

FCC Radio Test Report

FCC ID : UDX-600218010
Equipment : Cisco Wireless 9174I Series Wi-Fi 7 Access Point
Brand Name : CISCO
Model Name : CW9174I
Applicant : Cisco Systems, Inc.
170 West Tasman Drive, San Jose, CA 95134 USA
Manufacturer : Cisco Systems, Inc.
170 West Tasman Drive, San Jose, CA 95134 USA
Standard : 47 CFR FCC Part 15.247

The product was received on Jan. 06, 2025, and testing was started from Feb. 11, 2025 and completed on Apr. 12, 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 C63.10-2020 + Cor.1-2023 + C63.10a-2024 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

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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: Barry Hsiao

Report Producer: Debby Hung

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	802.15.4	5	1

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	Radio
1	Fii	363.00006	PIFA	I-Pex	2.4G	Radio1,3
					5G	Radio 2
2	Fii	363.00006	Dipole	I-Pex	2.4G	Radio1,3
					5G	Radio 2
3	Fii	363.00006	PIFA	I-Pex	2.4G	Radio 3
					5G	Radio 2
4	Fii	363.00006	Dipole	I-Pex	2.4G	Radio 3
					5G	Radio 2
5	Fii	363.00006	PIFA	I-Pex	6G	Radio 3
6	Fii	363.00006	Dipole	I-Pex	6G	Radio 3
7	Fii	363.00006	PIFA	I-Pex	6G	Radio 3
8	Fii	363.00006	Dipole	I-Pex	6G	Radio 3
9	Fii	363.00006	PIFA	I-Pex	2.4G/5G/6G	Radio 4 Scan
10	Fii	363.00006	PIFA	I-Pex	2.4G/5G/6G	Radio 4 Scan
11	Fii	363.00006	PIFA	I-Pex	BLE&IEEE 802.15.4	BLE&IEEE 802.15.4

Ant.	Port	Gain (dBi)									
		2.4G	5G				6G				BLE& IEEE 802.15.4
			UNII-1	UNII-2A	UNII-2C	UNII-3	UNII-5	UNII-6	UNII-7	UNII-8	
1	1	2.98	4.33	5.26	4.49	4.73	-	-	-	-	-
2	2	4.79	4.19	4.19	3.89	3.93	-	-	-	-	-
3	4	4.97	4.78	4.93	4.72	4.38	-	-	-	-	-
4	3	3.83	4.89	5.1	5.26	5.05	-	-	-	-	-
5	4	-	-	-	-	-	6.36	4.57	4.89	5.17	-
6	2	-	-	-	-	-	5.4	5.83	5.14	6.96	-
7	1	-	-	-	-	-	5.3	3.39	3.55	3.31	-
8	3	-	-	-	-	-	3.14	4.9	3.21	4.91	-
9	1	4.72	4.19	4.77	3.94	4.55	4.52	4.63	4.06	4.29	-
10	2	3.77	3.18	4.16	4.53	4.08	4.48	3.96	4.03	4.42	-
11	1	-	-	-	-	-	-	-	-	-	4.56

Composite Gain (dBi)			
Ant.	Wi-Fi Mode	2.4G	
		Radio 1	Radio 3
1,2	DG [1SS]	4.79	-
	DG [2SS]	4.79	-
3,4	DG [1SS]	-	4.97
	DG [2SS]	-	4.97
1,2,3,4	DG [1SS]	-	6.95
	DG [2SS]	-	4.97
	DG [4SS]	-	4.97

Composite Gain (dBi)									
Ant.	Wi-Fi Mode	5G				6G			
		Radio 2				Radio 3			
		UNII-1	UNII-2A	UNII-2C	UNII-3	UNII-5	UNII-6	UNII-7	UNII-8
1,2,3,4	DG [1SS]	5.31	5.51	5.5	5.08	-	-	-	-
	DG [2SS]	4.89	5.26	5.26	5.05	-	-	-	-
	DG [4SS]	4.89	5.26	5.26	5.05	-	-	-	-
5,6,7,8	DG [1SS]	-	-	-	-	6.36	5.83	5.14	7.36
	DG [2SS]	-	-	-	-	6.36	5.83	5.14	6.96
	DG [4SS]	-	-	-	-	6.36	5.83	5.14	6.96
2,4	DG [1SS]	4.89	5.1	5.26	5.05	-	-	-	-
	DG [2SS]	4.89	5.1	5.26	5.05	-	-	-	-

Note 1: The EUT has eleven antennas.

Note 2: The composite gain is derived as KDB 662911 D03 v02 which was used as directional gain. For more detail information, please refer to the Antenna Pattern Report AP510630.

For 2.4GHz function:

For IEEE 802.11 b/g/n/VHT/ax/be mode (1TX/2RX) (Radio 1)

Ant. 1 (port 1) and Ant. 2 (port 2) could transmit/receive.

Support diversity function and pre-tested on each single chain, the worst case was Ant. 2 (port 2) and it was recorded in this test report.

For IEEE 802.11 b/g/n/VHT/ax/be mode (2TX/2RX) (Radio 1)

Ant. 1 (port 1) and Ant. 2 (port 2) could transmit/receive simultaneously.

For IEEE 802.11 b/g/n/VHT/ax/be mode (1TX/4RX) (Radio 3)

Ant. 1 (port 1), Ant. 2 (port 2), Ant. 3 (port 4), Ant. 4 (port 3) could transmit/receive.

Support diversity function and pre-tested on each single chain, the worst case was Ant.4 (port 3) and it was recorded in this test report.

For IEEE 802.11 b/g/n/VHT/ax/be mode (2TX/4RX) (Radio 3)

Ant. 1 (port 1), Ant. 2 (port 2), Ant. 3 (port 4), Ant. 4 (port 3) could transmit/receive simultaneously.

For IEEE 802.11 b/g/n/VHT/ax/be mode (4TX/4RX) (Radio 3)

Ant. 1 (port 1), Ant. 2 (port 2), Ant. 3 (port 4), Ant. 4 (port 3) could transmit/receive simultaneously.

For IEEE 802.11 b/g/n/VHT/ax mode(1TX/2RX) (Radio 4)

Only Ant. 9 (port 1) could transmit.

Ant. 9 (port 1) and Ant. 10 (port 2) could receive.

For 5GHz function:

For IEEE 802.11 a/n/ac/ax/be mode (1TX/4RX) (Radio 2)

Ant. 1 (port 1), Ant. 2 (port 2), Ant. 3 (port 4), Ant. 4 (port 3) could transmit/receive.

Support diversity function and pre-tested on each single chain, the worst case was Ant. 4 (port 3) and it was recorded in this test report.

For IEEE 802.11 a/n/ac/ax/be mode (2TX/4RX) (Radio 2)

Ant. 1 (port 1), Ant. 2 (port 2), Ant. 3 (port 4), Ant. 4 (port 3) could transmit/receive simultaneously.

For IEEE 802.11 a/n/ac/ax/be mode (4TX/4RX) (Radio 2)

Ant. 1 (port 1), Ant. 2 (port 2), Ant. 3 (port 4), Ant. 4 (port 3) could transmit/receive simultaneously.

For IEEE 802.11 a/n/ac mode(1TX/2RX) (Radio 4)

Only Ant. 9 (port 1) could transmit.

Ant. 9 (port 1) and Ant. 10 (port 2) could receive.

For BT function:

For IEEE 802.15.1 Bluetooth mode (1TX/1RX)

Ant. 11 (port 1) could transmit/receive.

For 802.15.4 function:

For IEEE 802.15.4 mode (1TX/1RX)

Ant. 11 (port 1) could transmit/receive.

For 6GHz function:

For IEEE 802.11 ax/be mode(1TX/4RX) (Radio 3)

Ant. 5 (port 4), Ant. 6 (port 2), Ant. 7 (port 1), Ant. 8 (port 3) could transmit/receive.

Support diversity function and pre-tested on each single chain, the worst case was Ant. 5 (port 4) and it was recorded in this test report.

For IEEE 802.11 ax/be mode (2TX/4RX) (Radio 3)

Ant. 5 (port 4), Ant. 6 (port 2), Ant. 7 (port 1), Ant. 8 (port 3) could transmit/receive simultaneously.

For IEEE 802.11 ax/be mode (4TX/4RX) (Radio 3)

Ant. 5 (port 4), Ant. 6 (port 2), Ant. 7 (port 1), Ant. 8 (port 3) could transmit/receive simultaneously.

For IEEE 802.11 ax mode(1TX/2RX) (Radio 4_Scan)

Only Ant. 9 (port 1) could transmit.

Ant. 9 (port 1) and Ant. 10 (port 2) could receive.

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
802.15.4_Nss1_1TX	1	0	100.003m	10Hz (DC>=0.98)

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

1.1.5 Table of Serial Number

Test item	Serial Number
RF	FVH2849A96T

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 C63.10-2020 + Cor.1-2023 + C63.10a-2024

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	Lego Lin	21.6~23.1°C / 54~58%	09/Apr/2025~12/Apr/2025
RF Conducted	TH07-HY	Xun Hsieh	22.1~22.6°C / 55~59%	13/Mar/2025
Radiated	03CH02-HY	Vasari Huang	18.6~20.3°C / 51~54%	13/Mar/2025~03/Apr/2025
Co-location	03CH02-HY	Vasari Huang	19.1~19.9°C / 48~52%	11/Feb/2025
☐ 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	Putty Release 0.72
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Mode	Power Setting
802.15.4_Nss1_1TX	-
2405MHz	20
2440MHz	20
2475MHz	20
2480MHz	8

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

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	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	R1_2.4G(2*2)(ePA)+R2_5G(4*4)+R3_6G(4*4)+R4_Scan:2.4G+5G+6G(1T*2R)+BT
2	R2_5G(4*4)+R3_2.4G(4*4)(XOR)+R4_Scan:2.4G+5G+6G(1T*2R)+BT
3	R1_2.4G(2*2)(ePA)+R2_5G(4*4)+R3_6G(4*4)+R4_Scan:2.4G+5G+6G(1T*2R)+IEEE 802.15.4
4	R2_5G(4*4)+R3_2.4G(4*4)(XOR)+R4_Scan:2.4G+5G+6G(1T*2R)+IEEE 802.15.4
Refer to Sporton Test Report No.: FA510630 for Co-location RF Exposure Evaluation and Appendix G for Radiated Emission Co-location.	

2.3 Accessories

Accessories				
Low Profile Mounting Bracket	Brand Name	Cisco	Model Name	AIR-AP-BRACKET-1
Ceiling grid clip	Brand Name	Cisco	Model Name	AIR-AP-T-RAIL-R

