

FCC Radio Test Report

FCC ID : YL6-143P100
Equipment : EZ Point
Brand Name : ALARM.COM
Model Name : ADC-EZ100P-US, ADC-EZ100-US
Applicant : Alarm.com Incorporated
8281 Greensboro Drive, Suite 100,
Tysons, VA 22102 United States
Manufacturer : Alarm.com Incorporated
8281 Greensboro Drive, Suite 100,
Tysons, VA 22102 United States
Standard : 47 CFR FCC Part 15.247

The product was received on Jul. 01, 2025, and testing was started from Jul. 01, 2025 and completed on Aug. 16, 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 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

[illegible]



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: Daniel Hsu

Report Producer: Amber Chiu



1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	Modulation	Ch. Frequency (MHz)	Channel Number
902-928	Z-Wave	912, 920	2

Band	Mode	BWch (MHz)	Nant
902-928MHz	Z-Wave	2	1TX

Note:

- ♦ 902-928 MHz Band uses a O-QPSK (250kbps) modulation for DSSS modulation.
- ♦ BWch is the nominal channel bandwidth.

1.1.2 Antenna Information

Ant.	Brand	Model Name	Antenna Type	Connector	Support
1	LITEON	EC1110	Print	N/A	Z-Wave

Ant.	Port	Gain (dBi)
		902-928MHz
1	1	3.3

For Z-wave function:

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

1.1.3 EUT Information

Operational Condition			
EUT Power Type	From AC Adapter / 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:		

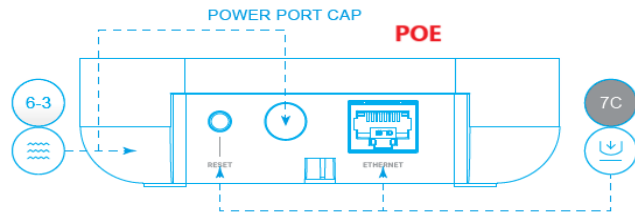
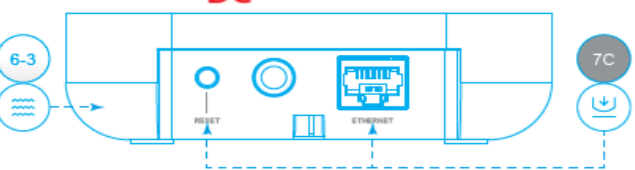
1.1.4 Mode Test Duty Cycle

Mode	DC	DCF (dB)	T (s)	VBW (Hz) 1/T
Z-Wave(2 MHz)	0.949	0.23	4.909m	300

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

1.1.5 Table for Multiple Listing

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

Model Name	Input		Difference
	PoE IN	DC IN	I/O Port Illustration
ADC-EZ100P-US	V		
ADC-EZ100-US		V	

From the above models, model: ADC-EZ100P-US, ADC-EZ100-US was selected as representative model for the test and its data was recorded in this report

Product Configuration	Brand	Model	Description
SKU 1	LITEON	ADC-EZ100P-US	for POE Version (Main Source)
SKU 2	LITEON	ADC-EZ100P-US	for POE Version (2nd Source)
SKU 3	LITEON	ADC-EZ100-US	for Non POE Version (DC IN)

ADC-EZ100P-US for Table for Explanation of 2nd Source

Object/part or Description (location)	Location	Main source (SKU1)	2nd source (SKU 2)
PoE flyback transformer	T2	TNK, TEP1313-C628	M-TEK, EP13-174SA
Flash	U7	Winbond, W25N01KVZEIR	GigaDevice, GD5F1GM7UEYIGR

Note: The information presented above originates from the manufacturer.

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

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

- ♦ KDB 558074 D01 v05r02

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	23.2~23.8°C / 58~64%	25/Jul/2025~16/Aug/2025
RF Conducted	TH06-HY	Wayne Chiu	22.1~22.8°C / 52~55%	09/Jul/2025~30/Jul/2025
☒ 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
Radiated	03CH25-HY	Henry Ho	22.3~23.4°C / 50~53%	01/Jul/2025~07/Aug/2025

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	3.44 dB	Confidence levels of 95%
Conducted Output Power	1.48 dB	Confidence levels of 95%
Bandwidth	0.05 MHz	Confidence levels of 95%
Conducted Emission	1.48 dB	Confidence levels of 95%
Power Spectral Density	1.22 dB	Confidence levels of 95%
Radiated Emission (9 kHz ~ 30 MHz)	2.9 dB	Confidence levels of 95%
Radiated Emission (30 MHz ~ 1 GHz)	5.64 dB	Confidence levels of 95%
Radiated Emission (1 GHz ~ 18 GHz)	5.02 dB	Confidence levels of 95%
Radiated Emission (18 GHz ~ 40 GHz)	5.28 dB	Confidence levels of 95%



2 Test Configuration of EUT

2.1 Test Condition

RF Conducted	Abbreviation	Remark
TX-DTS	Tnom	20°C
-	Vnom	120V

2.2 Test Channel Mode

Test Software Version	DOS 6.1
-----------------------	---------

Mode	Power Setting
Z-Wave(2 MHz)	-
912MHz	150
920MHz	150

2.3 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
Operating Mode	CTX
1	PoE Mode; SKU 1
2	PoE Mode; SKU 2
3	Adapter Mode; SKU 3

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; SKU 1		
2	PoE Mode; SKU 2		
3	Adapter Mode; SKU 3		
Operating Mode > 1GHz	CTX		
Orthogonal Planes of EUT	X Plane	Y Plane	Z Plane
			
Worst Planes of EUT			V

2.4 Accessories

Accessories				
AC Adapter (for Sku 3)	Brand Name	HONOR	Model Name	ADS-6AM-06 05050EPCU
	Manufacturer	SHENZHEN HONOR ELECTRONIC CO.,LTD	SN	-
	Power Rating	I/P: 100- 240 Vac, 0.3 A, 50/60Hz O/P: 5 Vdc, 1A		
	Power Cord	1.5 meter, non-shielded cable, w/o ferrite core		
RJ45 Cable	Category	CAT5e		
	Power Cord	1.8 meter, non-shielded cable		

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

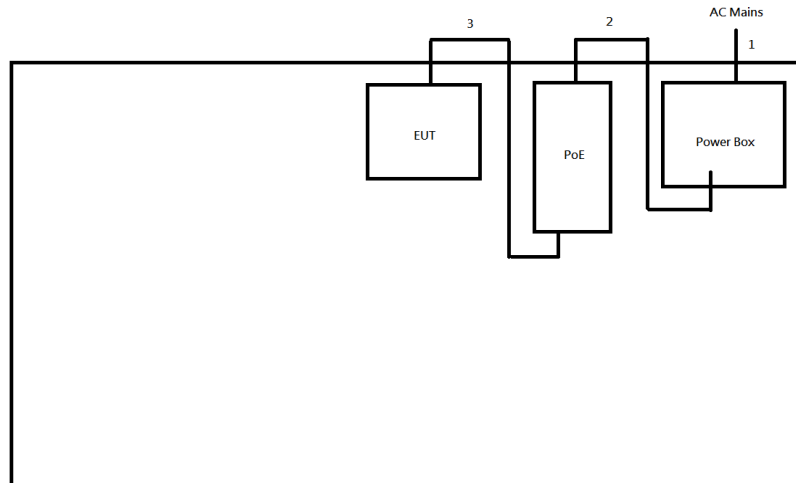
2.5 Support Equipment

Support Equipment – AC Conduction					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	PoE	PHIHONG	POE20U-560(G)	-	-
2	AC Power cable	Power sync	PW-GPC180-3	-	-

Support Equipment – Radiated					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	PoE	PHIHONG	POE20U-560(G)	-	-
2	AC Power Cable	Power sync	PW-GPC180-3	-	-

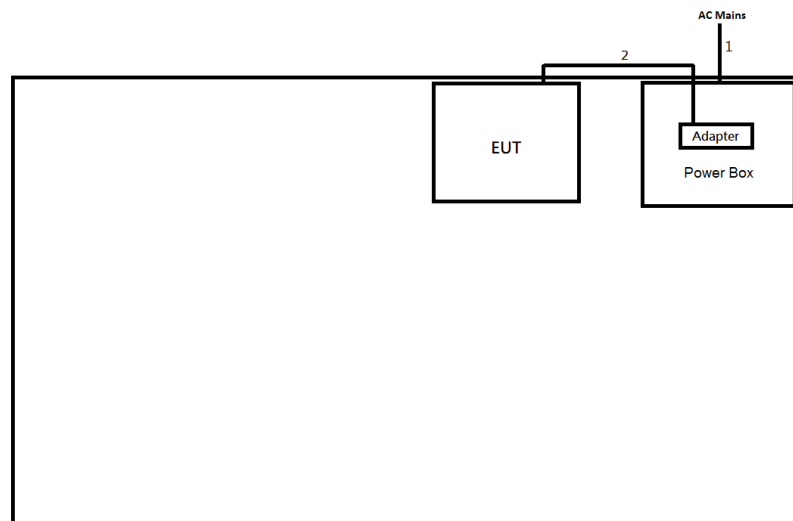
2.6 Test Setup Diagram

Test Setup Diagram – AC Line Conducted Emission Test_PoE Mode, SKU 1 & 2

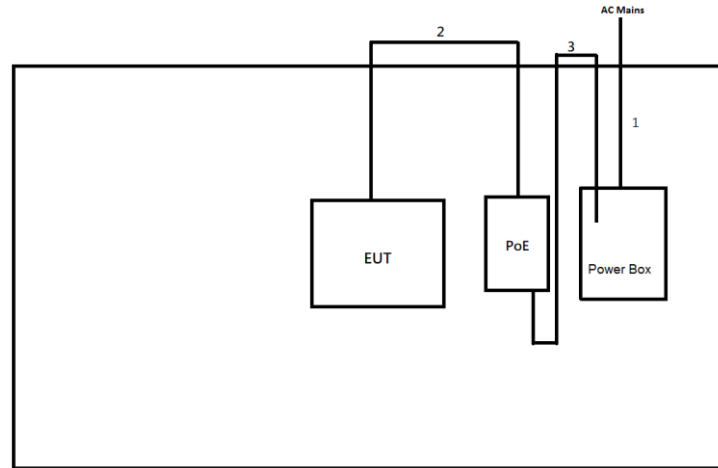


Item	Connection	Shielded	Length(m)	Remark
1	AC power cable	NO	1.0	-
2	AC power cable	NO	1.8	-
3	RJ45 cable	NO	1.8	-

Test Setup Diagram – AC Line Conducted Emission Test_Adapter Mode, SKU 3

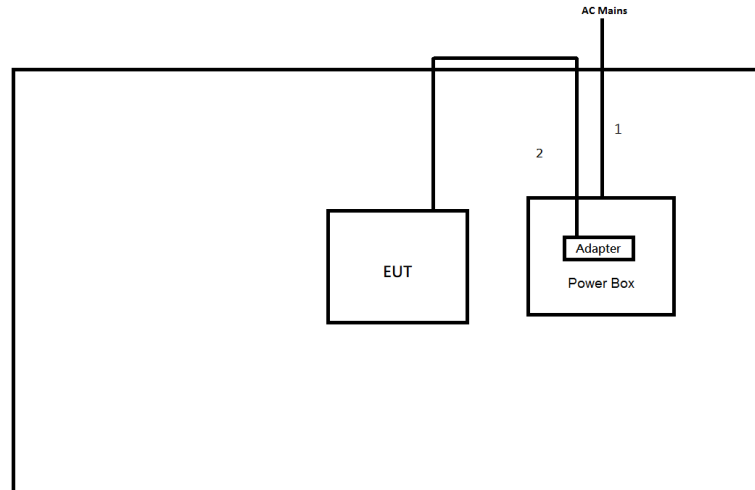


Item	Connection	Shielded	Length(m)	Remark
1	AC power cable	NO	1.8	-
2	DC power cable	NO	1.5	-

