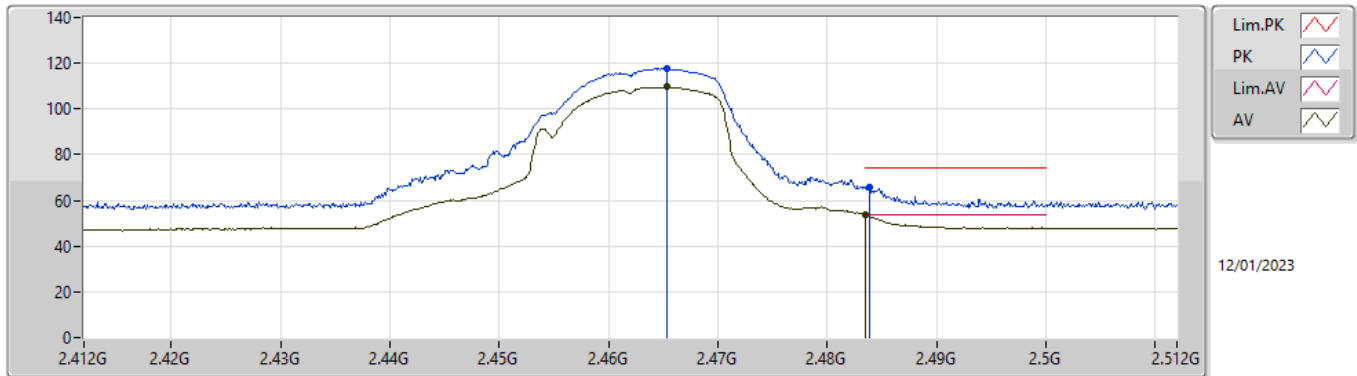


EUT Y_2TX

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	4.88492G	46.63	74.00	-27.37	40.72	3	Horizontal	244	1.92	-	33.00	5.78	32.87
AV	4.86362G	35.15	54.00	-18.85	29.27	3	Horizontal	244	1.92	-	33.00	5.76	32.88
PK	7.3161G	53.03	74.00	-20.97	41.45	3	Horizontal	340	1.80	-	37.60	7.16	33.18
AV	7.3188G	41.17	54.00	-12.83	29.60	3	Horizontal	340	1.80	-	37.60	7.16	33.19

2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_2TX

2462MHz_TX

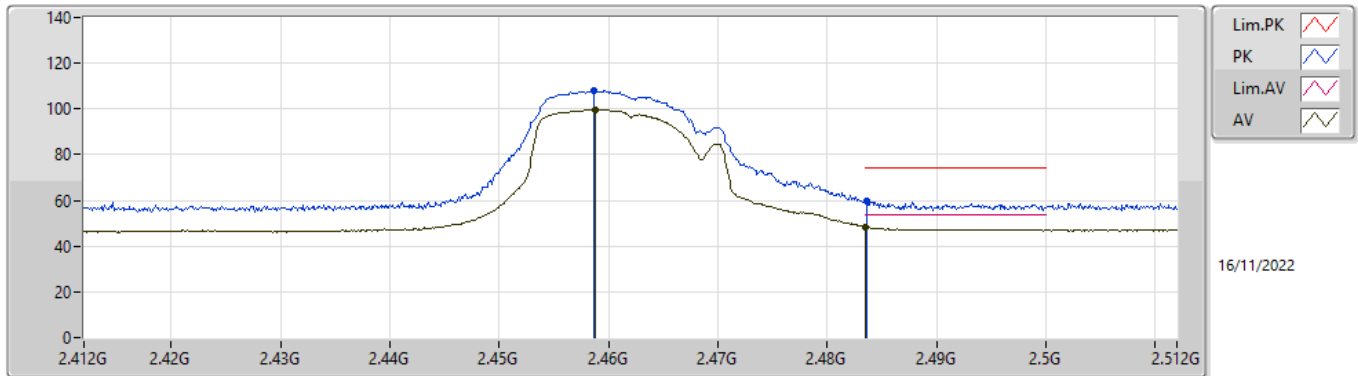


EUT Y_2TX

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	2.4654G	117.66	Inf	-Inf	86.04	3	Vertical	344	2.46	19.5	27.99	3.63	-
AV	2.4653G	109.56	Inf	-Inf	77.94	3	Vertical	344	2.46	19.5	27.99	3.63	-
PK	2.4839G	66.00	74.00	-8.00	34.26	3	Vertical	344	2.46	19.5	28.10	3.64	-
AV	2.4835G	53.45	54.00	-0.55	21.71	3	Vertical	344	2.46	19.5	28.10	3.64	-

2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_2TX

2462MHz_TX

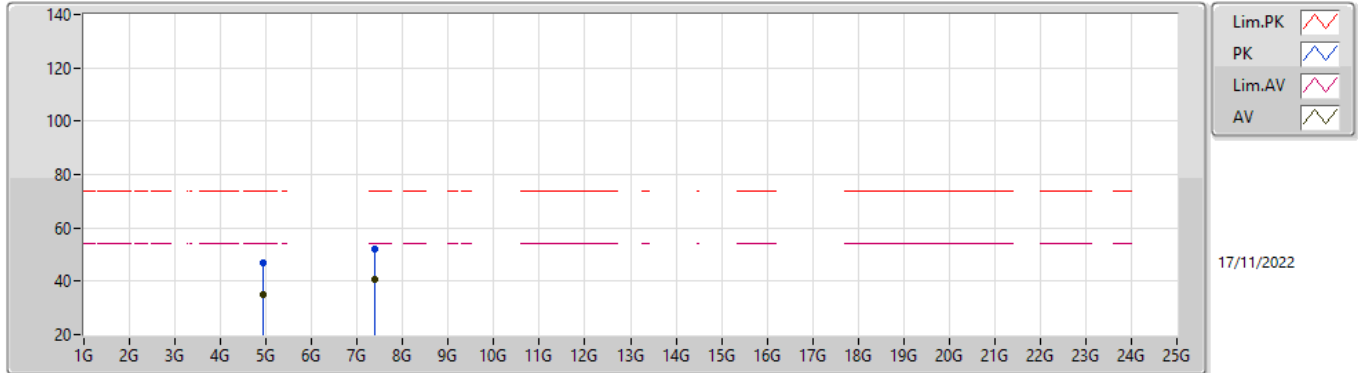


EUT V_2TX

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	2.4587G	108.20	Inf	-Inf	76.62	3	Horizontal	41	2.42	19.5	27.95	3.63	-
AV	2.4588G	99.57	Inf	-Inf	67.99	3	Horizontal	41	2.42	19.5	27.95	3.63	-
PK	2.4836G	60.03	74.00	-13.97	28.29	3	Horizontal	41	2.42	19.5	28.10	3.64	-
AV	2.4835G	48.37	54.00	-5.63	16.63	3	Horizontal	41	2.42	19.5	28.10	3.64	-

2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_2TX

2462MHz_TX

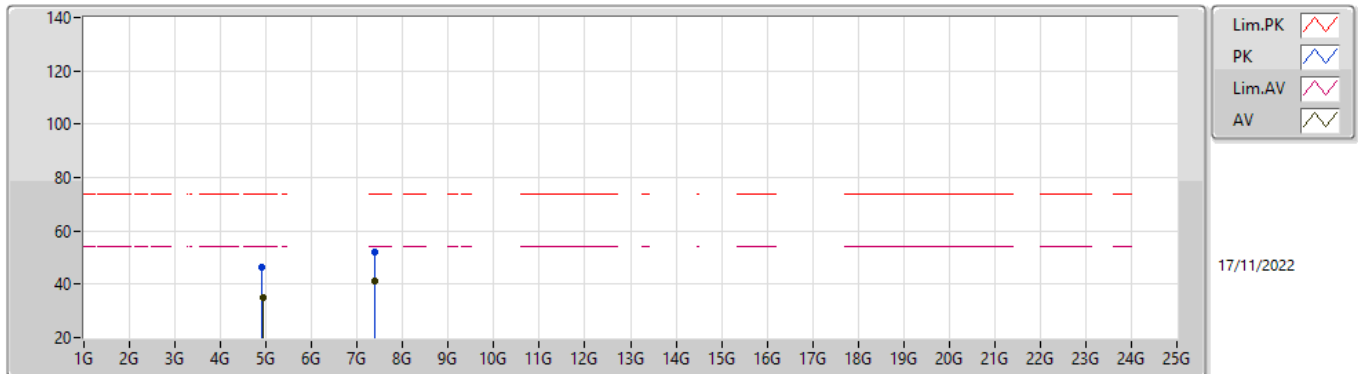


EUT Y_2TX

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	4.92706G	46.77	74.00	-27.23	40.80	3	Vertical	309	2.27	-	33.00	5.83	32.86
AV	4.92142G	35.17	54.00	-18.83	29.22	3	Vertical	309	2.27	-	33.00	5.82	32.87
PK	7.38942G	52.23	74.00	-21.77	40.74	3	Vertical	360	1.00	-	37.52	7.19	33.22
AV	7.37136G	40.90	54.00	-13.10	29.36	3	Vertical	360	1.00	-	37.56	7.19	33.21