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

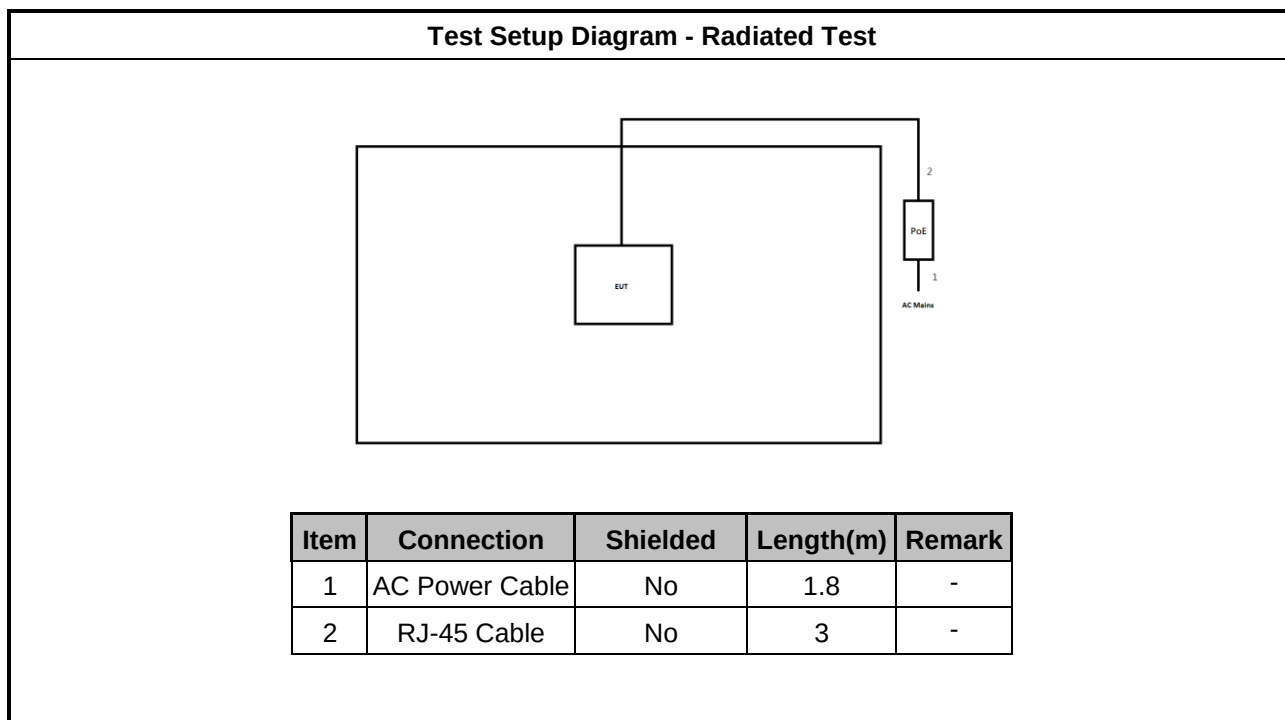
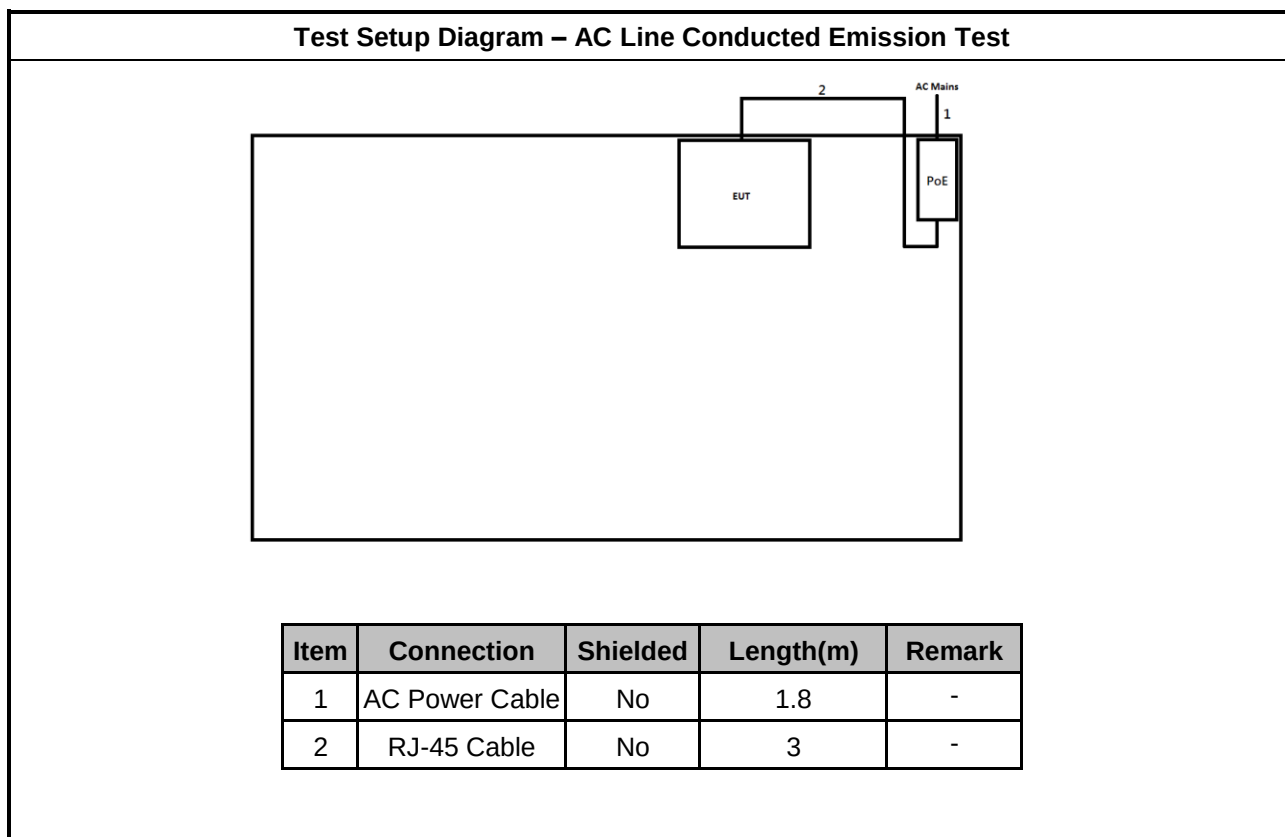
2.4 Support Equipment

Support Equipment – AC Conduction					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	RJ-45 Cable	Power sync	CAT-6E-03	-	-
2	PoE	DELTA	ADH-65AR P(D)	-	Provided by Customer
3	AC Power Cable	Power sync	PW-GPC180-3	-	-

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	RJ-45 Cable	Power sync	CAT-6E-03	-	-
2	AC power cable	Power sync	PW-GPC180-3	-	-
3	PoE	DELTA	ADH-65AR P(D)	-	Provided by Customer

2.5 Test Setup Diagram



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

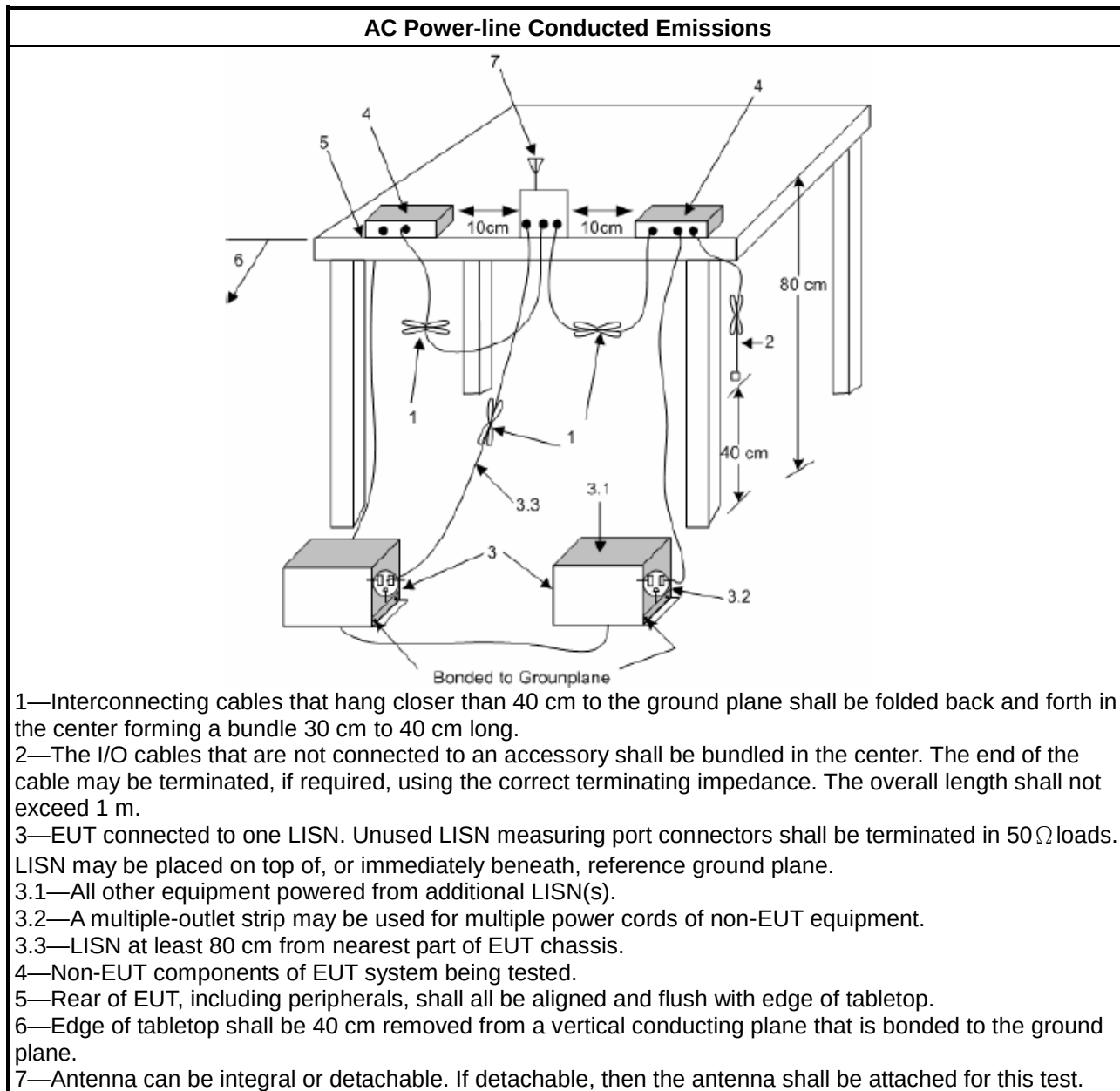
Test Method
☒ Refer as ANSI C63.10, clause 6.2 for AC power-line conducted emissions.

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



3.1.6 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

3.2 DTS Bandwidth

3.2.1 6dB Bandwidth Limit

6dB Bandwidth Limit	
Systems using digital modulation techniques:	
▪	6 dB bandwidth $\geq$ 500 kHz.

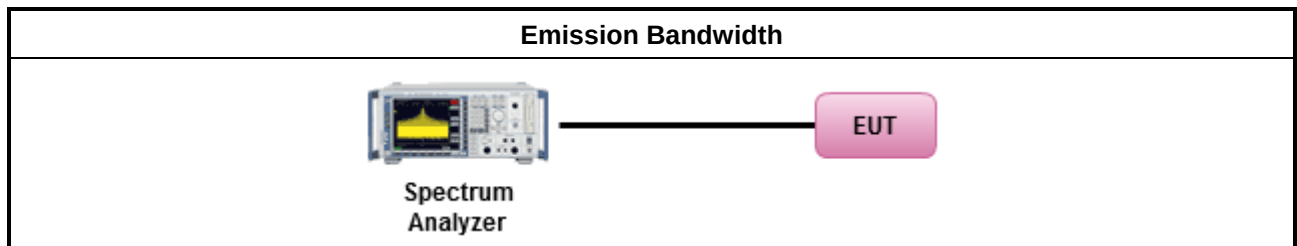
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

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

3.2.4 Test Setup



3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B

3.3 Maximum Conducted Output Power

3.3.1 Maximum Conducted Output Power Limit

Maximum Conducted Output Power Limit	
	If $G_{TX} \leq 6$ dBi, then $P_{Out} \leq 30$ dBm (1 W)
	Point-to-multipoint systems (P2M): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$ dBm
	Point-to-point systems (P2P): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	Smart antenna system (SAS):
	- Single beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	- Overlap beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	- Aggregate power on all beams: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3 + 8$ dB dBm
e.i.r.p. Power Limit:	
	2400-2483.5 MHz Band
	Point-to-multipoint systems (P2M): $P_{eirp} \leq 36$ dBm (4 W)
	Point-to-point systems (P2P): $P_{eirp} \leq \text{MAX}(36, [P_{Out} + G_{TX}])$ dBm
	Smart antenna system (SAS)
	- Single beam: $P_{eirp} \leq \text{MAX}(36, P_{Out} + G_{TX})$ dBm
	- Overlap beam: $P_{eirp} \leq \text{MAX}(36, P_{Out} + G_{TX})$ dBm
	- Aggregate power on all beams: $P_{eirp} \leq \text{MAX}(36, [P_{Out} + G_{TX} + 8])$ 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.	