Test Setup Diagram - Radiated Test_PoE Mode, SKU 1 & 2


Item	Connection	Shielded	Length(m)	Remark
1	AC power cable	NO	1.8	-
2	RJ45 cable	NO	1.8	-
3	AC power cable	NO	1.8	-

Test Setup Diagram - Radiated Test_Adapter Mode, SKU 3



Item	Connection	Shielded	Length(m)	Remark
1	AC power cable	NO	1.8	-
2	DC power cable	NO	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

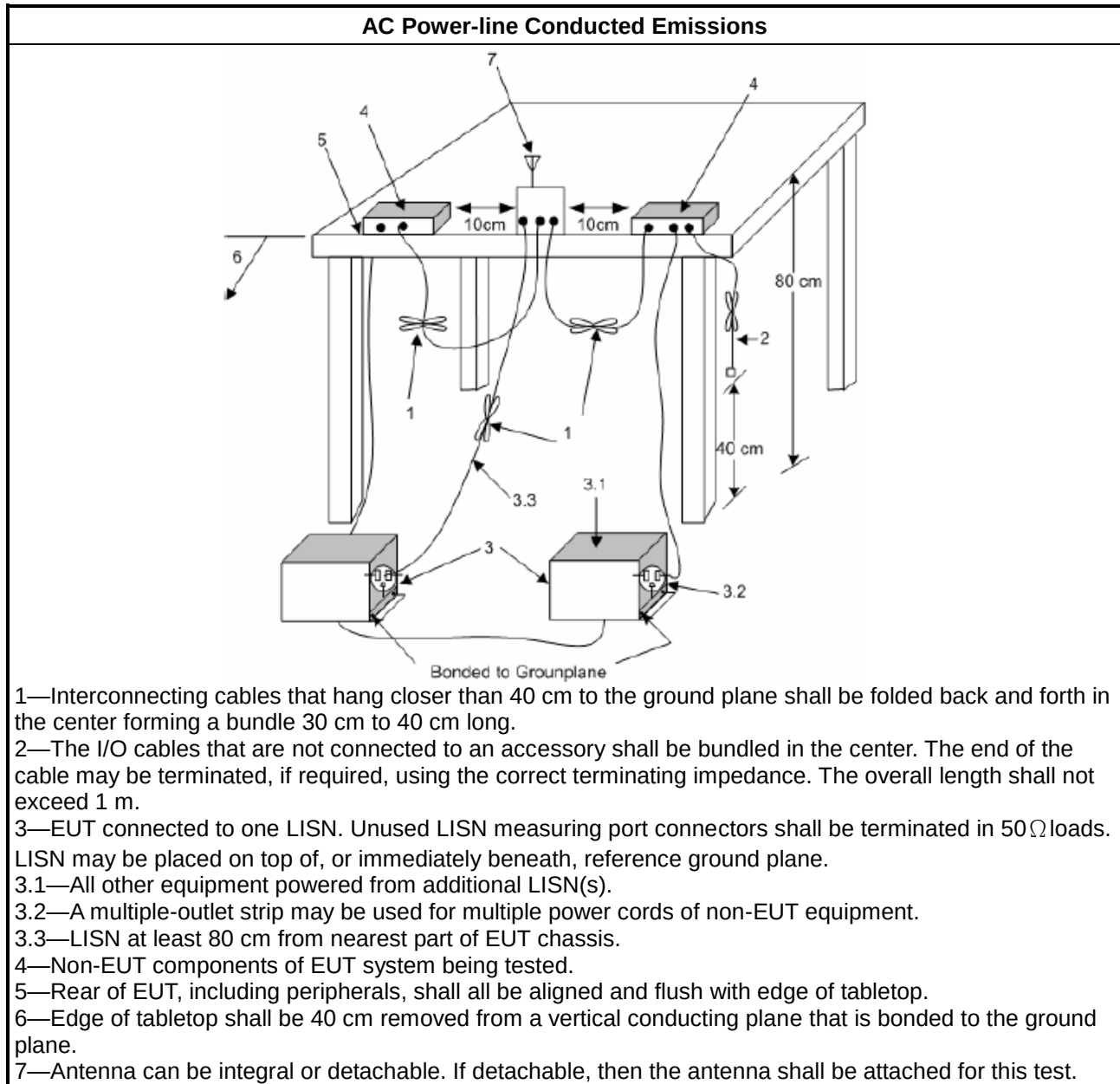
Test Method
☒ Refer as ANSI C63.10, clause 6.2 for AC power-line conducted emissions.

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.

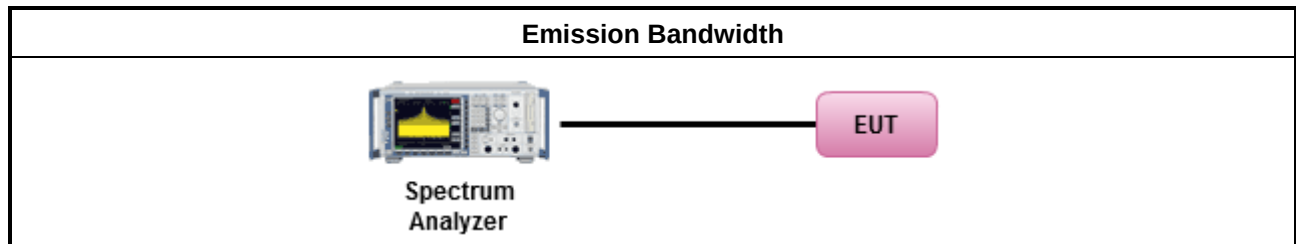
3.2.2 Measuring Instruments

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.		

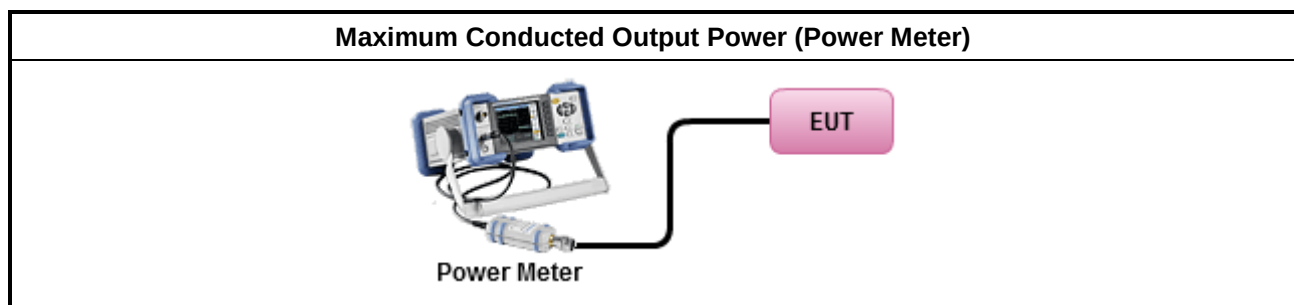
3.3.2 Measuring Instruments

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) $\leq$ 8 dBm/3kHz

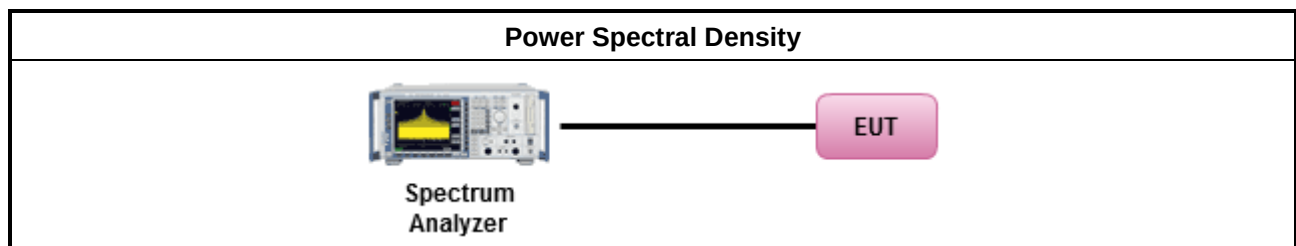
3.4.2 Measuring Instruments

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 PSD 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 PSD level.	

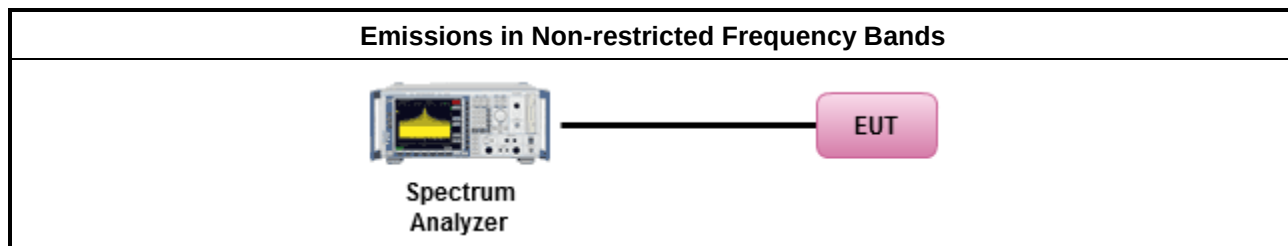
3.5.2 Measuring Instruments

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

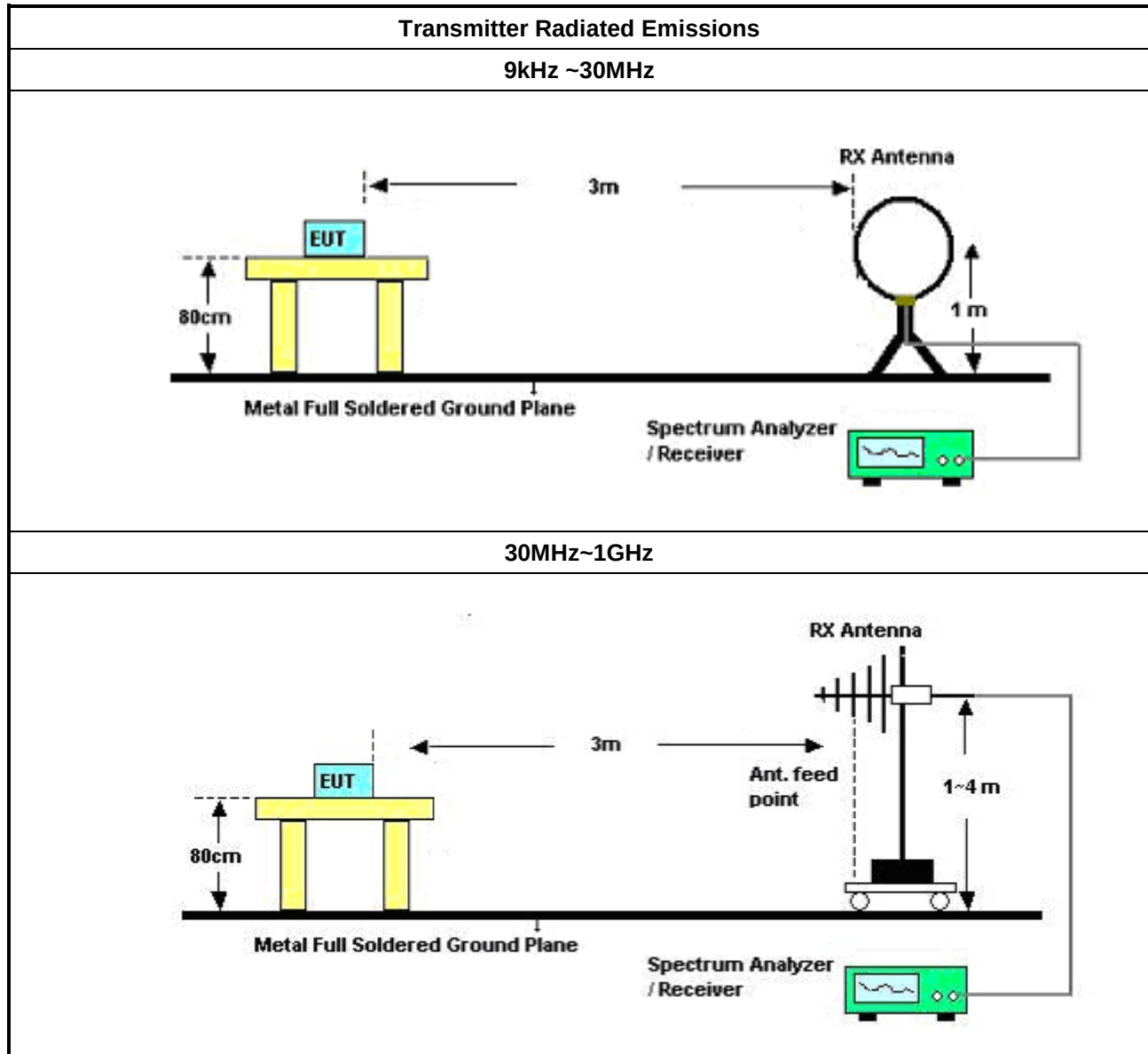
Test Method	
The average emission levels shall be measured in [duty cycle $\geq$ 98 or duty factor].	
Refer as ANSI C63.10, clause 6.10.3 band-edge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band.	
For the transmitter unwanted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

