FCC Radio Test Report

FCC ID	:	**2BOYO-SGW-10**
Contains FCC ID	:	**XMR2021EM05G**
Equipment	:	**Wireless Security Gateway**
Brand Name	:	**SKS**
Model Name	:	**SGW-10-1**
Applicant	:	**TAIWAN SHIN KONG SECURITY CO.,LTD No. 128, Xing'ai Rd., Neihu Dist., Taipei City 114508, Taiwan**
Manufacturer	:	**TAIWAN SHIN KONG SECURITY CO.,LTD No. 128, Xing'ai Rd., Neihu Dist., Taipei City 114508, Taiwan**
Standard	:	**47 CFR FCC Part 15.247**

The product was received on Mar. 17, 2025, and testing was started from Mar. 31, 2025 and completed on Apr. 30, 2025. 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
FR531001AZ	01	Initial issue of report	May 19, 2025

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: Sam Tsai
Report Producer: Michelle Tsai

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	Matter	5	1TX

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

1.1.2 Antenna Information

Ant.	Brand	Model Name	Antenna Type	Connector	Support
1	Dusun	DSGW-750-wifi1	PCB	N/A	WiFi 2.4G
2	Dusun	DSGW-750-wifi2	PCB	N/A	WiFi 2.4G
3	Dusun	DSM-04B	PCB	N/A	Matter
4	JESONcom	5Q004U	Dipole	I-Pex	Lora
5	JESONcom	32L008A	LDS	N/A	LTE

Ant.	Port	Gain (dBi)		
		2.4G	Matter	LoRa
1	1	1.42	-	-
2	2	1.54	-	-
3	1	-	2.41	-
4	1	-	-	2.48

Ant.	Port	WWAN antenna Gain (dBi)					
		LTE					
		Band 2	Band 4	Band 5	Band 7	Band 12	Band 13
5	1	1.89	2.8	0.43	2.88	4.3	0.76

Ant.	Port	WWAN antenna Gain (dBi)						
		LTE						
		Band 14	Band 25	Band 26	Band 38	Band 41	Band 66	Band 71
5	1	0.76	1.89	0.25	4.16	4.16	2.8	4.3

Note 1: The EUT has five antennas.
For 2.4GHz function:
For IEEE 802.11 b/g/n/VHT/ax/be mode (1TX/1RX)
Ant. 1 (port 1), Ant. 2 (port 2) could transmit/receive.
Support diversity function and pre-tested on each single chain, the worst case was Ant. 1 (port 1) and it was recorded in this test report.
For Matter function:
For IEEE 802.15.4 mode (1TX/1RX)
Ant. 3 (port 1) could transmit/receive.
For LoRa function:
For LoRa mode (1TX/1RX)
Ant. 4 (port 1) could transmit/receive.
For WWAN 4G function:
For WWAN 4G mode (1TX/1RX)
Ant. 5 (port 1) could transmit/receive.

1.1.3 EUT Information

Operational Condition				
EUT Power Type	From Adapter			
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
Matter	1	0	100.003m	10Hz (DC>=0.98)

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

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	**ADD:** No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333411, Taiwan (R.O.C.)			
(TAF: 3785**)**	**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	Lego Lin	21.8~23.9°C / 53~57%	11/Apr/2025
RF Conducted	TH07-HY	Xun Hsieh	22.9~23.5°C / 48~54%	07/Apr/2025~08/Apr/2025
Radiated	03CH02-HY	Daniel Lin	21.9~23.6°C / 51~55%	31/Mar/2025~08/Apr/2025
Radiated (Co-Location)	03CH02-HY	Daniel Lin	22.4~23.9°C / 50~52%	30/Apr/2025
☐ Wen 33rd.St.	**ADD:** No.14-1, Ln. 19, Wen 33rd St., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.)			
(TAF: 3785**)**	**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	PuTTY Release 0.62

Mode	Power Setting
Matter	-
2405MHz	21
2440MHz	21
2480MHz	21

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	Adapter mode

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	Adapter mode		
Operating Mode > 1GHz	CTX		
Orthogonal Planes of EUT	**X Plane**	**Y Plane**	**Z Plane**
			
Worst Planes of EUT			V

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis
Test Condition	Radiated measurement
Operating Mode	CTX
1	WLAN 2.4GHz+LoRa+Matter+LTE
Refer to Sporton Test Report No.: FA531001 for Co-location RF Exposure Evaluation and Appendix G for Radiated Emission Co-location.	

2.3 Accessories

Accessories				
AC Adapter 1 (TAIWAN Plug)	Brand Name	Sunun	Model Name	SA182V-050300U
	Manufacturer	Dongguan Sunun Power Co., Ltd	SN	-
	Power Rating	I/P: 100 - 240Vac, 0.4A, O/P: 90-264Vdc, 3A		
	Power Cord	1.5 meter, non-shielded cable, w/o ferrite core		
Battery	Brand Name	EVE	Model Name	ICR18650/26V
	Manufacturer	EVE Energy CO., LTD	SN	-
	Power Rating	3.6Vdc, 2550mAh	Type	Li-ion, Yes
RJ45 Cable	Brand Name	DONGGUAN AOC ELECTRONICSCO., LTD	Model Name	CON-C-984
	Signal Line	1.5 meter, shielded cable		

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

2.4 Support Equipment

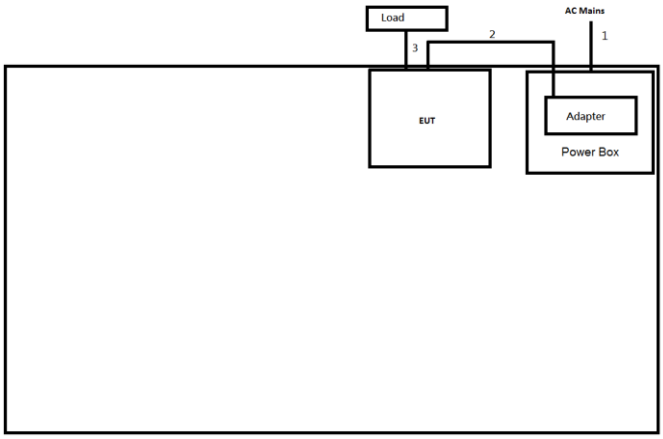
Support Equipment –AC Conduction					
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**	**Remark**
1	Load	Sporton	Sporton	-	-

Support Equipment – Conducted					
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**	**Remark**
1	Notebook	DELL	E5410	-	-
2	Adapter for NB	DELL	HA65NM130	-	-

Support Equipment –Radiated					
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**	**Remark**
1	Load	Sporton	Sporton	-	-

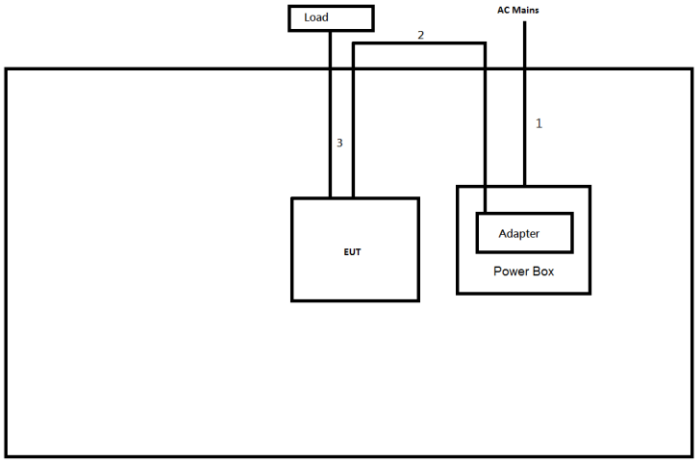
2.5 Test Setup Diagram

Test Setup Diagram – AC Line Conducted Emission Test



Item	Connection	Shielded	Length(m)	Remark
1	AC Power Cable	No	1.8	-
2	DC Power Cable	No	1.5	-
3	RJ45 Cable	Yes	1.5	-

Test Setup Diagram - Radiated Test



Item	Connection	Shielded	Length(m)	Remark
1	AC Power Cable	No	1.8	-
2	DC Power Cable	No	1.5	-
3	RJ45 Cable	Yes	1.5	-

