Testing Laboratory
3787

RADIO TEST REPORT

FCC ID	:	TLZ-XM9098
Equipment	:	IEEE 802.112X2 WiFi 6 SU and MU-MIMO DBC Wireless LAN + Bluetooth 5.1 Combo Module
Brand Name	:	AzureWave
Model Name	:	AW-XM458, AW-XM369, AW-XM458MA-XXX, AW-XM369MA-XXX
Applicant	:	AzureWave Technologies, Inc. 8F., No.94, Baozhong Rd. , Xindian Dist., New Taipei City , Taiwan 231
Manufacturer	:	AzureWave Technologies (Shanghai) Inc. No. 1355, Jiaxin Road, Malu Twon, Jiading District Shanghai, P.R. China
Standard	:	47 CFR FCC Part 15.247

The product was received on Feb. 13, 2023, and testing was started from Feb. 25, 2023 and completed on Apr. 13, 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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History of this test report

Report No.	Version	Description	Issued Date
FR132339-07AA	01	Initial issue of report	May 02, 2023

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
1.1.2	15.203	Antenna Requirement	PASS	-
3.1	15.207	AC Power-line Conducted Emissions	PASS	-
3.2	15.247(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/manufacturer 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: Viola Huang

1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
2400-2483.5	b, g, n (HT20), ax (HEW20)	2412-2462	1-11 [11]
2400-2483.5	n (HT40), 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	802.11ax HEW20	20	2TX
2.4-2.4835GHz	802.11n HT40	40	2TX
2.4-2.4835GHz	802.11ax HEW40	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.
- 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 2.4GHz	Port 5GHz	Port Bluetooth	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	1	1	-	MAG. LAYERS	MSA-4008-25GC1-A2	PIFA	I-PEX	Note 1
2	2	2	-	MAG. LAYERS	MSA-4008-25GC1-A2	PIFA	I-PEX	
3	-	-	1	MAG. LAYERS	MSA-4008-25GC1-A2	PIFA	I-PEX	
4	1/2	1/2	1	Inpaq	WA-P-LB-02-587	PCB	I-PEX	
5	1/2	1/2	1	Inpaq	WA-P-LB-03-129	PCB	I-PEX	
6	-	-	-	Inpaq	WA-P-LB-03-130	PCB	I-PEX	
7	-	-	-	Inpaq	WA-F-LB-03-110	PCB	I-PEX	
8	-	-	-	Inpaq	WA-F-LB-02-187	PCB	I-PEX	
9	-	-	-	Inpaq	WA-F-LA-01-015	PCB	I-PEX	
10	-	-	-	TE Connectivity	2195501-2	PCB	I-PEX	
11	-	-	-	TE Connectivity	2195505-2	PCB	I-PEX	
12	-	-	-	LUXSHARE-ICT	SA37A47021	Dipole	I-PEX	Note 2
13	-	-	-	LUXSHARE-ICT	SA37A47021	Dipole	I-PEX	
14	-	-	-	LUXSHARE-ICT	SA37A47025	PIFA	I-PEX	Note 1

Note1:

Ant.	Port 2.4GHz	Port 5GHz	Port Bluetooth	Antenna Gain (dBi) WLAN 2.4GHz	Antenna Gain (dBi) WLAN 5GHz	Antenna Gain (dBi) Bluetooth
1	1	1	-	2.98	5.16	-
2	2	2	-	2.98	5.16	-
3	-	-	1	-	-	2.98
4	1/2	1/2	1	4.43	7.52	4.43
5	1/2	1/2	1	6.51	3.2	6.51
6	-	-	-	4.91	5.84	4.91
7	-	-	-	-0.27	2.74	-0.27
8	-	-	-	0.07	2.39	0.07
9	-	-	-	5.66	-	5.66
10	-	-	-	0.47	1.88	0.47
11	-	-	-	0.77	0.96	0.77
14	-	-	-	-	-	-1.1

Note2:

Ant.	Port 2.4GHz	Port 5GHz	Cable Length	Antenna Gain (dBi) WLAN 2.4GHz	Antenna Gain (dBi) WLAN 5GHz	Cable Loss (dB) WLAN 2.4GHz	Cable Loss (dB) WLAN 5GHz	True Gain (dBi) WLAN 2.4GHz	True Gain (dBi) WLAN 5GHz
12	-	-	450mm	2.8	2.6	1.1	1.9	1.7	0.7
13	-	-	470mm	2.8	2.6	1.2	2	1.6	0.6

Note3: The above information was declared by manufacturer.

Note4: There are 14 antennas listed on the antenna table. The EUT has three types of antenna.

Note5: Directional gain information.

For ant. 1~ant. 2

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

Ex.

Directional Gain (NSS1) formula :

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

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

gj,k =(Nss1(g1,1) + Nss1(g1,2) $)^2$

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

Where ;

2.4G G1 = 2.98 ; G2 = 2.98 ; DG=5.99

5G G1 = 5.16; G2 = 5.16 ; DG=8.17

For ant. 4~ant. 5

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

Ex.

Directional Gain (NSS1) formula :

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

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

gj,k =(Nss1(g1,1) + Nss1(g1,2) $)^2$

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

Where ;

For ant. 5

2.4G G1 = 6.51 ; G2 = 6.51 ; DG=9.52

For ant. 4

5G G1 = 7.52 ; G2 = 7.52 ; DG=10.53

<WLAN 2.4GHz Function>

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

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

Port 1 and Port 2 could transmit/receive simultaneously.

<WLAN 5GHz Function>

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

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

Port 1 and Port 2 could transmit/receive simultaneously.

<Bluetooth Function> (1TX/1RX)

Only Port 1 can be used as transmitting/receiving.

1.1.3 EUT Operational Condition

EUT Power Type	From host system			
Beamforming Function	☒	With beamforming	☐	Without beamforming
	The product has beamforming function for n/ac/ax in 5GHz.			
Function	☒	Point-to-multipoint	☐	Point-to-point
Test Software Version	DutApiMimoApApp (Version : 2.0.0.80)			

Note: The above information was declared by manufacturer.

1.1.4 Table for Multiple Listing

EUT	Model No.	GPIO	Antenna	Description
1	AW-XM458, AW-XM369	Without GPIO	PIFA, PCB, Dipole	All the model names are identical, the difference model names served as marketing strategy.
2	AW-XM458MA-XXX, AW-XM369MA-XXX	With GPIO		1. All the model names are identical, the difference model names served as marketing strategy. 2. The difference between this two EUTs are RF connector trace and RF connector type.
3				

Note 1: From the above models, model: AW-XM458MA-XXX (EUT 2) was selected as representative model for the test and its data was recorded in this report.

Note 2: The above information was declared by manufacturer.

1.1.5 Table for Permissive Change

This product is an extension of original one reported under Sporton project number: FR132339-01AA.

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

Modifications	Performance Checking
1. Adding antenna type for WLAN 2.4GHz/5GHz: Dipole antenna (Set 12~13).	1. AC Power-line Conducted Emissions 2. Emissions in Restricted Frequency Bands (Based on original output power to test.)
2. Adding 1 set of PIFA antenna (Set 14) for bluetooth. The antenna type is the same as the original and the gain is lower than the original report. 3. Adding 2 same PCB type antenna (Ant. 10~11) with lower gain than the original report for all EUT. 4. Adding PCB type antenna for EUT 2. 5. Adding PIFA type antenna for EUT 3.	Do not have to retest assessed.

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
Radiated below 1GHz	03CH04-CB	Chris Li	22~23 / 55~58	Feb. 25, 2023~Apr. 07, 2023
Radiated above 1GHz	03CH02-CB	Chris Li	20~21 / 55~58	Feb. 25, 2023~Apr. 07, 2023
	03CH04-CB		22~23 / 55~58	
	03CH06-CB		23.7~24.8 / 56~59	
AC Conduction	CO01-CB	Bob Chang	23~24 / 52~53	Apr. 13, 2023

1.4 Measurement Uncertainty

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

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	3.4 dB	Confidence levels of 95%
Radiated Emission (9kHz ~ 30MHz)	3.4 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	5.6 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	5.2 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	4.7 dB	Confidence levels of 95%

2 Test Configuration of EUT

2.1 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 2 + WLAN 2.4GHz (Ant. 12)
2	EUT 2 + WLAN 5GHz (Ant. 12)
For operating mode 2 is the worst case and it was record in this test report.	

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
1	EUT 2 in X axis + WLAN 2.4GHz (Ant. 12)
2	EUT 2 in Y axis + WLAN 2.4GHz (Ant. 12)
3	EUT 2 in Z axis + WLAN 2.4GHz (Ant. 12)
4	EUT 2 in X axis + WLAN 5GHz (Ant. 12)
5	EUT 2 in Y axis + WLAN 5GHz (Ant. 12)
6	EUT 2 in Z axis + WLAN 5GHz (Ant. 12)
For operating mode 5 is the worst case and it was record in this test report.	
Operating Mode > 1GHz	CTX
	The EUT was performed at X axis, Y axis and Z axis position, and the worst case was found at X axis. So the measurement will follow this same test configuration.
1	EUT 2 in X axis + Ant. 12

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation
Operating Mode	Normal Link
1	WLAN 2.4GHz + WLAN 5GHz + Bluetooth
Refer to Sporton Test Report No.: FA132339-07 for Co-location RF Exposure Evaluation.	

2.2 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.

2.3 Accessories

N/A

2.4 Support Equipment

For AC Conduction:

Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
A	NB	DELL	E6430	N/A
B	Fixture 3	Azurewave	2460 I2	N/A
C	Earphone	SHYARO CHI	MIC-04	N/A
D	Mouse	HP	FM100	N/A

For Radiated (below 1GHz):

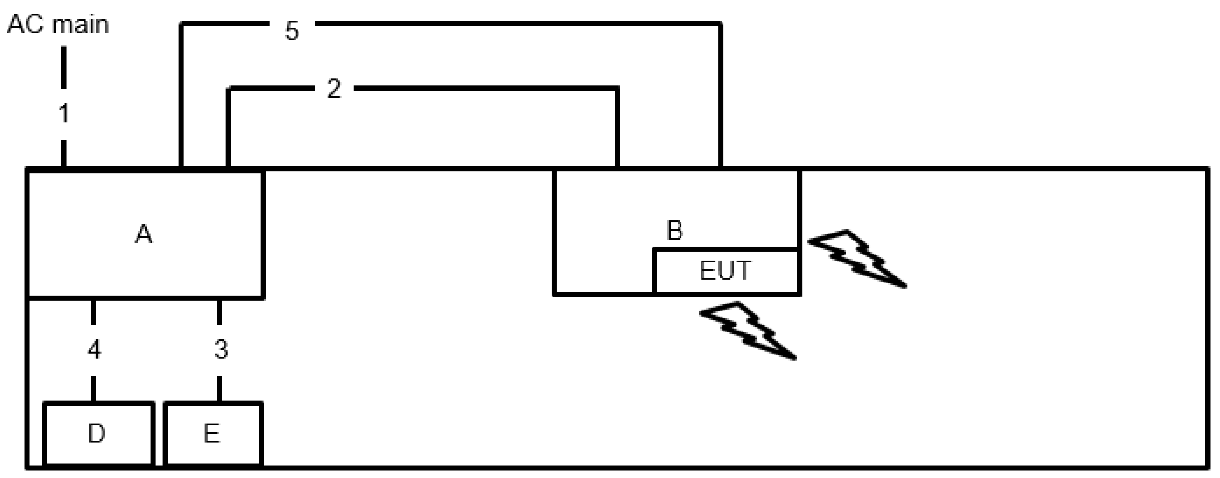
Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
A	Notebook	DELL	E4300	N/A
B	Fixture 1	Azurewave	2458 I2	N/A

For Radiated (above 1GHz):

Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
A	Notebook	DELL	E4300	N/A
B	Fixture 2	Azurewave	AW-CB162NF I3	N/A
C	Fixture 3	Azurewave	2460 I2	N/A

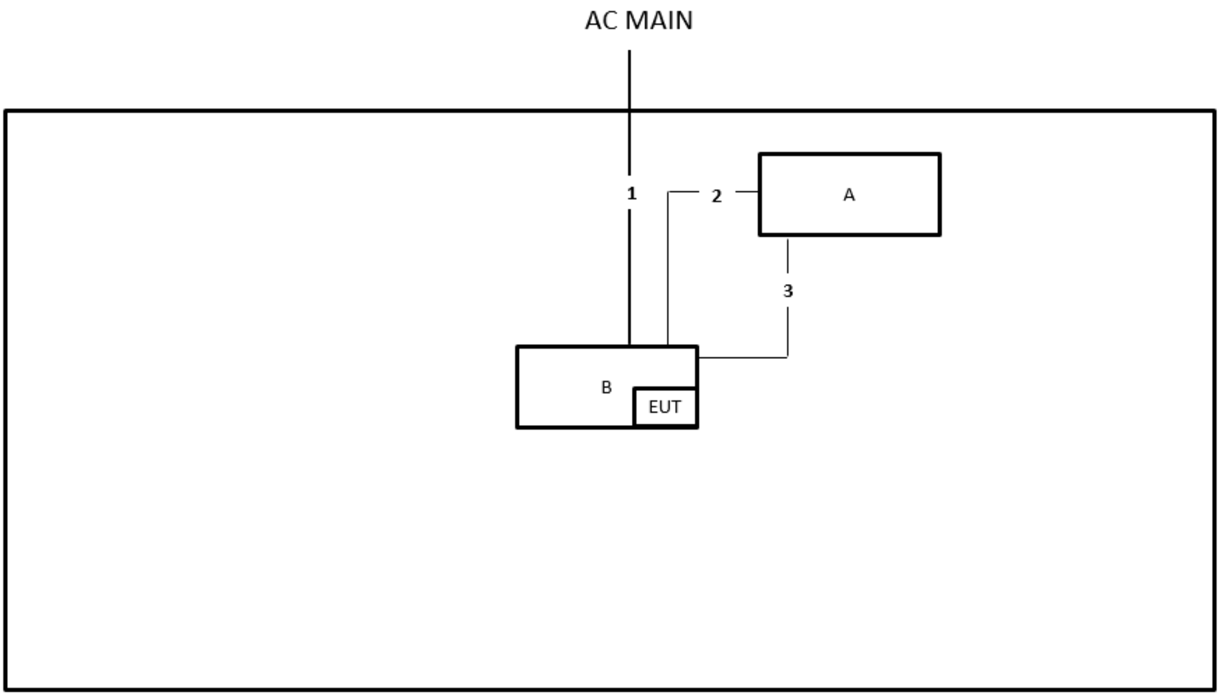
2.5 Test Setup Diagram

Test Setup Diagram – AC Line Conducted Emission Test



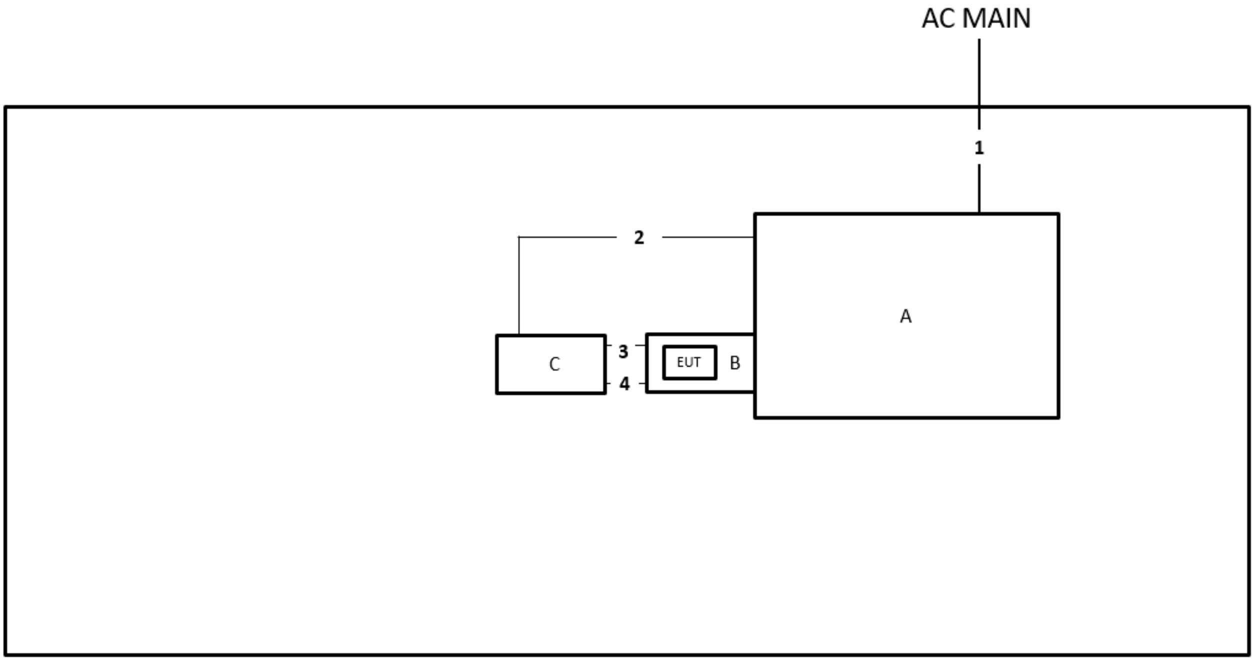
Item	Connection	Shielded	Length
1	Power cable	No	1.8m
2	USB cable	Yes	1.8m
3	USB cable	Yes	1.8m
4	Audio cable	No	1.5m
5	USB cable	Yes	0.5m

Test Setup Diagram - Radiated Test < 1GHz



Item	Connection	Shielded	Length
1	Power cable	No	1.5m
2	USB to Type C cable	No	0.3m
3	RJ-45 cable	No	0.3m

Test Setup Diagram - Radiated Test > 1GHz



Item	Connection	Shielded	Length
1	Power cable	No	1.5m
2	USB cable	Yes	1.5m
3	Console cable	No	0.15m
4	Console cable	No	0.15m

3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

AC Power-line Conducted Emissions Limit		
Frequency Emission (MHz)	**Quasi-Peak**	**Average**
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50
Note 1: * Decreases with the logarithm of the frequency.		