2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_2TX

2462MHz_TX

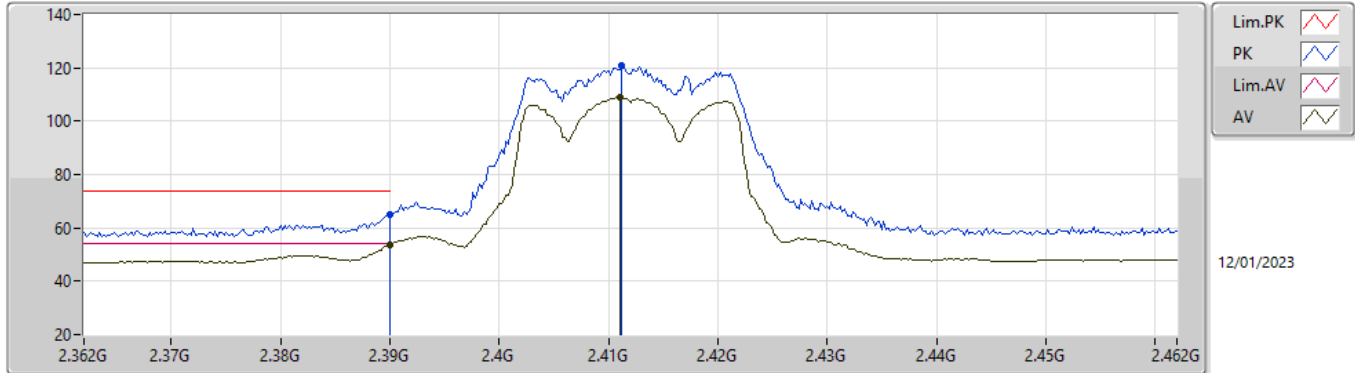


EUT Y_2TX

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	4.9153G	46.60	74.00	-27.40	40.65	3	Horizontal	231	1.80	-	33.00	5.82	32.87
AV	4.91962G	35.23	54.00	-18.77	29.28	3	Horizontal	231	1.80	-	33.00	5.82	32.87
PK	7.37616G	51.94	74.00	-22.06	40.42	3	Horizontal	40	2.71	-	37.55	7.19	33.22
AV	7.37238G	41.02	54.00	-12.98	29.48	3	Horizontal	40	2.71	-	37.56	7.19	33.21

2.4-2.4835GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

2412MHz_TX

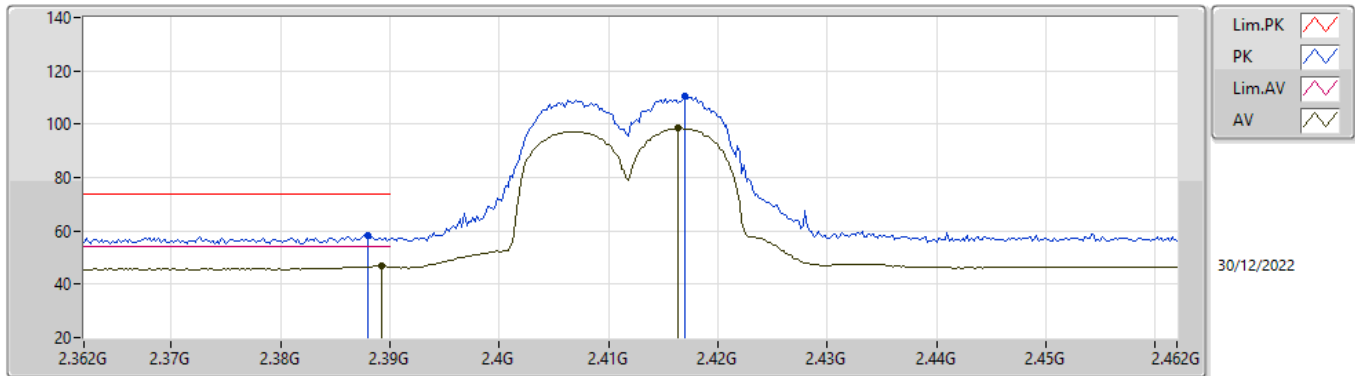


EUT Y_2TX

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.39G	65.21	74.00	-8.79	34.37	3	Vertical	358	2.31	-	27.64	3.20	-
AV	2.39G	53.60	54.00	-0.40	22.76	3	Vertical	358	2.31	-	27.64	3.20	-
PK	2.4112G	120.94	Inf	-Inf	90.03	3	Vertical	358	2.31	-	27.70	3.21	-
AV	2.411G	108.88	Inf	-Inf	77.97	3	Vertical	358	2.31	-	27.70	3.21	-

2.4-2.4835GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

2412MHz_TX

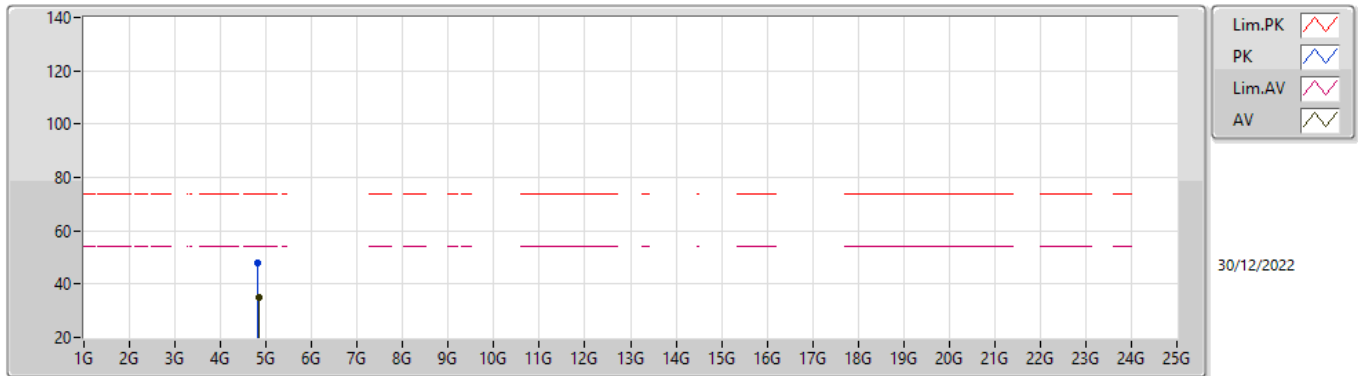


EUT Y_2TX

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	58.45	74.00	-15.55	27.63	3	Horizontal	47	2.14	-	27.63	3.19	-
AV	2.3892G	46.65	54.00	-7.35	15.82	3	Horizontal	47	2.14	-	27.64	3.19	-
PK	2.417G	110.40	Inf	-Inf	79.48	3	Horizontal	47	2.14	-	27.70	3.22	-
AV	2.4164G	98.42	Inf	-Inf	67.50	3	Horizontal	47	2.14	-	27.70	3.22	-

2.4-2.4835GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

2412MHz_TX

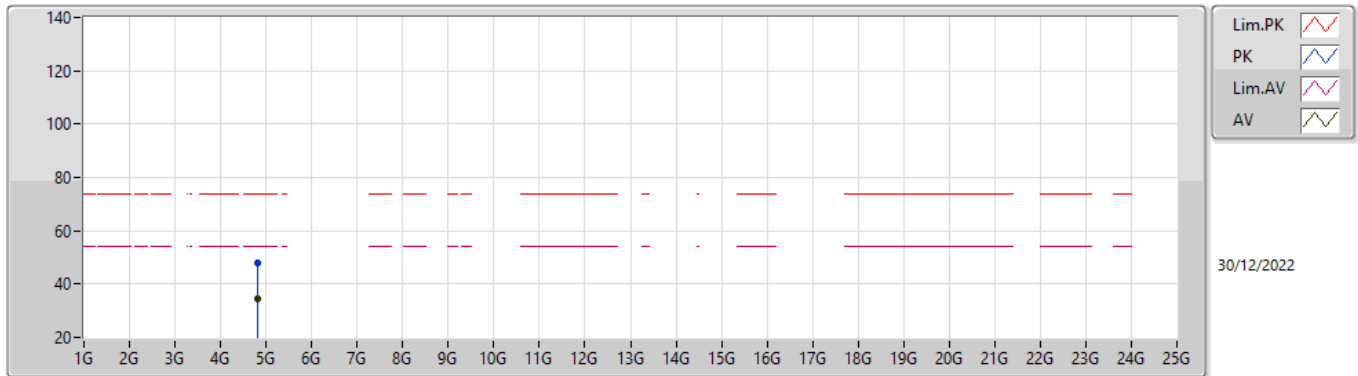


EUT Y_2TX

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	4.82096G	47.81	74.00	-26.19	42.52	3	Vertical	33	1.80	-	32.64	5.30	32.65
AV	4.83284G	34.92	54.00	-19.08	29.60	3	Vertical	33	1.80	-	32.67	5.30	32.65

