

FCC Radio Test Report

FCC ID : 2AODLH12110
Equipment : PoE Wi-Fi 7 Access Point
Brand Name : Schneider Electric
Model Name : SAH121101
Applicant / Manufacturer : Schneider Electric USA, Inc.
201 Washington Street, One Boston Place, Suite
2700, Boston, Massachusetts, United States 02108
Standard : 47 CFR FCC Part 15.247

The product was received on Jan. 12, 2026, and testing was started from May 15, 2026 and completed on Jun. 23, 2026. 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 + Errata to 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

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



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TEL : 886-3-3273456
FAX : 886-3-3270973
Report Template No.: HE1-C11 Ver3.4
FCC ID: 2AODLH12110

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: Ben Tseng

Report Producer: Amber Chiu

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	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	PSA	WA2202	Dipole	I-Pex	Thread
2	PSA	WA2202	PIFA	I-Pex	2.4G+5G
3	PSA	WA2202	PIFA	I-Pex	2.4G+5G

Ant.	Port	Gain (dBi)		
		2.4G	5G	802.15.4
1	1	-	-	3.75
2	1	3.42	4.53	-
3	2	3.12	4.78	-

For 2.4GHz function:

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

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

For 5GHz function:

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

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

For 802.15.4 function:

For IEEE 802.15.4 mode (1TX/1RX)

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

Note 1: Directional gain information

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

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	0.421	3.76	886.875u	2k

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 C63.10-2020 + Cor.1-2023 + C63.10a-2024 + Errata to 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	Rian Chung	20.6~23.5°C / 53~58%	13/Jun/2026
☒ Wenhua 3rd. (TAF: 3785)	ADD: No. 58, Aly. 75, Ln. 564, Wenhua 3rd Rd., Guishan Dist. Taoyuan City 333, Taiwan (R.O.C.)			
	TEL: 886-3-327-0868			
Test site Designation No. TW0036 with FCC.				
Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
RF Conducted	TH06-HY	Wayne Chiu	23.4~23.9°C / 52~55%	10/Jun/2026
Radiated	03CH26-HY	Andy Wang	23.5~24.3°C / 54~57%	15/May/2026~18/May/2026
Radiated (Co-location)	03CH26-HY	Lego Lin	23.7~25.1°C / 56~59%	23/Jun/2026

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	3.24 dB	Confidence levels of 95%
Conducted Output Power	1.12 dB	Confidence levels of 95%
Bandwidth	0.07 MHz	Confidence levels of 95%
Conducted Emission	1.12 dB	Confidence levels of 95%
Power Spectral Density	1.22 dB	Confidence levels of 95%
Radiated Emission (9 kHz ~ 30 MHz)	1.76 dB	Confidence levels of 95%
Radiated Emission (30 MHz ~ 1 GHz)	5.38 dB	Confidence levels of 95%
Radiated Emission (1 GHz ~ 18 GHz)	4.94 dB	Confidence levels of 95%
Radiated Emission (18 GHz ~ 40 GHz)	4.92 dB	Confidence levels of 95%



2 Test Configuration of EUT

2.1 Test Channel Mode

Test Software Version	Tera Term Version 4.76
------------------------------	------------------------

Mode	Power Setting
802.15.4	-
2405MHz	100
2440MHz	100
2480MHz	100

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	2.4G+5G+802.15.4
Refer to Sporton Test Report No.: FA5D2917 for Co-location RF Exposure Evaluation and Appendix G for Radiated Emission Co-location.	

2.3 Accessories

Accessories				
Screw Kit	Brand Name	Schneider Electric	Model Name	SAH121101

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

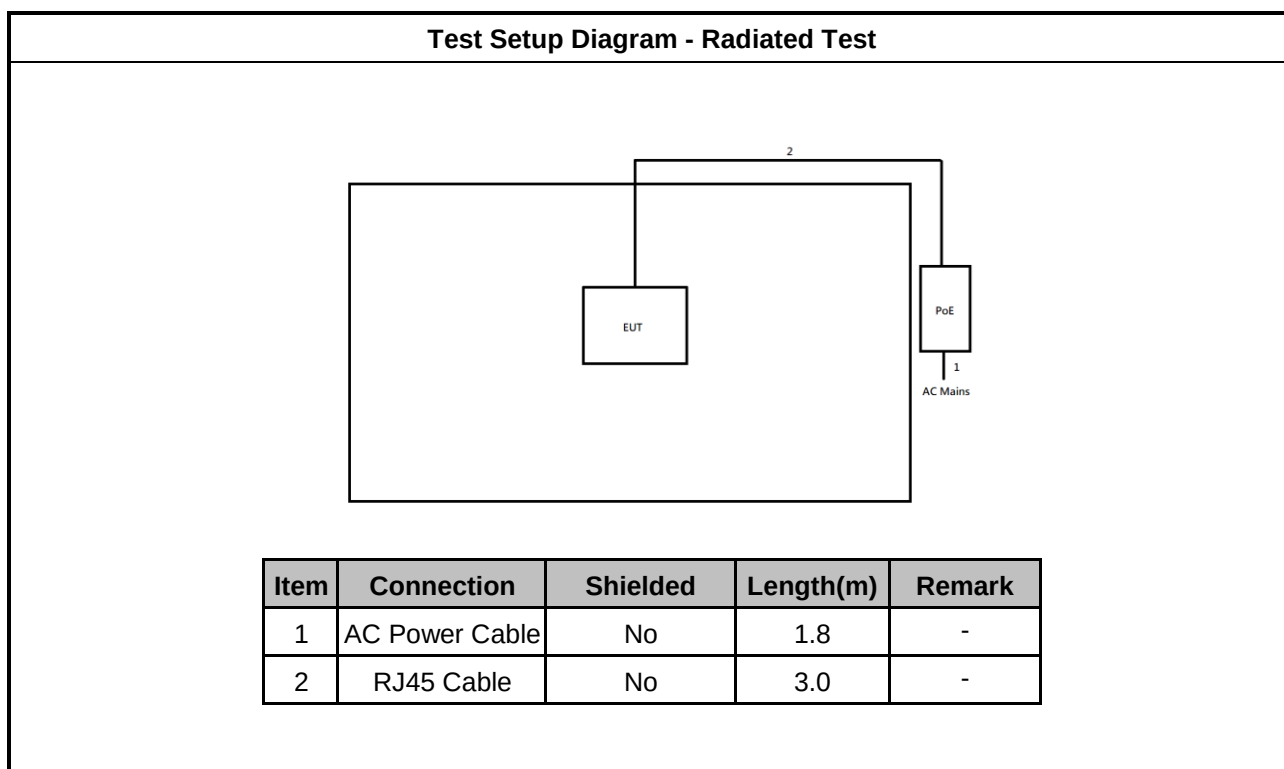
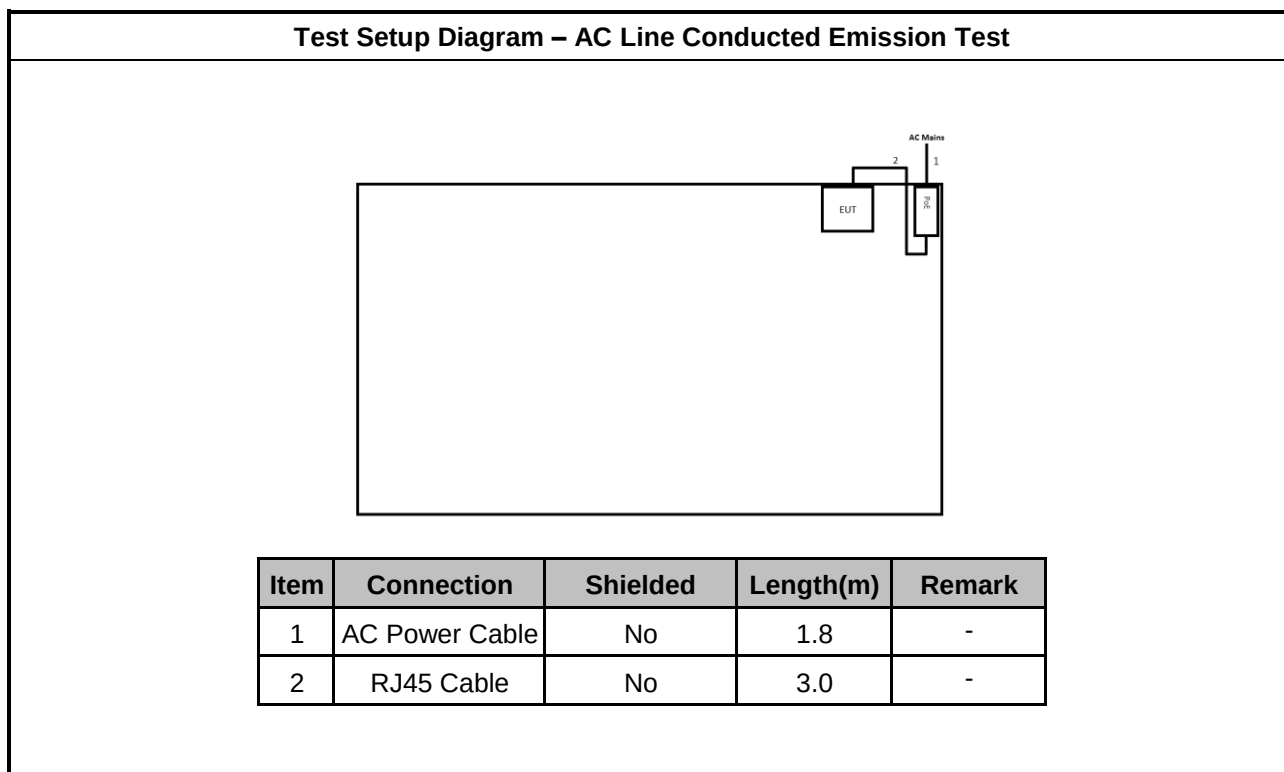
2.4 Support Equipment