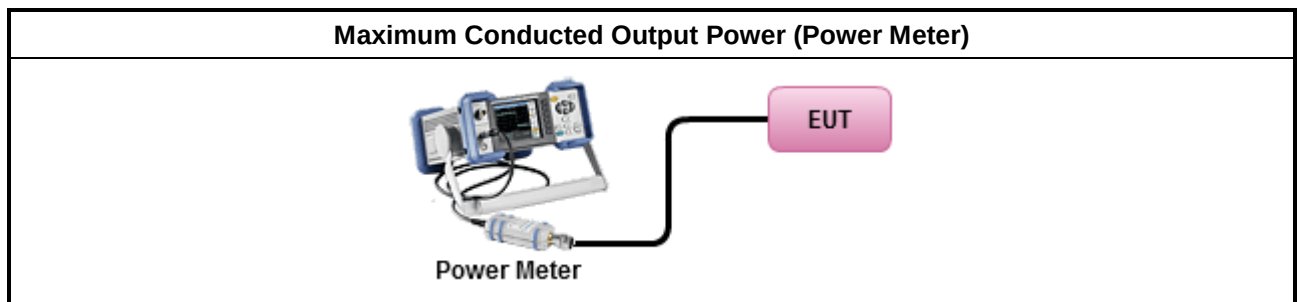
3.3.2 Measuring Instruments

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 integrated band power method.
☐	Refer as KDB 558074, clause 8.3.1.3 (11.9.1.2 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: $P_{total} = P_1 + P_2 + \dots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$	

3.3.4 Test Setup



3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C

3.4 Power Spectral Density

3.4.1 Power Spectral Density Limit

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

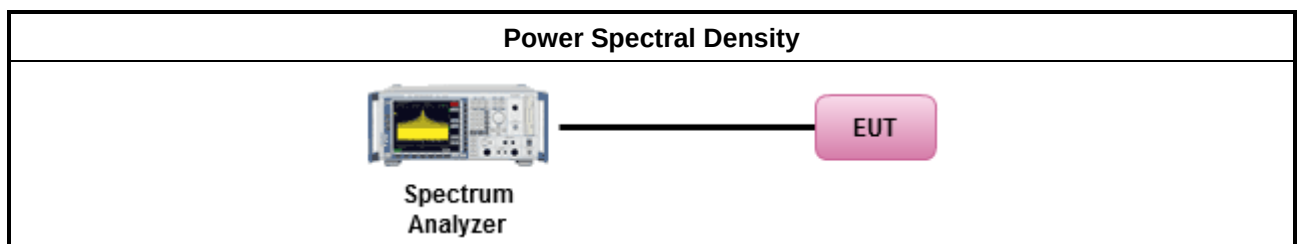
3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

Test Method	
▪	Peak power spectral density procedures that the same method as used to determine the conducted output power. If maximum peak conducted output power was measured to demonstrate compliance to the output power limit, then the peak PSD procedure below (Method PKPSD) shall be used. If maximum conducted output power was measured to demonstrate compliance to the output power limit, then one of the average PSD procedures shall be used, as applicable based on the following criteria (the peak PSD procedure is also an acceptable option).
☒	Refer as 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



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.	

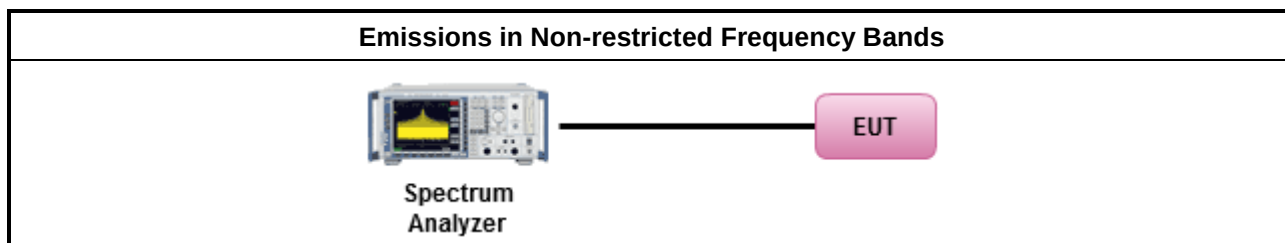
3.5.2 Measuring Instruments

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



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

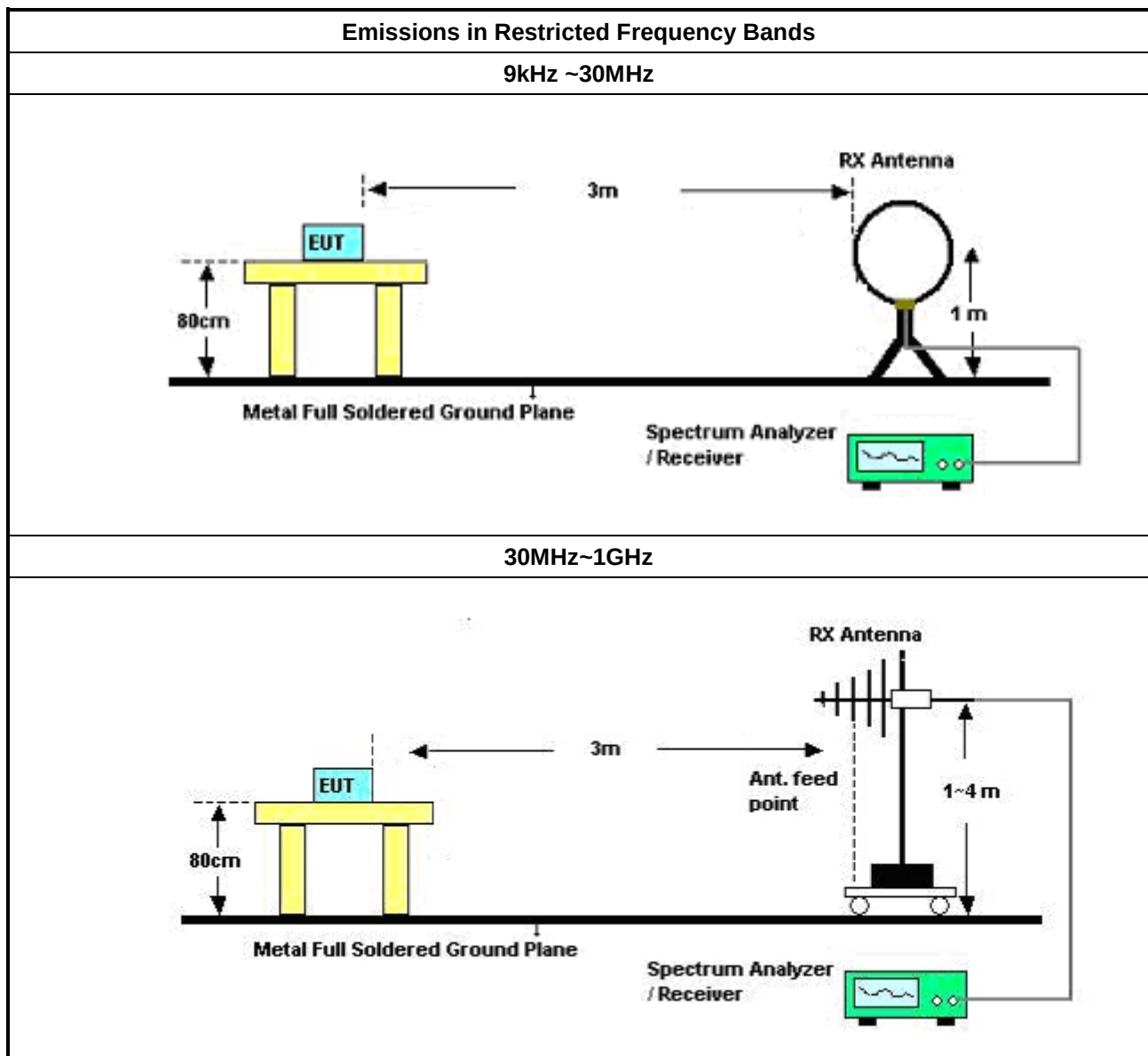
Test Method	
The average emission levels shall be measured in [duty cycle $\geq$ 98 or duty factor].	
Refer as ANSI C63.10, clause 6.10.3 band-edge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band.	
For the transmitter unwanted 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 $f \geq 1$ 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.

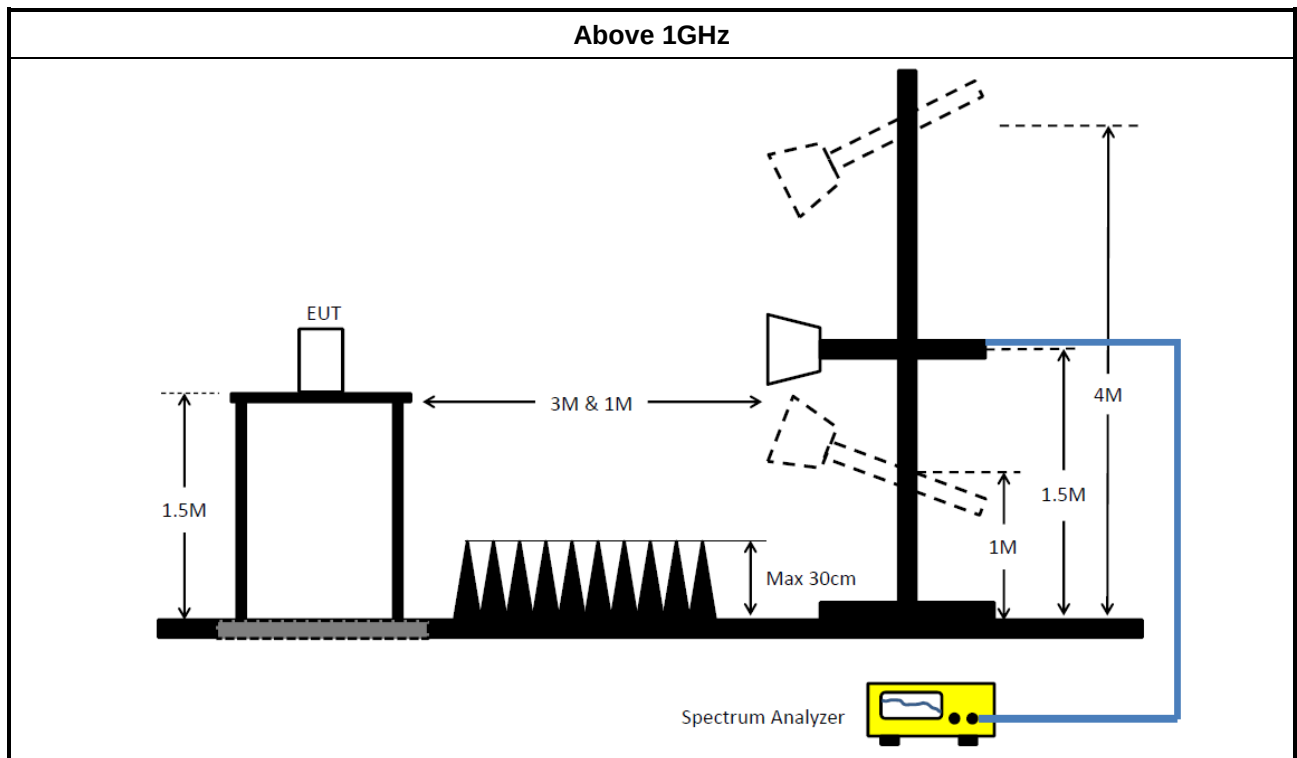
3.6.4 Measurement Results Calculation

The measured Level is calculated using:

Corrected Reading: Raw(Read Level) + AF(Antenna Factor) + CL(Cable Loss) - PA(Preamplifier Factor)

3.6.5 Test Setup





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	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 Radiated Test (03CH02-HY)

Instrument	Manufacturer /Brand	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	21/Mar/2024	20/Mar/2025
Signal Analyzer	R&S	FSP 40	100305	9kHz~40GHz	18/Mar/2025	17/Mar/2026
Loop Antenna	TESEQ	HLA 6120	31244	9kHz~30MHz	19/Mar/2024	18/Mar/2025
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	19/Apr/2024	18/Apr/2025

**Instrument for Radiated Test (03CH02-HY_CO-location)**

Instrument	Manufacturer /Brand	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	100593	9kHz~40GHz	11/Mar/2024	10/Mar/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-R03m	HUBER+SUHNE R	SUCOFLEX 104	03CH02-cable-01	1GHz~40GHz	15/Feb/2024	14/Feb/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-EMI	Sporton	V5.11.9	N/A	N/A	N/A	N/A

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	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	V5.11.21	N/A	N/A	N/A	N/A



Conducted Emissions at Powerline

Appendix A

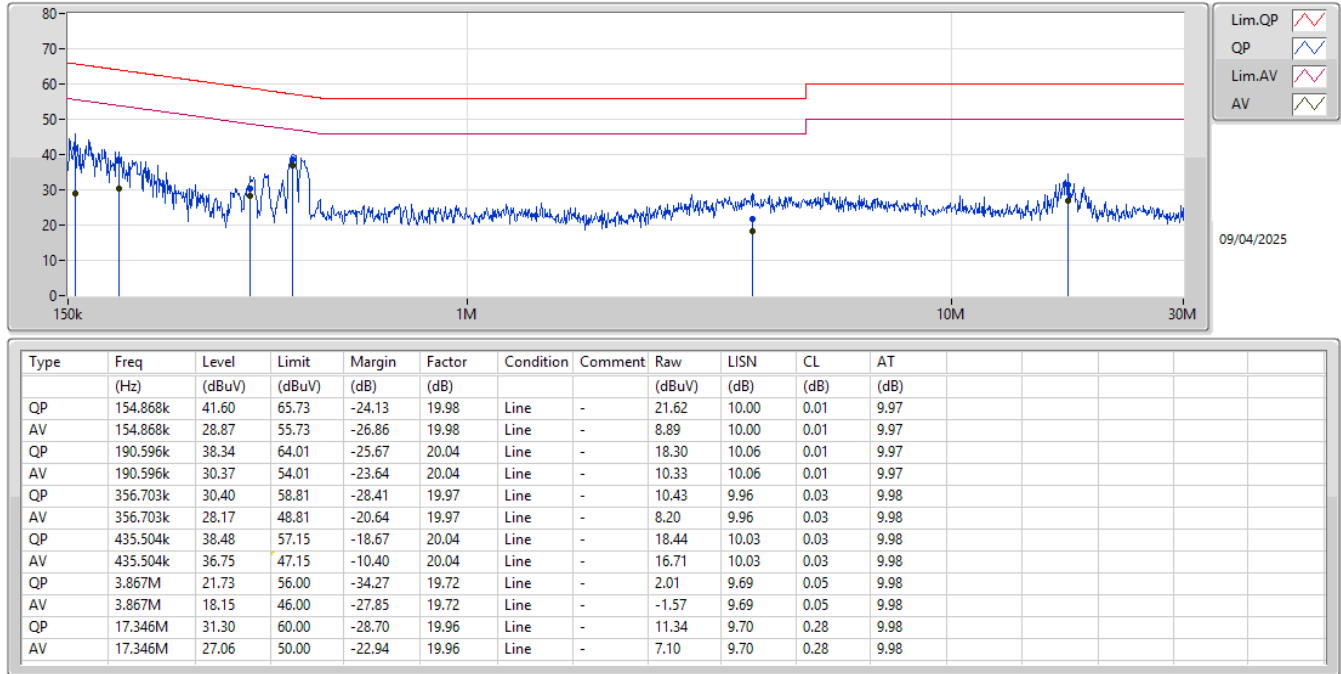
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	AV	435.504k	36.75	47.15	-10.40	Line