2.4-2.4835GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

2412MHz_TX

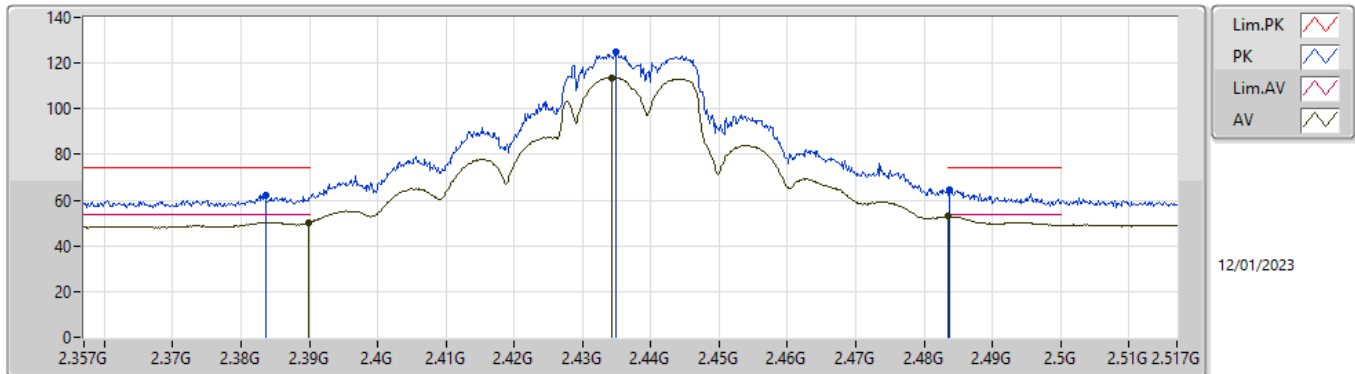


EUT Y_2TX

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	4.82424G	47.77	74.00	-26.23	42.47	3	Horizontal	305	1.80	-	32.65	5.30	32.65
AV	4.82328G	34.59	54.00	-19.41	29.29	3	Horizontal	305	1.80	-	32.65	5.30	32.65

2.4-2.4835GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

2437MHz_TX

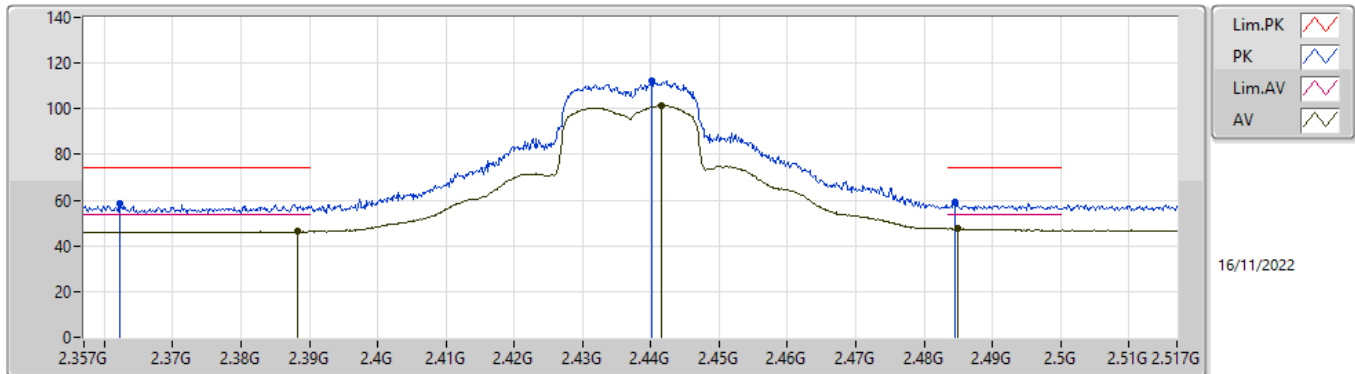


EUT V_2TX

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	2.38356G	61.99	74.00	-12.01	30.64	3	Vertical	21	1.80	25	27.77	3.58	-
AV	2.38996G	50.38	54.00	-3.62	19.01	3	Vertical	21	1.80	25	27.78	3.59	-
PK	2.43492G	124.62	Inf	-Inf	93.13	3	Vertical	21	1.80	25	27.87	3.62	-
AV	2.43428G	113.69	Inf	-Inf	82.20	3	Vertical	21	1.80	25	27.87	3.62	-
PK	2.48372G	64.37	74.00	-9.63	32.63	3	Vertical	21	1.80	25	28.10	3.64	-
AV	2.4835G	52.81	54.00	-1.19	21.07	3	Vertical	21	1.80	25	28.10	3.64	-

2.4-2.4835GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

2437MHz_TX

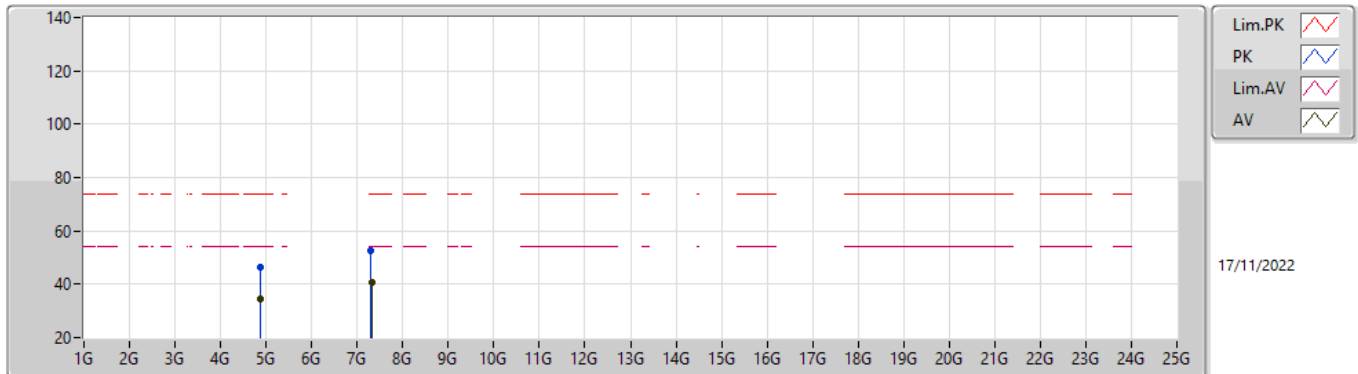


EUT Y_2TX

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	2.36228G	58.38	74.00	-15.62	27.10	3	Horizontal	95	1.80	25	27.72	3.56	-
AV	2.3882G	46.36	54.00	-7.64	14.99	3	Horizontal	95	1.80	25	27.78	3.59	-
PK	2.4402G	112.39	Inf	-Inf	80.89	3	Horizontal	95	1.80	25	27.88	3.62	-
AV	2.44148G	101.28	Inf	-Inf	69.78	3	Horizontal	95	1.80	25	27.88	3.62	-
PK	2.48452G	58.87	74.00	-15.13	27.12	3	Horizontal	95	1.80	25	28.11	3.64	-
AV	2.48484G	47.44	54.00	-6.56	15.69	3	Horizontal	95	1.80	25	28.11	3.64	-

2.4-2.4835GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

2437MHz_TX

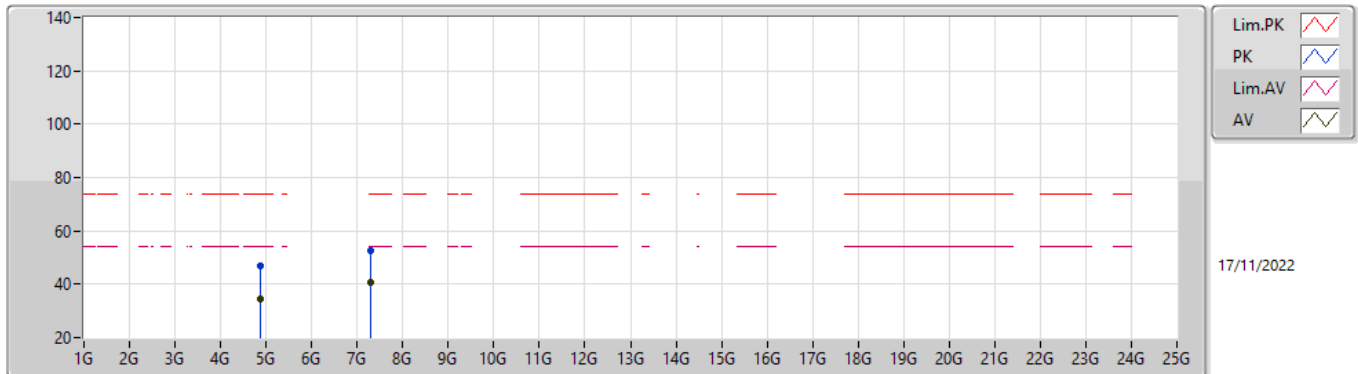


EUT Y_2TX

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	4.88552G	46.32	74.00	-27.68	40.40	3	Vertical	186	2.63	-	33.00	5.79	32.87
AV	4.86626G	34.63	54.00	-19.37	28.74	3	Vertical	186	2.63	-	33.00	5.77	32.88
PK	7.30254G	52.36	74.00	-21.64	40.79	3	Vertical	266	1.80	-	37.60	7.15	33.18
AV	7.32246G	40.76	54.00	-13.24	29.19	3	Vertical	266	1.80	-	37.60	7.16	33.19

