FCC Radio Test Report

FCC ID	:	**TVE-5108TQ56462**
Equipment	:	**Secured Wireless Access Point**
Brand Name	:	**FORTINET**
Model Name	:	**FortiAP 432Gxxxxxx, FAP-432Gxxxxxx, FORTIAP-432Gxxxxxx (Where "x" can be used as "A-Z", or "0-9", or "-", or blank for software changes or marketing purposes only)**
Applicant	:	**Fortinet, Inc. 899 Kifer Road, Sunnyvale, CA 94086, USA**
Manufacturer	:	**Fortinet, Inc. 899 Kifer Road, Sunnyvale, CA 94086, USA**
Standard	:	**47 CFR FCC Part 15.247**

The product was received on Aug. 14, 2023, and testing was started from Nov. 30, 2023 and completed on Apr. 01, 2024. We, SPORTON INTERNATIONAL INC. Hsinhua Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. Hsinhua Laboratory, the test report shall not be reproduced except in full.

Approved by: Jackson Tsai

SPORTON INTERNATIONAL INC. Hsinhua Laboratory

No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333411, Taiwan (R.O.C.)

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History of this test report

Report No.	Version	Description	Issued Date
FR362304AZ	01	Initial issue of report	Apr. 29, 2024

Summary of Test Result

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

Declaration of Conformity:
The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.
Comments and explanations:
None

Reviewed by: Terry Chang

Report Producer: Julie Tseng

1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	IEEE Std.	Ch. Frequency (MHz)	Channel Number
2400-2483.5	802.15.4	2405-2480	11-26 [16]

Band	Mode	BWch (MHz)	Nant
2.4-2.4835GHz	Zigbee	5	1

Note:.
- Zigbee uses a O-QPSK (250kbps) modulation for DSSS.
- BWch is the nominal channel bandwidth.

1.1.2 Antenna Information

Ant.	Port	Brand	Model Name	Antenna Type	Connector	Support
1	1	SENAO	5718A0729300	Dipole	N-type	2.4G+5G
2	2	SENAO	5718A0729300	Dipole	N-type	2.4G+5G
3	1	SENAO	5718A0729300	Dipole	N-type	2.4G+5G
4	2	SENAO	5718A0729300	Dipole	N-type	2.4G+5G
5	1	SENAO	5718A0727300	Dipole	N-type	2.4G+5G+6G
6	2	SENAO	5718A0727300	Dipole	N-type	2.4G+5G+6G
7	3	SENAO	5718A0727300	Dipole	N-type	2.4G+5G+6G
8	4	SENAO	5718A0727300	Dipole	N-type	2.4G+5G+6G
9	1	SENAO	5718A0618300	Dipole	N-type	BT&Zigbee
10	1	Quectel	7102A0652000	Patch	I-Pex	GPS

Gain (dBi)							Remark		
Ant.	Port	2.4G	5G	6G	BT& Zigbee	GPS			
1	1	4.82	5.89	-	-	-	Radio 1_ 2.4G 4*4	Radio 2_ 5G 4*4	Radio 2 (Low Band) (5G Band1/2) 4*4
2	2	4.76	6.01	-	-	-			
3	3	5.03	6.4	-	-	-			
4	4	4.78	6.14	-	-	-			
5	1	4.26	5.75	5.8	-	-	Radio 3_ 6G 4*4	Radio 3 2.4G/5G/6G 2*2 Scan Radio	Radio 3 (High Band) (5G Band3/4) 4*4
6	2	4.45	5.54	5.95	-	-		-	
7	3	4.81	5.5	5.65	-	-		Radio 3 2.4G/5G/6G 2*2 Scan Radio	
8	4	4.86	5.72	5.8	-	-		-	
9	1	-	-	-	4.71	-	-		
10	1	-	-	-	-	2	-		

Note 1: The EUT has ten antennas.

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

For 2.4GHz function:
< Radio 1 >
For IEEE 802.11b/g/n/VHT/ax mode (4TX/4RX)
Ant.1 (port 1), Ant.2 (port 2), Ant.3 (port 3), Ant.4 (port 4) could transmit/receive simultaneously.
< Radio 3 > < Scan >
For IEEE 802.11b/g/n/VHT/ax mode (2RX)
Ant.5 (port 1), Ant.7 (port 3) can be used as receiving.
For 5GHz function:
< Radio 2 >
For IEEE 802.11a/n/ac/ax mode (4TX/4RX)
Ant.1 (port 1), Ant.2 (port 2), Ant.3 (port 3), Ant.4 (port 4) could transmit/receive simultaneously.
< Radio 3 > < Scan >
For IEEE 802.11a/n/ac/ax mode (2RX)
Ant.5 (port 1), Ant.7 (port 3) can be used as receiving.
< Radio 2 > < Low Band >
For IEEE 802.11a/n/ac/ax mode (4TX/4RX)
Ant.1 (port 1), Ant.2 (port 2), Ant.3 (port 3), Ant.4 (port 4) could transmit/receive simultaneously.
< Radio 3 > < High Band >
For IEEE 802.11a/n/ac/ax mode (4TX/4RX)
Ant.5 (port 1), Ant.6 (port 2), Ant.7 (port 3), Ant.8 (port 4) could transmit/receive simultaneously.
For 6GHz function:
< Radio 3 >
For IEEE 802.11a/ax mode (4TX/4RX)
Ant.5 (port 1), Ant.6 (port 2), Ant.7 (port 3), Ant.8 (port 4) could transmit/receive simultaneously.
< Radio 3 > < Scan >
For IEEE 802.11a/n/ac/ax mode (2RX)
Ant.5 (port 1), Ant.7 (port 3) can be used as receiving.
For Bluetooth function:
For Bluetooth mode (1TX/1RX)
Only Ant.9 can be used as transmitting/receiving.
For GPS function:
For GPS mode (1RX)
Only Ant.10 can be used as receiving.

1.1.3 EUT Information

Operational Condition					
EUT Power Type	From PoE				
EUT Function	☒	Point-to-multipoint	☐	Point-to-point	
Type of EUT					
☒	Stand-alone				
☐	Combined (EUT where the radio part is fully integrated within another device)				
	Combined Equipment - Brand Name / Model No.:	…			
☐	Plug-in radio (EUT intended for a variety of host systems)				
	Host System - Brand Name / Model No.:	…			
☐	Other:				

1.1.4 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
Zigbee_Nss 1	1	0	n/a (DC>=0.98)	n/a (DC>=0.98)

Note. If DC < 0.98, the DCF was added while measuring Output power and PSD.

1.1.5 Table for Multiple Listing

The brand/model names in the following table are all refer to the identical product.

Brand Name	Model Name	Description
FORTINET	FortiAP 432Gxxxxxx, FAP-432Gxxxxxx, FORTIAP-432Gxxxxxx (Where "x" can be used as "A-Z", or "0-9", or “-", or blank for software changes or marketing purposes only)	All the models are identical, the difference model served as marketing strategy.

From the above models, model: FAP-432G was selected as representative model for the test and its data was recorded in this report.

1.2 Testing Applied Standards

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

- 47 CFR FCC Part 15
- ANSI C63.10-2013

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

- KDB 558074 D01 v05r02
- KDB 414788 D01 v01r01

1.3 Testing Location Information

Test Lab.：Sporton International Inc. Hsinhua Laboratory				
☒ Hsinhua **(TAF:** 3785**)**	**ADD:** No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333411, Taiwan (R.O.C.)			
	TEL: 886-3-327-3456		**FAX:** 886-3-327-0973	
Test site Designation No. TW3785 with FCC.				
Test Condition	**Test Site No.**	**Test Engineer**	**Test Environment**	**Test Date**
AC Conduction	CO04-HY	Ivan Chung	21.1~22.3°C / 50~54%	01/Apr/2024
RF Conducted	TH07-HY	Xun Hsieh	23.1~24.2°C / 52~58%	30/Nov/2023~04/Dec/2023
Radiated (Above 1G)	03CH02-HY	Darren Cho	21.3~22.6°C / 49~51%	30/Nov/2023
Radiated (Below 1G)	03CH02-HY	Darren Cho	21.7~23.1°C / 50~53%	22/Dec/2023
Radiated (Co-location)	03CH02-HY	Daniel Lin	21.7~22.6°C / 51~54%	12/Mar/2024~13/Mar/2024
☐ Wen 33rd.St. **(TAF:** 3785**)**	**ADD:** No.14-1, Ln. 19, Wen 33rd St., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.)			
	TEL: 886-3-318-0787		**FAX:** 886-3-318-0287	
Test site Designation No. TW0008 with FCC.				

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
AC Power-line Conducted Emissions	4.53 dB	Confidence levels of 95%
Bandwidth	3 MHz	Confidence levels of 95%
Maximum Conducted Output Power	2 dB	Confidence levels of 95%
Power Spectral Density	2 dB	Confidence levels of 95%
Emissions in Non-restricted Frequency Bands	0.14 dB	Confidence levels of 95%
Emissions in Restricted Frequency Bands	4.8 dB	Confidence levels of 95%
Temperature	0.41 °C	Confidence levels of 95%
Humidity	3.4 %	Confidence levels of 95%

2 Test Configuration of EUT

2.1 Test Channel Mode

Test Software Version	Dos6.1

Mode	Power Setting
Zigbee	-
2405MHz	100
2440MHz	100
2475MHz	100
2480MHz	95

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	PoE mode ;Zigbee TX

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
1	PoE mode
Operating Mode > 1GHz	CTX
Orthogonal Planes of EUT	**Y Plane**
	

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis
Test Condition	Radiated measurement
Operating Mode	CTX
1	Radio 1:2.4G + Radio 2:5G full + BT
2	Radio 1:2.4G + Radio 2:5G Low band(Band1/2) + Radio 3: 5G High band(Band3/4) + BT
3	Radio 1:2.4G + Radio 2:5G full + Zigbee
4	Radio 1:2.4G + Radio 2:5G Low band(Band1/2) + Radio 3: 5G High band(Band3/4) + Zigbee
Refer to Sporton Test Report No.: FA362304 for Co-location RF Exposure Evaluation and Appendix G for Radiated Emission Co-location.	

2.3 Accessories

Accessories				
PoE Adapter	Brand Name	Senao Inc.	Model Name	PIN060-54PR
	Power Rating	I/P: 100 - 240 Vac, 1.5 A, 50-60 Hz,O/P: 54 Vdc, 1.11 A		
AC CORD	Brand Name	I-SHENG	Model Name	AC CORD 600mm
	Signal Line	0.5 meter, shielded cable, w/o ferrite core		
BRACKET POLE MOUNT	Brand Name	CUN SHENG	Model Name	BRACKET POLE MOUNT LFP
BRACKET WALL MOUNT	Brand Name	Enrack	Model Name	BRACKET WALL MOUNT
Pole Mount Bracket	Brand Name	CUN SHENG	Model Name	6301A2873010
Ground Wire	Brand Name	BO YAO	Model Name	WIRE GEN AWG10 180cm
	Signal Line	1.8 meter, shielded cable, w/o ferrite core		

Reminder: Regarding to more detail and other information, please refer to user manual.