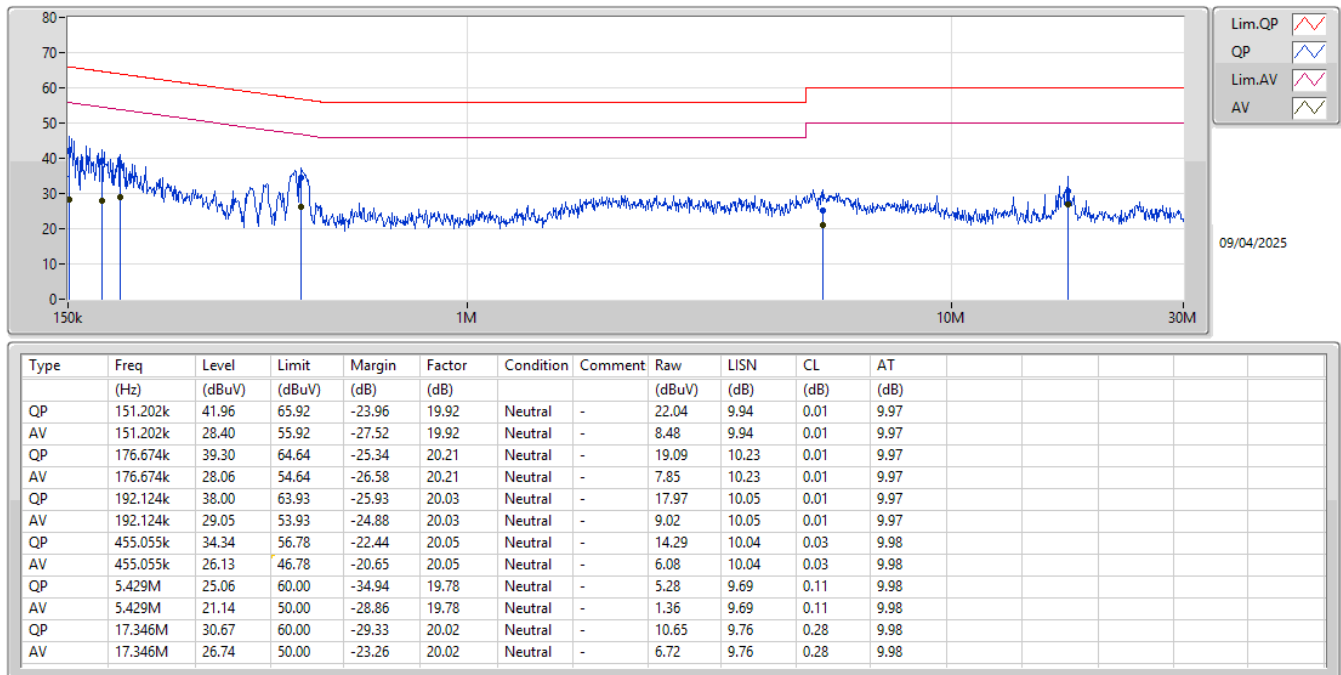
Result

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition	Comments
Mode 1	Pass	QP	154.868k	41.60	65.73	-24.13	Line	-
Mode 1	Pass	AV	154.868k	28.87	55.73	-26.86	Line	-
Mode 1	Pass	QP	190.596k	38.34	64.01	-25.67	Line	-
Mode 1	Pass	AV	190.596k	30.37	54.01	-23.64	Line	-
Mode 1	Pass	QP	356.703k	30.40	58.81	-28.41	Line	-
Mode 1	Pass	AV	356.703k	28.17	48.81	-20.64	Line	-
Mode 1	Pass	QP	435.504k	38.48	57.15	-18.67	Line	-
Mode 1	Pass	AV	435.504k	36.75	47.15	-10.40	Line	-
Mode 1	Pass	QP	3.867M	21.73	56.00	-34.27	Line	-
Mode 1	Pass	AV	3.867M	18.15	46.00	-27.85	Line	-
Mode 1	Pass	QP	17.346M	31.30	60.00	-28.70	Line	-
Mode 1	Pass	AV	17.346M	27.06	50.00	-22.94	Line	-
Mode 1	Pass	QP	151.202k	41.96	65.92	-23.96	Neutral	-
Mode 1	Pass	AV	151.202k	28.40	55.92	-27.52	Neutral	-
Mode 1	Pass	QP	176.674k	39.30	64.64	-25.34	Neutral	-
Mode 1	Pass	AV	176.674k	28.06	54.64	-26.58	Neutral	-
Mode 1	Pass	QP	192.124k	38.00	63.93	-25.93	Neutral	-
Mode 1	Pass	AV	192.124k	29.05	53.93	-24.88	Neutral	-
Mode 1	Pass	QP	455.055k	34.34	56.78	-22.44	Neutral	-
Mode 1	Pass	AV	455.055k	26.13	46.78	-20.65	Neutral	-
Mode 1	Pass	QP	5.429M	25.06	60.00	-34.94	Neutral	-
Mode 1	Pass	AV	5.429M	21.14	50.00	-28.86	Neutral	-
Mode 1	Pass	QP	17.346M	30.67	60.00	-29.33	Neutral	-
Mode 1	Pass	AV	17.346M	26.74	50.00	-23.26	Neutral	-

Conducted Emissions at Powerline_Mode 1



Conducted Emissions at Powerline_Mode 1



**Summary**

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
	-	-	-	-	-
802.15.4_Nss1_1TX	1.644M	2.249M	2M25D1D	1.638M	2.243M

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)
802.15.4_Nss1_1TX	-	-	-	-
2405MHz	Pass	500k	1.644M	2.243M
2440MHz	Pass	500k	1.638M	2.249M
2475MHz	Pass	500k	1.638M	2.243M
2480MHz	Pass	500k	1.638M	2.249M

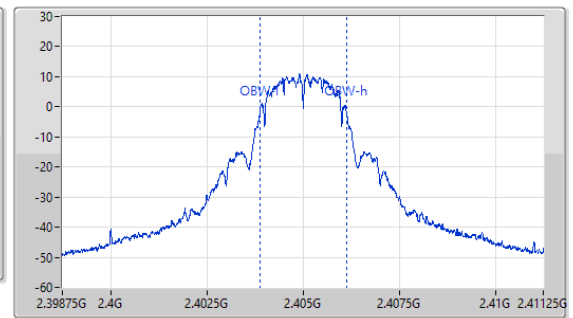
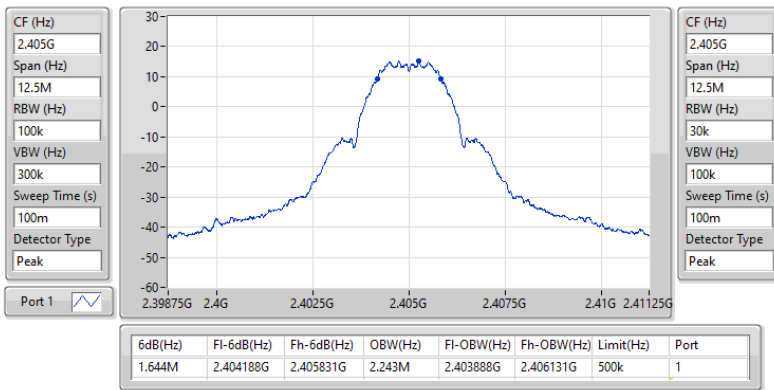
Port X-N dB = Port X 6dB down bandwidth;
Port X-OBW = Port X 99% occupied bandwidth

802.15.4_Nss1_1TX

EBW

2405MHz

13/03/2025





Average Power

Appendix C

Summary

Mode	Total Power (dBm)	Total Power (W)
	-	-
802.15.4_Nss1_1TX	18.92	0.07798



Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.15.4_Nss1_1TX	-	-	-	-	-
2405MHz	Pass	4.56	18.80	18.80	30.00
2440MHz	Pass	4.56	18.92	18.92	30.00
2475MHz	Pass	4.56	18.90	18.90	30.00
2480MHz	Pass	4.56	7.08	7.08	30.00

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



Summary

Mode	PD (dBm/RBW)
	-
802.15.4_Nss1_1TX	1.82

RBW = 3kHz;

Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.15.4_Nss1_1TX	-	-	-	-	-
2405MHz	Pass	4.56	1.82	1.82	8.00
2440MHz	Pass	4.56	1.12	1.12	8.00
2475MHz	Pass	4.56	0.83	0.83	8.00
2480MHz	Pass	4.56	-9.56	-9.56	8.00

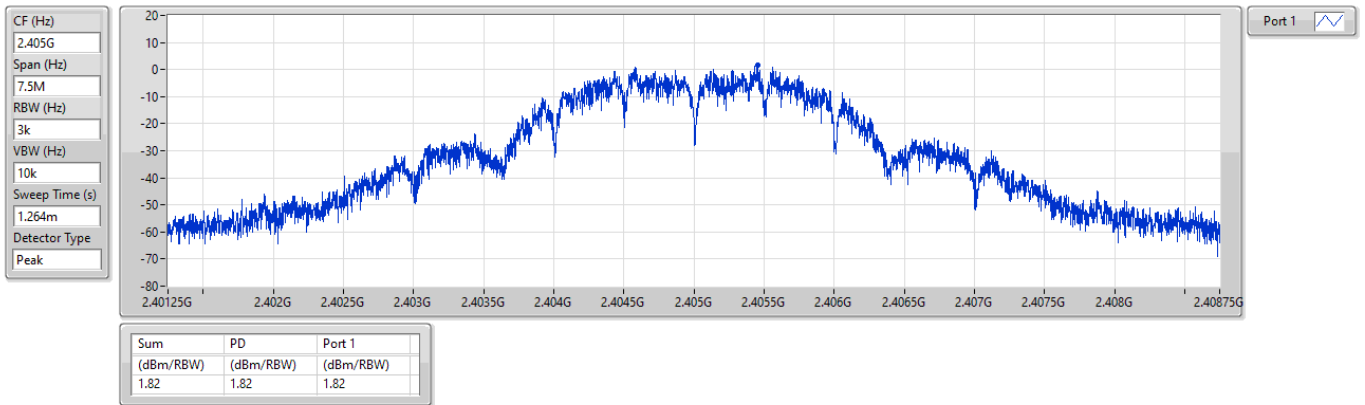
DG = Directional Gain; RBW = 3kHz;
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; Port X = Port X Power Density;
Inf = There's no restriction for the limit.