2.4-2.4835GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

2437MHz_TX

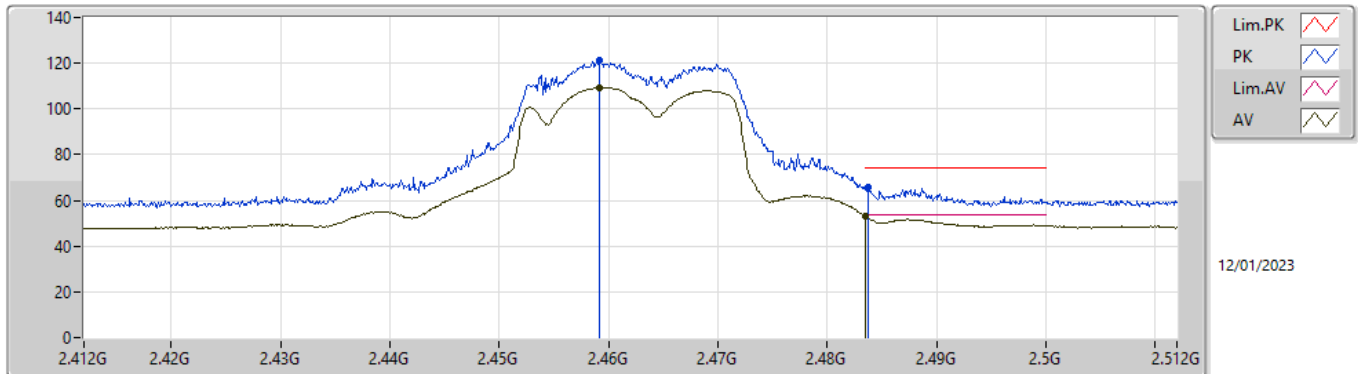


EUT Y_2TX

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	4.87718G	46.88	74.00	-27.12	40.97	3	Horizontal	54	1.00	-	33.00	5.78	32.87
AV	4.85918G	34.52	54.00	-19.48	28.64	3	Horizontal	54	1.00	-	33.00	5.76	32.88
PK	7.30944G	52.36	74.00	-21.64	40.79	3	Horizontal	55	2.34	-	37.60	7.15	33.18
AV	7.29798G	40.79	54.00	-13.21	29.22	3	Horizontal	55	2.34	-	37.59	7.15	33.17

2.4-2.4835GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

2462MHz_TX

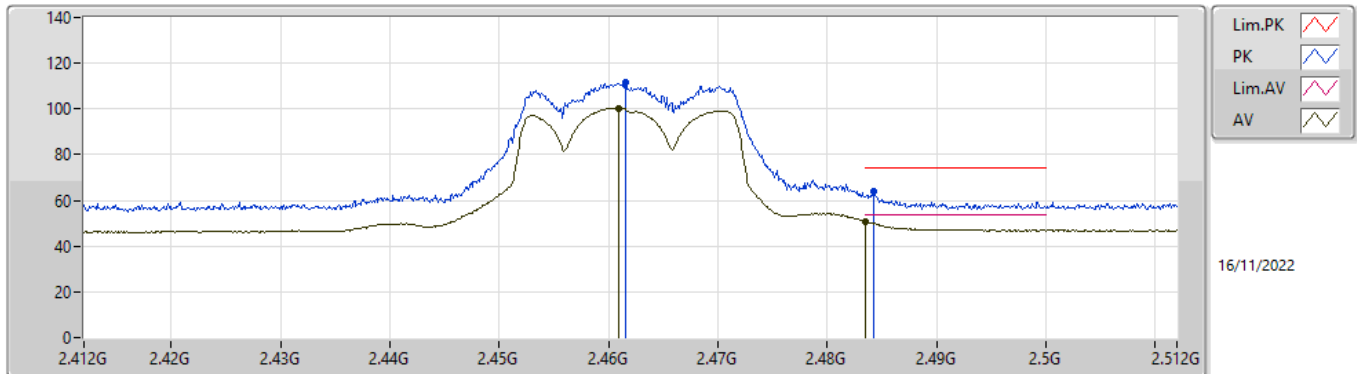


EUT Y_2TX

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	121.29	Inf	-Inf	89.70	3	Vertical	21	2.14	20	27.96	3.63	-
AV	2.4592G	109.34	Inf	-Inf	77.75	3	Vertical	21	2.14	20	27.96	3.63	-
PK	2.4838G	65.61	74.00	-8.39	33.87	3	Vertical	21	2.14	20	28.10	3.64	-
AV	2.4835G	52.94	54.00	-1.06	21.20	3	Vertical	21	2.14	20	28.10	3.64	-

2.4-2.4835GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

2462MHz_TX

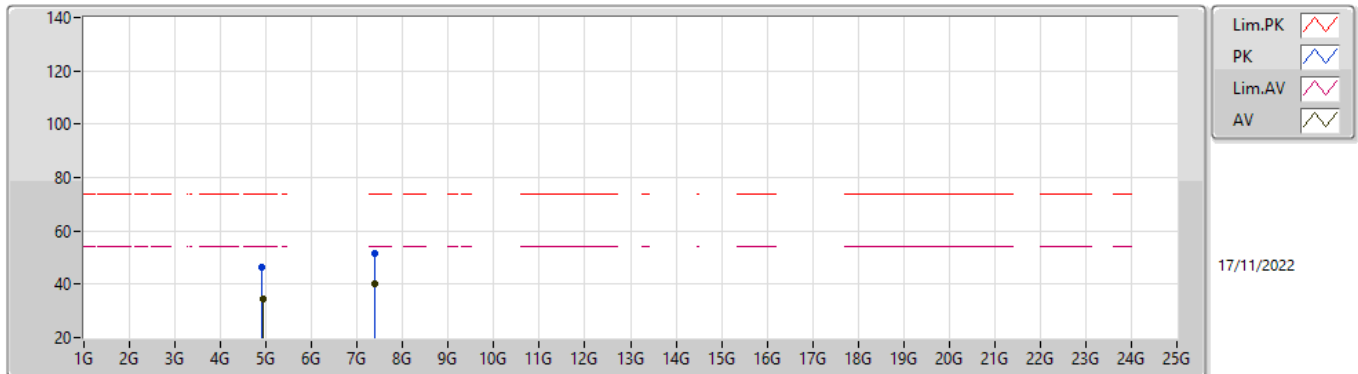


EUT V_2TX

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	2.4616G	111.40	Inf	-Inf	79.80	3	Horizontal	62	2.66	20	27.97	3.63	-
AV	2.4609G	100.46	Inf	-Inf	68.86	3	Horizontal	62	2.66	20	27.97	3.63	-
PK	2.4843G	63.68	74.00	-10.32	31.93	3	Horizontal	62	2.66	20	28.11	3.64	-
AV	2.4835G	50.87	54.00	-3.13	19.13	3	Horizontal	62	2.66	20	28.10	3.64	-

2.4-2.4835GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

2462MHz_TX

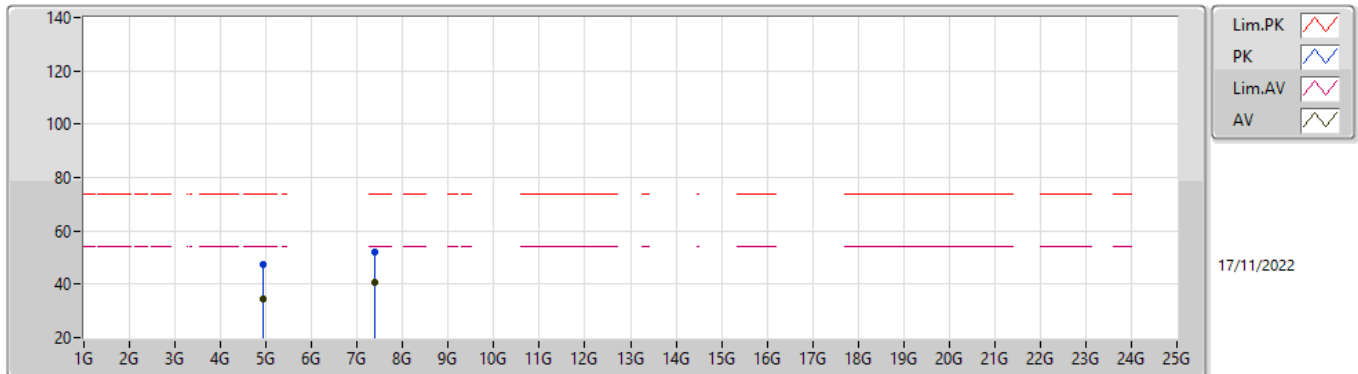


EUT Y_2TX

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	4.9177G	46.49	74.00	-27.51	40.54	3	Vertical	31	1.80	-	33.00	5.82	32.87
AV	4.9198G	34.66	54.00	-19.34	28.71	3	Vertical	31	1.80	-	33.00	5.82	32.87
PK	7.38942G	51.35	74.00	-22.65	39.86	3	Vertical	81	1.05	-	37.52	7.19	33.22
AV	7.37592G	40.43	54.00	-13.57	28.91	3	Vertical	81	1.05	-	37.55	7.19	33.22

