



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 Sep. 07, 2023, and testing was started from Sep. 12, 2023 and completed on Sep. 25, 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 variant 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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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:

The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.

Reviewed by: Sam Chen

Report Producer: 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), ,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 and HT20 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	

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	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	-

Note 2: The above information was declared by manufacturer.

Note 3: 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	$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{ss}} \left\{ \sum_{l=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right]$
BF	$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{ss}} \left\{ \sum_{l=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right]$	$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{ss}} \left\{ \sum_{l=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right]$

Ex.

Directional Gain (NSS1) formula :

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

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

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

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

Where ;

G1 = 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	0.949	0.23	12.463m	100
802.11g	0.947	0.24	2.066m	1k
802.11ax HEW20	0.98	0.09	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.



1.1.5 Table for Permissive Change

This product is an extension of original one reported under Sporton project number: FR2O0619AA.

Below is the table for the change of the product with respect to the original one.

Modifications	Performance Checking
Changing the Switch IC model to "RTC6603U" from "RTC6603SP."	For WLAN 2.4GHz function: 1. AC power-line conducted emissions 2. DTS Bandwidth 3. Maximum Conducted Output Power 4. Power Spectral Density 5. Emissions in Non-restricted Frequency Bands 6. Emissions in Restricted Frequency Bands



1.2 Applicable Standards

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

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

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

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

1.3 Testing Location Information

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

Test Condition	Test Site No.	Test Engineer	Test Environment (°C / %)	Test Date
RF Conducted	TH02-CB	KJ Chang	22.1~23.3 / 64~65	Sep. 21, 2023
Radiated < 1GHz	03CH05-CB	Jackson Peng	21.2-22.3 / 56-59	Sep. 12, 2023~ Sep. 20, 2023
Radiated > 1GHz	03CH01-CB		22.7-23.8 / 56-59	
	03CH02-CB		21-22 / 55-58	
AC Conduction	CO02-CB	Peter Wu	23~24 / 60~61	Sep. 25, 2023

1.4 Measurement Uncertainty

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

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	3.4 dB	Confidence levels of 95%
Radiated Emission (9kHz ~ 30MHz)	3.7 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	5.1 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	4.1 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	4.2 dB	Confidence levels of 95%
Conducted Emission	3.1 dB	Confidence levels of 95%
Output Power Measurement	0.8 dB	Confidence levels of 95%
Power Density Measurement	3.1 dB	Confidence levels of 95%
Bandwidth Measurement	2.2%	Confidence levels of 95%

2 Test Configuration of EUT

2.1 Test Channel Mode

Mode	Power Setting
802.11b_Nss1,(1Mbps)_2TX	-
2412MHz	80
2417MHz	80
2437MHz	80
2457MHz	80
2462MHz	80
802.11g_Nss1,(6Mbps)_2TX	-
2412MHz	63
2417MHz	66
2437MHz	75
2457MHz	67
2462MHz	61
802.11ax HEW20_Nss1,(MCS0)_2TX	-
2412MHz	56
2417MHz	65
2437MHz	72
2457MHz	65
2462MHz	57
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-
2412MHz	56
2417MHz	65
2437MHz	72
2457MHz	65
2462MHz	57

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	EUT_WLAN 2.4GHz

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
According to the original test report, EUT in Z axis has been evaluated to be the worst case, so the measurement will follow this same test configuration.	
1	EUT in Z axis_WLAN 2.4GHz
Operating Mode > 1GHz	CTX
According to the original test report, "EUT in X axis for bandedge" and "EUT in Z axis for harmonic" have been evaluated to be the worst cases, so the measurement will follow these same test configurations.	
1	EUT in X axis for bandedge EUT in Z axis for harmonic



2.3 EUT Operation during Test

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	Test fixture	N/A	N/A
B	Test fixture	Test fixture	N/A	N/A
C	SIO BOX	SIO BOX	N/A	N/A
D	USB TO LAN Dongle	ASUSTOR	AS-U2.5G2	N/A
E	LAN & RS232 NB	DELL	FS-108	N/A
F	Earphone	SHYARO CHI	MIC-04	N/A
G	Mouse	Logitech	M-U0026	N/A

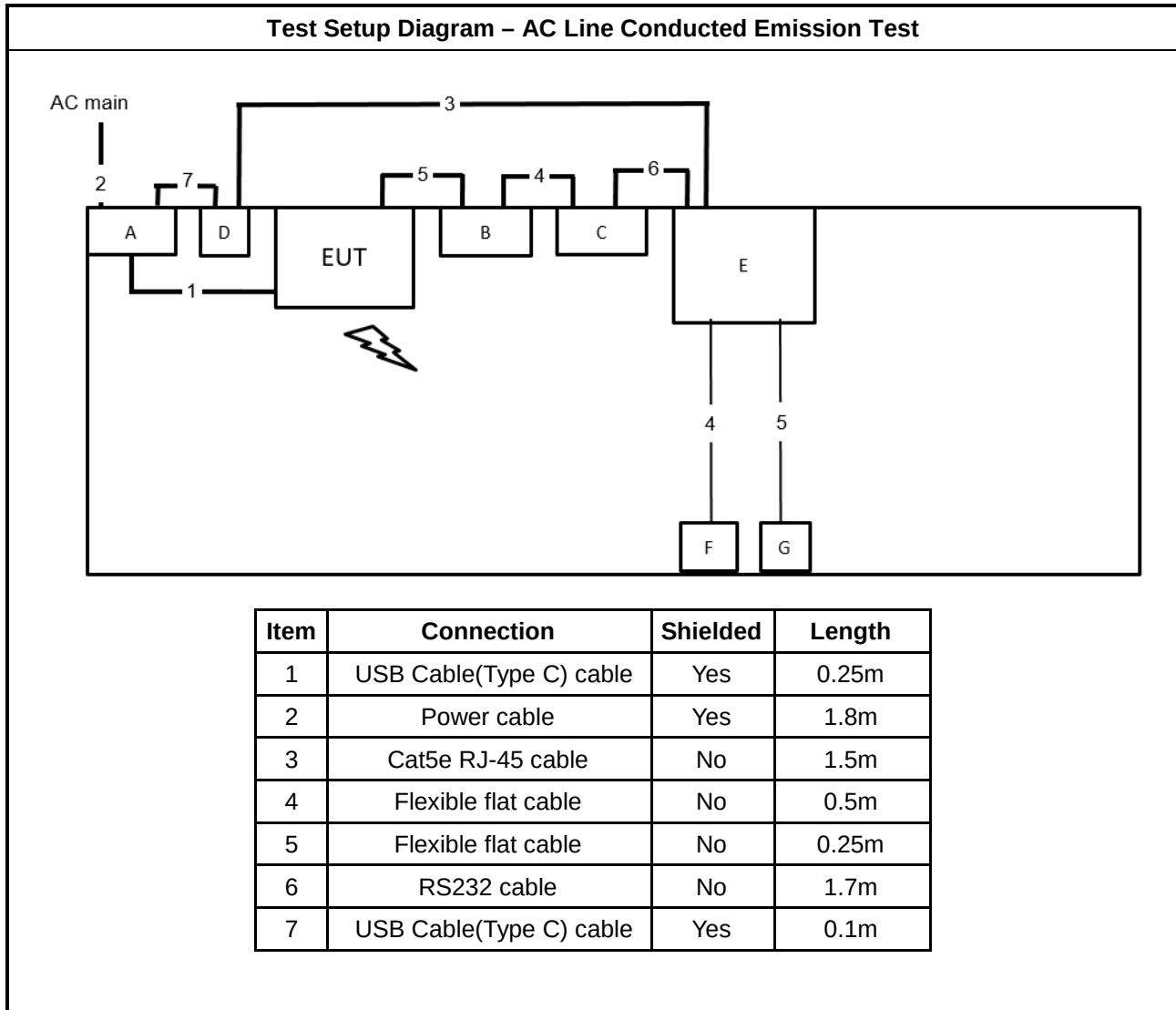
**For Radiated:**

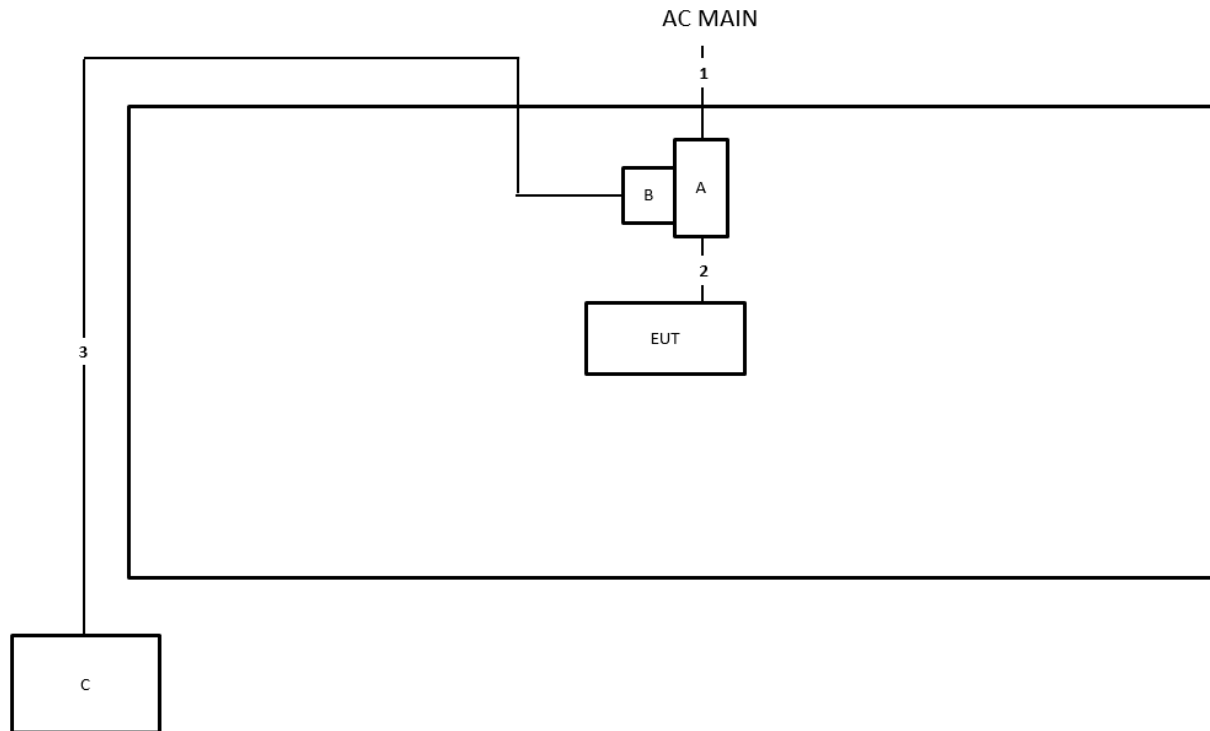
Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	Fixture	HUMAX	P21KW USB Adapter B/D REV.:02	N/A
B	USB to LAN HUB	TOTOLINK	U1003	N/A
C	Notebook	DELL	E4300	N/A

For 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	Notebook	DELL	E4300	N/A

2.6 Test Setup Diagram



Test Setup Diagram - Radiated Test


Item	Connection	Shielded	Length
1	Power cable	Yes	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.		

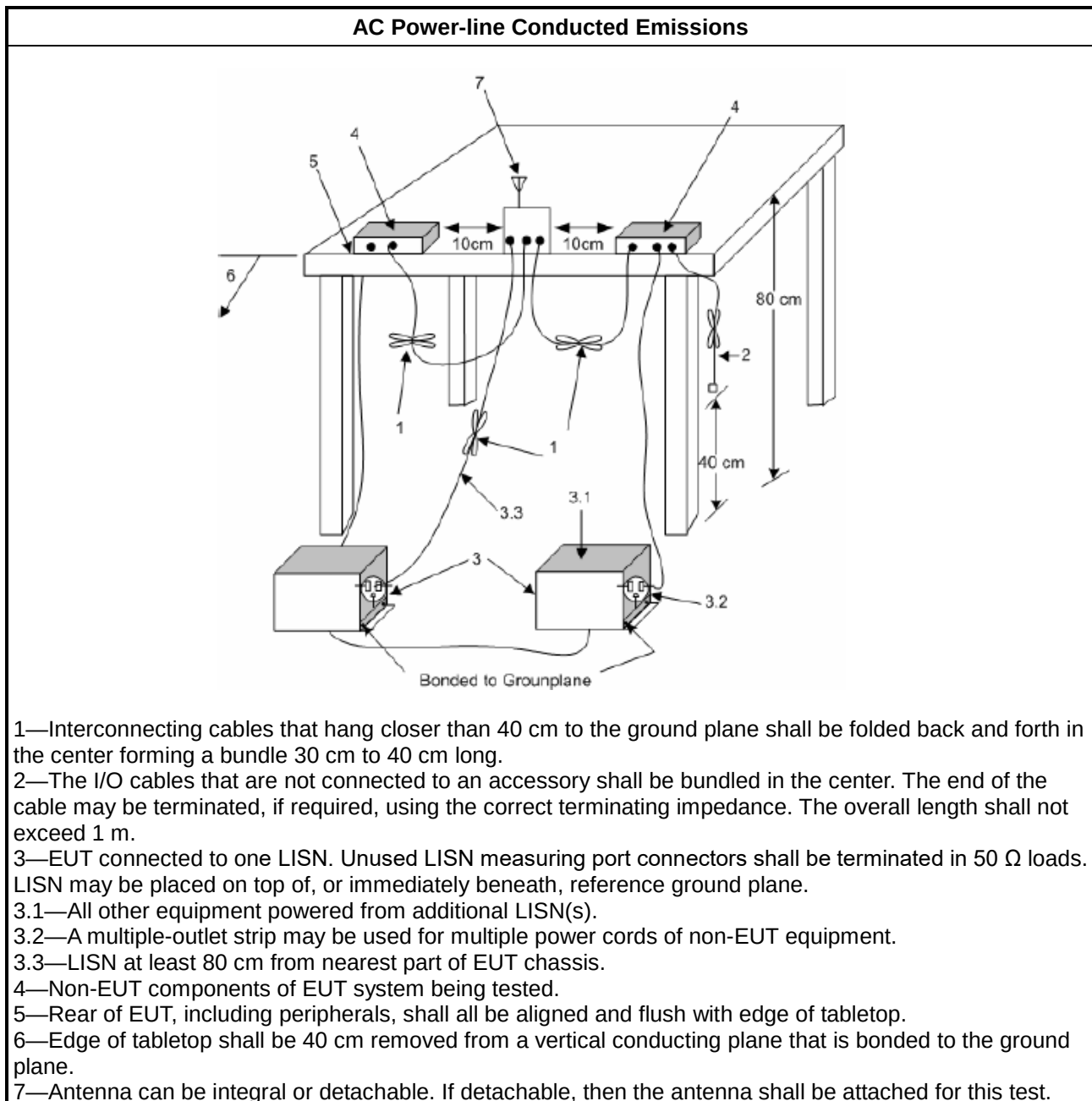
3.1.2 Measuring Instruments

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



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.

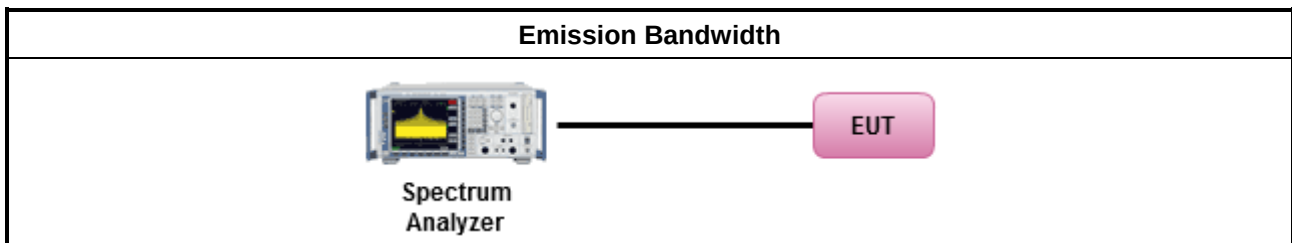
3.2.2 Measuring Instruments

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

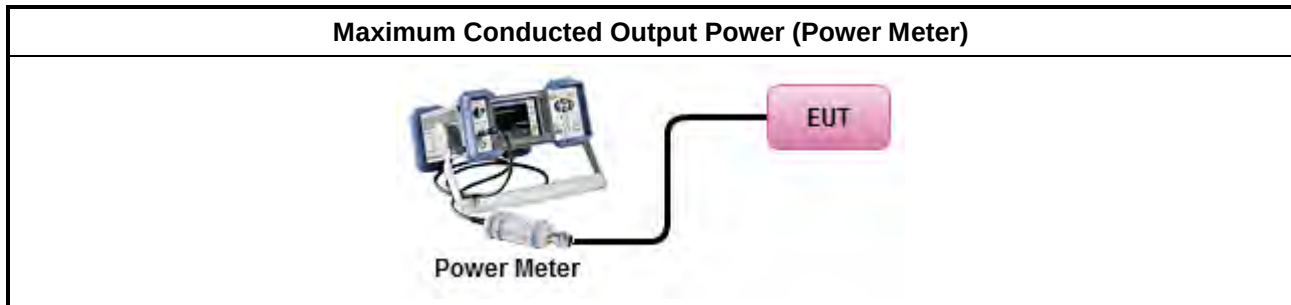
Refer a test equipment and calibration data table in this test report.



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

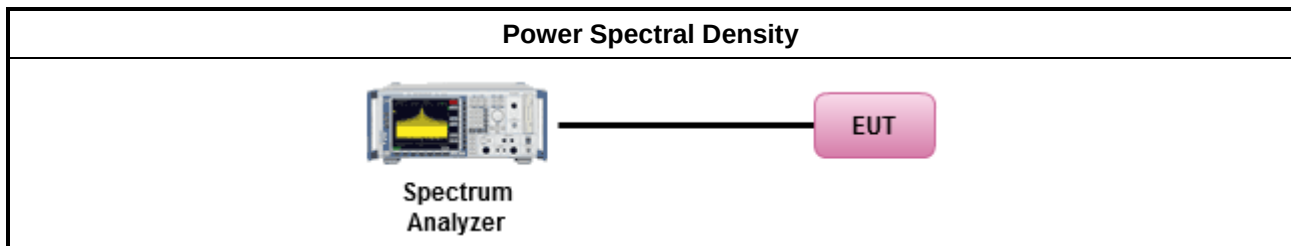
3.4.2 Measuring Instruments

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.	

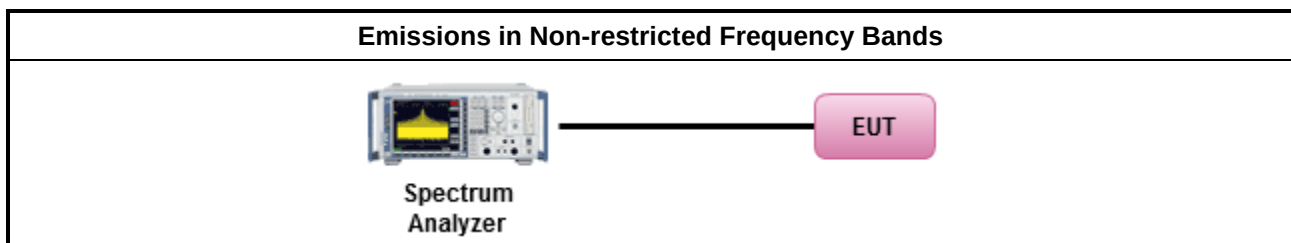
3.5.2 Measuring Instruments

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.

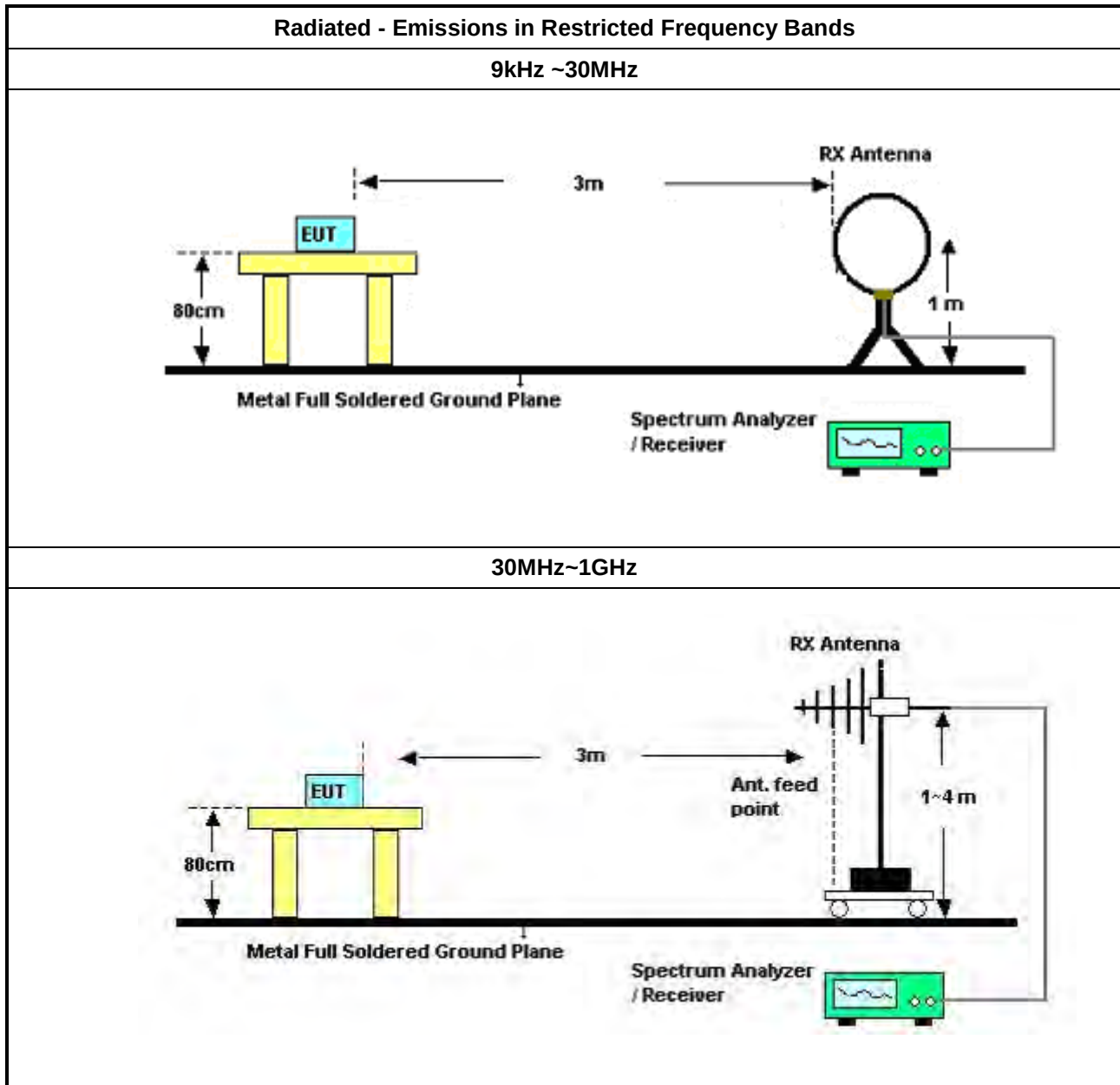
3.6.2 Measuring Instruments

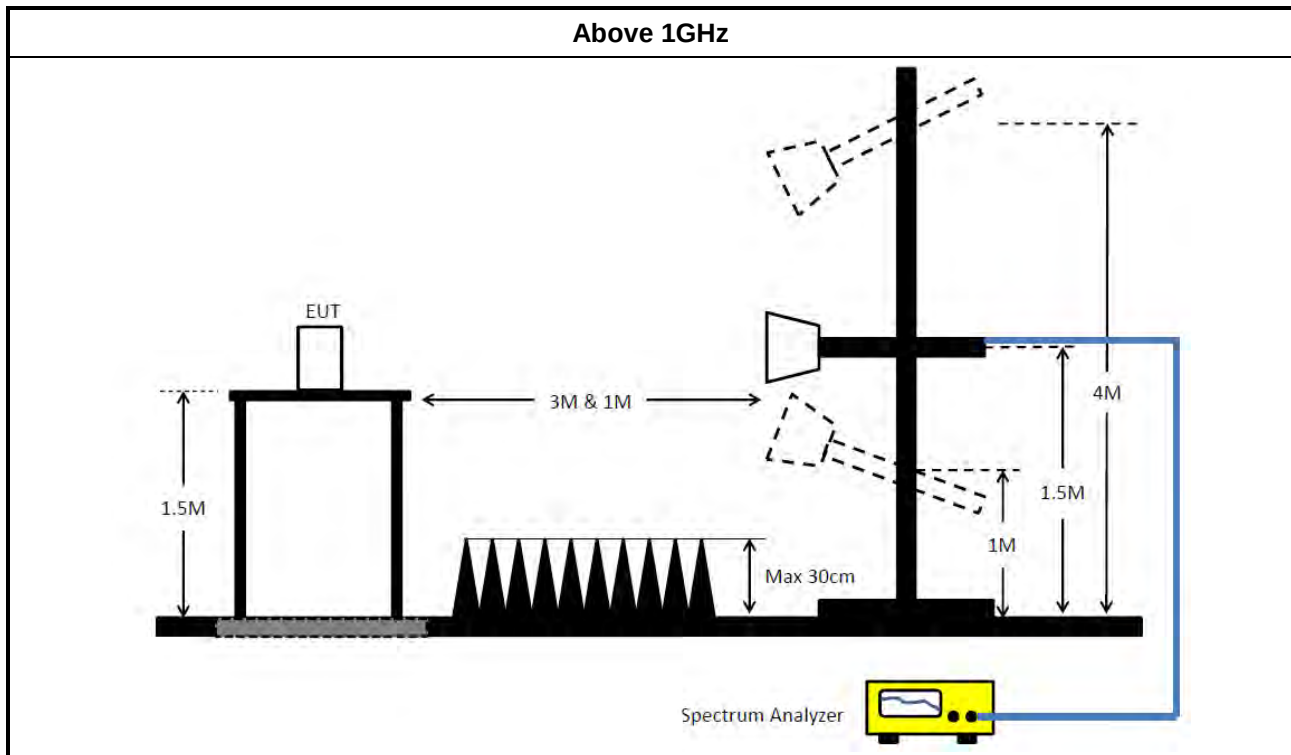
Refer a test equipment and calibration data table in this test report.