2.4 Support Equipment

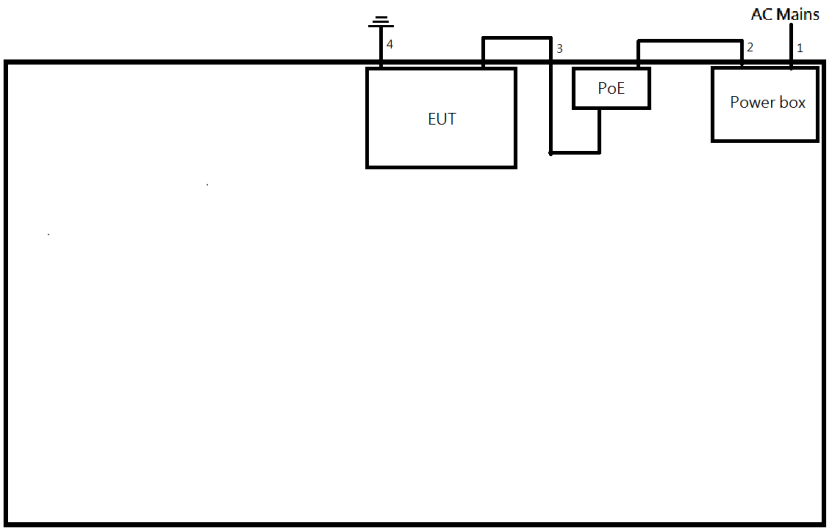
Support Equipment – AC Conduction					
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**	**Remark**
1	RJ45 cable	Power Sync	CAT-6E-01	-	-

Support Equipment – Conducted					
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**	**Remark**
1	Notebook	DELL	E5410	-	-
2	Adapter for NB	DELL	HA65NM130	-	-
3	PoE	Senao Inc.	PIN060-54PR	-	Provided by Customer

Support Equipment – Radiated					
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**	**Remark**
1	RJ45 cable	Power Sync	CAT-6E-01	-	-

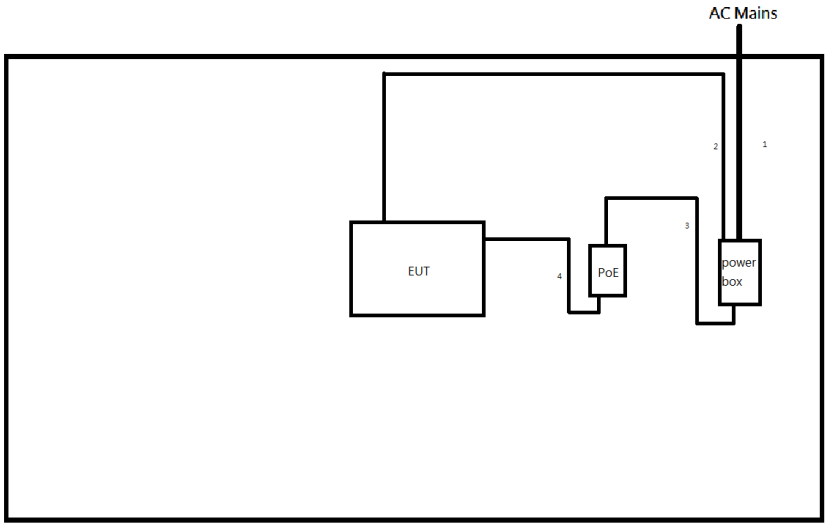
2.5 Test Setup Diagram

Test Setup Diagram – AC Line Conducted Emission Test



Item	Connection	Shielded	Length(m)	Remark
1	AC Power cable	No	1.0	-
2	AC Cord	Yes	0.5	-
3	RJ45 cable	No	1.0	-
4	Ground Wire	Yes	1.8	-

Test Setup Diagram - Radiated Test



Item	Connection	Shielded	Length(m)	Remark
1	AC Power cable	No	1.8	-
2	Ground Wire	Yes	1.8	-
3	AC Cord	Yes	0.5	-
4	RJ45 cable	No	1.0	-

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

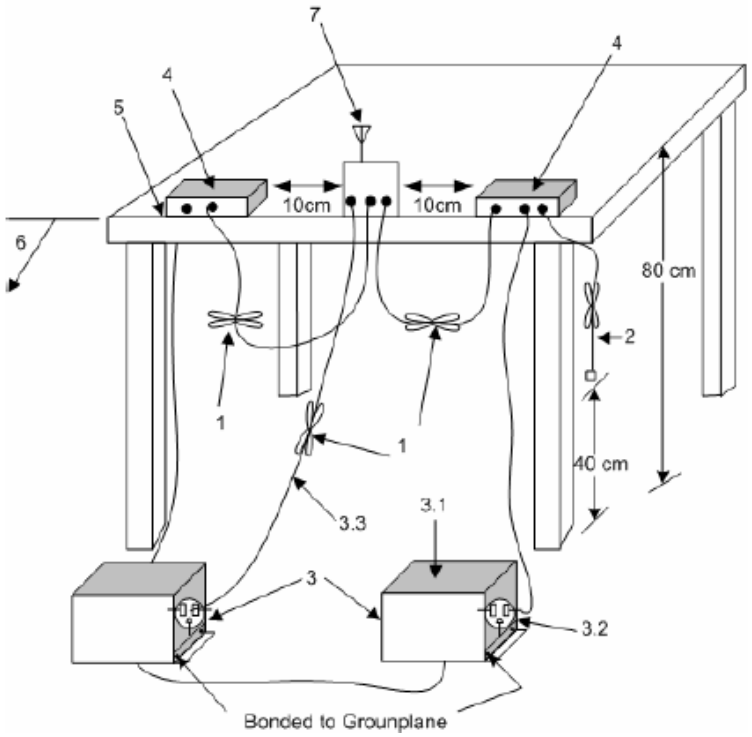
Test Method
☒ Refer as ANSI C63.10-2013, clause 6.2 for AC power-line conducted emissions.

3.1.4 Measurement Results Calculation

The measured Level is calculated using:
Corrected Reading: Raw(Read Level) +LISN(LISN Factor) + CL(Cable Loss) + AT(Attenuator).

3.1.5 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 50Ω 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.

3.1.6 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

3.2 DTS Bandwidth

3.2.1 6dB Bandwidth Limit

6dB Bandwidth Limit
Systems using digital modulation techniques:
▪ 6 dB bandwidth ≥ 500 kHz.

3.2.2 Measuring Instruments

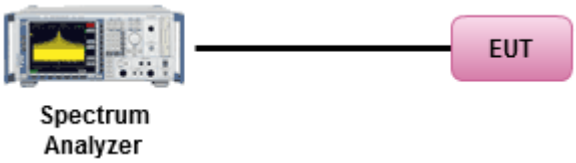
Refer a test equipment and calibration data table in this test report.

3.2.3 Test Procedures

Test Method	
▪ For the emission bandwidth shall be measured using one of the options below:	
	☒ Refer as KDB 558074, clause 8.2 (11.8 of ANSI C63.10) DTS bandwidth measurement.
	☐ Refer as RSS-Gen, clause 6.7 for for occupied bandwidth testing.
	☐ Refer as ANSI C63.10, clause 6.9.3 for occupied bandwidth testing.

3.2.4 Test Setup

Emission Bandwidth



3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B

3.3 Maximum Conducted Output Power

3.3.1 Maximum Conducted Output Power Limit

Maximum Conducted Output Power Limit		
	▪ If G_{TX} ≤ 6 dBi, then P_{Out} ≤ 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 + 8dB dBm
e.i.r.p. Power Limit:		
▪ 2400-2483.5 MHz Band		
	▪ Point-to-multipoint systems (P2M): P_{eirp} ≤ 36 dBm (4 W)	
	▪ Point-to-point systems (P2P): P_{eirp} ≤ MAX(36, [P_{Out} + G_{TX}]) dBm	
	▪ Smart antenna system (SAS)	
		- Single beam: P_{eirp} ≤ MAX(36, P_{Out} + G_{TX}) dBm
		- Overlap beam: P_{eirp} ≤ MAX(36, P_{Out} + G_{TX}) dBm
		- Aggregate power on all beams: P_{eirp} ≤ MAX(36, [P_{Out} + G_{TX} + 8]) 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 KDB 558074, clause 8.3.1.1 (11.9.1.1 of ANSI C63.10) RBW ≥ EBW method.
	☐ Refer as KDB 558074, clause 8.3.1.2 (11.9.1.2 of ANSI C63.10) integrated band power method.
	☐ Refer as KDB 558074, clause 8.3.1.3 (11.9.1.3 of ANSI C63.10) peak power meter.
▪ Maximum Average Conducted Output Power	
	☐ Refer as KDB 558074, clause 8.3.2.2 (11.9.2.2 of ANSI C63.10) using a spectrum analyzer.
	☒ Refer as KDB 558074, clause 8.3.2.3 (11.9.2.3 of ANSI C63.10) using a power meter.
▪ For conducted measurement.	
	▪ If the EUT supports multiple transmit chains using options given below: Refer as KDB 662911, In-band power measurements. Using the measure-and-sum approach, measured all transmit ports individually. Sum the power (in linear power units e.g., mW) of all ports for each individual sample and save them.
	▪ If multiple transmit chains, EIRP calculation could be following as methods: $P_{total} = P_1 + P_2 + \ldots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$

3.3.4 Test Setup

Maximum Conducted Output Power (Power Meter)


3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C

3.4 Power Spectral Density

3.4.1 Power Spectral Density Limit

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

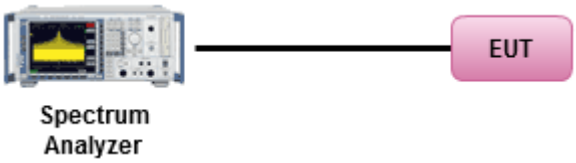
3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

Test Method		
▪ Peak power spectral density procedures that the same method as used to determine the conducted output power. If maximum peak conducted output power was measured to demonstrate compliance to the output power limit, then the peak PSD procedure below (Method PKPSD) shall be used. If maximum conducted output power was measured to demonstrate compliance to the output power limit, then one of the average PSD procedures shall be used, as applicable based on the following criteria (the peak PSD procedure is also an acceptable option).		
	☒ Refer as KDB 558074, clause 8.4 (11.10 of ANSI C63.10) Max. PSD.	
▪ For conducted measurement.		
	▪ If The EUT supports multiple transmit chains using options given below:	
		▪ Measure and sum the spectra across the outputs. Refer as 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.

3.4.4 Test Setup

Power Spectral Density


3.4.5 Test Result of Power Spectral Density

Refer as Appendix D

3.5 Emissions in Non-restricted Frequency Bands

3.5.1 Emissions in Non-restricted Frequency Bands Limit

Un-restricted Band Emissions Limit	
RF output power procedure	**Limit (dB)**
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 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 level.	

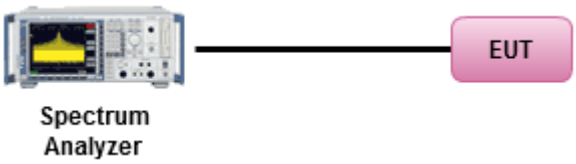
3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

Test Method
▪ Refer as KDB 558074, clause 8.5 (11.11 of ANSI C63.10) for non-restricted frequency bands.

3.5.4 Test Setup

Emissions in Non-restricted Frequency Bands


3.5.5 Test Result of Emissions in Non-restricted Frequency Bands

Refer as Appendix E

3.6 Emissions in Restricted Frequency Bands

3.6.1 Emissions in Restricted Frequency Bands Limit

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

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

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

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

3.6.2 Measuring Instruments

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

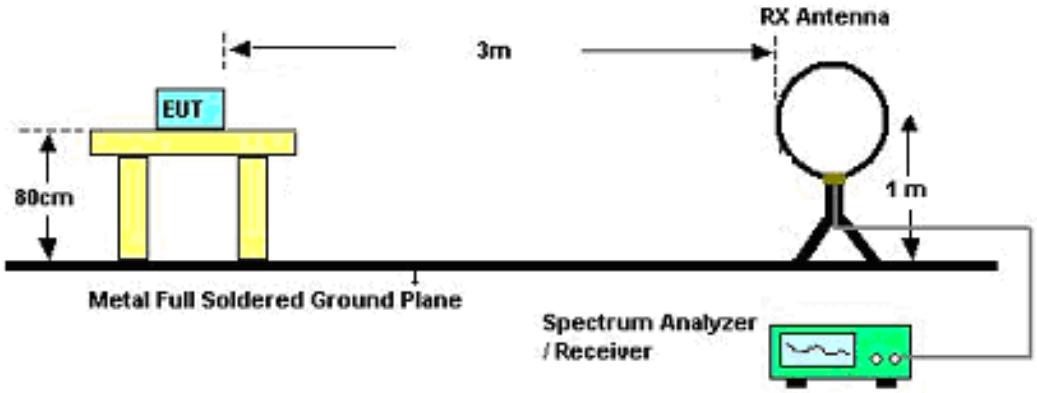
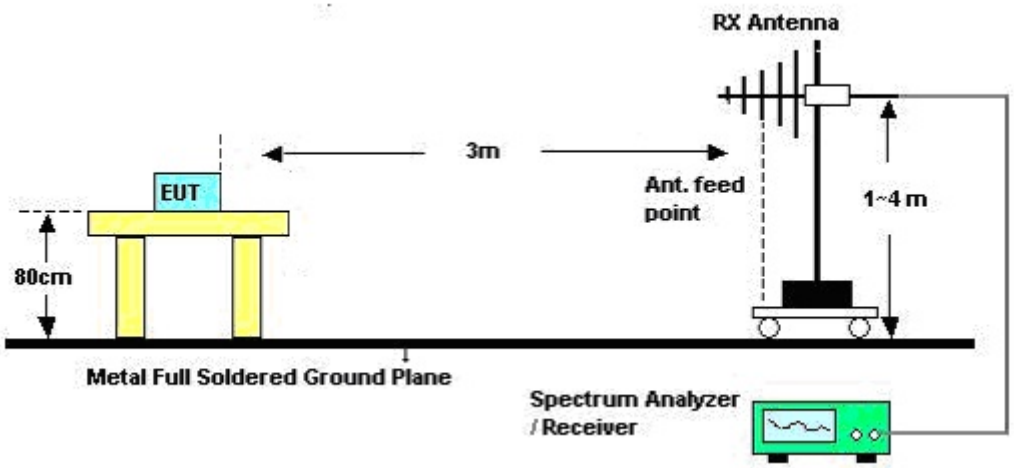
3.6.3 Test Procedures