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

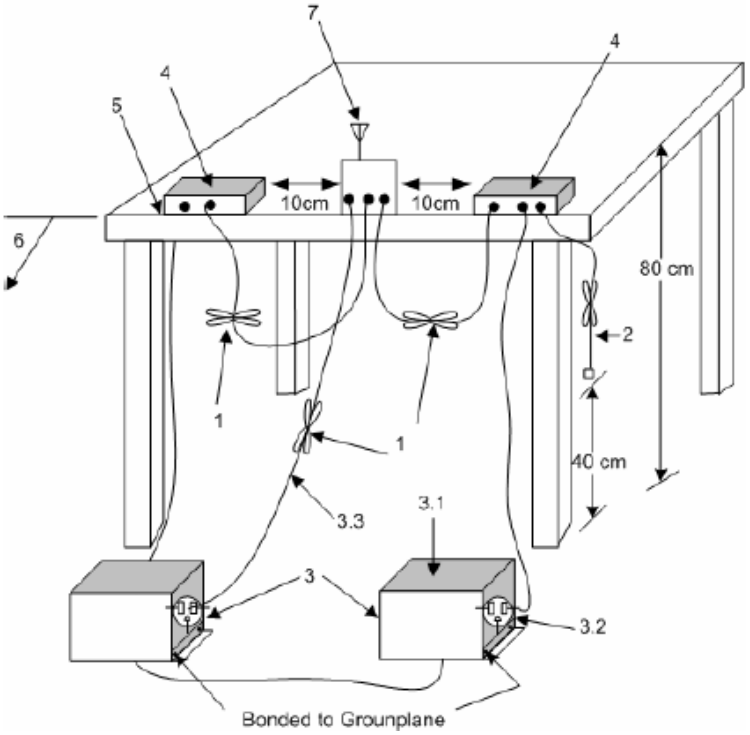
Test Method
☒ Refer as ANSI C63.10-2013, clause 6.2 for AC power-line conducted emissions.

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.

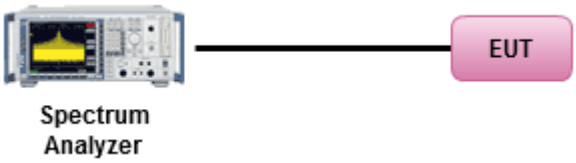
3.2.2 Measuring Instruments

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

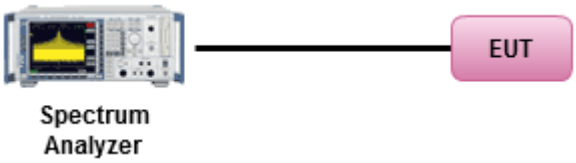
3.4.2 Measuring Instruments

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.	

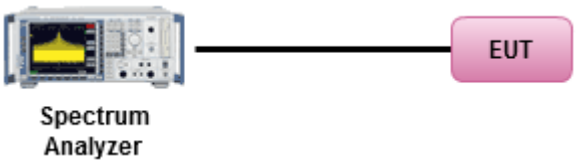
3.5.2 Measuring Instruments

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.

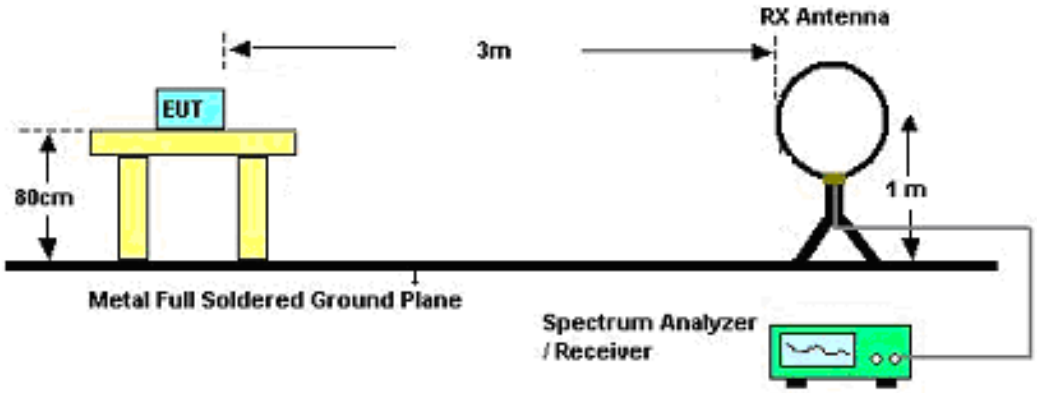
3.6.4 Measurement Results Calculation

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

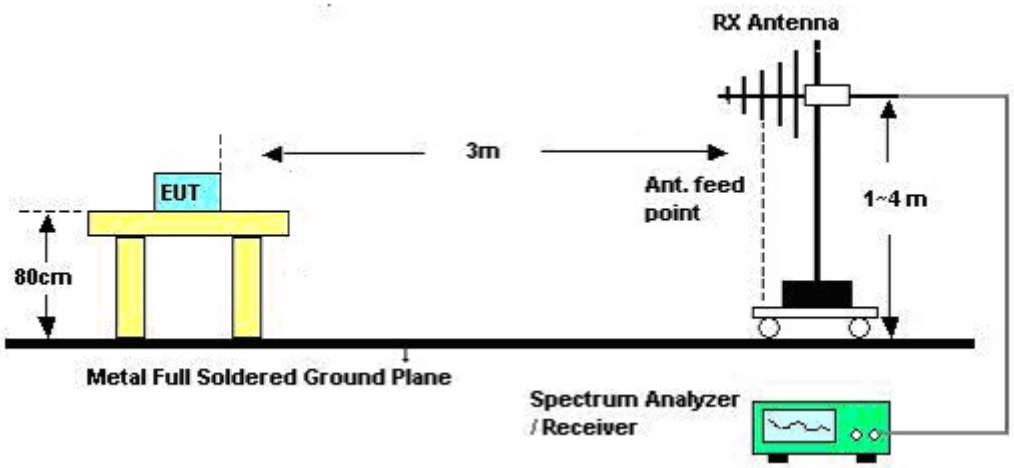
3.6.5 Test Setup

Emissions in Restricted Frequency Bands

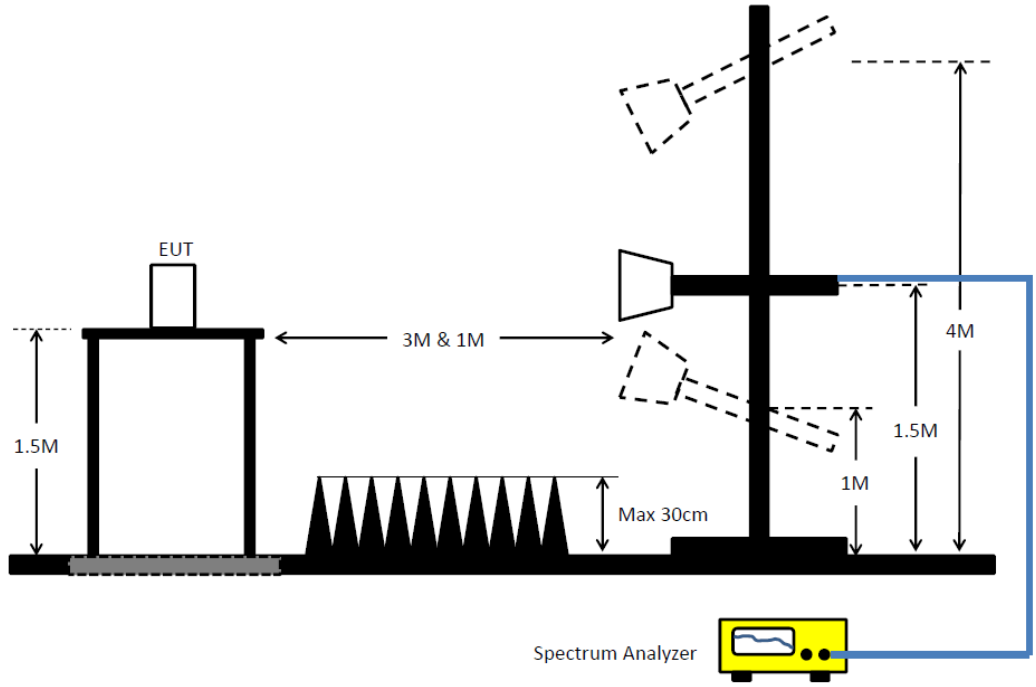
9kHz ~30MHz



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 Name	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
EMI Test Receiver	ROHDE & SCHWARZ	ESR3	102051	9kHz ~ 3.6GHz	17/May/2024	16/May/2025
Two-Line V-Network	ROHDE & SCHWARZ	ENV 216	101578	9kHz ~ 30MHz	11/Oct/2024	10/Oct/2025
RF Cable 5m	TITAN	TITAN	CO04-cable-01	9 kHz~200MHz	26/Feb/2025	25/Feb/2026
Impuls Begrenzer Pulse Limiter	SCHWARZBECK	VTSD 9561-F	9561-F041	9kHz ~ 30MHz	17/Oct/2024	16/Oct/2025
Software	Sporton	SENSE-EMI	V5.11.3	-	NCR	NCR

NCR: No Calibration Required.