**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
LISN	Schwarzbeck	NSLK 8127	8127650	9kHz ~ 30MHz	Apr. 06, 2023	Apr. 05, 2024	Conduction (CO02-CB)
LISN	Schwarzbeck	NSLK 8127	8127478	9kHz ~ 30MHz	Dec. 20, 2022	Dec. 19, 2023	Conduction (CO02-CB)
EMI Receiver	Agilent	N9038A	MY52260140	9kHz ~ 8.4GHz	May 18, 2023	May 17, 2024	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)
Loop Antenna	Teseq	HLA 6120	31244	9kHz - 30 MHz	Mar. 23, 2023	Mar. 22, 2024	Radiation (03CH05-CB)
3m Semi Anechoic Chamber NSA	TDK	SAC-3M	03CH05-CB	30 MHz ~ 1 GHz	Aug. 02, 2023	Aug. 01, 2024	Radiation (03CH05-CB)
Bilog Antenna with 6dB Attenuator	TESEQ & EMCI	CBL 6112D & N-6-06	35236 & AT-N0610	30MHz ~ 2GHz	Mar. 24, 2023	Mar. 23, 2024	Radiation (03CH05-CB)
Amplifier	EMCI	EMC330N	980331	20MHz ~ 3GHz	May 03, 2023	May 02, 2024	Radiation (03CH05-CB)
Spectrum Analyzer	R&S	FSP40	100304	9kHz ~ 40GHz	Apr. 18, 2023	Apr. 17, 2024	Radiation (03CH05-CB)
EMI Test Receiver	R&S	ESCS	826547/017	9kHz ~ 2.75GHz	Jun. 13, 2023	Jun. 12, 2024	Radiation (03CH05-CB)
RF Cable-low	Woken	RG402	Low Cable-04+23	30MHz~1GHz	Aug. 16, 2023	Aug. 15, 2024	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 05, 2023	May 04, 2024	Radiation (03CH01-CB)
Horn Antenna	ETS-LINDGREN	3115	00075790	750MHz ~ 18GHz	Nov. 04, 2022	Nov. 03, 2023	Radiation (03CH01-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Sep. 04, 2023	Sep. 03, 2024	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02121	1GHz ~ 26.5GHz	May 18, 2023	May 17, 2024	Radiation (03CH01-CB)
Pre-Amplifier	SGH	SGH184	20221107-3	18GHz ~ 40GHz	Nov. 16, 2022	Nov. 15, 2023	Radiation (03CH01-CB)
Signal Analyzer	R&S	FSV3044	101437	10kHz ~ 44GHz	Nov. 29, 2022	Nov. 29, 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+6	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	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#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	RIKEN	SAC-3M	03CH02-CB	1GHz ~18GHz	Mar. 25, 2023	Mar. 24, 2024	Radiation (03CH02-CB)
Horn Antenna	EMCO	3115	9610-4976	1GHz ~ 18GHz	Apr. 18, 2023	Apr. 17, 2024	Radiation (03CH02-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Sep. 04, 2023	Sep. 03, 2024	Radiation (03CH02-CB)
Pre-Amplifier	Agilent	83017A	MY39501305	1GHz ~ 26.5GHz	Jun. 30, 2023	Jun. 29, 2024	Radiation (03CH02-CB)
Pre-Amplifier	SGH	SGH184	20221107-3	18GHz ~ 40GHz	Nov. 16, 2022	Nov. 15, 2023	Radiation (03CH02-CB)
Spectrum Analyzer	R&S	FSP40	100304	9kHz ~ 40GHz	Apr. 18, 2023	Apr. 17, 2024	Radiation (03CH02-CB)
RF Cable-high	Woken	RG402	High Cable-18	1GHz ~ 18GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH02-CB)
RF Cable-high	Woken	RG402	High Cable-18+19	1GHz ~ 18GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH02-CB)
High Cable	Woken	WCA0929M	40G#5+6	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH02-CB)
High Cable	Woken	WCA0929M	40G#5	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH02-CB)
High Cable	Woken	WCA0929M	40G#6	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH02-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH02-CB)

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

NCR means Non-Calibration required.



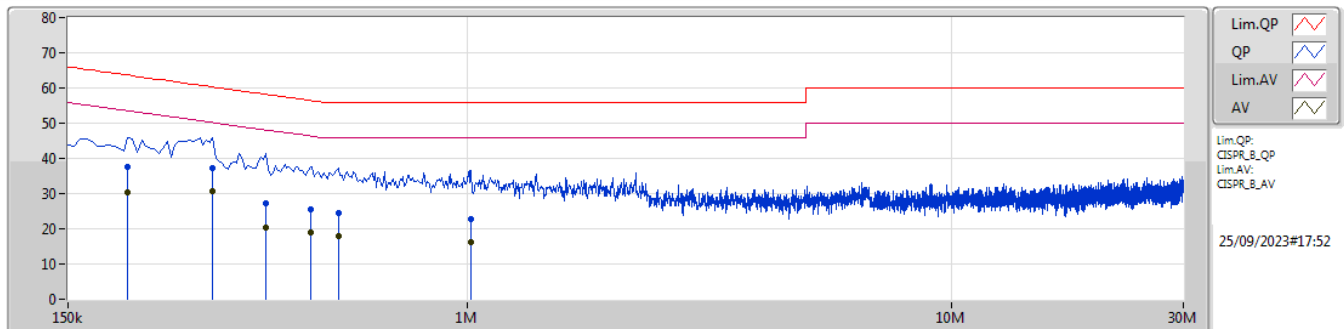
Conducted Emissions at Powerline

Appendix A

Summary

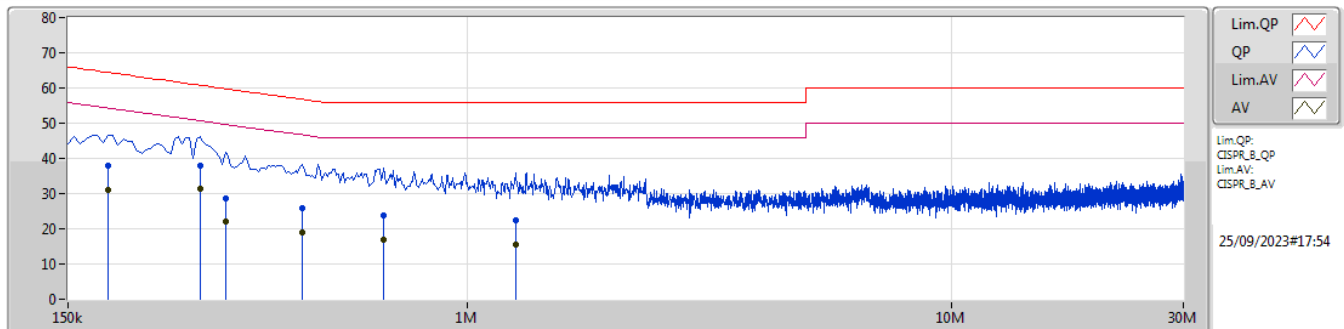
Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	AV	280.5k	31.22	50.80	-19.58	Neutral

Mode 1



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)						
QP	199.5k	37.42	63.63	-26.21	10.21	Line	-	27.21	0.04	0.11	10.06						
AV	199.5k	30.51	53.63	-23.12	10.21	Line	-	20.30	0.04	0.11	10.06						
QP	298.5k	37.36	60.28	-22.92	10.20	Line	-	27.16	0.04	0.13	10.03						
AV	298.5k	30.59	50.28	-19.69	10.20	Line	"Worst"	20.39	0.04	0.13	10.03						
QP	384k	27.13	58.20	-31.07	10.20	Line	-	16.93	0.04	0.15	10.01						
AV	384k	20.37	48.20	-27.83	10.20	Line	-	10.17	0.04	0.15	10.01						
QP	474k	25.55	56.44	-30.89	10.19	Line	-	15.36	0.04	0.16	9.99						
AV	474k	18.81	46.44	-27.63	10.19	Line	-	8.62	0.04	0.16	9.99						
QP	541.5k	24.64	56.00	-31.36	10.17	Line	-	14.47	0.04	0.16	9.97						
AV	541.5k	17.95	46.00	-28.05	10.17	Line	-	7.78	0.04	0.16	9.97						
QP	1.019M	22.85	56.00	-33.15	10.13	Line	-	12.72	0.05	0.18	9.90						
AV	1.019M	16.11	46.00	-29.89	10.13	Line	-	5.98	0.05	0.18	9.90						

Mode 1



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)						
QP	181.5k	37.84	64.41	-26.57	10.22	Neutral	-	27.62	0.05	0.10	10.07						
AV	181.5k	31.03	54.41	-23.38	10.22	Neutral	-	20.81	0.05	0.10	10.07						
QP	280.5k	38.03	60.80	-22.77	10.22	Neutral	-	27.81	0.05	0.13	10.04						
AV	280.5k	31.22	50.80	-19.58	10.22	Neutral	"Worst"	21.00	0.05	0.13	10.04						
QP	316.5k	28.72	59.80	-31.08	10.22	Neutral	-	18.50	0.05	0.14	10.03						
AV	316.5k	22.08	49.80	-27.72	10.22	Neutral	-	11.86	0.05	0.14	10.03						
QP	456k	25.86	56.76	-30.90	10.19	Neutral	-	15.67	0.05	0.15	9.99						
AV	456k	19.07	46.76	-27.69	10.19	Neutral	-	8.88	0.05	0.15	9.99						
QP	672k	23.63	56.00	-32.37	10.18	Neutral	-	13.45	0.06	0.17	9.95						
AV	672k	16.86	46.00	-29.14	10.18	Neutral	-	6.68	0.06	0.17	9.95						
QP	1.257M	22.33	56.00	-33.67	10.13	Neutral	-	12.20	0.07	0.18	9.88						
AV	1.257M	15.52	46.00	-30.48	10.13	Neutral	-	5.39	0.07	0.18	9.88						

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
2.4-2.4835GHz	-	-	-	-	-
802.11b_Nss1,(1Mbps)_2TX	8.05M	12.659M	12M7G1D	7.075M	12.379M
802.11g_Nss1,(6Mbps)_2TX	16.325M	17.123M	17M1D1D	16.25M	16.514M
802.11ax HEW20_Nss1,(MCS0)_2TX	18.95M	19.091M	19M1D1D	18.725M	18.898M

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

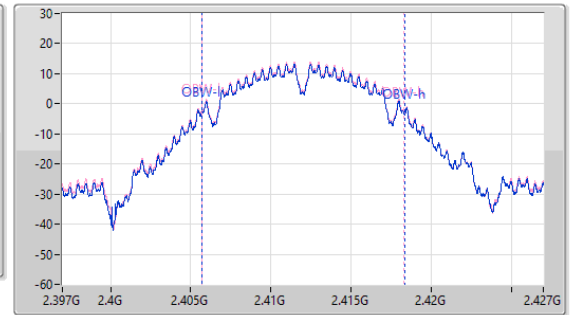
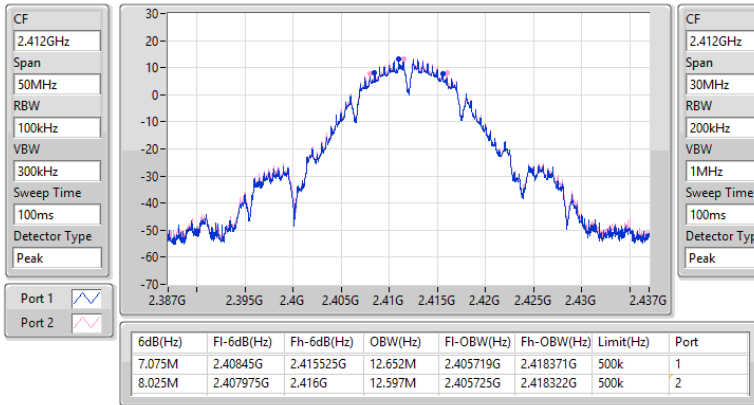
Result

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	7.075M	12.652M	8.025M	12.597M
2437MHz	Pass	500k	8.025M	12.659M	7.075M	12.379M
2462MHz	Pass	500k	8.05M	12.396M	7.525M	12.452M
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	16.3M	16.583M	16.325M	16.518M
2437MHz	Pass	500k	16.325M	17.123M	16.325M	17.037M
2462MHz	Pass	500k	16.25M	16.577M	16.325M	16.514M
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	18.825M	18.921M	18.9M	18.929M
2437MHz	Pass	500k	18.925M	19.061M	18.95M	19.091M
2462MHz	Pass	500k	18.875M	18.911M	18.725M	18.898M

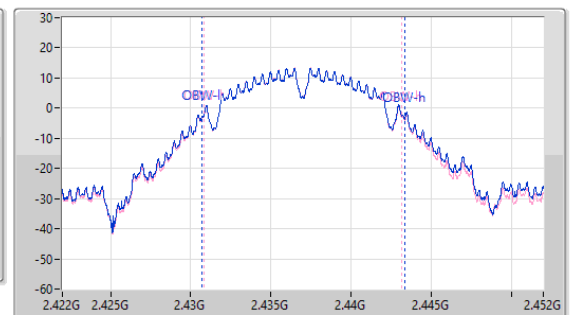
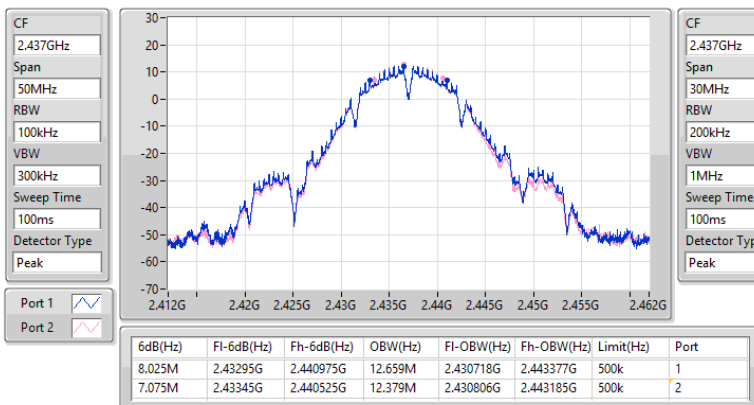
Port X-N dB = Port X 6dB down bandwidth;
Port X-OBW = Port X 99% occupied bandwidth

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

21/09/2023

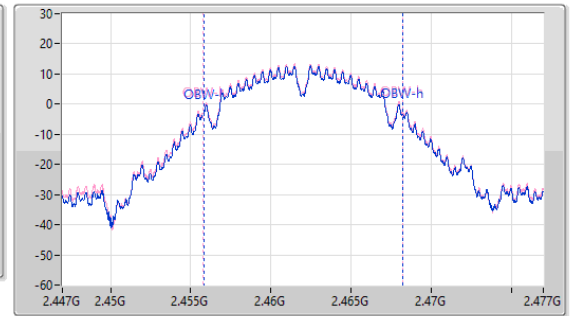
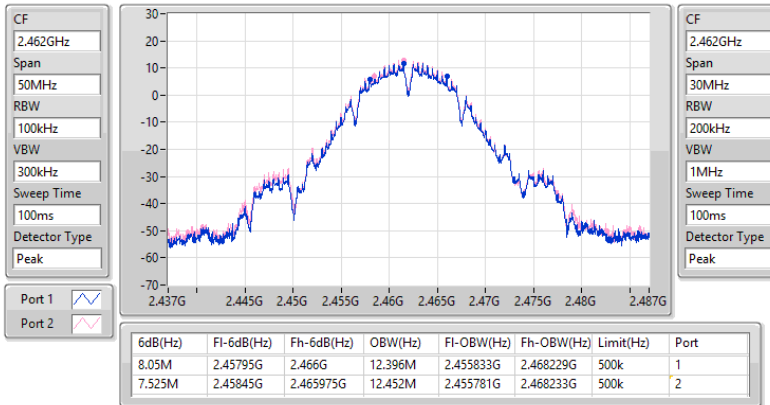

2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_2TX
EBW
2437MHz

21/09/2023

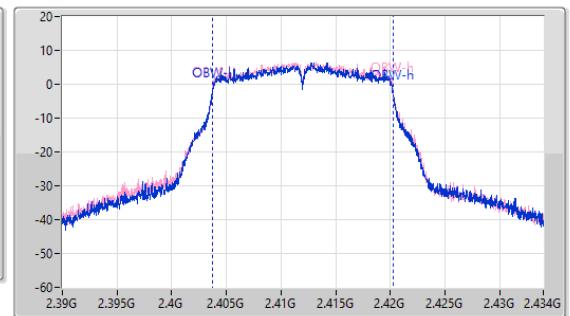
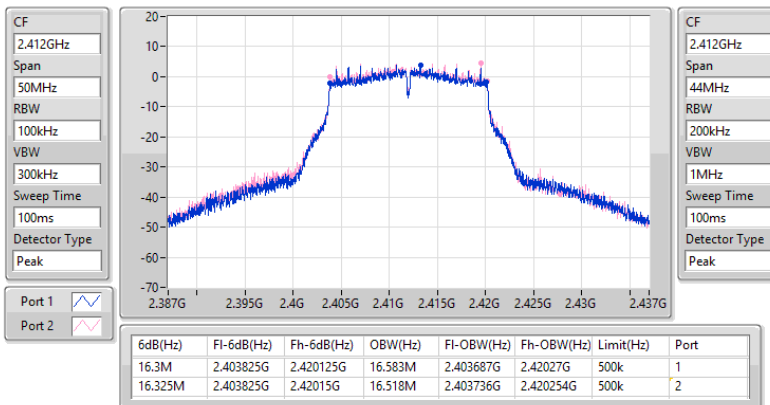