2.4-2.4835GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

2462MHz_TX

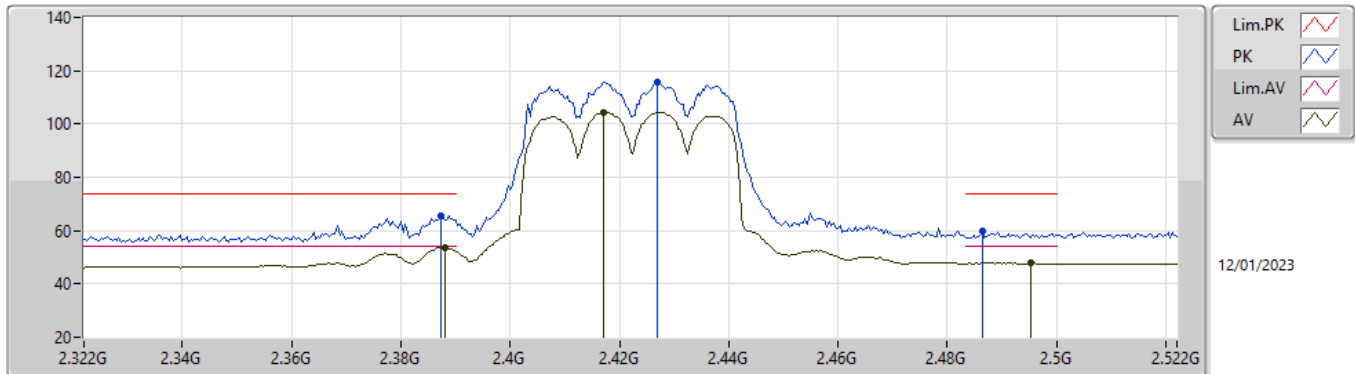


EUT Y_2TX

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	4.9237G	47.29	74.00	-26.71	41.34	3	Horizontal	110	1.23	-	33.00	5.82	32.87
AV	4.92784G	34.59	54.00	-19.41	28.62	3	Horizontal	110	1.23	-	33.00	5.83	32.86
PK	7.38372G	52.00	74.00	-22.00	40.50	3	Horizontal	90	1.80	-	37.53	7.19	33.22
AV	7.3713G	40.45	54.00	-13.55	28.91	3	Horizontal	90	1.80	-	37.56	7.19	33.21

2.4-2.4835GHz_802.11ax HEW40_Nss1,(MCS0)_2TX

2422MHz_TX

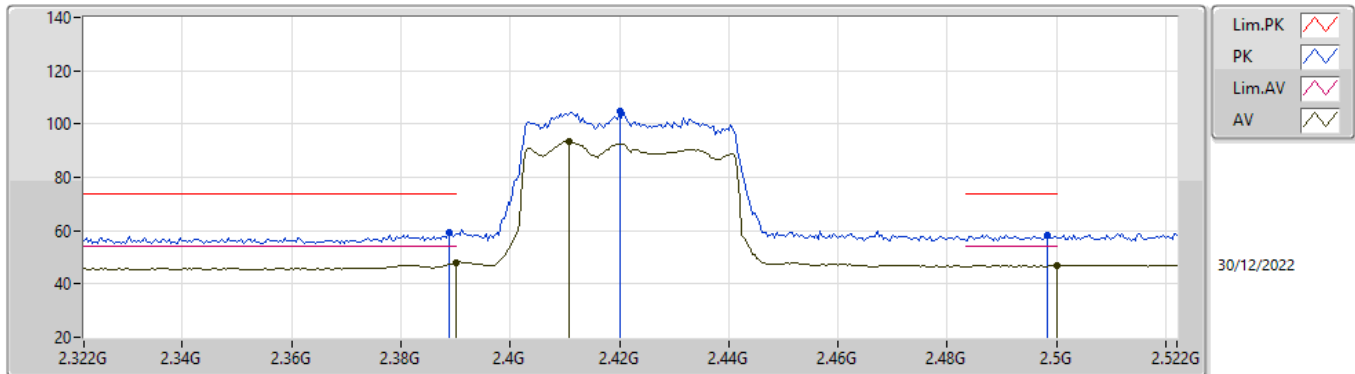


EUT Y_2TX

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	2.3872G	65.42	74.00	-8.58	34.61	3	Vertical	196	1.94	-	27.62	3.19	-
AV	2.388G	53.68	54.00	-0.32	22.86	3	Vertical	196	1.94	-	27.63	3.19	-
PK	2.4268G	115.52	Inf	-Inf	84.59	3	Vertical	196	1.94	-	27.70	3.23	-
AV	2.4172G	104.49	Inf	-Inf	73.57	3	Vertical	196	1.94	-	27.70	3.22	-
PK	2.4864G	59.70	74.00	-14.30	28.56	3	Vertical	196	1.94	-	27.85	3.29	-
AV	2.4952G	47.87	54.00	-6.13	16.69	3	Vertical	196	1.94	-	27.88	3.30	-

2.4-2.4835GHz_802.11ax HEW40_Nss1,(MCS0)_2TX

2422MHz_TX

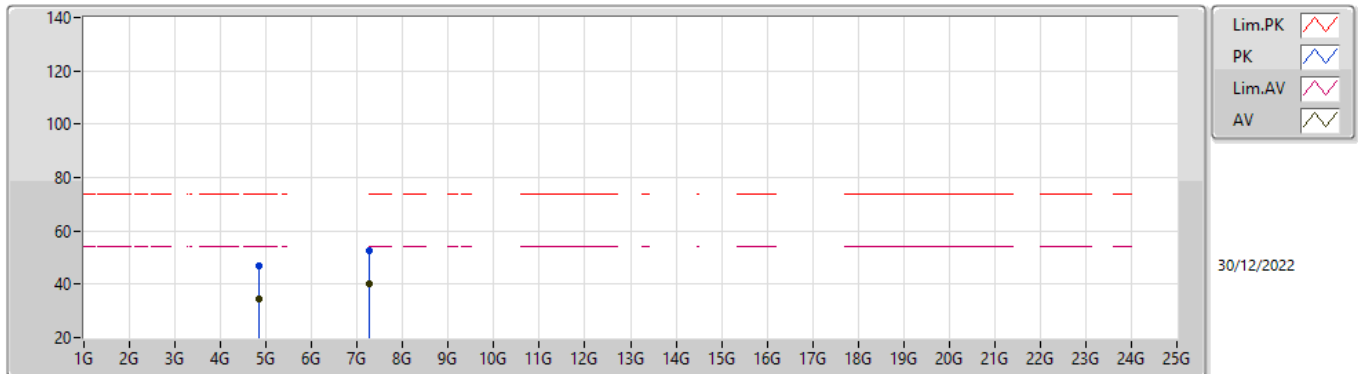


EUT Y_2TX

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	2.3888G	59.34	74.00	-14.66	28.52	3	Horizontal	342	2.52	-	27.63	3.19	-
AV	2.39G	47.79	54.00	-6.21	16.95	3	Horizontal	342	2.52	-	27.64	3.20	-
PK	2.42G	104.77	Inf	-Inf	73.85	3	Horizontal	342	2.52	-	27.70	3.22	-
AV	2.4108G	93.31	Inf	-Inf	62.40	3	Horizontal	342	2.52	-	27.70	3.21	-
PK	2.4984G	58.49	74.00	-15.51	27.30	3	Horizontal	342	2.52	-	27.89	3.30	-
AV	2.5G	46.91	54.00	-7.09	15.71	3	Horizontal	342	2.52	-	27.90	3.30	-