Support Equipment – AC Conduction					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	RJ45 Cable	Power sync	CAT-6E-03	-	-
2	PoE	PHIHONG	POE20U-560(G)	-	-
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	RJ45 Cable	Power sync	CAT-6E-03	-	-
2	PoE (Remote)	PHIHONG	POE20U-560(G)	-	-
3	AC power cable (Remote)	Power sync	PW-GPC180-3	-	-

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

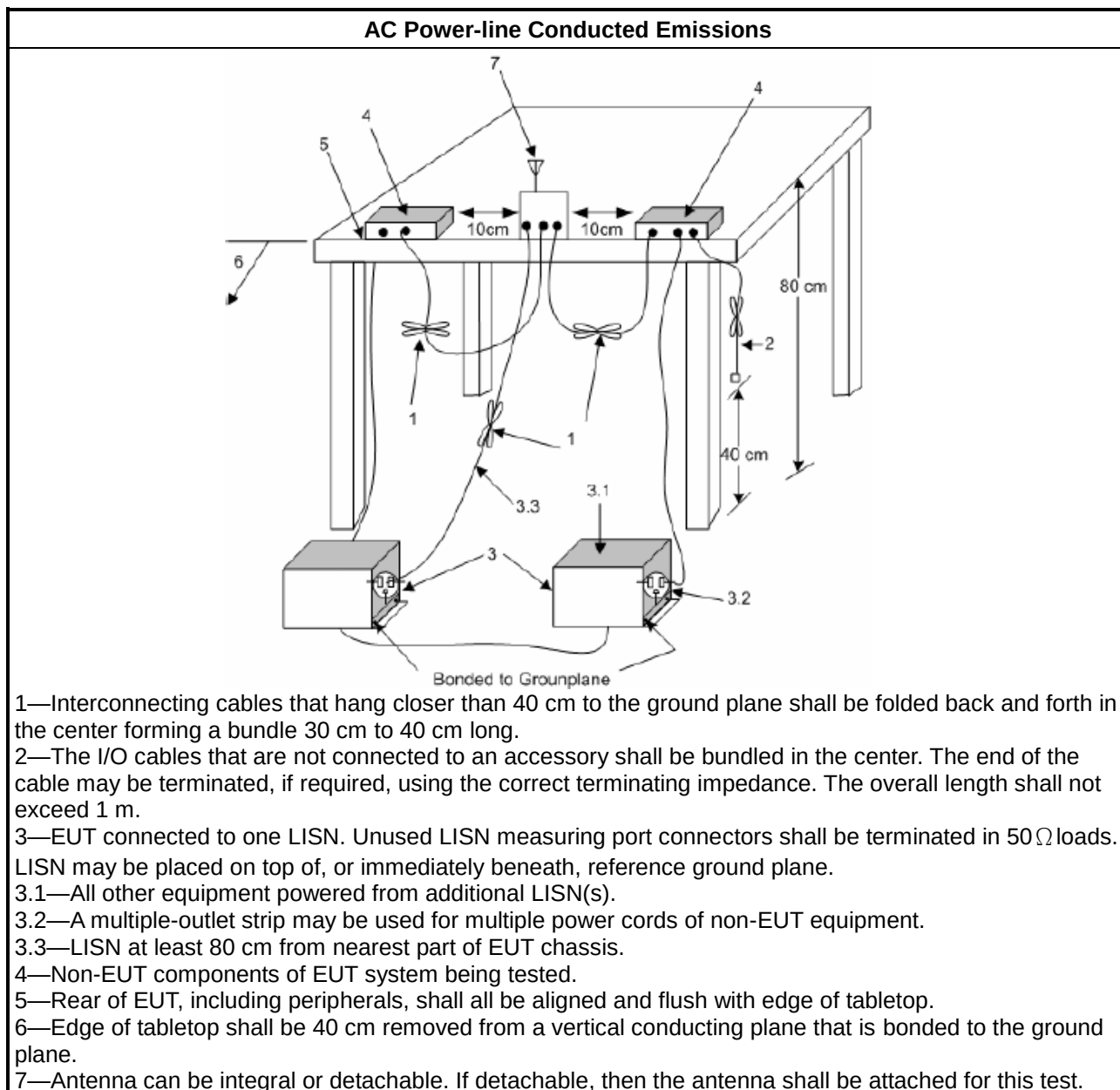
Test Method
☒ Refer as ANSI C63.10, clause 6.2 for AC power-line conducted emissions.

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.

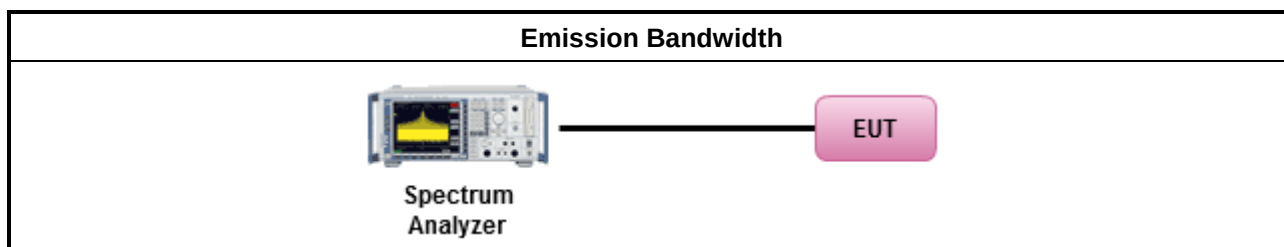
3.2.2 Measuring Instruments

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 $P_{Out} = 30 - (G_{TX} - 6)/3 + 8$ 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.	

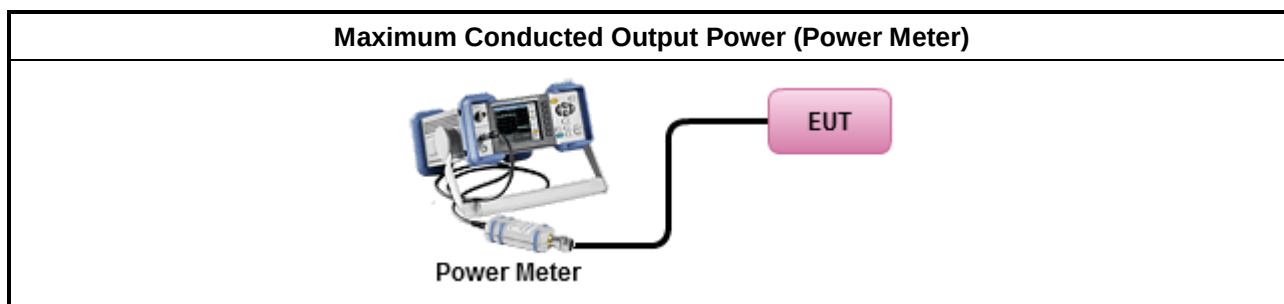
3.3.2 Measuring Instruments

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

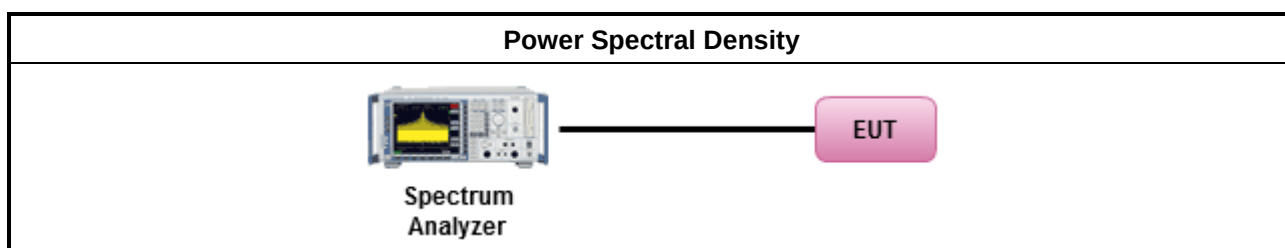
3.4.2 Measuring Instruments

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.	