Test Method	
▪ The average emission levels shall be measured in [duty cycle ≥ 98 or duty factor].	
▪ Refer as ANSI C63.10, clause 6.10.3 band-edge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band.	
▪ For the transmitter unwanted emissions shall be measured using following options below:	
	▪ Refer as KDB 558074, clause 8.6 (11.12 of ANSI C63.10) for restricted frequency bands.
▪ For the transmitter band-edge emissions shall be measured using following options below:	
	▪ Refer as KDB 558074 clause 8.7.1, 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 KDB 558074, clause 8.7.2 (6.10.6 of ANSI C63.10) for marker-delta method for band-edge measurements.
	▪ Refer as KDB 558074, clause 8.7.3 for narrower resolution bandwidth (100kHz) using the band power and summing the spectral levels (i.e., 1 MHz).
▪ Use the following spectrum analyzer settings:	
	▪ Set RBW=100 kHz for f < 1 GHz; VBW=3 * RBW; Sweep = auto; Detector function = peak; Trace = max hold.
	▪ Set RBW = 1 MHz, VBW= 3MHz for f ≥ 1 GHz for peak measurement. For average measurement, refer as 1.1.4.
▪ KDB 414788 Open-Field Test Sites and Chamber Correlation Justification.	
	▪ Based on FCC 15.31(f)(2): measurements may be performed at a distance closer than that specified in regulations; however, an attempt should be made to avoid making measurements in the near field.
	▪ Open-field site and chamber correlation testing had been performed and chamber measured test result is the worst case test result.

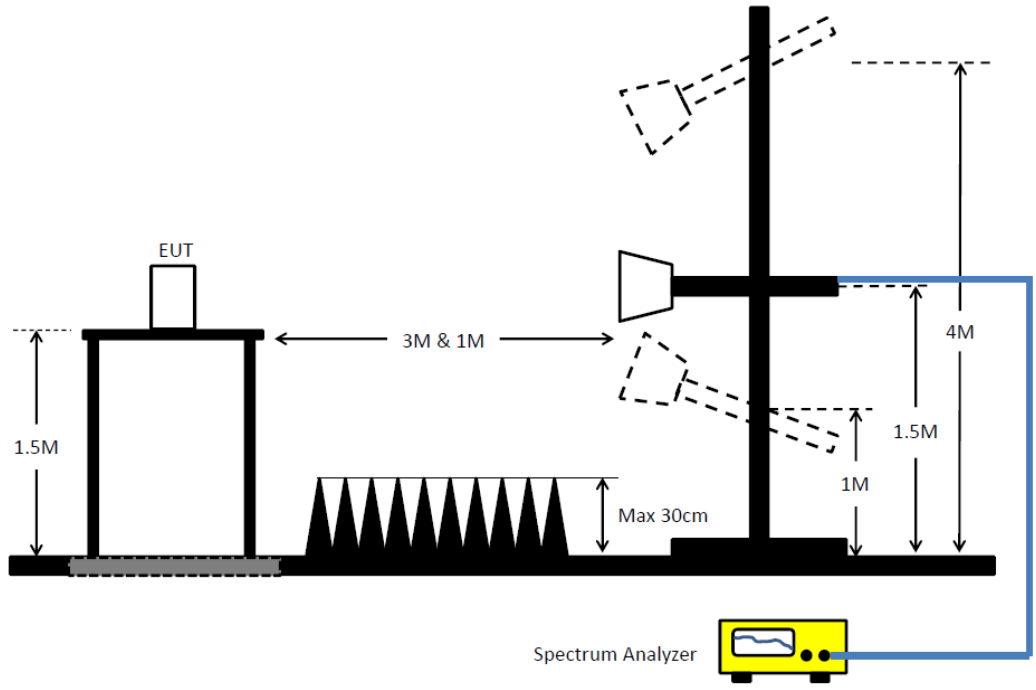
3.6.4 Measurement Results Calculation

The measured Level is calculated using:
Corrected Reading: Raw(Read Level) + AF(Antenna Factor) + CL(Cable Loss) - PA(Preamp Factor)

3.6.5 Test Setup

Emissions in Restricted Frequency Bands
9kHz ~30MHz

30MHz~1GHz


Above 1GHz



3.6.6 Test Result of Emissions in Restricted Frequency Bands (Below 30MHz)

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

3.6.7 Test Result of Emissions in Restricted Frequency Bands

Refer as Appendix F

4 Test Equipment and Calibration Data

Instrument for AC Conduction

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
EMI Test Receiver	R&S	ESR	102051	9kHz ~ 3.6GHz	16/May/2023	15/May/2024
Two-Line V-Network	R&S	ENV 216	101295	9kHz ~ 30MHz	05/Feb/2024	04/Feb/2025
RF Cable 5m	TITAN	TITAN	CO04-cable-01	9 kHz~200MHz	27/Feb/2024	26/Feb/2025
Impuls Begrenzer Pulse Limiter	SCHWARZBECK	VTSD 9561-F	9561-F041	9kHz ~ 30MHz	18/Oct/2023	17/Oct/2024
Software	Sporton	SENSE-EMI	V5.11.3	-	NCR	NCR

NCR: No Calibration Required

Instrument for Conducted Test

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Signal Analyzer	R&S	FSV 40	101515	9kHz~40GHz	14/Feb/2023	13/Feb/2024
SMB100A Signal Generator	R&S	SMB100A	181147	100kHz~40GHz	20/Oct/2023	19/Oct/2024
Power Meter	Anritsu	ML2495A	1517010	300MHz~40GHz	14/Dec/2022	13/Dec/2023
Pulse Sensor	Anritsu	MA2411B	1339407	300MHz~40GHz	14/Dec/2022	13/Dec/2023
SENSE-15247_DTS	Sporton	V5.11.14	N/A	N/A	N/A	N/A

Instrument for Radiated Test

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH02-HY	30MHz~1GHz 3m	29/Jul/2023	28/Jul/2024
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH02-HY	1GHz~18GHz 3m	28/Jul/2023	27/Jul/2024
EMI Test Receiver	R&S	ESR	102052	9kHz~3.6GHz	26/May/2023	25/May/2024
Signal Analyzer	R&S	FSP 40	100593	9kHz~40GHz	17/Mar/2023	16/Mar/2024
Loop Antenna	TESEQ	HLA 6120	31244	9kHz~30MHz	23/Mar/2023	22/Mar/2024
Bilog Antenna & 5dB Attenuator	SCHAFFNER / MTJ	CBL 6112B / MTJ6102-05	2723/2	30MHz~1GHz	27/Aug/2023	26/Aug/2024
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	02268	1GHz~18GHz	23/Sep/2023	22/Sep/2024
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	01248	18GHz~40GHz	21/Aug/2023	20/Aug/2024
RF Cable	MVE	400LL+SN 200207	03CH02-cable-02	9kHz~30MHz	19/Dec/2023	18/Dec/2024
RF Cable	MVE	400LL+SN 200207	03CH02-cable-02	30MHz~1GHz	19/Dec/2023	18/Dec/2024
RF Cable-R03m	HUBER+SUHNER	SUCOFLEX104	03CH02-cable-01	1GHz~40GHz	10/Feb/2023	09/Feb/2024
Amplifier	Aglient	8447D	2944A11149	100kHz~1.3GHz	27/Jun/2023	26/Jun/2024
Microwave Preamplifier	Agilent	8449B	3008A02373	1GHz~26.5GHz	24/Oct/2023	23/Oct/2024
Amplifier	EM	EM18G40GA	060874	18GHz ~40GHz	18/Aug/2023	17/Aug/2024
SENSE-15247_DTS	Sporton	V5.11.11	N/A	N/A	N/A	N/A

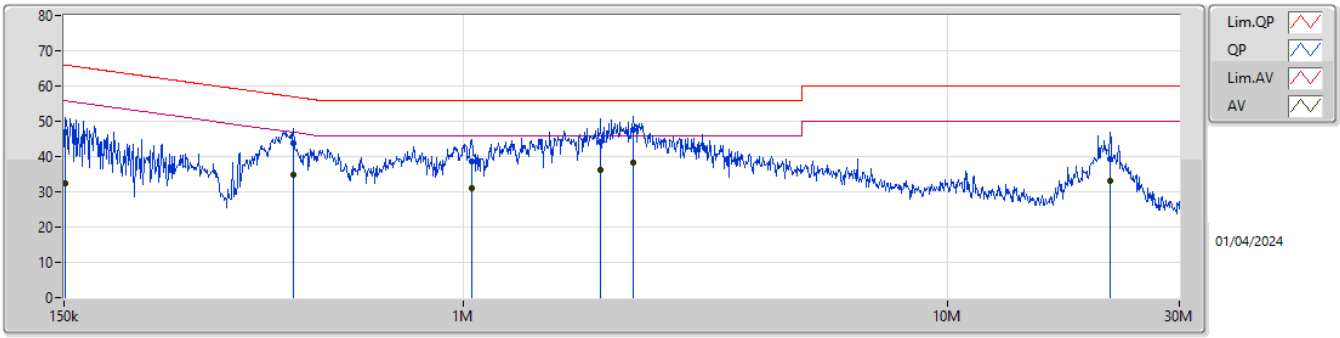
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	AV	2.238M	38.33	46.00	-7.67	Line

Result

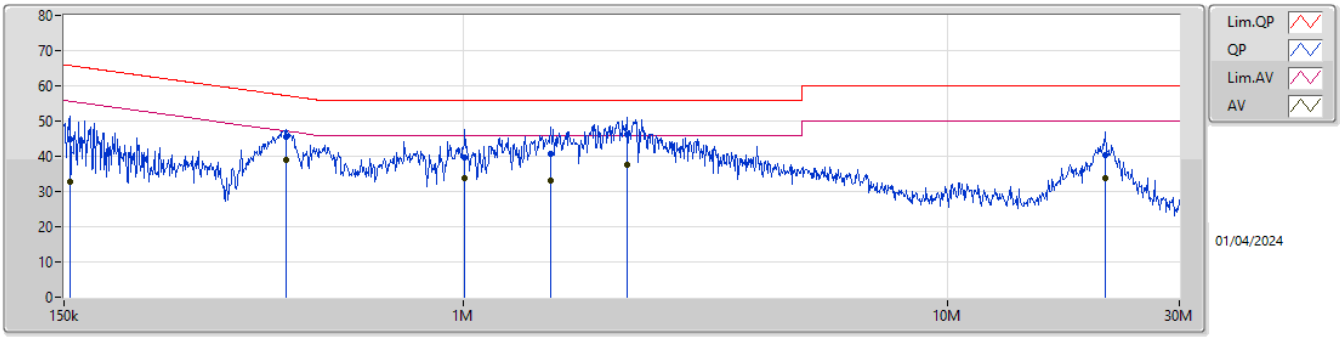
Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition	Comments
Mode 1	Pass	QP	151.202k	46.93	65.92	-18.99	Line	-
Mode 1	Pass	AV	151.202k	32.36	55.92	-23.56	Line	-
Mode 1	Pass	QP	446.062k	43.64	56.96	-13.32	Line	-
Mode 1	Pass	AV	446.062k	34.78	46.96	-12.18	Line	-
Mode 1	Pass	QP	1.04M	38.73	56.00	-17.27	Line	-
Mode 1	Pass	AV	1.04M	31.12	46.00	-14.88	Line	-
Mode 1	Pass	QP	1.923M	44.13	56.00	-11.87	Line	-
Mode 1	Pass	AV	1.923M	36.37	46.00	-9.63	Line	-
Mode 1	Pass	QP	2.238M	47.52	56.00	-8.48	Line	-
Mode 1	Pass	AV	2.238M	38.33	46.00	-7.67	Line	-
Mode 1	Pass	QP	21.605M	39.42	60.00	-20.58	Line	-
Mode 1	Pass	AV	21.605M	33.14	50.00	-16.86	Line	-
Mode 1	Pass	QP	154.251k	44.87	65.77	-20.90	Neutral	-
Mode 1	Pass	AV	154.251k	32.65	55.77	-23.12	Neutral	-
Mode 1	Pass	QP	432.041k	45.68	57.20	-11.52	Neutral	-
Mode 1	Pass	AV	432.041k	39.05	47.20	-8.15	Neutral	-
Mode 1	Pass	QP	1.007M	39.78	56.00	-16.22	Neutral	-
Mode 1	Pass	AV	1.007M	33.89	46.00	-12.11	Neutral	-
Mode 1	Pass	QP	1.513M	40.59	56.00	-15.41	Neutral	-
Mode 1	Pass	AV	1.513M	33.01	46.00	-12.99	Neutral	-
Mode 1	Pass	QP	2.176M	46.23	56.00	-9.77	Neutral	-
Mode 1	Pass	AV	2.176M	37.54	46.00	-8.46	Neutral	-
Mode 1	Pass	QP	21.094M	40.20	60.00	-19.80	Neutral	-
Mode 1	Pass	AV	21.094M	33.88	50.00	-16.12	Neutral	-