Instrument for Conducted Test

Instrument	Manufacturer/ Brand Name	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Signal Analyzer	R&S	FSV 40	101515	10Hz~40GHz	23/Jan/2025	22/Jan/2026
SMB100A Signal Generator	R&S	SMB100A	181147	100kHz~40GHz	16/Oct/2024	15/Oct/2025
Power Meter	Anritsu	ML2495A	1517010	300MHz~40GHz	18/Dec/2024	17/Dec/2025
Pulse Sensor	Anritsu	MA2411B	1339407	300MHz~40GHz	18/Dec/2024	17/Dec/2025
SENSE-15247_DTS	Sporton	V5.11.23	N/A	N/A	N/A	N/A

Instrument for Radiated Test (Co-Location)

Instrument	Manufacturer/ Brand Name	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Site V.S.W.R	SIDT FRANKONIA	SAC-3M	03CH02-HY	1GHz~18GHz 3M	14/Jul/2024	13/Jul/2025
Signal Analyzer	R&S	FSP 40	100305	9kHz~40GHz	18/Mar/2025	17/Mar/2026
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	02268	1GHz~18GHz	23/Sep/2024	22/Sep/2025
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170154	18GHz~40GHz	04/Jun/2024	03/Jun/2025
RF Cable-R03m	HUBER+ SUHNER	SUCOFLEX 104	03CH02-cable-01	1GHz~40GHz	13/Feb/2025	12/Feb/2026
Microwave Preamplifier	Agilent	8449B	3008A02373	1GHz~26.5GHz	01/Oct/2024	30/Sep/2025
Amplifier	EM	EM18G40GA	060874	18GHz ~40GHz	18/Apr/2025	17/Apr/2026
SENSE-EMI	Sporton	V5.11.9	N/A	N/A	N/A	N/A

Instrument for Radiated Test (03CH02-HY)

Instrument	Manufacturer/ Brand Name	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
N.S.A. Measurement	SIDT FRANKONIA	SAC-3M	03CH02-HY	30MHz~1GHz 3M	14/Jul/2024	13/Jul/2025
Site V.S.W.R	SIDT FRANKONIA	SAC-3M	03CH02-HY	1GHz~18GHz 3M	14/Jul/2024	13/Jul/2025
EMI Test Receiver	R&S	ESR	102052	9kHz~3.6GHz	03/May/2024	02/May/2025
Signal Analyzer	R&S	FSP 40	100305	9kHz~40GHz	18/Mar/2025	17/Mar/2026
Loop Antenna	TESEQ	HLA 6120	31244	9kHz~30MHz	20/Mar/2025	19/Mar/2026
Bilog Antenna & 5dB Attenuator	SCHAFFNER / MTJ	CBL 6112B / MTJ6102-05	2723/2	30MHz~1GHz	26/Aug/2024	25/Aug/2025
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	02268	1GHz~18GHz	23/Sep/2024	22/Sep/2025
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170154	18GHz~40GHz	04/Jun/2024	03/Jun/2025
RF Cable	MVE	400LL+SN 200207	03CH02-cable-02	9kHz~30MHz	26/Nov/2024	25/Nov/2025
RF Cable	MVE	400LL+SN 200207	03CH02-cable-02	30MHz~1GHz	26/Nov/2024	25/Nov/2025
RF Cable-R03m	HUBER+ SUHNER	SUCOFLEX 104	03CH02-cable-01	1GHz~40GHz	13/Feb/2025	12/Feb/2026
Amplifier	Agilent	8447D	2944A11149	100kHz~1.3GHz	29/Jun/2024	28/Jun/2025
Microwave Preamplifier	Agilent	8449B	3008A02373	1GHz~26.5GHz	01/Oct/2024	30/Sep/2025
Microwave Preamplifier	EMC INSTRUMENTS	EM18G40G	060604	18GHz ~40GHz	19/Apr/2024	18/Apr/2025
SENSE-15247-DTS	Sporton	V5.11.23	N/A	N/A	N/A	N/A

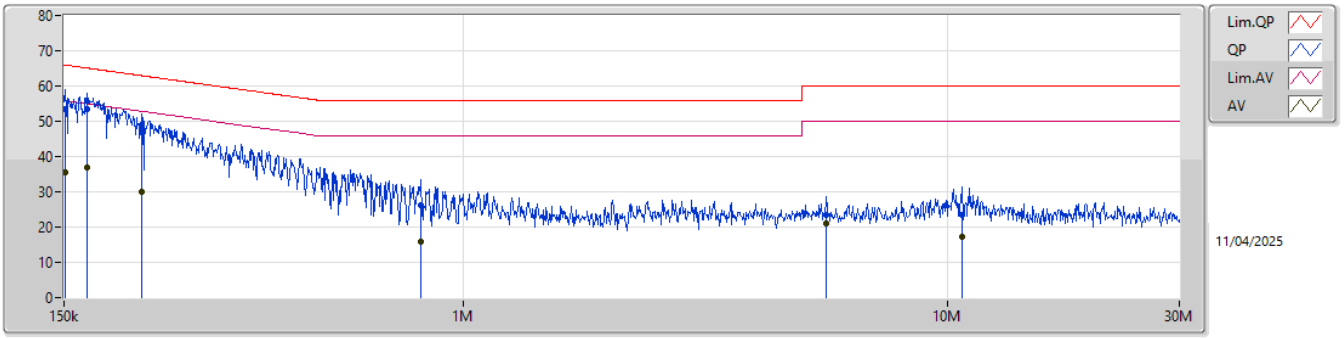
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	QP	167.071k	53.58	65.10	-11.52	Line