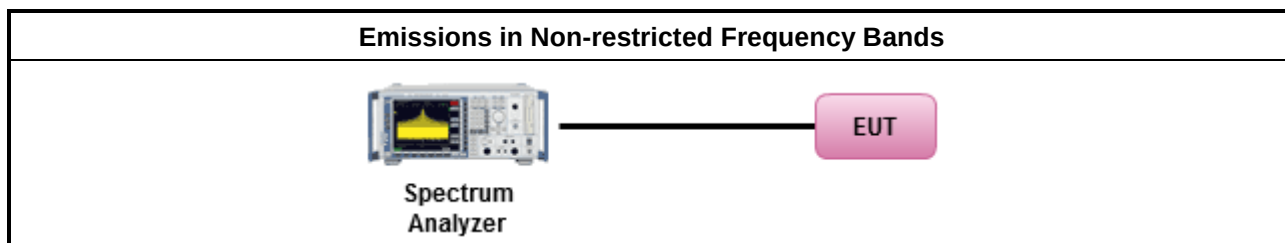
3.5.2 Measuring Instruments

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

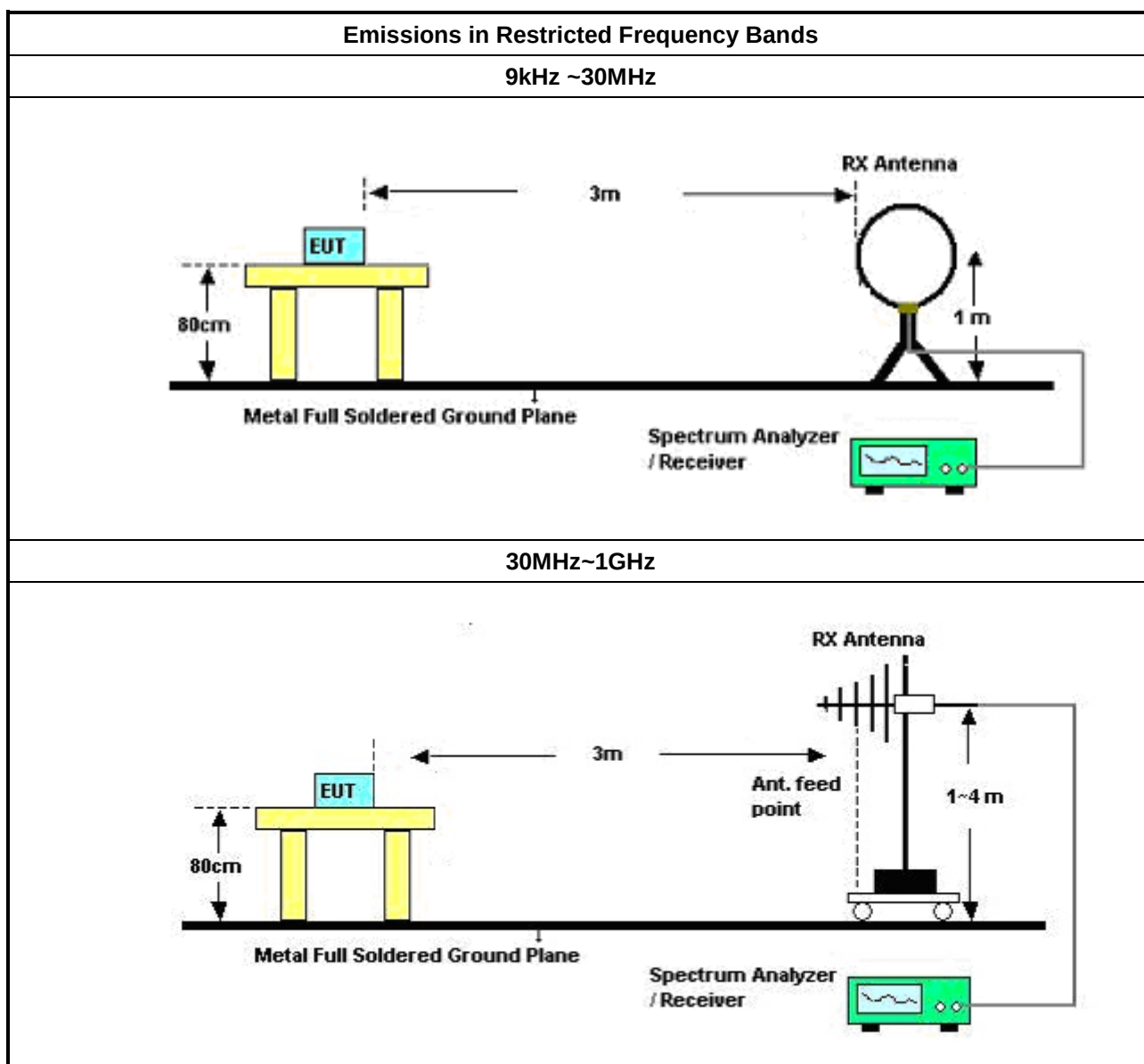
Test Method	
The average emission levels shall be measured in [duty cycle $\geq$ 98 or duty factor].	
Refer as ANSI C63.10, clause 6.10.3 band-edge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band.	
For the transmitter unwanted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

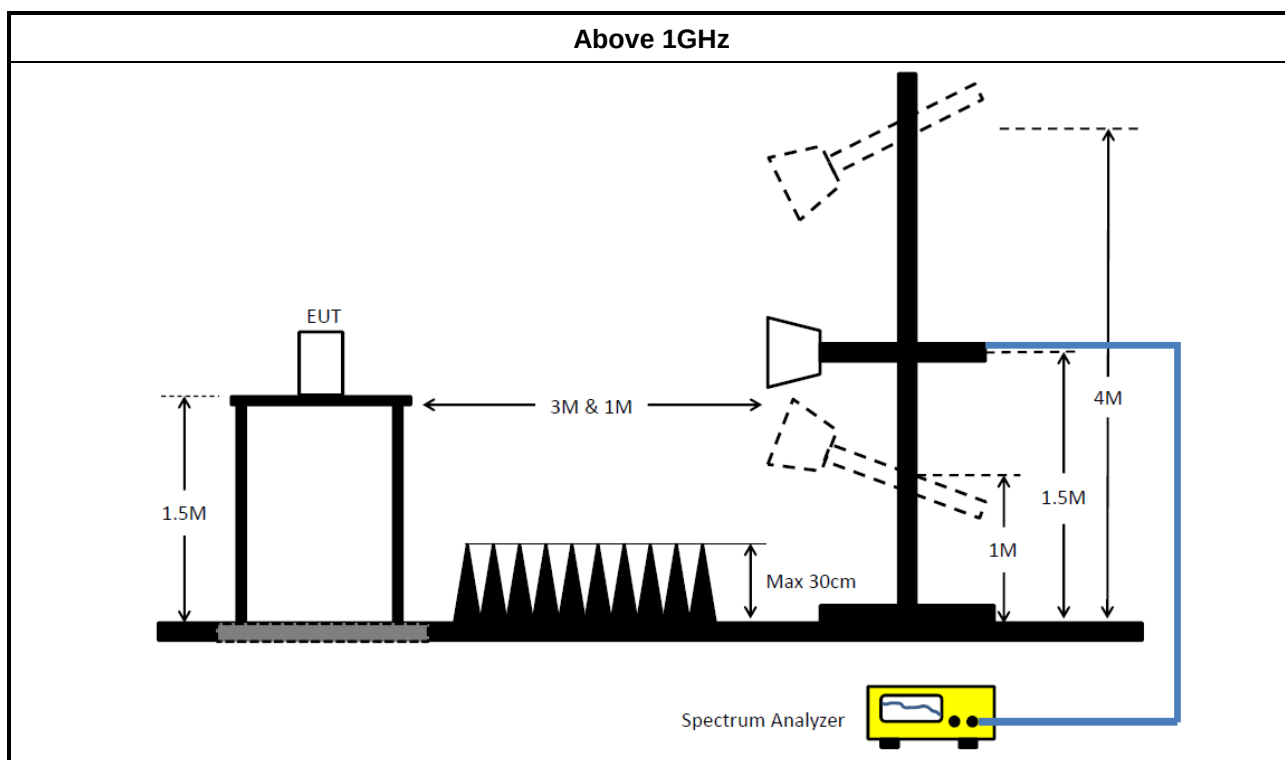
3.6.4 Measurement Results Calculation

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	ESR7	102956	9kHz ~ 3.6GHz	26/Aug/2025	25/Aug/2026
Two-Line V-Network	ROHDE & SCHWARZ	ENV 216	101578	9kHz ~ 30MHz	24/Aug/2025	23/Aug/2026
RF Cable 5m	TITAN	TITAN	CO04-cable-01	9 kHz~200MHz	25/Feb/2026	24/Feb/2027
Pulse Limiter	SCHWARZBECK	VTSD 9561F-N	1056	9kHz ~ 30MHz	25/Jun/2025	24/Jun/2026
Software	Sporton	SENSE-EMI	V5.11.6	-	NCR	NCR