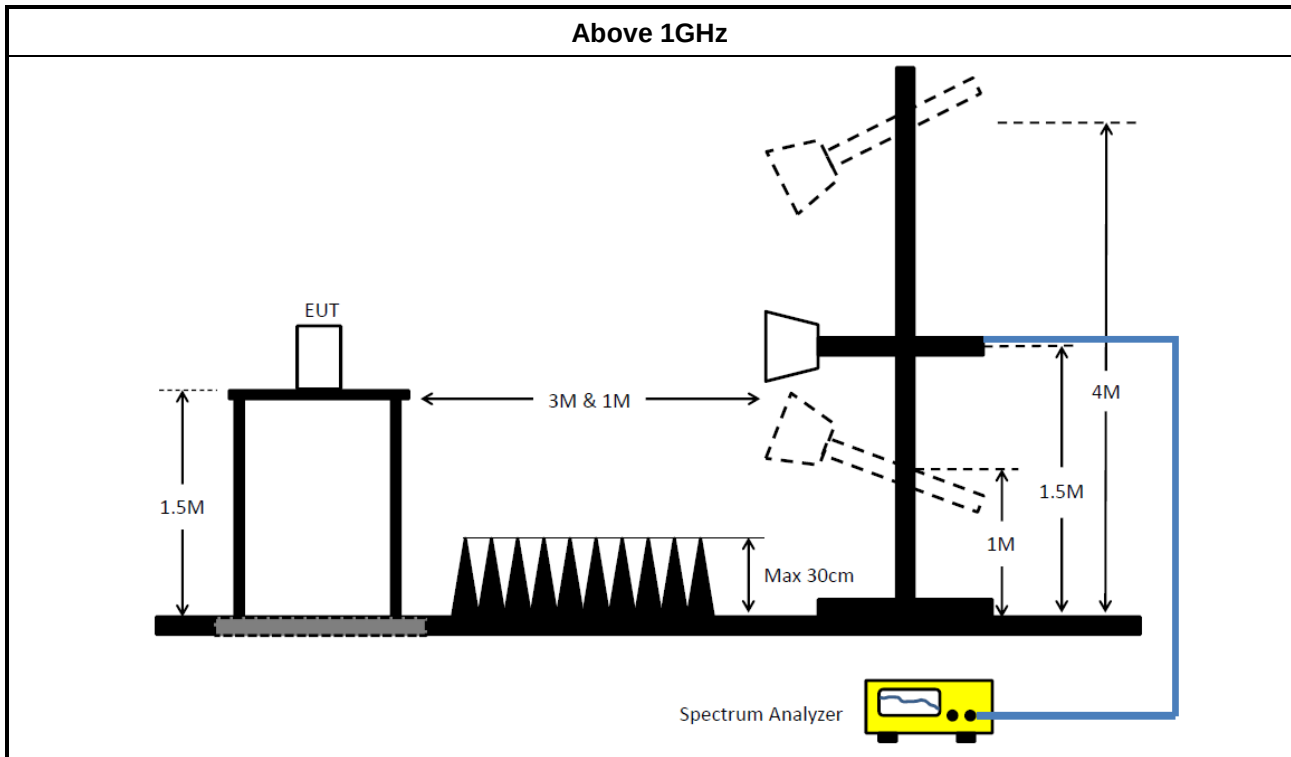
3.6.4 Measurement Results Calculation

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 Transmitter Radiated Unwanted Emissions (Below 30MHz)

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

3.6.7 Test Result of Transmitter Radiated Unwanted Emissions

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	21/May/2025	20/May/2026
Two-Line V-Network	ROHDE & SCHWARZ	ENV 216	100003	9kHz ~ 30MHz	18/Apr/2025	17/Apr/2026
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	V5.11.6	-	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	101029	10Hz~40GHz	28/Oct/2024	27/Oct/2025
SMB100A Signal Generator	R&S	SMB100A	181147	100kHz~40GHz	16/Oct/2024	15/Oct/2025
Power Meter	Anritsu	ML2495A	1124009	300MHz~40GHz	28/Mar/2025	27/Mar/2026
Pulse Sensor	Anritsu	MA2411B	1027452	300MHz~40GHz	28/Mar/2025	27/Mar/2026
SENSE-15247_FS	Sporton	V5.11.25	N/A	N/A	N/A	N/A

**Instrument for Radiated Test**

Instrument	Manufacturer / Brand Name	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH25-HY	30MHz~1GHz 3m	20/Jul/2024	19/Jul/2025
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH25-HY	30MHz~1GHz 3m	18/Jul/2025	17/Jul/2026
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH25-HY	1GHz~18GHz 3m	08/Aug/2024	07/Aug/2025
ESR7 EMI Test Receiver	ROHDE & SCHWARZ	ESR7	102956	9kHz~3.6GHz	27/Aug/2024	26/Aug/2025
Signal Analyzer	ROHDE&SCHWARZ	FSV3044	101410	10Hz~44GHz	18/Nov/2024	17/Nov/2025
Loop Antenna	TESEQ	HLA 6120	31244	9kHz~30MHz	20/Mar/2025	19/Mar/2026
Bilog Antenna & 6dB Attenuator	TESEQ & VGT	CBL 6111D & VFA 04002-06	63537/001	30MHz~1GHz	23/May/2025	22/May/2026
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	02876	1GHz~18GHz	02/Jul/2025	01/Jul/2026
RF Cable	HUBER+SUHNER	SUOFLEX 104	CB007	9kHz~1GHz	23/Apr/2025	22/Apr/2026
RF Cable	HUBER+SUHNER	SUOFLEX 104	CB007	1GHz~40GHz	15/Feb/2025	14/Feb/2026
Preamplifier	SGH	PRAMP 903	20230515-1	25MHz~3GHz	21/May/2025	20/May/2026
Preamplifier	SGH	PRAMP 118-H	20230515-3	1GHz~18GHz	21/May/2025	20/May/2026
SENSE-15247-DTS	Sporton	V5.11.24	NA	NA	NA	NA



Conducted Emissions at Powerline_SKU 1

Appendix A.1

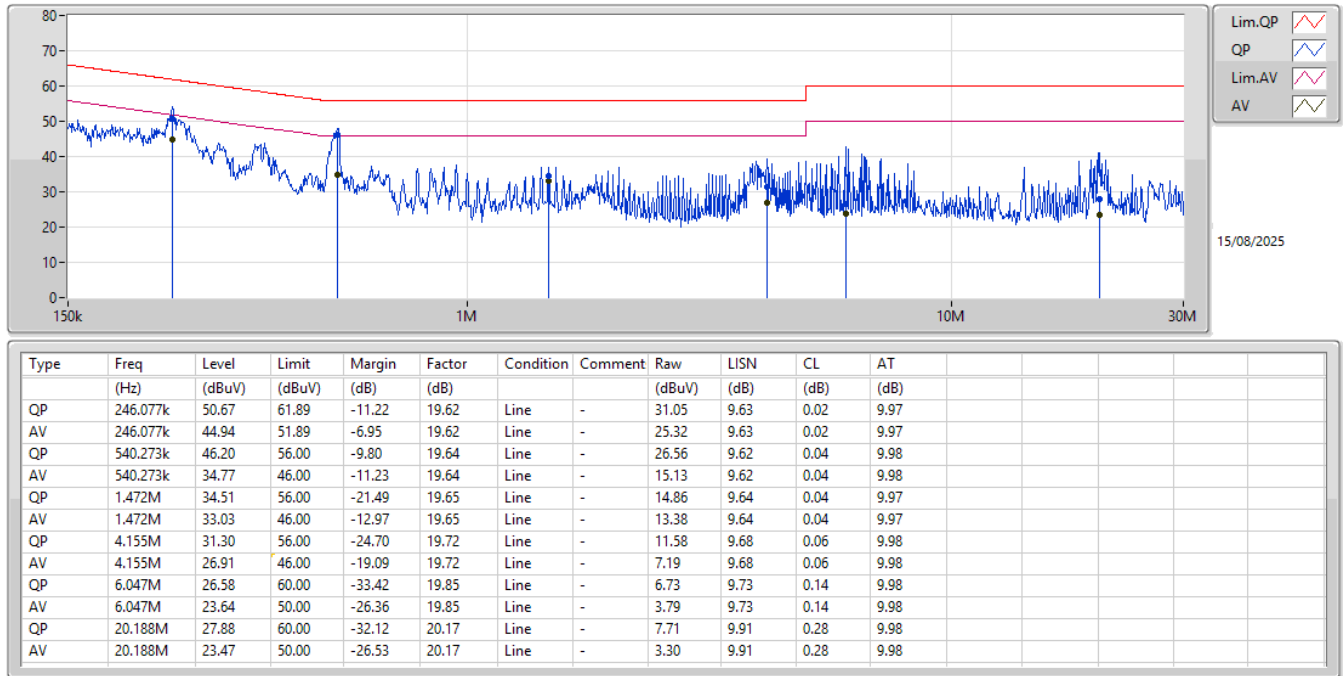
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	AV	246.077k	44.94	51.89	-6.95	Line