2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_2TX
EBW
2462MHz

21/09/2023


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

21/09/2023

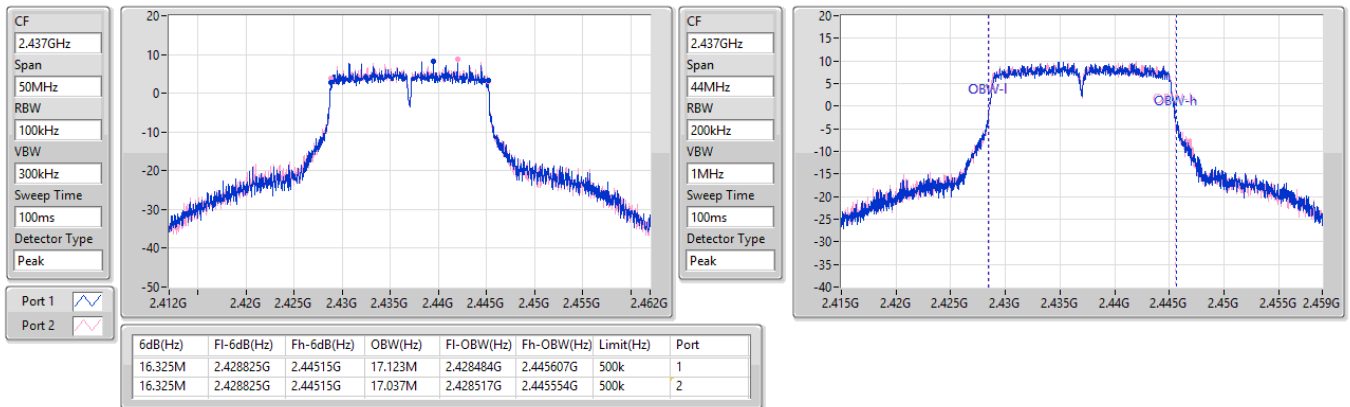


2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_2TX

EBW

2437MHz

21/09/2023

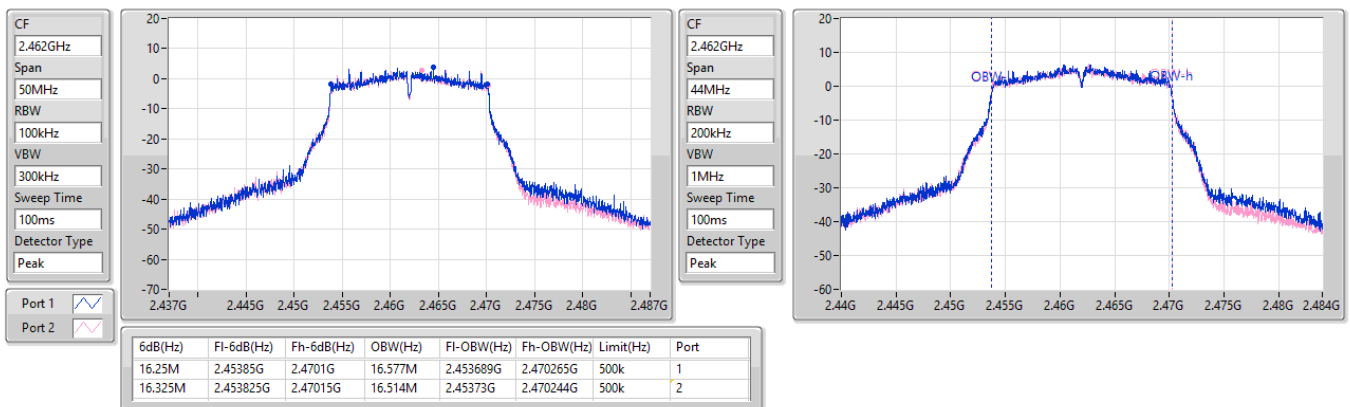


2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_2TX

EBW

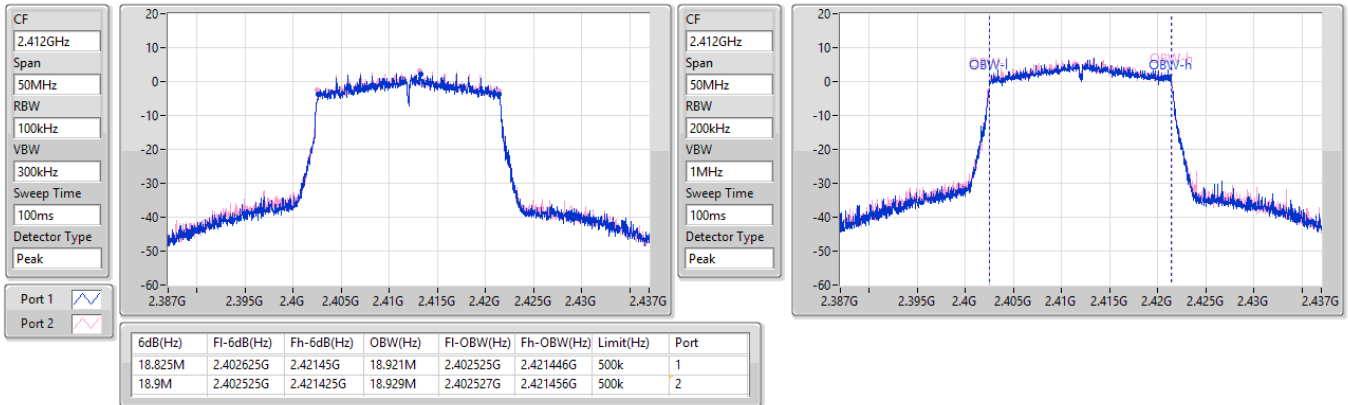
2462MHz

21/09/2023

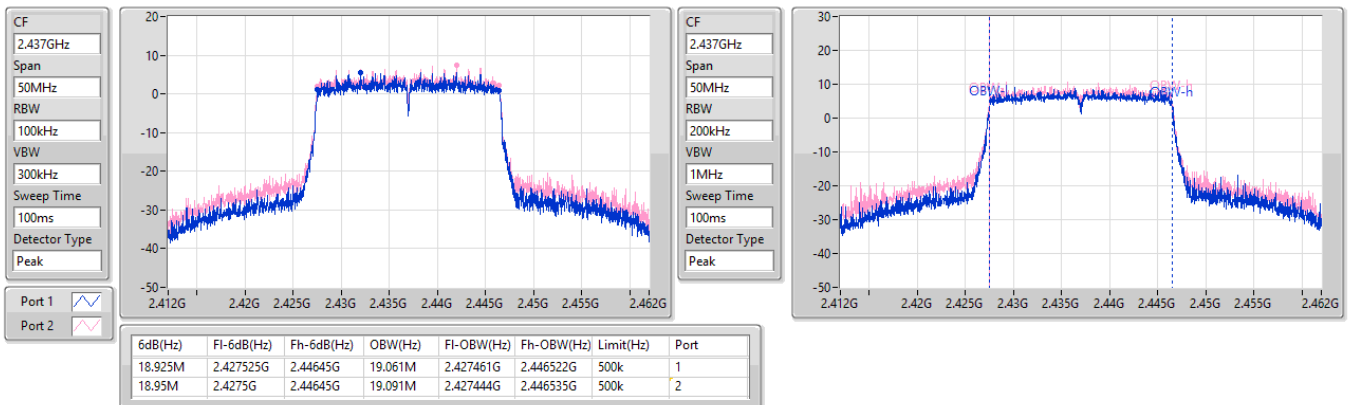


2.4-2.4835GHz_802.11ax HEW20_Nss1,(MCS0)_2TX
EBW
2412MHz

21/09/2023


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

21/09/2023

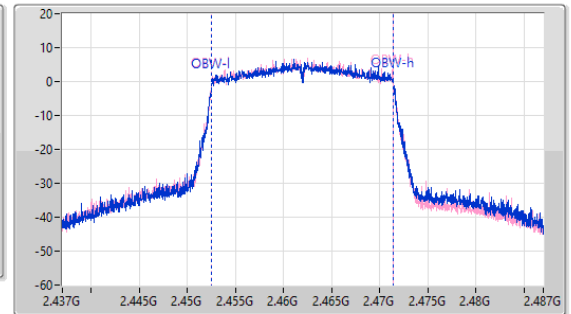
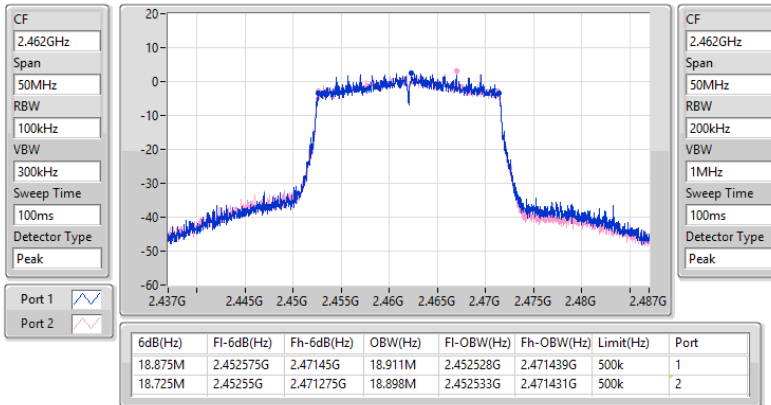


2.4-2.4835GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

EBW

2462MHz

21/09/2023





Average Power

Appendix C

Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11b_Nss1,(1Mbps)_2TX	24.10	0.25704
802.11g_Nss1,(6Mbps)_2TX	22.80	0.19055
802.11ax HEW20_Nss1,(MCS0)_2TX	21.65	0.14622
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	21.65	0.14622

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	20.77	21.39	24.10	30.00
2417MHz	Pass	4.471	20.24	20.71	23.49	30.00
2437MHz	Pass	4.471	20.74	20.80	23.78	30.00
2457MHz	Pass	4.471	20.09	20.64	23.38	30.00
2462MHz	Pass	4.471	19.94	20.80	23.40	30.00
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	4.471	15.25	15.98	18.64	30.00
2417MHz	Pass	4.471	16.04	16.29	19.18	30.00
2437MHz	Pass	4.471	19.64	19.94	22.80	30.00
2457MHz	Pass	4.471	16.08	16.88	19.51	30.00
2462MHz	Pass	4.471	15.03	14.82	17.94	30.00
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	4.471	14.13	14.58	17.37	30.00
2417MHz	Pass	4.471	16.17	16.88	19.55	30.00
2437MHz	Pass	4.471	17.91	19.27	21.65	30.00
2457MHz	Pass	4.471	16.22	16.61	19.43	30.00
2462MHz	Pass	4.471	14.23	14.38	17.32	30.00
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	6.766	14.13	14.58	17.37	29.23
2417MHz	Pass	6.766	16.17	16.88	19.55	29.23
2437MHz	Pass	6.766	17.91	19.27	21.65	29.23
2457MHz	Pass	6.766	16.22	16.61	19.43	29.23
2462MHz	Pass	6.766	14.23	14.38	17.32	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	1.06
802.11g_Nss1,(6Mbps)_2TX	-3.34
802.11ax HEW20_Nss1,(MCS0)_2TX	-6.96

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	-2.31	-1.30	1.06	7.23
2437MHz	Pass	6.766	-2.07	-2.61	-0.58	7.23
2462MHz	Pass	6.766	-2.83	-2.27	-0.91	7.23
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	6.766	-9.04	-8.06	-5.99	7.23
2437MHz	Pass	6.766	-6.16	-5.46	-3.34	7.23
2462MHz	Pass	6.766	-9.95	-10.17	-8.13	7.23
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	6.766	-12.09	-12.35	-10.64	7.23
2437MHz	Pass	6.766	-10.00	-8.70	-6.96	7.23
2462MHz	Pass	6.766	-12.50	-11.59	-9.94	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;

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

PSD

2412MHz

21/09/2023

CF
2.412GHz

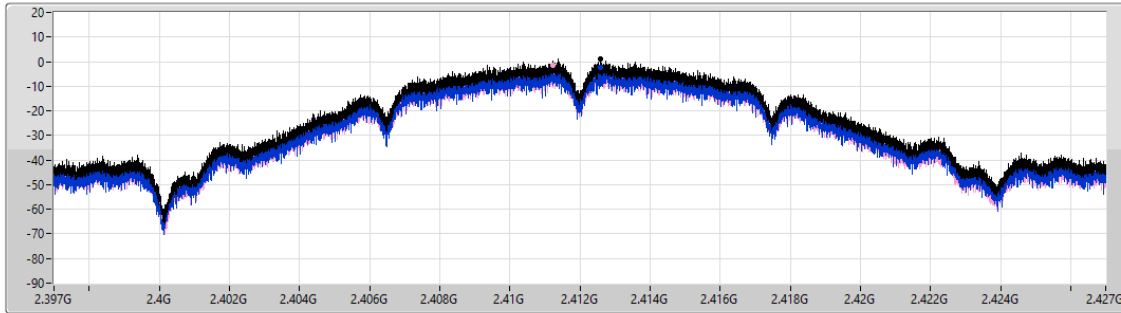
Span
30MHz

RBW
3kHz

VBW
10kHz

Sweep Time
1.4ms

Detector Type
Peak



Sum 

Port 1 

Port 2 

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
1.06	1.06	-2.31	-1.30

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

PSD

2437MHz

21/09/2023

CF
2.437GHz

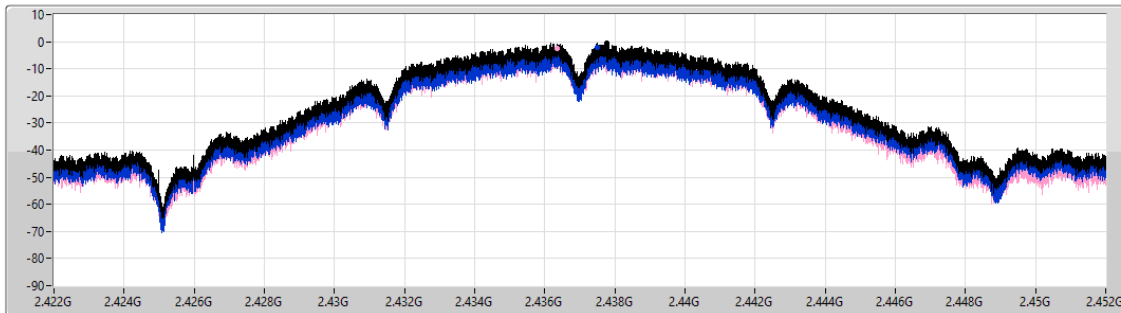
Span
30MHz

RBW
3kHz

VBW
10kHz

Sweep Time
1.4ms

Detector Type
Peak



Sum 

Port 1 

Port 2 

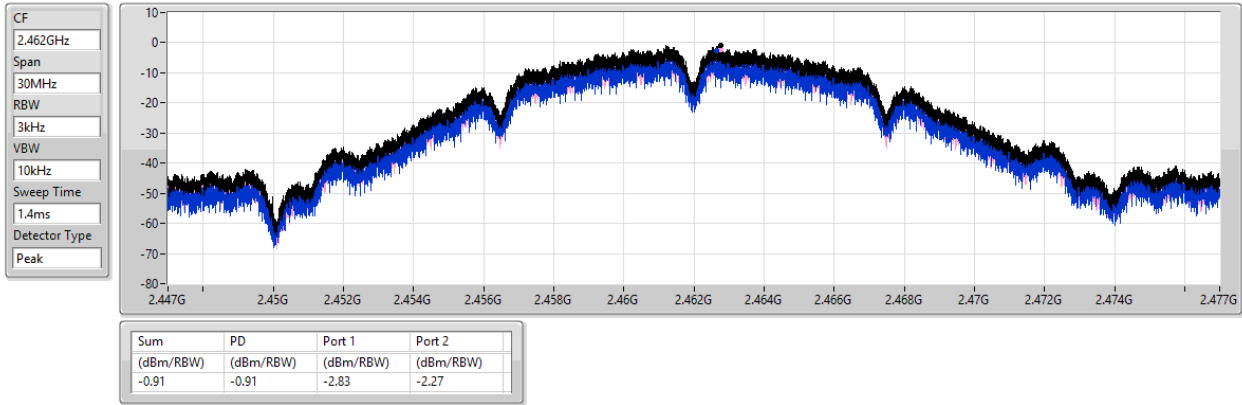
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-0.58	-0.58	-2.07	-2.61

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

PSD

2462MHz

21/09/2023

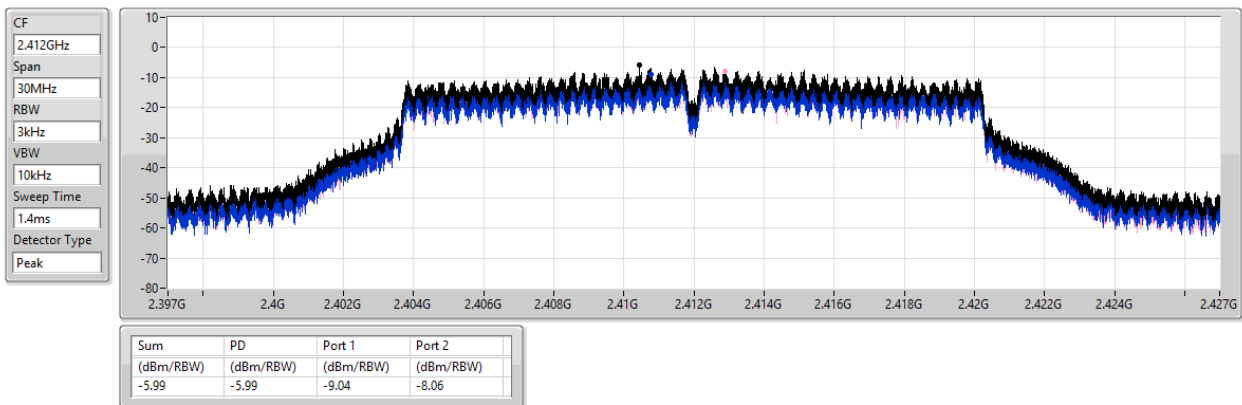


2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_2TX

PSD

2412MHz

21/09/2023

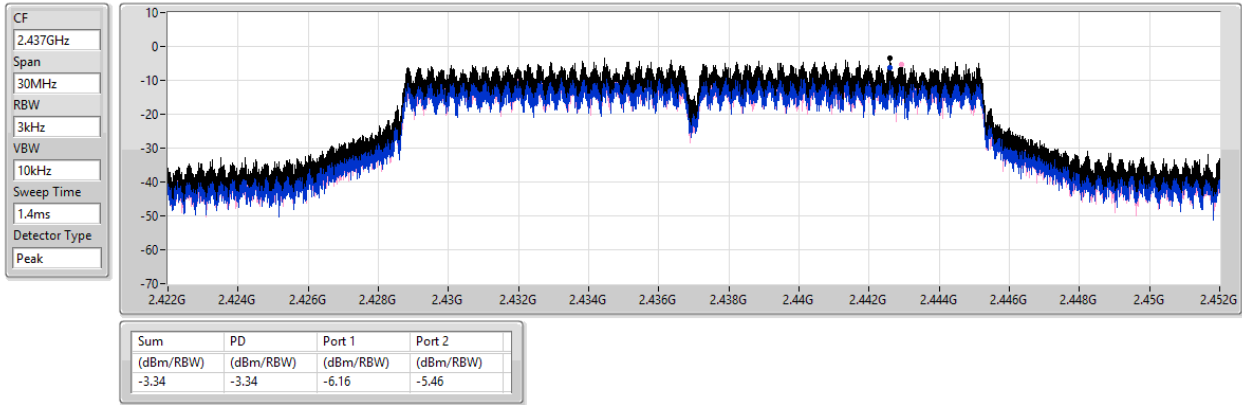


2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_2TX

PSD

2437MHz

21/09/2023

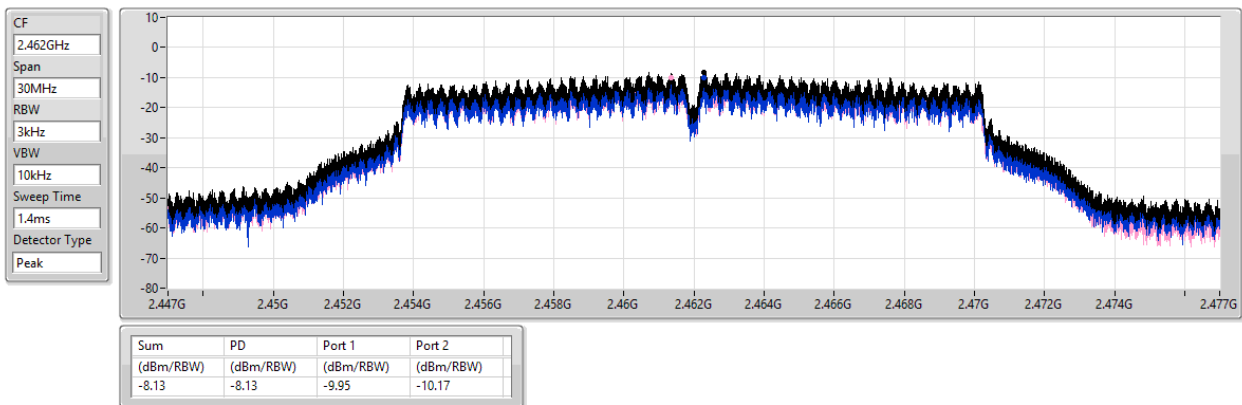


2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_2TX

PSD

2462MHz

21/09/2023

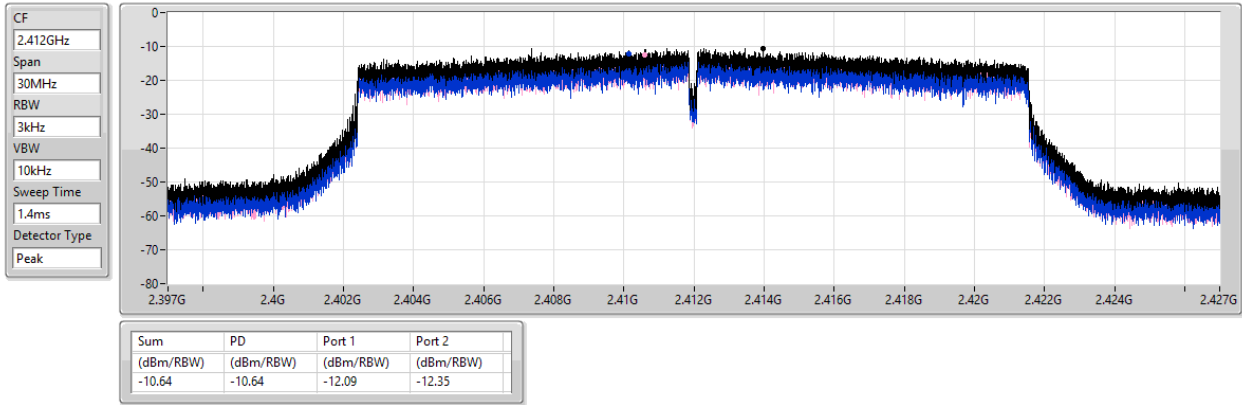


2.4-2.4835GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

PSD

2412MHz

21/09/2023

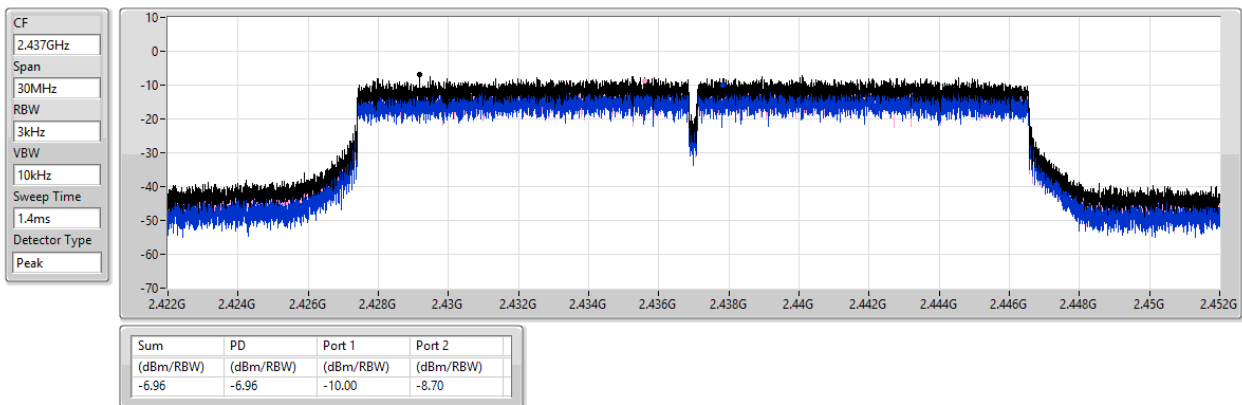


2.4-2.4835GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

PSD

2437MHz

21/09/2023

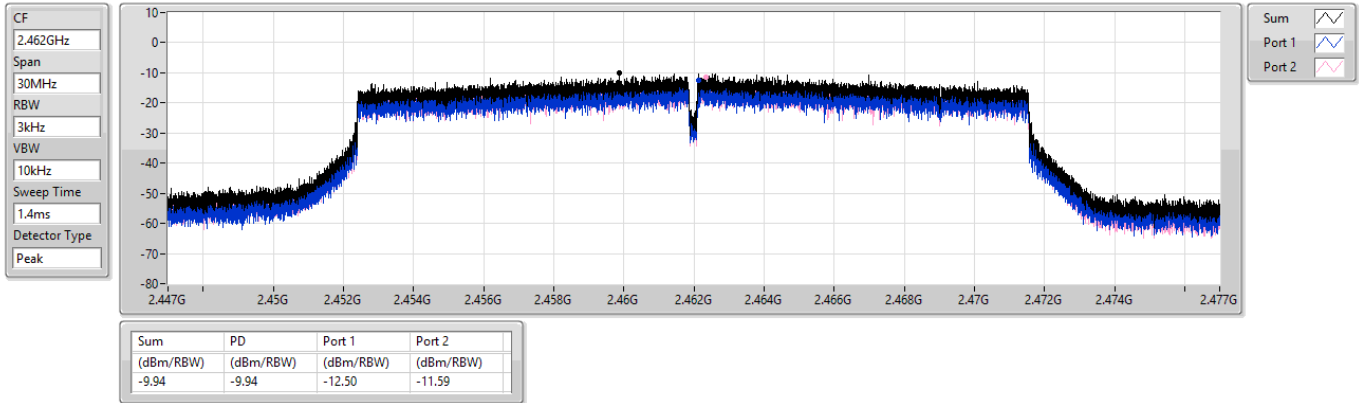


2.4-2.4835GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

PSD

2462MHz

21/09/2023





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	2.41136G	12.71	-17.29	2.30408G	-53.71	2.39952G	-28.68	2.4G	-41.20	2.50182G	-50.20	9.64855G	-46.72	2
802.11g_Nss1,(6Mbps)_2TX	Pass	2.4319G	7.94	-22.06	2.15613G	-53.85	2.39952G	-29.76	2.4G	-32.01	2.50478G	-50.24	21.60605G	-47.79	1
802.11ax HEW20_Nss1,(MCS0)_2TX	Pass	2.44192G	7.58	-22.42	2.30408G	-53.37	2.39888G	-32.55	2.4G	-35.65	2.51174G	-49.98	21.49086G	-46.97	2