802.15.4_Nss1_1TX

PSD

2405MHz

13/03/2025





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
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
802.15.4_Nss1_1TX	Pass	2.43975G	14.81	-15.19	2.15205G	-54.01	2.4G	-38.91	2.4G	-38.52	2.50122G	-52.88	24.97469G	-42.63	1



Result

Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
802.15.4_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2405MHz	Pass	2.43975G	14.81	-15.19	2.15205G	-54.01	2.4G	-38.91	2.4G	-38.52	2.50122G	-52.88	24.97469G	-42.63	1
2440MHz	Pass	2.43975G	14.81	-15.19	2.0933G	-54.10	2.39988G	-50.66	2.4G	-51.38	2.50114G	-52.33	16.40915G	-42.48	1
2475MHz	Pass	2.43975G	14.81	-15.19	2.30598G	-54.19	2.39796G	-53.00	2.4G	-55.40	2.50094G	-52.24	23.21996G	-42.45	1
2480MHz	Pass	2.43975G	14.81	-15.19	2.13678G	-54.02	2.39212G	-53.85	2.4G	-55.13	2.50334G	-53.43	24.88471G	-43.04	1

802.15.4_Nss1_1TX

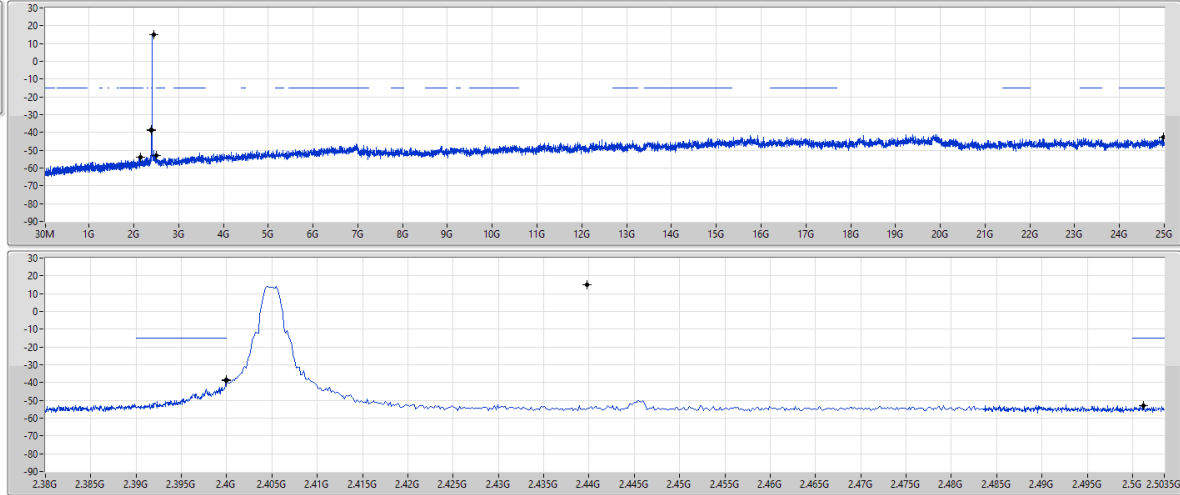
CSEndB

2405MHz

13/03/2025

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

Port 1



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
2.43975G	14.81	-15.19	2.15205G	-54.01	2.4G	-38.91	2.4G	-38.52	2.50122G	-52.88	24.97469G	-42.63	1



Summary

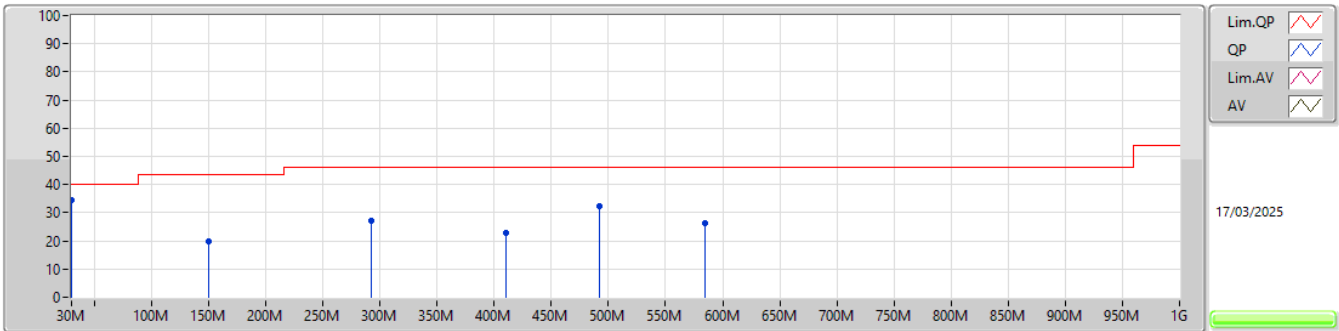
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
-	-	-	-	-	-	-	-	-	-	-
802.15.4_Nss1_1TX	Pass	PK	30M	34.39	40.00	-5.61	3	Vertical	0	1.00

**Result**

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
802.15.4_Nss1_1TX	-	-	-	-	-	-	-	-	-	-
2440MHz_PoE	Pass	PK	30M	34.39	40.00	-5.61	3	Vertical	0	1.00
2440MHz_PoE	Pass	PK	150.28M	19.98	43.50	-23.52	3	Vertical	0	1.00
2440MHz_PoE	Pass	PK	291.9M	26.95	46.00	-19.05	3	Vertical	0	1.00
2440MHz_PoE	Pass	PK	410.24M	22.68	46.00	-23.32	3	Vertical	0	1.00
2440MHz_PoE	Pass	PK	491.72M	32.54	46.00	-13.46	3	Vertical	0	1.00
2440MHz_PoE	Pass	PK	584.84M	26.23	46.00	-19.77	3	Vertical	0	1.00
2440MHz_PoE	Pass	PK	30M	25.20	40.00	-14.80	3	Horizontal	360	1.00
2440MHz_PoE	Pass	PK	136.7M	18.17	43.50	-25.33	3	Horizontal	360	1.00
2440MHz_PoE	Pass	PK	262.8M	27.04	46.00	-18.96	3	Horizontal	360	1.00
2440MHz_PoE	Pass	PK	291.9M	28.50	46.00	-17.50	3	Horizontal	360	1.00
2440MHz_PoE	Pass	PK	418M	23.50	46.00	-22.50	3	Horizontal	360	1.00
2440MHz_PoE	Pass	PK	489.78M	28.94	46.00	-17.06	3	Horizontal	360	1.00

802.15.4_Nss1_1TX

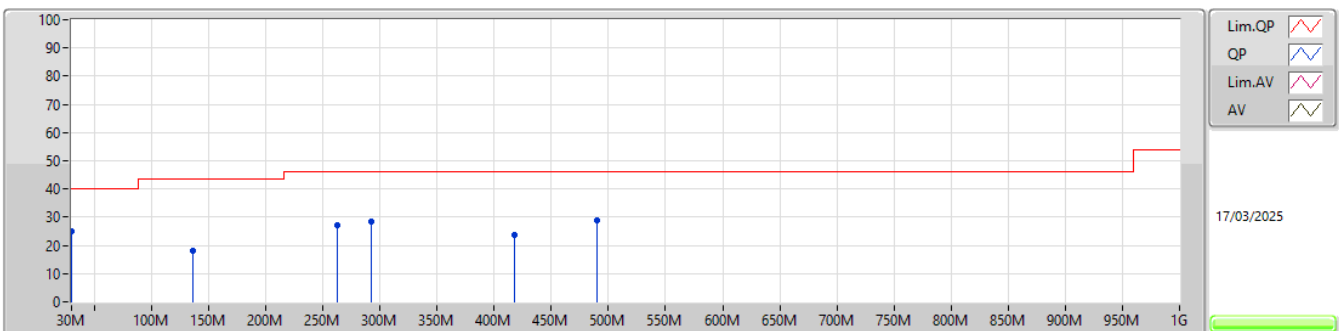
2440MHz_PoE



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	30M	34.39	40.00	-5.61	-3.12	3	Vertical	0	1.00	37.51	23.18	1.09	27.39
PK	150.28M	19.98	43.50	-23.52	-9.94	3	Vertical	0	1.00	29.92	15.11	2.46	27.51
PK	291.9M	26.95	46.00	-19.05	-5.70	3	Vertical	0	1.00	32.65	17.83	3.50	27.03
PK	410.24M	22.68	46.00	-23.32	-2.65	3	Vertical	0	1.00	25.33	21.00	4.18	27.83
PK	491.72M	32.54	46.00	-13.46	-1.42	3	Vertical	0	1.00	33.96	22.25	4.61	28.28
PK	584.84M	26.23	46.00	-19.77	0.00	3	Vertical	0	1.00	26.23	23.30	5.07	28.37

802.15.4_Nss1_1TX

2440MHz_PoE



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	30M	25.20	40.00	-14.80	-3.12	3	Horizontal	360	1.00	28.32	23.18	1.09	27.39
PK	136.7M	18.17	43.50	-25.33	-8.98	3	Horizontal	360	1.00	27.15	16.24	2.34	27.56
PK	262.8M	27.04	46.00	-18.96	-5.49	3	Horizontal	360	1.00	32.53	18.25	3.31	27.05
PK	291.9M	28.50	46.00	-17.50	-5.70	3	Horizontal	360	1.00	34.20	17.83	3.50	27.03
PK	418M	23.50	46.00	-22.50	-2.36	3	Horizontal	360	1.00	25.86	21.29	4.22	27.87
PK	489.78M	28.94	46.00	-17.06	-1.45	3	Horizontal	360	1.00	30.39	22.22	4.60	28.27



Summary

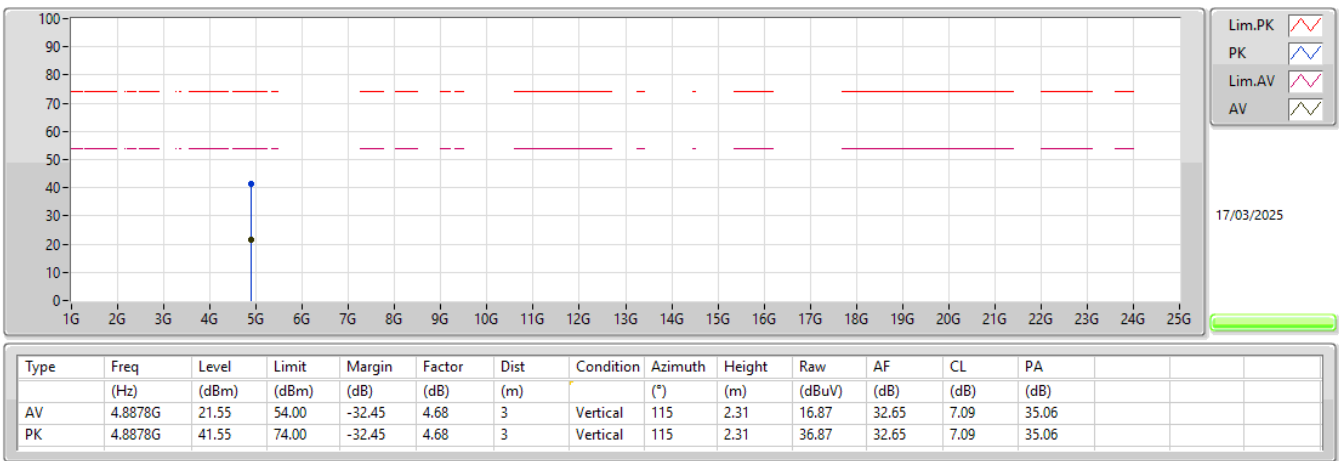
Mode	Result	Type	Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
-	-	-	-	-	-	-	-	-	-	-
802.15.4_Nss1_1TX	Pass	AV	4.87148G	22.03	54.00	-31.97	3	Horizontal	337	1.29

**Result**

Mode	Result	Type	Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
802.15.4_Nss1_1TX	-	-	-	-	-	-	-	-	-	-
2440MHz	Pass	AV	4.8878G	21.55	54.00	-32.45	3	Vertical	115	2.31
2440MHz	Pass	PK	4.8878G	41.55	74.00	-32.45	3	Vertical	115	2.31
2440MHz	Pass	AV	4.87148G	22.03	54.00	-31.97	3	Horizontal	337	1.29
2440MHz	Pass	PK	4.87148G	42.03	74.00	-31.97	3	Horizontal	337	1.29