2.4-2.4835GHz_802.11ax HEW40_Nss1,(MCS0)_2TX

2422MHz_TX

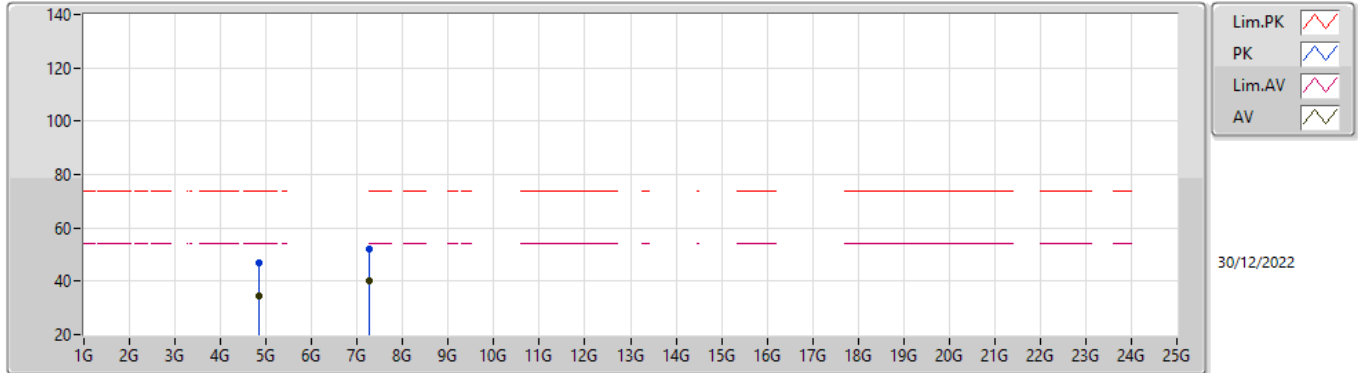


EUT Y_2TX

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	4.84308G	47.11	74.00	-26.89	41.76	3	Vertical	360	1.80	-	32.69	5.30	32.64
AV	4.85152G	34.65	54.00	-19.35	29.29	3	Vertical	360	1.80	-	32.70	5.30	32.64
PK	7.272G	52.80	74.00	-21.20	41.60	3	Vertical	130	1.80	-	37.53	6.87	33.20
AV	7.26192G	40.20	54.00	-13.80	29.07	3	Vertical	130	1.80	-	37.47	6.86	33.20

2.4-2.4835GHz_802.11ax HEW40_Nss1,(MCS0)_2TX

2422MHz_TX

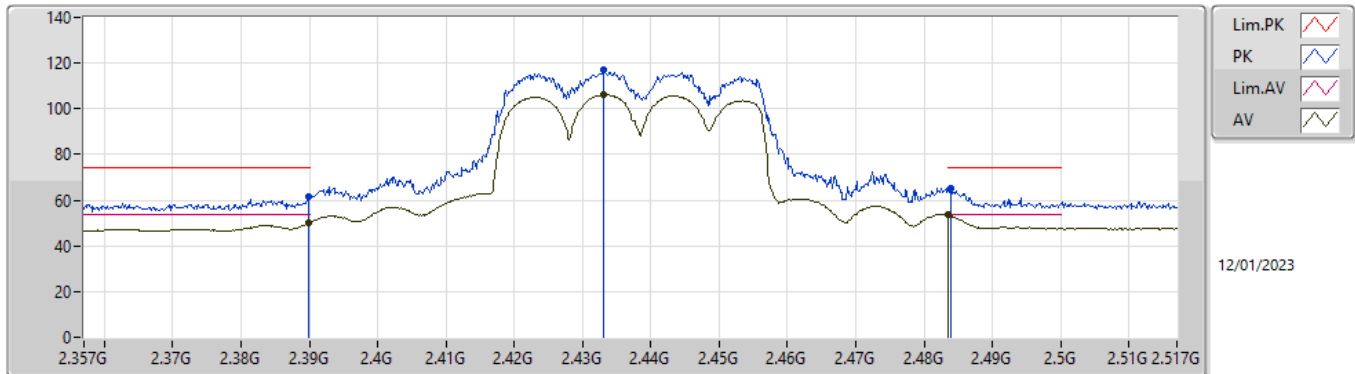


EUT Y_2TX

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	4.85288G	46.79	74.00	-27.21	41.42	3	Horizontal	66	2.68	-	32.71	5.30	32.64
AV	4.84092G	34.56	54.00	-19.44	29.22	3	Horizontal	66	2.68	-	32.68	5.30	32.64
PK	7.25704G	52.20	74.00	-21.80	41.10	3	Horizontal	292	1.17	-	37.44	6.86	33.20
AV	7.26908G	40.21	54.00	-13.79	29.03	3	Horizontal	292	1.17	-	37.51	6.87	33.20

2.4-2.4835GHz_802.11ax HEW40_Nss1,(MCS0)_2TX

2437MHz_TX

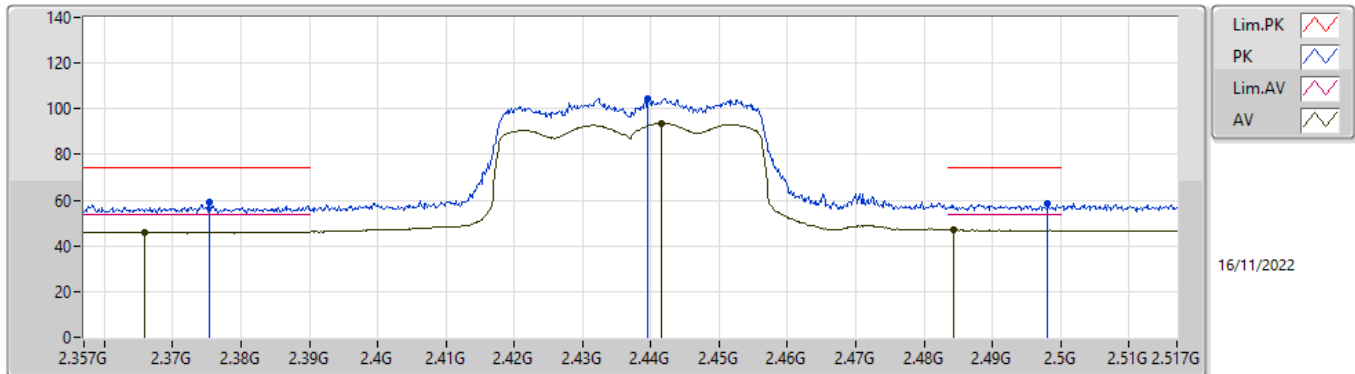


EUT Y_2TX

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	61.41	74.00	-12.59	30.04	3	Vertical	14	1.80	19.5	27.78	3.59	-
AV	2.38996G	50.05	54.00	-3.95	18.68	3	Vertical	14	1.80	19.5	27.78	3.59	-
PK	2.43316G	116.87	Inf	-Inf	85.38	3	Vertical	14	1.80	19.5	27.87	3.62	-
AV	2.43316G	106.07	Inf	-Inf	74.58	3	Vertical	14	1.80	19.5	27.87	3.62	-
PK	2.48388G	65.33	74.00	-8.67	33.59	3	Vertical	14	1.80	19.5	28.10	3.64	-
AV	2.4835G	53.57	54.00	-0.43	21.83	3	Vertical	14	1.80	19.5	28.10	3.64	-

2.4-2.4835GHz_802.11ax HEW40_Nss1,(MCS0)_2TX

2437MHz_TX

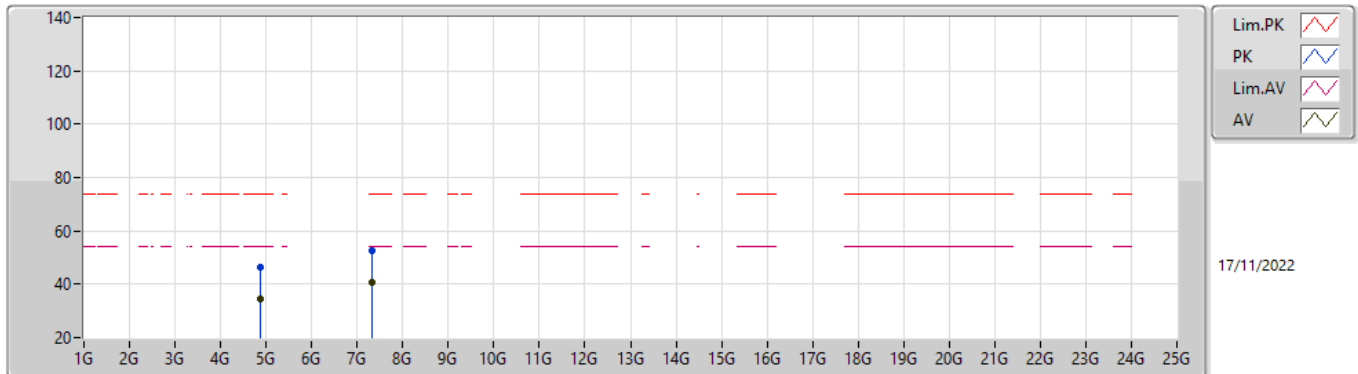


EUT Y_2TX

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	2.3754G	59.16	74.00	-14.84	27.83	3	Horizontal	96	1.80	19.5	27.75	3.58	-
AV	2.3658G	46.12	54.00	-7.88	14.82	3	Horizontal	96	1.80	19.5	27.73	3.57	-
PK	2.43956G	104.51	Inf	-Inf	73.01	3	Horizontal	96	1.80	19.5	27.88	3.62	-
AV	2.44148G	93.61	Inf	-Inf	62.11	3	Horizontal	96	1.80	19.5	27.88	3.62	-
PK	2.49812G	58.29	74.00	-15.71	26.45	3	Horizontal	96	1.80	19.5	28.19	3.65	-
AV	2.48436G	47.19	54.00	-6.81	15.44	3	Horizontal	96	1.80	19.5	28.11	3.64	-