Result

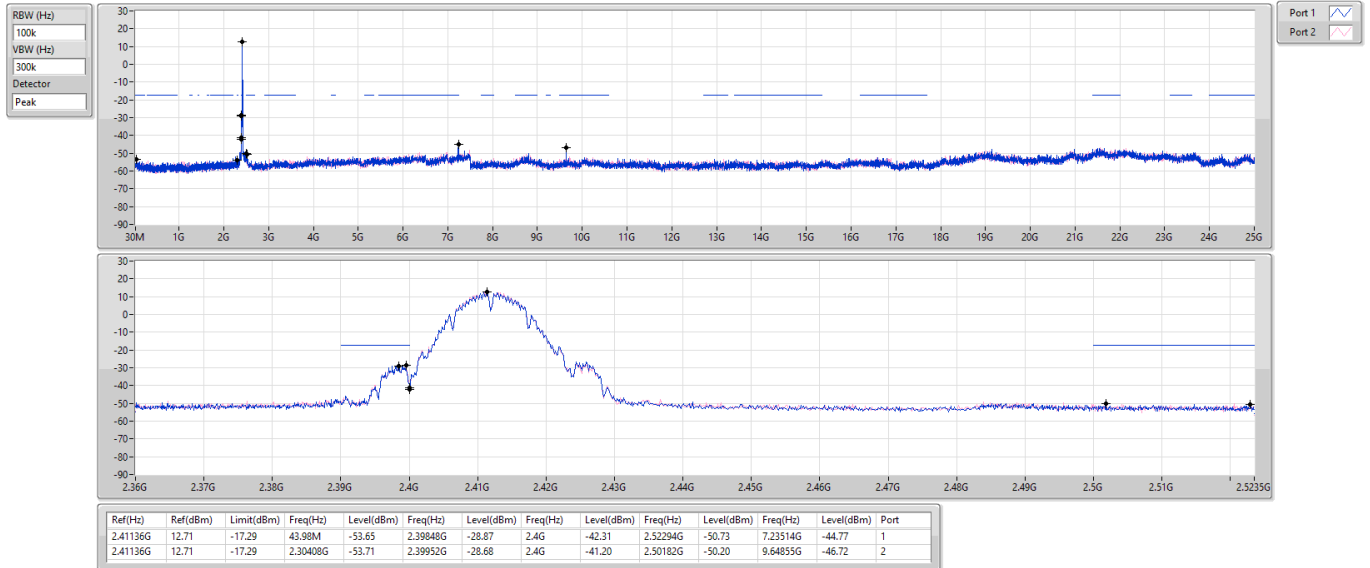
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
802.11b_Nss1.(1Mbps)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.41136G	12.71	-17.29	43.98M	-53.65	2.39848G	-28.87	2.4G	-42.31	2.52294G	-50.73	7.23514G	-44.77	1
2412MHz	Pass	2.41136G	12.71	-17.29	2.30408G	-53.71	2.39952G	-28.68	2.4G	-41.20	2.50182G	-50.20	9.64855G	-46.72	2
2437MHz	Pass	2.41136G	12.71	-17.29	1.89517G	-52.71	2.39248G	-49.78	2.4G	-52.01	2.51358G	-49.74	21.57795G	-47.60	1
2437MHz	Pass	2.41136G	12.71	-17.29	2.18409G	-53.17	2.39792G	-49.91	2.4G	-52.44	2.50918G	-49.04	21.48805G	-47.88	2
2462MHz	Pass	2.41136G	12.71	-17.29	2.06875G	-53.66	2.39632G	-50.74	2.4G	-53.88	2.50078G	-48.52	21.55267G	-46.01	1
2462MHz	Pass	2.41136G	12.71	-17.29	800.07M	-53.36	2.3988G	-49.70	2.4G	-53.18	2.51566G	-49.07	22.00501G	-46.58	2
802.11g_Nss1.(6Mbps)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.4319G	7.94	-22.06	2.15613G	-53.85	2.39952G	-29.76	2.4G	-32.01	2.50478G	-50.24	21.60605G	-47.79	1
2412MHz	Pass	2.4319G	7.94	-22.06	2.30292G	-52.76	2.39792G	-30.75	2.4G	-32.00	2.51622G	-49.69	21.50771G	-46.37	2
2437MHz	Pass	2.4319G	7.94	-22.06	2.16545G	-52.88	2.39704G	-36.14	2.4G	-36.83	2.5011G	-46.77	21.9151G	-47.61	1
2437MHz	Pass	2.4319G	7.94	-22.06	1.85789G	-54.01	2.39912G	-38.04	2.4G	-39.18	2.50006G	-46.56	21.60043G	-47.03	2
2462MHz	Pass	2.4319G	7.94	-22.06	2.30292G	-53.58	2.39888G	-50.46	2.4G	-53.63	2.50006G	-47.00	21.54143G	-47.35	1
2462MHz	Pass	2.4319G	7.94	-22.06	2.19807G	-52.86	2.39352G	-50.73	2.4G	-54.18	2.50086G	-48.39	21.8561G	-47.15	2
802.11ax HEW20_Nss1.(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.44192G	7.58	-22.42	2.30408G	-53.71	2.39968G	-34.47	2.4G	-34.09	2.5095G	-49.80	21.92072G	-47.17	1
2412MHz	Pass	2.44192G	7.58	-22.42	2.30408G	-53.37	2.39888G	-32.55	2.4G	-35.65	2.51174G	-49.98	21.49086G	-46.97	2
2437MHz	Pass	2.44192G	7.58	-22.42	2.14681G	-53.82	2.39808G	-42.08	2.4G	-41.47	2.50278G	-48.84	21.55829G	-46.80	1
2437MHz	Pass	2.44192G	7.58	-22.42	53.3M	-53.88	2.3988G	-39.76	2.4G	-41.61	2.51118G	-48.48	21.46557G	-46.47	2
2462MHz	Pass	2.44192G	7.58	-22.42	1.64702G	-54.41	2.39544G	-50.46	2.4G	-52.39	2.50926G	-47.56	21.56391G	-47.63	1
2462MHz	Pass	2.44192G	7.58	-22.42	2.10836G	-54.14	2.39984G	-49.75	2.4G	-53.90	2.50262G	-48.74	21.51614G	-47.34	2

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

CSEndB

2412MHz

21/09/2023

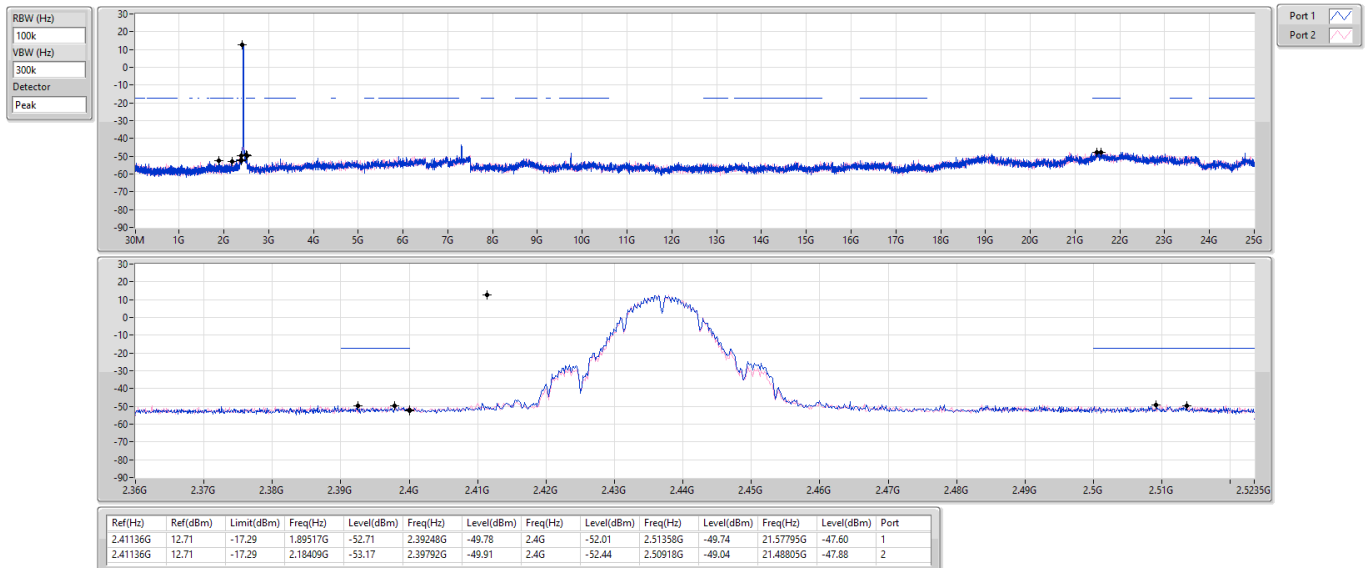


2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_2TX

CSEndB

2437MHz

21/09/2023



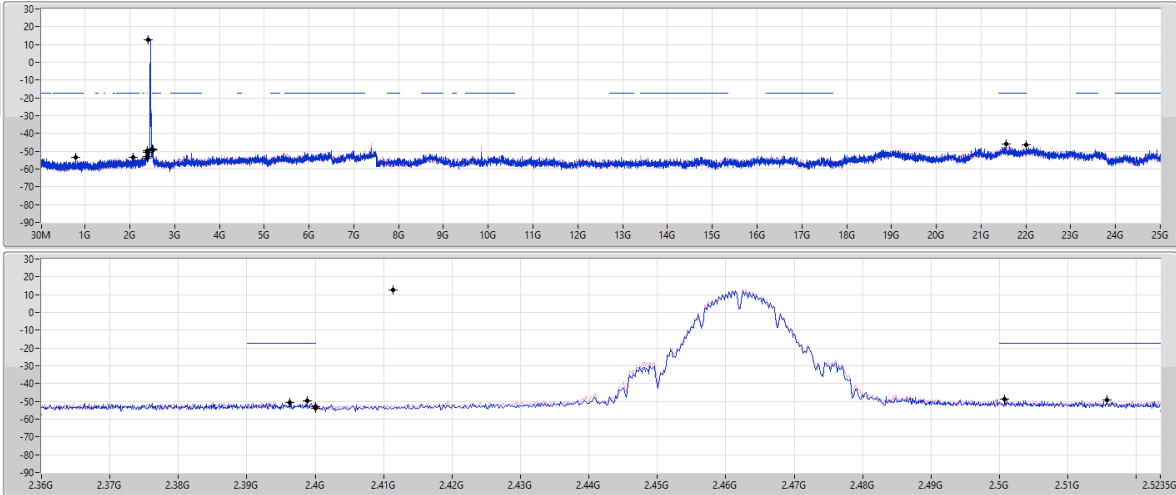
2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_2TX

CSEndB

2462MHz

RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

21/09/2023
Port 1
Port 2



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
2.41136G	12.71	-17.29	2.06875G	-53.66	2.39632G	-50.74	2.4G	-53.88	2.50078G	-48.52	2.55267G	-46.01	1
2.41136G	12.71	-17.29	800.07M	-53.36	2.3988G	-49.70	2.4G	-53.18	2.51566G	-49.07	2.50501G	-46.58	2

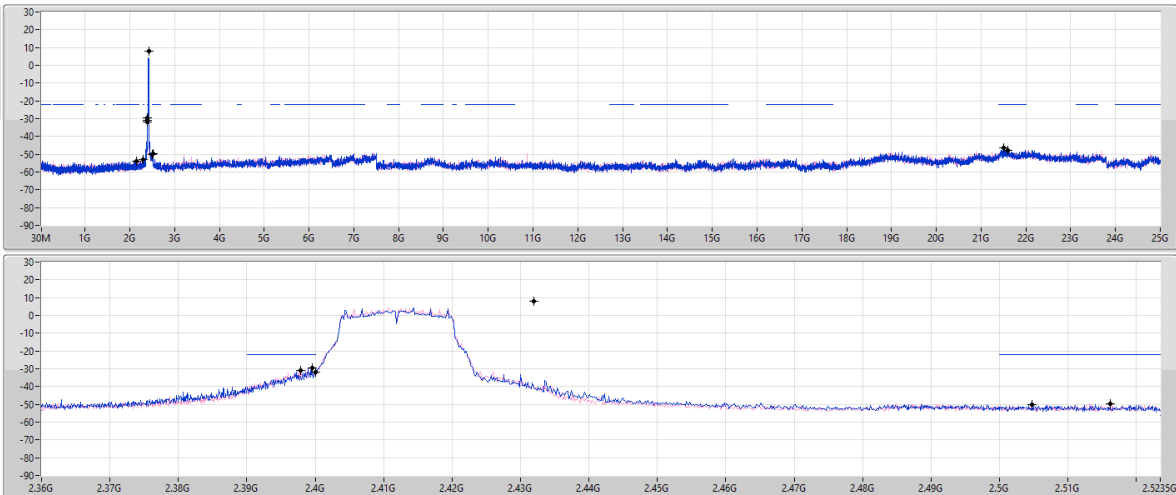
2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_2TX

CSEndB

2412MHz

RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

21/09/2023
Port 1
Port 2



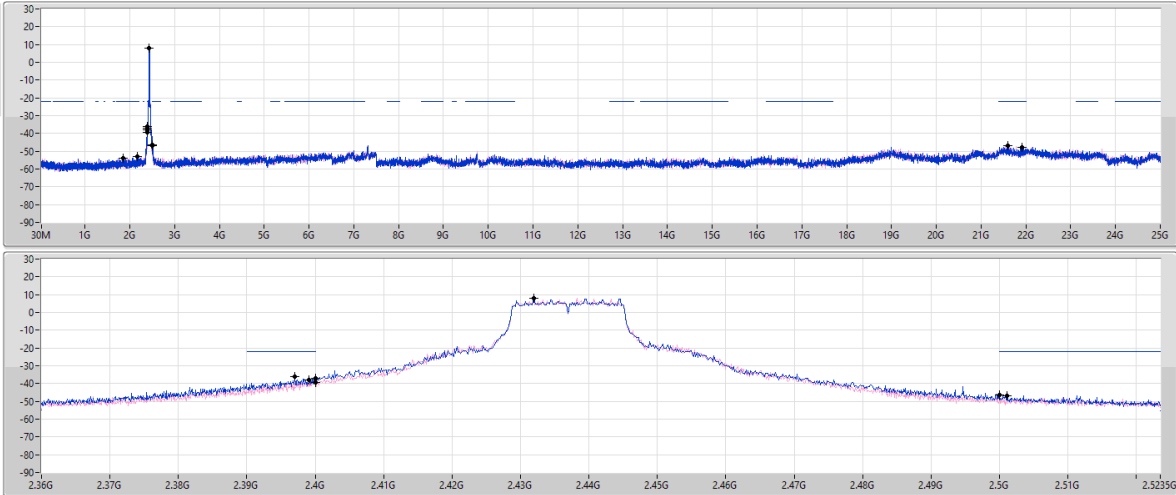
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.4319G	7.94	-22.06	2.15613G	-53.85	2.3952G	-29.76	2.4G	-32.01	2.50478G	-50.24	2.60805G	-47.79	1
2.4319G	7.94	-22.06	2.30292G	-52.76	2.39792G	-30.75	2.4G	-32.00	2.51622G	-49.69	2.50771G	-46.37	2

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

CSEndB

2437MHz

RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak



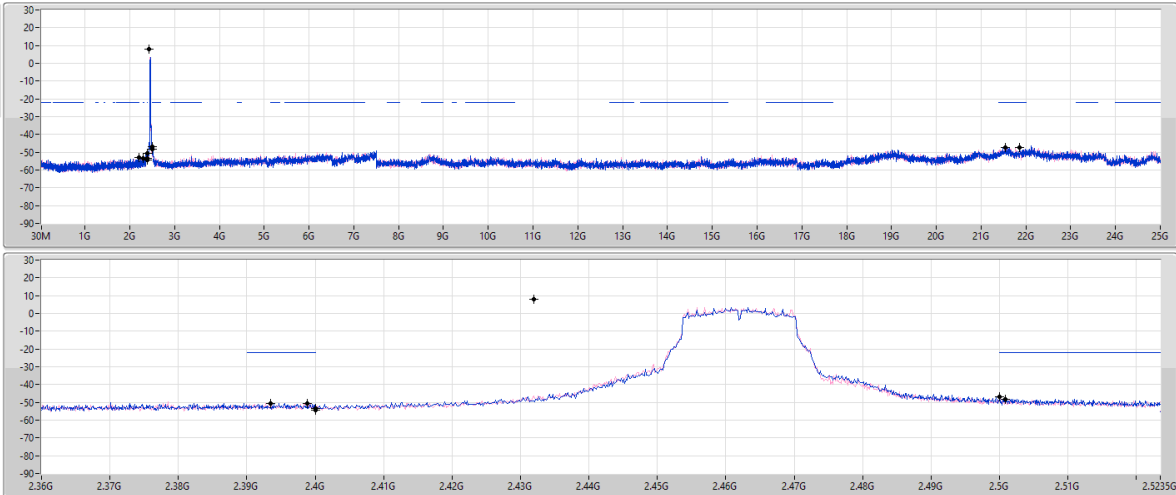
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.4319G	7.94	-22.06	2.16545G	-52.88	2.39704G	-36.14	2.4G	-36.83	2.5011G	-46.77	2.19151G	-47.61	1
2.4319G	7.94	-22.06	1.85789G	-54.01	2.39912G	-38.04	2.4G	-39.18	2.50006G	-46.56	2.160043G	-47.03	2

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

CSEndB

2462MHz

RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak



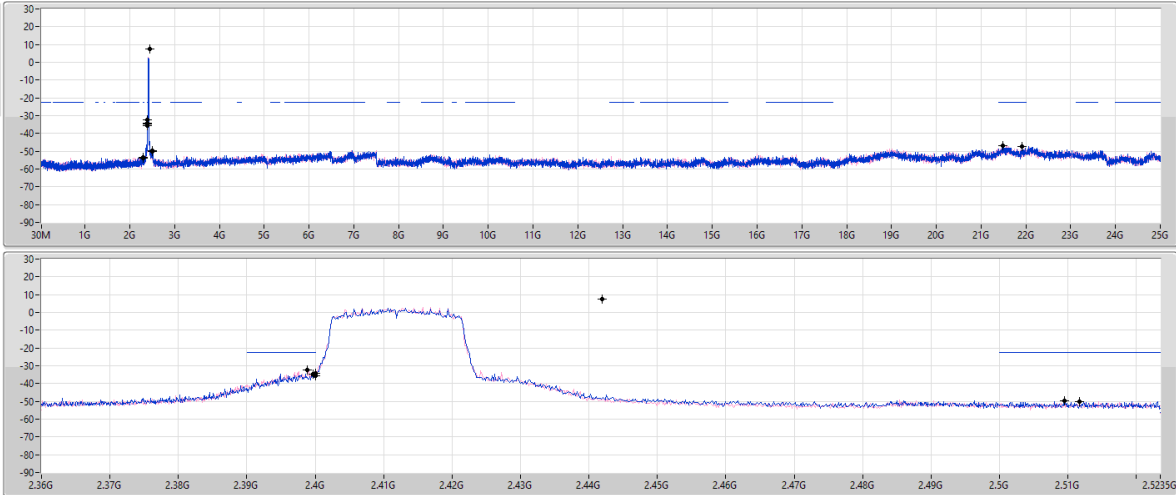
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2.4319G	7.94	-22.06	2.30292G	-53.58	2.39888G	-50.46	2.4G	-53.63	2.50006G	-47.00	2.154143G	-47.35	1
2.4319G	7.94	-22.06	2.19807G	-52.86	2.39352G	-50.73	2.4G	-54.18	2.50086G	-48.39	2.18561G	-47.15	2

2.4-2.4835GHz_802.11ax_HEW20_Nss1,(MCS0)_2TX

CSEndB

2412MHz

RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak



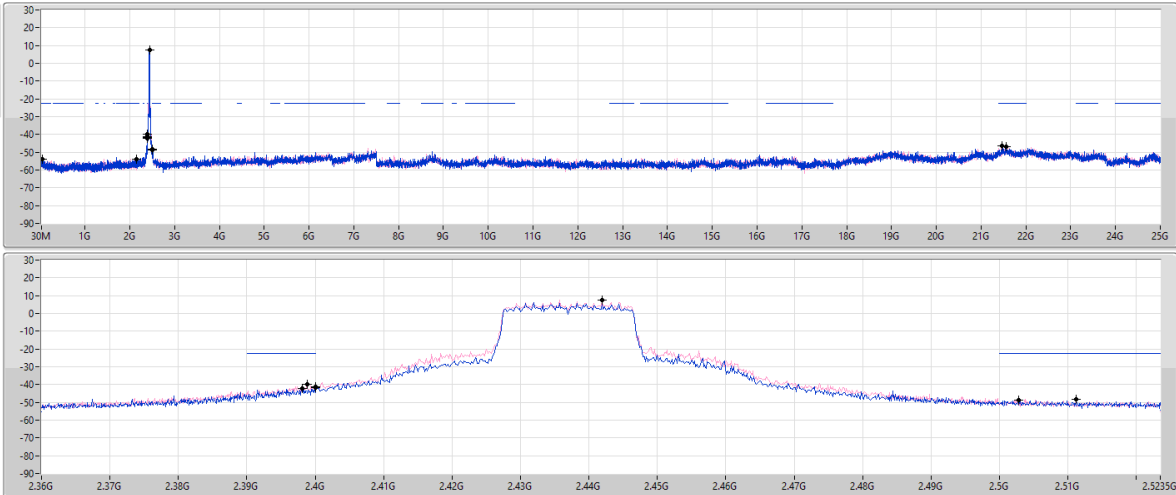
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.44192G	7.58	-22.42	2.30408G	-53.71	2.39968G	-34.47	2.4G	-34.09	2.5095G	-49.80	2.192072G	-47.17	1
2.44192G	7.58	-22.42	2.30408G	-53.37	2.39888G	-32.55	2.4G	-35.65	2.51174G	-49.98	2.149086G	-46.97	2

2.4-2.4835GHz_802.11ax_HEW20_Nss1,(MCS0)_2TX

CSEndB

2437MHz

RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak



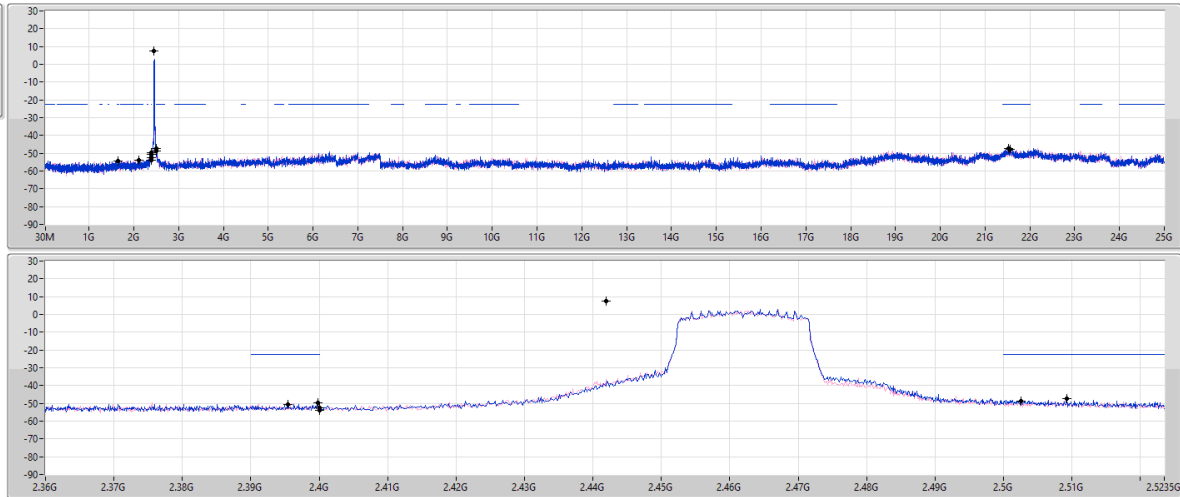
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.44192G	7.58	-22.42	2.14881G	-53.82	2.39808G	-42.08	2.4G	-41.47	2.50278G	-48.84	2.155829G	-46.80	1
2.44192G	7.58	-22.42	53.3M	-53.88	2.3988G	-39.76	2.4G	-41.61	2.51118G	-48.48	2.146557G	-46.47	2

2.4-2.4835GHz_802.11ax_HEW20_Nss1,(MCS0)_2TX

CSEndB

2462MHz

21/09/2023

RBW (Hz)
100k
VBW (Hz)
300k
Detector
PeakPort 1
Port 2

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
2.44192G	7.58	-22.42	1.64702G	-54.41	2.39544G	-50.46	2.4G	-52.39	2.50926G	-47.56	21.56391G	-47.63	1
2.44192G	7.58	-22.42	2.10836G	-54.14	2.39984G	-49.75	2.4G	-53.90	2.50262G	-48.74	21.51614G	-47.34	2



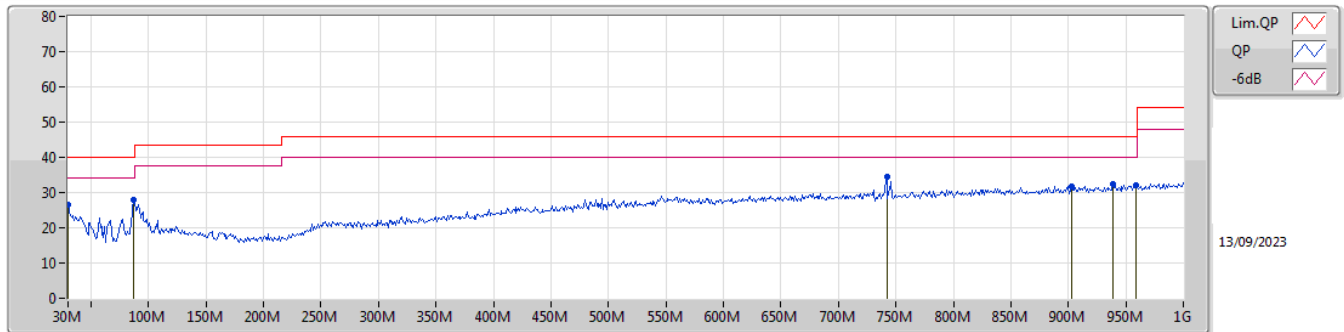
Radiated Emissions below 1GHz

Appendix F.1

Summary

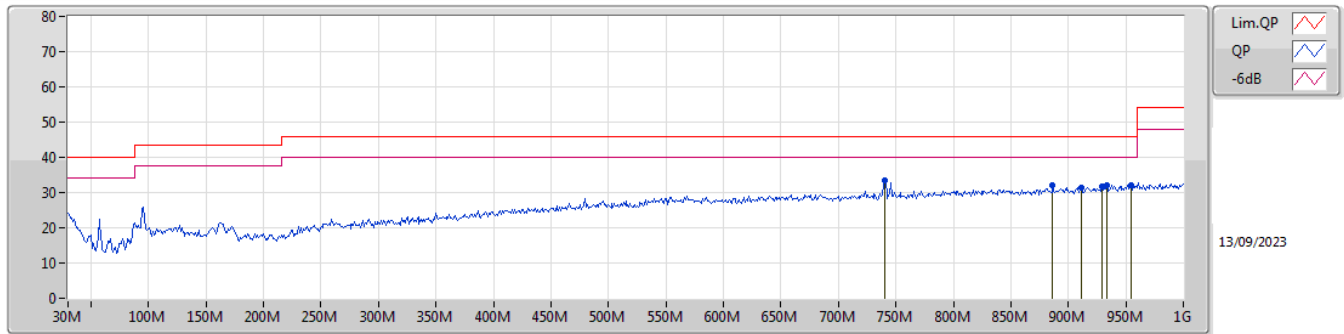
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition
Mode 1	Pass	PK	741.98M	34.49	46.00	-11.51	Vertical