NCR: No Calibration Required

Instrument for Conducted Test

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Signal Analyzer	R&S	FSV 40	101029	10Hz~40GHz	30/Oct/2025	29/Oct/2026
SMB100A Signal Generator	R&S	SMB100A	181147	100kHz~40GHz	29/Oct/2025	28/Oct/2026
Power Meter	Anritsu	ML2495A	1124009	300MHz~40GHz	26/Mar/2026	25/Mar/2027
Pulse Sensor	Anritsu	MA2411B	1027452	300MHz~40GHz	26/Mar/2026	25/Mar/2027
SENSE-15247_FS	Sporton	V5.11.27	N/A	N/A	N/A	N/A

Instrument for Radiated Test (03CH26-HY)

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH26-HY	30MHz~1GHz 3m	06/Aug/2025	05/Aug/2026
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH26-HY	1GHz~18GHz 3m	06/Aug/2025	05/Aug/2026
EMI Test Receiver	ROHDE & SCHWARZ	ESR	102318	9kHz~3.6GHz	08/Dec/2025	07/Dec/2026
Signal Analyzer	ROHDE & SCHWARZ	FSV3044	101411	10Hz~44GHz	30/Sep/2025	29/Sep/2026
Loop Antenna	TESEQ	HLA 6120	31244	9kHz~30MHz	16/Mar/2026	15/Mar/2027
Bilog Antenna & 6dB Attenuator	TESEQ & VGT	CBL 6111D & VFA 04002-06	63540/002	30MHz~1GHz	04/Jun/2025	03/Jun/2026
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	02877	1GHz~18GHz	02/Jul/2025	01/Jul/2026
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	01248	18GHz~40GHz	07/Oct/2025	06/Oct/2026
RF Cable	HUBER+SUHNER	SUOFLEX 104	CB009	9kHz~1GHz	03/Oct/2025	02/Oct/2026
RF Cable	HUBER+SUHNER	SUOFLEX 104	CB009	1GHz~40GHz	03/Oct/2025	02/Oct/2026
Preamplifier	SGH	PRAMP 903	20230515-2	30MHz~1GHz	21/May/2025	20/May/2026
Preamplifier	SGH	PRAMP 118-H	20230515-4	1GHz ~18GHz	21/May/2025	20/May/2026
Amplifier	EM	EM18G40G	060874	18GHz ~ 40GHz	27/Apr/2026	26/Apr/2027
SENSE-15247-DTS	Sporton	V5.11.27	NA	NA	NA	NA

Instrument for Radiated Test (Co-location)

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH26-HY	1GHz~18GHz 3m	06/Aug/2025	05/Aug/2026
Signal Analyzer	ROHDE & SCHWARZ	FSV3044	101411	10Hz~44GHz	30/Sep/2025	29/Sep/2026
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	02877	1GHz~18GHz	02/Jul/2025	01/Jul/2026
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	01248	18GHz~40GHz	07/Oct/2025	06/Oct/2026
RF Cable	HUBER+SUHNER	SUOFLEX 104	CB009	1GHz~40GHz	03/Oct/2025	02/Oct/2026
Preamplifier	SGH	PRAMP 118-H	20230515-4	1GHz ~18GHz	20/May/2026	21/May/2027
Amplifier	EM	EM18G40G	060874	18GHz ~ 40GHz	27/Apr/2026	26/Apr/2027
SENSE-EMI	Sporton	V5.11.9	NA	NA	NA	NA



Conducted Emissions at Powerline

Appendix A

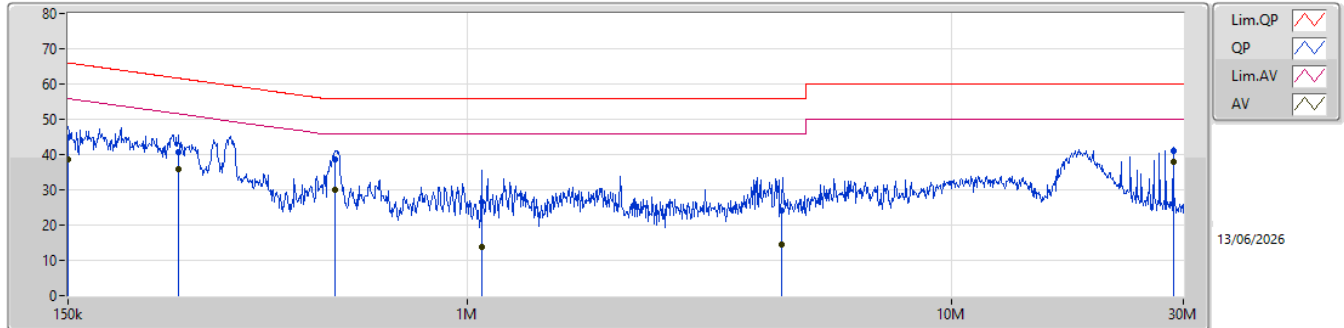
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	AV	300.44k	40.71	50.23	-9.52	Neutral

Result

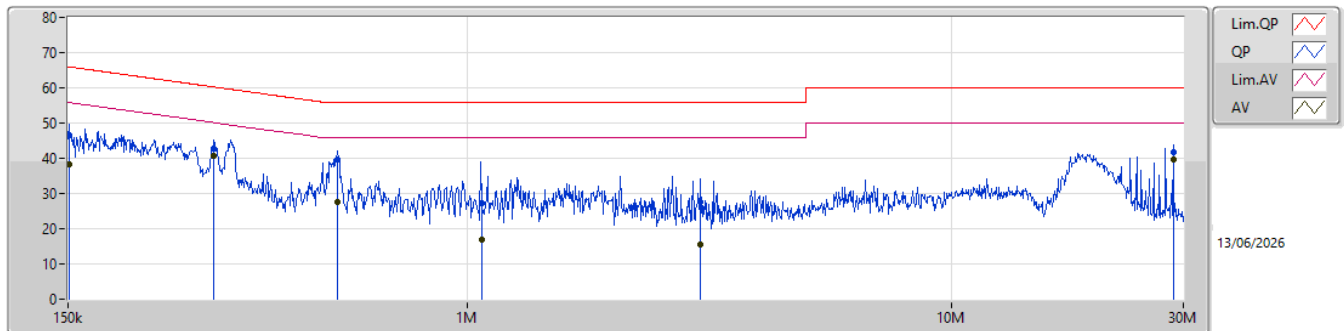
Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	QP	150k	44.95	66.00	-21.05	Line
Mode 1	Pass	AV	150k	38.61	56.00	-17.39	Line
Mode 1	Pass	QP	254.06k	40.57	61.62	-21.05	Line
Mode 1	Pass	AV	254.06k	35.69	51.62	-15.93	Line
Mode 1	Pass	QP	533.84k	38.66	56.00	-17.34	Line
Mode 1	Pass	AV	533.84k	30.15	46.00	-15.85	Line
Mode 1	Pass	QP	1.07M	26.53	56.00	-29.47	Line
Mode 1	Pass	AV	1.07M	13.66	46.00	-32.34	Line
Mode 1	Pass	QP	4.46M	24.21	56.00	-31.79	Line
Mode 1	Pass	AV	4.46M	14.50	46.00	-31.50	Line
Mode 1	Pass	QP	28.57M	41.09	60.00	-18.91	Line
Mode 1	Pass	AV	28.57M	38.05	50.00	-11.95	Line
Mode 1	Pass	QP	150.6k	46.47	65.96	-19.49	Neutral
Mode 1	Pass	AV	150.6k	38.43	55.96	-17.53	Neutral
Mode 1	Pass	QP	300.44k	42.78	60.23	-17.45	Neutral
Mode 1	Pass	AV	300.44k	40.71	50.23	-9.52	Neutral
Mode 1	Pass	QP	540.27k	39.82	56.00	-16.18	Neutral
Mode 1	Pass	AV	540.27k	27.66	46.00	-18.34	Neutral
Mode 1	Pass	QP	1.07M	27.31	56.00	-28.69	Neutral
Mode 1	Pass	AV	1.07M	16.88	46.00	-29.12	Neutral
Mode 1	Pass	QP	3.03M	27.51	56.00	-28.49	Neutral
Mode 1	Pass	AV	3.03M	15.41	46.00	-30.59	Neutral
Mode 1	Pass	QP	28.57M	41.73	60.00	-18.27	Neutral
Mode 1	Pass	AV	28.57M	39.73	50.00	-10.27	Neutral