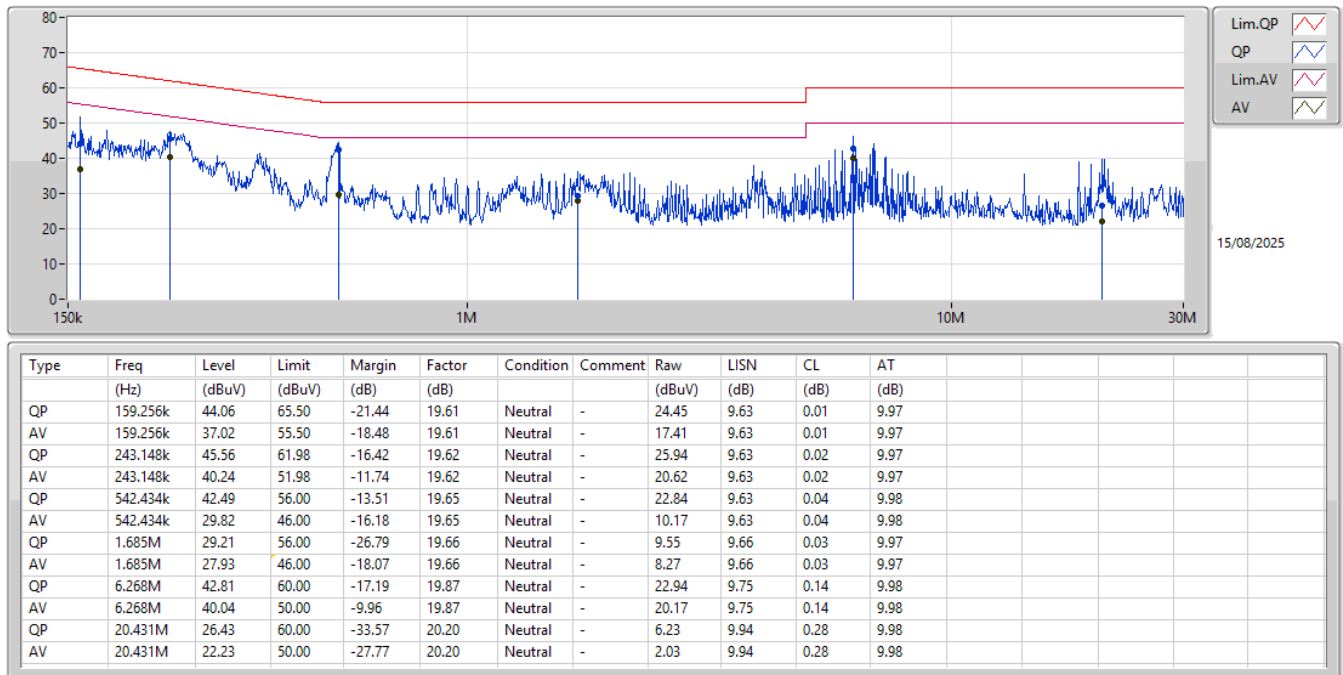
Result

Mode	Result	Type	Freq (Hz)	Level (dBUV)	Limit (dBUV)	Margin (dB)	Condition	Comments
Mode 1	Pass	QP	246.077k	50.67	61.89	-11.22	Line	-
Mode 1	Pass	AV	246.077k	44.94	51.89	-6.95	Line	-
Mode 1	Pass	QP	540.273k	46.20	56.00	-9.80	Line	-
Mode 1	Pass	AV	540.273k	34.77	46.00	-11.23	Line	-
Mode 1	Pass	QP	1.472M	34.51	56.00	-21.49	Line	-
Mode 1	Pass	AV	1.472M	33.03	46.00	-12.97	Line	-
Mode 1	Pass	QP	4.155M	31.30	56.00	-24.70	Line	-
Mode 1	Pass	AV	4.155M	26.91	46.00	-19.09	Line	-
Mode 1	Pass	QP	6.047M	26.58	60.00	-33.42	Line	-
Mode 1	Pass	AV	6.047M	23.64	50.00	-26.36	Line	-
Mode 1	Pass	QP	20.188M	27.88	60.00	-32.12	Line	-
Mode 1	Pass	AV	20.188M	23.47	50.00	-26.53	Line	-
Mode 1	Pass	QP	159.256k	44.06	65.50	-21.44	Neutral	-
Mode 1	Pass	AV	159.256k	37.02	55.50	-18.48	Neutral	-
Mode 1	Pass	QP	243.148k	45.56	61.98	-16.42	Neutral	-
Mode 1	Pass	AV	243.148k	40.24	51.98	-11.74	Neutral	-
Mode 1	Pass	QP	542.434k	42.49	56.00	-13.51	Neutral	-
Mode 1	Pass	AV	542.434k	29.82	46.00	-16.18	Neutral	-
Mode 1	Pass	QP	1.685M	29.21	56.00	-26.79	Neutral	-
Mode 1	Pass	AV	1.685M	27.93	46.00	-18.07	Neutral	-
Mode 1	Pass	QP	6.268M	42.81	60.00	-17.19	Neutral	-
Mode 1	Pass	AV	6.268M	40.04	50.00	-9.96	Neutral	-
Mode 1	Pass	QP	20.431M	26.43	60.00	-33.57	Neutral	-
Mode 1	Pass	AV	20.431M	22.23	50.00	-27.77	Neutral	-

Conducted Emissions at Powerline_Mode 1



Conducted Emissions at Powerline_Mode 1





Conducted Emissions at Powerline_SKU 2

Appendix A.2

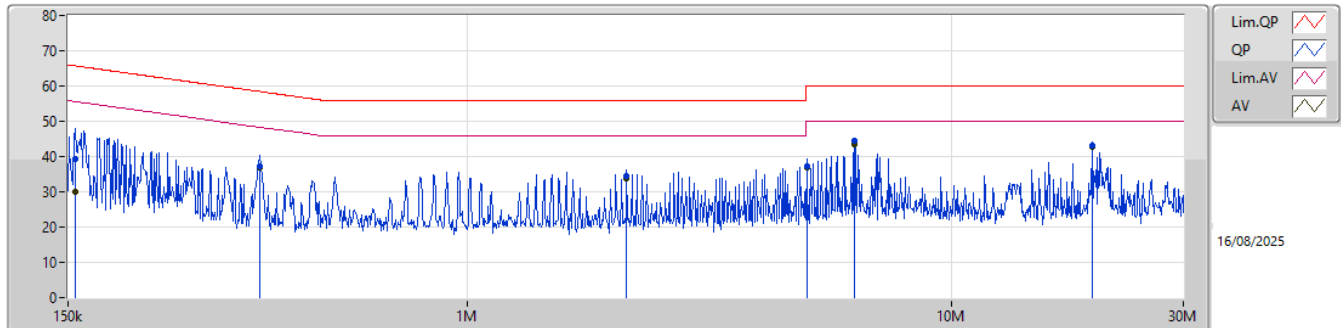
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	AV	6.293M	43.73	50.00	-6.27	Neutral

Result

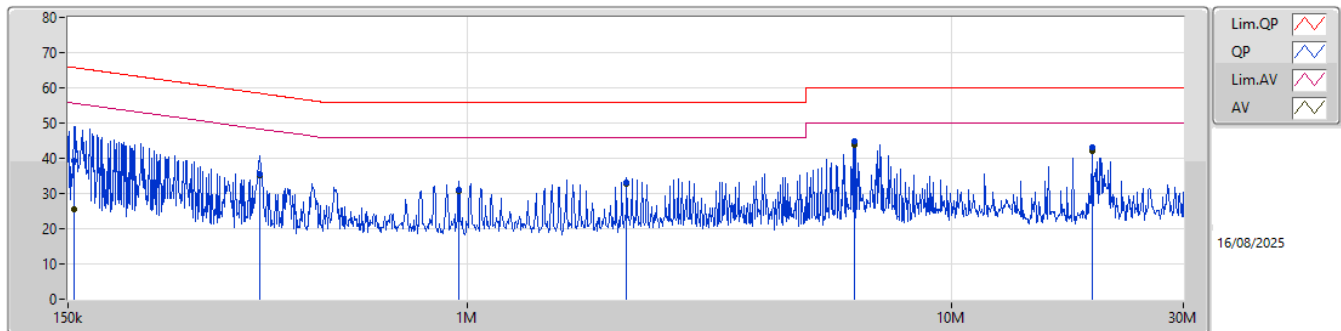
Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition	Comments
Mode 1	Pass	QP	155.487k	39.22	65.69	-26.47	Line	-
Mode 1	Pass	AV	155.487k	30.01	55.69	-25.68	Line	-
Mode 1	Pass	QP	372.716k	37.08	58.45	-21.37	Line	-
Mode 1	Pass	AV	372.716k	36.97	48.45	-11.48	Line	-
Mode 1	Pass	QP	2.133M	34.45	56.00	-21.55	Line	-
Mode 1	Pass	AV	2.133M	33.95	46.00	-12.05	Line	-
Mode 1	Pass	QP	5.012M	37.41	60.00	-22.59	Line	-
Mode 1	Pass	AV	5.012M	36.82	50.00	-13.18	Line	-
Mode 1	Pass	QP	6.293M	44.32	60.00	-15.68	Line	-
Mode 1	Pass	AV	6.293M	43.30	50.00	-6.70	Line	-
Mode 1	Pass	QP	19.475M	43.18	60.00	-16.82	Line	-
Mode 1	Pass	AV	19.475M	42.65	50.00	-7.35	Line	-
Mode 1	Pass	QP	154.251k	39.39	65.77	-26.38	Neutral	-
Mode 1	Pass	AV	154.251k	25.54	55.77	-30.23	Neutral	-
Mode 1	Pass	QP	372.716k	35.45	58.45	-23.00	Neutral	-
Mode 1	Pass	AV	372.716k	35.31	48.45	-13.14	Neutral	-
Mode 1	Pass	QP	959.992k	30.94	56.00	-25.06	Neutral	-
Mode 1	Pass	AV	959.992k	30.67	46.00	-15.33	Neutral	-
Mode 1	Pass	QP	2.133M	33.19	56.00	-22.81	Neutral	-
Mode 1	Pass	AV	2.133M	32.83	46.00	-13.17	Neutral	-
Mode 1	Pass	QP	6.293M	44.74	60.00	-15.26	Neutral	-
Mode 1	Pass	AV	6.293M	43.73	50.00	-6.27	Neutral	-
Mode 1	Pass	QP	19.475M	42.98	60.00	-17.02	Neutral	-
Mode 1	Pass	AV	19.475M	42.20	50.00	-7.80	Neutral	-

Conducted Emissions at Powerline_Mode 1



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)						
QP	155.487k	39.22	65.69	-26.47	19.61	Line	-	19.61	9.63	0.01	9.97						
AV	155.487k	30.01	55.69	-25.68	19.61	Line	-	10.40	9.63	0.01	9.97						
QP	372.716k	37.08	58.45	-21.37	19.63	Line	-	17.45	9.62	0.03	9.98						
AV	372.716k	36.97	48.45	-11.48	19.63	Line	-	17.34	9.62	0.03	9.98						
QP	2.133M	34.45	56.00	-21.55	19.65	Line	-	14.80	9.65	0.03	9.97						
AV	2.133M	33.95	46.00	-12.05	19.65	Line	-	14.30	9.65	0.03	9.97						
QP	5.012M	37.41	60.00	-22.59	19.78	Line	-	17.63	9.70	0.10	9.98						
AV	5.012M	36.82	50.00	-13.18	19.78	Line	-	17.04	9.70	0.10	9.98						
QP	6.293M	44.32	60.00	-15.68	19.86	Line	-	24.46	9.74	0.14	9.98						
AV	6.293M	43.30	50.00	-6.70	19.86	Line	-	23.44	9.74	0.14	9.98						
QP	19.475M	43.18	60.00	-16.82	20.17	Line	-	23.01	9.91	0.28	9.98						
AV	19.475M	42.65	50.00	-7.35	20.17	Line	-	22.48	9.91	0.28	9.98						