Result

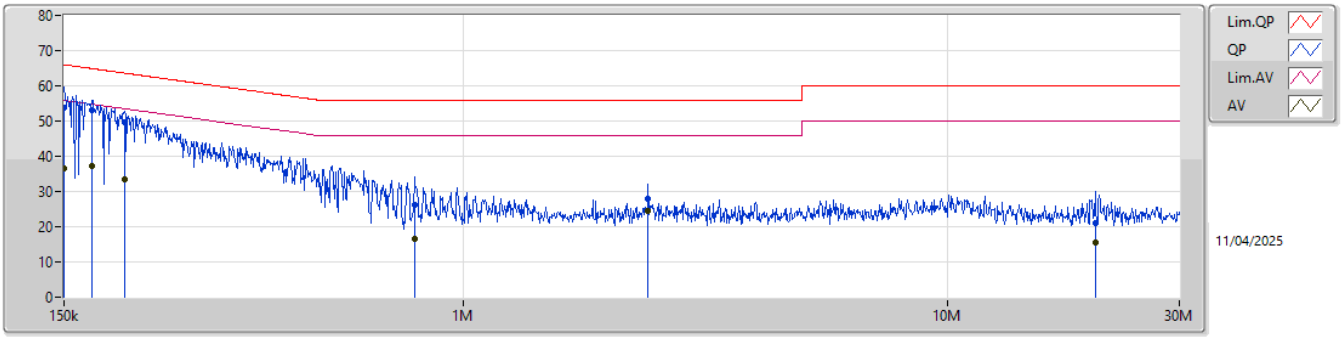
Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	QP	150.6k	53.49	65.96	-12.47	Line
Mode 1	Pass	AV	150.6k	35.67	55.96	-20.29	Line
Mode 1	Pass	QP	167.071k	53.58	65.10	-11.52	Line
Mode 1	Pass	AV	167.071k	36.88	55.10	-18.22	Line
Mode 1	Pass	QP	217.434k	46.92	62.92	-16.00	Line
Mode 1	Pass	AV	217.434k	30.15	52.92	-22.77	Line
Mode 1	Pass	QP	818.313k	26.23	56.00	-29.77	Line
Mode 1	Pass	AV	818.313k	15.96	46.00	-30.04	Line
Mode 1	Pass	QP	5.605M	23.47	60.00	-36.53	Line
Mode 1	Pass	AV	5.605M	20.92	50.00	-29.08	Line
Mode 1	Pass	QP	10.701M	23.62	60.00	-36.38	Line
Mode 1	Pass	AV	10.701M	17.36	50.00	-32.64	Line
Mode 1	Pass	QP	150k	53.75	66.00	-12.25	Neutral
Mode 1	Pass	AV	150k	36.67	56.00	-19.33	Neutral
Mode 1	Pass	QP	171.121k	53.18	64.91	-11.73	Neutral
Mode 1	Pass	AV	171.121k	37.09	54.91	-17.82	Neutral
Mode 1	Pass	QP	199.949k	49.72	63.61	-13.89	Neutral
Mode 1	Pass	AV	199.949k	33.48	53.61	-20.13	Neutral
Mode 1	Pass	QP	792.592k	26.29	56.00	-29.71	Neutral
Mode 1	Pass	AV	792.592k	16.52	46.00	-29.48	Neutral
Mode 1	Pass	QP	2.404M	27.84	56.00	-28.16	Neutral
Mode 1	Pass	AV	2.404M	24.37	46.00	-21.63	Neutral
Mode 1	Pass	QP	20.107M	20.93	60.00	-39.07	Neutral
Mode 1	Pass	AV	20.107M	15.38	50.00	-34.62	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	150.6k	53.49	65.96	-12.47	19.89	Line	-	33.60	9.91	0.01	9.97
AV	150.6k	35.67	55.96	-20.29	19.89	Line	-	15.78	9.91	0.01	9.97
QP	167.071k	53.58	65.10	-11.52	20.23	Line	-	33.35	10.25	0.01	9.97
AV	167.071k	36.88	55.10	-18.22	20.23	Line	-	16.65	10.25	0.01	9.97
QP	217.434k	46.92	62.92	-16.00	19.82	Line	-	27.10	9.84	0.01	9.97
AV	217.434k	30.15	52.92	-22.77	19.82	Line	-	10.33	9.84	0.01	9.97
QP	818.313k	26.23	56.00	-29.77	19.92	Line	-	6.31	9.89	0.05	9.98
AV	818.313k	15.96	46.00	-30.04	19.92	Line	-	-3.96	9.89	0.05	9.98
QP	5.605M	23.47	60.00	-36.53	19.77	Line	-	3.70	9.67	0.12	9.98
AV	5.605M	20.92	50.00	-29.08	19.77	Line	-	1.15	9.67	0.12	9.98
QP	10.701M	23.62	60.00	-36.38	19.92	Line	-	3.70	9.69	0.25	9.98
AV	10.701M	17.36	50.00	-32.64	19.92	Line	-	-2.56	9.69	0.25	9.98

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	150k	53.75	66.00	-12.25	19.56	Neutral	-	34.19	9.58	0.01	9.97
AV	150k	36.67	56.00	-19.33	19.56	Neutral	-	17.11	9.58	0.01	9.97
QP	171.121k	53.18	64.91	-11.73	20.28	Neutral	-	32.90	10.30	0.01	9.97
AV	171.121k	37.09	54.91	-17.82	20.28	Neutral	-	16.81	10.30	0.01	9.97
QP	199.949k	49.72	63.61	-13.89	19.95	Neutral	-	29.77	9.97	0.01	9.97
AV	199.949k	33.48	53.61	-20.13	19.95	Neutral	-	13.53	9.97	0.01	9.97
QP	792.592k	26.29	56.00	-29.71	19.94	Neutral	-	6.35	9.92	0.04	9.98
AV	792.592k	16.52	46.00	-29.48	19.94	Neutral	-	-3.42	9.92	0.04	9.98
QP	2.404M	27.84	56.00	-28.16	19.71	Neutral	-	8.13	9.70	0.04	9.97
AV	2.404M	24.37	46.00	-21.63	19.71	Neutral	-	4.66	9.70	0.04	9.97
QP	20.107M	20.93	60.00	-39.07	20.03	Neutral	-	0.90	9.77	0.28	9.98
AV	20.107M	15.38	50.00	-34.62	20.03	Neutral	-	-4.65	9.77	0.28	9.98

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
2.4-2.4835GHz	-	-	-	-	-
Matter	1.644M	2.255M	2M26D1D	1.638M	2.249M

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

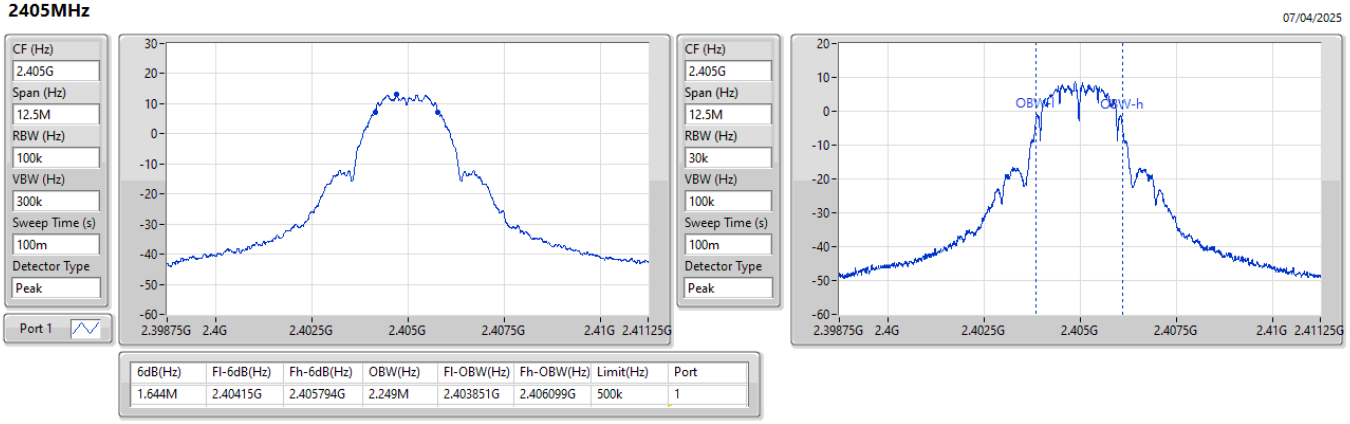
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
Matter	-	-	-	-
2405MHz	Pass	500k	1.644M	2.249M
2440MHz	Pass	500k	1.638M	2.249M
2480MHz	Pass	500k	1.644M	2.255M

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

2.4-2.4835GHz_Matter **EBW**

2405MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.644M	2.40415G	2.405794G	2.249M	2.403851G	2.406099G	500k	1

Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
Matter	16.71	0.04688

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Total Power (dBm)	Power Limit (dBm)
Matter	-	-	-	-	-
2405MHz	Pass	2.41	16.70	16.70	30.00
2440MHz	Pass	2.41	16.71	16.71	30.00
2480MHz	Pass	2.41	16.56	16.56	30.00

DG = Directional Gain; Port X = Port X output power;
Inf = There's no restriction for the limit.

Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
Matter	-0.67

RBW = 3kHz;

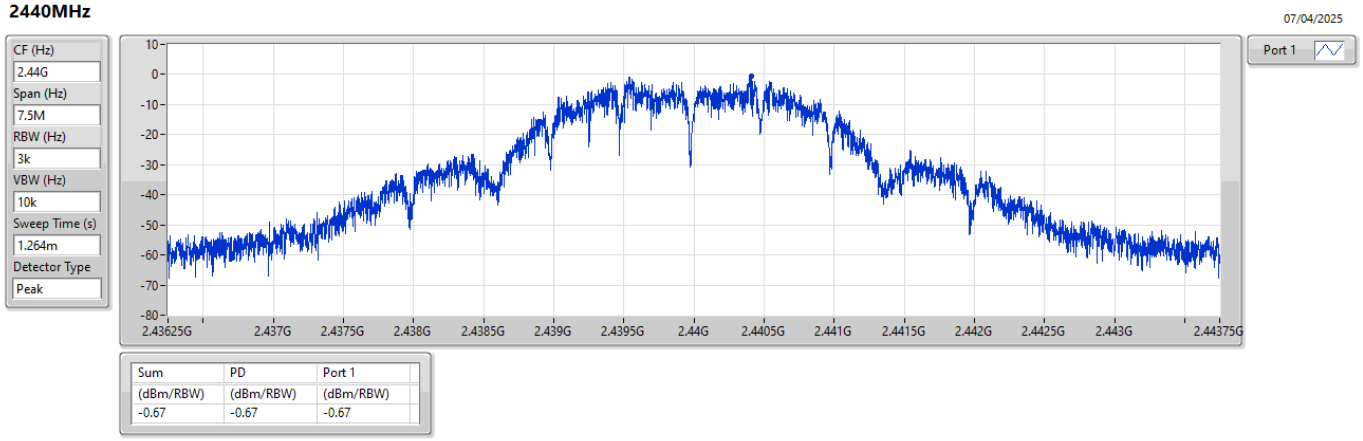
Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
Matter	-	-	-	-	-
2405MHz	Pass	2.41	-0.89	-0.89	8.00
2440MHz	Pass	2.41	-0.67	-0.67	8.00
2480MHz	Pass	2.41	-0.95	-0.95	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;
Inf = There's no restriction for the limit.

2.4-2.4835GHz_Matter **PSD**

2440MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-0.67	-0.67	-0.67

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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Matter	Pass	2.44025G	12.96	-17.04	1.96875G	-54.42	2.3998G	-41.37	2.4G	-41.05	2.5009G	-53.30	23.19466G	-42.02	1

Result

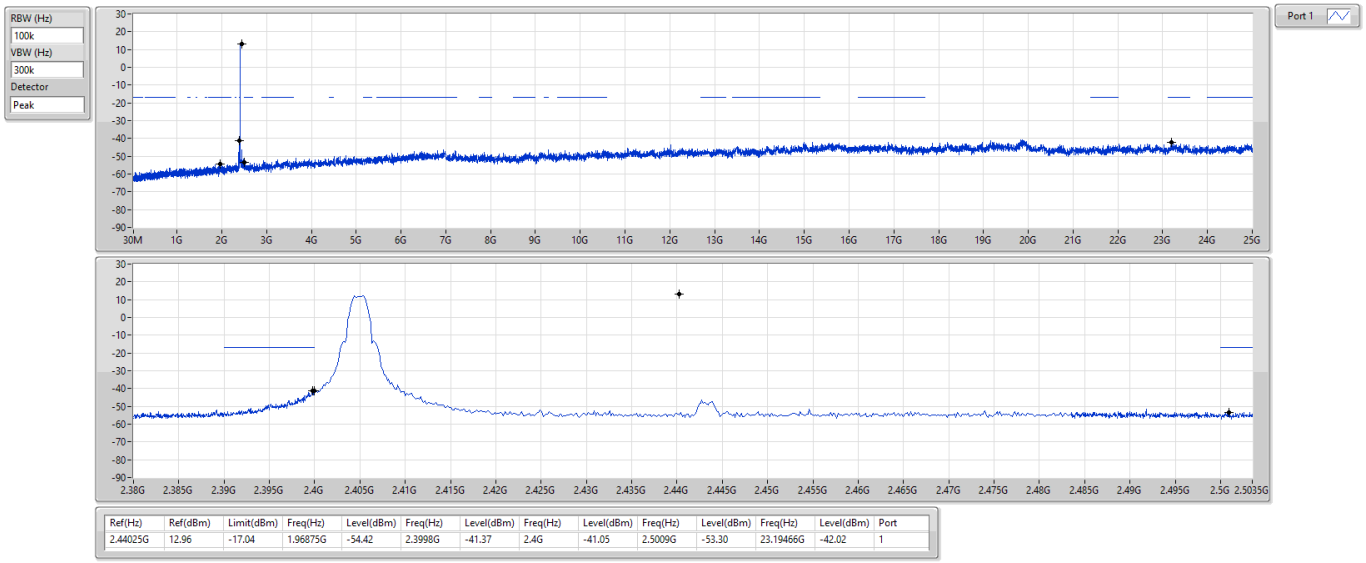
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
Matter	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2405MHz	Pass	2.44025G	12.96	-17.04	1.96875G	-54.42	2.3998G	-41.37	2.4G	-41.05	2.5009G	-53.30	23.19466G	-42.02	1
2440MHz	Pass	2.44025G	12.96	-17.04	2.145G	-54.81	2.39228G	-53.79	2.4G	-56.57	2.50214G	-52.89	23.21715G	-41.12	1
2480MHz	Pass	2.44025G	12.96	-17.04	2.12855G	-54.65	2.39996G	-52.13	2.4G	-56.32	2.50026G	-52.99	23.54335G	-41.89	1

2.4-2.4835GHz_Matter

CSENdB

2405MHz

07/04/2025



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
2.44025G	12.96	-17.04	1.96875G	-54.42	2.3998G	-41.37	2.4G	-41.05	2.5009G	-53.30	23.19466G	-42.02	1

Summary

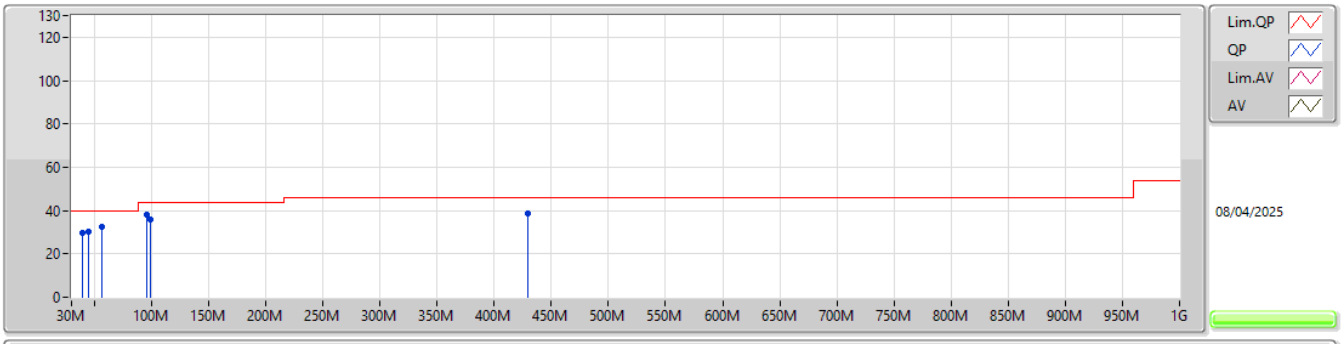
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-
Matter	Pass	PK	422.85M	40.55	46.00	-5.45	3	Horizontal	0	1.00	-

Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
Matter	-	-	-	-	-	-	-	-	-	-	-
2440MHz_Adapter	Pass	PK	39.7M	29.94	40.00	-10.06	3	Vertical	360	1.00	-
2440MHz_Adapter	Pass	PK	44.55M	30.33	40.00	-9.67	3	Vertical	360	1.00	-
2440MHz_Adapter	Pass	PK	56.19M	32.40	40.00	-7.60	3	Vertical	360	1.00	-
2440MHz_Adapter	Pass	PK	95.96M	37.96	43.50	-5.54	3	Vertical	360	1.00	-
2440MHz_Adapter	Pass	PK	429.64M	38.85	46.00	-7.15	3	Vertical	360	1.00	-
2440MHz_Adapter	Pass	QP	99.27M	36.08	43.50	-7.42	3	Vertical	200	1.00	-
2440MHz_Adapter	Pass	PK	95.96M	33.76	43.50	-9.74	3	Horizontal	0	1.00	-
2440MHz_Adapter	Pass	PK	102.75M	36.66	43.50	-6.84	3	Horizontal	0	1.00	-
2440MHz_Adapter	Pass	PK	250.19M	31.30	46.00	-14.70	3	Horizontal	0	1.00	-
2440MHz_Adapter	Pass	PK	411.21M	37.68	46.00	-8.32	3	Horizontal	0	1.00	-
2440MHz_Adapter	Pass	PK	422.85M	40.55	46.00	-5.45	3	Horizontal	0	1.00	-
2440MHz_Adapter	Pass	PK	749.74M	34.86	46.00	-11.14	3	Horizontal	0	1.00	-

