

EUROFINS ELECTRICAL TESTING SERVICE (SHENZHEN) CO., LTD.

RADIO TEST - REPORT

FCC & ISED Compliance Test Report for

Product name: Wireless Thermostat

Model name: PUCK-2.0

**FCC ID: 2AK78PUCK2
IC: 22464-PUCK2**

Test Report Number: EFGX25100120-IE-02-E01

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1 General Information

1.1 Notes

The results of this test report relate exclusively to the item tested as specified in chapter "Description of test item" and are not transferable to any other test items.

EUROFINS ELECTRICAL TESTING SERVICE (SHENZHEN) CO., LTD. is not responsible for any generalisations and conclusions drawn from this report. Any modification of the test item can lead to invalidity of test results and this test report may therefore be not applicable to the modified test item.

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Operator

2025-12-02	Bruce Zheng / Project Engineer	
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Date	Eurofins-Lab.	Name / Title	Signature
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Technical responsibility for area of testing:

2025-12-02	Albert Xu / EMC Manager	
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Date	Eurofins-Lab.	Name / Title	Signature
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1.2 Testing laboratory

EUROFINS ELECTRICAL TESTING SERVICE (SHENZHEN) CO., LTD.

Room 20 of 2/F., 1/F., Building 2, Spring Block & Room 102, Building 8, Autumn Block Meishenghuigu Innovation Park, No.83, Dabao Road, Bao'an District Shenzhen, Guangdong, People's Republic of China

Telephone : +86-755-82911867

Fax : +86-755-82910749

The Laboratory has passed the Accreditation by the American Association for Laboratory Accreditation (A2LA). The Accreditation number is 5376.01.

The Laboratory has been listed by industry Canada to perform electromagnetic emission measurements, The CAB identifier is CN0088.

1.3 Details of applicant

Name	: Standard Euler, Inc.
Address	: 479 Jessie Street, San Francisco, California 94103, United States
Telephone	: ./.
Fax	: ./.

1.4 Details of manufacturer

Name	: Standard Euler, Inc.
Address	: 479 Jessie Street, San Francisco, California 94103, United States
Telephone	: ./.
Fax	: ./.

1.5 Application details

Date of receipt of application : 2025-10-14
Date of receipt of test item : 2025-10-14
Date of test : 2025-10-14 to 2025-11-04
Date of issue : 2025-12-02

1.6 Test item

Product type : Wireless Thermostat
Model name : PUCK-2.0
Brand name : FLAIR
Technical Description : Power Input: USB (5V); Battery (3.0V); POGO Pin Power Supply (5V)
Input Voltage: 3V / 5V
Input Current: Max 1A
Sample Code : 251014-09-002, 251014-09-003, 251014-09-004, 251014-09-005

RadioTechnical data

Fundamental frequency : 902-928 MHz
Modulation : 2-GFSK
Antenna type : Internal antenna
MaxGain : -2.98 dBi

(General disclaimer:

The above sample(s) and sample information was/were submitted and identified on behalf of the applicant.

Eurofins assures objectivity and impartiality of the test, and fulfills the obligation of confidentiality for applicant's commercial information and technical documents.)

1.7 Test standards

FCC Part 15 Subpart C	PART 15 - RADIO FREQUENCY DEVICES Subpart C - Intentional Radiators
RSS-210	Licence-Exempt Radio Apparatus: Category I Equipment
RSS-GEN	RSS-Gen — General Requirements for Compliance of Radio Apparatus

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2 Technical Test

2.1 Summary of test results

No deviations from the technical specification(s) were ascertained in the course of the tests performed.



or

The deviations as specified were ascertained in the course of the tests performed.



2.2 Test environment

Ac line conducted

Environment Parameter	Temperature °C	Relative Humidity
101.7 kPa	24.2	63.5%

RF Conducted

Environment Parameter	Temperature °C	Relative Humidity
101.7 kPa	24.3	61.7%

Radiated

Environment Parameter	Temperature °C	Relative Humidity
101.7 kPa	22.2	62.4%

2.3 Measurement uncertainty

The uncertainty is calculated using the methods suggested in the "Guide to the Expression of Uncertainty in Measurement" (GUM) published by ISO.