Conducted Emissions at Powerline_Mode 1



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)						
QP	154.251k	39.39	65.77	-26.38	19.61	Neutral	-	19.78	9.63	0.01	9.97						
AV	154.251k	25.54	55.77	-30.23	19.61	Neutral	-	5.93	9.63	0.01	9.97						
QP	372.716k	35.45	58.45	-23.00	19.64	Neutral	-	15.81	9.63	0.03	9.98						
AV	372.716k	35.31	48.45	-13.14	19.64	Neutral	-	15.67	9.63	0.03	9.98						
QP	959.992k	30.94	56.00	-25.06	19.67	Neutral	-	11.27	9.64	0.05	9.98						
AV	959.992k	30.67	46.00	-15.33	19.67	Neutral	-	11.00	9.64	0.05	9.98						
QP	2.133M	33.19	56.00	-22.81	19.66	Neutral	-	13.53	9.66	0.03	9.97						
AV	2.133M	32.83	46.00	-13.17	19.66	Neutral	-	13.17	9.66	0.03	9.97						
QP	6.293M	44.74	60.00	-15.26	19.87	Neutral	-	24.87	9.75	0.14	9.98						
AV	6.293M	43.73	50.00	-6.27	19.87	Neutral	-	23.86	9.75	0.14	9.98						
QP	19.475M	42.98	60.00	-17.02	20.19	Neutral	-	22.79	9.93	0.28	9.98						
AV	19.475M	42.20	50.00	-7.80	20.19	Neutral	-	22.01	9.93	0.28	9.98						



Conducted Emissions at Powerline_SKU 3

Appendix A.3

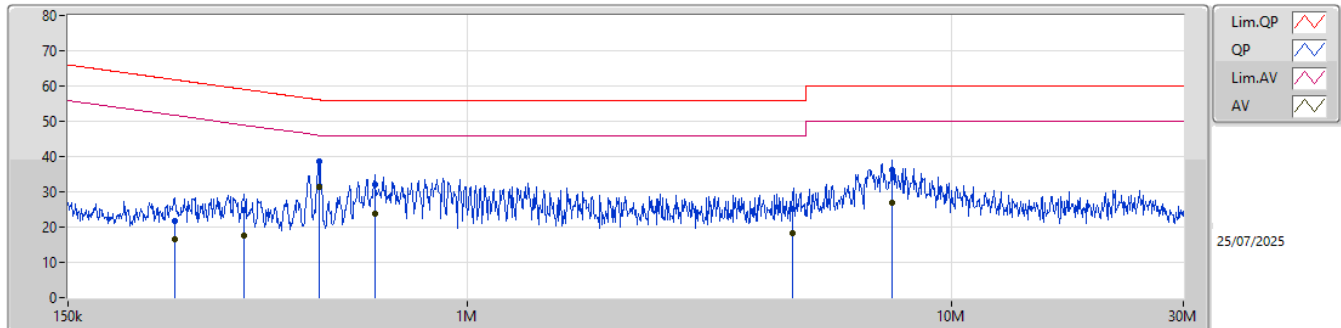
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	AV	494.85k	31.27	46.10	-14.83	Line

Result

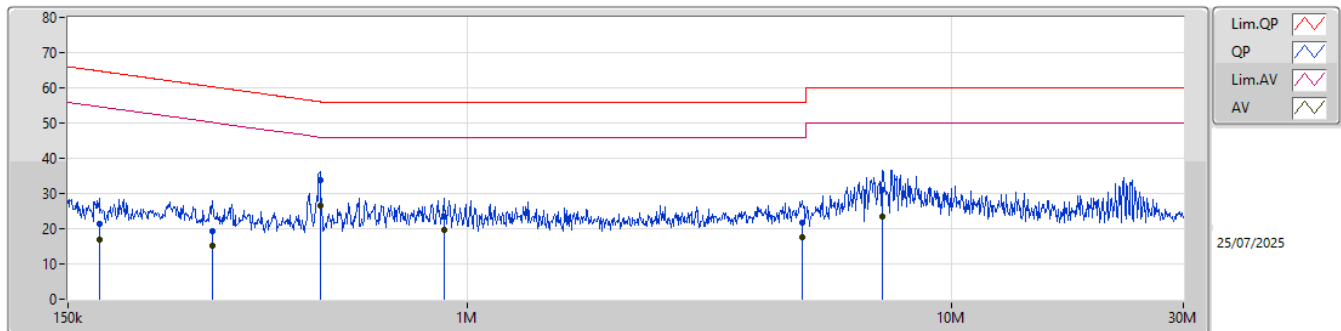
Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	QP	249.04k	21.64	61.79	-40.15	Line
Mode 1	Pass	AV	249.04k	16.50	51.79	-35.29	Line
Mode 1	Pass	QP	346.87k	24.83	59.04	-34.21	Line
Mode 1	Pass	AV	346.87k	17.50	49.04	-31.54	Line
Mode 1	Pass	QP	494.85k	38.78	56.10	-17.32	Line
Mode 1	Pass	AV	494.85k	31.27	46.10	-14.83	Line
Mode 1	Pass	QP	644.02k	32.10	56.00	-23.90	Line
Mode 1	Pass	AV	644.02k	23.87	46.00	-22.13	Line
Mode 1	Pass	QP	4.7M	25.08	56.00	-30.92	Line
Mode 1	Pass	AV	4.7M	18.11	46.00	-27.89	Line
Mode 1	Pass	QP	7.5M	36.35	60.00	-23.65	Line
Mode 1	Pass	AV	7.5M	26.92	50.00	-23.08	Line
Mode 1	Pass	QP	173.88k	21.34	64.78	-43.44	Neutral
Mode 1	Pass	AV	173.88k	16.82	54.78	-37.96	Neutral
Mode 1	Pass	QP	298.05k	19.46	60.30	-40.84	Neutral
Mode 1	Pass	AV	298.05k	15.33	50.30	-34.97	Neutral
Mode 1	Pass	QP	496.83k	33.79	56.06	-22.27	Neutral
Mode 1	Pass	AV	496.83k	26.66	46.06	-19.40	Neutral
Mode 1	Pass	QP	893.43k	23.53	56.00	-32.47	Neutral
Mode 1	Pass	AV	893.43k	19.63	46.00	-26.37	Neutral
Mode 1	Pass	QP	4.91M	21.74	56.00	-34.26	Neutral
Mode 1	Pass	AV	4.91M	17.53	46.00	-28.47	Neutral
Mode 1	Pass	QP	7.18M	31.12	60.00	-28.88	Neutral
Mode 1	Pass	AV	7.18M	23.60	50.00	-26.40	Neutral

Conducted Emissions at Powerline_Mode 1



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)						
QP	249.04k	21.64	61.79	-40.15	19.62	Line	-	2.02	9.63	0.02	9.97						
AV	249.04k	16.50	51.79	-35.29	19.62	Line	-	-3.12	9.63	0.02	9.97						
QP	346.87k	24.83	59.04	-34.21	19.64	Line	-	5.19	9.63	0.03	9.98						
AV	346.87k	17.50	49.04	-31.54	19.64	Line	-	-2.14	9.63	0.03	9.98						
QP	494.85k	38.78	56.10	-17.32	19.64	Line	-	19.14	9.63	0.03	9.98						
AV	494.85k	31.27	46.10	-14.83	19.64	Line	-	11.63	9.63	0.03	9.98						
QP	644.02k	32.10	56.00	-23.90	19.66	Line	-	12.44	9.64	0.04	9.98						
AV	644.02k	23.87	46.00	-22.13	19.66	Line	-	4.21	9.64	0.04	9.98						
QP	4.7M	25.08	56.00	-30.92	19.75	Line	-	5.33	9.69	0.08	9.98						
AV	4.7M	18.11	46.00	-27.89	19.75	Line	-	-1.64	9.69	0.08	9.98						
QP	7.5M	36.35	60.00	-23.65	19.91	Line	-	16.44	9.75	0.18	9.98						
AV	7.5M	26.92	50.00	-23.08	19.91	Line	-	7.01	9.75	0.18	9.98						

Conducted Emissions at Powerline_Mode 1



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)						
QP	173.88k	21.34	64.78	-43.44	19.70	Neutral	-	1.64	9.72	0.01	9.97						
AV	173.88k	16.82	54.78	-37.96	19.70	Neutral	-	-2.88	9.72	0.01	9.97						
QP	298.05k	19.46	60.30	-40.84	19.71	Neutral	-	-0.25	9.71	0.02	9.98						
AV	298.05k	15.33	50.30	-34.97	19.71	Neutral	-	-4.38	9.71	0.02	9.98						
QP	496.83k	33.79	56.06	-22.27	19.72	Neutral	-	14.07	9.71	0.03	9.98						
AV	496.83k	26.66	46.06	-19.40	19.72	Neutral	-	6.94	9.71	0.03	9.98						
QP	893.43k	23.53	56.00	-32.47	19.75	Neutral	-	3.78	9.72	0.05	9.98						
AV	893.43k	19.63	46.00	-26.37	19.75	Neutral	-	-0.12	9.72	0.05	9.98						
QP	4.91M	21.74	56.00	-34.26	19.90	Neutral	-	1.84	9.83	0.09	9.98						
AV	4.91M	17.53	46.00	-28.47	19.90	Neutral	-	-2.37	9.83	0.09	9.98						
QP	7.18M	31.12	60.00	-28.88	20.05	Neutral	-	11.07	9.90	0.17	9.98						
AV	7.18M	23.60	50.00	-26.40	20.05	Neutral	-	3.55	9.90	0.17	9.98						



Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
902-928MHz	-	-	-	-	-
Z-Wave	672.5k	904.548k	905KD1D	627.5k	899.55k

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)
Z-Wave	-	-	-	-
912MHz	Pass	500k	672.5k	904.548k
920MHz	Pass	500k	627.5k	899.55k

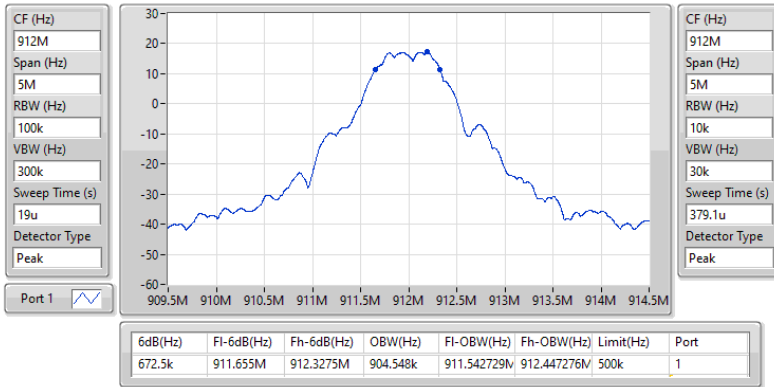
Port X-N dB = Port X 6dB down bandwidth;
Port X-OBW = Port X 99% occupied bandwidth

902-928MHz_Z-Wave

EBW-DTS

912MHz

24/07/2025





Summary

Mode	Total Power (dBm)	Total Power (W)
902-928MHz	-	-
Z-Wave	18.79	0.07568



Result

Mode	Result	DG (dBi)	Total Power (dBm)	Power Limit (dBm)
Z-Wave	-	-	-	-
912MHz	Pass	3.30	18.71	30.00
920MHz	Pass	3.30	18.79	30.00

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



Summary

Mode	Total Power (dBm)	Total Power (W)
902-928MHz	-	-
Z-Wave	18.50	0.07079



Average Power-DTS

Appendix C.2

Result

Mode	Result	DG (dBi)	Total Power (dBm)	Power Limit (dBm)
Z-Wave	-	-	-	-
912MHz	Pass	3.30	18.50	30.00
920MHz	Pass	3.30	18.47	30.00