2.4-2.4835GHz_Matter

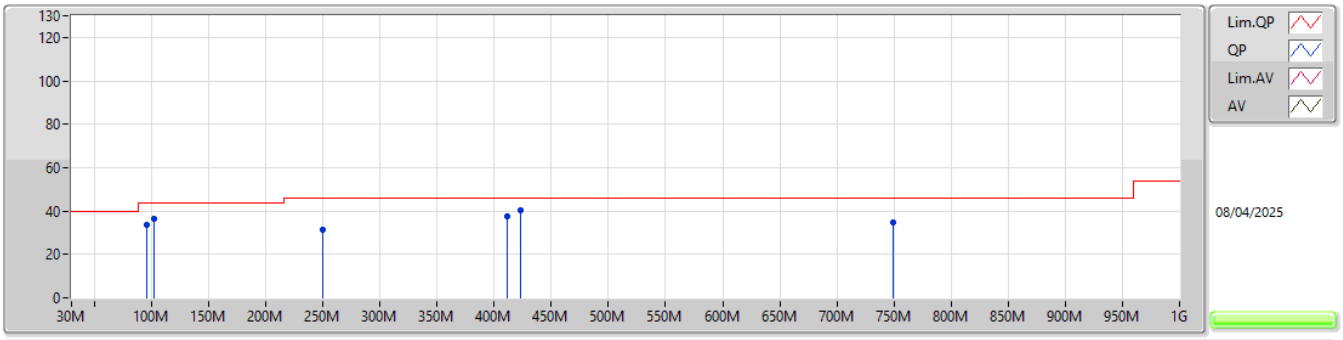
2440MHz_Adapter



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	39.7M	29.94	40.00	-10.06	-7.58	3	Vertical	360	1.00	37.52	17.57	1.25	26.40
PK	44.55M	30.33	40.00	-9.67	-9.38	3	Vertical	360	1.00	39.71	15.15	1.32	25.85
PK	56.19M	32.40	40.00	-7.60	-13.46	3	Vertical	360	1.00	45.86	11.45	1.49	26.40
PK	95.96M	37.96	43.50	-5.54	-10.86	3	Vertical	360	1.00	48.82	14.80	1.96	27.62
PK	429.64M	38.85	46.00	-7.15	-2.46	3	Vertical	360	1.00	41.31	21.20	4.28	27.94
QP	99.27M	36.08	43.50	-7.42	-10.17	3	Vertical	200	1.00	46.25	15.47	1.99	27.63

2.4-2.4835GHz_Matter

2440MHz_Adapter



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	95.96M	33.76	43.50	-9.74	-10.86	3	Horizontal	0	1.00	44.62	14.80	1.96	27.62
PK	102.75M	36.66	43.50	-6.84	-9.75	3	Horizontal	0	1.00	46.41	15.85	2.03	27.63
PK	250.19M	31.30	46.00	-14.70	-6.74	3	Horizontal	0	1.00	38.04	17.09	3.23	27.06
PK	411.21M	37.68	46.00	-8.32	-2.59	3	Horizontal	0	1.00	40.27	21.06	4.19	27.84
PK	422.85M	40.55	46.00	-5.45	-2.34	3	Horizontal	0	1.00	42.89	21.31	4.25	27.90
PK	749.74M	34.86	46.00	-11.14	2.02	3	Horizontal	0	1.00	32.84	24.25	5.82	28.05

Summary

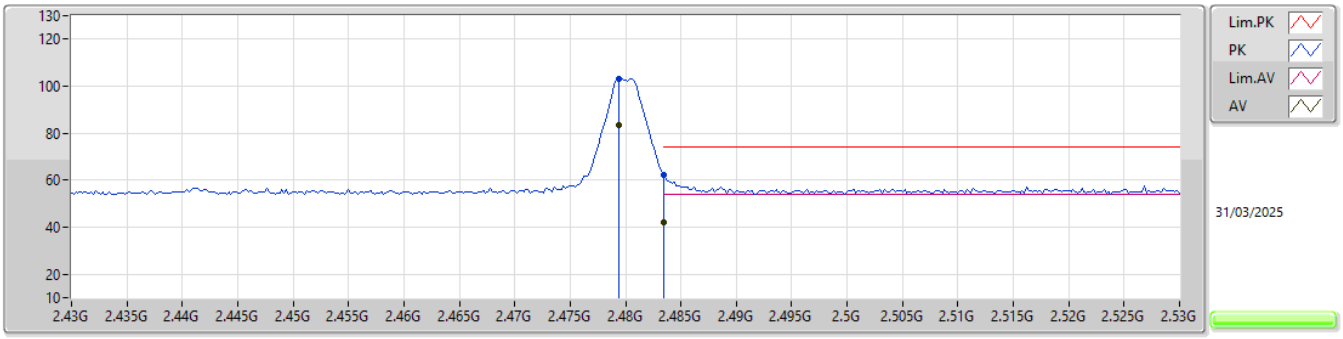
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-
Matter	Pass	AV	2.4835G	42.00	54.00	-12.00	3	Vertical	342	2.95

Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
Matter	-	-	-	-	-	-	-	-	-	-
2405MHz	Pass	AV	2.3672G	36.24	54.00	-17.76	3	Vertical	352	2.51
2405MHz	Pass	AV	2.4056G	87.63	Inf	-Inf	3	Vertical	352	2.51
2405MHz	Pass	PK	2.3672G	56.24	74.00	-17.76	3	Vertical	352	2.51
2405MHz	Pass	PK	2.4056G	107.63	Inf	-Inf	3	Vertical	352	2.51
2405MHz	Pass	AV	2.3658G	37.20	54.00	-16.80	3	Horizontal	133	2.46
2405MHz	Pass	AV	2.4056G	87.80	Inf	-Inf	3	Horizontal	133	2.46
2405MHz	Pass	PK	2.3658G	57.20	74.00	-16.80	3	Horizontal	133	2.46
2405MHz	Pass	PK	2.4056G	107.80	Inf	-Inf	3	Horizontal	133	2.46
2405MHz	Pass	AV	4.80782G	21.12	54.00	-32.88	3	Vertical	61	1.24
2405MHz	Pass	PK	4.80782G	41.12	74.00	-32.88	3	Vertical	61	1.24
2405MHz	Pass	AV	4.8111G	20.76	54.00	-33.24	3	Horizontal	244	3.00
2405MHz	Pass	PK	4.8111G	40.76	74.00	-33.24	3	Horizontal	244	3.00
2440MHz	Pass	AV	2.3652G	36.12	54.00	-17.88	3	Vertical	0	2.47
2440MHz	Pass	AV	2.4396G	86.81	Inf	-Inf	3	Vertical	0	2.47
2440MHz	Pass	AV	2.486G	36.27	54.00	-17.73	3	Vertical	0	2.47
2440MHz	Pass	PK	2.3652G	56.12	74.00	-17.88	3	Vertical	0	2.47
2440MHz	Pass	PK	2.4396G	106.81	Inf	-Inf	3	Vertical	0	2.47
2440MHz	Pass	PK	2.486G	56.27	74.00	-17.73	3	Vertical	0	2.47
2440MHz	Pass	AV	2.3616G	36.34	54.00	-17.66	3	Horizontal	134	1.38
2440MHz	Pass	AV	2.4396G	87.01	Inf	-Inf	3	Horizontal	134	1.38
2440MHz	Pass	AV	2.4835G	36.21	54.00	-17.79	3	Horizontal	134	1.38
2440MHz	Pass	PK	2.3616G	56.34	74.00	-17.66	3	Horizontal	134	1.38
2440MHz	Pass	PK	2.4396G	107.01	Inf	-Inf	3	Horizontal	134	1.38
2440MHz	Pass	PK	2.4835G	56.21	74.00	-17.79	3	Horizontal	134	1.38
2440MHz	Pass	AV	4.88114G	21.43	54.00	-32.57	3	Vertical	10	2.14
2440MHz	Pass	AV	7.31838G	34.89	54.00	-19.11	3	Vertical	20	2.93
2440MHz	Pass	PK	4.88114G	41.43	74.00	-32.57	3	Vertical	10	2.14
2440MHz	Pass	PK	7.31838G	54.89	74.00	-19.11	3	Vertical	20	2.93
2440MHz	Pass	AV	4.88106G	21.47	54.00	-32.53	3	Horizontal	48	1.00
2440MHz	Pass	AV	7.3183G	36.73	54.00	-17.27	3	Horizontal	15	1.20
2440MHz	Pass	PK	4.88106G	41.47	74.00	-32.53	3	Horizontal	48	1.00
2440MHz	Pass	PK	7.3183G	56.73	74.00	-17.27	3	Horizontal	15	1.20
2480MHz	Pass	AV	2.4794G	83.22	Inf	-Inf	3	Vertical	342	2.95
2480MHz	Pass	AV	2.4835G	42.00	54.00	-12.00	3	Vertical	342	2.95
2480MHz	Pass	PK	2.4794G	103.22	Inf	-Inf	3	Vertical	342	2.95
2480MHz	Pass	PK	2.4835G	62.00	74.00	-12.00	3	Vertical	342	2.95
2480MHz	Pass	AV	2.4794G	83.09	Inf	-Inf	3	Horizontal	133	1.50
2480MHz	Pass	AV	2.4836G	41.65	54.00	-12.35	3	Horizontal	133	1.50
2480MHz	Pass	PK	2.4794G	103.09	Inf	-Inf	3	Horizontal	133	1.50
2480MHz	Pass	PK	2.4836G	61.65	74.00	-12.35	3	Horizontal	133	1.50
2480MHz	Pass	AV	4.9611G	23.03	54.00	-30.97	3	Vertical	5	1.19
2480MHz	Pass	AV	7.43846G	33.95	54.00	-20.05	3	Vertical	49	2.86
2480MHz	Pass	PK	4.9611G	43.03	74.00	-30.97	3	Vertical	5	1.19
2480MHz	Pass	PK	7.43846G	53.95	74.00	-20.05	3	Vertical	49	2.86
2480MHz	Pass	AV	4.96172G	21.61	54.00	-32.39	3	Horizontal	99	1.13
2480MHz	Pass	AV	7.4383G	34.85	54.00	-19.15	3	Horizontal	0	1.00
2480MHz	Pass	PK	4.96172G	41.61	74.00	-32.39	3	Horizontal	99	1.13
2480MHz	Pass	PK	7.4383G	54.85	74.00	-19.15	3	Horizontal	0	1.00