Mode 1



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB/m)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV/m)	AF (dB/m)	CL (dB)	PA (dB)		
PK	30M	26.64	40.00	-13.36	-6.35	3	Vertical	352	1.25	-	32.99	24.11	1.08	31.54		
PK	87.23M	27.76	40.00	-12.24	-16.02	3	Vertical	330	1.50	-	43.78	14.24	1.67	31.93		
PK	741.98M	34.49	46.00	-11.51	-2.28	3	Vertical	285	2.00	"Worst"	36.77	25.33	5.02	32.63		
PK	903M	31.72	46.00	-14.28	-0.41	3	Vertical	249	2.00	-	32.13	26.39	5.66	32.46		
PK	938.89M	32.46	46.00	-13.54	-0.25	3	Vertical	311	1.25	-	32.71	26.58	5.70	32.53		
PK	959.26M	31.93	46.00	-14.07	0.08	3	Vertical	14	1.25	-	31.85	26.83	5.74	32.49		

Mode 1



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB/m)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV/m)	AF (dB/m)	CL (dB)	PA (dB)		
PK	740.04M	33.47	46.00	-12.53	-2.29	3	Horizontal	138	1.50	"Worst"	35.76	25.33	5.01	32.63		
PK	886.51M	32.09	46.00	-13.91	-0.65	3	Horizontal	215	2.00	-	32.74	26.25	5.60	32.50		
PK	911.73M	31.42	46.00	-14.58	-0.42	3	Horizontal	294	2.00	-	31.84	26.38	5.67	32.47		
PK	929.19M	31.83	46.00	-14.17	-0.35	3	Horizontal	31	3.00	-	32.18	26.47	5.69	32.51		
PK	933.07M	32.18	46.00	-13.82	-0.27	3	Horizontal	197	1.50	-	32.45	26.56	5.69	32.52		
PK	954.41M	32.15	46.00	-13.85	-0.02	3	Horizontal	170	1.00	-	32.17	26.78	5.72	32.52		

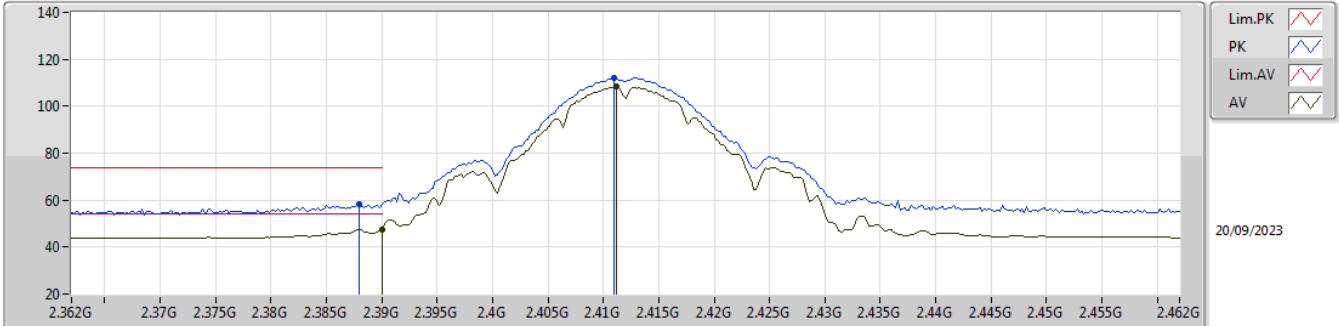


Summary

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	2.3894G	53.98	54.00	-0.02	3	Horizontal	170	1.38	-

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

2412MHz_TX

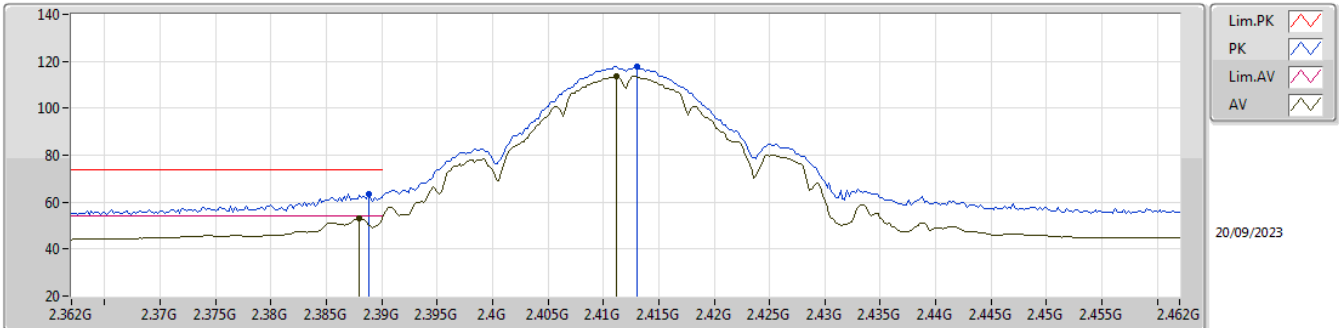


EUT X_2TX
Setting 87
02-E-C-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)				
PK	2.388G	58.28	74.00	-15.72	26.69	3	Vertical	222	2.19	-	28.40	3.19	-				
AV	2.39G	47.63	54.00	-6.37	16.03	3	Vertical	222	2.19	-	28.40	3.20	-				
PK	2.411G	112.24	Inf	-Inf	80.63	3	Vertical	222	2.19	-	28.40	3.21	-				
AV	2.4112G	108.27	Inf	-Inf	76.66	3	Vertical	222	2.19	-	28.40	3.21	-				

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

2412MHz_TX

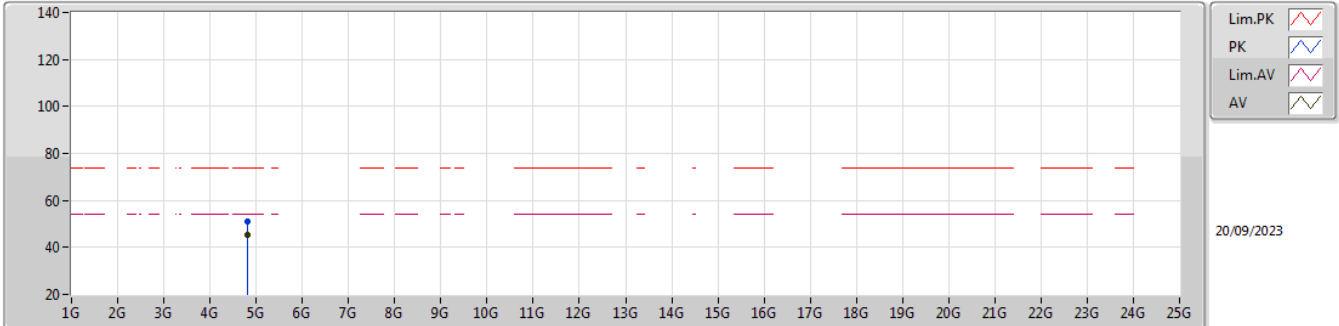


EUT_X_2TX
Setting 87
02-E-C-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)			
PK	2.3888G	63.32	74.00	-10.68	31.73	3	Horizontal	171	2.74	-	28.40	3.19	-			
AV	2.388G	53.21	54.00	-0.79	21.62	3	Horizontal	171	2.74	-	28.40	3.19	-			
PK	2.413G	117.66	Inf	-Inf	86.05	3	Horizontal	171	2.74	-	28.40	3.21	-			
AV	2.4112G	113.59	Inf	-Inf	81.98	3	Horizontal	171	2.74	-	28.40	3.21	-			

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

2412MHz_TX

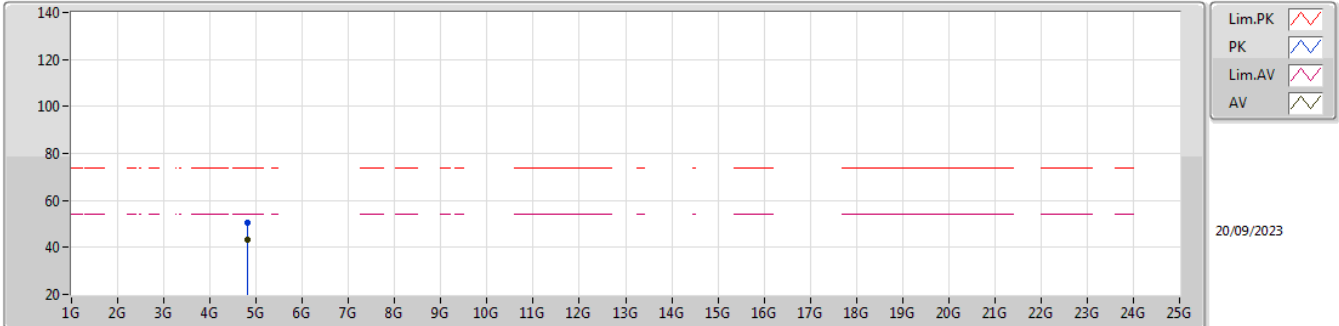


EUT_Z_2TX
Setting 87
02-E-J-8

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	4.824G	51.17	74.00	-22.83	43.30	3	Vertical	207	1.72	-	32.94	5.61	30.68			
AV	4.824G	45.17	54.00	-8.83	37.30	3	Vertical	207	1.72	-	32.94	5.61	30.68			

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

2412MHz_TX

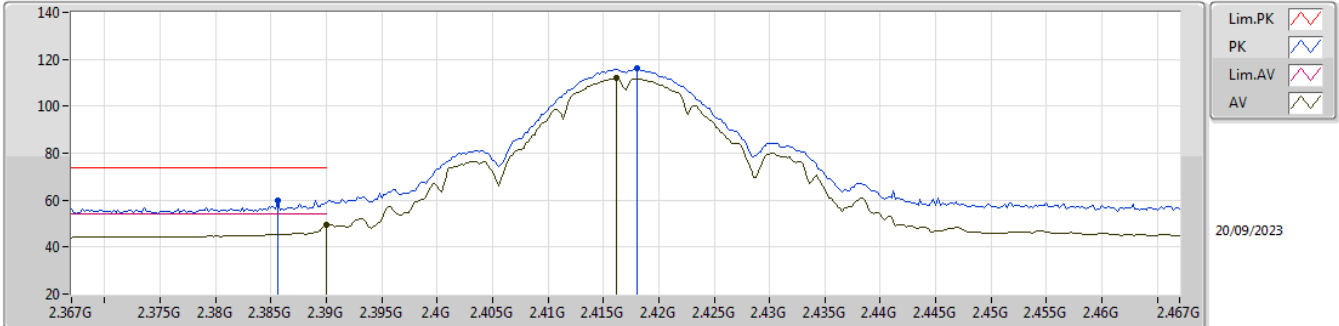


EUT_Z_2TX
Setting 87
02-E-J-8

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	4.8238G	50.63	74.00	-23.37	42.76	3	Horizontal	129	2.76	-	32.94	5.61	30.68			
AV	4.824G	43.28	54.00	-10.72	35.41	3	Horizontal	129	2.76	-	32.94	5.61	30.68			

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

2417MHz_TX

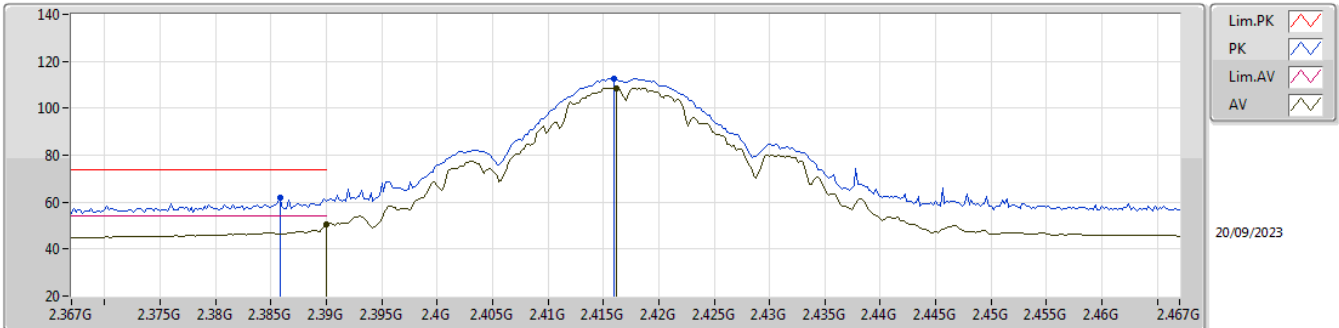


EUT X_2TX
Setting 87
02-E-J-8

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	2.3856G	59.64	74.00	-14.36	28.05	3	Vertical	64	1.01	-	28.40	3.19	-				
AV	2.39G	49.24	54.00	-4.76	17.64	3	Vertical	64	1.01	-	28.40	3.20	-				
PK	2.418G	116.08	Inf	-Inf	84.47	3	Vertical	64	1.01	-	28.40	3.21	-				
AV	2.4162G	111.91	Inf	-Inf	80.30	3	Vertical	64	1.01	-	28.40	3.21	-				

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

2417MHz_TX

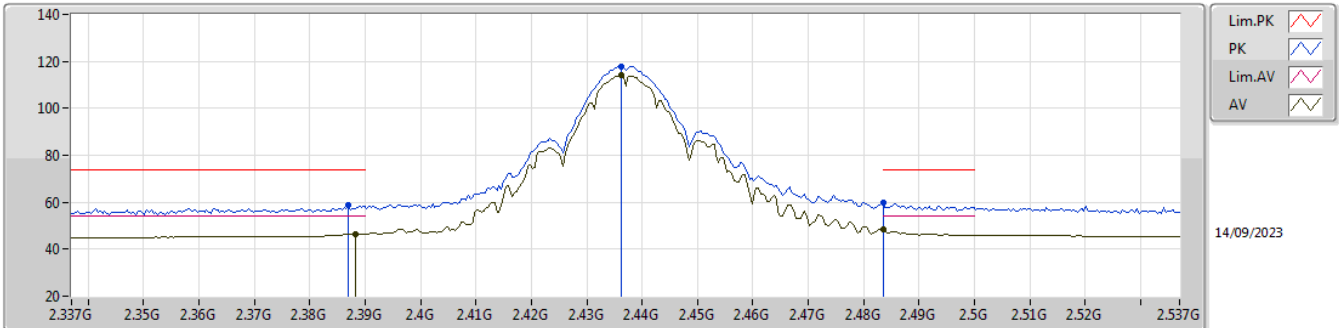


EUT X_2TX
Setting 87
02-E-J-8

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)				
PK	2.3858G	61.89	74.00	-12.11	30.30	3	Horizontal	170	1.39	-	28.40	3.19	-				
AV	2.39G	50.67	54.00	-3.33	19.07	3	Horizontal	170	1.39	-	28.40	3.20	-				
PK	2.416G	112.84	Inf	-Inf	81.23	3	Horizontal	170	1.39	-	28.40	3.21	-				
AV	2.4162G	108.69	Inf	-Inf	77.08	3	Horizontal	170	1.39	-	28.40	3.21	-				

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

2437MHz_TX

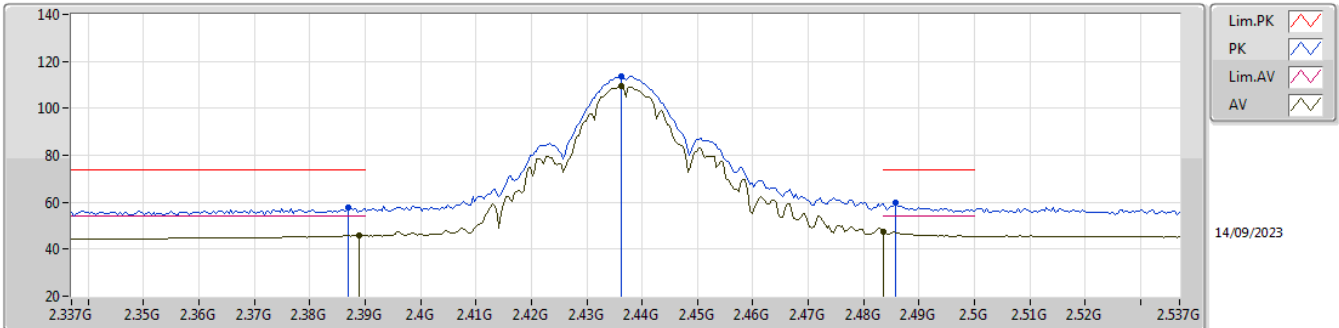


EUT X_2TX
Setting 108
01-D-C-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)			
PK	2.387G	58.99	74.00	-15.01	27.63	3	Vertical	70	1.80	-	27.77	3.59	-			
AV	2.3882G	46.55	54.00	-7.45	15.18	3	Vertical	70	1.80	-	27.78	3.59	-			
PK	2.4362G	117.91	Inf	-Inf	86.42	3	Vertical	70	1.80	-	27.87	3.62	-			
AV	2.4362G	113.98	Inf	-Inf	82.49	3	Vertical	70	1.80	-	27.87	3.62	-			
PK	2.4835G	59.74	74.00	-14.26	28.00	3	Vertical	70	1.80	-	28.10	3.64	-			
AV	2.4835G	48.19	54.00	-5.81	16.45	3	Vertical	70	1.80	-	28.10	3.64	-			

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

2437MHz_TX

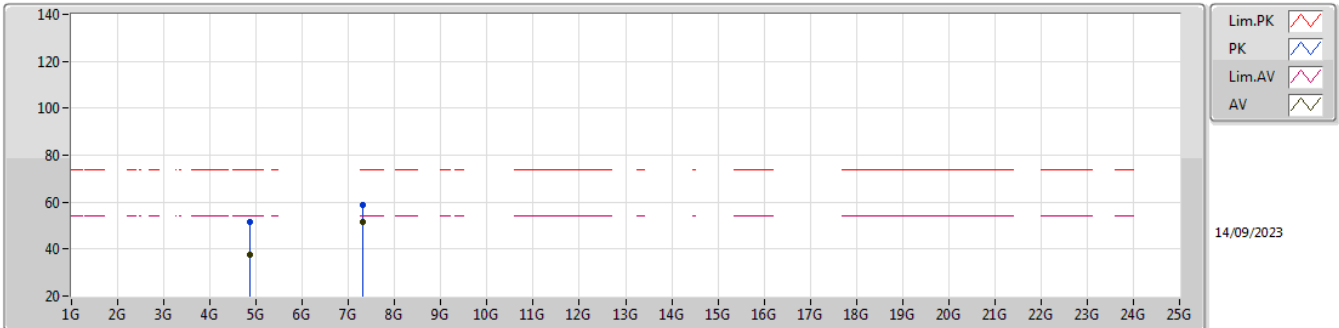


EUT X_2TX
Setting 108
01-D-C-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)			
PK	2.387G	57.60	74.00	-16.40	26.24	3	Horizontal	176	1.00	-	27.77	3.59	-			
AV	2.389G	45.92	54.00	-8.08	14.55	3	Horizontal	176	1.00	-	27.78	3.59	-			
PK	2.4362G	113.68	Inf	-Inf	82.19	3	Horizontal	176	1.00	-	27.87	3.62	-			
AV	2.4362G	109.70	Inf	-Inf	78.21	3	Horizontal	176	1.00	-	27.87	3.62	-			
PK	2.4858G	59.80	74.00	-14.20	28.05	3	Horizontal	176	1.00	-	28.11	3.64	-			
AV	2.4835G	47.37	54.00	-6.63	15.63	3	Horizontal	176	1.00	-	28.10	3.64	-			

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

2437MHz_TX

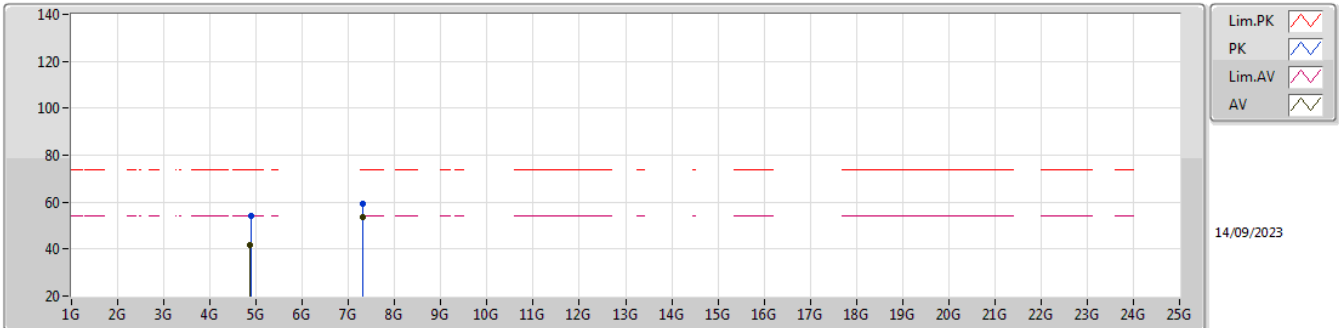


EUT_Z_2TX
Setting 98
01-D-C-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)			
PK	4.87194G	51.64	74.00	-22.36	45.83	3	Vertical	306	2.16	-	33.00	5.77	32.96			
AV	4.87214G	37.72	54.00	-16.28	31.91	3	Vertical	306	2.16	-	33.00	5.77	32.96			
PK	7.31002G	58.72	74.00	-15.28	47.06	3	Vertical	276	1.11	-	37.60	7.16	33.10			
AV	7.31026G	51.49	54.00	-2.51	39.83	3	Vertical	276	1.11	-	37.60	7.16	33.10			

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

2437MHz_TX

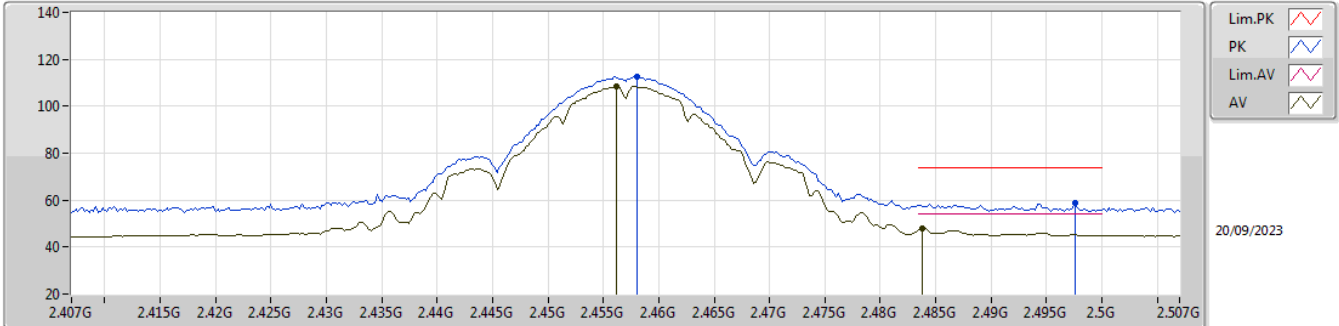


EUT_Z_2TX
Setting 98
01-D-C-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)			
PK	4.87748G	53.95	74.00	-20.05	48.13	3	Horizontal	47	2.34	-	33.00	5.78	32.96			
AV	4.87134G	41.69	54.00	-12.31	35.88	3	Horizontal	47	2.34	-	33.00	5.77	32.96			
PK	7.30994G	59.53	74.00	-14.47	47.88	3	Horizontal	276	1.17	-	37.60	7.15	33.10			
AV	7.31032G	53.37	54.00	-0.63	41.71	3	Horizontal	276	1.17	-	37.60	7.16	33.10			