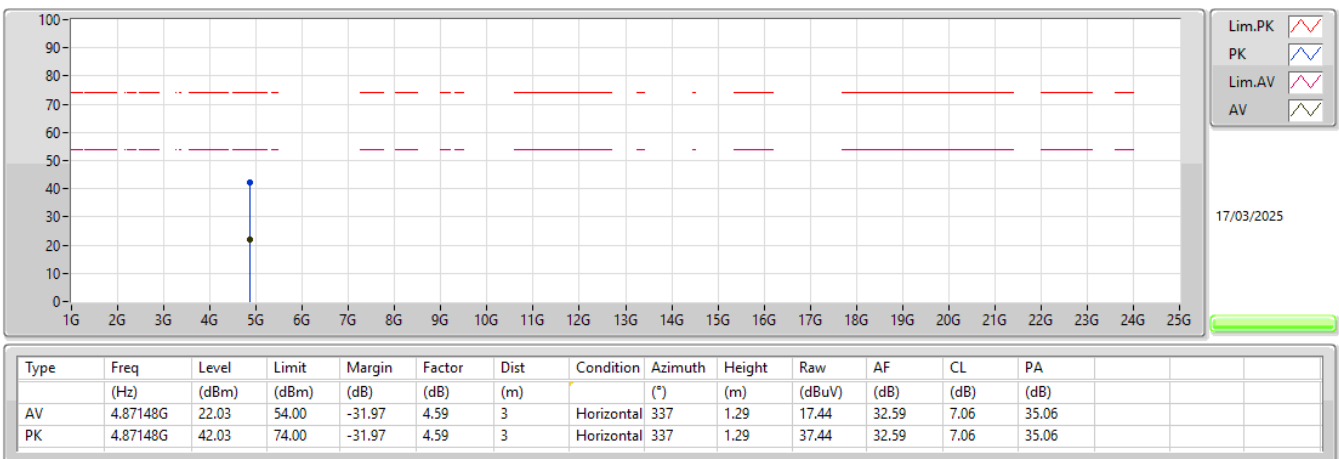
802.15.4_Nss1_1TX

2440MHz_TX



802.15.4_Nss1_1TX

2440MHz_TX





Summary

Mode	Result	F-Start (Hz)	F-Stop (Hz)	Type	Freq (Hz)	DG (dBi)	P1 (dBm)	Psum (dBm)	EIRP (dBm)	Limit (dBm)	Margin (dB)
	-	-	-	-	-	-	-	-	-	-	-
802.15.4_Nss1_1TX	Pass	2.39G	2.4935G	AV	2.48356G	4.56	-46.80	-46.80	-42.24	-41.20	-1.04

DG = Directional Gain ; PX=Port X; Psum=P1+P2+...PX

**Result**

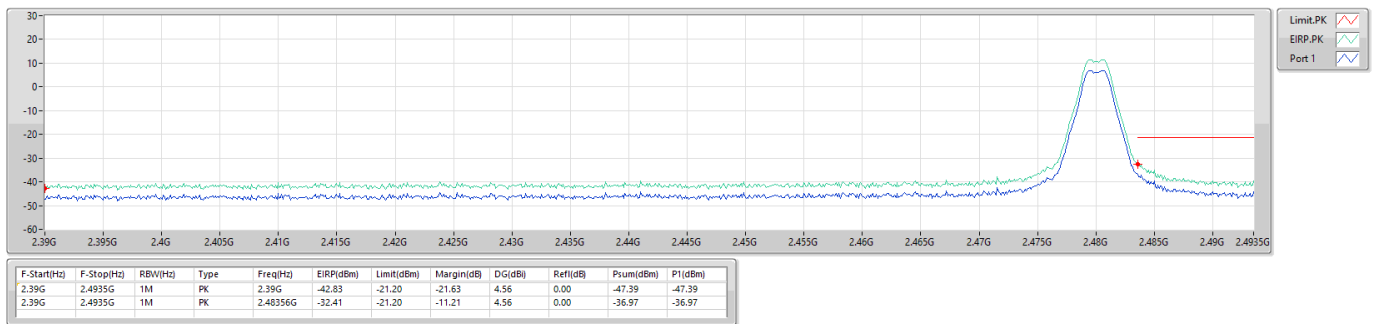
Mode	Result	F-Start (Hz)	F-Stop (Hz)	Type	Freq (Hz)	DG (dBi)	P1 (dBm)	Psum (dBm)	EIRP (dBm)	Limit (dBm)	Margin (dB)
802.15.4_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-
2405MHz	Pass	2.39G	2.4935G	AV	2.39G	4.56	-57.44	-57.44	-52.88	-41.20	-11.68
2405MHz	Pass	2.39G	2.4935G	AV	2.4845G	4.56	-62.73	-62.73	-58.17	-41.20	-16.97
2405MHz	Pass	2.39G	2.4935G	PK	2.39G	4.56	-47.53	-47.53	-42.97	-21.20	-21.77
2405MHz	Pass	2.39G	2.4935G	PK	2.49029G	4.56	-51.53	-51.53	-46.97	-21.20	-25.77
2440MHz	Pass	2.39G	2.4935G	AV	2.39G	4.56	-62.86	-62.86	-58.30	-41.20	-17.10
2440MHz	Pass	2.39G	2.4935G	AV	2.48501G	4.56	-61.88	-61.88	-57.32	-41.20	-16.12
2440MHz	Pass	2.39G	2.4935G	AV	2.48553G	4.56	-61.88	-61.88	-57.32	-41.20	-16.12
2440MHz	Pass	2.39G	2.4935G	PK	2.39G	4.56	-53.36	-53.36	-48.80	-21.20	-27.60
2440MHz	Pass	2.39G	2.4935G	PK	2.4846G	4.56	-50.17	-50.17	-45.61	-21.20	-24.41
2475MHz	Pass	2.39G	2.4935G	AV	2.39G	4.56	-56.31	-56.31	-51.75	-41.20	-10.55
2475MHz	Pass	2.39G	2.4935G	AV	2.48356G	4.56	-47.25	-47.25	-42.69	-41.20	-1.49
2475MHz	Pass	2.39G	2.4935G	PK	2.39G	4.56	-46.42	-46.42	-41.86	-21.20	-20.66
2475MHz	Pass	2.39G	2.4935G	PK	2.48367G	4.56	-35.75	-35.75	-31.19	-21.20	-9.99
2480MHz	Pass	2.39G	2.4935G	AV	2.39G	4.56	-56.56	-56.56	-52.00	-41.20	-10.80
2480MHz	Pass	2.39G	2.4935G	AV	2.48356G	4.56	-46.80	-46.80	-42.24	-41.20	-1.04
2480MHz	Pass	2.39G	2.4935G	PK	2.39G	4.56	-47.39	-47.39	-42.83	-21.20	-21.63
2480MHz	Pass	2.39G	2.4935G	PK	2.48356G	4.56	-36.97	-36.97	-32.41	-21.20	-11.21

DG = Directional Gain ; PX=Port X; Psum=P1+P2+...PX

802.15.4_Nss1_1TX

CSE Bandedge [PK]

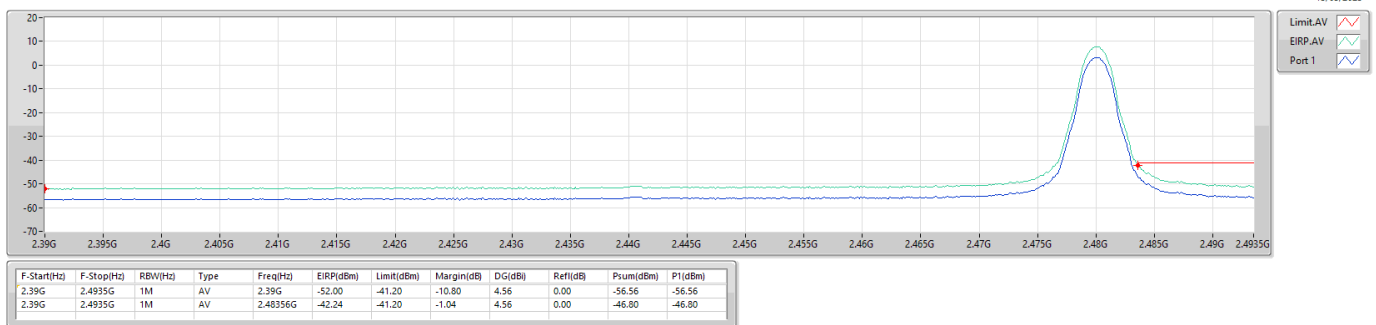
2480MHz



802.15.4_Nss1_1TX

CSE Bandedge [AV]

2480MHz





Summary

Mode	Result	F-Start (Hz)	F-Stop (Hz)	Type	Freq (Hz)	DG (dBi)	P1 (dBm)	Psum (dBm)	EIRP (dBm)	Limit (dBm)	Margin (dB)
	-	-	-	-	-	-	-	-	-	-	-
802.15.4_Nss1_1TX	Pass	1G	26G	AV	12.373G	4.56	-53.60	-53.60	-49.04	-41.20	-7.84

DG = Directional Gain ; PX=Port X; Psum=P1+P2+...PX

Result

Mode	Result	F-Start (Hz)	F-Stop (Hz)	Type	Freq (Hz)	DG (dBi)	P1 (dBm)	Psum (dBm)	EIRP (dBm)	Limit (dBm)	Margin (dB)
802.15.4_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-
2405MHz	Pass	1G	25G	AV	4.81G	4.56	-71.84	-71.84	-67.28	-41.20	-26.08
2405MHz	Pass	1G	25G	AV	12.028G	4.56	-54.97	-54.97	-50.41	-41.20	-9.21
2405MHz	Pass	1G	25G	PK	4.81G	4.56	-67.81	-67.81	-63.25	-21.20	-42.05
2405MHz	Pass	1G	25G	PK	12.028G	4.56	-48.52	-48.52	-43.96	-21.20	-22.76
2440MHz	Pass	1G	25G	AV	4.879G	4.56	-71.92	-71.92	-67.36	-41.20	-26.16
2440MHz	Pass	1G	25G	AV	7.321G	4.56	-55.17	-55.17	-50.61	-41.20	-9.41
2440MHz	Pass	1G	25G	PK	4.879G	4.56	-67.14	-67.14	-62.58	-21.20	-41.38
2440MHz	Pass	1G	25G	PK	12.202G	4.56	-48.73	-48.73	-44.17	-21.20	-22.97
2475MHz	Pass	1G	25G	AV	4.948G	4.56	-73.90	-73.90	-69.34	-41.20	-28.14
2475MHz	Pass	1G	25G	AV	12.373G	4.56	-53.60	-53.60	-49.04	-41.20	-7.84
2475MHz	Pass	1G	25G	PK	4.948G	4.56	-68.84	-68.84	-64.28	-21.20	-43.08
2475MHz	Pass	1G	25G	PK	12.379G	4.56	-47.04	-47.04	-42.48	-21.20	-21.28
2480MHz	Pass	1G	25G	AV	4.957G	4.56	-82.13	-82.13	-77.57	-41.20	-36.37
2480MHz	Pass	1G	25G	AV	7.441G	4.56	-74.78	-74.78	-70.22	-41.20	-29.02
2480MHz	Pass	1G	25G	PK	4.957G	4.56	-74.48	-74.48	-69.92	-21.20	-48.72
2480MHz	Pass	1G	25G	PK	7.441G	4.56	-71.28	-71.28	-66.72	-21.20	-45.52

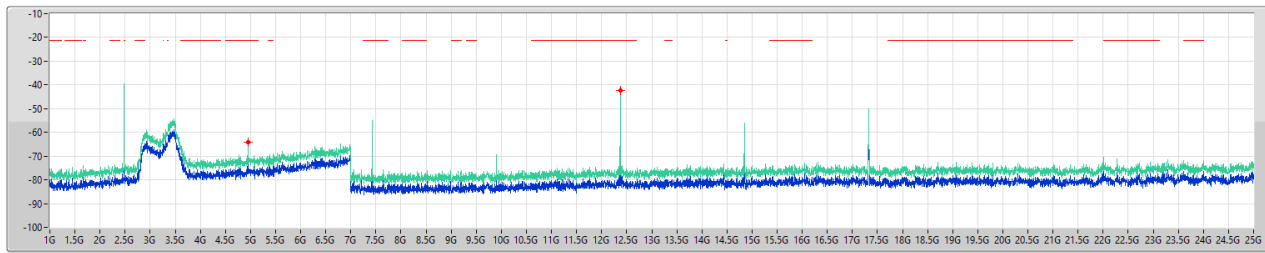
DG = Directional Gain ; PX=Port X; Psum=P1+P2+...PX

802.15.4_Nss1_1TX

CSE [PK]

2475MHz

13/03/2025



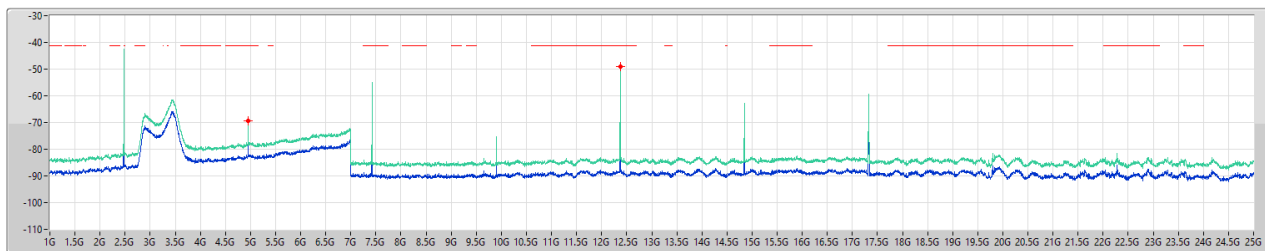
F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Margin(dB)	DG(dB)	RefI(dB)	Psum(dBm)	P1(dBm)
1G	25G	1M	PK	4.948G	-64.28	-21.20	-43.08	4.56	0.00	-68.84	-68.84
1G	25G	1M	PK	12.379G	-42.48	-21.20	-21.28	4.56	0.00	-47.04	-47.04