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



Summary

Mode	PD (dBm/RBW)
902-928MHz	-
Z-Wave	6.32

RBW = 3kHz;



Result

Mode	Result	DG (dBi)	PD (dBm/RBW)	PD Limit (dBm/RBW)
Z-Wave	-	-	-	-
912MHz	Pass	3.30	6.32	8.00
920MHz	Pass	3.30	6.29	8.00

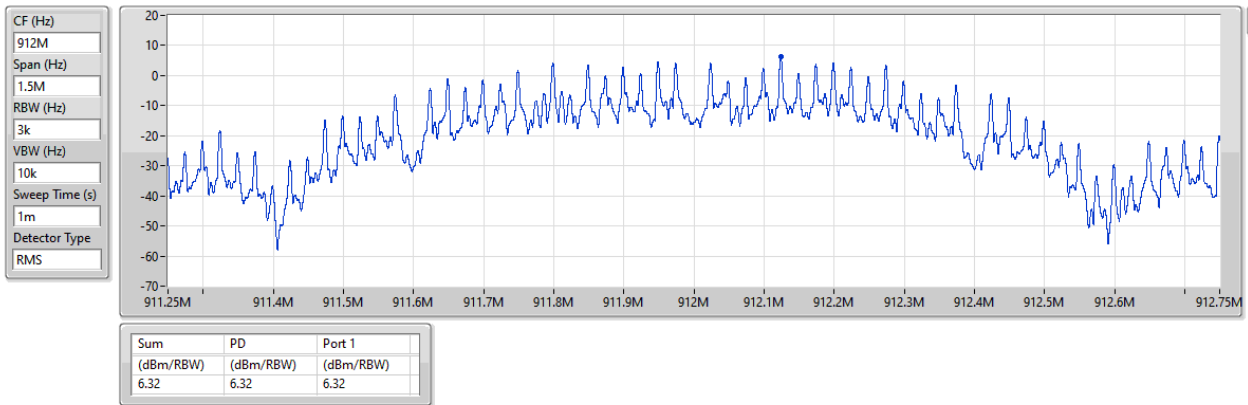
DG = Directional Gain; RBW = 3kHz;
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; Port X = Port X Power Density;

902-928MHz_Z-Wave

PSD

912MHz

09/07/2025





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
902-928MHz	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Z-Wave	Pass	919.84M	19.36	-10.64	726.94M	-55.24	894.84M	-54.06	928M	-51.83	929.32M	-50.66	1.83962G	-45.96	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
Z-Wave	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
912MHz	Pass	919.84M	19.36	-10.64	873.05M	-54.62	901.4M	-52.46	902M	-53.61	931.44M	-53.29	1.82378G	-44.50	1
920MHz	Pass	919.84M	19.36	-10.64	726.94M	-55.24	894.84M	-54.06	928M	-51.83	929.32M	-50.66	1.83962G	-45.96	1

902-928MHz Z-Wave

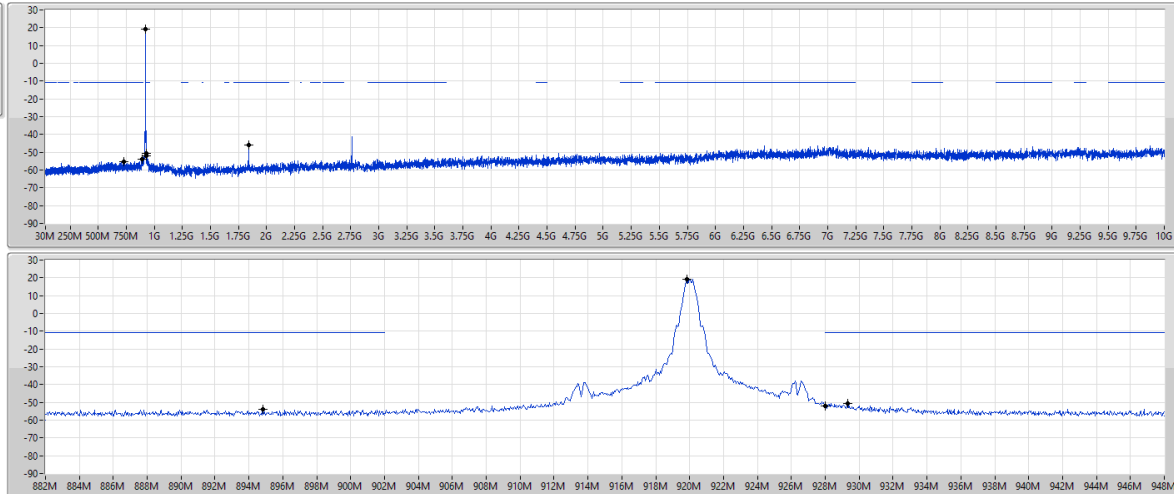
CSEndB-DTS

920MHz

24/07/2025

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
919.84M	19.36	-10.64	726.94M	-55.24	894.84M	-54.06	928M	-51.83	929.32M	-50.66	1.83962G	-45.96	1



Summary

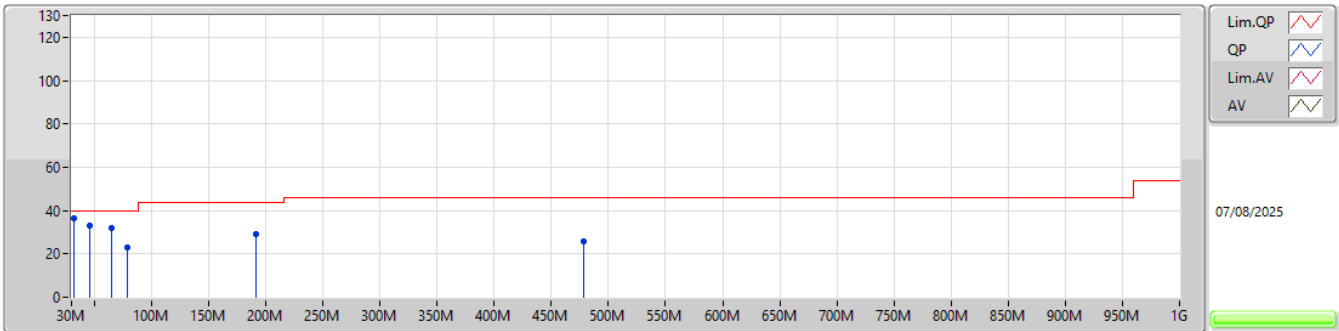
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
902-928MHz	-	-	-	-	-	-	-	-	-	-
Z-Wave	Pass	PK	31.94M	36.52	40.00	-3.48	3	Vertical	360	1.00

**Result**

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
Z-Wave	-	-	-	-	-	-	-	-	-	-
920MHz_PoE	Pass	PK	31.94M	36.52	40.00	-3.48	3	Vertical	360	1.00
920MHz_PoE	Pass	PK	191.02M	29.17	43.50	-14.33	3	Vertical	360	1.00
920MHz_PoE	Pass	PK	478.14M	25.77	46.00	-20.23	3	Vertical	360	1.00
920MHz_PoE	Pass	QP	45.52M	33.09	40.00	-6.91	3	Vertical	160	1.00
920MHz_PoE	Pass	QP	64.92M	31.78	40.00	-8.22	3	Vertical	292	1.94
920MHz_PoE	Pass	QP	78.5M	22.87	40.00	-17.13	3	Vertical	228	1.00
920MHz_PoE	Pass	PK	45.52M	27.48	40.00	-12.52	3	Horizontal	0	1.00
920MHz_PoE	Pass	PK	62.98M	25.31	40.00	-14.69	3	Horizontal	0	1.00
920MHz_PoE	Pass	PK	90.14M	25.53	43.50	-17.97	3	Horizontal	0	1.00
920MHz_PoE	Pass	PK	212.36M	25.24	43.50	-18.26	3	Horizontal	0	1.00
920MHz_PoE	Pass	PK	270.56M	25.07	46.00	-20.93	3	Horizontal	0	1.00
920MHz_PoE	Pass	PK	303.54M	27.64	46.00	-18.36	3	Horizontal	0	1.00

902-928MHz_Z-Wave

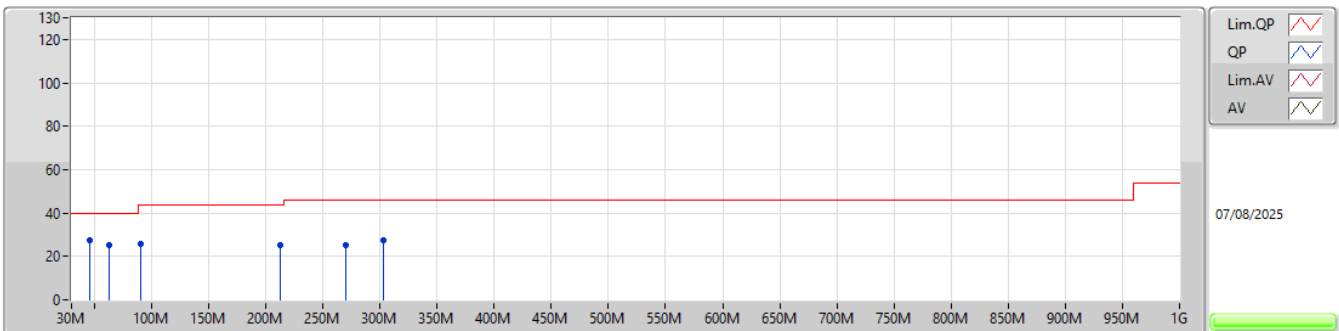
920MHz_PoE



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Raw	AF	CL	PA				
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	(dBuV)	(dB)	(dB)	(dB)				
PK	31.94M	36.52	40.00	-3.48	-20.37	3	Vertical	360	1.00	56.89	23.39	0.63	44.39				
PK	191.02M	29.17	43.50	-14.33	-27.86	3	Vertical	360	1.00	57.03	15.03	1.49	44.38				
PK	478.14M	25.77	46.00	-20.23	-17.91	3	Vertical	360	1.00	43.68	23.83	2.20	43.94				
QP	45.52M	33.09	40.00	-6.91	-26.70	3	Vertical	160	1.00	59.79	17.08	0.76	44.54				
QP	64.92M	31.78	40.00	-8.22	-31.35	3	Vertical	292	1.94	63.13	12.30	0.94	44.59				
QP	78.5M	22.87	40.00	-17.13	-29.93	3	Vertical	228	1.00	52.80	13.62	1.02	44.57				

902-928MHz_Z-Wave

920MHz_PoE



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Raw	AF	CL	PA				
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	(dBuV)	(dB)	(dB)	(dB)				
PK	45.52M	27.48	40.00	-12.52	-26.70	3	Horizontal	0	1.00	54.18	17.08	0.76	44.54				
PK	62.98M	25.31	40.00	-14.69	-31.46	3	Horizontal	0	1.00	56.77	12.21	0.92	44.59				
PK	90.14M	25.53	43.50	-17.97	-28.25	3	Horizontal	0	1.00	53.78	15.17	1.10	44.52				
PK	212.36M	25.24	43.50	-18.26	-27.42	3	Horizontal	0	1.00	52.66	15.36	1.57	44.35				
PK	270.56M	25.07	46.00	-20.93	-23.22	3	Horizontal	0	1.00	48.29	19.32	1.71	44.25				
PK	303.54M	27.64	46.00	-18.36	-22.86	3	Horizontal	0	1.00	50.50	19.55	1.76	44.17				