3.1.2 Measuring Instruments

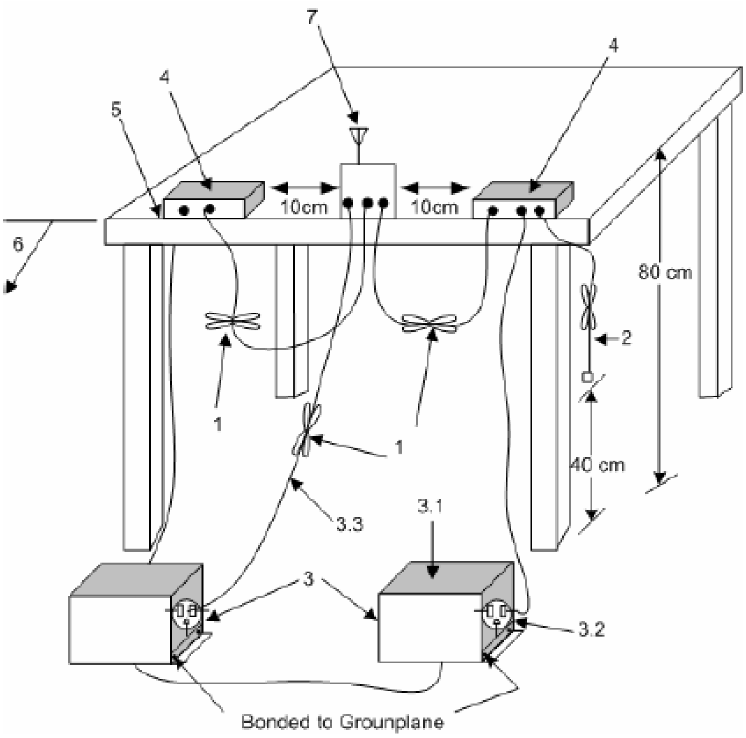
Refer a test equipment and calibration data table in this test report.

3.1.3 Test Procedures

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

3.1.4 Test Setup

AC Power-line Conducted Emissions



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

3.1.5 Measurement Results Calculation

The measured Level is calculated using:

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

3.1.6 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

3.2 Emissions in Restricted Frequency Bands

3.2.1 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.

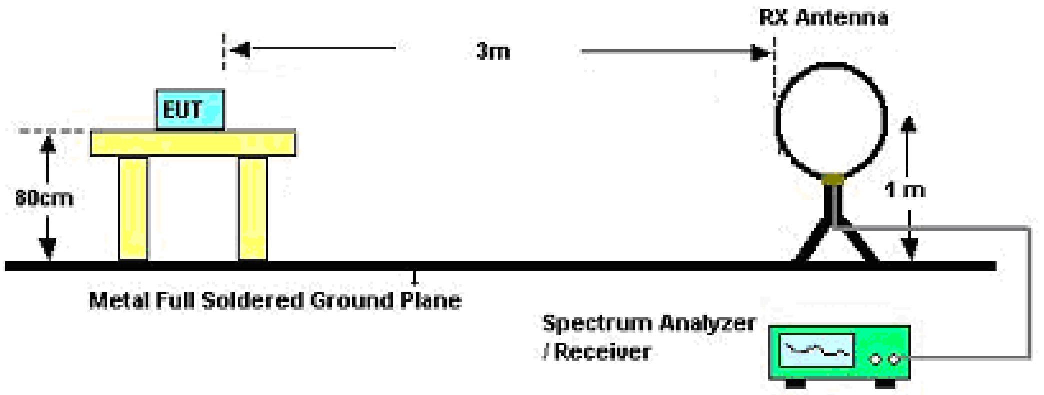
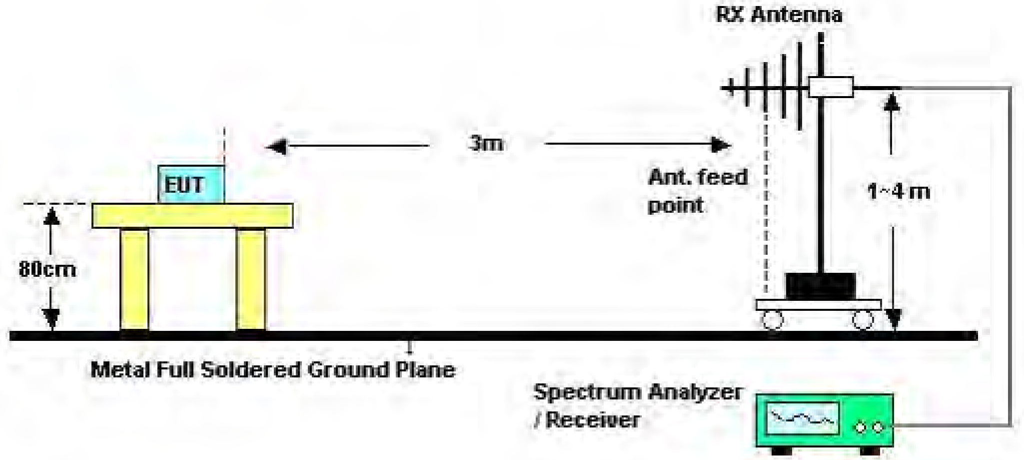
3.2.2 Measuring Instruments

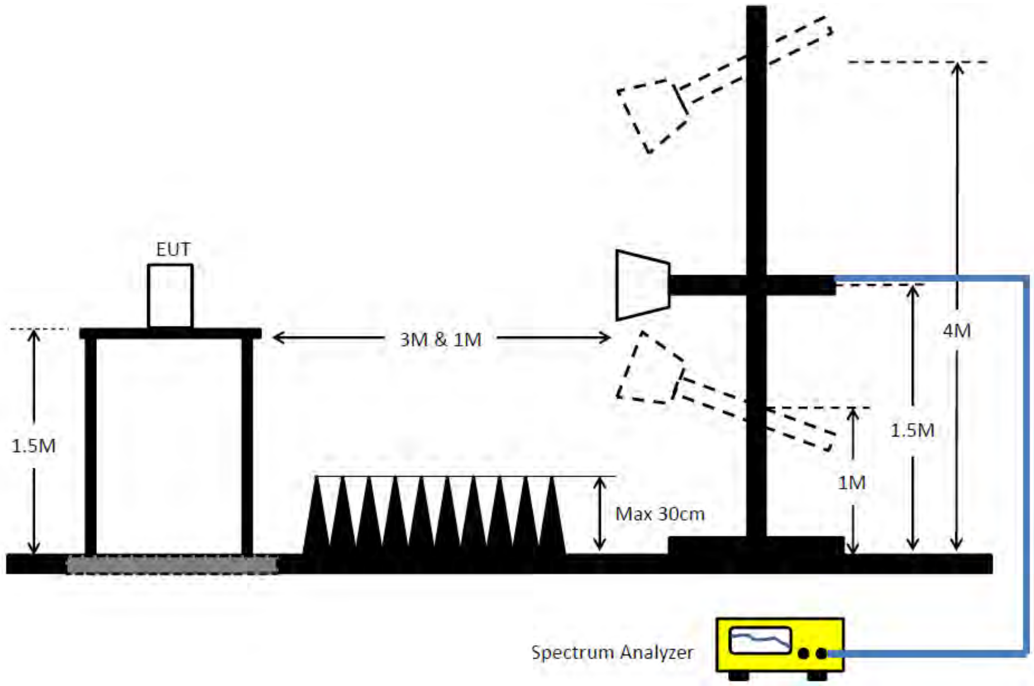
Refer a test equipment and calibration data table in this test report.

3.2.3 Test Procedures

Test Method
▪ The average emission levels shall be measured in [duty cycle ≥ 98 or duty factor].
▪ Refer as ANSI C63.10, clause 6.10.3 band-edge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band.
▪ For the transmitter unwanted emissions shall be measured using following options below:
▪ Refer as FCC KDB 558074, clause 8.6 for unwanted emissions into restricted bands.
☐ Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.1(trace averaging for duty cycle ≥98%).
☐ Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.2(trace averaging + duty factor).
☒ Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.3(Reduced VBW≥1/T).
☐ Refer as ANSI C63.10, clause 11.12.2.5.3 (Reduced VBW). VBW ≥ 1/T, where T is pulse time.
☐ Refer as ANSI C63.10, clause 7.5 average value of pulsed emissions.
☒ Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.4 measurement procedure peak limit.
▪ For the transmitter band-edge emissions shall be measured using following options below:
▪ Refer as FCC KDB 558074 clause 8.7 & C63.10 clause 11.13.1, When the performing peak or average radiated measurements, emissions within 2 MHz of the authorized band edge may be measured using the marker-delta method described below.
▪ Refer as FCC KDB 558074, clause 8.7 (ANSI C63.10, clause 6.10.6) for marker-delta method for band-edge measurements.
▪ Refer as FCC KDB 558074, clause 8.7 for narrower resolution bandwidth (100kHz) using the band power and summing the spectral levels (i.e., 1 MHz).
▪ For conducted unwanted emissions into restricted bands (absolute emission limits). Devices with multiple transmit chains using options given below: (1) Measure and sum the spectra across the outputs or (2) Measure and add 10 log(N) dB
▪ For FCC KDB 662911 The methodology described here may overestimate array gain, thereby resulting in apparent failures to satisfy the out-of-band limits even if the device is actually compliant. In such cases, compliance may be demonstrated by performing radiated tests around the frequencies at which the apparent failures occurred.

3.2.4 Test Setup

Radiated - Emissions in Restricted Frequency Bands
9kHz ~30MHz

30MHz~1GHz


Above 1GHz


3.2.5 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.

3.2.6 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.

3.2.7 Test Result of Emissions in Restricted Frequency Bands

Refer as Appendix B

4 Test Equipment and Calibration Data

Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
EMI Receiver	Agilent	N9038A	My52260123	9kHz ~ 8.4GHz	Feb. 20, 2023	Feb. 19, 2024	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-50-16-2	04083	150kHz ~ 100MHz	Feb. 16, 2023	Feb. 15, 2024	Conduction (CO01-CB)
LISN	Schwarzbeck	NSLK 8127	8127478	9kHz ~ 30MHz	Dec. 20, 2022	Dec. 19, 2023	Conduction (CO01-CB)
Pulse Limiter	Rohde&Schwarz	ESH3-Z2	100430	9kHz ~ 30MHz	Feb. 09, 2023	Feb. 08, 2024	Conduction (CO01-CB)
COND Cable	Woken	Cable	Low cable-CO01	9kHz ~ 30MHz	Oct. 18, 2022	Oct. 17, 2023	Conduction (CO01-CB)
Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conduction (CO01-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	May 14, 2022	May 13, 2023	Radiation (03CH04-CB)
3m Semi Anechoic Chamber NSA	TDK	SAC-3M	03CH04-CB	30 MHz ~ 1 GHz	Aug. 02, 2022	Aug. 01, 2023	Radiation (03CH04-CB)
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH04-CB	1GHz ~18GHz 3m	Feb. 23, 2023	Feb. 22, 2024	Radiation (03CH04-CB)
BILOG ANTENNA with 6 dB attenuator	Schaffner & EMCI	CBL6112B & N-6-06	22021&AT-N06 07	30MHz ~ 1GHz	Oct. 08, 2022	Oct. 07, 2023	Radiation (03CH04-CB)
Horn Antenna	ETS·Lindgren	3115	00143147	750MHz~18GHz	Oct. 12, 2022	Oct. 11, 2023	Radiation (03CH04-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Aug. 22, 2022	Aug. 21, 2023	Radiation (03CH04-CB)
Pre-Amplifier	EMCI	EMC330N	980391	20MHz ~ 3GHz	May 19, 2022	May 18, 2023	Radiation (03CH04-CB)
Pre-Amplifier	Agilent	83017A	MY53270063	0.5GHz ~ 26.5GHz	Jul. 01, 2022	Jun. 30, 2023	Radiation (03CH04-CB)
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)
EMI Test Receiver	R&S	ESCS	826547/017	9kHz ~ 2.75GHz	Jun. 17, 2022	Jun. 16, 2023	Radiation (03CH04-CB)
RF Cable-low	Woken	RG402	Low Cable-03+67	30MHz – 1GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH04-CB)
RF Cable-high	Woken	RG402	High Cable-21	1GHz - 18GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH04-CB
RF Cable-high	Woken	RG402	High Cable-21+67	1GHz - 18GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH04-CB)
High Cable	Woken	WCA0929M	40G#5+6	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH04-CB)

Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
High Cable	Woken	WCA0929M	40G#5	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH04-CB
High Cable	Woken	WCA0929M	40G#6	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH04-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH04-CB)
3m Semi Anechoic Chamber VSWR	RIKEN	SAC-3M	03CH02-CB	1GHz ~18GHz	Mar. 26, 2022	Mar. 25, 2023	Radiation (03CH02-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. 19, 2022	Apr. 18, 2023	Radiation (03CH02-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Aug. 22, 2022	Aug. 21, 2023	Radiation (03CH02-CB)
Pre-Amplifier	Agilent	83017A	MY39501305	1GHz ~ 26.5GHz	Jul. 01, 2022	Jun. 30, 2023	Radiation (03CH02-CB)
Pre-Amplifier	SGH	SGH184	20221107-3	18GHz ~ 40GHz	Nov. 16, 2022	Nov. 15, 2023	Radiation (03CH02-CB)
Spectrum analyzer	R&S	FSU	100015	9kHz~26GHz	Dec. 05, 2022	Dec. 04, 2023	Radiation (03CH02-CB)
RF Cable-high	Woken	RG402	High Cable-18	1GHz ~ 18GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH02-CB)
RF Cable-high	Woken	RG402	High Cable-18+19	1GHz ~ 18GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH02-CB)
High Cable	Woken	WCA0929M	40G#5+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)
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH06-CB	1GHz ~18GHz 3m	Sep. 30, 2022	Sep. 29, 2023	Radiation (03CH06-CB)
Horn Antenna	SCHWARZBECK	BBHA9120D	BBHA 9120D-1292	1GHz~18GHz	Aug. 09, 2022	Aug. 08, 2023	Radiation (03CH06-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Aug. 22, 2022	Aug. 21, 2023	Radiation (03CH06-CB)
Pre-Amplifier	Agilent	83017A	MY53270064	0.5GHz ~ 26.5GHz	Aug. 02, 2022	Aug. 01, 2023	Radiation (03CH06-CB)
Signal Analyzer	R&S	FSV40	101904	9kHz ~ 40GHz	Apr. 26, 2022	Apr. 25, 2023	Radiation (03CH06-CB)
RF Cable-high	Woken	RG402	High Cable-68	1GHz~18GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH06-CB)

Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
RF Cable-high	Woken	RG402	High Cable-05+68	1GHz~18GHz	Dec. 21, 2022	Dec. 20, 2023	Radiation (03CH06-CB)
RF Cable-high	Woken	RG402	High Cable-18	1GHz ~ 18GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH06-CB)
RF Cable-high	Woken	RG402	High Cable-18+19	1GHz ~ 18GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH06-CB)
High Cable	Woken	WCA0929M	40G#5+6	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH06-CB)
High Cable	Woken	WCA0929M	40G#5	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH06-CB)
High Cable	Woken	WCA0929M	40G#6	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH06-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH06-CB)

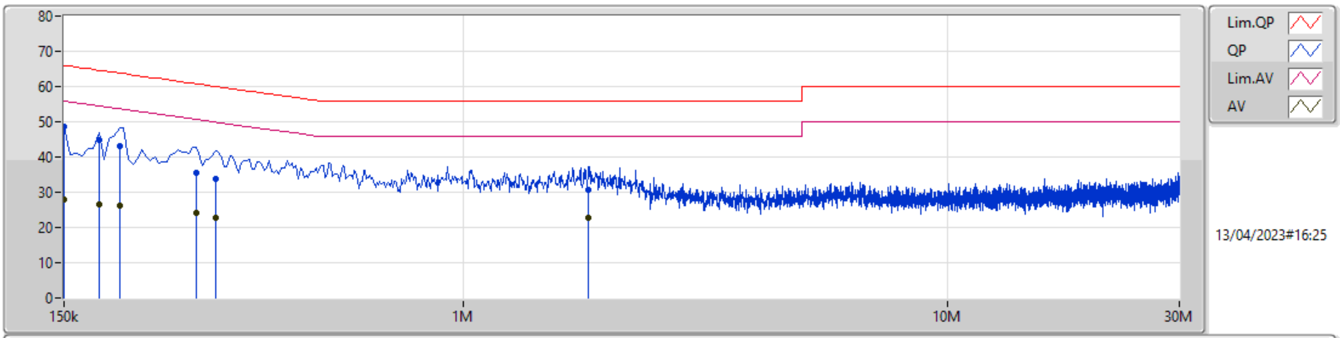
Note: Calibration Interval of instruments listed above is one year.