2.4-2.4835GHz_802.11ax HEW40_Nss1,(MCS0)_2TX

2437MHz_TX

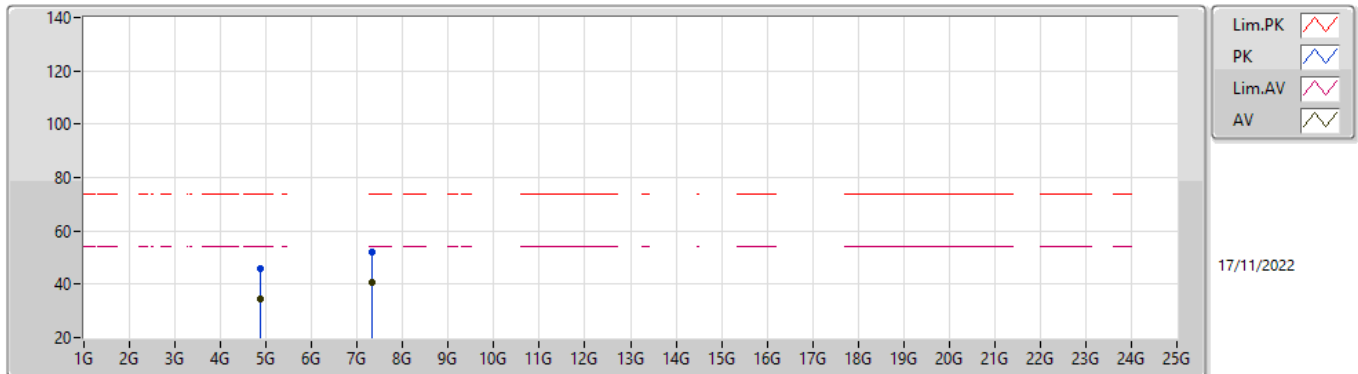


EUT Y_2TX

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	4.87418G	46.45	74.00	-27.55	40.56	3	Vertical	84	2.82	-	33.00	5.77	32.88
AV	4.85936G	34.37	54.00	-19.63	28.49	3	Vertical	84	2.82	-	33.00	5.76	32.88
PK	7.31256G	52.41	74.00	-21.59	40.83	3	Vertical	67	2.98	-	37.60	7.16	33.18
AV	7.3254G	40.80	54.00	-13.20	29.23	3	Vertical	67	2.98	-	37.60	7.16	33.19

2.4-2.4835GHz_802.11ax HEW40_Nss1,(MCS0)_2TX

2437MHz_TX

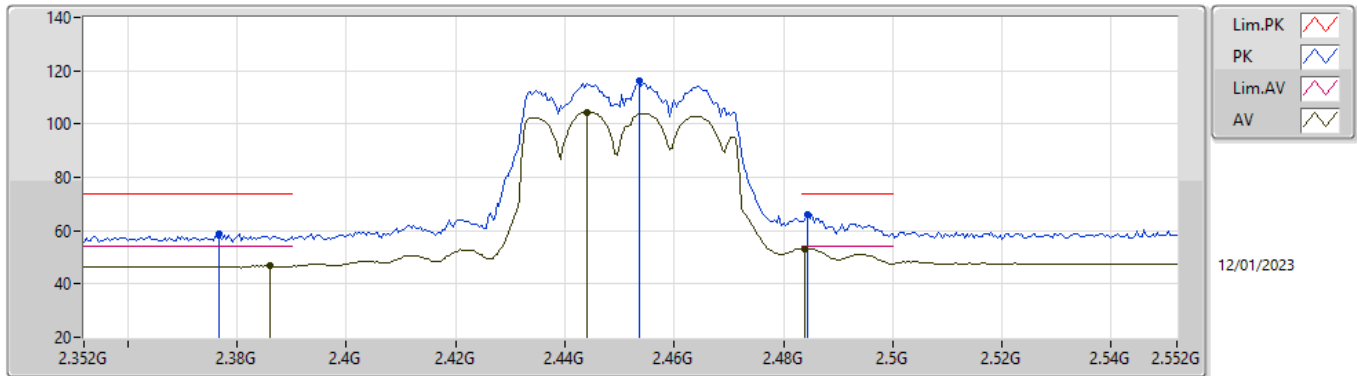


EUT Y_2TX

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	4.86524G	46.06	74.00	-27.94	40.17	3	Horizontal	303	2.56	-	33.00	5.77	32.88
AV	4.86308G	34.39	54.00	-19.61	28.51	3	Horizontal	303	2.56	-	33.00	5.76	32.88
PK	7.32018G	52.21	74.00	-21.79	40.64	3	Horizontal	60	1.80	-	37.60	7.16	33.19
AV	7.32582G	40.75	54.00	-13.25	29.18	3	Horizontal	60	1.80	-	37.60	7.16	33.19

2.4-2.4835GHz_802.11ax HEW40_Nss1,(MCS0)_2TX

2452MHz_TX

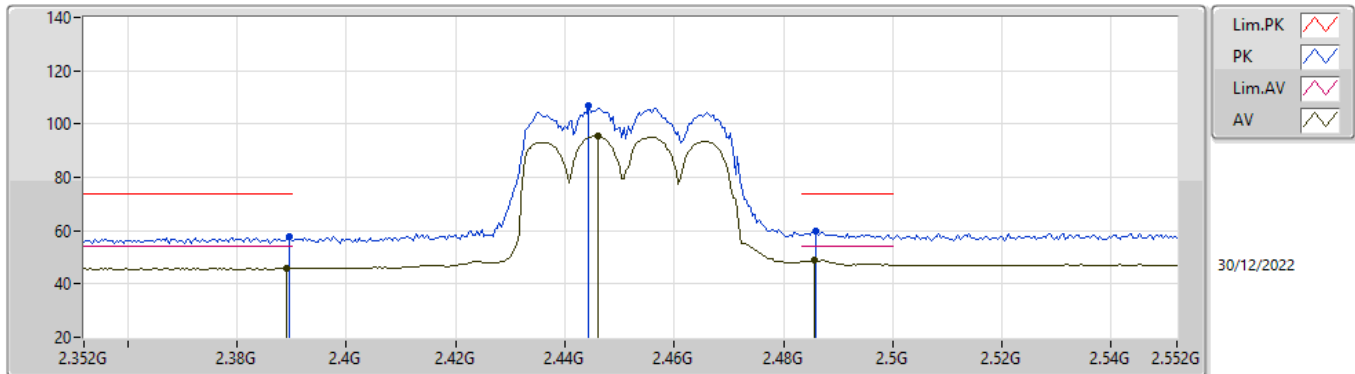


EUT Y_2TX

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	2.3768G	58.74	74.00	-15.26	27.99	3	Vertical	341	2.66	-	27.56	3.19	-
AV	2.386G	46.85	54.00	-7.15	16.04	3	Vertical	341	2.66	-	27.62	3.19	-
PK	2.4536G	116.24	Inf	-Inf	85.28	3	Vertical	341	2.66	-	27.71	3.25	-
AV	2.444G	104.51	Inf	-Inf	73.57	3	Vertical	341	2.66	-	27.70	3.24	-
PK	2.4844G	65.93	74.00	-8.07	34.81	3	Vertical	341	2.66	-	27.84	3.28	-
AV	2.484G	53.32	54.00	-0.68	22.20	3	Vertical	341	2.66	-	27.84	3.28	-