System Measurement Uncertainty	
Test Items	Extended Uncertainty
Uncertainty in conducted measurements	1.96dB
Uncertainty for Conducted RF test	RF Power Conducted: 1.16dB Frequency test involved: 1.05×10 ⁻⁷ or 1%
Uncertainty for Radiated Emission 9KHz-30MHz	4.56dB
Uncertainty for Radiated Spurious Emission 30MHz-1000MHz	Horizontal: 4.46dB; Vertical: 4.54dB;
Uncertainty for Radiated Spurious Emission 1000MHz-18000MHz	Horizontal: 4.42dB; Vertical: 4.41dB;
Uncertainty for Radiated Spurious Emission 18000MHz-40000MHz	Horizontal: 4.63dB; Vertical: 4.62dB;

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2.4 Test equipment utilized

EQUIPMENT ID	EQUIPMENT NAME	MODEL NO.	CAL. DUE DATE
23-2-13-05	EMI Test Receiver	ESR3	2026-03-25
23-2-13-06	LISN	NNLK 8127 RC	2026-03-25
23-2-10-16	Attenuator	VTSD 9561-F	2026-03-25
23-2-13-12	Signal Analyzer	N9010B-544	2026-03-25
23-2-13-13	BT/WLAN Tester	CMW270	2026-03-25
23-2-13-14	Signal Generator	N5183B-520	2026-03-25
23-2-13-15	Vector Signal Generator	N5182B-506	2026-03-25
23-2-10-44	DC power supply	E3642A	2026-03-25
23-2-10-45	Temperature test chamber	SG-80-CC-2	2026-03-25
23-2-13-01	EMI Test Receiver	ESR7	2026-03-25
23-2-13-02	Signal Analyzer	N9020B-544	2026-03-25
23-2-12-01	Active Loop Antenna	FMZB 1519B	2025-05-29
23-2-12-02	TRILOG Broadband Antenna	VULB9168	2026-06-02
23-2-12-03	Horn Antenna	3117	2026-06-02
23-2-12-04	Horn Antenna	BBHA 9170	2026-05-29
23-2-10-01	Preamplifier	BBV9745	2026-03-25
23-2-10-02	Preamplifier	TAP01018048	2026-03-25
23-2-10-03	Preamplifier	TAP18040048	2026-03-25
23-2-10-14	Switch and Control Unit	ERIT-E-JS0806-SF1	N/A
23-2-13-03	EMI Test Receiver	ESR7	2026-03-25
23-2-13-04	Signal Analyzer	N9020B-526	2026-03-25
23-2-12-06	Active Loop Antenna	FMZB 1519B	2026-03-25
23-2-12-07	TRILOG Broadband Antenna	VULB9168	2026-05-08
23-2-12-08	Horn Antenna	3117	2026-05-08
23-2-10-46	Preamplifier	BBV9745	2026-03-25
23-2-10-47	Preamplifier	TAP01018048	2026-03-25
23-2-10-15	Switch and Control Unit	ERIT-E-JS0806-SF1	N/A

2.5 Test mode

Measure using fixed-frequency mode.

Channel	Frequency (MHz)
0	915

2.6 Auxiliary equipment used during test

N/A

2.7 Test software information

The test samples have been burned with the test mode firmware (915MHz_continuous_TX_+10dbm) and tap the scree to start TX transmitting with modulation mode.

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2.8 Test results

☒ 1st test

☐ test after modification

☐ production test

FCC rule section(s)	ISED rule section(s)		Test Result	Verdict
§15.207	RSS-GEN 8.8	AC power-line conducted emissions	Appendix A	Pass
§15.215 (c)	RSS-GEN 6.7	Occupied bandwidth and 20 dB bandwidth	Appendix B	Pass
§15.249 (a)&(d)	RSS-210 B.10 (b)	Radiated emissions	Appendix C	Pass
§15.203	RSS-GEN 6.8	Antenna requirement	See note 1	Pass

Note 1: The EUT incorporates an embedded, non-removable FPC-based Planar Inverted-F Antenna (PIFA) with a maximum gain of -2.98 dBi. This design satisfies FCC §15.203 (prohibiting user-replaceable antennas) and ISED RSS-GEN Section 6.8 (antenna gain $\leq$ 6 dBi).