Conducted Emissions at Powerline_Mode 1



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	151.202k	46.93	65.92	-18.99	19.44	Line	-	27.49	9.61	0.07	9.76
AV	151.202k	32.36	55.92	-23.56	19.44	Line	-	12.92	9.61	0.07	9.76
QP	446.062k	43.64	56.96	-13.32	19.49	Line	-	24.15	9.61	0.12	9.76
AV	446.062k	34.78	46.96	-12.18	19.49	Line	-	15.29	9.61	0.12	9.76
QP	1.04M	38.73	56.00	-17.27	19.50	Line	-	19.23	9.61	0.09	9.80
AV	1.04M	31.12	46.00	-14.88	19.50	Line	-	11.62	9.61	0.09	9.80
QP	1.923M	44.13	56.00	-11.87	19.53	Line	-	24.60	9.62	0.11	9.80
AV	1.923M	36.37	46.00	-9.63	19.53	Line	-	16.84	9.62	0.11	9.80
QP	2.238M	47.52	56.00	-8.48	19.52	Line	-	28.00	9.62	0.10	9.80
AV	2.238M	38.33	46.00	-7.67	19.52	Line	-	18.81	9.62	0.10	9.80
QP	21.605M	39.42	60.00	-20.58	19.53	Line	-	19.89	9.57	0.12	9.84
AV	21.605M	33.14	50.00	-16.86	19.53	Line	-	13.61	9.57	0.12	9.84

Conducted Emissions at Powerline_Mode 1



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	154.251k	44.87	65.77	-20.90	19.44	Neutral	-	25.43	9.62	0.07	9.75
AV	154.251k	32.65	55.77	-23.12	19.44	Neutral	-	13.21	9.62	0.07	9.75
QP	432.041k	45.68	57.20	-11.52	19.49	Neutral	-	26.19	9.61	0.12	9.76
AV	432.041k	39.05	47.20	-8.15	19.49	Neutral	-	19.56	9.61	0.12	9.76
QP	1.007M	39.78	56.00	-16.22	19.50	Neutral	-	20.28	9.61	0.09	9.80
AV	1.007M	33.89	46.00	-12.11	19.50	Neutral	-	14.39	9.61	0.09	9.80
QP	1.513M	40.59	56.00	-15.41	19.52	Neutral	-	21.07	9.62	0.10	9.80
AV	1.513M	33.01	46.00	-12.99	19.52	Neutral	-	13.49	9.62	0.10	9.80
QP	2.176M	46.23	56.00	-9.77	19.53	Neutral	-	26.70	9.62	0.11	9.80
AV	2.176M	37.54	46.00	-8.46	19.53	Neutral	-	18.01	9.62	0.11	9.80
QP	21.094M	40.20	60.00	-19.80	19.65	Neutral	-	20.55	9.70	0.12	9.83
AV	21.094M	33.88	50.00	-16.12	19.65	Neutral	-	14.23	9.70	0.12	9.83

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
2.4-2.4835GHz	-	-	-	-	-
Zigbee	1.85M	2.243M	2M24G1D	1.7M	2.236M

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

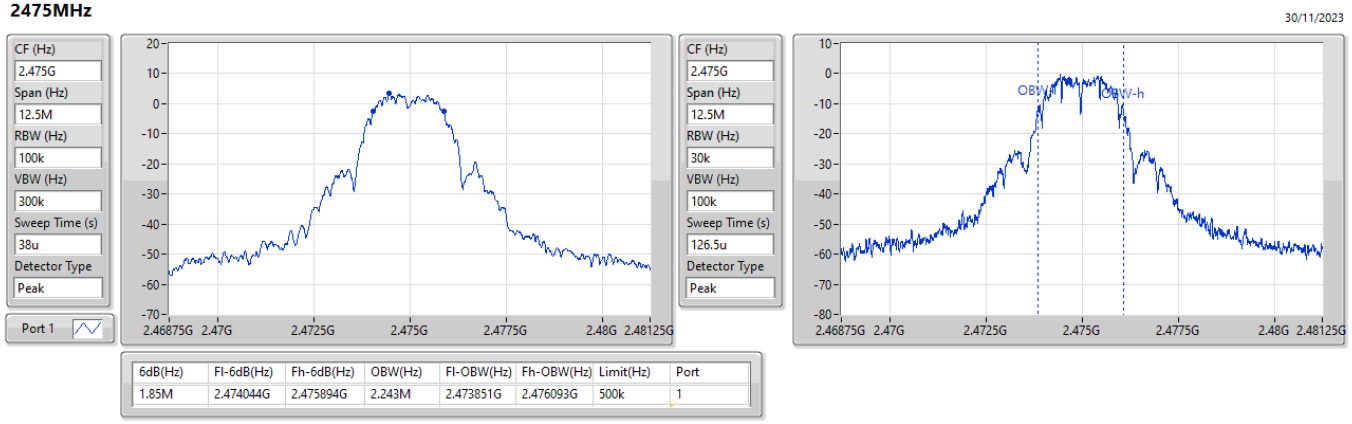
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
Zigbee	-	-	-	-
2405MHz	Pass	500k	1.781M	2.236M
2440MHz	Pass	500k	1.788M	2.243M
2475MHz	Pass	500k	1.85M	2.243M
2480MHz	Pass	500k	1.7M	2.243M

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

2.4-2.4835GHz_Zigbee **EBW**

2475MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.85M	2.474044G	2.475894G	2.243M	2.473851G	2.476093G	500k	1

Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
Zigbee	9.51	0.00893

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Total Power (dBm)	Power Limit (dBm)
Zigbee	-	-	-	-	-
2405MHz	Pass	4.71	9.43	9.43	30.00
2440MHz	Pass	4.71	9.49	9.49	30.00
2475MHz	Pass	4.71	9.51	9.51	30.00
2480MHz	Pass	4.71	9.19	9.19	30.00

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

Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
Zigbee	-7.22

RBW = 3kHz;

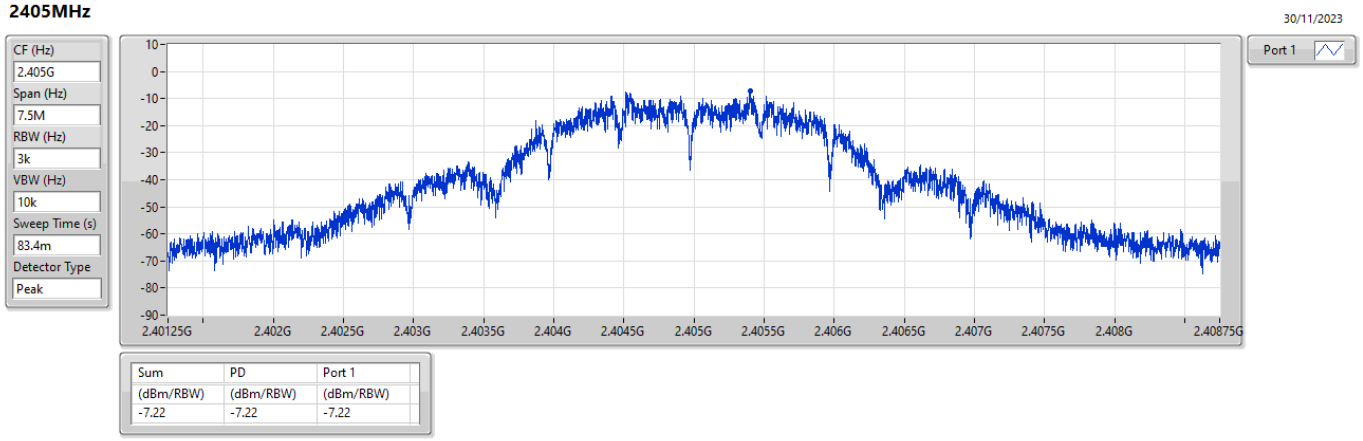
Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
Zigbee	-	-	-	-	-
2405MHz	Pass	4.71	-7.22	-7.22	8.00
2440MHz	Pass	4.71	-8.43	-8.43	8.00
2475MHz	Pass	4.71	-8.73	-8.73	8.00
2480MHz	Pass	4.71	-8.00	-8.00	8.00

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

2.4-2.4835GHz_Zigbee **PSD**

2405MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-7.22	-7.22	-7.22

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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zigbee	Pass	2.47532G	5.72	-24.28	2.05805G	-55.22	2.39992G	-49.25	2.4G	-48.26	2.50066G	-52.48	16.40634G	-41.30	1

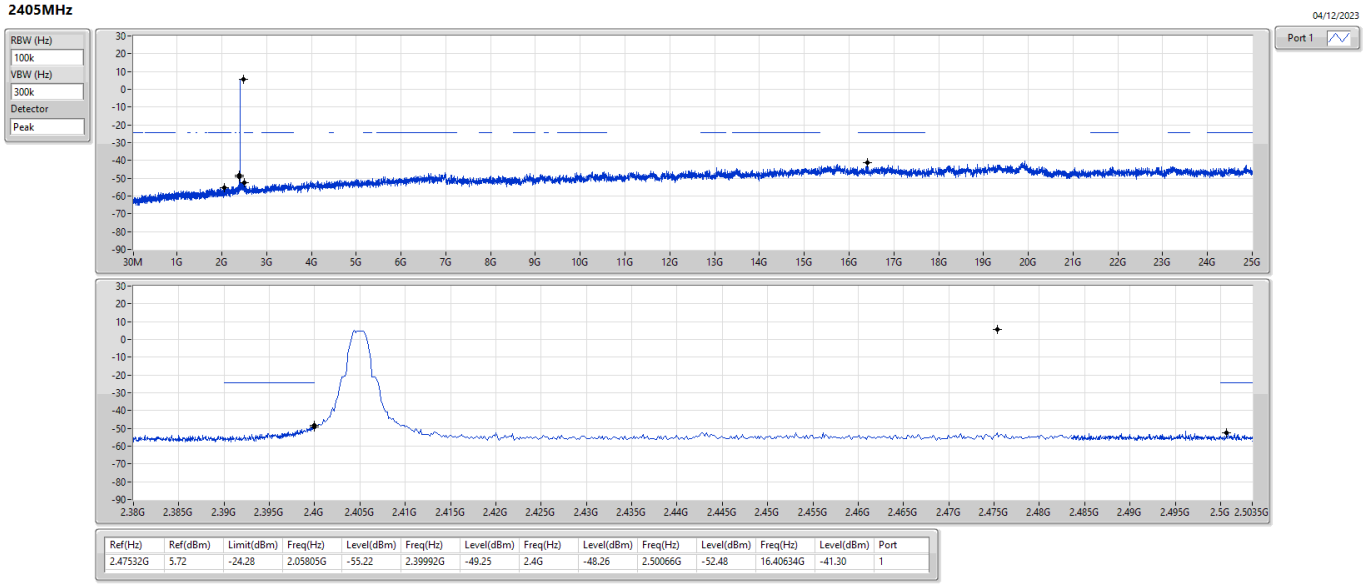
Result

Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
Zigbee	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2405MHz	Pass	2.47532G	5.72	-24.28	2.05805G	-55.22	2.39992G	-49.25	2.4G	-48.26	2.50066G	-52.48	16.40634G	-41.30	1
2440MHz	Pass	2.47532G	5.72	-24.28	2.13795G	-54.82	2.3918G	-53.84	2.4G	-55.91	2.5035G	-53.78	16.71285G	-42.46	1
2475MHz	Pass	2.47532G	5.72	-24.28	2.30598G	-53.59	2.39072G	-53.81	2.4G	-54.78	2.5035G	-53.52	16.89564G	-41.79	1
2480MHz	Pass	2.47532G	5.72	-24.28	2.30245G	-54.18	2.39564G	-53.66	2.4G	-55.81	2.50058G	-53.45	15.0228G	-42.30	1