802.15.4_Nss1_1TX

CSE [AV]

2475MHz

13/03/2025



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Margin(dB)	DG(dB)	RefI(dB)	Psum(dBm)	P1(dBm)
1G	25G	1M	AV	4.948G	-69.34	-41.20	-28.14	4.56	0.00	-73.90	-73.90
1G	25G	1M	AV	12.379G	-49.04	-41.20	-7.84	4.56	0.00	-53.60	-53.60

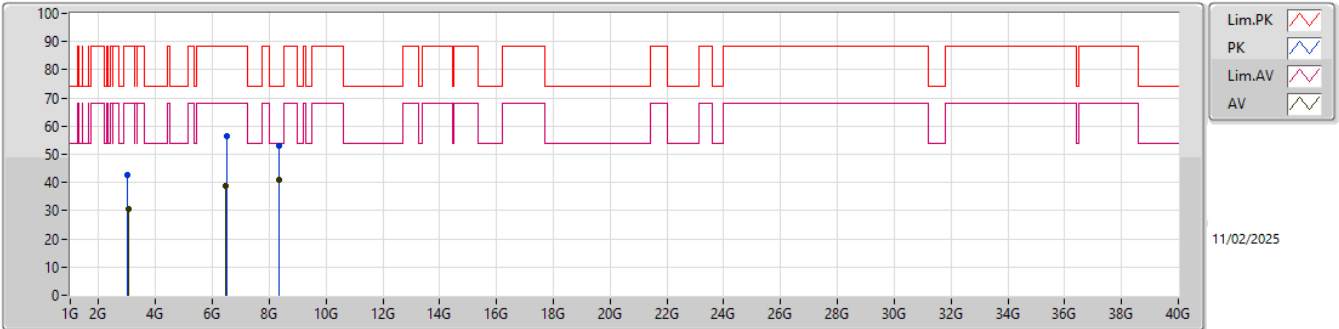
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition
Mode 1	Pass	AV	9.35734G	42.96	54.00	-11.04	Horizontal
Mode 2	Pass	AV	4.79598G	33.26	54.00	-20.74	Horizontal
Mode 3	Pass	AV	8.14552G	40.84	54.00	-13.16	Horizontal
Mode 4	Pass	AV	9.14521G	43.59	54.00	-10.41	Horizontal

Result

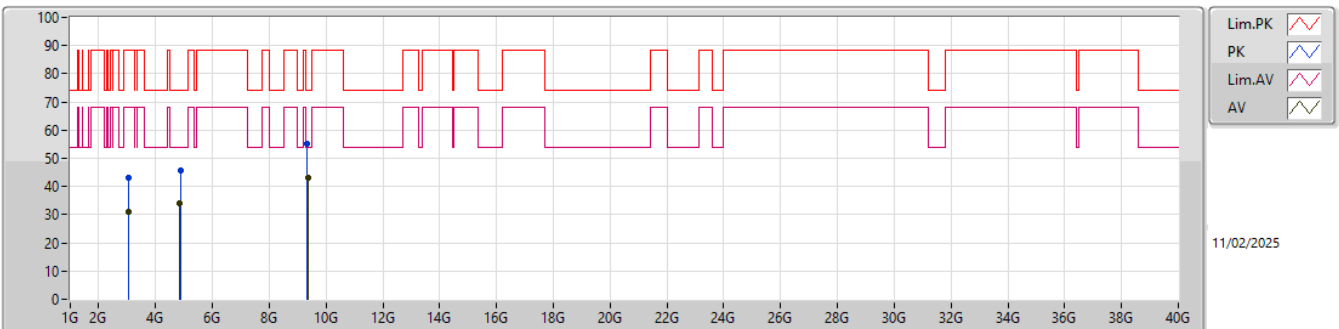
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
Mode 1	Pass	AV	3.03646G	30.80	68.20	-37.40	3	Vertical	44	1.81
Mode 1	Pass	AV	6.48588G	38.63	68.20	-29.57	3	Vertical	339	2.39
Mode 1	Pass	AV	8.35258G	40.76	54.00	-13.24	3	Vertical	124	1.50
Mode 1	Pass	PK	3.02062G	42.77	88.20	-45.43	3	Vertical	44	1.81
Mode 1	Pass	PK	6.49104G	56.59	88.20	-31.61	3	Vertical	339	2.39
Mode 1	Pass	PK	8.34964G	53.12	74.00	-20.88	3	Vertical	124	1.50
Mode 1	Pass	AV	3.03342G	31.21	68.20	-36.99	3	Horizontal	51	1.50
Mode 1	Pass	AV	4.85898G	34.05	54.00	-19.95	3	Horizontal	324	1.50
Mode 1	Pass	AV	9.35734G	42.96	54.00	-11.04	3	Horizontal	145	2.24
Mode 1	Pass	PK	3.04764G	43.01	88.20	-45.19	3	Horizontal	51	1.50
Mode 1	Pass	PK	4.87044G	45.66	74.00	-28.34	3	Horizontal	324	1.50
Mode 1	Pass	PK	9.3358G	55.15	74.00	-18.85	3	Horizontal	145	2.24
Mode 2	Pass	AV	2.10628G	27.41	68.20	-40.79	3	Vertical	66	1.50
Mode 2	Pass	AV	4.33588G	32.81	54.00	-21.19	3	Vertical	306	1.50
Mode 2	Pass	AV	7.91632G	40.70	68.20	-27.50	3	Vertical	217	1.50
Mode 2	Pass	PK	2.11672G	39.13	88.20	-49.07	3	Vertical	66	1.50
Mode 2	Pass	PK	4.33732G	45.03	74.00	-28.97	3	Vertical	306	1.50
Mode 2	Pass	PK	7.93252G	52.92	88.20	-35.28	3	Vertical	217	1.50
Mode 2	Pass	AV	3.03832G	30.60	68.20	-37.60	3	Horizontal	112	1.50
Mode 2	Pass	AV	4.79598G	33.26	54.00	-20.74	3	Horizontal	310	1.50
Mode 2	Pass	AV	8.78496G	42.03	68.20	-26.17	3	Horizontal	354	1.50
Mode 2	Pass	PK	3.03418G	42.27	88.20	-45.93	3	Horizontal	112	1.50
Mode 2	Pass	PK	4.80348G	45.17	74.00	-28.83	3	Horizontal	310	1.50
Mode 2	Pass	PK	8.78532G	53.82	88.20	-34.38	3	Horizontal	354	1.50
Mode 3	Pass	AV	3.02454G	30.10	68.20	-38.10	3	Vertical	21	1.05
Mode 3	Pass	AV	6.45133G	39.11	68.20	-29.09	3	Vertical	113	2.14
Mode 3	Pass	AV	7.15646G	42.60	68.20	-25.60	3	Vertical	82	2.58
Mode 3	Pass	PK	3.04556G	43.83	88.20	-44.37	3	Vertical	21	1.05
Mode 3	Pass	PK	6.50148G	58.16	88.20	-30.04	3	Vertical	113	2.14
Mode 3	Pass	PK	7.15851G	51.94	88.20	-36.26	3	Vertical	82	2.58
Mode 3	Pass	AV	3.15844G	30.25	68.20	-37.95	3	Horizontal	23	2.10
Mode 3	Pass	AV	4.81545G	37.24	54.00	-16.76	3	Horizontal	185	1.55
Mode 3	Pass	AV	8.14552G	40.84	54.00	-13.16	3	Horizontal	56	2.19
Mode 3	Pass	PK	3.23842G	43.89	88.20	-44.31	3	Horizontal	23	2.10
Mode 3	Pass	PK	4.84851G	46.17	74.00	-27.83	3	Horizontal	185	1.55
Mode 3	Pass	PK	8.12456G	54.92	74.00	-19.08	3	Horizontal	56	2.19
Mode 4	Pass	AV	3.15847G	31.02	68.20	-37.18	3	Vertical	51	2.13
Mode 4	Pass	AV	5.01515G	37.28	54.00	-16.72	3	Vertical	259	1.54
Mode 4	Pass	AV	10.5556G	45.61	68.20	-22.59	3	Vertical	232	2.38
Mode 4	Pass	PK	3.15455G	41.43	88.20	-46.77	3	Vertical	51	2.13
Mode 4	Pass	PK	5.01564G	47.92	74.00	-26.08	3	Vertical	259	1.54
Mode 4	Pass	PK	10.5541G	57.56	88.20	-30.64	3	Vertical	232	2.38
Mode 4	Pass	AV	3.15847G	31.02	68.20	-37.18	3	Horizontal	215	2.18
Mode 4	Pass	AV	5.15847G	34.97	68.20	-33.23	3	Horizontal	121	1.54
Mode 4	Pass	AV	9.14521G	43.59	54.00	-10.41	3	Horizontal	102	1.08
Mode 4	Pass	PK	3.15193G	42.94	88.20	-45.26	3	Horizontal	215	2.18
Mode 4	Pass	PK	5.15483G	46.90	88.20	-41.30	3	Horizontal	121	1.54
Mode 4	Pass	PK	9.14359G	54.93	74.00	-19.07	3	Horizontal	102	1.08

Radiated Emissions above 1GHz_Mode 1



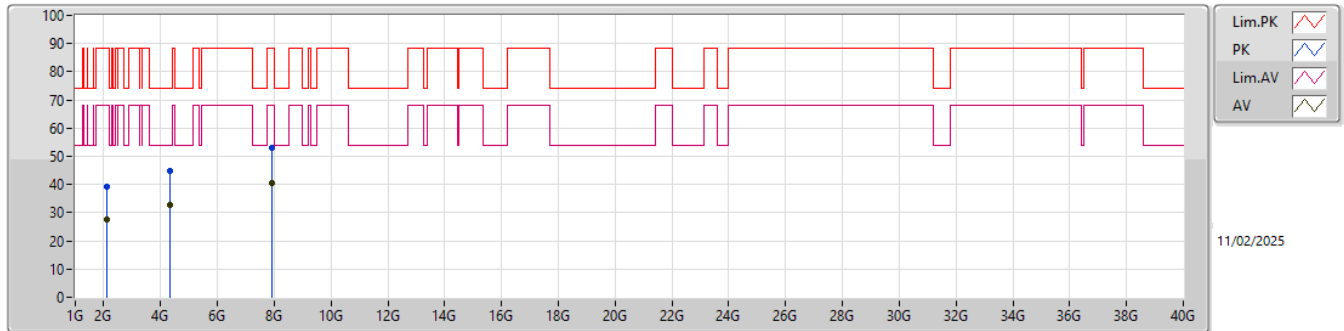
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB/m)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB/m)	CL (dB)	PA (dB)
AV	3.03646G	30.80	68.20	-37.40	-0.35	3	Vertical	44	1.81	31.15	29.67	5.20	35.22
AV	6.48588G	38.63	68.20	-29.57	7.20	3	Vertical	339	2.39	31.43	35.02	7.70	35.52
AV	8.35258G	40.76	54.00	-13.24	10.82	3	Vertical	124	1.50	29.94	37.01	8.78	34.97
PK	3.02062G	42.77	88.20	-45.43	-0.39	3	Vertical	44	1.81	43.16	29.64	5.19	35.22
PK	6.49104G	56.59	88.20	-31.61	7.22	3	Vertical	339	2.39	49.37	35.05	7.70	35.53
PK	8.34964G	53.12	74.00	-20.88	10.80	3	Vertical	124	1.50	42.32	37.00	8.78	34.98