3.1 AC power-line conducted emissions

Frequency (MHz)	Conducted limit (dBµV)	
	Quasi-peak	Average
0.15 - 0.5	66 to 56 ¹	56 to 46 ¹
0.5 – 5	56	46
5 – 30	60	50

3.1.2 Measurement procedure

3.1.3 Setup



3.2 Occupied bandwidth and 20 dB bandwidth

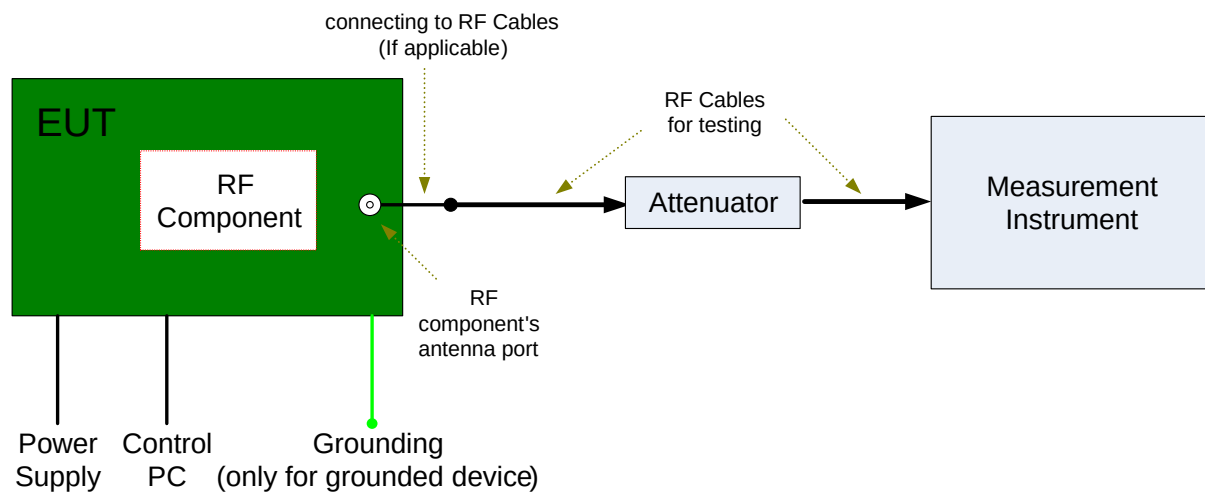
3.2.1 Limits

None; for reporting purposes only.

3.2.2 Measurement procedure

Clause 6.9 of *ANSI C63.10-2020*.

3.2.3 Setup



3.3 Radiated emissions

3.3.1 Limits

Fundamental frequency (MHz)	Field strength of fundamental (millivolts/meter)	Field strength of harmonics (microvolts/meter)
902-928	50	500
2400-2483.5	50	500
5725-5875	50	500
24000-24250	250	500

Field strength limits are specified at a distance of 3 meters.

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the emission limits in the following table, whichever requires the lesser attenuation.

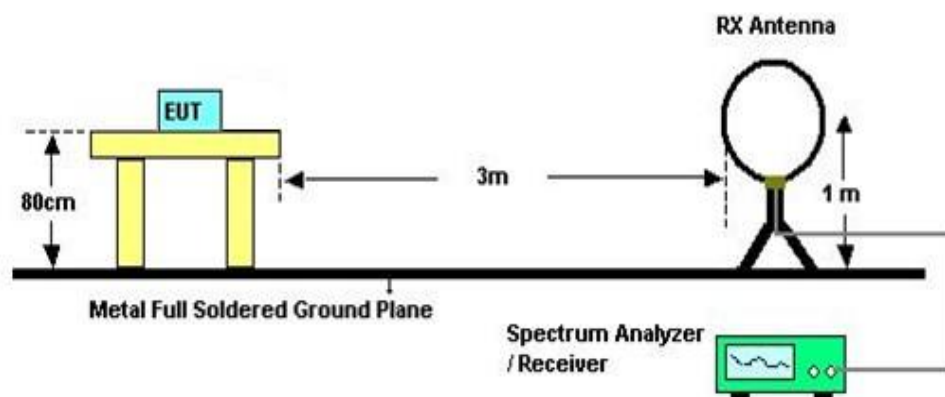
Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	$2400/F(\text{kHz})$	300
0.490-1.705	$24000/F(\text{kHz})$	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