2.4-2.4835GHz_Matter

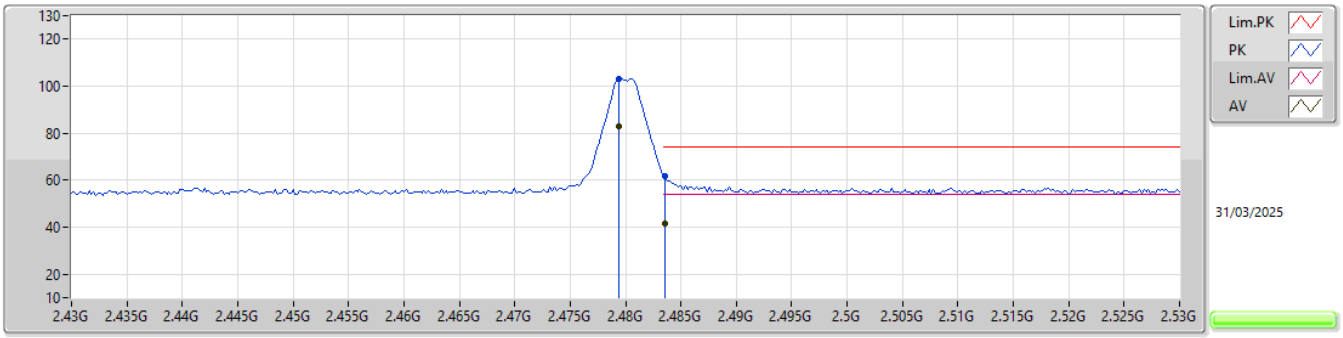
2480MHz_TX



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	2.4794G	83.22	Inf	-Inf	32.78	3	Vertical	342	2.95	50.44	27.79	4.99	-
AV	2.4835G	42.00	54.00	-12.00	32.84	3	Vertical	342	2.95	9.16	27.84	5.00	-
PK	2.4794G	103.22	Inf	-Inf	32.78	3	Vertical	342	2.95	70.44	27.79	4.99	-
PK	2.4835G	62.00	74.00	-12.00	32.84	3	Vertical	342	2.95	29.16	27.84	5.00	-

2.4-2.4835GHz_Matter

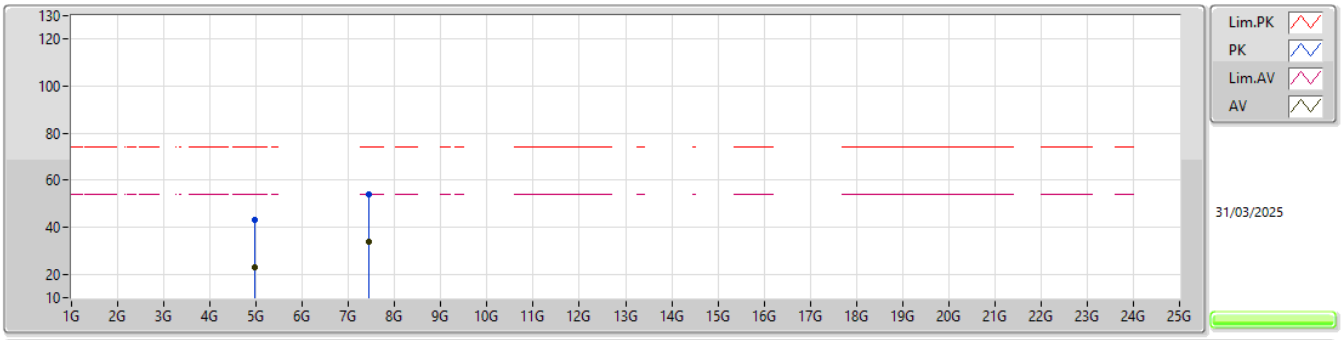
2480MHz_TX



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	2.4794G	83.09	Inf	-Inf	32.78	3	Horizontal	133	1.50	50.31	27.79	4.99	-
AV	2.4836G	41.65	54.00	-12.35	32.84	3	Horizontal	133	1.50	8.81	27.84	5.00	-
PK	2.4794G	103.09	Inf	-Inf	32.78	3	Horizontal	133	1.50	70.31	27.79	4.99	-
PK	2.4836G	61.65	74.00	-12.35	32.84	3	Horizontal	133	1.50	28.81	27.84	5.00	-

2.4-2.4835GHz_Matter

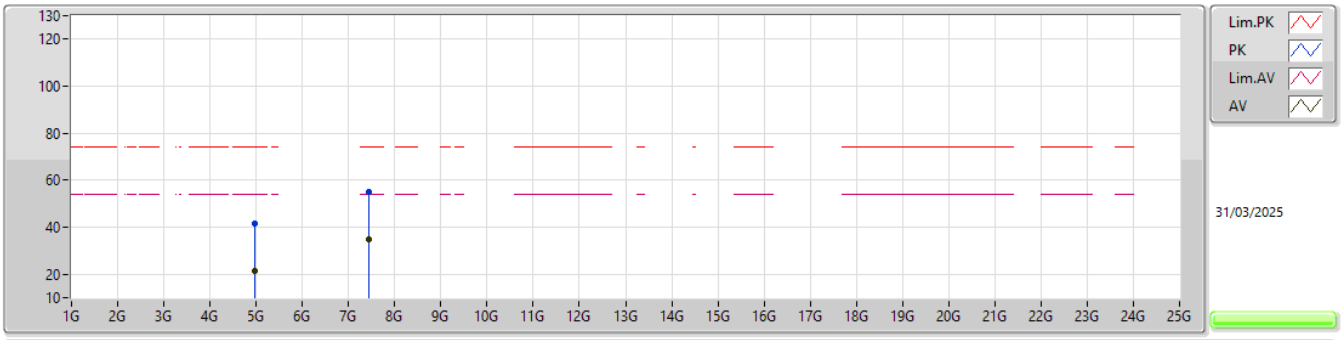
2480MHz_TX



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	4.9611G	23.03	54.00	-30.97	5.18	3	Vertical	5	1.19	17.85	33.04	7.21	35.07
AV	7.43846G	33.95	54.00	-20.05	10.08	3	Vertical	49	2.86	23.87	36.30	8.86	35.08
PK	4.9611G	43.03	74.00	-30.97	5.18	3	Vertical	5	1.19	37.85	33.04	7.21	35.07
PK	7.43846G	53.95	74.00	-20.05	10.08	3	Vertical	49	2.86	43.87	36.30	8.86	35.08