Conducted Emissions at Powerline_Mode 1



Type	Freq	Level	Limit	Margin	Factor	Condition	Raw	LISN	CL	AT									
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)		(dBuV)	(dB)	(dB)	(dB)									
QP	150k	44.95	66.00	-21.05	19.93	Line	25.02	9.64	0.17	10.12									
AV	150k	38.61	56.00	-17.39	19.93	Line	18.68	9.64	0.17	10.12									
QP	254.06k	40.57	61.62	-21.05	19.88	Line	20.69	9.64	0.12	10.12									
AV	254.06k	35.69	51.62	-15.93	19.88	Line	15.81	9.64	0.12	10.12									
QP	533.84k	38.66	56.00	-17.34	19.84	Line	18.82	9.63	0.09	10.12									
AV	533.84k	30.15	46.00	-15.85	19.84	Line	10.31	9.63	0.09	10.12									
QP	1.07M	26.53	56.00	-29.47	19.83	Line	6.70	9.64	0.07	10.12									
AV	1.07M	13.66	46.00	-32.34	19.83	Line	-6.17	9.64	0.07	10.12									
QP	4.46M	24.21	56.00	-31.79	19.93	Line	4.28	9.66	0.14	10.13									
AV	4.46M	14.50	46.00	-31.50	19.93	Line	-5.43	9.66	0.14	10.13									
QP	28.57M	41.09	60.00	-18.91	19.94	Line	21.15	9.46	0.35	10.13									
AV	28.57M	38.05	50.00	-11.95	19.94	Line	18.11	9.46	0.35	10.13									

Conducted Emissions at Powerline_Mode 1



Type	Freq	Level	Limit	Margin	Factor	Condition	Raw	LISN	CL	AT									
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)		(dBuV)	(dB)	(dB)	(dB)									
QP	150.6k	46.47	65.96	-19.49	19.93	Neutral	26.54	9.64	0.17	10.12									
AV	150.6k	38.43	55.96	-17.53	19.93	Neutral	18.50	9.64	0.17	10.12									
QP	300.44k	42.78	60.23	-17.45	19.86	Neutral	22.92	9.63	0.11	10.12									
AV	300.44k	40.71	50.23	-9.52	19.86	Neutral	20.85	9.63	0.11	10.12									
QP	540.27k	39.82	56.00	-16.18	19.84	Neutral	19.98	9.63	0.09	10.12									
AV	540.27k	27.66	46.00	-18.34	19.84	Neutral	7.82	9.63	0.09	10.12									
QP	1.07M	27.31	56.00	-28.69	19.83	Neutral	7.48	9.64	0.07	10.12									
AV	1.07M	16.88	46.00	-29.12	19.83	Neutral	-2.95	9.64	0.07	10.12									
QP	3.03M	27.51	56.00	-28.49	19.88	Neutral	7.63	9.66	0.09	10.13									
AV	3.03M	15.41	46.00	-30.59	19.88	Neutral	-4.47	9.66	0.09	10.13									
QP	28.57M	41.73	60.00	-18.27	20.15	Neutral	21.58	9.67	0.35	10.13									
AV	28.57M	39.73	50.00	-10.27	20.15	Neutral	19.58	9.67	0.35	10.13									



Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
2.4-2.4835GHz	-	-	-	-	-
802.15.4	1.744M	2.261M	2M26D1D	1.606M	2.18M

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	-	-	-	-
2405MHz	Pass	500k	1.688M	2.18M
2440MHz	Pass	500k	1.606M	2.186M
2480MHz	Pass	500k	1.744M	2.261M

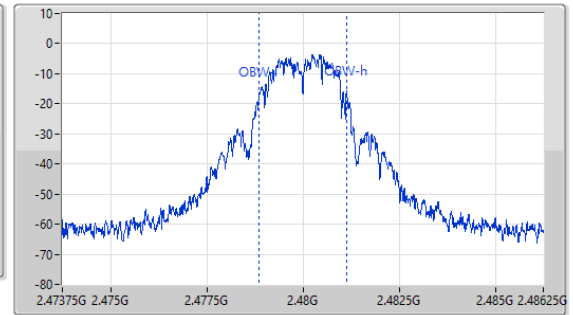
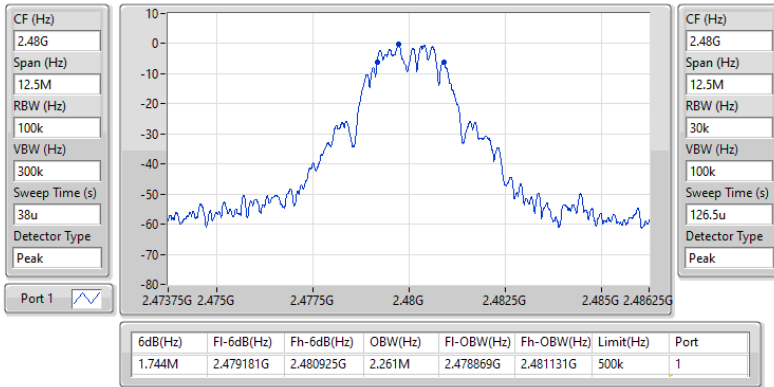
Port X-N dB = Port X 6dB down bandwidth;
Port X-OBW = Port X 99% occupied bandwidth

2.4-2.4835GHz_802.15.4

EBW-DTS

2480MHz

10/06/2026





Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.15.4	6.23	0.00420



Result

Mode	Result	DG (dBi)	Total Power (dBm)	Power Limit (dBm)
802.15.4	-	-	-	-
2405MHz	Pass	3.75	6.11	30.00
2440MHz	Pass	3.75	6.12	30.00
2480MHz	Pass	3.75	6.23	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	-
802.15.4	-8.71

RBW = 3kHz;



Result

Mode	Result	DG (dBi)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.15.4	-	-	-	-
2405MHz	Pass	3.75	-8.92	8.00
2440MHz	Pass	3.75	-9.66	8.00
2480MHz	Pass	3.75	-8.71	8.00

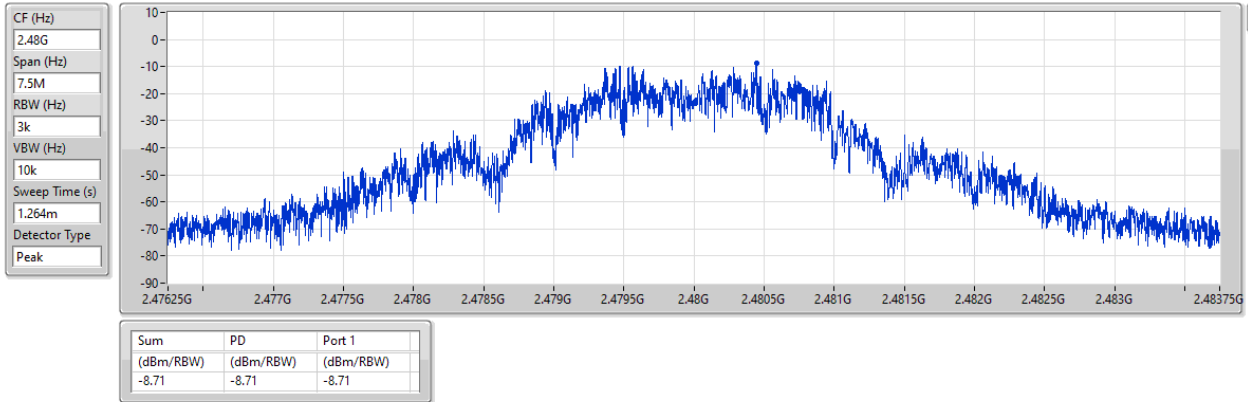
DG = Directional Gain; RBW = 3kHz;
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; Port X = Port X Power Density;
Inf = There's no restriction for the limit.