2.4-2.4835GHz_Zigbee

CSENdB

2405MHz



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
2.47532G	5.72	-24.28	2.05805G	-55.22	2.39992G	-49.25	2.4G	-48.26	2.50066G	-52.48	16.40634G	-41.30	1

Summary

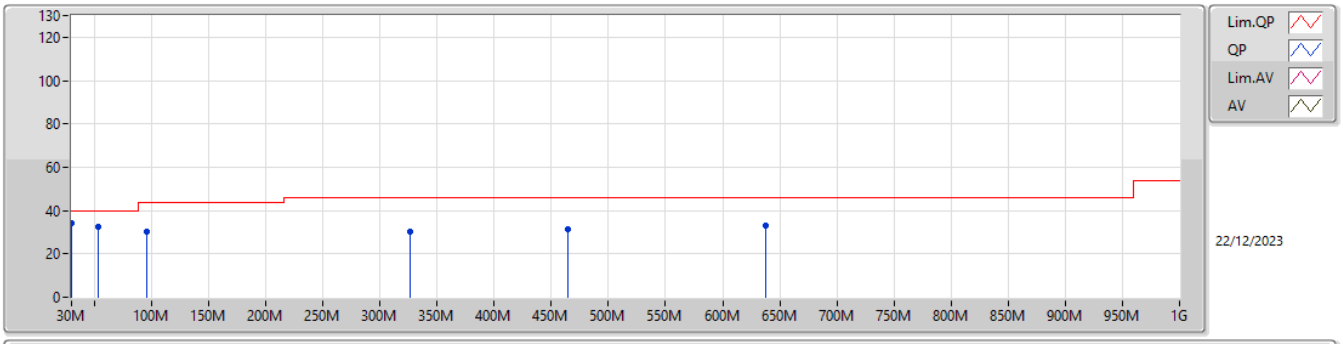
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-
Zigbee	Pass	PK	30M	33.98	40.00	-6.02	3	Vertical	360	1.00

Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
Zigbee	-	-	-	-	-	-	-	-	-	-
2440MHz	Pass	PK	30M	33.98	40.00	-6.02	3	Vertical	360	1.00
2440MHz	Pass	PK	53.28M	32.51	40.00	-7.49	3	Vertical	360	1.00
2440MHz	Pass	PK	95.96M	30.03	43.50	-13.47	3	Vertical	360	1.00
2440MHz	Pass	PK	326.82M	30.02	46.00	-15.98	3	Vertical	360	1.00
2440MHz	Pass	PK	464.56M	31.48	46.00	-14.52	3	Vertical	360	1.00
2440MHz	Pass	PK	637.22M	33.02	46.00	-12.98	3	Vertical	360	1.00
2440MHz	Pass	PK	33.88M	28.78	40.00	-11.22	3	Horizontal	0	1.00
2440MHz	Pass	PK	49.4M	29.19	40.00	-10.81	3	Horizontal	0	1.00
2440MHz	Pass	PK	84.32M	28.77	40.00	-11.23	3	Horizontal	0	1.00
2440MHz	Pass	PK	278.32M	29.54	46.00	-16.46	3	Horizontal	0	1.00
2440MHz	Pass	PK	313.24M	30.41	46.00	-15.59	3	Horizontal	0	1.00
2440MHz	Pass	PK	464.56M	31.64	46.00	-14.36	3	Horizontal	0	1.00

2.4-2.4835GHz_Zigbee

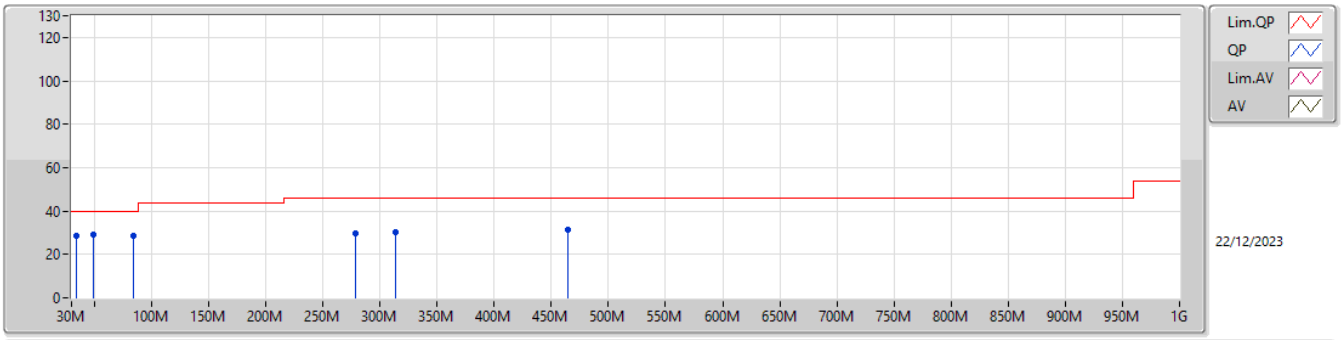
2440MHz_PoE



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	(dBuV)	(dB)	(dB)	(dB)
PK	30M	33.98	40.00	-6.02	-3.19	3	Vertical	360	1.00	37.17	22.98	1.23	27.40
PK	53.28M	32.51	40.00	-7.49	-13.06	3	Vertical	360	1.00	45.57	12.42	1.59	27.07
PK	95.96M	30.03	43.50	-13.47	-10.58	3	Vertical	360	1.00	40.61	15.29	1.96	27.83
PK	326.82M	30.02	46.00	-15.98	-4.91	3	Vertical	360	1.00	34.93	18.77	3.77	27.45
PK	464.56M	31.48	46.00	-14.52	-1.37	3	Vertical	360	1.00	32.85	22.31	4.67	28.35
PK	637.22M	33.02	46.00	-12.98	1.26	3	Vertical	360	1.00	31.76	24.11	5.71	28.56

2.4-2.4835GHz_Zigbee

2440MHz_PoE



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	(dBuV)	(dB)	(dB)	(dB)
PK	33.88M	28.78	40.00	-11.22	-4.92	3	Horizontal	0	1.00	33.70	20.88	1.28	27.08
PK	49.4M	29.19	40.00	-10.81	-11.58	3	Horizontal	0	1.00	40.77	13.79	1.51	26.88
PK	84.32M	28.77	40.00	-11.23	-13.17	3	Horizontal	0	1.00	41.94	12.82	1.81	27.80
PK	278.32M	29.54	46.00	-16.46	-5.78	3	Horizontal	0	1.00	35.32	18.00	3.47	27.25
PK	313.24M	30.41	46.00	-15.59	-5.00	3	Horizontal	0	1.00	35.41	18.65	3.71	27.36
PK	464.56M	31.64	46.00	-14.36	-1.37	3	Horizontal	0	1.00	33.01	22.31	4.67	28.35

Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-
Zigbee	Pass	AV	2.4835G	53.87	54.00	-0.13	3	Vertical	166	2.35

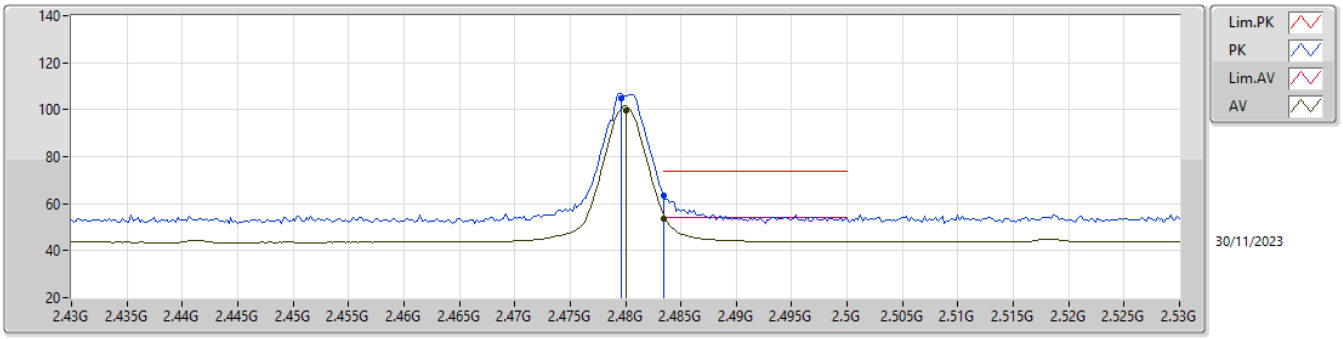
Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
Zigbee	-	-	-	-	-	-	-	-	-	-
2405MHz	Pass	AV	2.3662G	44.18	54.00	-9.82	3	Vertical	163	1.39
2405MHz	Pass	AV	2.405G	101.85	Inf	-Inf	3	Vertical	163	1.39
2405MHz	Pass	PK	2.3662G	55.87	74.00	-18.13	3	Vertical	163	1.39
2405MHz	Pass	PK	2.4044G	106.79	Inf	-Inf	3	Vertical	163	1.39
2405MHz	Pass	AV	2.3614G	43.45	54.00	-10.55	3	Horizontal	187	1.30
2405MHz	Pass	AV	2.405G	86.82	Inf	-Inf	3	Horizontal	187	1.30
2405MHz	Pass	PK	2.3828G	55.38	74.00	-18.62	3	Horizontal	187	1.30
2405MHz	Pass	PK	2.4044G	91.79	Inf	-Inf	3	Horizontal	187	1.30
2405MHz	Pass	AV	4.81096G	30.66	54.00	-23.34	3	Vertical	356	1.25
2405MHz	Pass	PK	4.81085G	43.10	74.00	-30.90	3	Vertical	356	1.25
2405MHz	Pass	AV	4.81101G	28.95	54.00	-25.05	3	Horizontal	31	1.50
2405MHz	Pass	PK	4.8112G	42.30	74.00	-31.70	3	Horizontal	31	1.50
2440MHz	Pass	AV	2.3576G	43.52	54.00	-10.48	3	Vertical	198	1.36
2440MHz	Pass	AV	2.44G	102.63	Inf	-Inf	3	Vertical	198	1.36
2440MHz	Pass	AV	2.4916G	43.95	54.00	-10.05	3	Vertical	198	1.36
2440MHz	Pass	PK	2.346G	54.87	74.00	-19.13	3	Vertical	198	1.36
2440MHz	Pass	PK	2.4404G	107.58	Inf	-Inf	3	Vertical	198	1.36
2440MHz	Pass	PK	2.4848G	55.53	74.00	-18.47	3	Vertical	198	1.36
2440MHz	Pass	AV	2.3604G	43.45	54.00	-10.55	3	Horizontal	222	1.84
2440MHz	Pass	AV	2.44G	86.82	Inf	-Inf	3	Horizontal	222	1.84
2440MHz	Pass	AV	2.5G	43.83	54.00	-10.17	3	Horizontal	222	1.84
2440MHz	Pass	PK	2.354G	55.29	74.00	-18.71	3	Horizontal	222	1.84
2440MHz	Pass	PK	2.4396G	91.81	Inf	-Inf	3	Horizontal	222	1.84
2440MHz	Pass	PK	2.4948G	55.35	74.00	-18.65	3	Horizontal	222	1.84
2440MHz	Pass	AV	4.87892G	28.14	54.00	-25.86	3	Vertical	0	1.50
2440MHz	Pass	AV	7.32143G	37.52	54.00	-16.48	3	Vertical	311	1.57
2440MHz	Pass	PK	4.87991G	42.02	74.00	-31.98	3	Vertical	0	1.50
2440MHz	Pass	PK	7.32161G	49.52	74.00	-24.48	3	Vertical	311	1.57
2440MHz	Pass	AV	4.88094G	28.53	54.00	-25.47	3	Horizontal	57	1.50
2440MHz	Pass	AV	7.31834G	34.80	54.00	-19.20	3	Horizontal	1	1.50
2440MHz	Pass	PK	4.87888G	41.88	74.00	-32.12	3	Horizontal	57	1.50
2440MHz	Pass	PK	7.31848G	48.05	74.00	-25.95	3	Horizontal	1	1.50
2475MHz	Pass	AV	2.475G	102.23	Inf	-Inf	3	Vertical	177	1.34
2475MHz	Pass	AV	2.4835G	44.44	54.00	-9.56	3	Vertical	177	1.34
2475MHz	Pass	PK	2.4744G	107.17	Inf	-Inf	3	Vertical	177	1.34
2475MHz	Pass	PK	2.4844G	55.55	74.00	-18.45	3	Vertical	177	1.34
2475MHz	Pass	AV	2.475G	87.40	Inf	-Inf	3	Horizontal	350	1.02
2475MHz	Pass	AV	2.4986G	43.84	54.00	-10.16	3	Horizontal	350	1.02
2475MHz	Pass	PK	2.4744G	92.23	Inf	-Inf	3	Horizontal	350	1.02
2475MHz	Pass	PK	2.495G	55.59	74.00	-18.41	3	Horizontal	350	1.02
2475MHz	Pass	AV	4.94887G	28.64	54.00	-25.36	3	Vertical	343	2.44
2475MHz	Pass	AV	7.42344G	38.16	54.00	-15.84	3	Vertical	306	1.53
2475MHz	Pass	PK	4.95026G	42.24	74.00	-31.76	3	Vertical	343	2.44
2475MHz	Pass	PK	7.42333G	50.41	74.00	-23.59	3	Vertical	306	1.53
2475MHz	Pass	AV	4.94892G	28.56	54.00	-25.44	3	Horizontal	56	2.93
2475MHz	Pass	AV	7.42654G	35.10	54.00	-18.90	3	Horizontal	323	1.64
2475MHz	Pass	PK	4.94894G	42.34	74.00	-31.66	3	Horizontal	56	2.93
2475MHz	Pass	PK	7.42318G	48.27	74.00	-25.73	3	Horizontal	323	1.64
2480MHz	Pass	AV	2.48G	99.79	Inf	-Inf	3	Vertical	166	2.35
2480MHz	Pass	AV	2.4835G	53.87	54.00	-0.13	3	Vertical	166	2.35
2480MHz	Pass	PK	2.4796G	104.66	Inf	-Inf	3	Vertical	166	2.35
2480MHz	Pass	PK	2.4835G	63.25	74.00	-10.75	3	Vertical	166	2.35
2480MHz	Pass	AV	2.48G	86.74	Inf	-Inf	3	Horizontal	347	1.01
2480MHz	Pass	AV	2.4835G	45.35	54.00	-8.65	3	Horizontal	347	1.01
2480MHz	Pass	PK	2.4796G	91.68	Inf	-Inf	3	Horizontal	347	1.01
2480MHz	Pass	PK	2.484G	55.83	74.00	-18.17	3	Horizontal	347	1.01
2480MHz	Pass	AV	4.96098G	29.17	54.00	-24.83	3	Vertical	330	2.34
2480MHz	Pass	AV	7.43835G	37.58	54.00	-16.42	3	Vertical	302	1.56
2480MHz	Pass	PK	4.95908G	42.40	74.00	-31.60	3	Vertical	330	2.34
2480MHz	Pass	PK	7.43819G	49.66	74.00	-24.34	3	Vertical	302	1.56