2.4-2.4835GHz_Matter

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	4.96172G	21.61	54.00	-32.39	5.19	3	Horizontal	99	1.13	16.42	33.05	7.21	35.07
AV	7.4383G	34.85	54.00	-19.15	10.08	3	Horizontal	0	1.00	24.77	36.30	8.86	35.08
PK	4.96172G	41.61	74.00	-32.39	5.19	3	Horizontal	99	1.13	36.42	33.05	7.21	35.07
PK	7.4383G	54.85	74.00	-19.15	10.08	3	Horizontal	0	1.00	44.77	36.30	8.86	35.08

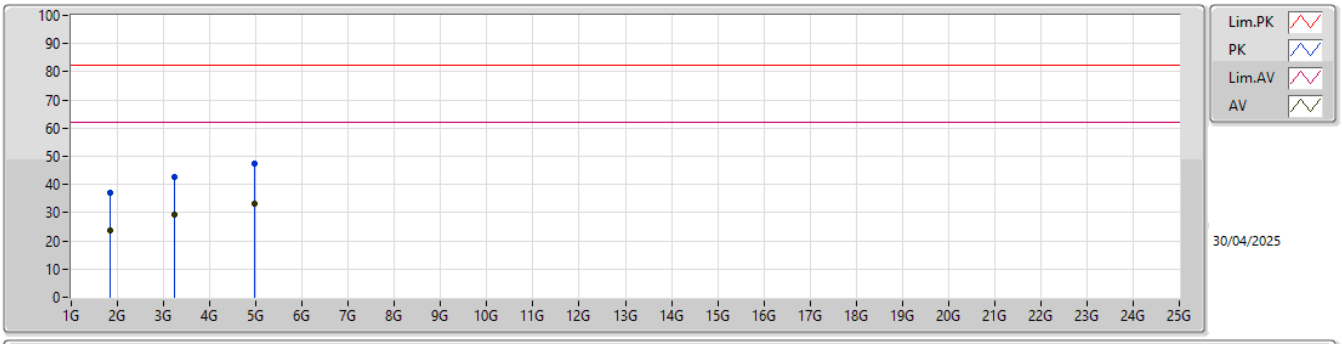
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition
Mode 1	Pass	AV	4.97899G	33.39	62.20	-28.81	Vertical

Result

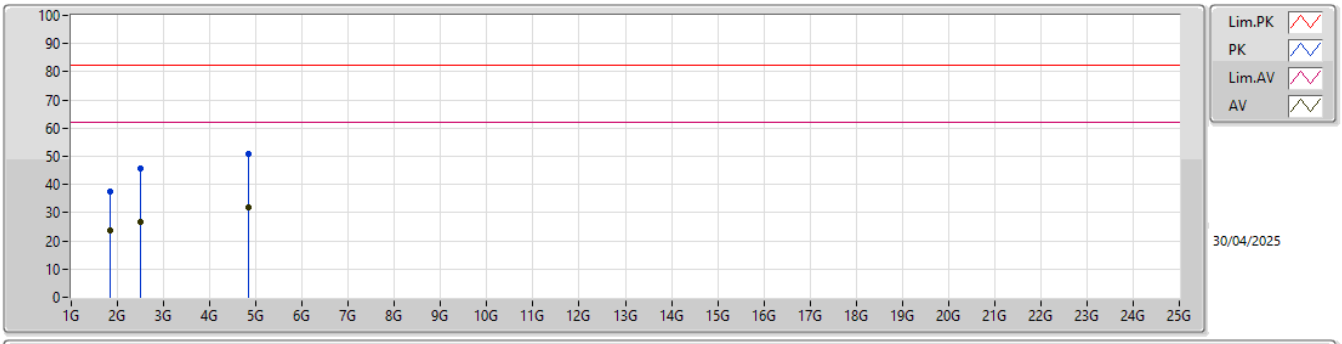
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
Mode 1	Pass	AV	1.84334G	23.70	62.20	-38.50	3	Vertical	34	1.50	-
Mode 1	Pass	AV	3.22145G	29.31	62.20	-32.89	3	Vertical	48	2.00	-
Mode 1	Pass	AV	4.97899G	33.39	62.20	-28.81	3	Vertical	159	1.81	-
Mode 1	Pass	PK	1.84334G	36.97	82.20	-45.23	3	Vertical	34	1.50	-
Mode 1	Pass	PK	3.22145G	42.64	82.20	-39.56	3	Vertical	48	2.00	-
Mode 1	Pass	PK	4.97899G	47.45	82.20	-34.75	3	Vertical	159	1.81	-
Mode 1	Pass	AV	1.84746G	23.80	62.20	-38.40	3	Horizontal	262	1.50	-
Mode 1	Pass	AV	2.49739G	26.62	62.20	-35.58	3	Horizontal	300	1.50	-
Mode 1	Pass	AV	4.82645G	32.04	62.20	-30.16	3	Horizontal	219	1.19	-
Mode 1	Pass	PK	1.84746G	37.57	82.20	-44.63	3	Horizontal	262	1.50	-
Mode 1	Pass	PK	2.49739G	45.48	82.20	-36.72	3	Horizontal	300	1.50	-
Mode 1	Pass	PK	4.82645G	50.72	82.20	-31.48	3	Horizontal	219	1.19	-

Radiated Emissions above 1GHz_Mode 1



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB/m)	(m)		(°)	(m)		(dBuV)	(dB/m)	(dB)	(dB)
AV	1.84334G	23.70	62.20	-38.50	-5.41	3	Vertical	34	1.50	-	29.11	25.33	4.28	35.02
AV	3.22145G	29.31	62.20	-32.89	0.21	3	Vertical	48	2.00	-	29.10	29.66	5.78	35.23
AV	4.97899G	33.39	62.20	-28.81	5.29	3	Vertical	159	1.81	-	28.10	33.12	7.24	35.07
PK	1.84334G	36.97	82.20	-45.23	-5.41	3	Vertical	34	1.50	-	42.38	25.33	4.28	35.02
PK	3.22145G	42.64	82.20	-39.56	0.21	3	Vertical	48	2.00	-	42.43	29.66	5.78	35.23
PK	4.97899G	47.45	82.20	-34.75	5.29	3	Vertical	159	1.81	-	42.16	33.12	7.24	35.07

Radiated Emissions above 1GHz_Mode 1



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB/m)	(m)		(°)	(m)		(dBuV)	(dB/m)	(dB)	(dB)
AV	1.84746G	23.80	62.20	-38.40	-5.37	3	Horizontal	262	1.50	-	29.17	25.37	4.28	35.02
AV	2.49739G	26.62	62.20	-35.58	-2.21	3	Horizontal	300	1.50	-	28.83	27.90	5.02	35.13
AV	4.82645G	32.04	62.20	-30.16	4.34	3	Horizontal	219	1.19	-	27.70	32.41	6.99	35.06
PK	1.84746G	37.57	82.20	-44.63	-5.37	3	Horizontal	262	1.50	-	42.94	25.37	4.28	35.02
PK	2.49739G	45.48	82.20	-36.72	-2.21	3	Horizontal	300	1.50	-	47.69	27.90	5.02	35.13
PK	4.82645G	50.72	82.20	-31.48	4.34	3	Horizontal	219	1.19	-	46.38	32.41	6.99	35.06