2.4-2.4835GHz_802.15.4

PSD

2480MHz

10/06/2026





Summary

Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
802.15.4	Pass	2.48016G	3.21	-26.79	1.94525G	-55.81	2.39524G	-47.43	2.4G	-53.26	2.50166G	-53.91	16.21793G	-41.63	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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2405MHz	Pass	2.48016G	3.21	-26.79	1.94525G	-55.81	2.39524G	-47.43	2.4G	-53.26	2.50166G	-53.91	16.21793G	-41.63	1
2440MHz	Pass	2.48016G	3.21	-26.79	2.10153G	-55.31	2.39104G	-54.08	2.4G	-56.85	2.50282G	-53.71	15.20559G	-41.99	1
2480MHz	Pass	2.48016G	3.21	-26.79	879.53M	-55.47	2.39396G	-53.90	2.4G	-55.41	2.5015G	-53.93	23.30433G	-41.89	1

2.4-2.4835GHz_802.15.4

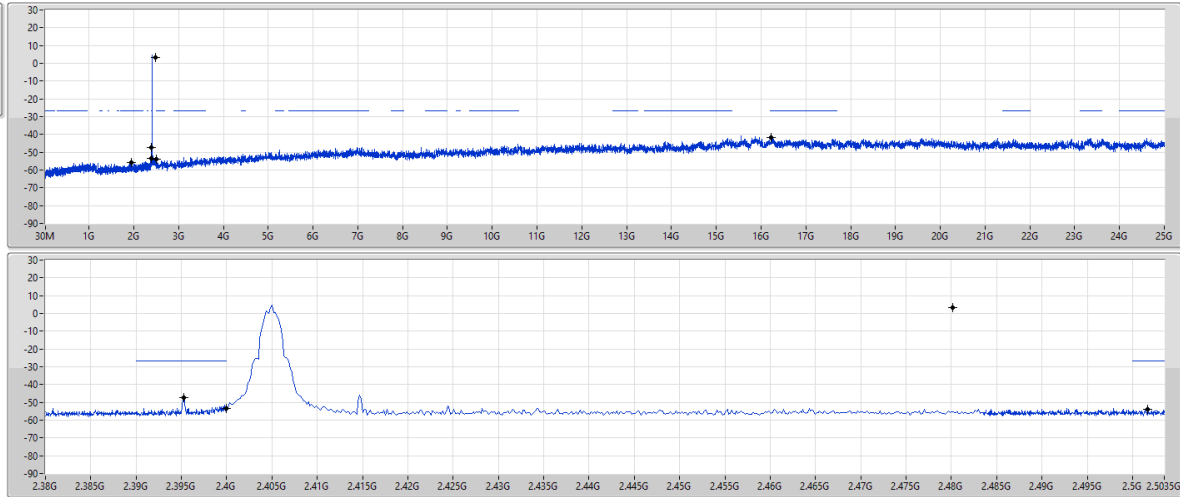
CSEndB-DTS

2405MHz

10/06/2026

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
2.48016G	3.21	-26.79	1.94525G	-55.81	2.39524G	-47.43	2.4G	-53.26	2.50166G	-53.91	16.21793G	-41.63	1



Summary

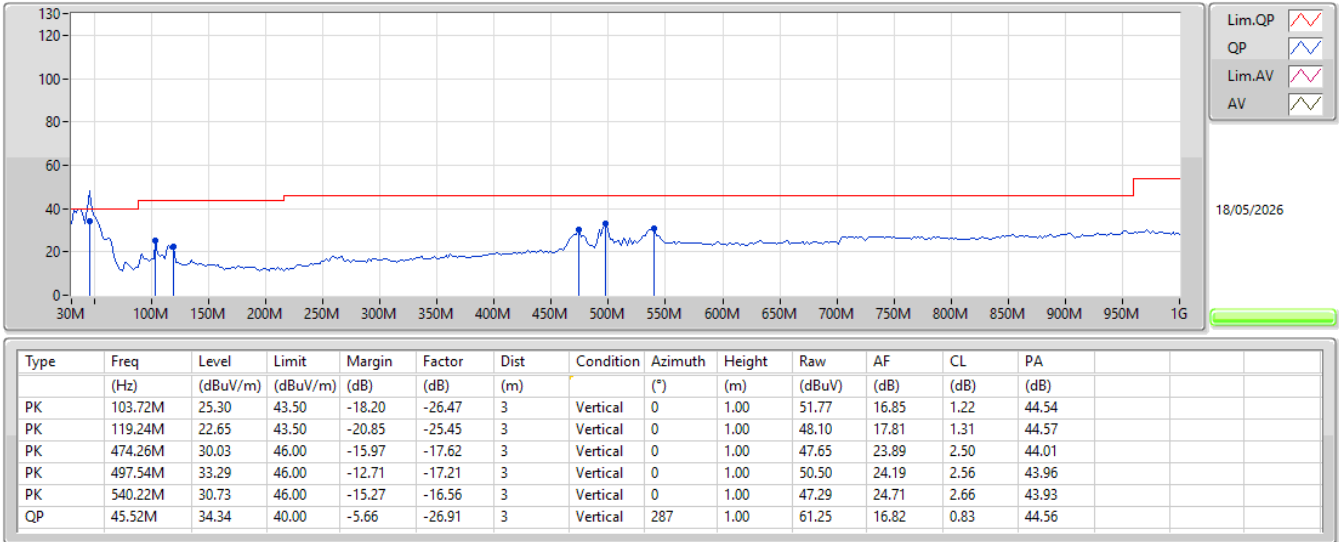
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-
802.15.4	Pass	QP	45.52M	34.34	40.00	-5.66	3	Vertical	287	1.00

Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
802.15.4	-	-	-	-	-	-	-	-	-	-
2440MHz_PoE	Pass	PK	103.72M	25.30	43.50	-18.20	3	Vertical	0	1.00
2440MHz_PoE	Pass	PK	119.24M	22.65	43.50	-20.85	3	Vertical	0	1.00
2440MHz_PoE	Pass	PK	474.26M	30.03	46.00	-15.97	3	Vertical	0	1.00
2440MHz_PoE	Pass	PK	497.54M	33.29	46.00	-12.71	3	Vertical	0	1.00
2440MHz_PoE	Pass	PK	540.22M	30.73	46.00	-15.27	3	Vertical	0	1.00
2440MHz_PoE	Pass	QP	45.52M	34.34	40.00	-5.66	3	Vertical	287	1.00
2440MHz_PoE	Pass	PK	33.88M	25.31	40.00	-14.69	3	Horizontal	360	1.00
2440MHz_PoE	Pass	PK	92.08M	21.38	43.50	-22.12	3	Horizontal	360	1.00
2440MHz_PoE	Pass	PK	156.1M	17.42	43.50	-26.08	3	Horizontal	360	1.00
2440MHz_PoE	Pass	PK	260.86M	17.91	46.00	-28.09	3	Horizontal	360	1.00
2440MHz_PoE	Pass	PK	497.54M	30.44	46.00	-15.56	3	Horizontal	360	1.00
2440MHz_PoE	Pass	PK	536.34M	29.40	46.00	-16.60	3	Horizontal	360	1.00