Summary

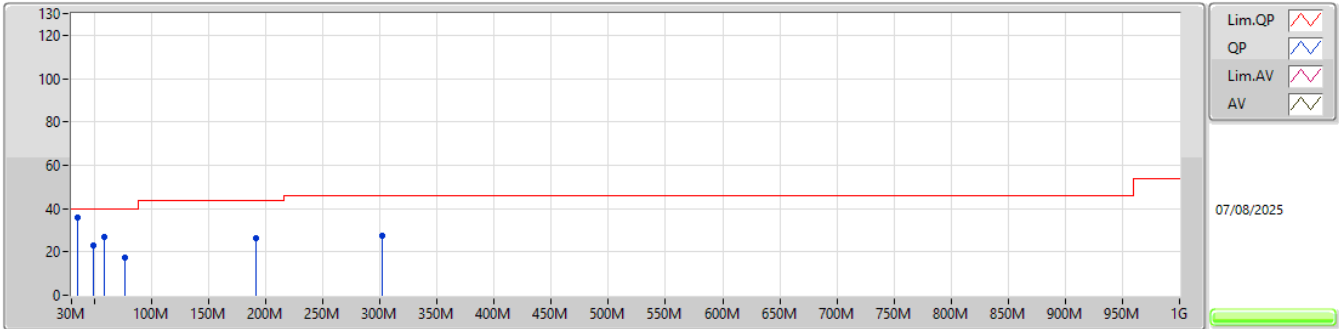
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
902-928MHz	-	-	-	-	-	-	-	-	-	-
Z-Wave	Pass	PK	35.82M	35.96	40.00	-4.04	3	Vertical	0	1.00

**Result**

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
Z-Wave	-	-	-	-	-	-	-	-	-	-
920MHz_PoE	Pass	PK	35.82M	35.96	40.00	-4.04	3	Vertical	0	1.00
920MHz_PoE	Pass	PK	191.02M	26.28	43.50	-17.22	3	Vertical	0	1.00
920MHz_PoE	Pass	PK	301.6M	27.49	46.00	-18.51	3	Vertical	0	1.00
920MHz_PoE	Pass	QP	49.4M	23.00	40.00	-17.00	3	Vertical	110	1.04
920MHz_PoE	Pass	QP	59.1M	27.14	40.00	-12.86	3	Vertical	248	1.01
920MHz_PoE	Pass	QP	76.56M	17.52	40.00	-22.48	3	Vertical	167	2.42
920MHz_PoE	Pass	PK	31.94M	26.53	40.00	-13.47	3	Horizontal	360	1.00
920MHz_PoE	Pass	PK	62.98M	26.43	40.00	-13.57	3	Horizontal	360	1.00
920MHz_PoE	Pass	PK	90.14M	29.15	43.50	-14.35	3	Horizontal	360	1.00
920MHz_PoE	Pass	PK	202.66M	26.83	43.50	-16.67	3	Horizontal	360	1.00
920MHz_PoE	Pass	PK	303.54M	32.09	46.00	-13.91	3	Horizontal	360	1.00
920MHz_PoE	Pass	PK	478.14M	30.01	46.00	-15.99	3	Horizontal	360	1.00

902-928MHz_Z-Wave

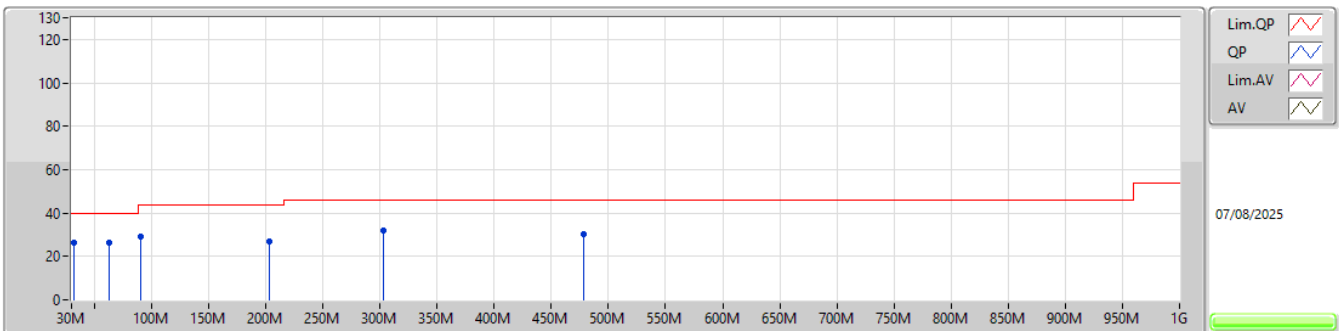
920MHz_PoE



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	35.82M	35.96	40.00	-4.04	-21.81	3	Vertical	0	1.00	57.77	21.99	0.67	44.47
PK	191.02M	26.28	43.50	-17.22	-27.86	3	Vertical	0	1.00	54.14	15.03	1.49	44.38
PK	301.6M	27.49	46.00	-18.51	-22.93	3	Vertical	0	1.00	50.42	19.49	1.75	44.17
QP	49.4M	23.00	40.00	-17.00	-28.73	3	Vertical	110	1.04	51.73	15.04	0.79	44.56
QP	59.1M	27.14	40.00	-12.86	-31.60	3	Vertical	248	1.01	58.74	12.12	0.87	44.59
QP	76.56M	17.52	40.00	-22.48	-30.19	3	Vertical	167	2.42	47.71	13.37	1.01	44.57

902-928MHz_Z-Wave

920MHz_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	31.94M	26.53	40.00	-13.47	-20.37	3	Horizontal	360	1.00	46.90	23.39	0.63	44.39
PK	62.98M	26.43	40.00	-13.57	-31.46	3	Horizontal	360	1.00	57.89	12.21	0.92	44.59
PK	90.14M	29.15	43.50	-14.35	-28.25	3	Horizontal	360	1.00	57.40	15.17	1.10	44.52
PK	202.66M	26.83	43.50	-16.67	-27.45	3	Horizontal	360	1.00	54.28	15.37	1.54	44.36
PK	303.54M	32.09	46.00	-13.91	-22.86	3	Horizontal	360	1.00	54.95	19.55	1.76	44.17
PK	478.14M	30.01	46.00	-15.99	-17.91	3	Horizontal	360	1.00	47.92	23.83	2.20	43.94



Summary

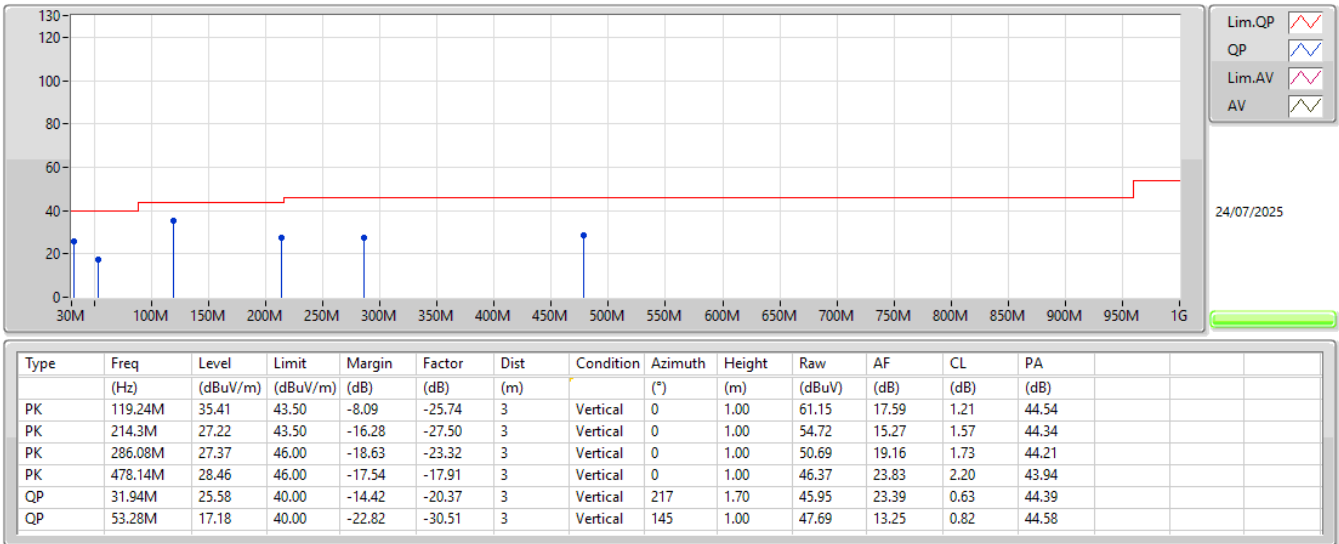
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
902-928MHz	-	-	-	-	-	-	-	-	-	-
Z-Wave	Pass	PK	31.94M	34.84	40.00	-5.16	3	Horizontal	360	1.00

Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
Z-Wave	-	-	-	-	-	-	-	-	-	-
912MHz_Adapter	Pass	PK	119.24M	35.41	43.50	-8.09	3	Vertical	0	1.00
912MHz_Adapter	Pass	PK	214.3M	27.22	43.50	-16.28	3	Vertical	0	1.00
912MHz_Adapter	Pass	PK	286.08M	27.37	46.00	-18.63	3	Vertical	0	1.00
912MHz_Adapter	Pass	PK	478.14M	28.46	46.00	-17.54	3	Vertical	0	1.00
912MHz_Adapter	Pass	QP	31.94M	25.58	40.00	-14.42	3	Vertical	217	1.70
912MHz_Adapter	Pass	QP	53.28M	17.18	40.00	-22.82	3	Vertical	145	1.00
912MHz_Adapter	Pass	PK	31.94M	34.84	40.00	-5.16	3	Horizontal	360	1.00
912MHz_Adapter	Pass	PK	117.3M	29.09	43.50	-14.41	3	Horizontal	360	1.00
912MHz_Adapter	Pass	PK	214.3M	27.78	43.50	-15.72	3	Horizontal	360	1.00
912MHz_Adapter	Pass	PK	286.08M	32.75	46.00	-13.25	3	Horizontal	360	1.00
912MHz_Adapter	Pass	PK	311.3M	32.18	46.00	-13.82	3	Horizontal	360	1.00
912MHz_Adapter	Pass	PK	431.58M	31.57	46.00	-14.43	3	Horizontal	360	1.00
920MHz_Adapter	Pass	PK	117.3M	35.63	43.50	-7.87	3	Vertical	360	1.00
920MHz_Adapter	Pass	PK	214.3M	27.11	43.50	-16.39	3	Vertical	360	1.00
920MHz_Adapter	Pass	PK	286.08M	27.07	46.00	-18.93	3	Vertical	360	1.00
920MHz_Adapter	Pass	PK	383.08M	25.60	46.00	-20.40	3	Vertical	360	1.00
920MHz_Adapter	Pass	PK	431.58M	28.39	46.00	-17.61	3	Vertical	360	1.00
920MHz_Adapter	Pass	QP	31.94M	25.95	40.00	-14.05	3	Vertical	194	1.00
920MHz_Adapter	Pass	PK	117.3M	27.60	43.50	-15.90	3	Horizontal	0	1.00
920MHz_Adapter	Pass	PK	214.3M	27.76	43.50	-15.74	3	Horizontal	0	1.00
920MHz_Adapter	Pass	PK	286.08M	32.62	46.00	-13.38	3	Horizontal	0	1.00
920MHz_Adapter	Pass	PK	311.3M	33.03	46.00	-12.97	3	Horizontal	0	1.00
920MHz_Adapter	Pass	QP	41.64M	26.42	40.00	-13.58	3	Horizontal	355	2.40
920MHz_Adapter	Pass	QP	66.86M	28.99	40.00	-11.01	3	Horizontal	132	2.80