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
2480MHz	Pass	AV	4.96095G	29.29	54.00	-24.71	3	Horizontal	348	2.85
2480MHz	Pass	AV	7.44148G	36.35	54.00	-17.65	3	Horizontal	290	1.80
2480MHz	Pass	PK	4.95912G	42.19	74.00	-31.81	3	Horizontal	348	2.85
2480MHz	Pass	PK	7.43826G	48.35	74.00	-25.65	3	Horizontal	290	1.80

2.4-2.4835GHz_Zigbee

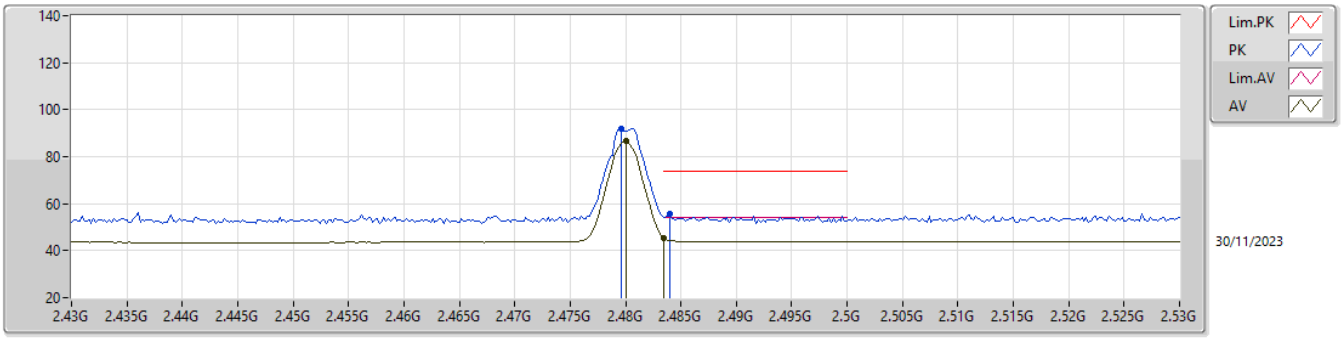
2480MHz_TX



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	(dBuV)	(dB)	(dB)	(dB)
AV	2.48G	99.79	Inf	-Inf	31.81	3	Vertical	166	2.35	67.98	27.50	4.31	-
AV	2.4835G	53.87	54.00	-0.13	31.85	3	Vertical	166	2.35	22.02	27.54	4.31	-
PK	2.4796G	104.66	Inf	-Inf	31.81	3	Vertical	166	2.35	72.85	27.50	4.31	-
PK	2.4835G	63.25	74.00	-10.75	31.85	3	Vertical	166	2.35	31.40	27.54	4.31	-

2.4-2.4835GHz_Zigbee

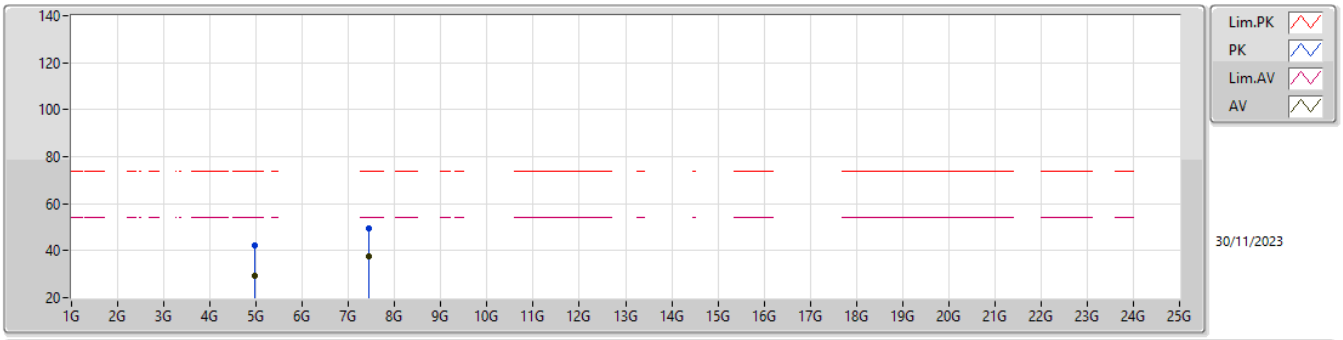
2480MHz_TX



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	(dBuV)	(dB)	(dB)	(dB)
AV	2.48G	86.74	Inf	-Inf	31.81	3	Horizontal	347	1.01	54.93	27.50	4.31	-
AV	2.4835G	45.35	54.00	-8.65	31.85	3	Horizontal	347	1.01	13.50	27.54	4.31	-
PK	2.4796G	91.68	Inf	-Inf	31.81	3	Horizontal	347	1.01	59.87	27.50	4.31	-
PK	2.484G	55.83	74.00	-18.17	31.85	3	Horizontal	347	1.01	23.98	27.54	4.31	-

2.4-2.4835GHz_Zigbee

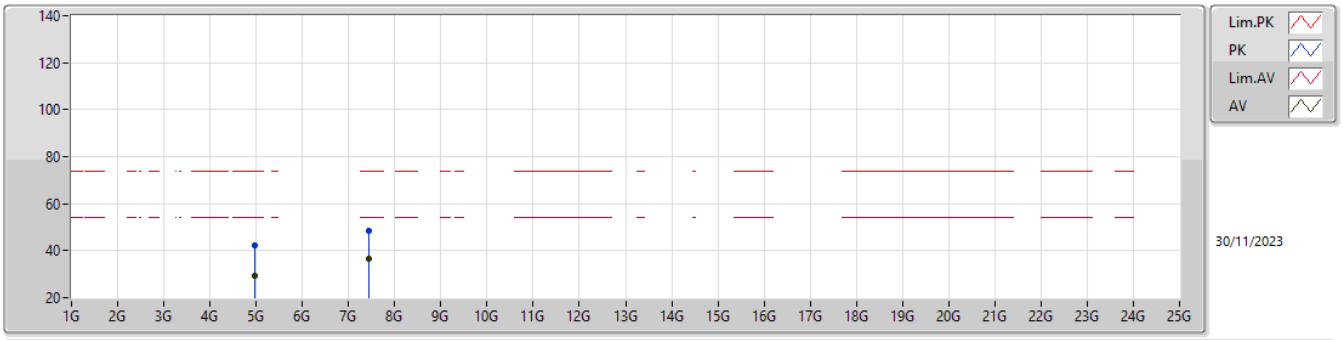
2480MHz_TX



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	(dBuV)	(dB)	(dB)	(dB)
AV	4.96098G	29.17	54.00	-24.83	4.43	3	Vertical	330	2.34	24.74	32.94	6.27	34.78
AV	7.43835G	37.58	54.00	-16.42	9.00	3	Vertical	302	1.56	28.58	36.12	7.88	35.00
PK	4.95908G	42.40	74.00	-31.60	4.43	3	Vertical	330	2.34	37.97	32.94	6.27	34.78
PK	7.43819G	49.66	74.00	-24.34	9.00	3	Vertical	302	1.56	40.66	36.12	7.88	35.00

2.4-2.4835GHz_Zigbee

2480MHz_TX



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	(dBuV)	(dB)	(dB)	(dB)
AV	4.96095G	29.29	54.00	-24.71	4.43	3	Horizontal	348	2.85	24.86	32.94	6.27	34.78
AV	7.44148G	36.35	54.00	-17.65	9.01	3	Horizontal	290	1.80	27.34	36.12	7.89	35.00
PK	4.95912G	42.19	74.00	-31.81	4.43	3	Horizontal	348	2.85	37.76	32.94	6.27	34.78
PK	7.43826G	48.35	74.00	-25.65	9.00	3	Horizontal	290	1.80	39.35	36.12	7.88	35.00

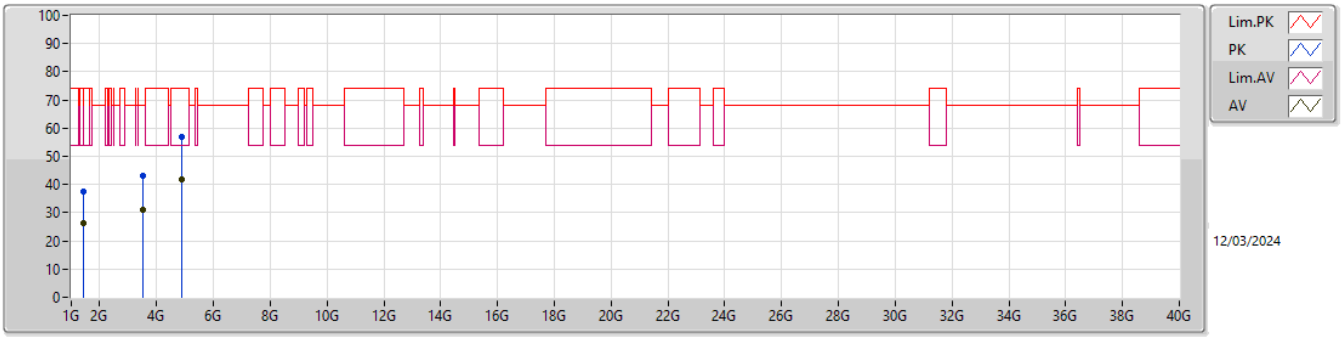
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition
Mode 1	Pass	AV	4.87394G	41.82	54.00	-12.18	Vertical
Mode 2	Pass	AV	4.874G	42.01	54.00	-11.99	Vertical
Mode 3	Pass	AV	7.31014G	42.93	54.00	-11.07	Vertical
Mode 4	Pass	AV	4.87397G	43.09	54.00	-10.91	Vertical