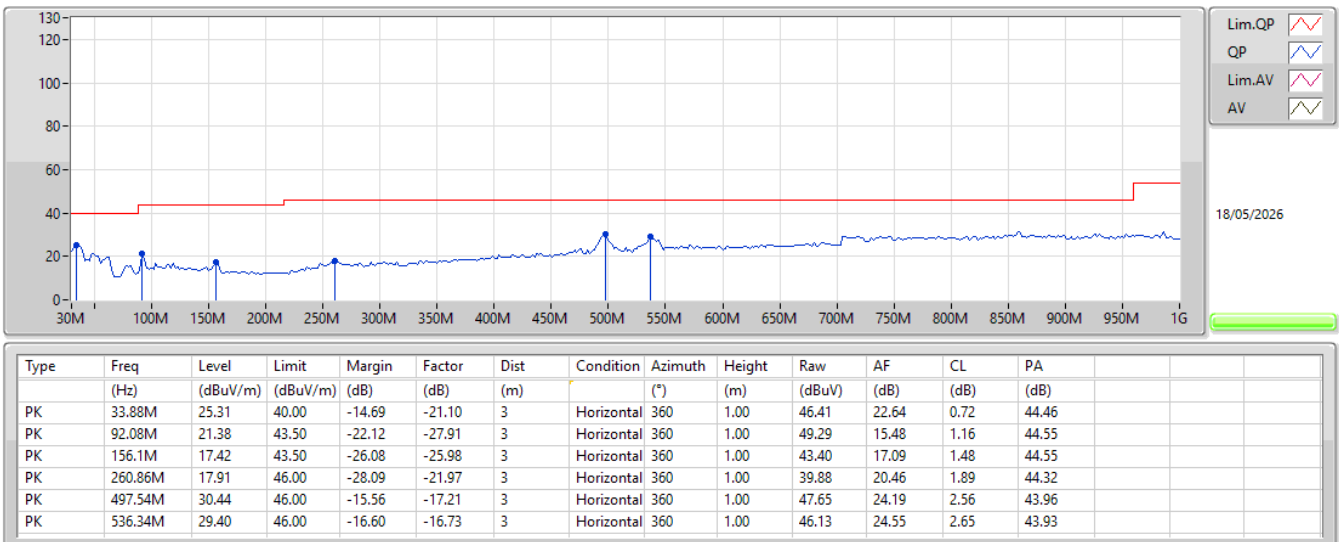
2.4-2.4835GHz_802.15.4_5MHz_Nss1_1TX

2440MHz_PoE



2.4-2.4835GHz_802.15.4_5MHz_Nss1_1TX

2440MHz_PoE





Summary

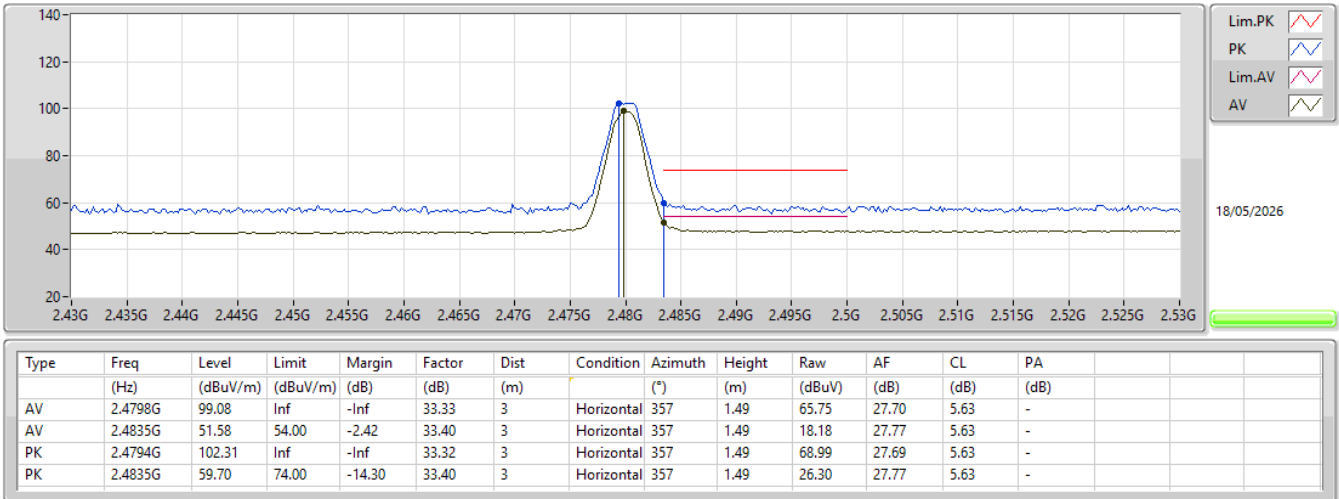
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-
802.15.4	Pass	AV	2.4835G	51.58	54.00	-2.42	3	Horizontal	357	1.49

Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
802.15.4	-	-	-	-	-	-	-	-	-	-
2405MHz	Pass	AV	2.3874G	46.90	54.00	-7.10	3	Horizontal	357	1.93
2405MHz	Pass	AV	2.405G	101.60	Inf	-Inf	3	Horizontal	357	1.93
2405MHz	Pass	PK	2.3748G	58.69	74.00	-15.31	3	Horizontal	357	1.93
2405MHz	Pass	PK	2.4044G	104.80	Inf	-Inf	3	Horizontal	357	1.93
2405MHz	Pass	AV	4.81102G	32.42	54.00	-21.58	3	Vertical	6	2.24
2405MHz	Pass	PK	4.81183G	43.66	74.00	-30.34	3	Vertical	6	2.24
2405MHz	Pass	AV	4.80869G	31.97	54.00	-22.03	3	Horizontal	73	2.57
2405MHz	Pass	PK	4.81135G	43.13	74.00	-30.87	3	Horizontal	73	2.57
2440MHz	Pass	AV	2.382G	47.16	54.00	-6.84	3	Horizontal	3	1.32
2440MHz	Pass	AV	2.44G	100.85	Inf	-Inf	3	Horizontal	3	1.32
2440MHz	Pass	AV	2.4912G	48.00	54.00	-6.00	3	Horizontal	3	1.32
2440MHz	Pass	PK	2.3484G	58.04	74.00	-15.96	3	Horizontal	3	1.32
2440MHz	Pass	PK	2.4396G	104.03	Inf	-Inf	3	Horizontal	3	1.32
2440MHz	Pass	PK	2.4924G	59.51	74.00	-14.49	3	Horizontal	3	1.32
2440MHz	Pass	AV	4.87838G	32.39	54.00	-21.61	3	Vertical	39	2.54
2440MHz	Pass	PK	4.88178G	44.06	74.00	-29.94	3	Vertical	39	2.54
2440MHz	Pass	AV	4.87753G	32.37	54.00	-21.63	3	Horizontal	293	2.80
2440MHz	Pass	PK	4.87924G	43.80	74.00	-30.20	3	Horizontal	293	2.80
2480MHz	Pass	AV	2.4798G	99.08	Inf	-Inf	3	Horizontal	357	1.49
2480MHz	Pass	AV	2.4835G	51.58	54.00	-2.42	3	Horizontal	357	1.49
2480MHz	Pass	PK	2.4794G	102.31	Inf	-Inf	3	Horizontal	357	1.49
2480MHz	Pass	PK	2.4835G	59.70	74.00	-14.30	3	Horizontal	357	1.49
2480MHz	Pass	AV	4.959G	33.55	54.00	-20.45	3	Vertical	192	1.50
2480MHz	Pass	PK	4.96035G	44.51	74.00	-29.49	3	Vertical	192	1.50
2480MHz	Pass	AV	4.95789G	33.01	54.00	-20.99	3	Horizontal	65	1.50
2480MHz	Pass	PK	4.95816G	44.25	74.00	-29.75	3	Horizontal	65	1.50
2480MHz	Pass	AV	22.58959G	38.18	54.00	-15.82	3	Vertical	55	1.12
2480MHz	Pass	PK	22.59106G	49.96	74.00	-24.04	3	Vertical	55	1.12
2480MHz	Pass	AV	22.86433G	36.68	54.00	-17.32	3	Horizontal	103	2.49
2480MHz	Pass	PK	22.86413G	49.74	74.00	-24.26	3	Horizontal	103	2.49

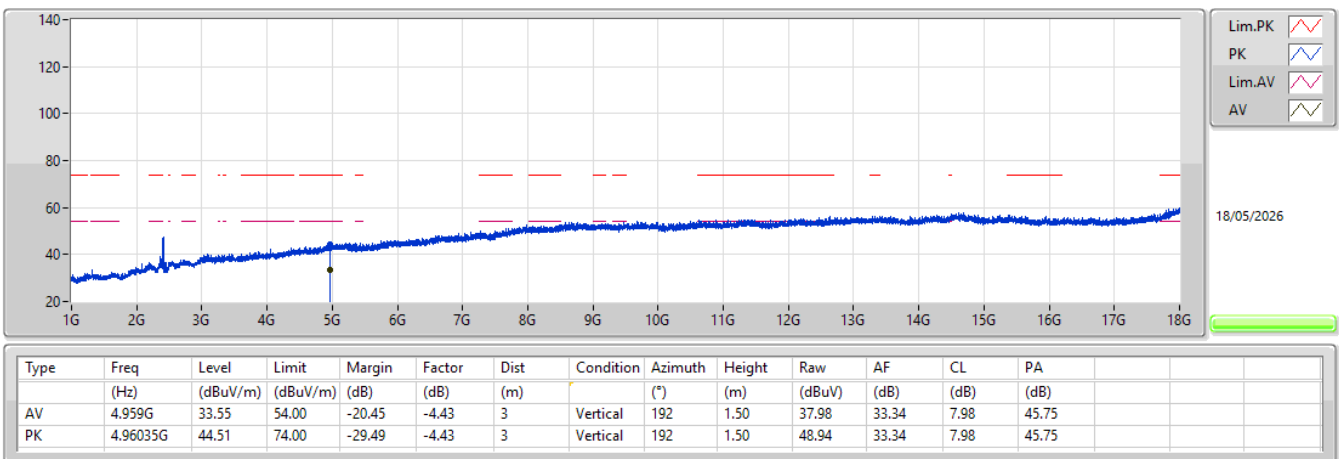
2.4-2.4835GHz_802.15.4

2480MHz_TX



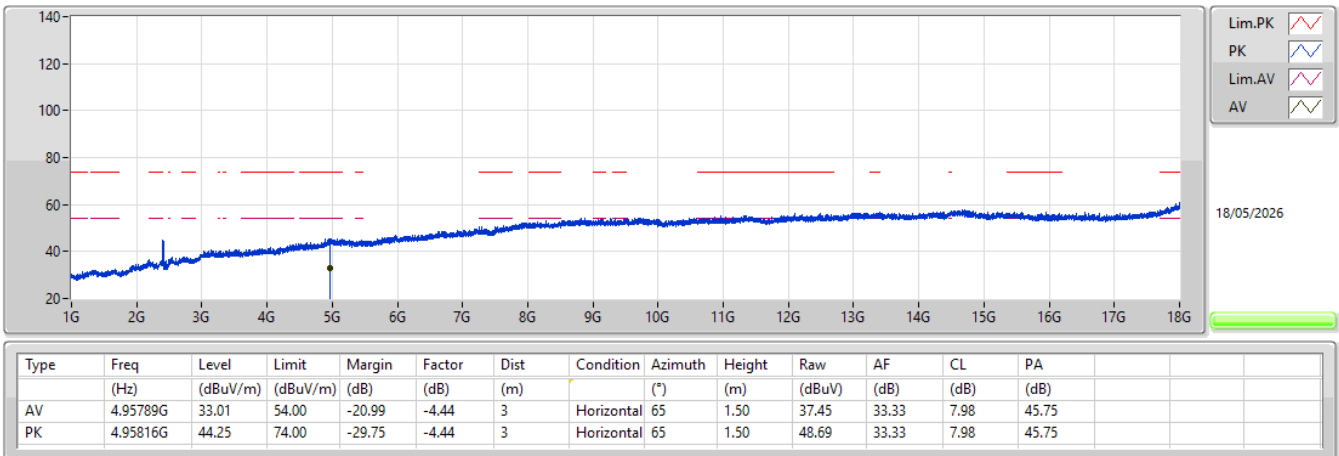
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2480MHz_TX