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

2457MHz_TX

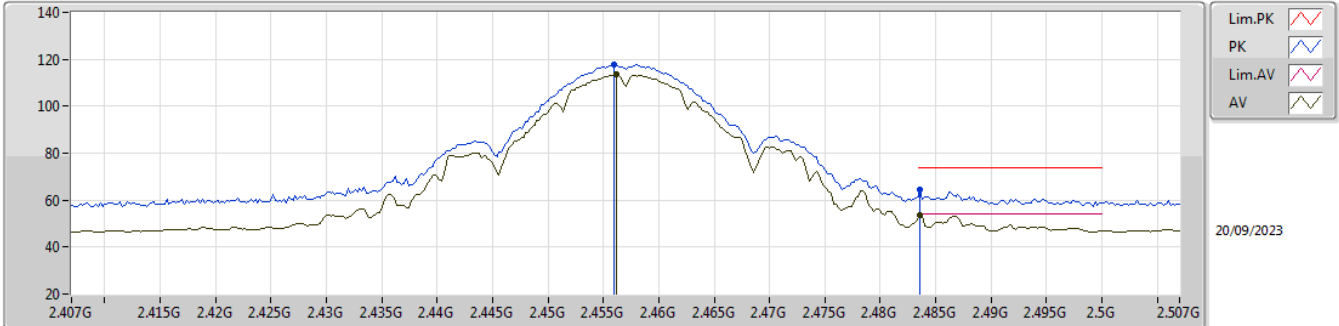


EUT X_2TX
Setting 88
02-E-J-8

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	2.458G	112.63	Inf	-Inf	80.92	3	Vertical	224	2.35	-	28.48	3.23	-				
AV	2.456G	108.42	Inf	-Inf	76.73	3	Vertical	224	2.35	-	28.46	3.23	-				
PK	2.4976G	58.71	74.00	-15.29	26.88	3	Vertical	224	2.35	-	28.58	3.25	-				
AV	2.4838G	47.91	54.00	-6.09	16.17	3	Vertical	224	2.35	-	28.50	3.24	-				

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

2457MHz_TX

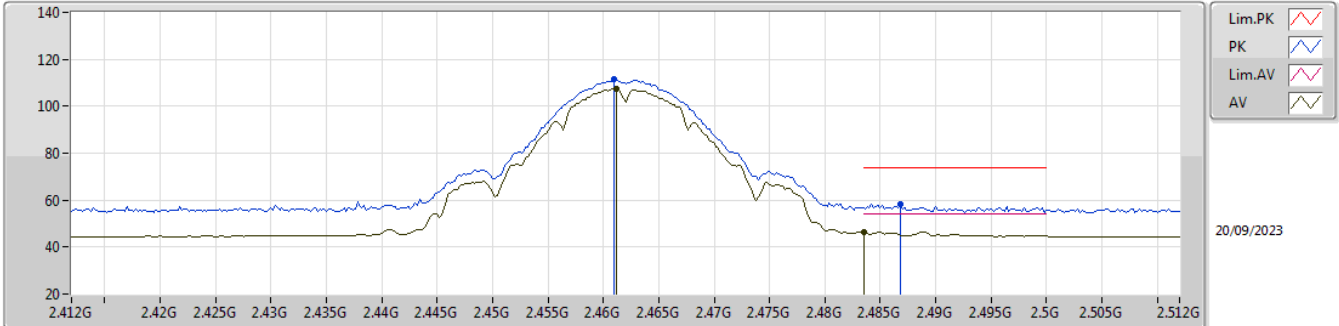


EUT X_2TX
Setting 88
02-E-J-8

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	2.456G	117.65	Inf	-Inf	85.96	3	Horizontal	171	1.02	-	28.46	3.23	-				
AV	2.456G	113.48	Inf	-Inf	81.79	3	Horizontal	171	1.02	-	28.46	3.23	-				
PK	2.4836G	64.43	74.00	-9.57	32.69	3	Horizontal	171	1.02	-	28.50	3.24	-				
AV	2.4836G	53.68	54.00	-0.32	21.94	3	Horizontal	171	1.02	-	28.50	3.24	-				

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

2462MHz_TX

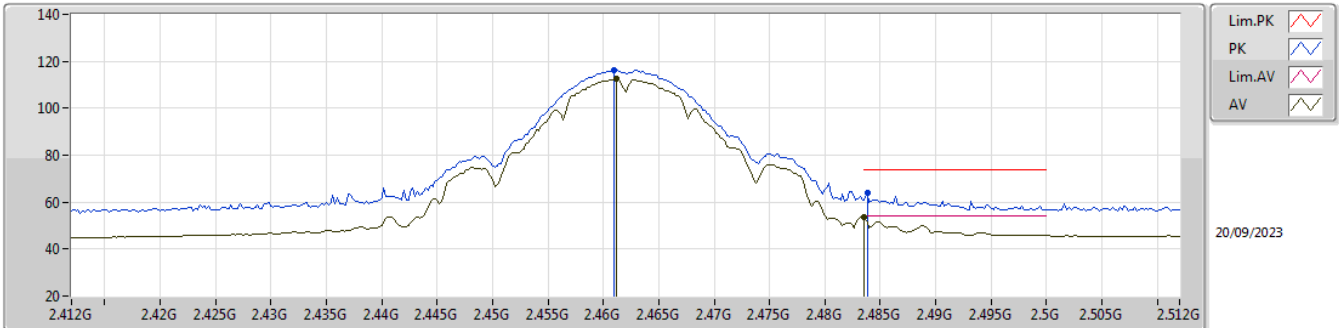


EUT X_2TX
Setting 84
02-E-C-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)				
PK	2.461G	111.33	Inf	-Inf	79.60	3	Vertical	224	2.34	-	28.50	3.23	-				
AV	2.4612G	107.45	Inf	-Inf	75.72	3	Vertical	224	2.34	-	28.50	3.23	-				
PK	2.4868G	58.45	74.00	-15.55	26.71	3	Vertical	224	2.34	-	28.50	3.24	-				
AV	2.4835G	46.30	54.00	-7.70	14.56	3	Vertical	224	2.34	-	28.50	3.24	-				

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

2462MHz_TX

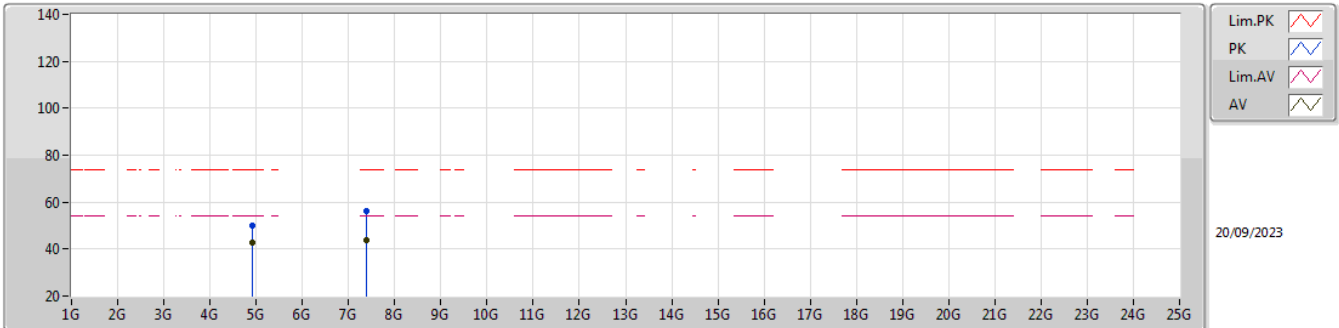


EUT X_2TX
Setting 84
02-E-C-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)			
PK	2.461G	116.45	Inf	-Inf	84.72	3	Horizontal	175	2.17	-	28.50	3.23	-			
AV	2.4612G	112.44	Inf	-Inf	80.71	3	Horizontal	175	2.17	-	28.50	3.23	-			
PK	2.4838G	63.83	74.00	-10.17	32.09	3	Horizontal	175	2.17	-	28.50	3.24	-			
AV	2.4835G	53.39	54.00	-0.61	21.65	3	Horizontal	175	2.17	-	28.50	3.24	-			

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

2462MHz_TX

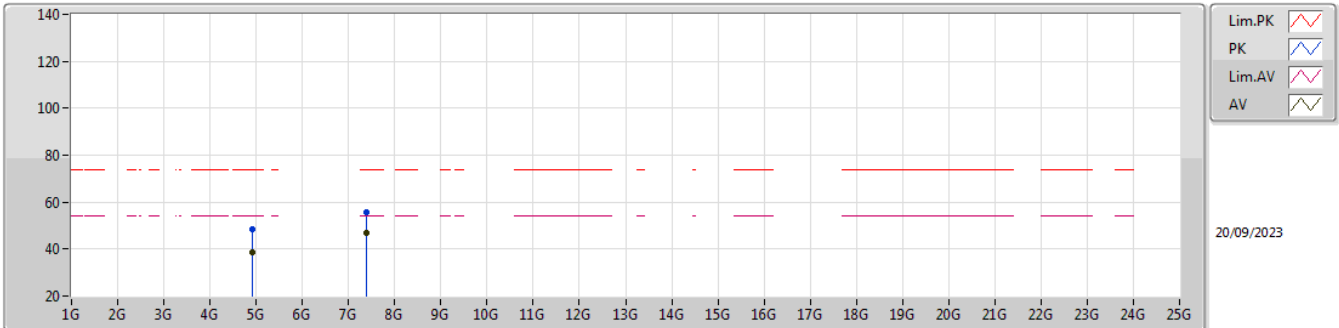


EUT_Z_2TX
Setting 84
02-E-J-8

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	4.924G	50.18	74.00	-23.82	41.88	3	Vertical	209	1.94	-	33.25	5.66	30.61			
AV	4.924G	42.57	54.00	-11.43	34.27	3	Vertical	209	1.94	-	33.25	5.66	30.61			
PK	7.387G	56.03	74.00	-17.97	44.68	3	Vertical	353	2.54	-	36.70	6.81	32.16			
AV	7.3848G	43.54	54.00	-10.46	32.19	3	Vertical	353	2.54	-	36.70	6.81	32.16			

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

2462MHz_TX

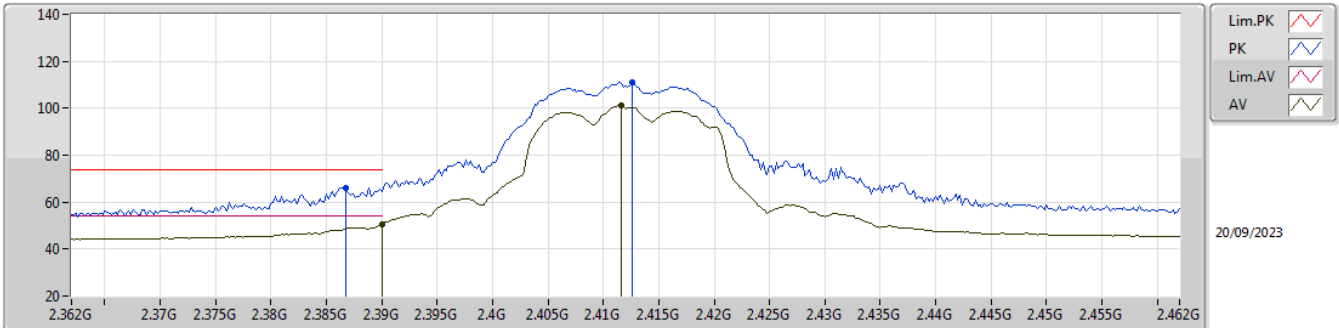


EUT_Z_2TX
Setting 84
02-E-J-8

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	4.92396G	48.48	74.00	-25.52	40.18	3	Horizontal	180	1.32	-	33.25	5.66	30.61			
AV	4.92404G	38.52	54.00	-15.48	30.22	3	Horizontal	180	1.32	-	33.25	5.66	30.61			
PK	7.385G	55.70	74.00	-18.30	44.35	3	Horizontal	252	2.39	-	36.70	6.81	32.16			
AV	7.38484G	47.04	54.00	-6.96	35.69	3	Horizontal	252	2.39	-	36.70	6.81	32.16			

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

2412MHz_TX

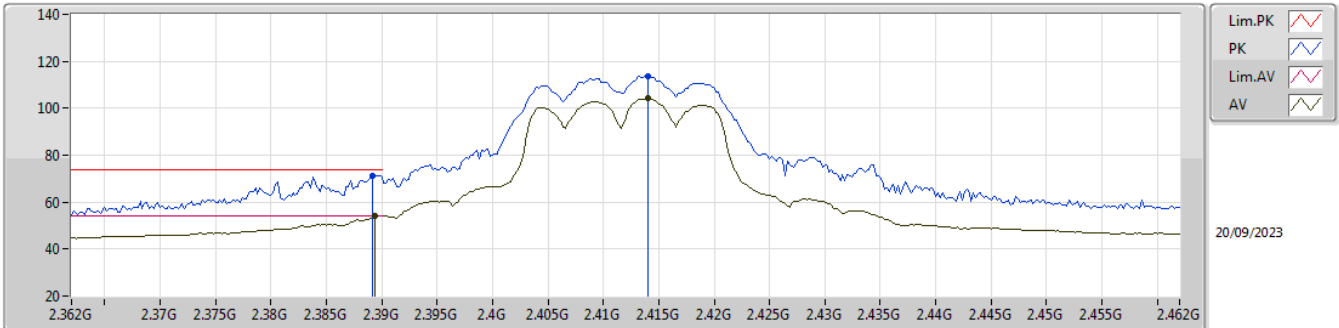


EUT X_2TX
Setting 63
02-E-J-8

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)			
PK	2.3868G	66.04	74.00	-7.96	34.45	3	Vertical	68	1.28	-	28.40	3.19	-			
AV	2.39G	50.53	54.00	-3.47	18.93	3	Vertical	68	1.28	-	28.40	3.20	-			
PK	2.4126G	111.17	Inf	-Inf	79.56	3	Vertical	68	1.28	-	28.40	3.21	-			
AV	2.4116G	101.15	Inf	-Inf	69.54	3	Vertical	68	1.28	-	28.40	3.21	-			

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

2412MHz_TX

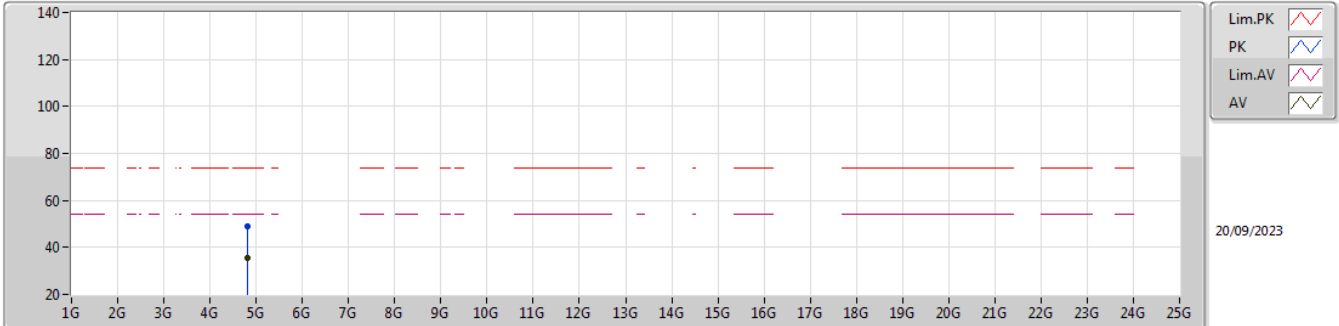


EUT X_2TX
Setting 63
02-E-J-8

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)				
PK	2.3892G	71.43	74.00	-2.57	39.84	3	Horizontal	170	1.38	-	28.40	3.19	-				
AV	2.3894G	53.98	54.00	-0.02	22.39	3	Horizontal	170	1.38	-	28.40	3.19	-				
PK	2.414G	113.71	Inf	-Inf	82.10	3	Horizontal	170	1.38	-	28.40	3.21	-				
AV	2.414G	104.23	Inf	-Inf	72.62	3	Horizontal	170	1.38	-	28.40	3.21	-				

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

2412MHz_TX

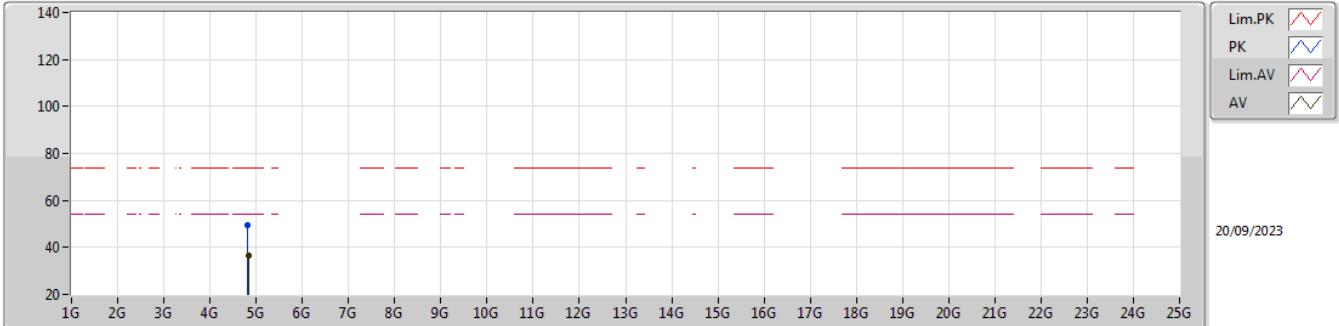


EUT_Z_2TX
Setting 63
02-E-J-8

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	4.82348G	48.71	74.00	-25.29	40.84	3	Vertical	208	1.57	-	32.94	5.61	30.68			
AV	4.82368G	35.41	54.00	-18.59	27.54	3	Vertical	208	1.57	-	32.94	5.61	30.68			

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

2412MHz_TX

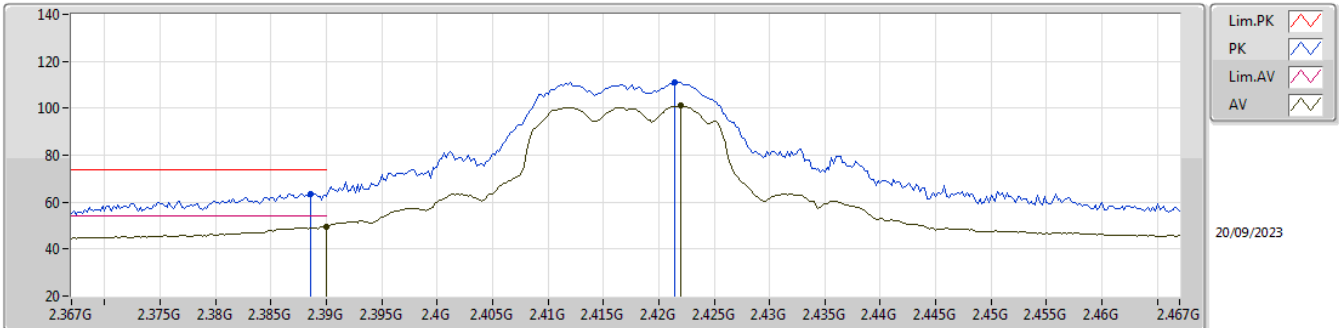


EUT_Z_2TX
Setting 63
02-E-J-8

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	4.8194G	49.59	74.00	-24.41	41.74	3	Horizontal	243	2.66	-	32.92	5.61	30.68			
AV	4.82532G	36.51	54.00	-17.49	28.63	3	Horizontal	243	2.66	-	32.95	5.61	30.68			

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

2417MHz_TX

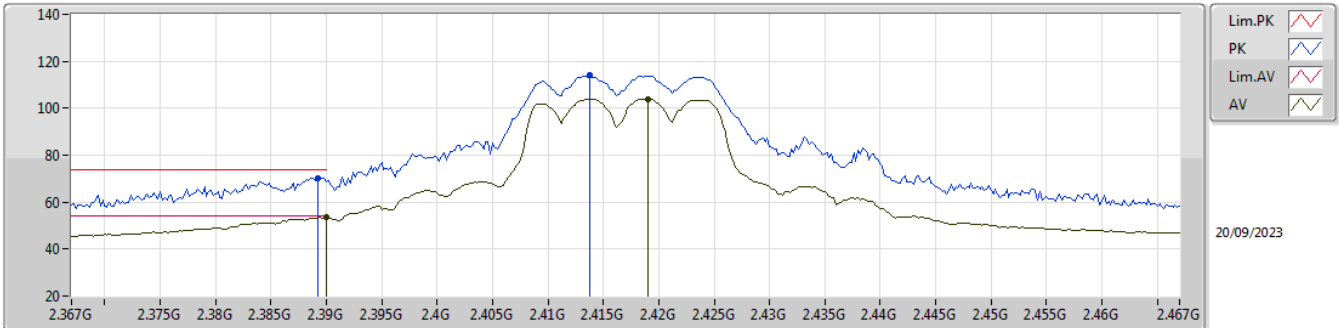


EUT X_2TX
Setting 66
02-E-J-8

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)			
PK	2.3886G	63.57	74.00	-10.43	31.98	3	Vertical	66	1.00	-	28.40	3.19	-			
AV	2.39G	49.62	54.00	-4.38	18.02	3	Vertical	66	1.00	-	28.40	3.20	-			
PK	2.4214G	111.11	Inf	-Inf	79.49	3	Vertical	66	1.00	-	28.41	3.21	-			
AV	2.422G	101.00	Inf	-Inf	69.37	3	Vertical	66	1.00	-	28.42	3.21	-			

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

2417MHz_TX

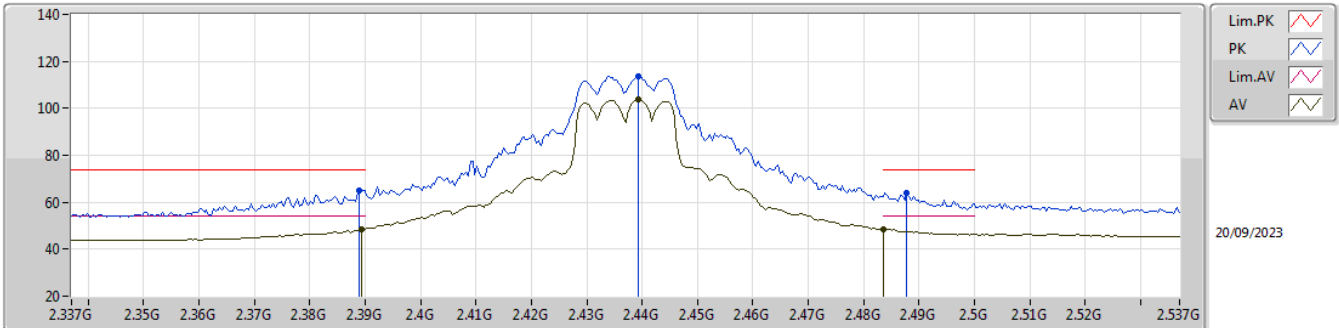


EUT X_2TX
Setting 66
02-E-J-8

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)			
PK	2.3892G	70.40	74.00	-3.60	38.81	3	Horizontal	170	1.00	-	28.40	3.19	-			
AV	2.39G	53.54	54.00	-0.46	21.94	3	Horizontal	170	1.00	-	28.40	3.20	-			
PK	2.4138G	114.19	Inf	-Inf	82.58	3	Horizontal	170	1.00	-	28.40	3.21	-			
AV	2.419G	104.02	Inf	-Inf	72.41	3	Horizontal	170	1.00	-	28.40	3.21	-			

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

2437MHz_TX

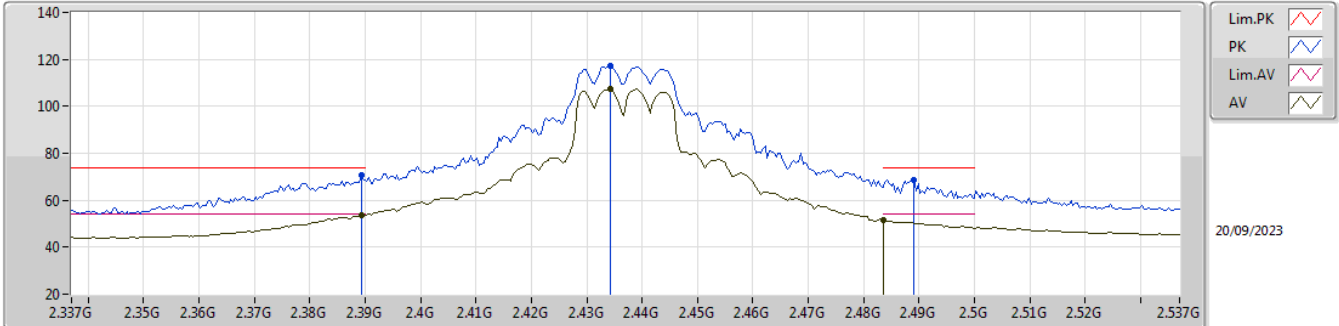


EUT X_2TX
Setting 75
02-E-J-8

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)			
PK	2.389G	65.05	74.00	-8.95	33.46	3	Vertical	53	1.11	-	28.40	3.19	-			
AV	2.3894G	48.54	54.00	-5.46	16.95	3	Vertical	53	1.11	-	28.40	3.19	-			
PK	2.4394G	113.83	Inf	-Inf	82.20	3	Vertical	53	1.11	-	28.41	3.22	-			
AV	2.4394G	103.90	Inf	-Inf	72.27	3	Vertical	53	1.11	-	28.41	3.22	-			
PK	2.4878G	64.22	74.00	-9.78	32.48	3	Vertical	53	1.11	-	28.50	3.24	-			
AV	2.4835G	48.64	54.00	-5.36	16.90	3	Vertical	53	1.11	-	28.50	3.24	-			