Result

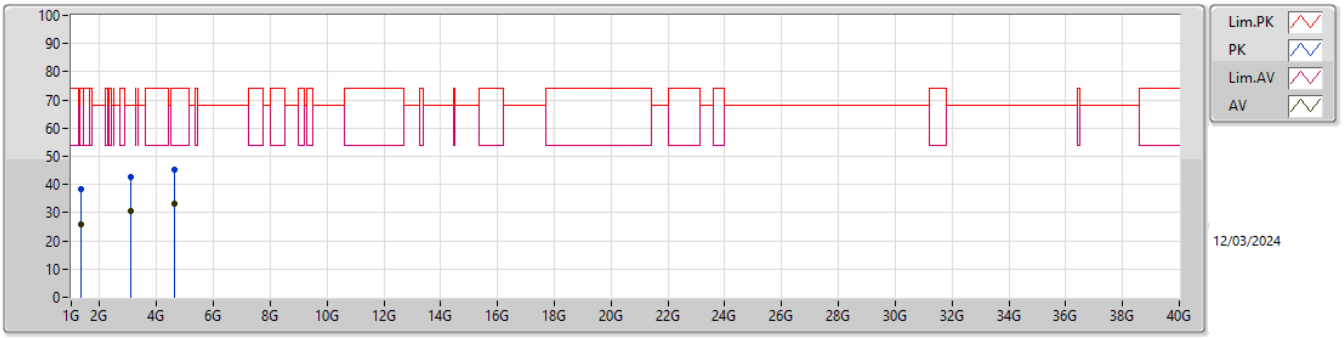
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
Mode 1	Pass	AV	1.41266G	26.31	54.00	-27.69	3	Vertical	95	2.64
Mode 1	Pass	AV	3.53248G	30.86	68.20	-37.34	3	Vertical	358	2.00
Mode 1	Pass	AV	4.87394G	41.82	54.00	-12.18	3	Vertical	0	2.17
Mode 1	Pass	PK	1.41422G	37.45	74.00	-36.55	3	Vertical	95	2.64
Mode 1	Pass	PK	3.53281G	42.94	68.20	-25.26	3	Vertical	358	2.00
Mode 1	Pass	PK	4.874G	56.99	74.00	-17.01	3	Vertical	0	2.17
Mode 1	Pass	AV	1.32744G	25.99	54.00	-28.01	3	Horizontal	15	1.10
Mode 1	Pass	AV	3.09788G	30.81	68.20	-37.39	3	Horizontal	14	2.35
Mode 1	Pass	AV	4.61682G	33.16	54.00	-20.84	3	Horizontal	180	2.81
Mode 1	Pass	PK	1.3327G	38.45	74.00	-35.55	3	Horizontal	15	1.10
Mode 1	Pass	PK	3.0972G	42.77	68.20	-25.43	3	Horizontal	14	2.35
Mode 1	Pass	PK	4.6167G	45.09	74.00	-28.91	3	Horizontal	180	2.81
Mode 2	Pass	AV	1.24004G	26.17	68.20	-42.03	3	Vertical	201	2.19
Mode 2	Pass	AV	2.75358G	30.47	54.00	-23.53	3	Vertical	54	1.46
Mode 2	Pass	AV	4.874G	42.01	54.00	-11.99	3	Vertical	359	2.17
Mode 2	Pass	PK	1.24211G	37.86	68.20	-30.34	3	Vertical	201	2.19
Mode 2	Pass	PK	2.76174G	42.14	74.00	-31.86	3	Vertical	54	1.46
Mode 2	Pass	PK	4.874G	57.43	74.00	-16.57	3	Vertical	359	2.17
Mode 2	Pass	AV	1.32693G	25.99	54.00	-28.01	3	Horizontal	223	2.88
Mode 2	Pass	AV	3.21567G	30.74	68.20	-37.46	3	Horizontal	320	1.21
Mode 2	Pass	AV	4.99585G	35.36	54.00	-18.64	3	Horizontal	71	2.10
Mode 2	Pass	PK	1.3324G	38.60	74.00	-35.40	3	Horizontal	223	2.88
Mode 2	Pass	PK	3.22681G	42.15	68.20	-26.05	3	Horizontal	320	1.21
Mode 2	Pass	PK	5.00032G	46.78	74.00	-27.22	3	Horizontal	71	2.10
Mode 3	Pass	AV	1.59743G	26.59	54.00	-27.41	3	Vertical	36	2.86
Mode 3	Pass	AV	4.87388G	41.63	54.00	-12.37	3	Vertical	159	2.05
Mode 3	Pass	AV	7.31014G	42.93	54.00	-11.07	3	Vertical	312	1.60
Mode 3	Pass	PK	1.59767G	48.54	74.00	-25.46	3	Vertical	36	2.86
Mode 3	Pass	PK	4.874G	54.82	74.00	-19.18	3	Vertical	159	2.05
Mode 3	Pass	PK	7.30972G	58.51	74.00	-15.49	3	Vertical	312	1.60
Mode 3	Pass	AV	1.59469G	26.14	54.00	-27.86	3	Horizontal	168	2.59
Mode 3	Pass	AV	4.9392G	34.94	54.00	-19.06	3	Horizontal	54	1.07
Mode 3	Pass	AV	7.30913G	41.62	54.00	-12.38	3	Horizontal	14	1.48
Mode 3	Pass	PK	1.59673G	46.14	74.00	-27.86	3	Horizontal	168	2.59
Mode 3	Pass	PK	4.94097G	46.78	74.00	-27.22	3	Horizontal	54	1.07
Mode 3	Pass	PK	7.31134G	57.38	74.00	-16.62	3	Horizontal	14	1.48
Mode 4	Pass	AV	1.1981G	25.50	54.00	-28.50	3	Vertical	72	2.18
Mode 4	Pass	AV	3.59547G	30.43	68.20	-37.77	3	Vertical	305	1.50
Mode 4	Pass	AV	4.87397G	43.09	54.00	-10.91	3	Vertical	0	2.06
Mode 4	Pass	PK	1.19827G	39.22	74.00	-34.78	3	Vertical	72	2.18
Mode 4	Pass	PK	3.59459G	43.19	68.20	-25.01	3	Vertical	305	1.50
Mode 4	Pass	PK	4.87405G	58.46	74.00	-15.54	3	Vertical	0	2.06
Mode 4	Pass	AV	1.03488G	26.98	54.00	-27.02	3	Horizontal	48	1.50
Mode 4	Pass	AV	2.11151G	26.94	68.20	-41.26	3	Horizontal	222	1.50
Mode 4	Pass	AV	4.87407G	34.78	54.00	-19.22	3	Horizontal	308	1.36
Mode 4	Pass	PK	1.04446G	40.54	74.00	-33.46	3	Horizontal	48	1.50
Mode 4	Pass	PK	2.11147G	39.70	68.20	-28.50	3	Horizontal	222	1.50
Mode 4	Pass	PK	4.87423G	47.55	74.00	-26.45	3	Horizontal	308	1.36

Radiated Emissions above 1GHz_Mode 1



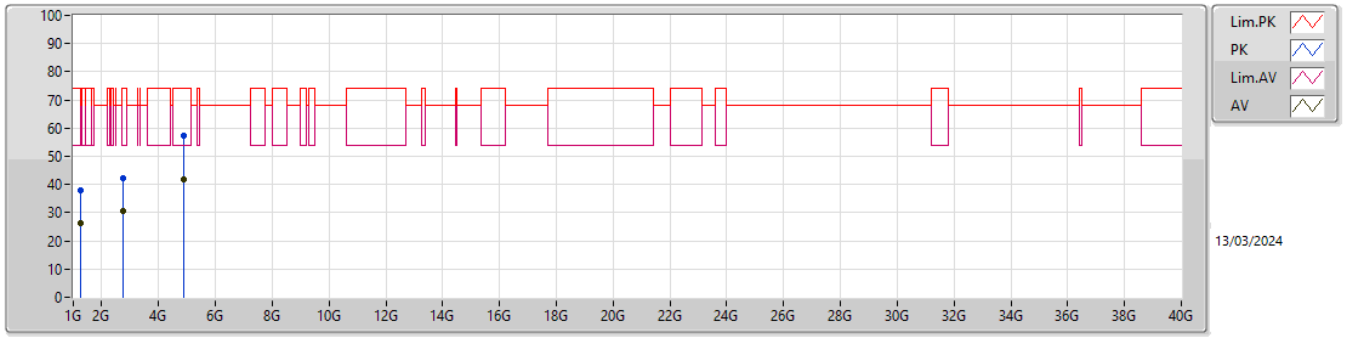
Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB/m)	(m)		(°)	(m)	(dBuV/m)	(dB/m)	(dB)	(dB)
AV	1.41266G	26.31	54.00	-27.69	-5.88	3	Vertical	95	2.64	32.19	25.80	3.43	35.11
AV	3.53248G	30.86	68.20	-37.34	-0.01	3	Vertical	358	2.00	30.87	29.30	5.67	34.98
AV	4.87394G	41.82	54.00	-12.18	4.28	3	Vertical	0	2.17	37.54	32.50	6.59	34.81
PK	1.41422G	37.45	74.00	-36.55	-5.88	3	Vertical	95	2.64	43.33	25.80	3.43	35.11
PK	3.53281G	42.94	68.20	-25.26	-0.01	3	Vertical	358	2.00	42.95	29.30	5.67	34.98
PK	4.874G	56.99	74.00	-17.01	4.28	3	Vertical	0	2.17	52.71	32.50	6.59	34.81

Radiated Emissions above 1GHz_Mode 1



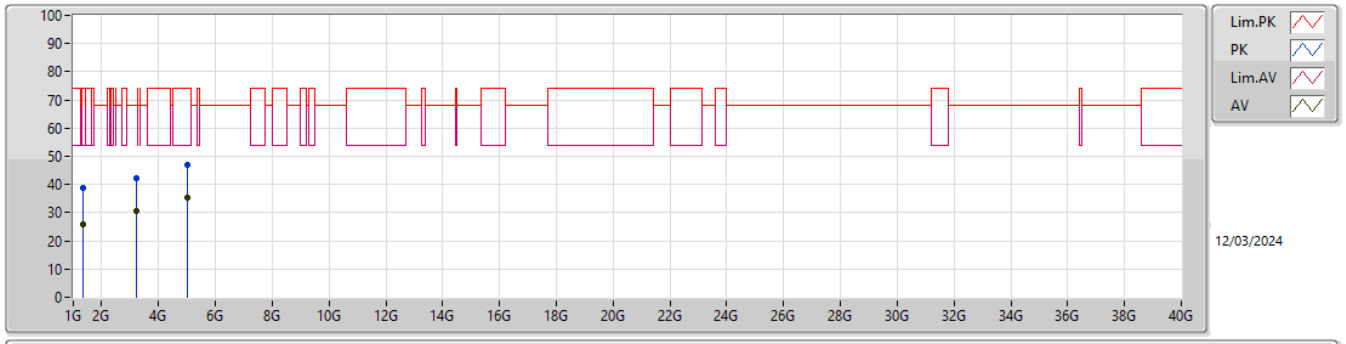
Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB/m)	(m)		(°)	(m)	(dBuV/m)	(dB/m)	(dB)	(dB)
AV	1.32744G	25.99	54.00	-28.01	-6.11	3	Horizontal	15	1.10	32.10	25.83	3.32	35.26
AV	3.09788G	30.81	68.20	-37.39	-0.28	3	Horizontal	14	2.35	31.09	29.50	5.25	35.03
AV	4.61682G	33.16	54.00	-20.84	3.04	3	Horizontal	180	2.81	30.12	31.53	6.39	34.88
PK	1.3327G	38.45	74.00	-35.55	-6.16	3	Horizontal	15	1.10	44.61	25.77	3.32	35.25
PK	3.0972G	42.77	68.20	-25.43	-0.29	3	Horizontal	14	2.35	43.06	29.49	5.25	35.03
PK	4.6167G	45.09	74.00	-28.91	3.07	3	Horizontal	180	2.81	42.02	31.55	6.40	34.88