3.3.2 Measurement procedure

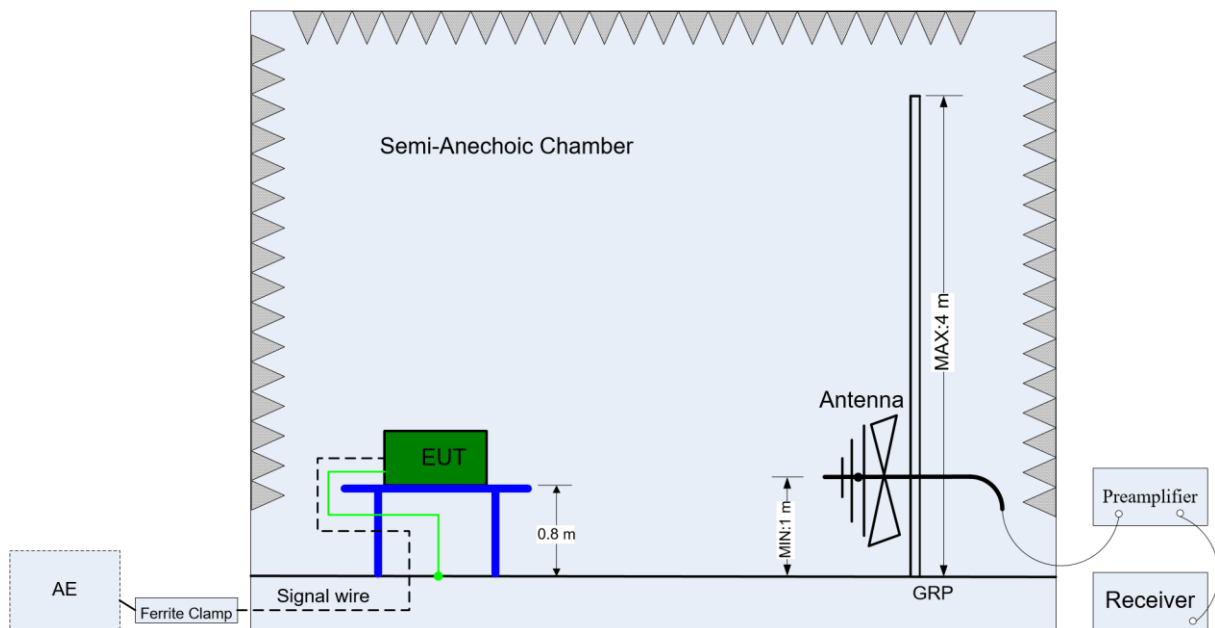
Clause 4.1.5; 5.2; 5.3; 6.3; 6.4; 6.5; 6.6 of ANSI C63.10-2020.