N.C.R. means Non-Calibration required.

Summary

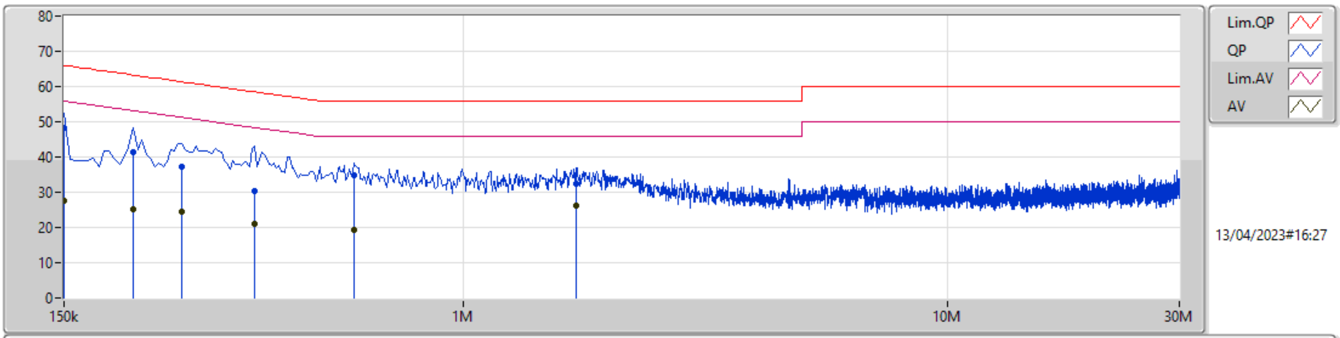
Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 2	Pass	QP	150k	48.45	66.00	-17.55	Line

Mode 2



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	150k	48.45	66.00	-17.55	9.97	Line	"Worst"	38.48	0.06	0.04	9.87
AV	150k	27.77	56.00	-28.23	9.97	Line	-	17.80	0.06	0.04	9.87
QP	177k	44.82	64.62	-19.80	9.97	Line	-	34.85	0.06	0.04	9.87
AV	177k	26.50	54.62	-28.12	9.97	Line	-	16.53	0.06	0.04	9.87
QP	195k	42.99	63.82	-20.83	9.96	Line	-	33.03	0.06	0.04	9.86
AV	195k	26.32	53.82	-27.50	9.96	Line	-	16.36	0.06	0.04	9.86
QP	280.5k	35.52	60.80	-25.28	9.99	Line	-	25.53	0.06	0.05	9.88
AV	280.5k	24.24	50.80	-26.56	9.99	Line	-	14.25	0.06	0.05	9.88
QP	307.5k	33.73	60.03	-26.30	9.99	Line	-	23.74	0.06	0.05	9.88
AV	307.5k	22.77	50.03	-27.26	9.99	Line	-	12.78	0.06	0.05	9.88
QP	1.811M	30.56	56.00	-25.44	10.07	Line	-	20.49	0.09	0.08	9.90
AV	1.811M	22.79	46.00	-23.21	10.07	Line	-	12.72	0.09	0.08	9.90

Mode 2

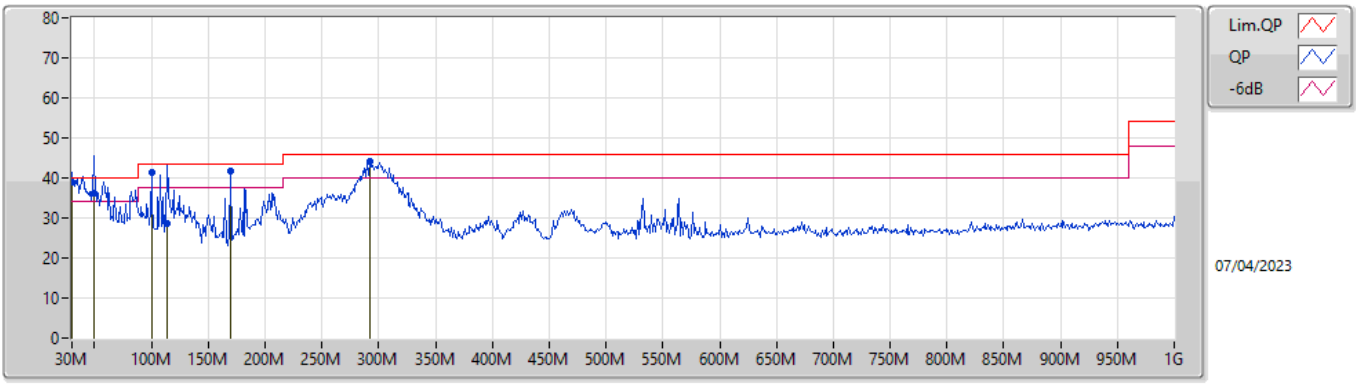


Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	150k	48.35	66.00	-17.65	9.98	Neutral	"Worst"	38.37	0.07	0.04	9.87
AV	150k	27.75	56.00	-28.25	9.98	Neutral	-	17.77	0.07	0.04	9.87
QP	208.5k	41.43	63.27	-21.84	9.97	Neutral	-	31.46	0.07	0.04	9.86
AV	208.5k	25.30	53.27	-27.97	9.97	Neutral	-	15.33	0.07	0.04	9.86
QP	262.5k	37.36	61.35	-23.99	10.00	Neutral	-	27.36	0.07	0.05	9.88
AV	262.5k	24.38	51.35	-26.97	10.00	Neutral	-	14.38	0.07	0.05	9.88
QP	370.5k	30.49	58.49	-28.00	10.03	Neutral	-	20.46	0.07	0.06	9.90
AV	370.5k	21.11	48.49	-27.38	10.03	Neutral	-	11.08	0.07	0.06	9.90
QP	595.5k	34.79	56.00	-21.21	10.02	Neutral	-	24.77	0.07	0.05	9.90
AV	595.5k	19.35	46.00	-26.65	10.02	Neutral	-	9.33	0.07	0.05	9.90
QP	1.712M	32.56	56.00	-23.44	10.08	Neutral	-	22.48	0.10	0.08	9.90
AV	1.712M	26.27	46.00	-19.73	10.08	Neutral	-	16.19	0.10	0.08	9.90

Summary

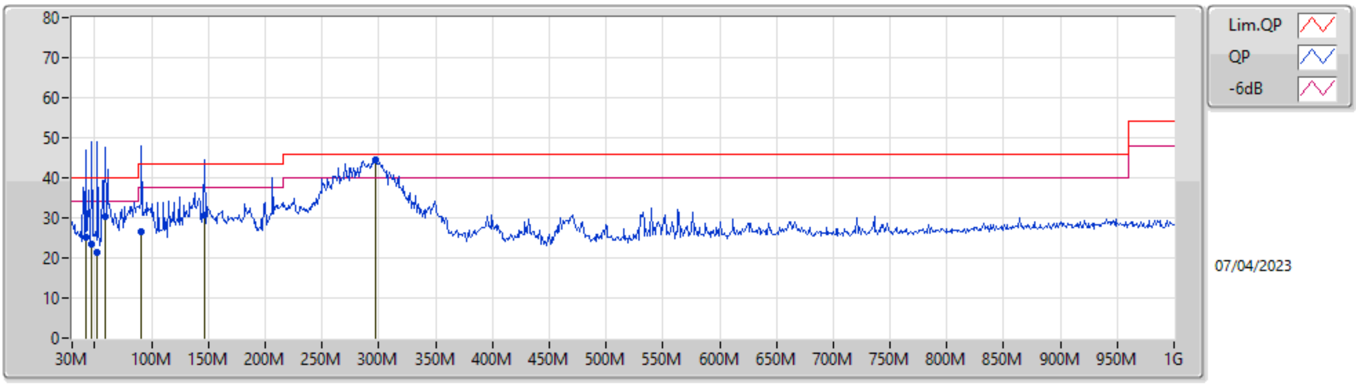
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition
Mode 5	Pass	QP	30M	38.95	40.00	-1.05	Vertical

Mode 5



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)
QP	30M	38.95	40.00	-1.05	-6.30	3	Vertical	57	1.00	"Worst"	45.25	24.34	0.63	31.27
QP	49.4M	36.10	40.00	-3.90	-16.10	3	Vertical	77	1.50	-	52.20	14.70	0.78	31.58
PK	99.84M	41.45	43.50	-2.05	-13.92	3	Vertical	129	1.50	-	55.37	16.69	1.09	31.70
QP	113.42M	28.59	43.50	-14.91	-12.53	3	Vertical	267	1.00	-	41.12	18.02	1.16	31.71
PK	169.68M	41.74	43.50	-1.76	-14.43	3	Vertical	76	1.50	-	56.17	15.87	1.42	31.72
PK	291.9M	44.21	46.00	-1.79	-11.05	3	Vertical	168	1.50	-	55.26	18.93	1.87	31.85

Mode 5



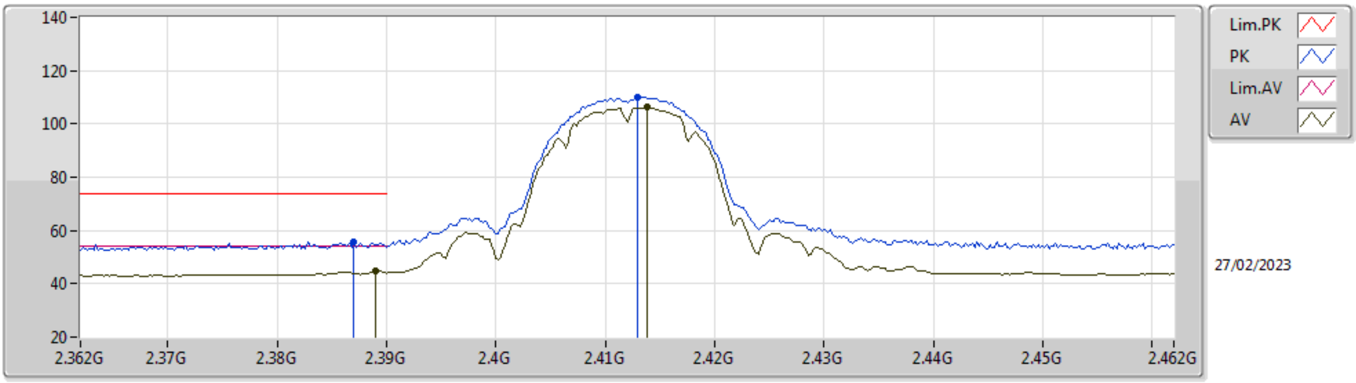
Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB/m)	(m)		(°)	(m)		(dBuV/m)	(dB/m)	(dB)	(dB)
QP	41.64M	25.30	40.00	-14.70	-12.82	3	Horizontal	342	3.00	-	38.12	17.96	0.72	31.50
QP	47.46M	23.49	40.00	-16.51	-15.43	3	Horizontal	342	3.00	-	38.92	15.37	0.76	31.56
QP	52.31M	21.33	40.00	-18.67	-17.03	3	Horizontal	84	3.00	-	38.36	13.76	0.80	31.59
QP	59.1M	30.28	40.00	-9.72	-17.82	3	Horizontal	342	3.00	-	48.10	12.95	0.86	31.63
QP	91.11M	26.41	43.50	-17.09	-15.82	3	Horizontal	349	1.50	-	42.23	14.82	1.05	31.69
QP	146.4M	30.81	43.50	-12.69	-13.70	3	Horizontal	82	1.25	-	44.51	16.72	1.32	31.74
PK	296.75M	44.32	46.00	-1.68	-10.94	3	Horizontal	62	1.25	"Worst"	55.26	19.03	1.89	31.86

Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-
802.11ax HEW20_Nss1,(MCS0)_2TX	Pass	PK	2.4878G	72.78	74.00	-1.22	3	Vertical	43	1.19	-

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

2412MHz_TX

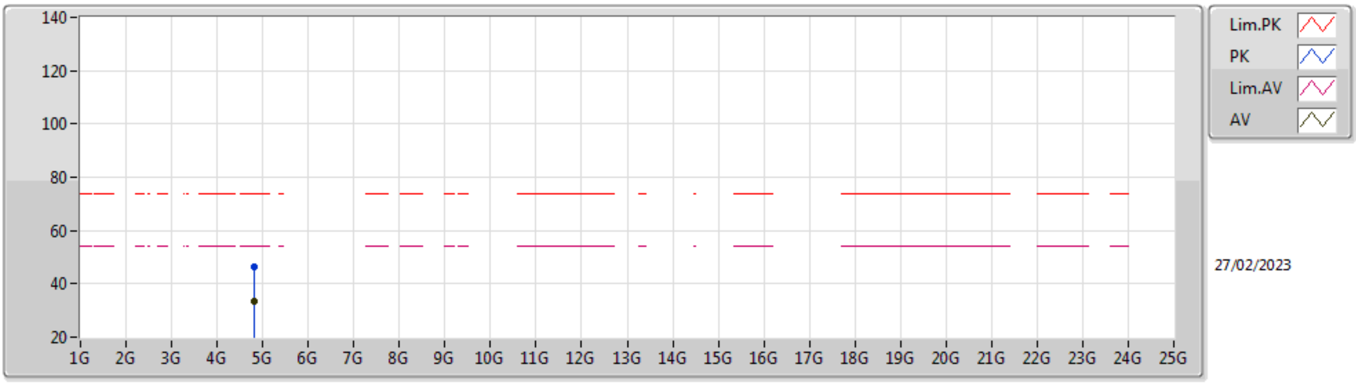


EUT X_2TX
Setting 17
02-E-G-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.387G	55.76	74.00	-18.24	24.20	3	Vertical	34	2.05	-	28.37	3.19	-
AV	2.389G	45.00	54.00	-9.00	13.43	3	Vertical	34	2.05	-	28.38	3.19	-
PK	2.413G	110.15	Inf	-Inf	78.54	3	Vertical	34	2.05	-	28.40	3.21	-
AV	2.4138G	106.17	Inf	-Inf	74.56	3	Vertical	34	2.05	-	28.40	3.21	-

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

2412MHz_TX

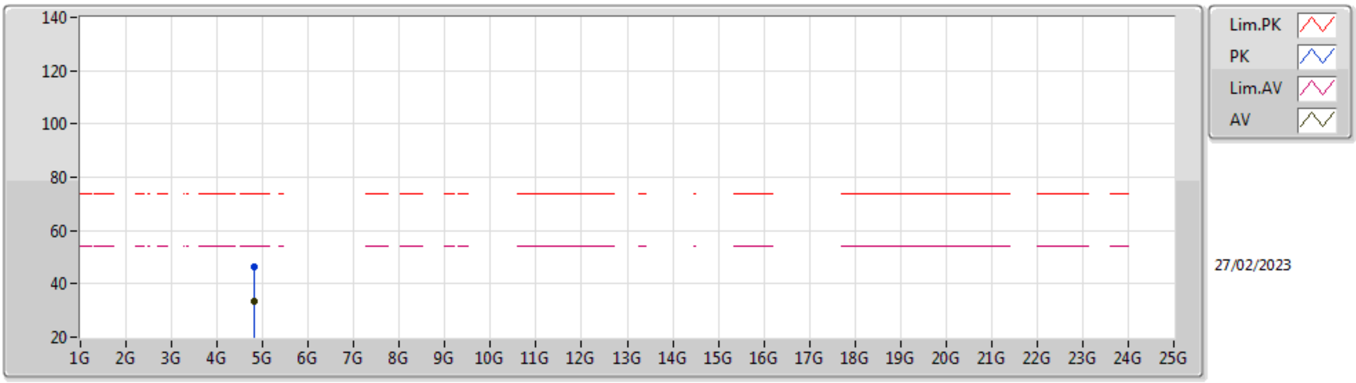


EUT X_2TX
Setting 17
02-E-G-5

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	4.82439G	46.63	74.00	-27.37	38.87	3	Vertical	226	1.80	-	32.95	5.61	30.80
AV	4.82408G	33.53	54.00	-20.47	25.78	3	Vertical	226	1.80	-	32.94	5.61	30.80