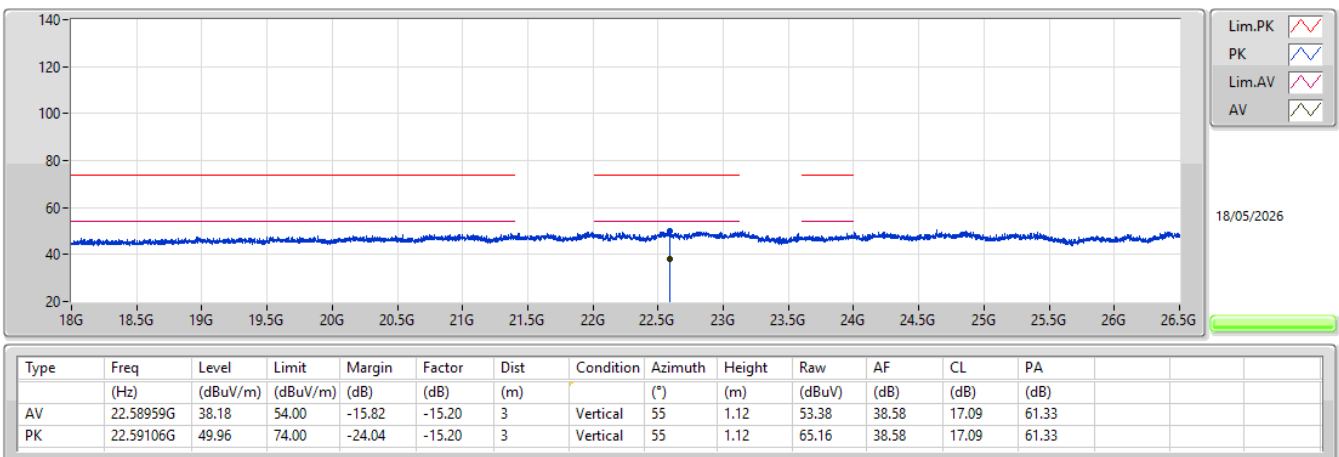
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2480MHz_TX



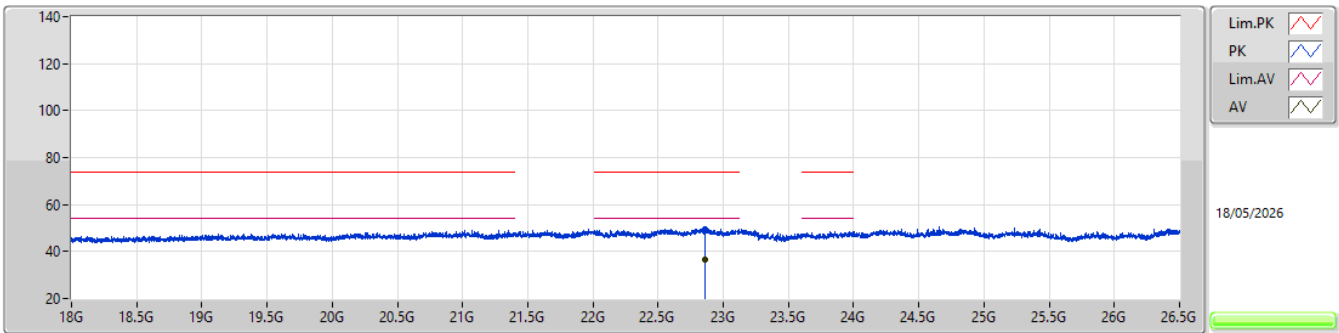
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2480MHz_TX



2.4-2.4835GHz_802.15.4

2480MHz_TX



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)				
AV	22.86433G	36.68	54.00	-17.32	-14.75	3	Horizontal	103	2.49	51.43	38.80	17.10	61.11				
PK	22.86413G	49.74	74.00	-24.26	-14.75	3	Horizontal	103	2.49	64.49	38.80	17.10	61.11				



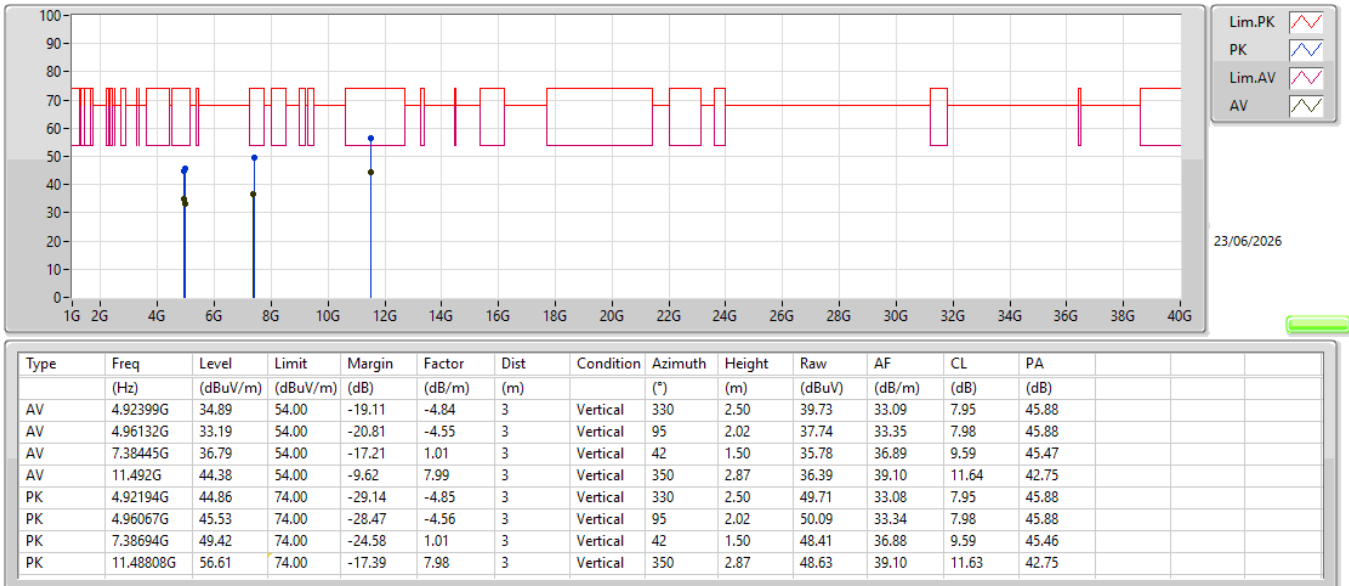
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition
Mode 1	Pass	AV	11.48976G	45.59	54.00	-8.41	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	4.92399G	34.89	54.00	-19.11	3	Vertical	330	2.50
Mode 1	Pass	AV	4.96132G	33.19	54.00	-20.81	3	Vertical	95	2.02
Mode 1	Pass	AV	7.38445G	36.79	54.00	-17.21	3	Vertical	42	1.50
Mode 1	Pass	AV	11.492G	44.38	54.00	-9.62	3	Vertical	350	2.87
Mode 1	Pass	PK	4.92194G	44.86	74.00	-29.14	3	Vertical	330	2.50
Mode 1	Pass	PK	4.96067G	45.53	74.00	-28.47	3	Vertical	95	2.02
Mode 1	Pass	PK	7.38694G	49.42	74.00	-24.58	3	Vertical	42	1.50
Mode 1	Pass	PK	11.48808G	56.61	74.00	-17.39	3	Vertical	350	2.87
Mode 1	Pass	AV	4.92395G	36.58	54.00	-17.42	3	Horizontal	1	1.00
Mode 1	Pass	AV	4.96122G	33.55	54.00	-20.45	3	Horizontal	337	1.50
Mode 1	Pass	AV	7.38685G	37.99	54.00	-16.01	3	Horizontal	66	1.03
Mode 1	Pass	AV	11.48976G	45.59	54.00	-8.41	3	Horizontal	37	1.75
Mode 1	Pass	PK	4.92398G	45.75	74.00	-28.25	3	Horizontal	1	1.00
Mode 1	Pass	PK	4.95933G	45.98	74.00	-28.02	3	Horizontal	337	1.50
Mode 1	Pass	PK	7.38741G	48.92	74.00	-25.08	3	Horizontal	66	1.03
Mode 1	Pass	PK	11.49006G	57.57	74.00	-16.43	3	Horizontal	37	1.75

Radiated Emissions above 1GHz_Mode 1



Radiated Emissions above 1GHz_Mode 1