2.4-2.4835GHz_802.11ax HEW40_Nss1,(MCS0)_2TX

2452MHz_TX

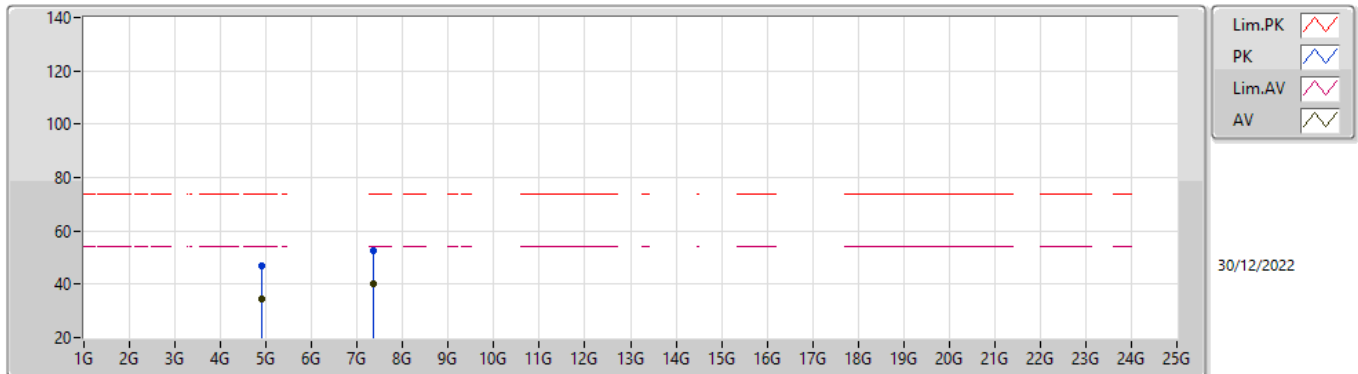


EUT Y_2TX

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3896G	57.77	74.00	-16.23	26.94	3	Horizontal	50	2.68	-	27.64	3.19	-
AV	2.3892G	45.89	54.00	-8.11	15.06	3	Horizontal	50	2.68	-	27.64	3.19	-
PK	2.4444G	106.87	Inf	-Inf	75.93	3	Horizontal	50	2.68	-	27.70	3.24	-
AV	2.446G	95.41	Inf	-Inf	64.46	3	Horizontal	50	2.68	-	27.70	3.25	-
PK	2.486G	59.81	74.00	-14.19	28.68	3	Horizontal	50	2.68	-	27.84	3.29	-
AV	2.4856G	48.90	54.00	-5.10	17.77	3	Horizontal	50	2.68	-	27.84	3.29	-

2.4-2.4835GHz_802.11ax HEW40_Nss1,(MCS0)_2TX

2452MHz_TX

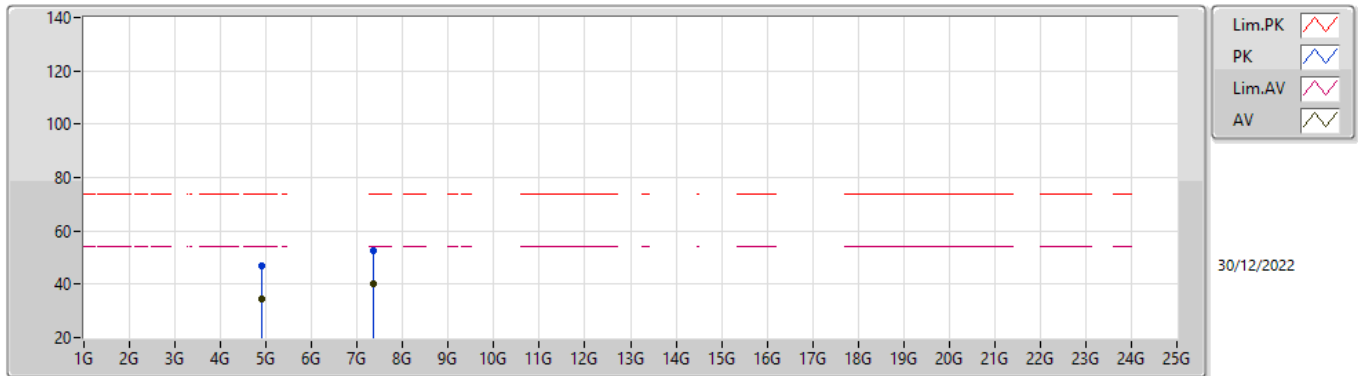


EUT Y_2TX

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	4.91176G	47.09	74.00	-26.91	41.58	3	Vertical	101	1.80	-	32.82	5.30	32.61
AV	4.90288G	34.58	54.00	-19.42	29.08	3	Vertical	101	1.80	-	32.81	5.30	32.61
PK	7.36112G	52.61	74.00	-21.39	41.22	3	Vertical	108	1.80	-	37.66	6.96	33.23
AV	7.34704G	40.22	54.00	-13.78	28.80	3	Vertical	108	1.80	-	37.70	6.95	33.23

2.4-2.4835GHz_802.11ax HEW40_Nss1,(MCS0)_2TX

2452MHz_TX



EUT Y_2TX

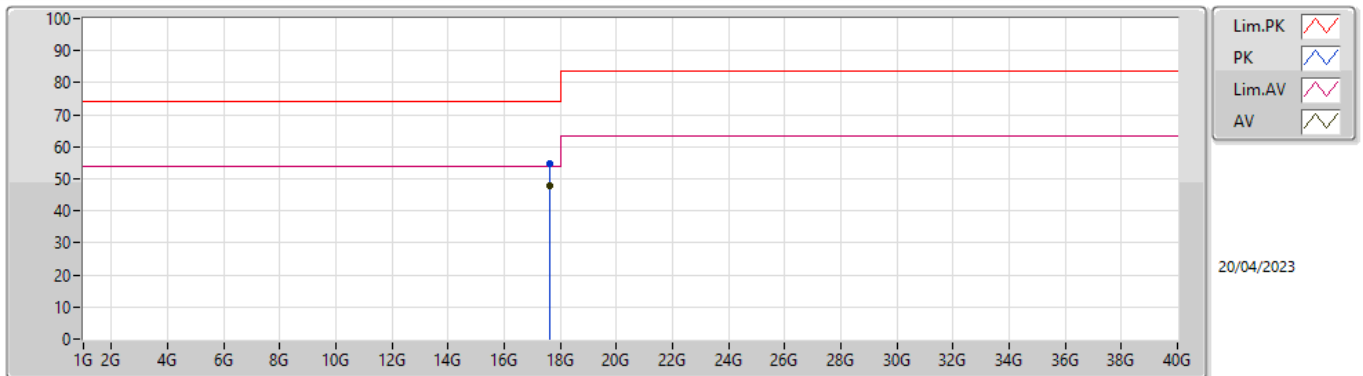
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.90176G	46.73	74.00	-27.27	41.24	3	Horizontal	72	2.64	-	32.80	5.30	32.61
AV	4.9048G	34.50	54.00	-19.50	29.00	3	Horizontal	72	2.64	-	32.81	5.30	32.61
PK	7.35972G	52.38	74.00	-21.62	40.99	3	Horizontal	58	1.80	-	37.66	6.96	33.23
AV	7.34612G	40.10	54.00	-13.90	28.68	3	Horizontal	58	1.80	-	37.70	6.95	33.23



Summary

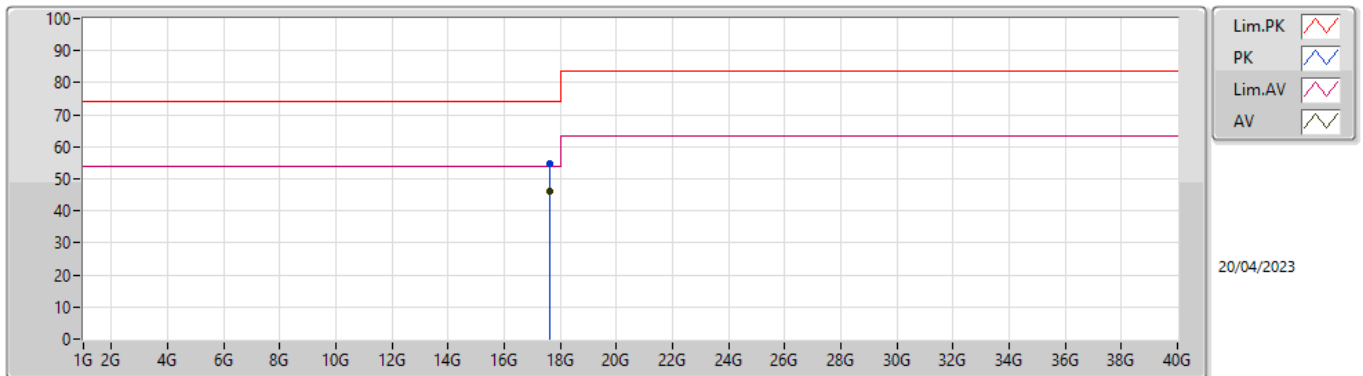
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition
Mode 1	Pass	AV	17.61G	47.74	54.00	-6.26	Vertical

Mode 1



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	17.609G	54.62	74.00	-19.38	19.50	3	Vertical	52	1.10	-	35.12	41.77	11.35	33.62
AV	17.61G	47.74	54.00	-6.26	19.50	3	Vertical	52	1.10	"Worst"	28.24	41.77	11.35	33.62

Mode 1



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	17.614G	54.88	74.00	-19.12	19.49	3	Horizontal	41	1.47	-	35.39	41.76	11.35	33.62
AV	17.608G	45.93	54.00	-8.07	19.51	3	Horizontal	41	1.47	"Worst"	26.42	41.78	11.35	33.62