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

2412MHz_TX

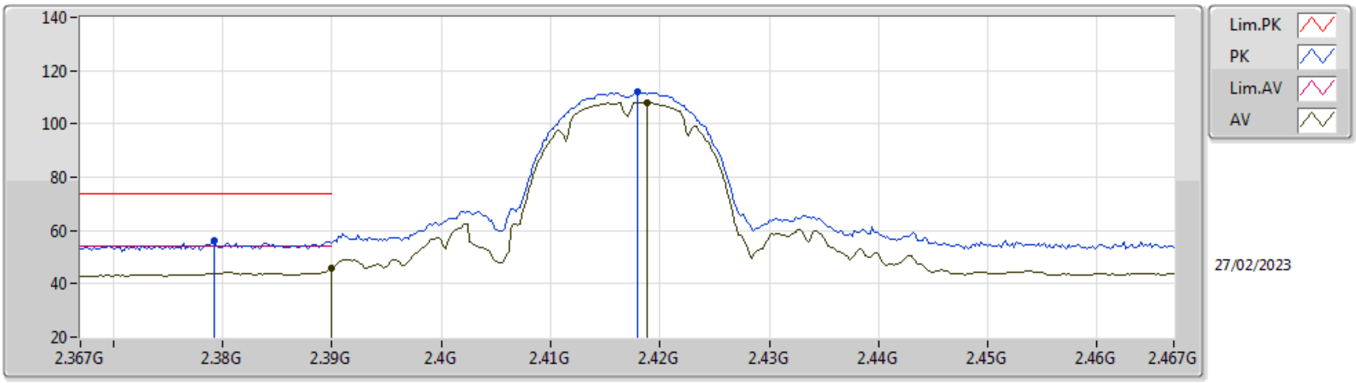


EUT X_2TX
Setting 17
02-E-G-5

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	4.82323G	46.54	74.00	-27.46	38.79	3	Horizontal	204	2.20	-	32.94	5.61	30.80
AV	4.82398G	33.44	54.00	-20.56	25.69	3	Horizontal	204	2.20	-	32.94	5.61	30.80

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

2417MHz_TX

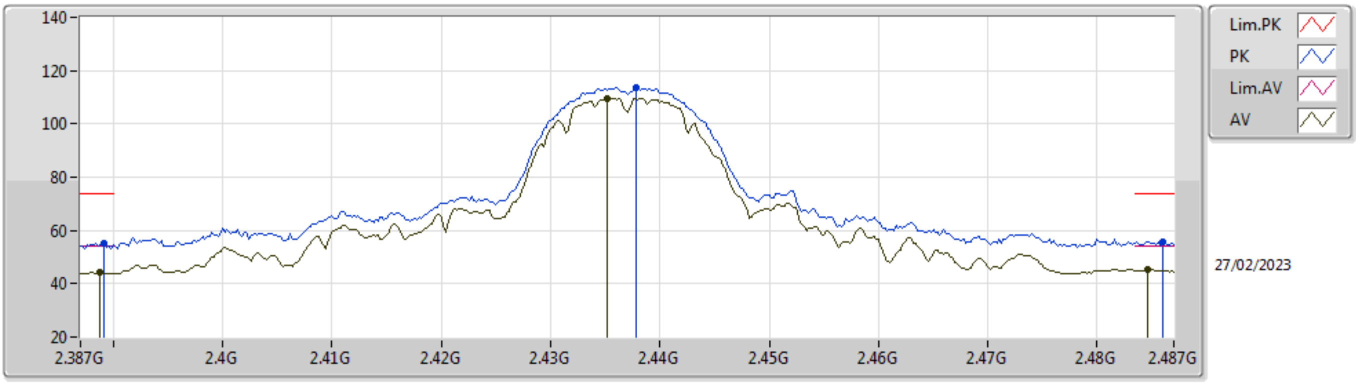


EUT X_2TX
Setting 18.5
02-E-G-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.3792G	56.08	74.00	-17.92	24.53	3	Vertical	34	2.09	-	28.36	3.19	-
AV	2.39G	45.70	54.00	-8.30	14.12	3	Vertical	34	2.09	-	28.38	3.20	-
PK	2.418G	111.93	Inf	-Inf	80.32	3	Vertical	34	2.09	-	28.40	3.21	-
AV	2.4188G	108.12	Inf	-Inf	76.51	3	Vertical	34	2.09	-	28.40	3.21	-

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

2437MHz_TX

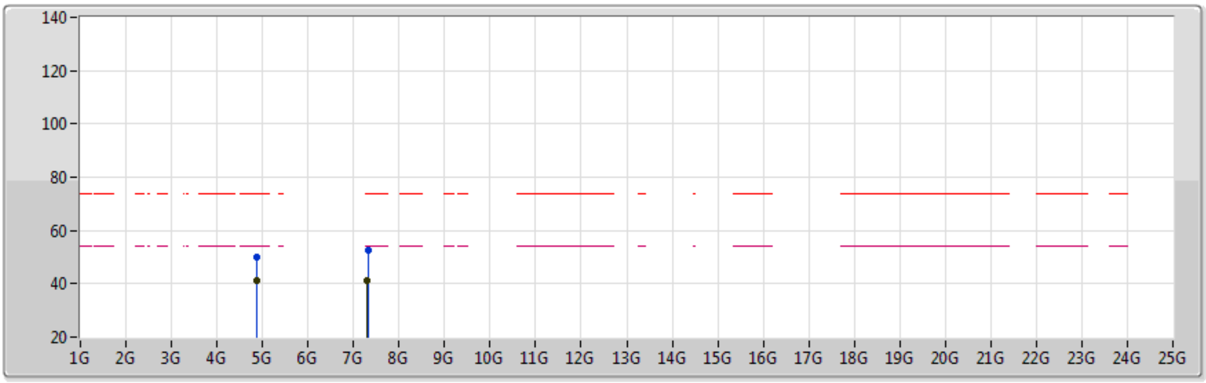


EUT X_2TX
Setting 20
02-E-G-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.3892G	55.15	74.00	-18.85	23.58	3	Vertical	63	2.38	-	28.38	3.19	-
AV	2.3888G	44.15	54.00	-9.85	12.58	3	Vertical	63	2.38	-	28.38	3.19	-
PK	2.4378G	113.56	Inf	-Inf	81.94	3	Vertical	63	2.38	-	28.40	3.22	-
AV	2.4352G	109.58	Inf	-Inf	77.96	3	Vertical	63	2.38	-	28.40	3.22	-
PK	2.486G	55.90	74.00	-18.10	24.12	3	Vertical	63	2.38	-	28.54	3.24	-
AV	2.4846G	45.29	54.00	-8.71	13.51	3	Vertical	63	2.38	-	28.54	3.24	-

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

2437MHz_TX

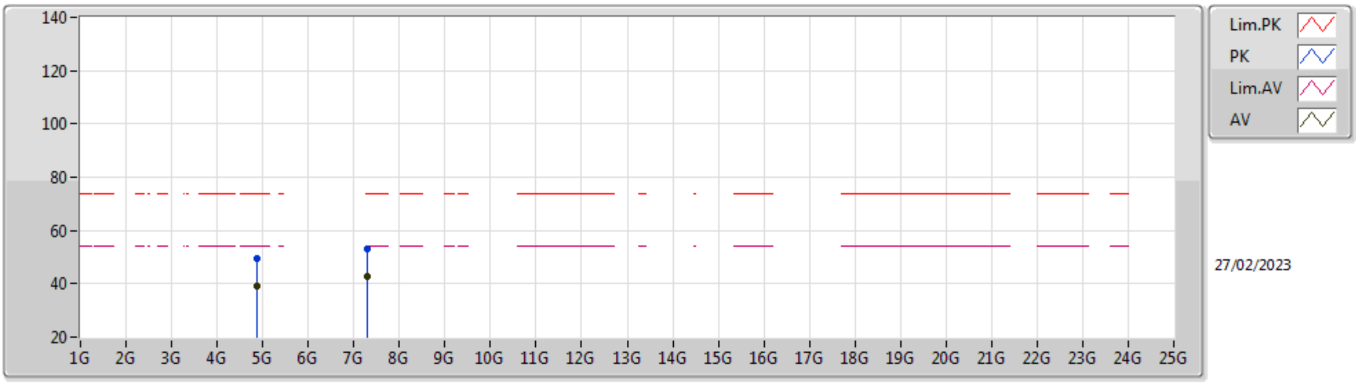


EUT X_2TX
Setting 20
02-E-G-5

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	4.87404G	50.01	74.00	-23.99	42.00	3	Vertical	252	1.80	-	33.15	5.64	30.78
AV	4.87397G	41.12	54.00	-12.88	33.11	3	Vertical	252	1.80	-	33.15	5.64	30.78
PK	7.31325G	52.58	74.00	-21.42	41.23	3	Vertical	217	1.81	-	36.43	6.84	31.92
AV	7.31016G	41.18	54.00	-12.82	29.84	3	Vertical	217	1.81	-	36.42	6.84	31.92

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

2437MHz_TX

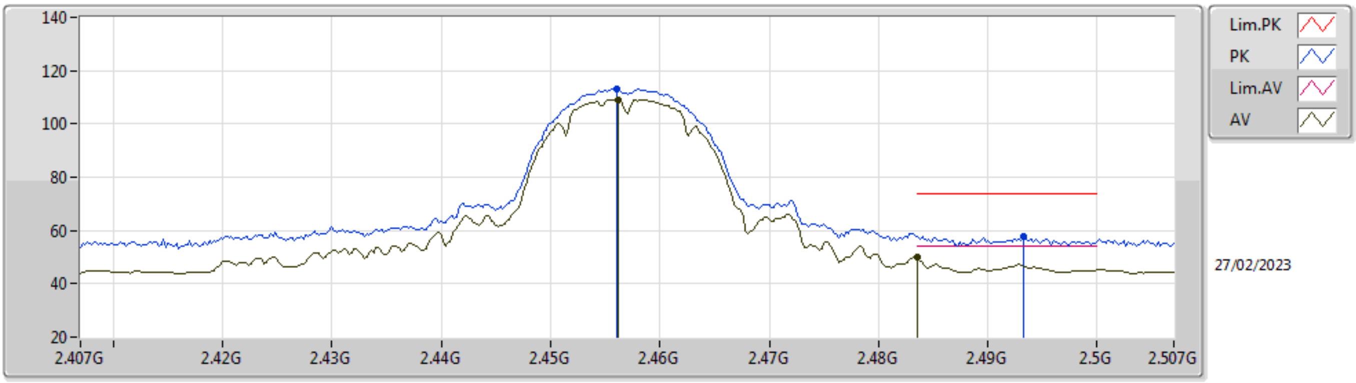


EUT X_2TX
Setting 20
02-E-G-5

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	4.87393G	49.50	74.00	-24.50	41.49	3	Horizontal	256	1.12	-	33.15	5.64	30.78
AV	4.87397G	39.24	54.00	-14.76	31.23	3	Horizontal	256	1.12	-	33.15	5.64	30.78
PK	7.3094G	53.16	74.00	-20.84	41.81	3	Horizontal	238	2.26	-	36.42	6.85	31.92
AV	7.30917G	42.83	54.00	-11.17	31.48	3	Horizontal	238	2.26	-	36.42	6.85	31.92

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

2457MHz_TX

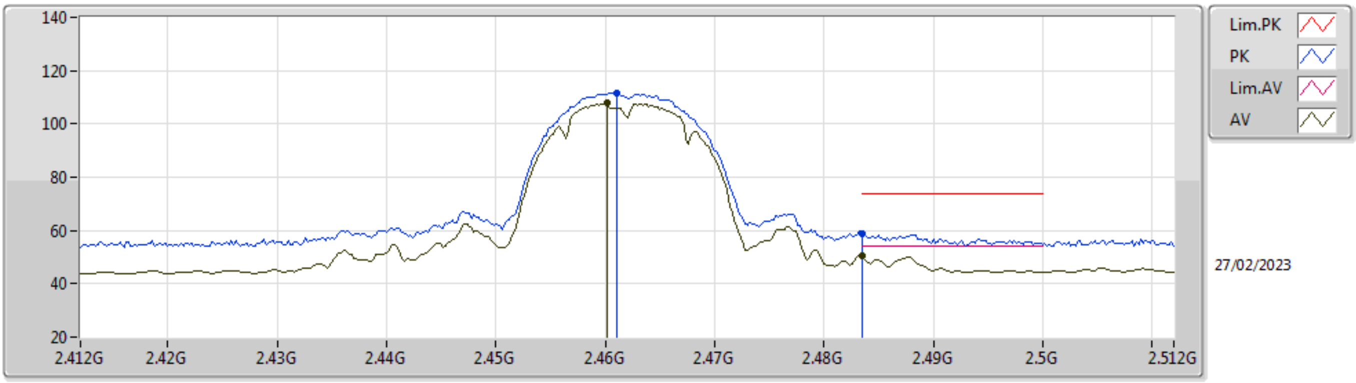


EUT X_2TX
Setting 20
02-E-G-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.456G	112.96	Inf	-Inf	81.31	3	Vertical	62	1.99	-	28.42	3.23	-
AV	2.4562G	109.05	Inf	-Inf	77.40	3	Vertical	62	1.99	-	28.42	3.23	-
PK	2.4932G	57.95	74.00	-16.05	26.13	3	Vertical	62	1.99	-	28.57	3.25	-
AV	2.4835G	49.98	54.00	-4.02	18.21	3	Vertical	62	1.99	-	28.53	3.24	-

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

2462MHz_TX

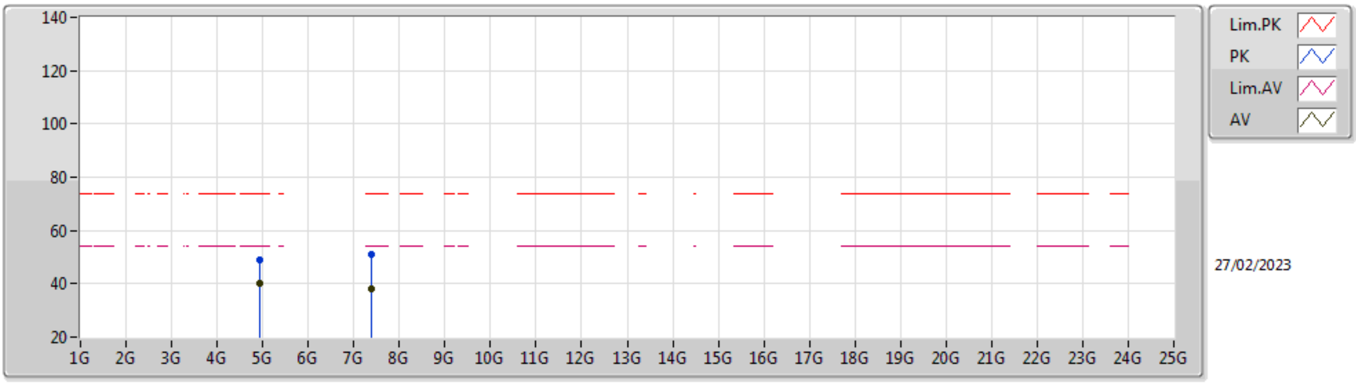


EUT X_2TX
Setting 18.5
02-E-G-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.461G	111.61	Inf	-Inf	79.94	3	Vertical	62	2.07	-	28.44	3.23	-
AV	2.4602G	107.90	Inf	-Inf	76.23	3	Vertical	62	2.07	-	28.44	3.23	-
PK	2.4835G	58.72	74.00	-15.28	26.95	3	Vertical	62	2.07	-	28.53	3.24	-
AV	2.4835G	50.50	54.00	-3.50	18.73	3	Vertical	62	2.07	-	28.53	3.24	-

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

2462MHz_TX

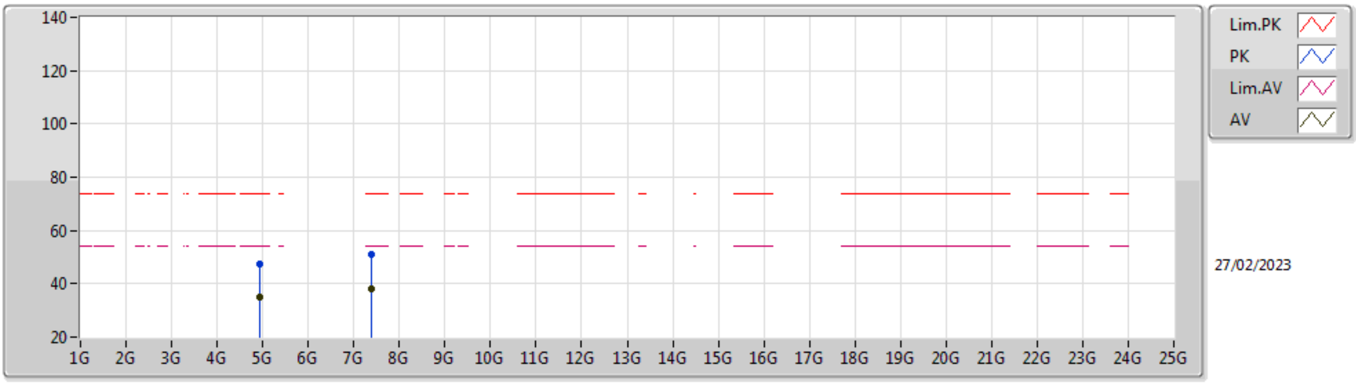


EUT X_2TX
Setting 18.5
02-E-G-5

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	4.92387G	49.11	74.00	-24.89	40.96	3	Vertical	178	2.86	-	33.25	5.66	30.76
AV	4.92398G	40.39	54.00	-13.61	32.24	3	Vertical	178	2.86	-	33.25	5.66	30.76
PK	7.38667G	50.84	74.00	-23.16	39.49	3	Vertical	236	1.98	-	36.50	6.81	31.96
AV	7.38674G	37.87	54.00	-16.13	26.52	3	Vertical	236	1.98	-	36.50	6.81	31.96