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

2437MHz_TX

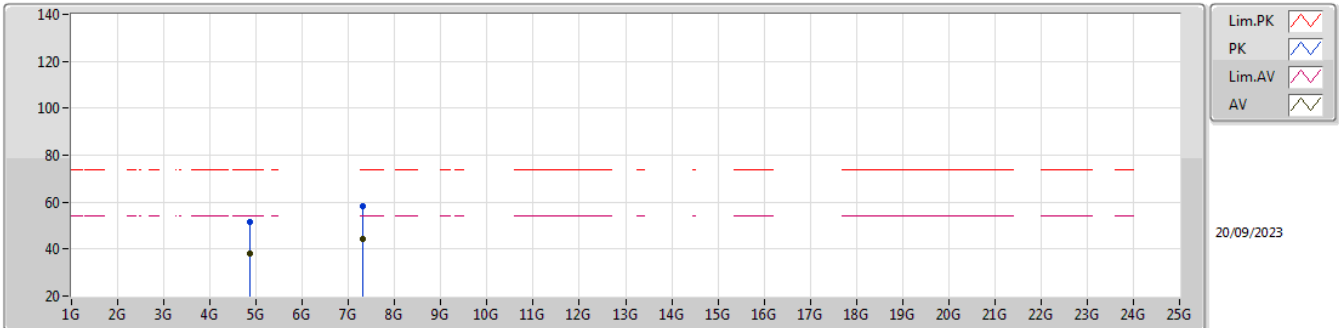


EUT X_2TX
Setting 75
02-E-J-8

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)			
PK	2.3894G	70.80	74.00	-3.20	39.21	3	Horizontal	170	1.00	-	28.40	3.19	-			
AV	2.3894G	53.83	54.00	-0.17	22.24	3	Horizontal	170	1.00	-	28.40	3.19	-			
PK	2.4342G	117.41	Inf	-Inf	85.73	3	Horizontal	170	1.00	-	28.46	3.22	-			
AV	2.4342G	107.16	Inf	-Inf	75.48	3	Horizontal	170	1.00	-	28.46	3.22	-			
PK	2.489G	68.58	74.00	-5.42	36.84	3	Horizontal	170	1.00	-	28.50	3.24	-			
AV	2.4835G	51.72	54.00	-2.28	19.98	3	Horizontal	170	1.00	-	28.50	3.24	-			

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

2437MHz_TX

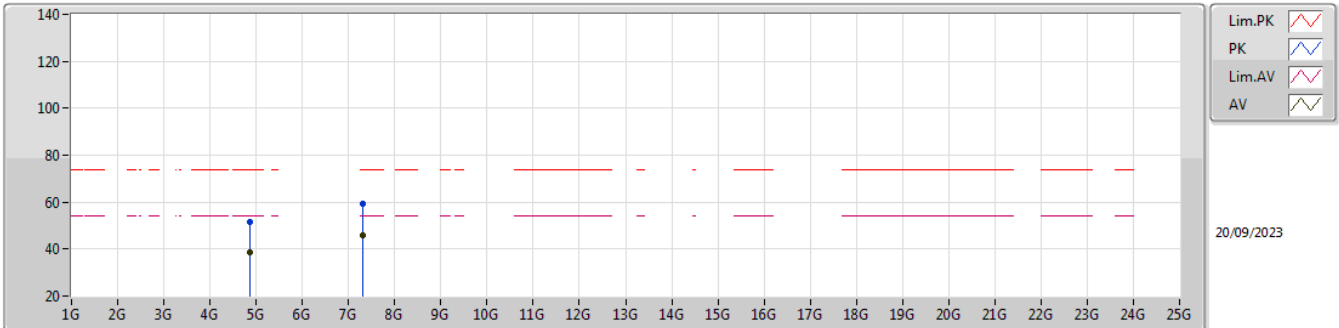


EUT_Z_2TX
Setting 75
02-E-J-8

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	4.87452G	51.56	74.00	-22.44	43.41	3	Vertical	10	1.30	-	33.15	5.64	30.64			
AV	4.87484G	38.30	54.00	-15.70	30.15	3	Vertical	10	1.30	-	33.15	5.64	30.64			
PK	7.3084G	58.06	74.00	-15.94	46.70	3	Vertical	179	1.21	-	36.62	6.85	32.11			
AV	7.30836G	44.31	54.00	-9.69	32.95	3	Vertical	179	1.21	-	36.62	6.85	32.11			

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

2437MHz_TX

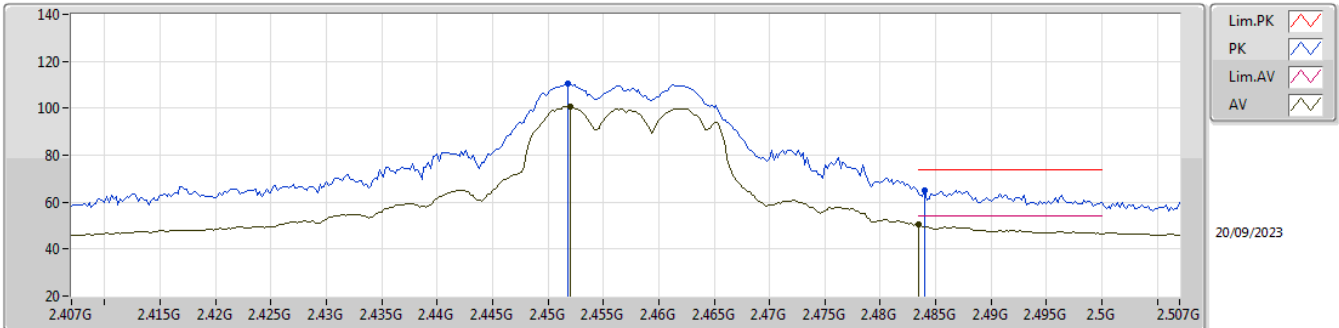


EUT_Z_2TX
Setting 75
02-E-J-8

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	4.86888G	51.71	74.00	-22.29	43.59	3	Horizontal	251	2.78	-	33.14	5.63	30.65			
AV	4.87468G	38.54	54.00	-15.46	30.39	3	Horizontal	251	2.78	-	33.15	5.64	30.64			
PK	7.31196G	59.56	74.00	-14.44	48.21	3	Horizontal	84	1.08	-	36.62	6.84	32.11			
AV	7.31116G	45.83	54.00	-8.17	34.48	3	Horizontal	84	1.08	-	36.62	6.84	32.11			

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

2457MHz_TX

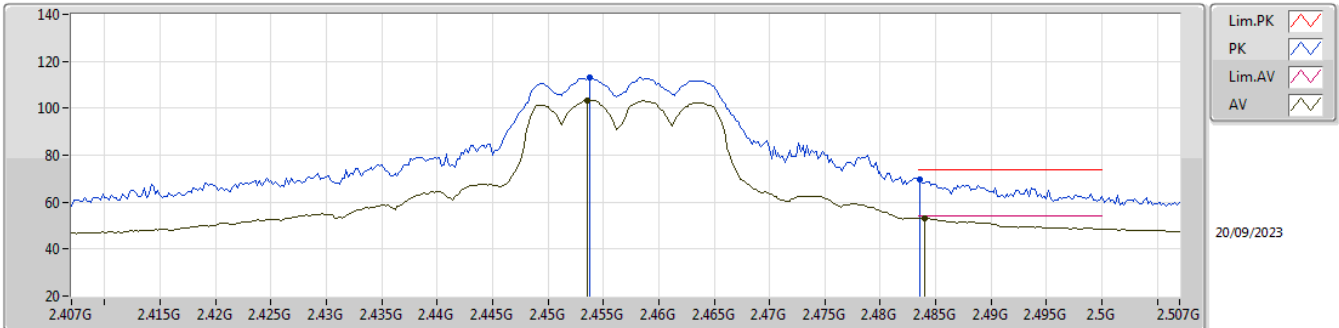


EUT X_2TX
Setting 67
02-E-J-8

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	2.4518G	110.52	Inf	-Inf	78.87	3	Vertical	63	1.66	-	28.42	3.23	-				
AV	2.452G	100.57	Inf	-Inf	68.92	3	Vertical	63	1.66	-	28.42	3.23	-				
PK	2.484G	65.19	74.00	-8.81	33.45	3	Vertical	63	1.66	-	28.50	3.24	-				
AV	2.4835G	50.44	54.00	-3.56	18.70	3	Vertical	63	1.66	-	28.50	3.24	-				

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

2457MHz_TX

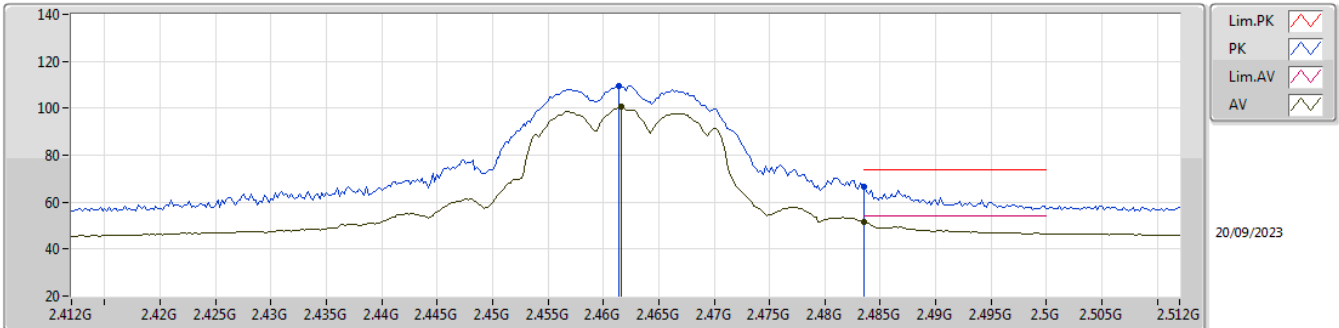


EUT X_2TX
Setting 67
02-E-J-8

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	2.4538G	113.10	Inf	-Inf	81.43	3	Horizontal	170	1.18	-	28.44	3.23	-			
AV	2.4536G	103.26	Inf	-Inf	71.59	3	Horizontal	170	1.18	-	28.44	3.23	-			
PK	2.4836G	69.69	74.00	-4.31	37.95	3	Horizontal	170	1.18	-	28.50	3.24	-			
AV	2.484G	53.34	54.00	-0.66	21.60	3	Horizontal	170	1.18	-	28.50	3.24	-			

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

2462MHz_TX

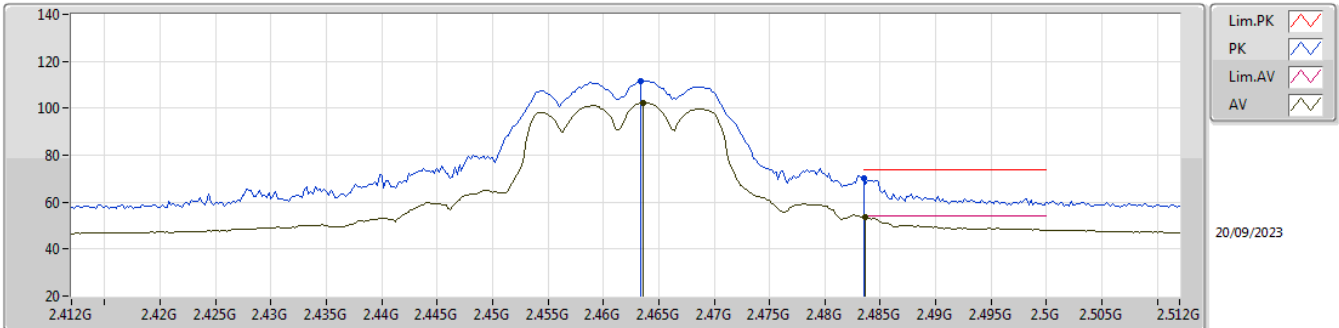


EUT X_2TX
Setting 61
02-E-J-8

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	2.4614G	109.73	Inf	-Inf	78.00	3	Vertical	59	1.00	-	28.50	3.23	-				
AV	2.4616G	100.45	Inf	-Inf	68.72	3	Vertical	59	1.00	-	28.50	3.23	-				
PK	2.4835G	66.65	74.00	-7.35	34.91	3	Vertical	59	1.00	-	28.50	3.24	-				
AV	2.4835G	51.74	54.00	-2.26	20.00	3	Vertical	59	1.00	-	28.50	3.24	-				

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

2462MHz_TX

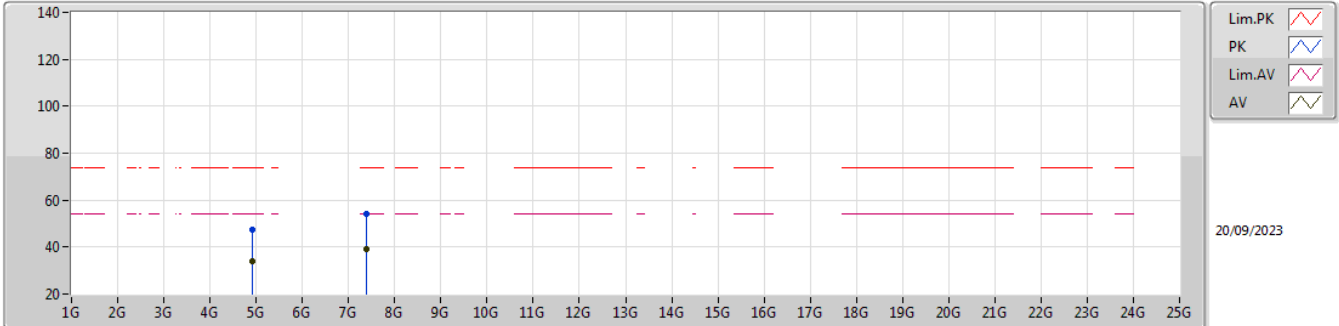


EUT X_2TX
Setting 61
02-E-J-8

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	2.4634G	111.73	Inf	-Inf	80.00	3	Horizontal	170	1.37	-	28.50	3.23	-				
AV	2.4636G	102.41	Inf	-Inf	70.68	3	Horizontal	170	1.37	-	28.50	3.23	-				
PK	2.4835G	70.05	74.00	-3.95	38.31	3	Horizontal	170	1.37	-	28.50	3.24	-				
AV	2.4836G	53.86	54.00	-0.14	22.12	3	Horizontal	170	1.37	-	28.50	3.24	-				

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

2462MHz_TX

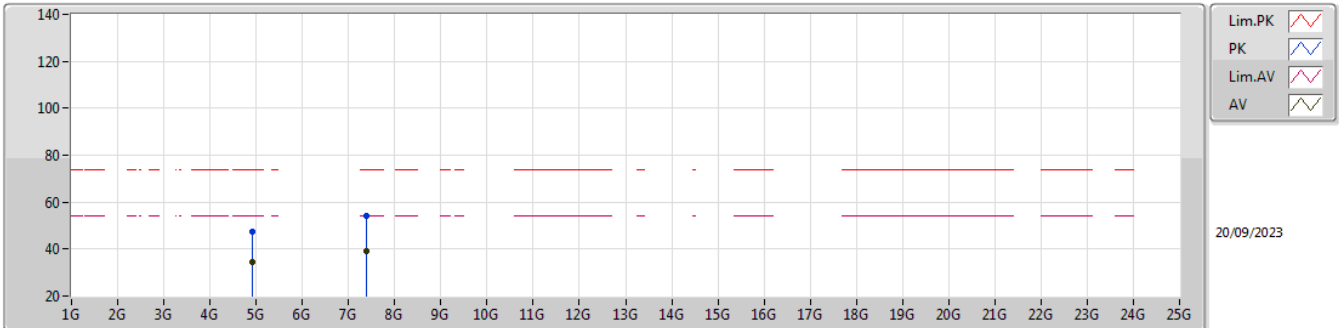


EUT_Z_2TX
Setting 61
02-E-J-8

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	4.91436G	47.42	74.00	-26.58	39.15	3	Vertical	103	2.78	-	33.23	5.66	30.62			
AV	4.92504G	34.05	54.00	-19.95	25.75	3	Vertical	103	2.78	-	33.25	5.66	30.61			
PK	7.37952G	54.05	74.00	-19.95	42.69	3	Vertical	71	2.62	-	36.70	6.81	32.15			
AV	7.38532G	38.92	54.00	-15.08	27.57	3	Vertical	71	2.62	-	36.70	6.81	32.16			

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

2462MHz_TX

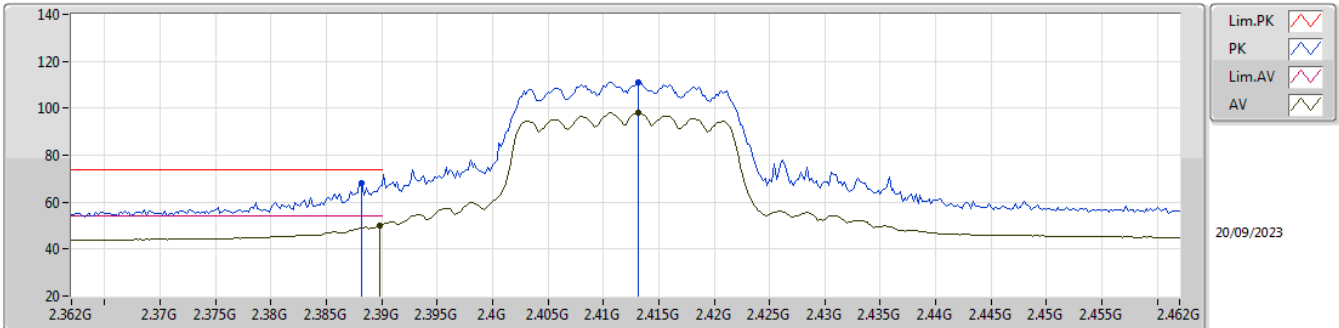


EUT_Z_2TX
Setting 61
02-E-J-8

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	4.92428G	47.59	74.00	-26.41	39.29	3	Horizontal	249	1.30	-	33.25	5.66	30.61			
AV	4.92488G	34.24	54.00	-19.76	25.94	3	Horizontal	249	1.30	-	33.25	5.66	30.61			
PK	7.38076G	54.26	74.00	-19.74	42.90	3	Horizontal	90	1.06	-	36.70	6.81	32.15			
AV	7.38484G	39.36	54.00	-14.64	28.01	3	Horizontal	90	1.06	-	36.70	6.81	32.16			

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

2412MHz_TX

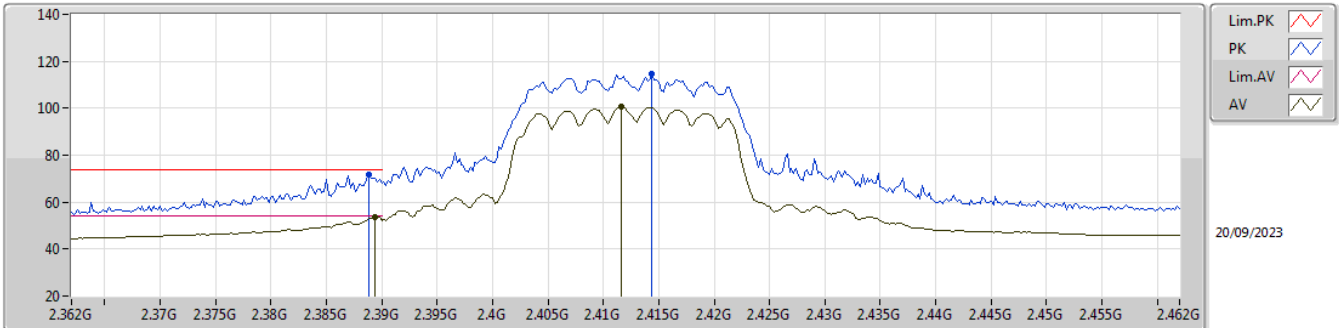


EUT X_2TX
Setting 56
02-E-J-8

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)				
PK	2.3882G	67.96	74.00	-6.04	36.37	3	Vertical	68	1.29	-	28.40	3.19	-				
AV	2.3898G	50.02	54.00	-3.98	18.43	3	Vertical	68	1.29	-	28.40	3.19	-				
PK	2.4132G	111.03	Inf	-Inf	79.42	3	Vertical	68	1.29	-	28.40	3.21	-				
AV	2.4132G	97.96	Inf	-Inf	66.35	3	Vertical	68	1.29	-	28.40	3.21	-				

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

2412MHz_TX

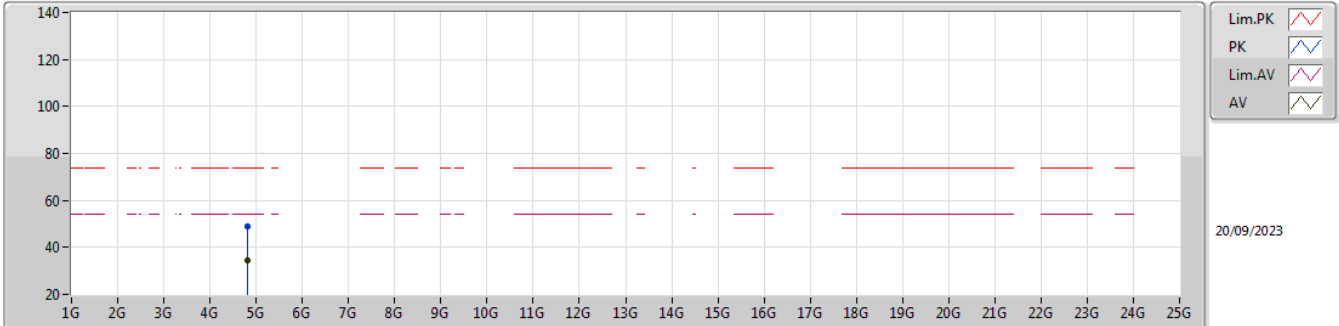


EUT X_2TX
Setting 56
02-E-J-8

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	71.94	74.00	-2.06	40.35	3	Horizontal	169	1.40	-	28.40	3.19	-			
AV	2.3894G	53.84	54.00	-0.16	22.25	3	Horizontal	169	1.40	-	28.40	3.19	-			
PK	2.4144G	114.86	Inf	-Inf	83.25	3	Horizontal	169	1.40	-	28.40	3.21	-			
AV	2.4116G	100.70	Inf	-Inf	69.09	3	Horizontal	169	1.40	-	28.40	3.21	-			

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

2412MHz_TX

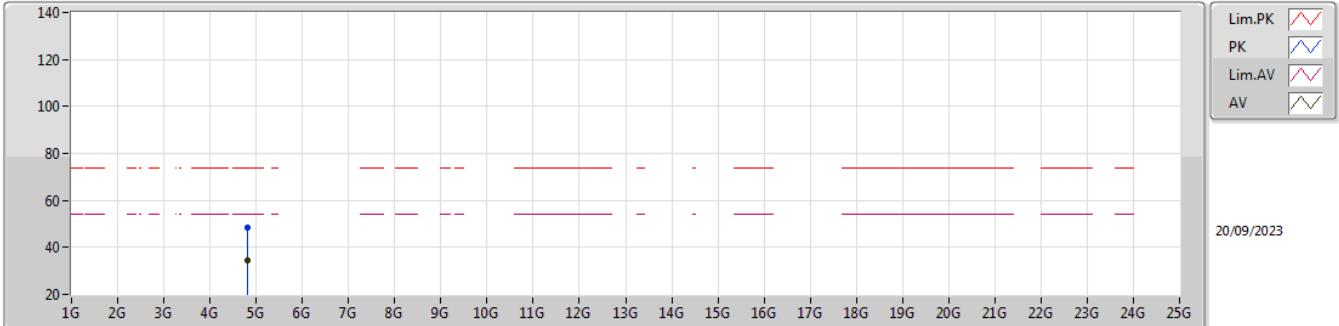


EUT_Z_2TX
Setting 56
02-E-J-8

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	4.82436G	49.03	74.00	-24.97	41.15	3	Vertical	281	1.13	-	32.95	5.61	30.68				
AV	4.8242G	34.58	54.00	-19.42	26.70	3	Vertical	281	1.13	-	32.95	5.61	30.68				