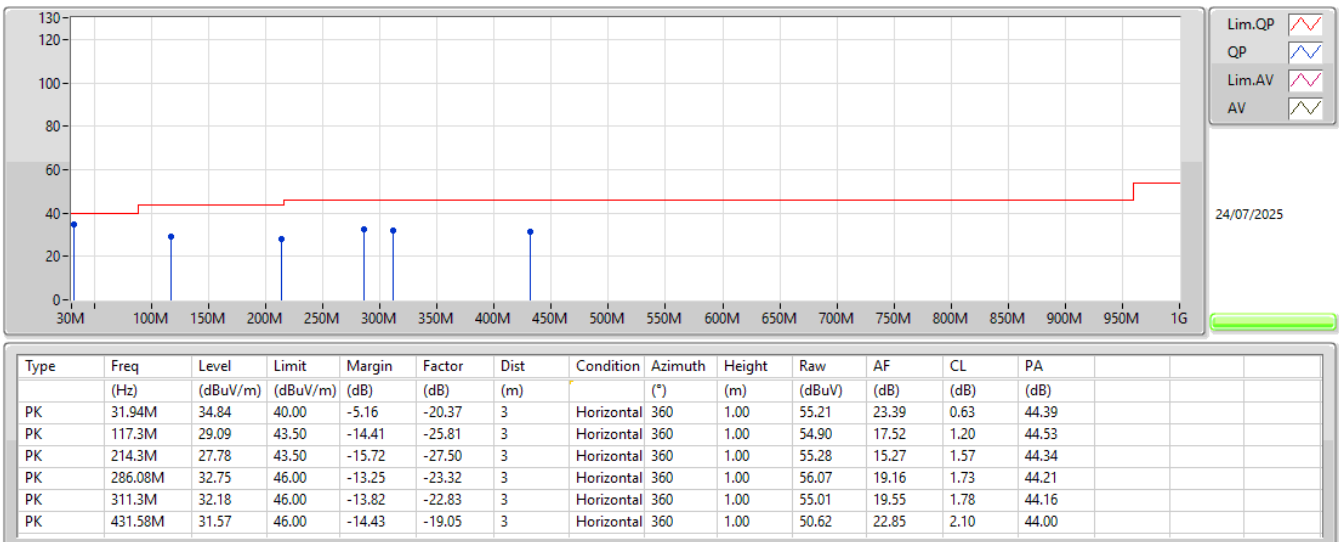
902-928MHz_Z-Wave

912MHz_Adapter



902-928MHz_Z-Wave

912MHz_Adapter





Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
902-928MHz	-	-	-	-	-	-	-	-	-	-
Z-Wave	Pass	AV	9.12204G	40.01	54.00	-13.99	3	Vertical	213	2.82

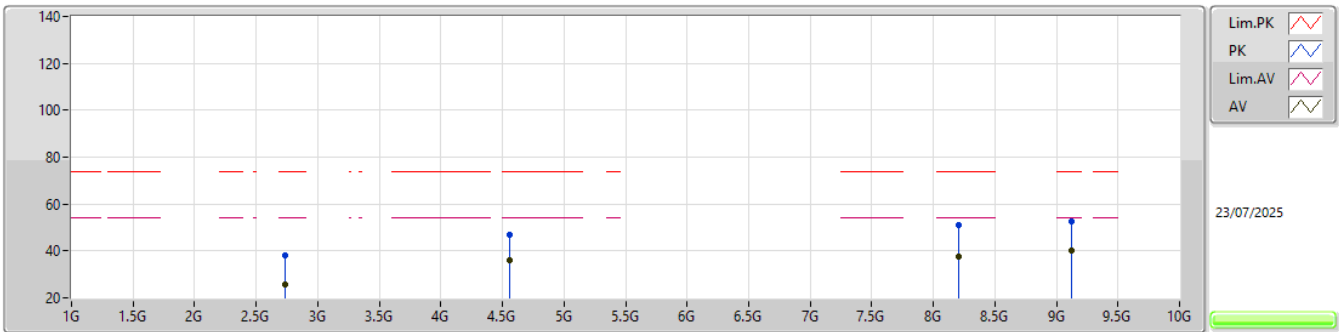


Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
Z-Wave	-	-	-	-	-	-	-	-	-	-
912MHz	Pass	AV	2.73654G	25.68	54.00	-28.32	3	Vertical	103	2.77
912MHz	Pass	AV	4.56096G	35.98	54.00	-18.02	3	Vertical	251	2.84
912MHz	Pass	AV	8.20984G	37.66	54.00	-16.34	3	Vertical	29	1.11
912MHz	Pass	AV	9.12204G	40.01	54.00	-13.99	3	Vertical	213	2.82
912MHz	Pass	PK	2.73648G	37.86	74.00	-36.14	3	Vertical	103	2.77
912MHz	Pass	PK	4.56114G	46.85	74.00	-27.15	3	Vertical	251	2.84
912MHz	Pass	PK	8.20992G	50.88	74.00	-23.12	3	Vertical	29	1.11
912MHz	Pass	PK	9.1218G	52.67	74.00	-21.33	3	Vertical	213	2.82
912MHz	Pass	AV	2.7366G	26.67	54.00	-27.33	3	Horizontal	334	1.45
912MHz	Pass	AV	4.5609G	38.34	54.00	-15.66	3	Horizontal	94	1.00
912MHz	Pass	AV	8.20984G	36.74	54.00	-17.26	3	Horizontal	105	2.11
912MHz	Pass	AV	9.12204G	39.03	54.00	-14.97	3	Horizontal	188	2.28
912MHz	Pass	PK	2.7354G	38.39	74.00	-35.61	3	Horizontal	334	1.45
912MHz	Pass	PK	4.55904G	49.25	74.00	-24.75	3	Horizontal	94	1.00
912MHz	Pass	PK	8.20992G	49.69	74.00	-24.31	3	Horizontal	105	2.11
912MHz	Pass	PK	9.1179G	51.91	74.00	-22.09	3	Horizontal	188	2.28
920MHz	Pass	AV	2.76057G	25.72	54.00	-28.28	3	Vertical	151	2.84
920MHz	Pass	AV	4.60074G	32.76	54.00	-21.24	3	Vertical	249	3.00
920MHz	Pass	AV	8.28188G	36.39	54.00	-17.61	3	Vertical	23	1.00
920MHz	Pass	AV	9.19076G	36.68	54.00	-17.32	3	Vertical	225	1.50
920MHz	Pass	PK	2.76054G	39.04	74.00	-34.96	3	Vertical	151	2.84
920MHz	Pass	PK	4.60068G	44.31	74.00	-29.69	3	Vertical	249	3.00
920MHz	Pass	PK	8.27988G	49.84	74.00	-24.16	3	Vertical	23	1.00
920MHz	Pass	PK	9.19198G	45.82	74.00	-28.18	3	Vertical	225	1.50
920MHz	Pass	AV	2.76053G	25.33	54.00	-28.67	3	Horizontal	323	1.01
920MHz	Pass	AV	4.60074G	33.42	54.00	-20.58	3	Horizontal	95	2.59
920MHz	Pass	AV	8.28182G	35.20	54.00	-18.80	3	Horizontal	310	1.50
920MHz	Pass	AV	9.19198G	35.25	54.00	-18.75	3	Horizontal	158	2.83
920MHz	Pass	PK	2.7594G	38.55	74.00	-35.45	3	Horizontal	323	1.01
920MHz	Pass	PK	4.59999G	45.45	74.00	-28.55	3	Horizontal	95	2.59
920MHz	Pass	PK	8.2838G	48.97	74.00	-25.03	3	Horizontal	310	1.50
920MHz	Pass	PK	9.19837G	51.48	74.00	-22.52	3	Horizontal	158	2.83

902-928MHz_Z-Wave

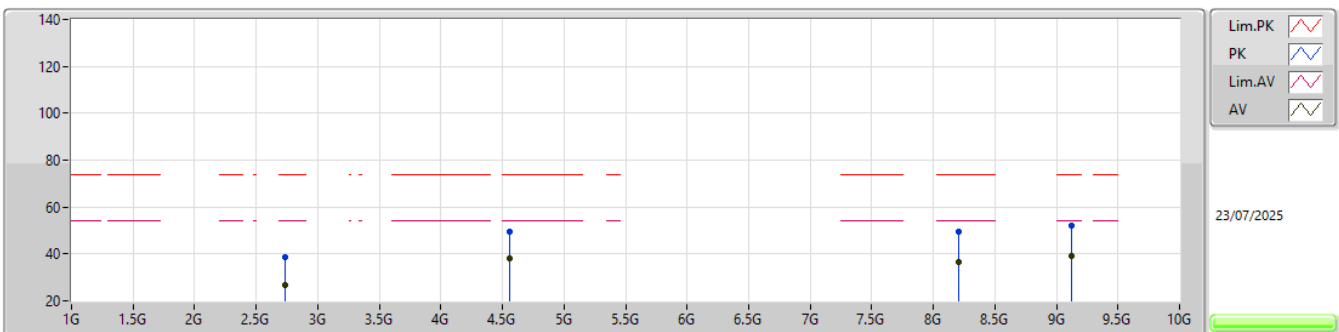
912MHz_TX



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	2.73654G	25.68	54.00	-28.32	-10.01	3	Vertical	103	2.77	35.69	28.33	5.09	43.43
AV	4.56096G	35.98	54.00	-18.02	-6.27	3	Vertical	251	2.84	42.25	31.72	6.17	44.16
AV	8.20984G	37.66	54.00	-16.34	1.84	3	Vertical	29	1.11	35.82	37.42	8.01	43.59
AV	9.12204G	40.01	54.00	-13.99	3.99	3	Vertical	213	2.82	36.02	38.40	8.53	42.94
PK	2.73648G	37.86	74.00	-36.14	-10.00	3	Vertical	103	2.77	47.86	28.34	5.09	43.43
PK	4.56114G	46.85	74.00	-27.15	-6.27	3	Vertical	251	2.84	53.12	31.72	6.17	44.16
PK	8.20992G	50.88	74.00	-23.12	1.84	3	Vertical	29	1.11	49.04	37.42	8.01	43.59
PK	9.1218G	52.67	74.00	-21.33	3.99	3	Vertical	213	2.82	48.68	38.40	8.53	42.94

902-928MHz_Z-Wave

912MHz_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	2.7366G	26.67	54.00	-27.33	-10.01	3	Horizontal	334	1.45	36.68	28.33	5.09	43.43
AV	4.5609G	38.34	54.00	-15.66	-6.27	3	Horizontal	94	1.00	44.61	31.72	6.17	44.16
AV	8.20984G	36.74	54.00	-17.26	1.84	3	Horizontal	105	2.11	34.90	37.42	8.01	43.59
AV	9.12204G	39.03	54.00	-14.97	3.99	3	Horizontal	188	2.28	35.04	38.40	8.53	42.94
PK	2.7354G	38.39	74.00	-35.61	-9.99	3	Horizontal	334	1.45	48.38	28.35	5.09	43.43
PK	4.55904G	49.25	74.00	-24.75	-6.27	3	Horizontal	94	1.00	55.52	31.72	6.17	44.16
PK	8.20992G	49.69	74.00	-24.31	1.84	3	Horizontal	105	2.11	47.85	37.42	8.01	43.59
PK	9.1179G	51.91	74.00	-22.09	3.99	3	Horizontal	188	2.28	47.92	38.40	8.53	42.94