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

2462MHz_TX

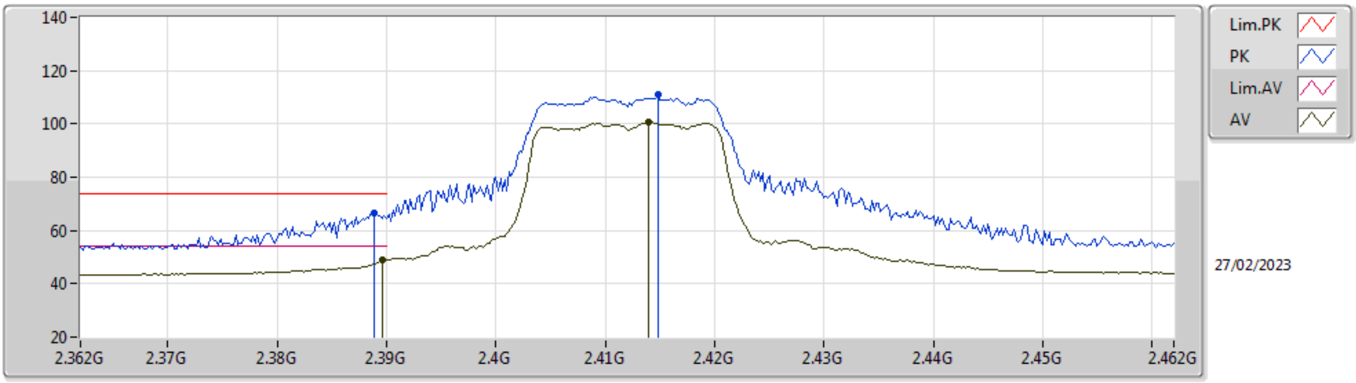


EUT X_2TX
Setting 18.5
02-E-G-5

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	4.92404G	47.43	74.00	-26.57	39.28	3	Horizontal	124	1.80	-	33.25	5.66	30.76
AV	4.92401G	35.03	54.00	-18.97	26.88	3	Horizontal	124	1.80	-	33.25	5.66	30.76
PK	7.38673G	50.95	74.00	-23.05	39.60	3	Horizontal	259	2.22	-	36.50	6.81	31.96
AV	7.38515G	37.91	54.00	-16.09	26.56	3	Horizontal	259	2.22	-	36.50	6.81	31.96

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

2412MHz_TX

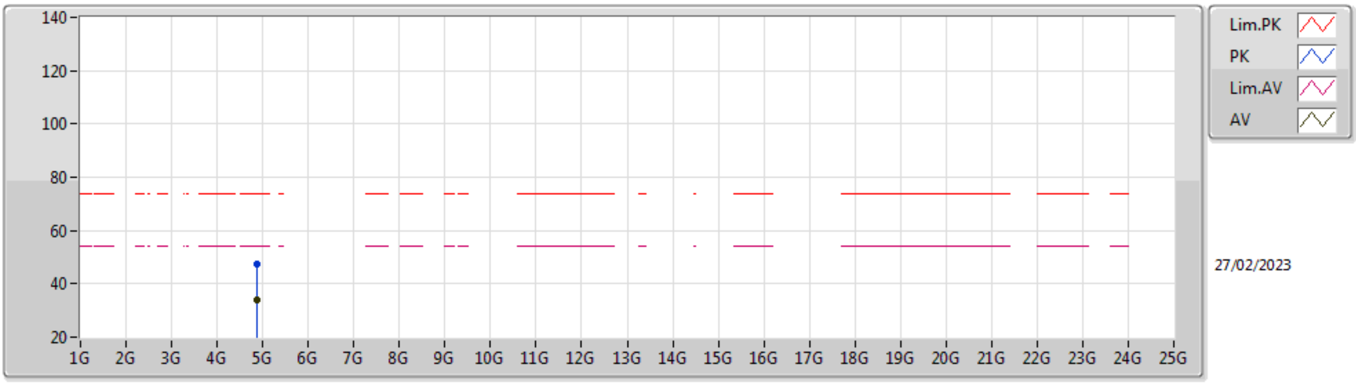


EUT X_2TX
Setting 15
02-E-G-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.3888G	66.53	74.00	-7.47	34.96	3	Vertical	36	1.71	-	28.38	3.19	-
AV	2.3896G	49.03	54.00	-4.97	17.46	3	Vertical	36	1.71	-	28.38	3.19	-
PK	2.4148G	110.99	Inf	-Inf	79.38	3	Vertical	36	1.71	-	28.40	3.21	-
AV	2.414G	100.63	Inf	-Inf	69.02	3	Vertical	36	1.71	-	28.40	3.21	-

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

2412MHz_TX

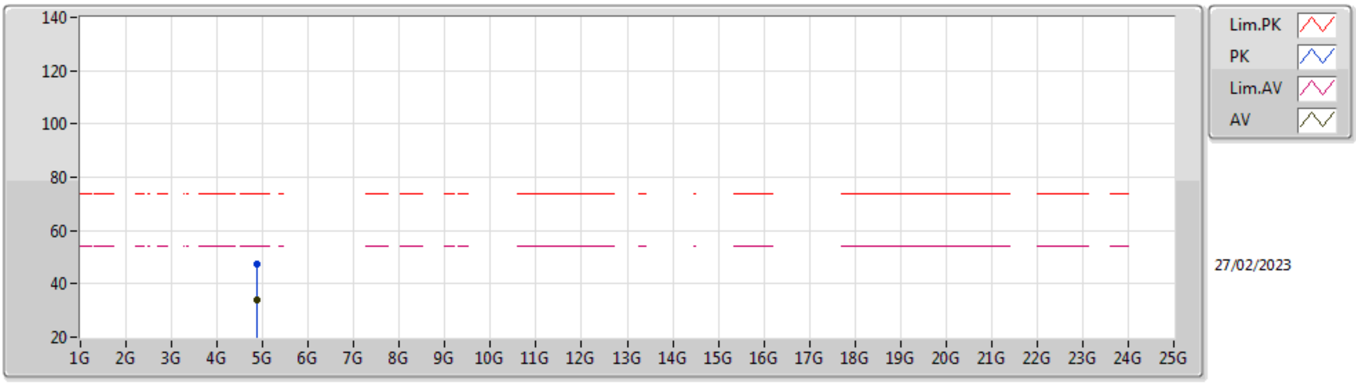


EUT X_2TX
Setting 15
02-E-G-5

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	4.8592G	47.42	74.00	-26.58	39.46	3	Vertical	225	1.80	-	33.12	5.63	30.79
AV	4.884G	34.18	54.00	-19.82	26.15	3	Vertical	225	1.80	-	33.17	5.64	30.78

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

2412MHz_TX

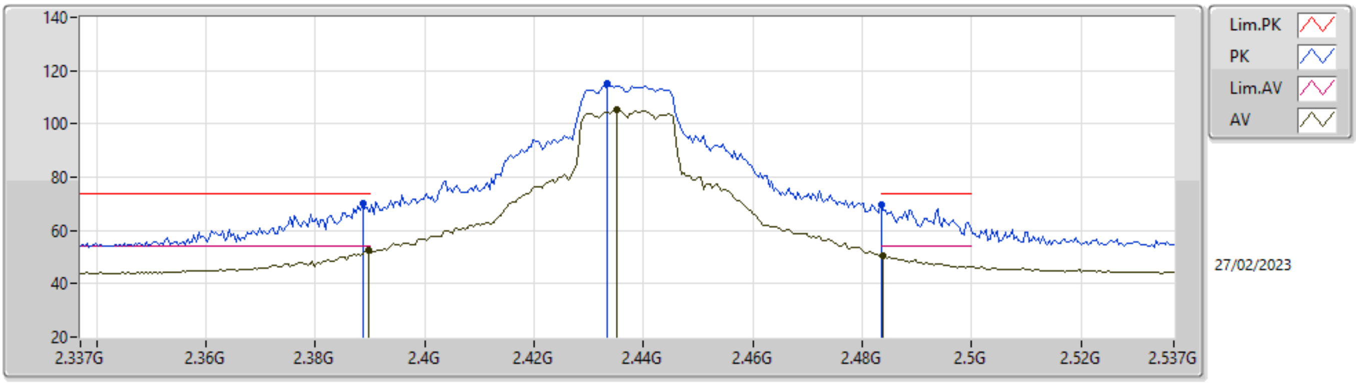


EUT X_2TX
Setting 15
02-E-G-5

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	4.8728G	47.23	74.00	-26.77	39.22	3	Horizontal	262	1.80	-	33.15	5.64	30.78
AV	4.884G	34.18	54.00	-19.82	26.15	3	Horizontal	262	1.80	-	33.17	5.64	30.78

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

2437MHz_TX

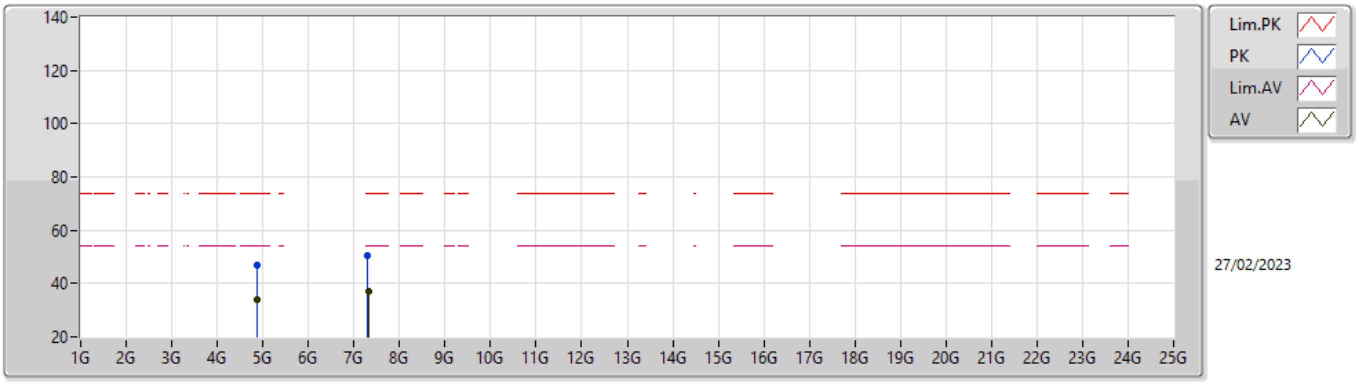


EUT X_2TX
Setting 20
04-D-W-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.3886G	70.31	74.00	-3.69	39.49	3	Vertical	48	1.71	-	27.63	3.19	-
AV	2.3898G	52.34	54.00	-1.66	21.51	3	Vertical	48	1.71	-	27.64	3.19	-
PK	2.4334G	115.16	Inf	-Inf	84.23	3	Vertical	48	1.71	-	27.70	3.23	-
AV	2.435G	105.28	Inf	-Inf	74.34	3	Vertical	48	1.71	-	27.70	3.24	-
PK	2.4835G	69.43	74.00	-4.57	38.32	3	Vertical	48	1.71	-	27.83	3.28	-
AV	2.4838G	50.67	54.00	-3.33	19.55	3	Vertical	48	1.71	-	27.84	3.28	-

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

2437MHz_TX

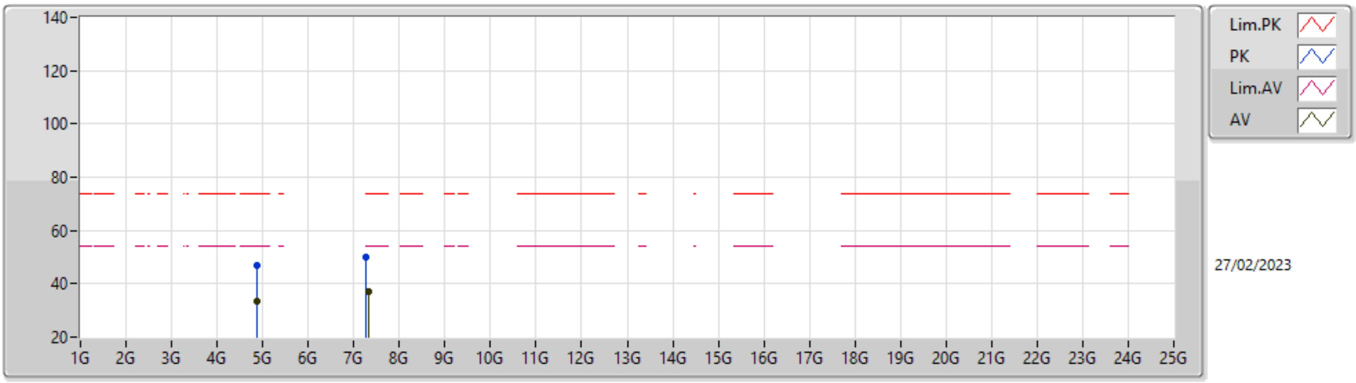


EUT X_2TX
Setting 20
02-E-G-5

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	4.8856G	47.13	74.00	-26.87	39.10	3	Vertical	216	2.11	-	33.17	5.64	30.78
AV	4.8764G	33.98	54.00	-20.02	25.97	3	Vertical	251	1.80	-	33.15	5.64	30.78
PK	7.2814G	50.75	74.00	-23.25	39.46	3	Vertical	216	2.11	-	36.33	6.86	31.90
AV	7.3114G	37.28	54.00	-16.72	25.94	3	Vertical	216	2.11	-	36.42	6.84	31.92

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

2437MHz_TX

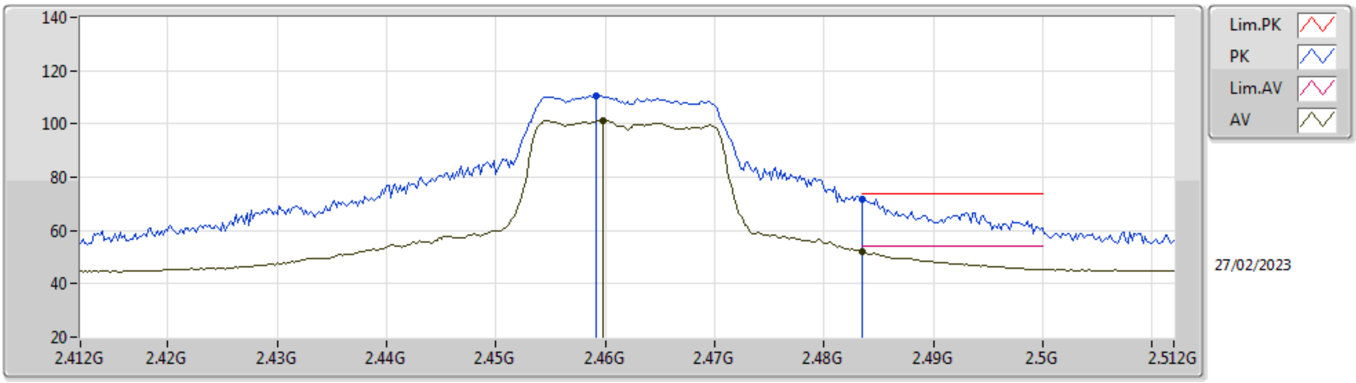


EUT X_2TX
Setting 20
02-E-G-5

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	4.8656G	46.70	74.00	-27.30	38.73	3	Horizontal	268	2.10	-	33.13	5.63	30.79
AV	4.8744G	33.66	54.00	-20.34	25.65	3	Horizontal	268	2.10	-	33.15	5.64	30.78
PK	7.2602G	50.12	74.00	-23.88	38.90	3	Horizontal	230	1.80	-	36.24	6.87	31.89
AV	7.3278G	36.89	54.00	-17.11	25.52	3	Horizontal	230	1.80	-	36.46	6.84	31.93