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

2412MHz_TX

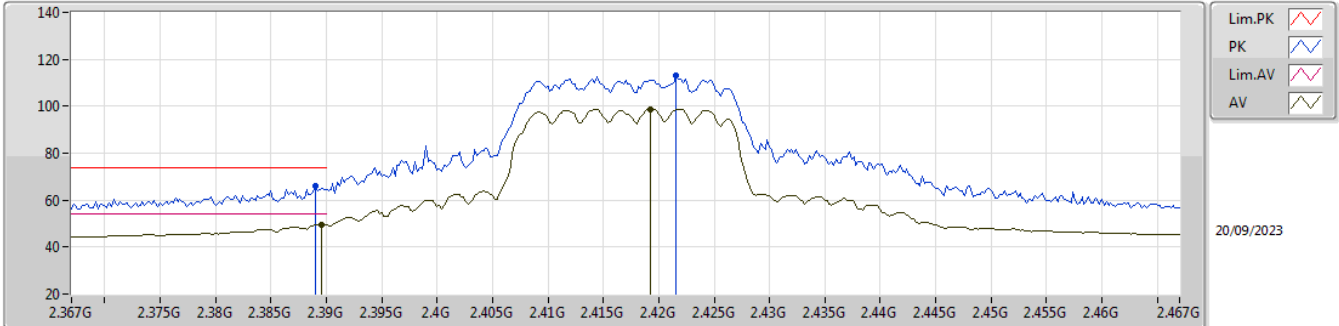


EUT_Z_2TX
Setting 56
02-E-J-8

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)			
PK	4.82384G	48.20	74.00	-25.80	40.33	3	Horizontal	253	2.65	-	32.94	5.61	30.68			
AV	4.8242G	34.56	54.00	-19.44	26.68	3	Horizontal	253	2.65	-	32.95	5.61	30.68			

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

2417MHz_TX

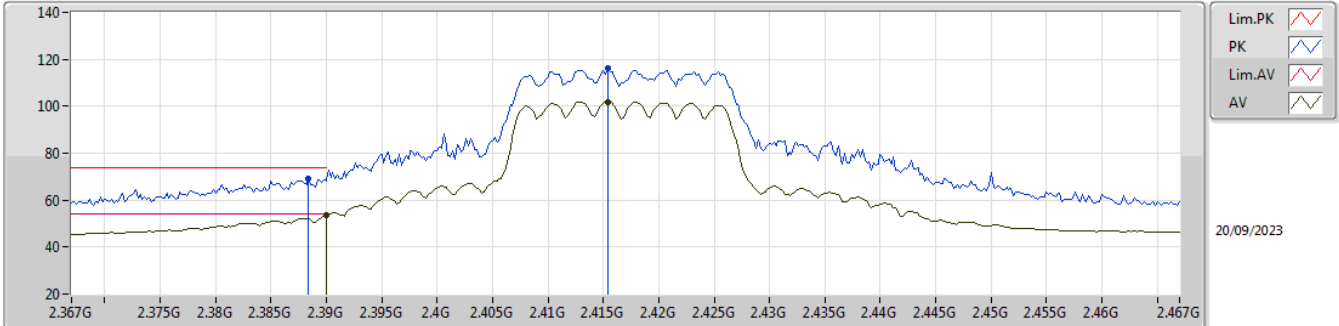


EUT X_2TX
Setting 65
02-E-J-8

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)			
PK	2.389G	66.06	74.00	-7.94	34.47	3	Vertical	51	1.00	-	28.40	3.19	-			
AV	2.3896G	49.70	54.00	-4.30	18.11	3	Vertical	51	1.00	-	28.40	3.19	-			
PK	2.4216G	113.09	Inf	-Inf	81.46	3	Vertical	51	1.00	-	28.42	3.21	-			
AV	2.4192G	98.77	Inf	-Inf	67.16	3	Vertical	51	1.00	-	28.40	3.21	-			

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

2417MHz_TX

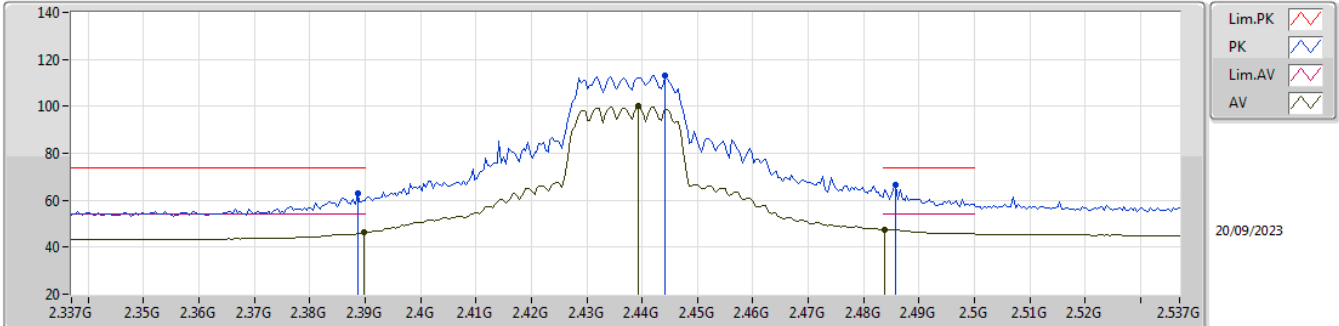


EUT X_2TX
Setting 65
02-E-J-8

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)			
PK	2.3884G	69.06	74.00	-4.94	37.47	3	Horizontal	170	1.39	-	28.40	3.19	-			
AV	2.39G	53.54	54.00	-0.46	21.94	3	Horizontal	170	1.39	-	28.40	3.20	-			
PK	2.4154G	116.10	Inf	-Inf	84.49	3	Horizontal	170	1.39	-	28.40	3.21	-			
AV	2.4154G	101.92	Inf	-Inf	70.31	3	Horizontal	170	1.39	-	28.40	3.21	-			

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

2437MHz_TX

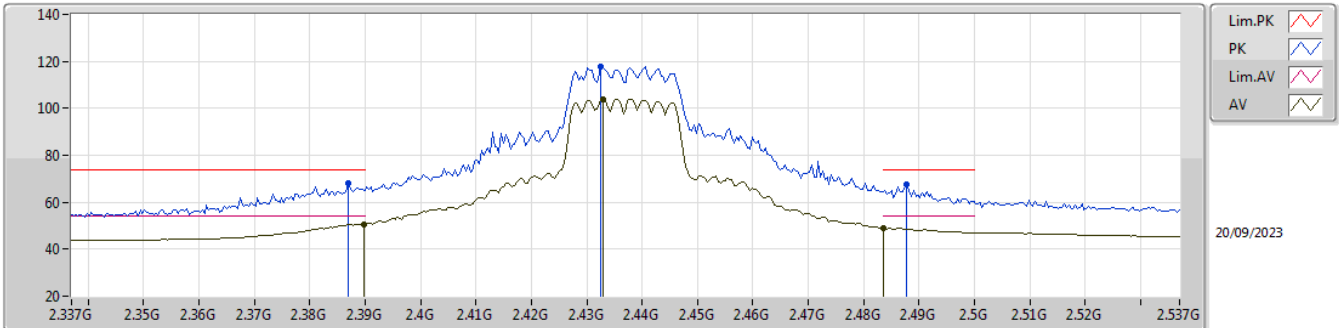


EUT X_2TX
Setting 72
02-E-J-8

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)				
PK	2.3886G	63.09	74.00	-10.91	31.50	3	Vertical	71	2.55	-	28.40	3.19	-				
AV	2.3898G	46.33	54.00	-7.67	14.74	3	Vertical	71	2.55	-	28.40	3.19	-				
PK	2.4442G	113.29	Inf	-Inf	81.67	3	Vertical	71	2.55	-	28.40	3.22	-				
AV	2.4394G	99.94	Inf	-Inf	68.31	3	Vertical	71	2.55	-	28.41	3.22	-				
PK	2.4858G	66.60	74.00	-7.40	34.86	3	Vertical	71	2.55	-	28.50	3.24	-				
AV	2.4838G	47.47	54.00	-6.53	15.73	3	Vertical	71	2.55	-	28.50	3.24	-				

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

2437MHz_TX

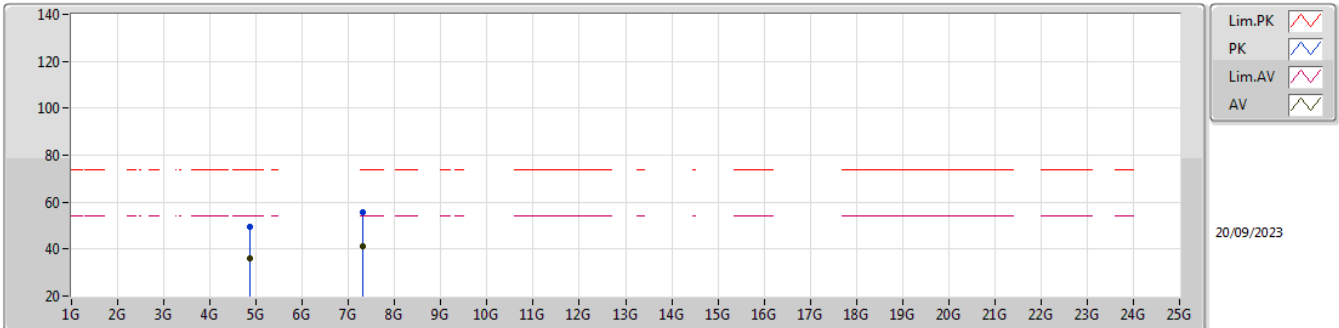


EUT X_2TX
Setting 72
02-E-J-8

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)			
PK	2.387G	68.01	74.00	-5.99	36.42	3	Horizontal	171	1.01	-	28.40	3.19	-			
AV	2.3898G	50.75	54.00	-3.25	19.16	3	Horizontal	171	1.01	-	28.40	3.19	-			
PK	2.4326G	117.78	Inf	-Inf	86.09	3	Horizontal	171	1.01	-	28.47	3.22	-			
AV	2.433G	103.85	Inf	-Inf	72.16	3	Horizontal	171	1.01	-	28.47	3.22	-			
PK	2.4878G	67.42	74.00	-6.58	35.68	3	Horizontal	171	1.01	-	28.50	3.24	-			
AV	2.4835G	49.02	54.00	-4.98	17.28	3	Horizontal	171	1.01	-	28.50	3.24	-			

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

2437MHz_TX

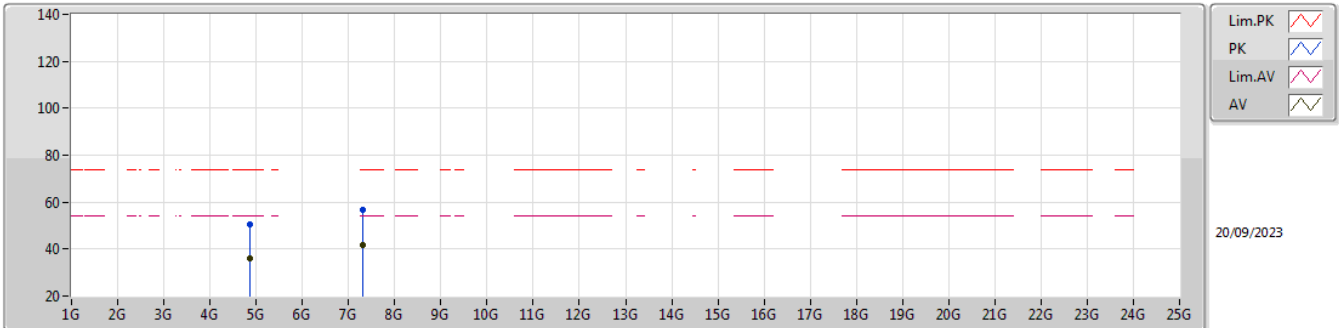


EUT_Z_2TX
Setting 72
02-E-J-8

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	4.87068G	49.68	74.00	-24.32	41.55	3	Vertical	189	1.77	-	33.14	5.64	30.65				
AV	4.87452G	35.88	54.00	-18.12	27.73	3	Vertical	189	1.77	-	33.15	5.64	30.64				
PK	7.31728G	55.50	74.00	-18.50	44.15	3	Vertical	223	2.04	-	36.63	6.84	32.12				
AV	7.31232G	41.39	54.00	-12.61	30.04	3	Vertical	223	2.04	-	36.62	6.84	32.11				

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

2437MHz_TX

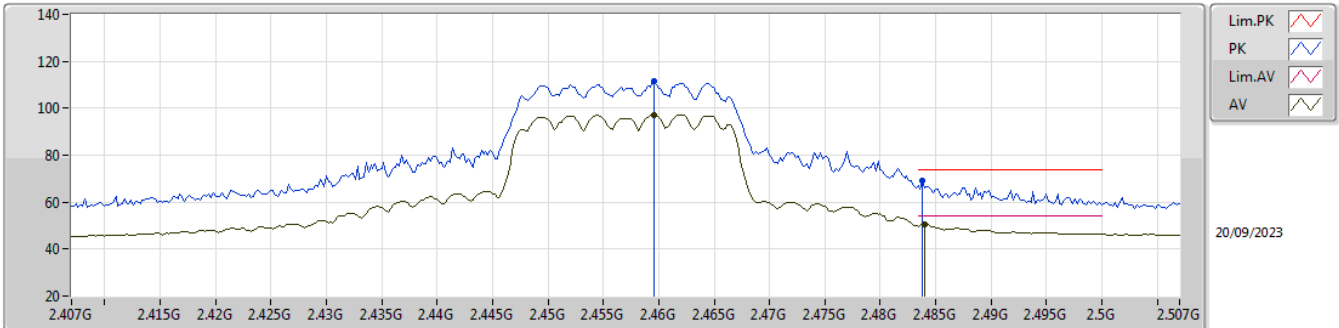


EUT_Z_2TX
Setting 72
02-E-J-8

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	4.87216G	50.34	74.00	-23.66	42.20	3	Horizontal	260	1.00	-	33.14	5.64	30.64			
AV	4.87472G	35.84	54.00	-18.16	27.69	3	Horizontal	260	1.00	-	33.15	5.64	30.64			
PK	7.3086G	56.95	74.00	-17.05	45.59	3	Horizontal	84	1.09	-	36.62	6.85	32.11			
AV	7.311G	41.53	54.00	-12.47	30.18	3	Horizontal	84	1.09	-	36.62	6.84	32.11			

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

2457MHz_TX

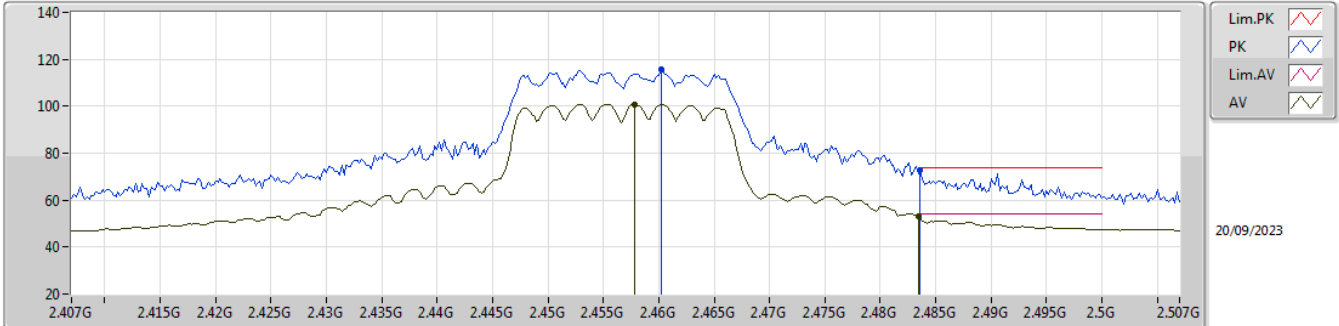


EUT X_2TX
Setting 65
02-E-J-8

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	2.4596G	111.44	Inf	-Inf	79.71	3	Vertical	116	1.24	-	28.50	3.23	-			
AV	2.4596G	97.28	Inf	-Inf	65.55	3	Vertical	116	1.24	-	28.50	3.23	-			
PK	2.4838G	69.24	74.00	-4.76	37.50	3	Vertical	116	1.24	-	28.50	3.24	-			
AV	2.484G	50.40	54.00	-3.60	18.66	3	Vertical	116	1.24	-	28.50	3.24	-			

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

2457MHz_TX

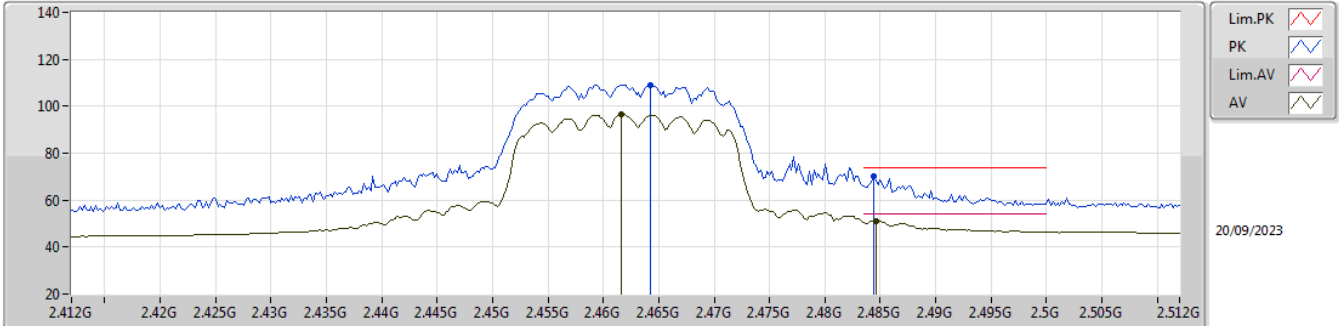


EUT X_2TX
Setting 65
02-E-J-8

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	2.4602G	115.55	Inf	-Inf	83.82	3	Horizontal	170	1.00	-	28.50	3.23	-			
AV	2.4578G	100.82	Inf	-Inf	69.11	3	Horizontal	170	1.00	-	28.48	3.23	-			
PK	2.4836G	72.67	74.00	-1.33	40.93	3	Horizontal	170	1.00	-	28.50	3.24	-			
AV	2.4835G	53.30	54.00	-0.70	21.56	3	Horizontal	170	1.00	-	28.50	3.24	-			

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

2462MHz_TX

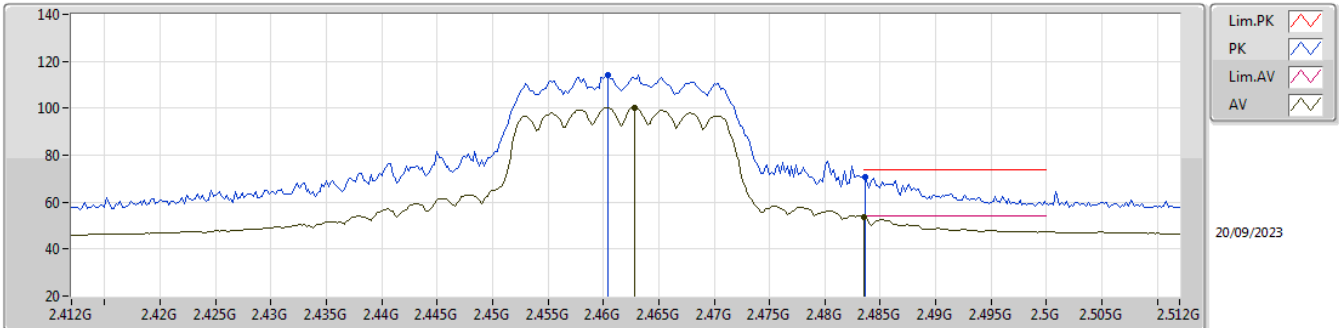


EUT X_2TX
Setting 57
02-E-J-8

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	2.4642G	109.16	Inf	-Inf	77.43	3	Vertical	100	2.79	-	28.50	3.23	-			
AV	2.4616G	96.72	Inf	-Inf	64.99	3	Vertical	100	2.79	-	28.50	3.23	-			
PK	2.4844G	70.08	74.00	-3.92	38.34	3	Vertical	100	2.79	-	28.50	3.24	-			
AV	2.4846G	51.26	54.00	-2.74	19.52	3	Vertical	100	2.79	-	28.50	3.24	-			

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

2462MHz_TX

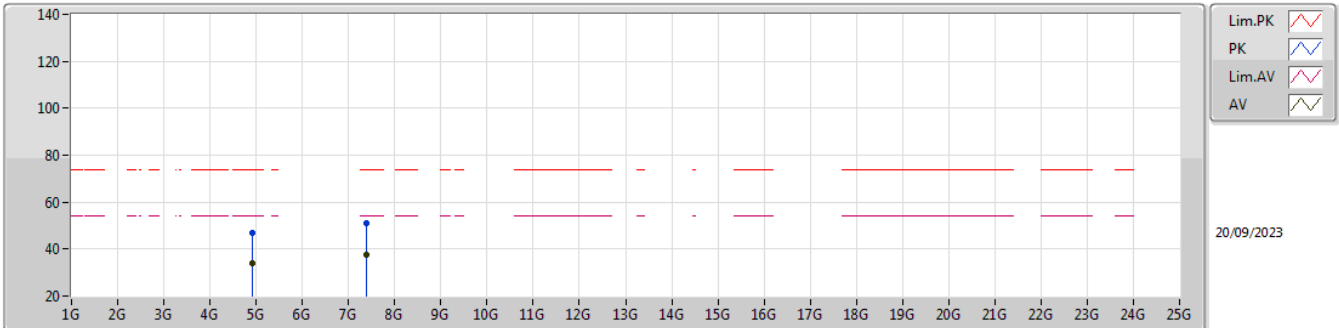


EUT X_2TX
Setting 57
02-E-J-8

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	2.4604G	114.23	Inf	-Inf	82.50	3	Horizontal	170	1.00	-	28.50	3.23	-			
AV	2.4628G	100.17	Inf	-Inf	68.44	3	Horizontal	170	1.00	-	28.50	3.23	-			
PK	2.4836G	70.49	74.00	-3.51	38.75	3	Horizontal	170	1.00	-	28.50	3.24	-			
AV	2.4835G	53.58	54.00	-0.42	21.84	3	Horizontal	170	1.00	-	28.50	3.24	-			

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

2462MHz_TX

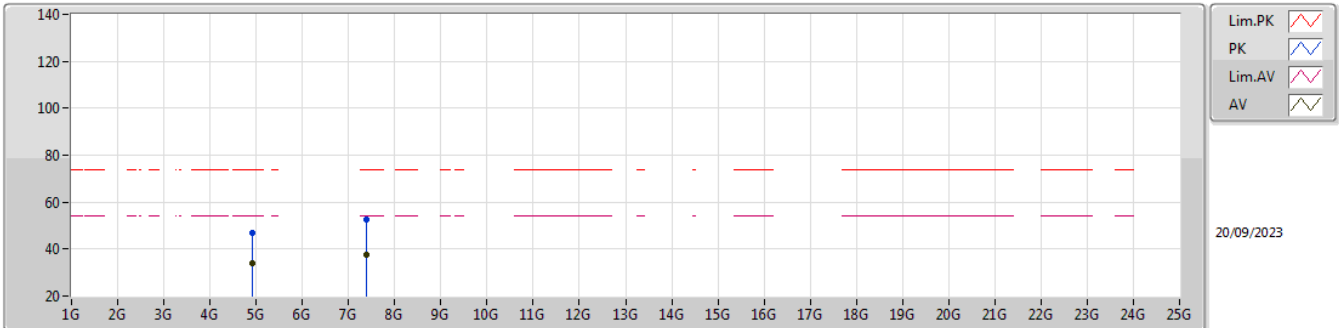


EUT_Z_2TX
Setting 57
02-E-J-8

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	4.91832G	46.91	74.00	-27.09	38.62	3	Vertical	44	2.85	-	33.24	5.66	30.61			
AV	4.92436G	34.04	54.00	-19.96	25.74	3	Vertical	44	2.85	-	33.25	5.66	30.61			
PK	7.3954G	51.21	74.00	-22.79	39.87	3	Vertical	316	1.55	-	36.70	6.80	32.16			
AV	7.38568G	37.58	54.00	-16.42	26.23	3	Vertical	316	1.55	-	36.70	6.81	32.16			

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

2462MHz_TX



EUT_Z_2TX
Setting 57
02-E-J-8

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	4.91888G	47.08	74.00	-26.92	38.79	3	Horizontal	282	1.39	-	33.24	5.66	30.61			
AV	4.92456G	34.00	54.00	-20.00	25.70	3	Horizontal	282	1.39	-	33.25	5.66	30.61			
PK	7.3808G	52.39	74.00	-21.61	41.03	3	Horizontal	90	1.00	-	36.70	6.81	32.15			
AV	7.38564G	37.67	54.00	-16.33	26.32	3	Horizontal	90	1.00	-	36.70	6.81	32.16			