Radiated Emissions above 1GHz_Mode 2



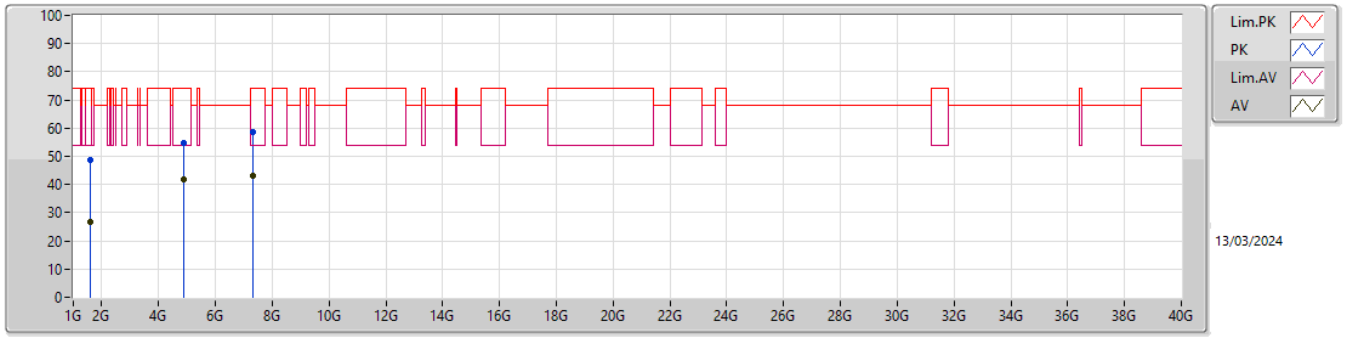
Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB/m)	(m)		(°)	(m)	(dBuV/m)	(dB/m)	(dB)	(dB)
AV	1.24004G	26.17	68.20	-42.03	-6.60	3	Vertical	201	2.19	32.77	25.60	3.20	35.40
AV	2.75358G	30.47	54.00	-23.53	-1.84	3	Vertical	54	1.46	32.31	28.24	4.93	35.01
AV	4.874G	42.01	54.00	-11.99	4.28	3	Vertical	359	2.17	37.73	32.50	6.59	34.81
PK	1.24211G	37.86	68.20	-30.34	-6.60	3	Vertical	201	2.19	44.46	25.60	3.20	35.40
PK	2.76174G	42.14	74.00	-31.86	-1.77	3	Vertical	54	1.46	43.91	28.30	4.94	35.01
PK	4.874G	57.43	74.00	-16.57	4.28	3	Vertical	359	2.17	53.15	32.50	6.59	34.81

Radiated Emissions above 1GHz_Mode 2



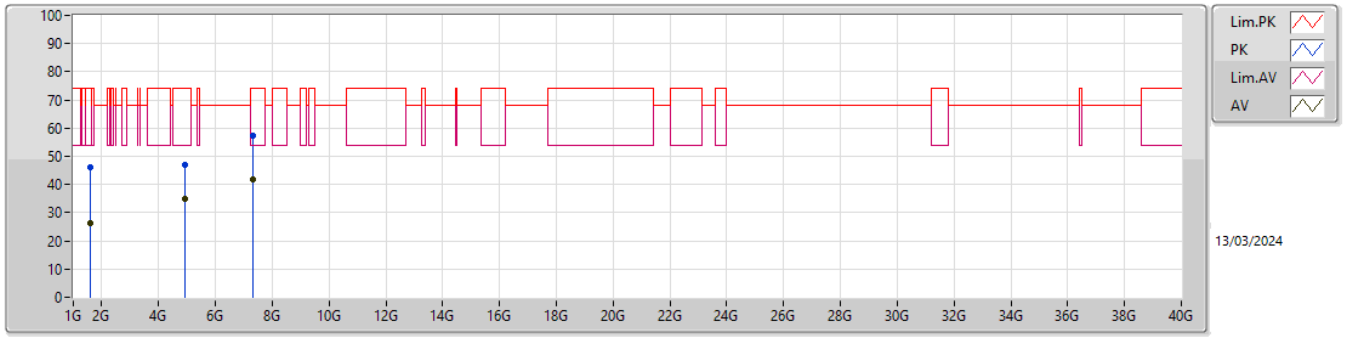
Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB/m)	(m)		(°)	(m)	(dBuV/m)	(dB/m)	(dB)	(dB)
AV	1.32693G	25.99	54.00	-28.01	-6.11	3	Horizontal	223	2.88	32.10	25.83	3.32	35.26
AV	3.21567G	30.74	68.20	-37.46	-0.03	3	Horizontal	320	1.21	30.77	29.64	5.35	35.02
AV	4.99585G	35.36	54.00	-18.64	5.03	3	Horizontal	71	2.10	30.33	33.08	6.72	34.77
PK	1.3324G	38.60	74.00	-35.40	-6.15	3	Horizontal	223	2.88	44.75	25.78	3.32	35.25
PK	3.22681G	42.15	68.20	-26.05	-0.07	3	Horizontal	320	1.21	42.22	29.59	5.36	35.02
PK	5.00032G	46.78	74.00	-27.22	5.05	3	Horizontal	71	2.10	41.73	33.10	6.72	34.77

Radiated Emissions above 1GHz_Mode 3



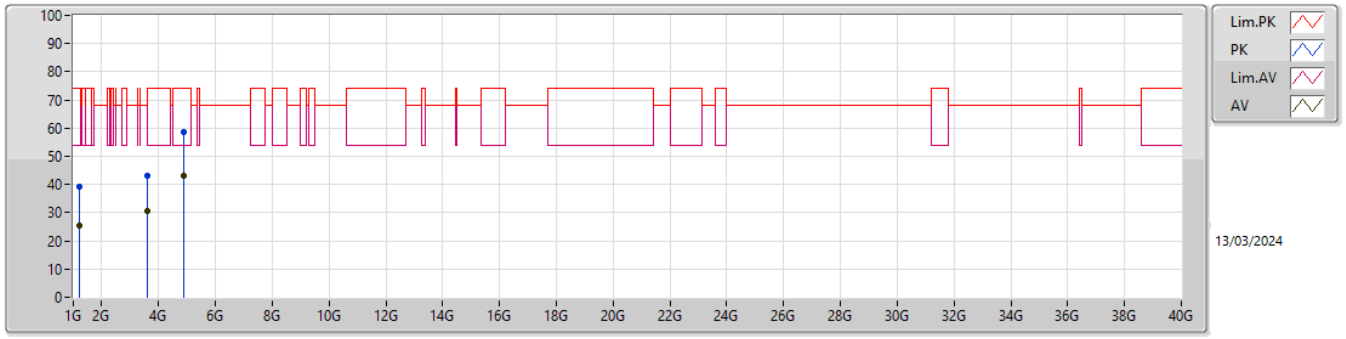
Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB/m)	(m)		(°)	(m)	(dBuV/m)	(dB/m)	(dB)	(dB)
AV	1.59743G	26.59	54.00	-27.41	-5.94	3	Vertical	36	2.86	32.53	25.33	3.67	34.94
AV	4.87388G	41.63	54.00	-12.37	4.28	3	Vertical	159	2.05	37.35	32.50	6.59	34.81
AV	7.31014G	42.93	54.00	-11.07	10.03	3	Vertical	312	1.60	32.90	36.66	8.29	34.92
PK	1.59767G	48.54	74.00	-25.46	-5.95	3	Vertical	36	2.86	54.49	25.32	3.67	34.94
PK	4.874G	54.82	74.00	-19.18	4.28	3	Vertical	159	2.05	50.54	32.50	6.59	34.81
PK	7.30972G	58.51	74.00	-15.49	10.03	3	Vertical	312	1.60	48.48	36.66	8.29	34.92

Radiated Emissions above 1GHz_Mode 3



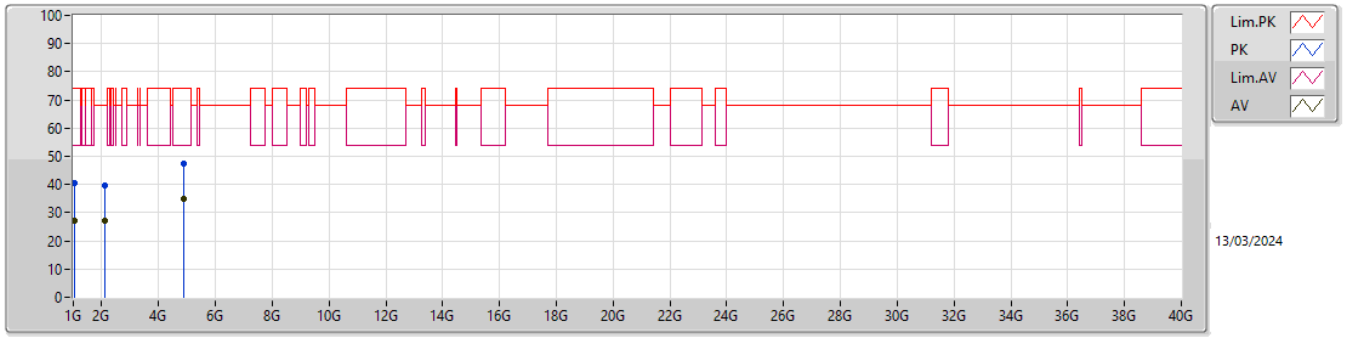
Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB/m)	(m)		(°)	(m)	(dBuV/m)	(dB/m)	(dB)	(dB)
AV	1.59469G	26.14	54.00	-27.86	-5.93	3	Horizontal	168	2.59	32.07	25.35	3.66	34.94
AV	4.9392G	34.94	54.00	-19.06	4.71	3	Horizontal	54	1.07	30.23	32.84	6.66	34.79
AV	7.30913G	41.62	54.00	-12.38	10.03	3	Horizontal	14	1.48	31.59	36.66	8.29	34.92
PK	1.59673G	46.14	74.00	-27.86	-5.94	3	Horizontal	168	2.59	52.08	25.33	3.67	34.94
PK	4.94097G	46.78	74.00	-27.22	4.72	3	Horizontal	54	1.07	42.06	32.85	6.66	34.79
PK	7.31134G	57.38	74.00	-16.62	10.02	3	Horizontal	14	1.48	47.36	36.65	8.29	34.92

Radiated Emissions above 1GHz_Mode 4



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB/m)	(m)		(°)	(m)	(dBuV/m)	(dB/m)	(dB)	(dB)
AV	1.1981G	25.50	54.00	-28.50	-6.48	3	Vertical	72	2.18	31.98	25.84	3.15	35.47
AV	3.59547G	30.43	68.20	-37.77	0.24	3	Vertical	305	1.50	30.19	29.48	5.72	34.96
AV	4.87397G	43.09	54.00	-10.91	4.28	3	Vertical	0	2.06	38.81	32.50	6.59	34.81
PK	1.19827G	39.22	74.00	-34.78	-6.49	3	Vertical	72	2.18	45.71	25.83	3.15	35.47
PK	3.59459G	43.19	68.20	-25.01	0.24	3	Vertical	305	1.50	42.95	29.48	5.72	34.96
PK	4.87405G	58.46	74.00	-15.54	4.28	3	Vertical	0	2.06	54.18	32.50	6.59	34.81

Radiated Emissions above 1GHz_Mode 4



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB/m)	(m)		(°)	(m)	(dBuV/m)	(dB/m)	(dB)	(dB)
AV	1.03488G	26.98	54.00	-27.02	-7.97	3	Horizontal	48	1.50	34.95	24.85	2.92	35.74
AV	2.11151G	26.94	68.20	-41.26	-3.20	3	Horizontal	222	1.50	30.14	27.42	4.24	34.86
AV	4.87407G	34.78	54.00	-19.22	4.28	3	Horizontal	308	1.36	30.50	32.50	6.59	34.81
PK	1.04446G	40.54	74.00	-33.46	-8.04	3	Horizontal	48	1.50	48.58	24.76	2.93	35.73
PK	2.11147G	39.70	68.20	-28.50	-3.21	3	Horizontal	222	1.50	42.91	27.41	4.24	34.86
PK	4.87423G	47.55	74.00	-26.45	4.28	3	Horizontal	308	1.36	43.27	32.50	6.59	34.81