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

2462MHz_TX

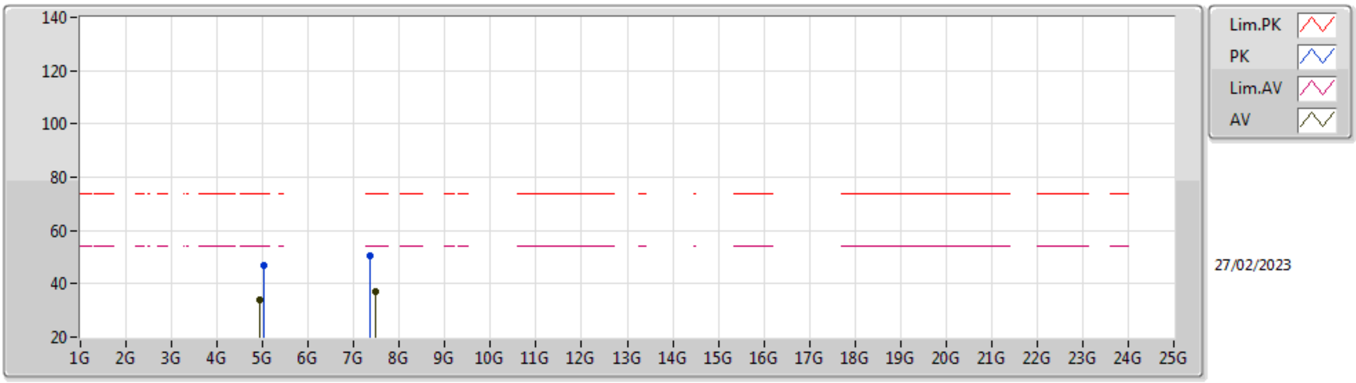


EUT X_2TX
Setting 15.5
02-E-G-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.4592G	110.66	Inf	-Inf	78.99	3	Vertical	61	2.00	-	28.44	3.23	-
AV	2.4598G	101.35	Inf	-Inf	69.68	3	Vertical	61	2.00	-	28.44	3.23	-
PK	2.4835G	71.67	74.00	-2.33	39.90	3	Vertical	61	2.00	-	28.53	3.24	-
AV	2.4835G	52.05	54.00	-1.95	20.28	3	Vertical	61	2.00	-	28.53	3.24	-

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

2462MHz_TX

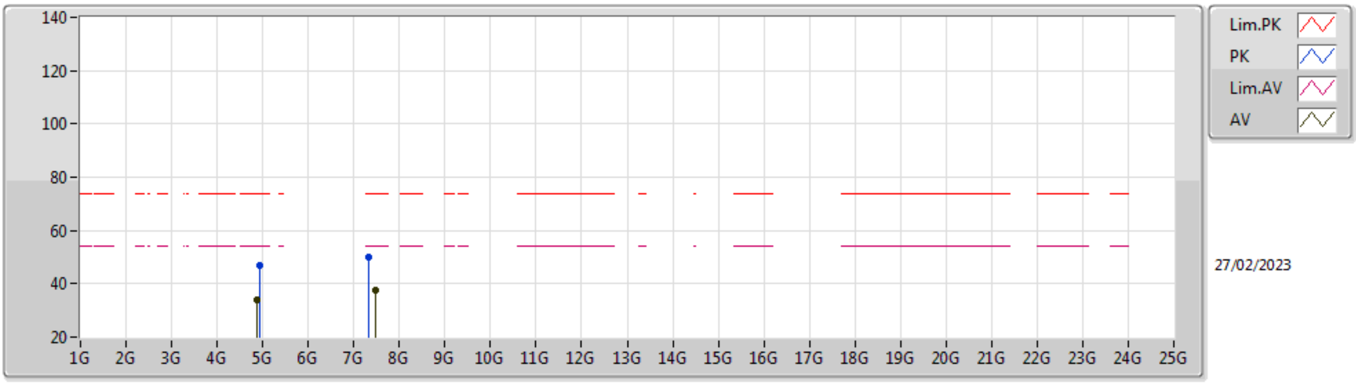


EUT X_2TX
Setting 15.5
02-E-G-5

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	5.0136G	46.92	74.00	-27.08	38.51	3	Vertical	182	2.86	-	33.43	5.71	30.73
AV	4.9452G	33.95	54.00	-20.05	25.74	3	Vertical	182	2.86	-	33.29	5.67	30.75
PK	7.3544G	50.56	74.00	-23.44	39.19	3	Vertical	235	1.68	-	36.50	6.82	31.95
AV	7.468G	37.15	54.00	-16.85	25.79	3	Vertical	235	1.68	-	36.50	6.87	32.01

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

2462MHz_TX

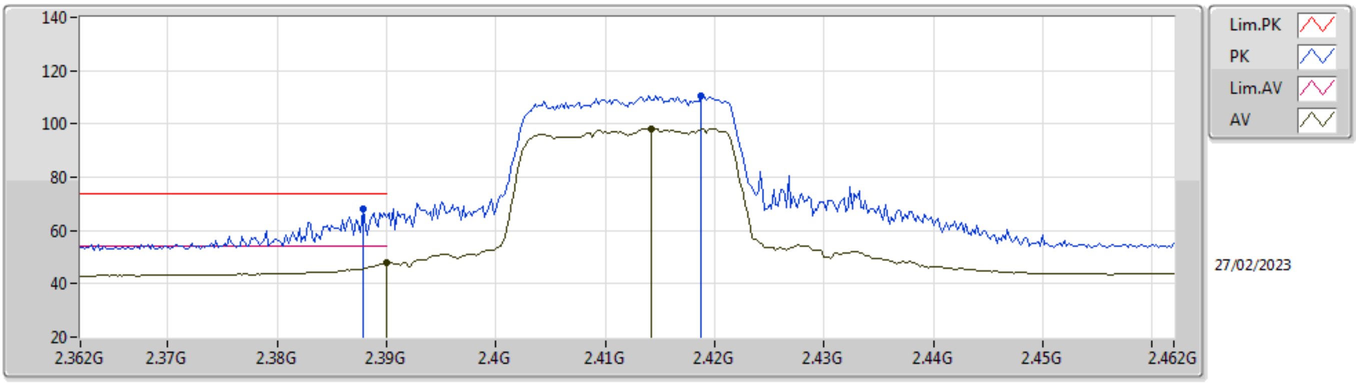


EUT X_2TX
Setting 15.5
02-E-G-5

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	4.9296G	46.97	74.00	-27.03	38.81	3	Horizontal	126	1.80	-	33.26	5.66	30.76
AV	4.866G	33.86	54.00	-20.14	25.89	3	Horizontal	126	1.80	-	33.13	5.63	30.79
PK	7.3292G	50.15	74.00	-23.85	38.78	3	Horizontal	108	1.80	-	36.46	6.84	31.93
AV	7.4628G	37.36	54.00	-16.64	26.01	3	Horizontal	108	1.80	-	36.50	6.86	32.01

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

2412MHz_TX

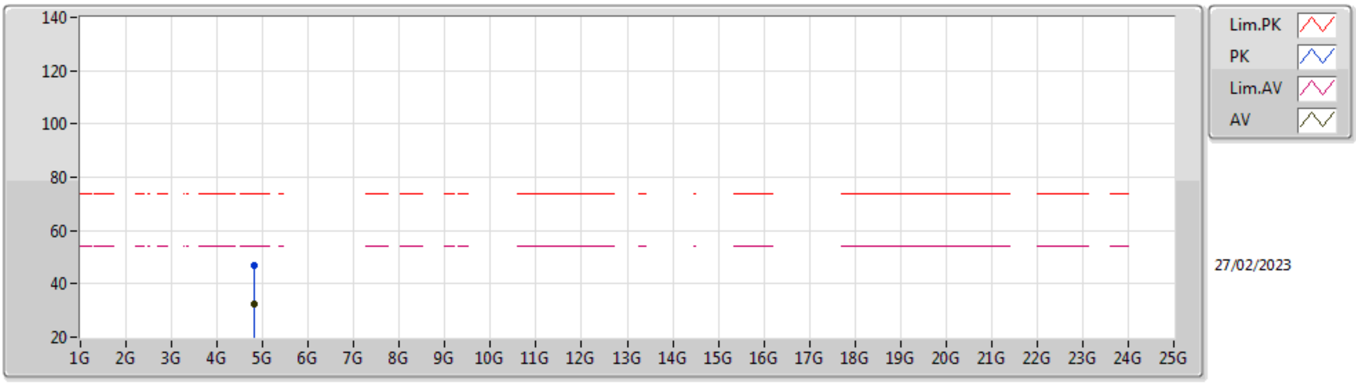


EUT X_2TX
Setting 13.5
02-E-G-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.3878G	68.18	74.00	-5.82	36.61	3	Vertical	35	2.05	-	28.38	3.19	-
AV	2.39G	47.70	54.00	-6.30	16.12	3	Vertical	35	2.05	-	28.38	3.20	-
PK	2.4188G	110.68	Inf	-Inf	79.07	3	Vertical	35	2.05	-	28.40	3.21	-
AV	2.4142G	98.28	Inf	-Inf	66.67	3	Vertical	35	2.05	-	28.40	3.21	-

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

2412MHz_TX

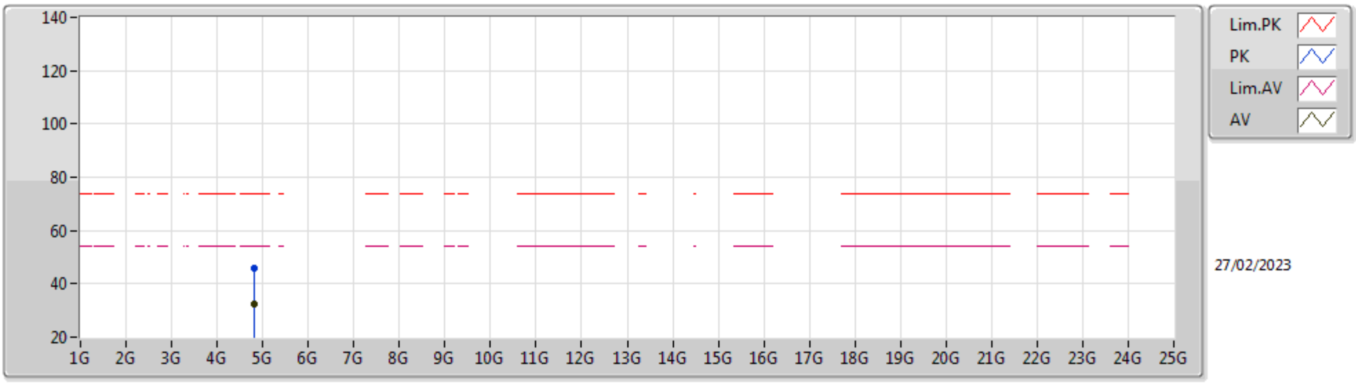


EUT X_2TX
Setting 13.5
02-E-G-5

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	4.82525G	46.72	74.00	-27.28	38.96	3	Vertical	196	1.80	-	32.95	5.61	30.80
AV	4.82422G	32.62	54.00	-21.38	24.86	3	Vertical	196	1.80	-	32.95	5.61	30.80

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

2412MHz_TX

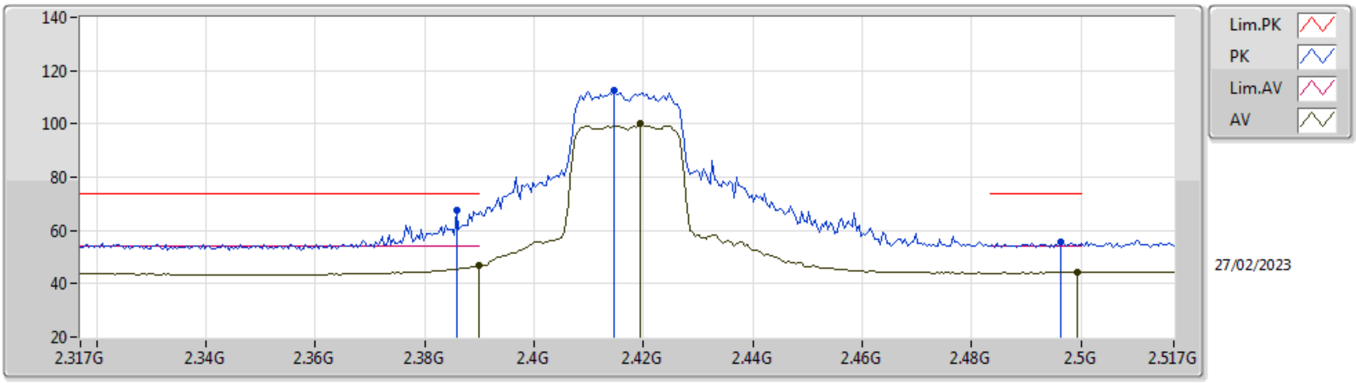


EUT X_2TX
Setting 13.5
02-E-G-5

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	4.82393G	45.79	74.00	-28.21	38.04	3	Horizontal	224	1.65	-	32.94	5.61	30.80
AV	4.82311G	32.58	54.00	-21.42	24.83	3	Horizontal	224	1.65	-	32.94	5.61	30.80

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

2417MHz_TX

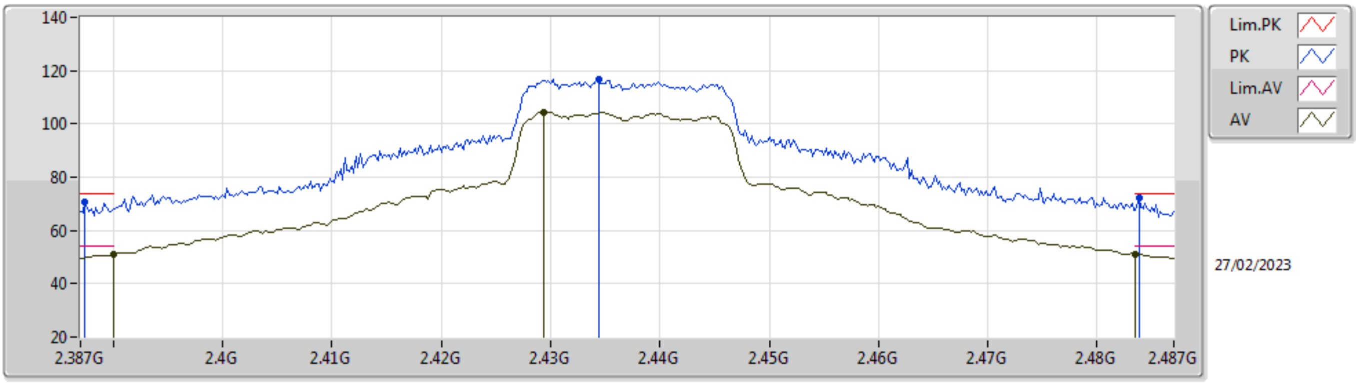


EUT X_2TX
Setting 15
02-F-W-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.3858G	67.46	74.00	-6.54	35.90	3	Vertical	22	2.02	-	28.37	3.19	-
AV	2.3898G	46.70	54.00	-7.30	15.13	3	Vertical	22	2.02	-	28.38	3.19	-
PK	2.4146G	112.68	Inf	-Inf	81.07	3	Vertical	22	2.02	-	28.40	3.21	-
AV	2.4194G	100.10	Inf	-Inf	68.49	3	Vertical	22	2.02	-	28.40	3.21	-
PK	2.4962G	55.59	74.00	-18.41	23.76	3	Vertical	22	2.02	-	28.58	3.25	-
AV	2.4994G	44.21	54.00	-9.79	12.36	3	Vertical	22	2.02	-	28.60	3.25	-

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

2437MHz_TX

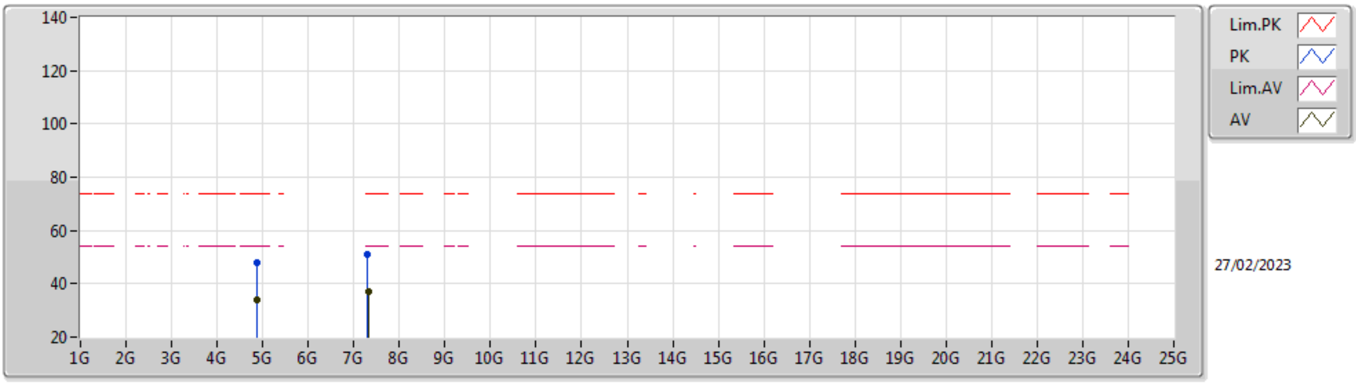


EUT X_2TX
Setting 19
02-E-G-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.3874G	70.44	74.00	-3.56	38.88	3	Vertical	63	2.39	-	28.37	3.19	-
AV	2.39G	51.06	54.00	-2.94	19.48	3	Vertical	63	2.39	-	28.38	3.20	-
PK	2.4344G	116.80	Inf	-Inf	85.18	3	Vertical	63	2.39	-	28.40	3.22	-
AV	2.4294G	104.36	Inf	-Inf	72.75	3	Vertical	63	2.39	-	28.40	3.21	-
PK	2.4838G	72.46	74.00	-1.54	40.68	3	Vertical	63	2.39	-	28.54	3.24	-
AV	2.4835G	51.24	54.00	-2.76	19.47	3	Vertical	63	2.39	-	28.53	3.24	-