Radiated Emissions above 1GHz_Mode 1



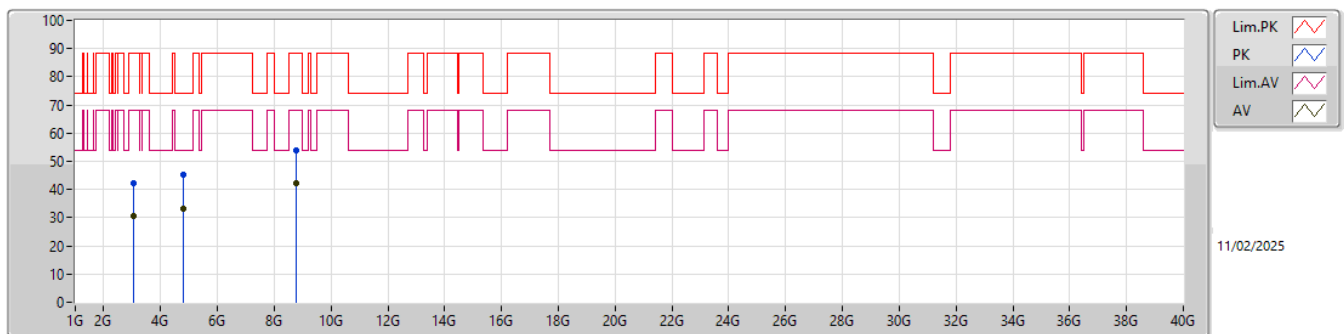
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB/m)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB/m)	CL (dB)	PA (dB)
AV	3.03342G	31.21	68.20	-36.99	-0.35	3	Horizontal	51	1.50	31.56	29.67	5.20	35.22
AV	4.85898G	34.05	54.00	-19.95	4.05	3	Horizontal	324	1.50	30.00	32.54	6.57	35.06
AV	9.35734G	42.96	54.00	-11.04	13.05	3	Horizontal	145	2.24	29.91	38.33	9.53	34.81
PK	3.04764G	43.01	88.20	-45.19	-0.31	3	Horizontal	51	1.50	43.32	29.70	5.21	35.22
PK	4.87044G	45.66	74.00	-28.34	4.10	3	Horizontal	324	1.50	41.56	32.58	6.58	35.06
PK	9.3358G	55.15	74.00	-18.85	12.99	3	Horizontal	145	2.24	42.16	38.30	9.49	34.80

Radiated Emissions above 1GHz_Mode 2



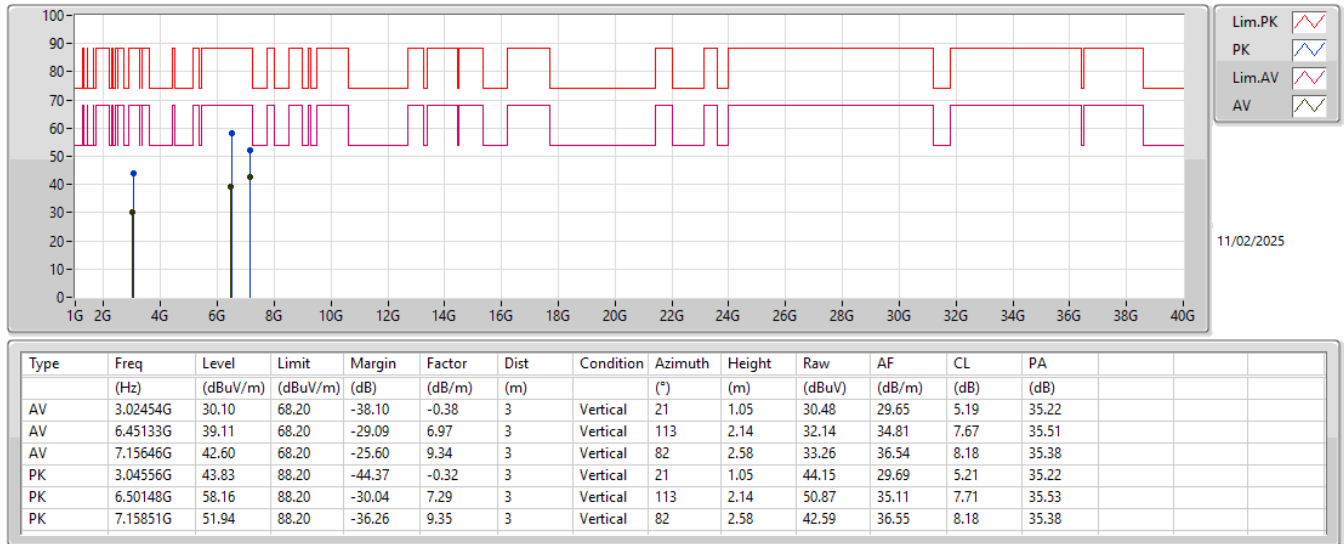
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB/m)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB/m)	CL (dB)	PA (dB)
AV	2.10628G	27.41	68.20	-40.79	-3.34	3	Vertical	66	1.50	30.75	27.43	4.24	35.01
AV	4.33588G	32.81	54.00	-21.19	2.63	3	Vertical	306	1.50	30.18	31.47	6.20	35.04
AV	7.91632G	40.70	68.20	-27.50	10.35	3	Vertical	217	1.50	30.35	36.93	8.49	35.07
PK	2.11672G	39.13	88.20	-49.07	-3.20	3	Vertical	66	1.50	42.33	27.57	4.25	35.02
PK	4.33732G	45.03	74.00	-28.97	2.63	3	Vertical	306	1.50	42.40	31.47	6.20	35.04
PK	7.93252G	52.92	88.20	-35.28	10.40	3	Vertical	217	1.50	42.52	36.97	8.50	35.07

Radiated Emissions above 1GHz_Mode 2

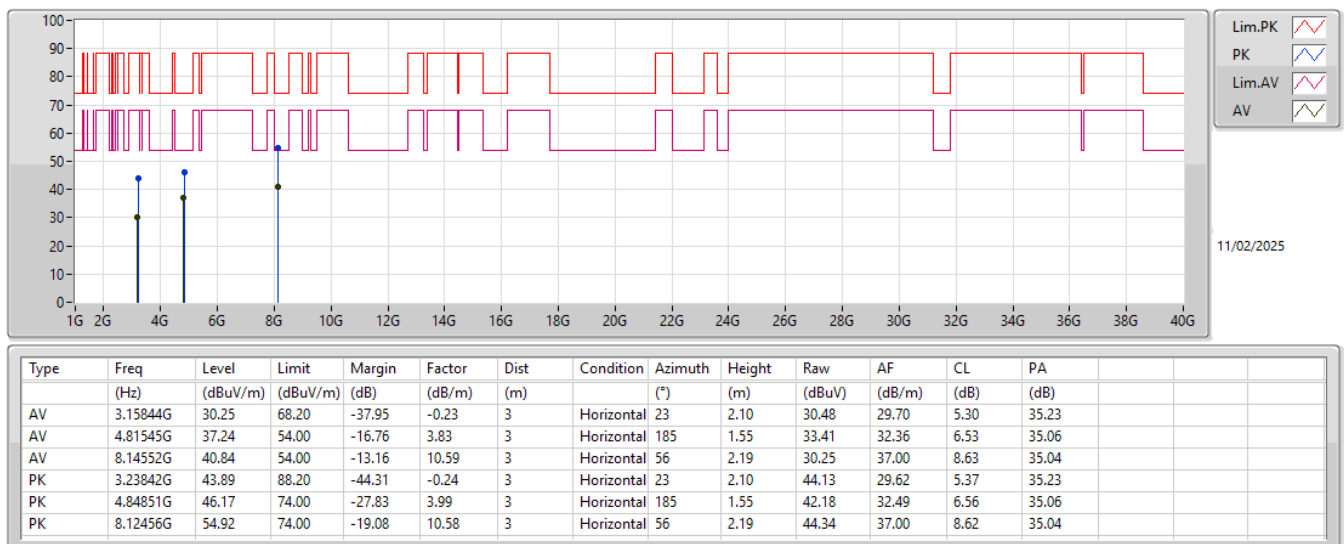


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB/m)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB/m)	CL (dB)	PA (dB)
AV	3.03832G	30.60	68.20	-37.60	-0.34	3	Horizontal	112	1.50	30.94	29.68	5.20	35.22
AV	4.79598G	33.26	54.00	-20.74	3.73	3	Horizontal	310	1.50	29.53	32.28	6.51	35.06
AV	8.78496G	42.03	68.20	-26.17	11.97	3	Horizontal	354	1.50	30.06	37.77	9.00	34.80
PK	3.03418G	42.27	88.20	-45.93	-0.35	3	Horizontal	112	1.50	42.62	29.67	5.20	35.22
PK	4.80348G	45.17	74.00	-28.83	3.76	3	Horizontal	310	1.50	41.41	32.31	6.51	35.06
PK	8.78532G	53.82	88.20	-34.38	11.97	3	Horizontal	354	1.50	41.85	37.77	9.00	34.80

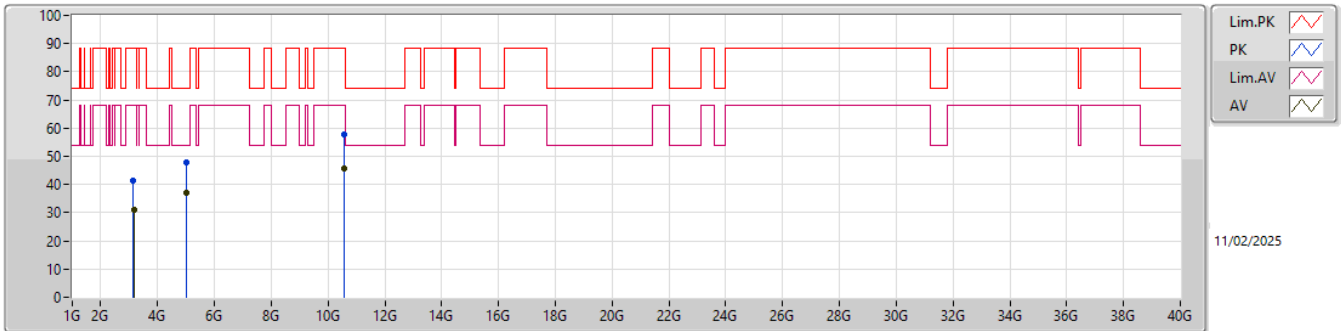
Radiated Emissions above 1GHz_Mode 3



Radiated Emissions above 1GHz_Mode 3

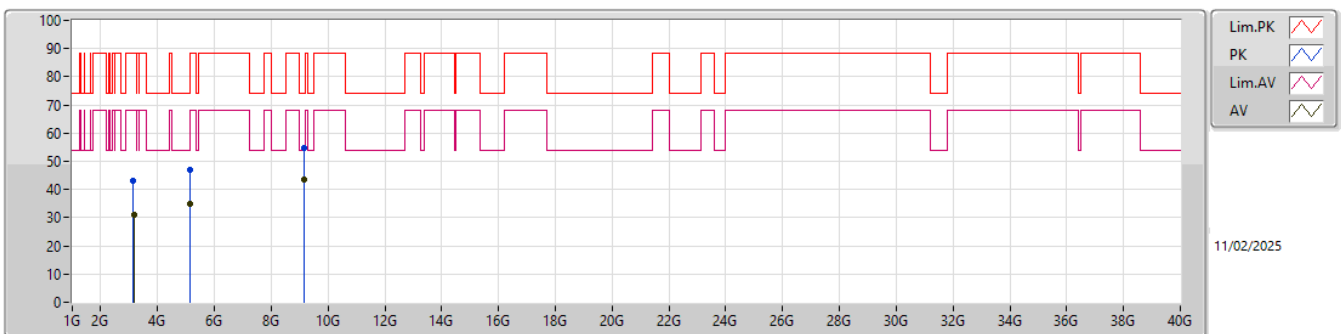


Radiated Emissions above 1GHz_Mode 4



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB/m)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB/m)	CL (dB)	PA (dB)
AV	3.15847G	31.02	68.20	-37.18	-0.23	3	Vertical	51	2.13	31.25	29.70	5.30	35.23
AV	5.01515G	37.28	54.00	-16.72	4.80	3	Vertical	259	1.54	32.48	33.14	6.73	35.07
AV	10.5556G	45.61	68.20	-22.59	14.57	3	Vertical	232	2.38	31.04	38.72	10.38	34.53
PK	3.15455G	41.43	88.20	-46.77	-0.24	3	Vertical	51	2.13	41.67	29.70	5.29	35.23
PK	5.01564G	47.92	74.00	-26.08	4.80	3	Vertical	259	1.54	43.12	33.14	6.73	35.07
PK	10.5541G	57.56	88.20	-30.64	14.57	3	Vertical	232	2.38	42.99	38.72	10.38	34.53

Radiated Emissions above 1GHz_Mode 4



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB/m)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB/m)	CL (dB)	PA (dB)
AV	3.15847G	31.02	68.20	-37.18	-0.23	3	Horizontal	215	2.18	31.25	29.70	5.30	35.23
AV	5.15847G	34.97	68.20	-33.23	4.79	3	Horizontal	121	1.54	30.18	33.08	6.78	35.07
AV	9.14521G	43.59	54.00	-10.41	12.45	3	Horizontal	102	1.08	31.14	38.00	9.20	34.75
PK	3.15193G	42.94	88.20	-45.26	-0.24	3	Horizontal	215	2.18	43.18	29.70	5.29	35.23
PK	5.15483G	46.90	88.20	-41.30	4.79	3	Horizontal	121	1.54	42.11	33.09	6.77	35.07
PK	9.14359G	54.93	74.00	-19.07	12.45	3	Horizontal	102	1.08	42.48	38.00	9.20	34.75