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

2437MHz_TX

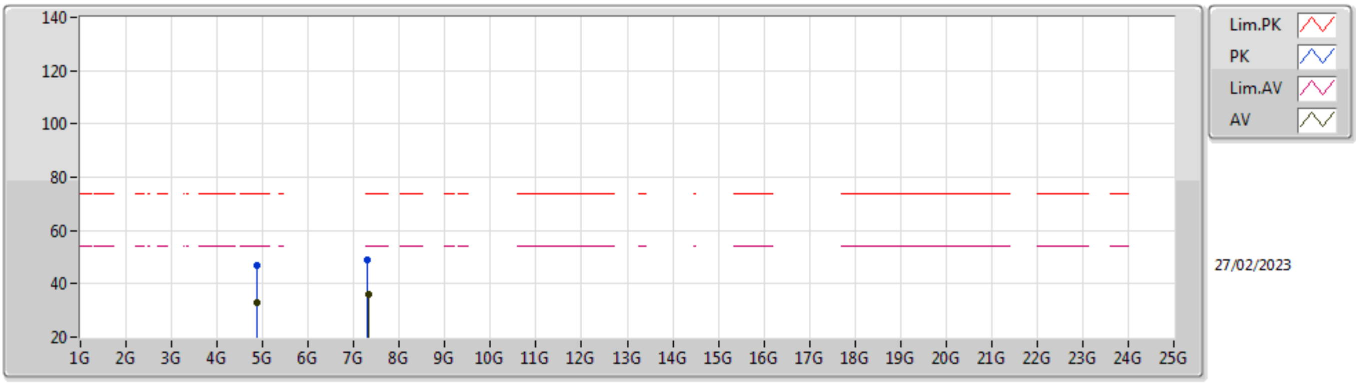


EUT X_2TX
Setting 19
02-E-G-5

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	4.87463G	48.10	74.00	-25.90	40.09	3	Vertical	200	1.05	-	33.15	5.64	30.78
AV	4.87368G	33.84	54.00	-20.16	25.83	3	Vertical	200	1.05	-	33.15	5.64	30.78
PK	7.3086G	51.10	74.00	-22.90	39.75	3	Vertical	217	1.80	-	36.42	6.85	31.92
AV	7.31098G	37.24	54.00	-16.76	25.90	3	Vertical	217	1.80	-	36.42	6.84	31.92

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

2437MHz_TX

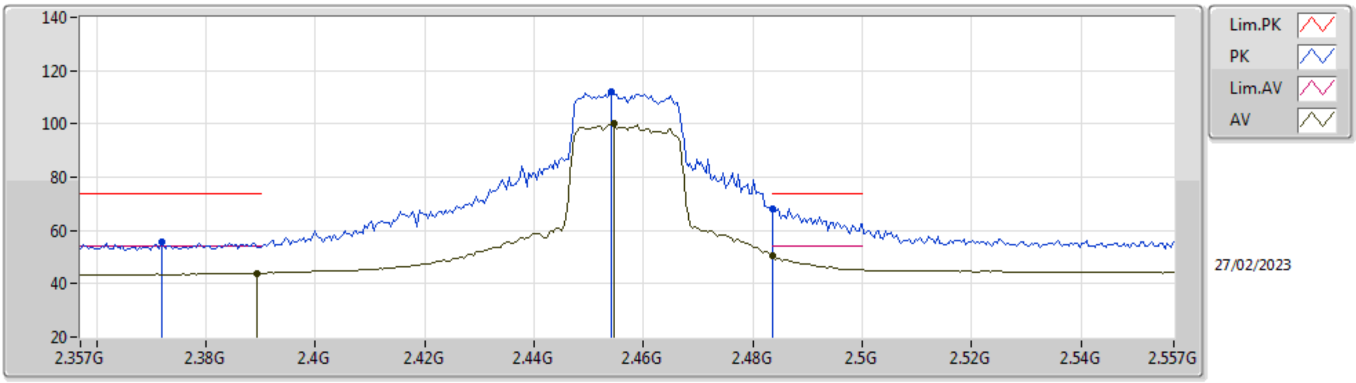


EUT X_2TX
Setting 19
02-E-G-5

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	4.87295G	46.85	74.00	-27.15	38.84	3	Horizontal	84	1.63	-	33.15	5.64	30.78
AV	4.87579G	33.07	54.00	-20.93	25.06	3	Horizontal	84	1.63	-	33.15	5.64	30.78
PK	7.30917G	49.01	74.00	-24.99	37.66	3	Horizontal	134	2.69	-	36.42	6.85	31.92
AV	7.31255G	35.79	54.00	-18.21	24.44	3	Horizontal	134	2.69	-	36.43	6.84	31.92

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

2457MHz_TX

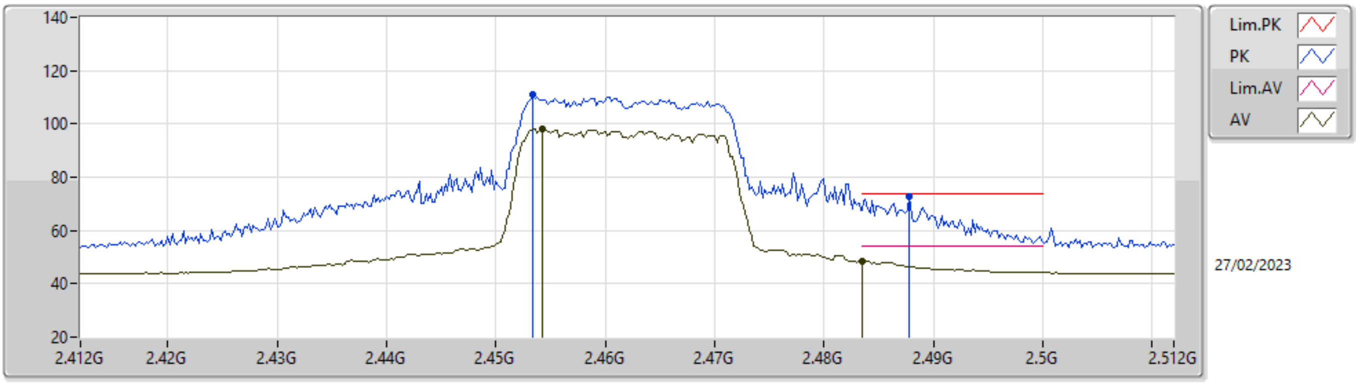


EUT X_2TX
Setting 15.5
02-E-W-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.3718G	55.94	74.00	-18.06	24.41	3	Vertical	22	1.51	-	28.34	3.19	-
AV	2.3894G	43.98	54.00	-10.02	12.41	3	Vertical	22	1.51	-	28.38	3.19	-
PK	2.4542G	112.08	Inf	-Inf	80.43	3	Vertical	22	1.51	-	28.42	3.23	-
AV	2.4546G	100.15	Inf	-Inf	68.50	3	Vertical	22	1.51	-	28.42	3.23	-
PK	2.4835G	68.33	74.00	-5.67	36.56	3	Vertical	22	1.51	-	28.53	3.24	-
AV	2.4835G	50.35	54.00	-3.65	18.58	3	Vertical	22	1.51	-	28.53	3.24	-

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

2462MHz_TX

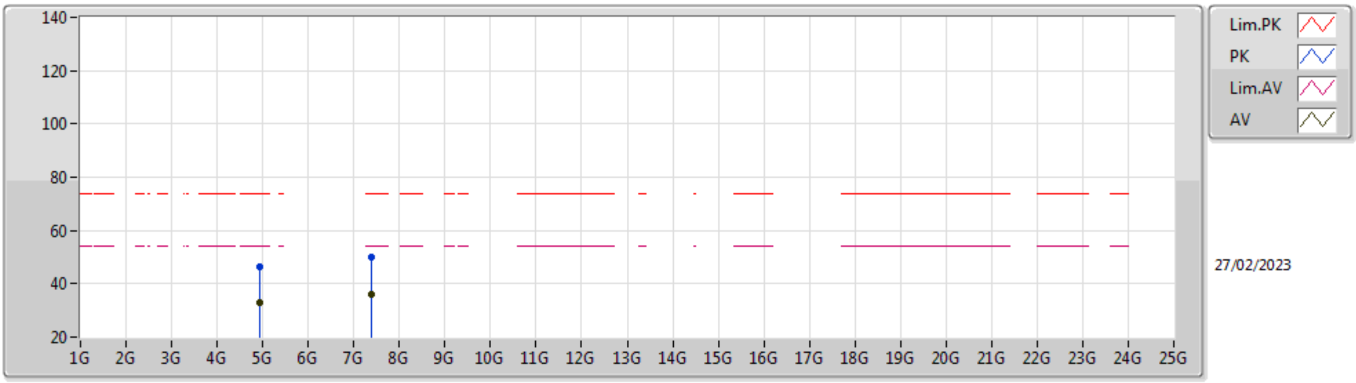


EUT X_2TX
Setting 13.5
04-D-W-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.4534G	111.07	Inf	-Inf	80.11	3	Vertical	43	1.19	-	27.71	3.25	-
AV	2.4542G	98.09	Inf	-Inf	67.12	3	Vertical	43	1.19	-	27.72	3.25	-
PK	2.4878G	72.78	74.00	-1.22	41.64	3	Vertical	43	1.19	-	27.85	3.29	-
AV	2.4835G	48.57	54.00	-5.43	17.46	3	Vertical	43	1.19	-	27.83	3.28	-

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

2462MHz_TX

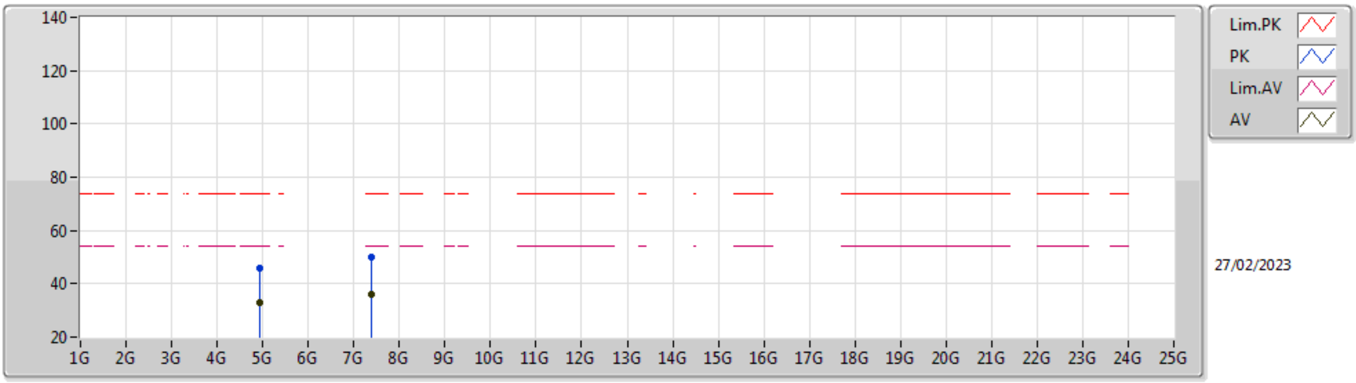


EUT X_2TX
Setting 13.5
02-E-G-5

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	4.92338G	46.47	74.00	-27.53	38.32	3	Vertical	18	1.80	-	33.25	5.66	30.76
AV	4.92611G	32.89	54.00	-21.11	24.74	3	Vertical	18	1.80	-	33.25	5.66	30.76
PK	7.38763G	49.85	74.00	-24.15	38.50	3	Vertical	247	1.80	-	36.50	6.81	31.96
AV	7.38681G	36.04	54.00	-17.96	24.69	3	Vertical	247	1.80	-	36.50	6.81	31.96

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

2462MHz_TX

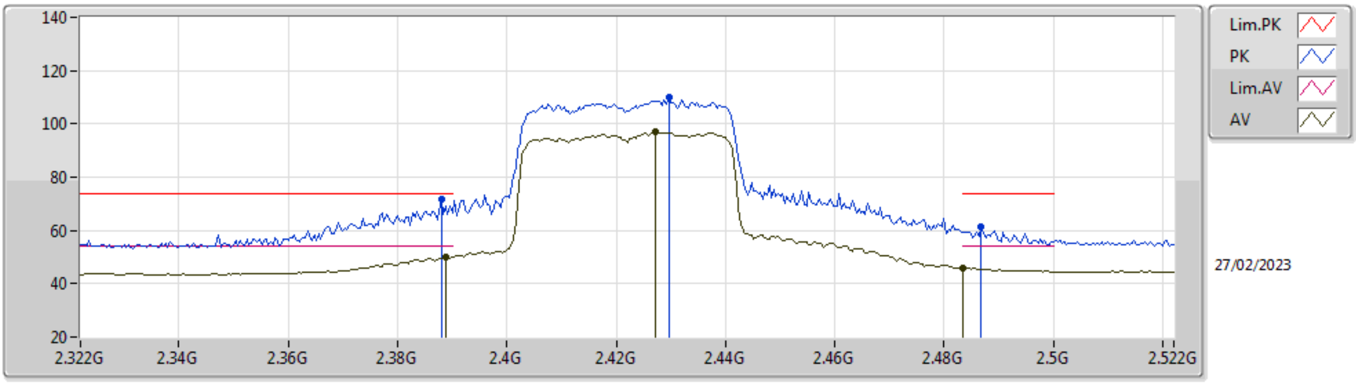


EUT X_2TX
Setting 13.5
02-E-G-5

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	4.92648G	46.01	74.00	-27.99	37.86	3	Horizontal	212	2.88	-	33.25	5.66	30.76
AV	4.92452G	32.81	54.00	-21.19	24.66	3	Horizontal	212	2.88	-	33.25	5.66	30.76
PK	7.38593G	49.81	74.00	-24.19	38.46	3	Horizontal	56	1.80	-	36.50	6.81	31.96
AV	7.38752G	35.96	54.00	-18.04	24.61	3	Horizontal	56	1.80	-	36.50	6.81	31.96

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

2422MHz_TX

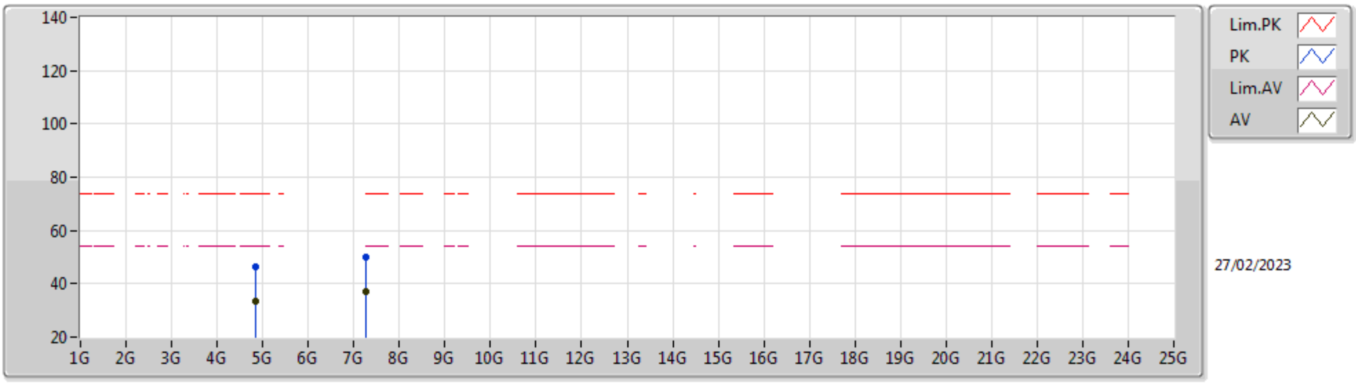


EUT X_2TX
Setting 13.5
02-E-G-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.388G	71.66	74.00	-2.34	40.09	3	Vertical	61	2.38	-	28.38	3.19	-
AV	2.3888G	49.92	54.00	-4.08	18.35	3	Vertical	61	2.38	-	28.38	3.19	-
PK	2.4296G	109.88	Inf	-Inf	78.27	3	Vertical	61	2.38	-	28.40	3.21	-
AV	2.4272G	97.03	Inf	-Inf	65.42	3	Vertical	61	2.38	-	28.40	3.21	-
PK	2.4868G	61.13	74.00	-12.87	29.34	3	Vertical	61	2.38	-	28.55	3.24	-
AV	2.4835G	45.83	54.00	-8.17	14.06	3	Vertical	61	2.38	-	28.53	3.24	-

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

2422MHz_TX

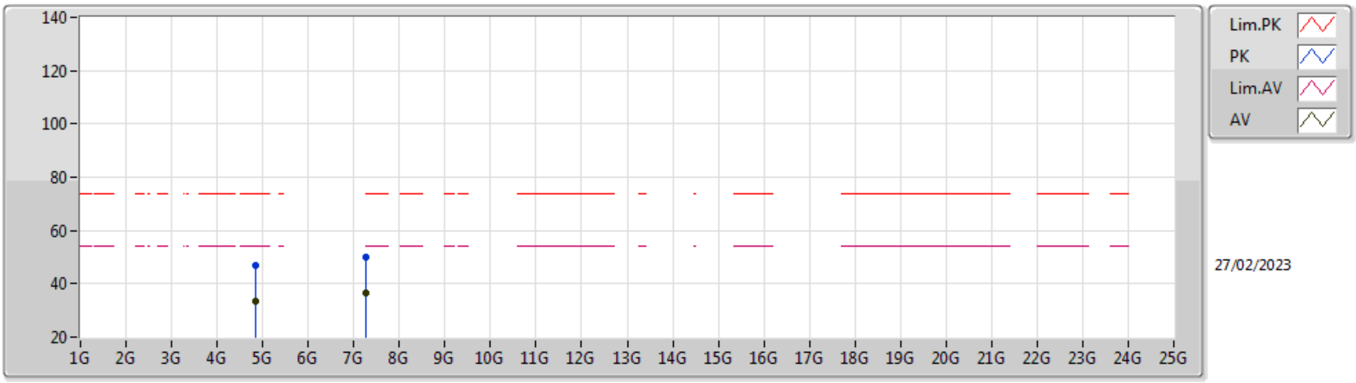


EUT X_2TX
Setting 13.5
02-E-G-5

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	4.84633G	46.54	74.00	-27.46	38.63	3	Vertical	160	1.84	-	33.08	5.62	30.79
AV	4.84313G	33.25	54.00	-20.75	25.37	3	Vertical	160	1.84	-	33.06	5.62	30.80
PK	7.26834G	49.83	74.00	-24.17	38.59	3	Vertical	-0	1.80	-	36.27	6.87	31.90
AV	7.26361G	36.82	54.00	-17.18	25.59	3	Vertical	-0	1.80	-	36.25	6.87	31.89

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

2422MHz_TX

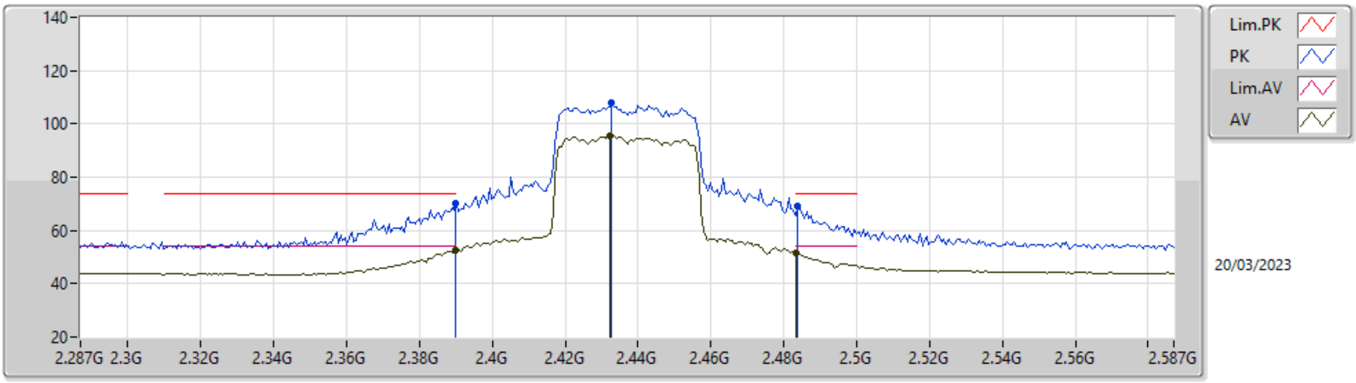


EUT X_2TX
Setting 13.5
02-E-G-5

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	4.84405G	46.91	74.00	-27.09	39.03	3	Horizontal	93	1.80	-	33.06	5.62	30.80
AV	4.84251G	33.53	54.00	-20.47	25.65	3	Horizontal	93	1.80	-	33.06	5.62	30.80
PK	7.26554G	50.08	74.00	-23.92	38.84	3	Horizontal	54	2.60	-	36.26	6.87	31.89
AV	7.26658G	36.56	54.00	-17.44	25.31	3	Horizontal	54	2.60	-	36.27	6.87	31.89

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

2437MHz_TX

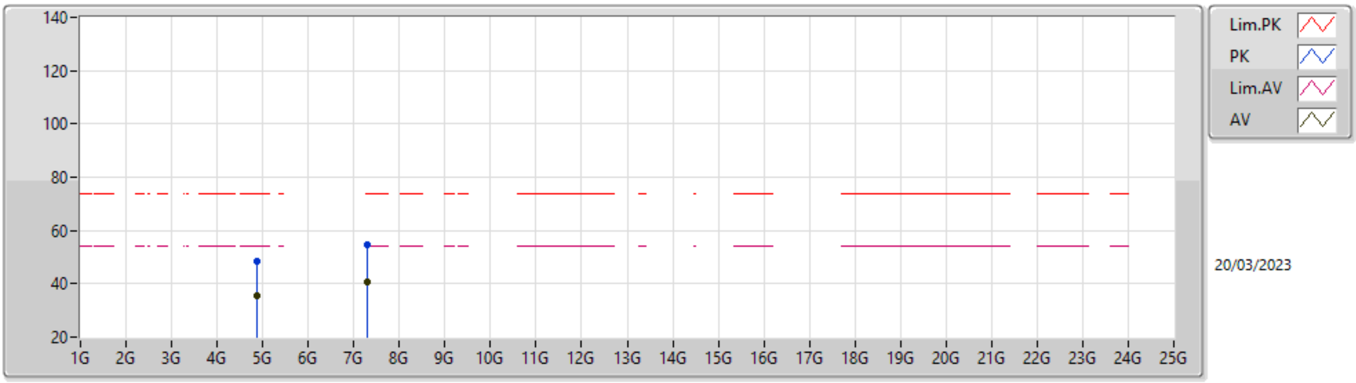


EUT X_2TX
Setting 15
04-E-E-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.39G	70.05	74.00	-3.95	39.22	3	Vertical	83	2.02	-	27.64	3.19	-
AV	2.39G	52.51	54.00	-1.49	21.68	3	Vertical	83	2.02	-	27.64	3.19	-
PK	2.4328G	107.84	Inf	-Inf	76.91	3	Vertical	83	2.02	-	27.70	3.23	-
AV	2.4322G	95.65	Inf	-Inf	64.72	3	Vertical	83	2.02	-	27.70	3.23	-
PK	2.4838G	69.32	74.00	-4.68	38.20	3	Vertical	83	2.02	-	27.84	3.28	-
AV	2.4835G	51.50	54.00	-2.50	20.39	3	Vertical	83	2.02	-	27.83	3.28	-

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

2437MHz_TX

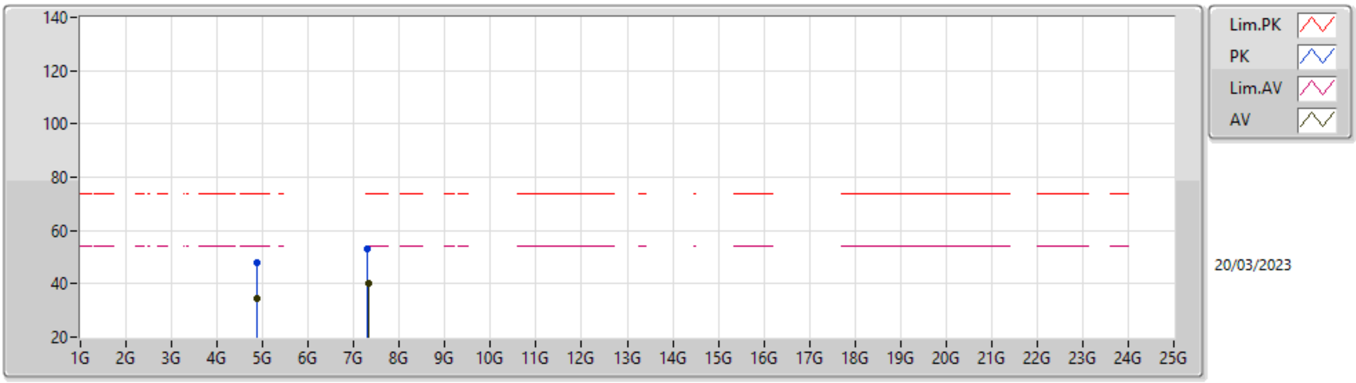


EUT X_2TX
Setting 15
04-E-E-5

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	4.88336G	48.31	74.00	-25.69	42.86	3	Vertical	126	1.80	-	32.77	5.30	32.62
AV	4.88858G	35.27	54.00	-18.73	29.81	3	Vertical	126	1.80	-	32.78	5.30	32.62
PK	7.30344G	54.44	74.00	-19.56	43.05	3	Vertical	77	1.80	-	37.70	6.90	33.21
AV	7.30878G	40.91	54.00	-13.09	29.51	3	Vertical	77	1.80	-	37.70	6.91	33.21

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

2437MHz_TX

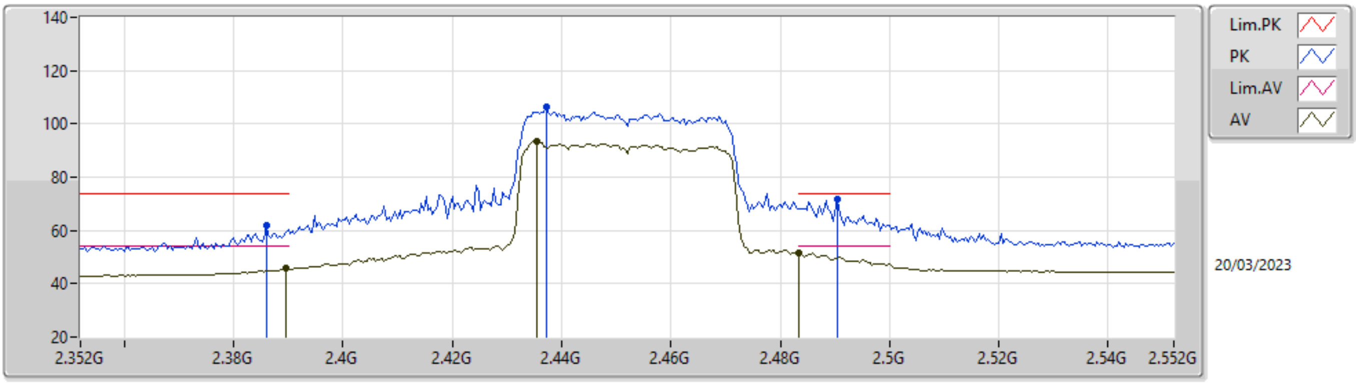


EUT X_2TX
Setting 15
04-E-E-5

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	4.87502G	47.77	74.00	-26.23	42.34	3	Horizontal	260	1.80	-	32.75	5.30	32.62
AV	4.8767G	34.68	54.00	-19.32	29.25	3	Horizontal	260	1.80	-	32.75	5.30	32.62
PK	7.30458G	53.33	74.00	-20.67	41.94	3	Horizontal	68	1.80	-	37.70	6.90	33.21
AV	7.31604G	40.27	54.00	-13.73	28.87	3	Horizontal	68	1.80	-	37.70	6.92	33.22

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

2452MHz_TX

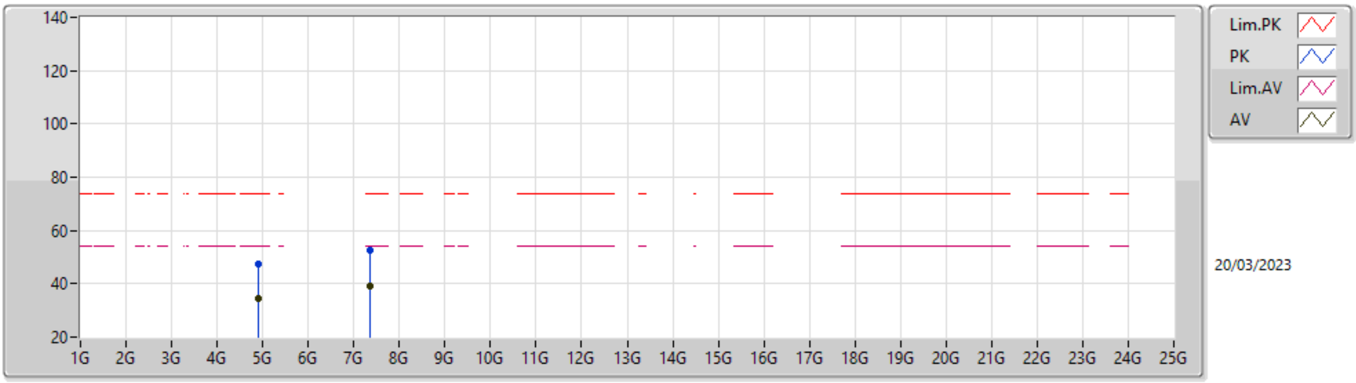


EUT X_2TX
Setting 13.5
04-E-E-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.386G	61.66	74.00	-12.34	30.85	3	Vertical	84	2.05	-	27.62	3.19	-
AV	2.3896G	45.98	54.00	-8.02	15.15	3	Vertical	84	2.05	-	27.64	3.19	-
PK	2.4372G	106.43	Inf	-Inf	75.49	3	Vertical	84	2.05	-	27.70	3.24	-
AV	2.4356G	93.63	Inf	-Inf	62.69	3	Vertical	84	2.05	-	27.70	3.24	-
PK	2.4904G	71.67	74.00	-2.33	40.52	3	Vertical	84	2.05	-	27.86	3.29	-
AV	2.4835G	51.67	54.00	-2.33	20.56	3	Vertical	84	2.05	-	27.83	3.28	-

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

2452MHz_TX

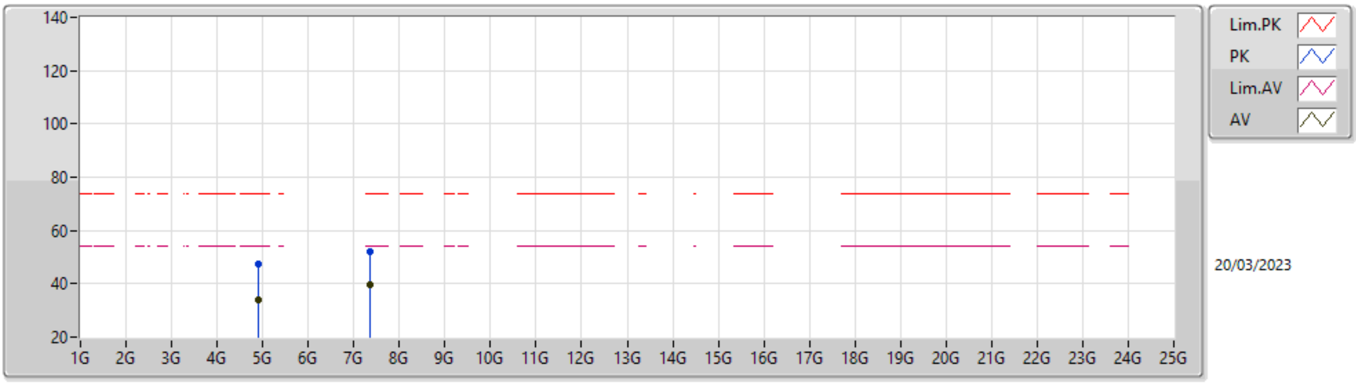


EUT X_2TX
Setting 13.5
04-E-E-5

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	4.89938G	47.26	74.00	-26.74	41.77	3	Vertical	169	1.80	-	32.80	5.30	32.61
AV	4.89182G	34.30	54.00	-19.70	28.84	3	Vertical	169	1.80	-	32.78	5.30	32.62
PK	7.3665G	52.49	74.00	-21.51	41.12	3	Vertical	22	1.80	-	37.63	6.97	33.23
AV	7.36032G	39.24	54.00	-14.76	27.85	3	Vertical	22	1.80	-	37.66	6.96	33.23

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

2452MHz_TX



EUT X_2TX
Setting 13.5
04-E-E-5

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	4.91426G	47.42	74.00	-26.58	41.89	3	Horizontal	124	3.00	-	32.83	5.30	32.60
AV	4.88954G	34.17	54.00	-19.83	28.71	3	Horizontal	124	3.00	-	32.78	5.30	32.62
PK	7.3602G	52.23	74.00	-21.77	40.84	3	Horizontal	182	1.80	-	37.66	6.96	33.23
AV	7.36782G	39.52	54.00	-14.48	28.16	3	Horizontal	182	1.80	-	37.63	6.97	33.24