3.3.3 Setup

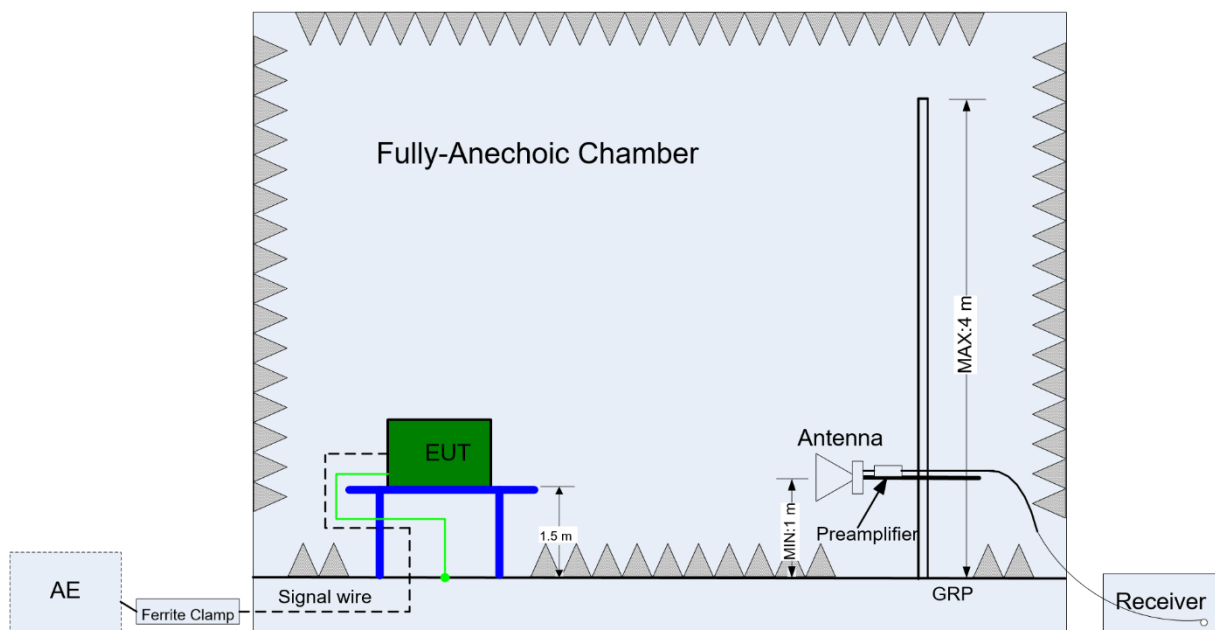
Below 30MHz



Below 1GHz



Above 1GHz



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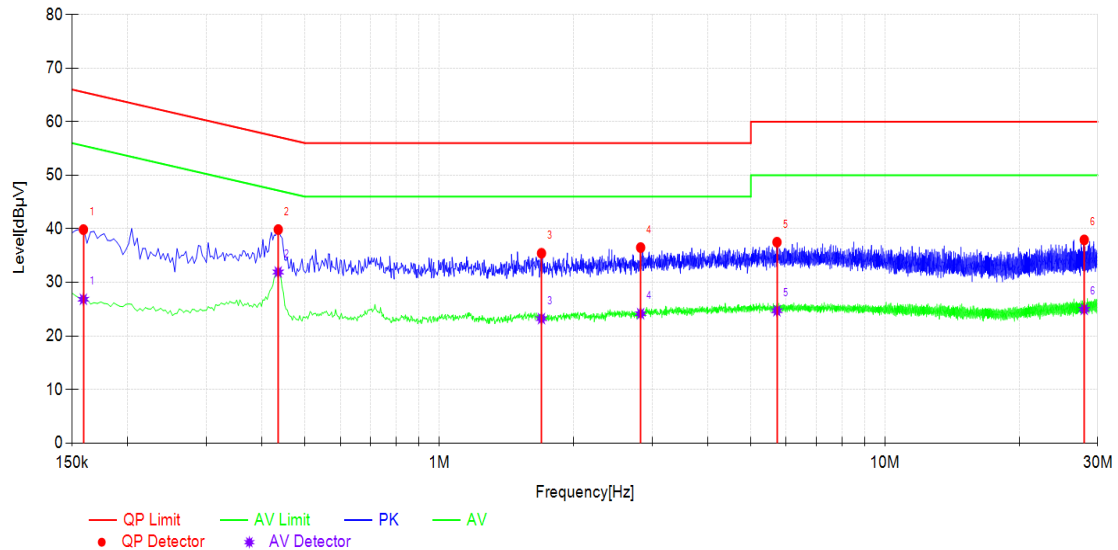
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Appendix A: AC power-line conducted emissions

Mode:	Tx	Channel:	915MHz
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Start of Test: 2025-10-23 15:57:20

Test Graph



Final Data List										
NO.	Freq. [MHz]	Factor [dB]	QP Value [dBµV]	QP Limit [dBµV]	QP Margin [dB]	AV Value [dBµV]	AV Limit [dBµV]	AV Margin [dB]	Type	Verdict
1	0.159	10.35	39.86	65.52	25.66	26.85	55.52	28.67	N	PASS
2	0.435	10.27	39.87	57.16	17.29	31.94	47.16	15.22	N	PASS
3	1.695	10.34	35.45	56.00	20.55	23.24	46.00	22.76	N	PASS
4	2.829	10.39	36.51	56.00	19.49	24.16	46.00	21.84	N	PASS
5	5.721	10.41	37.51	60.00	22.49	24.71	50.00	25.29	N	PASS
6	27.982	10.79	37.94	60.00	22.06	24.97	50.00	25.03	N	PASS

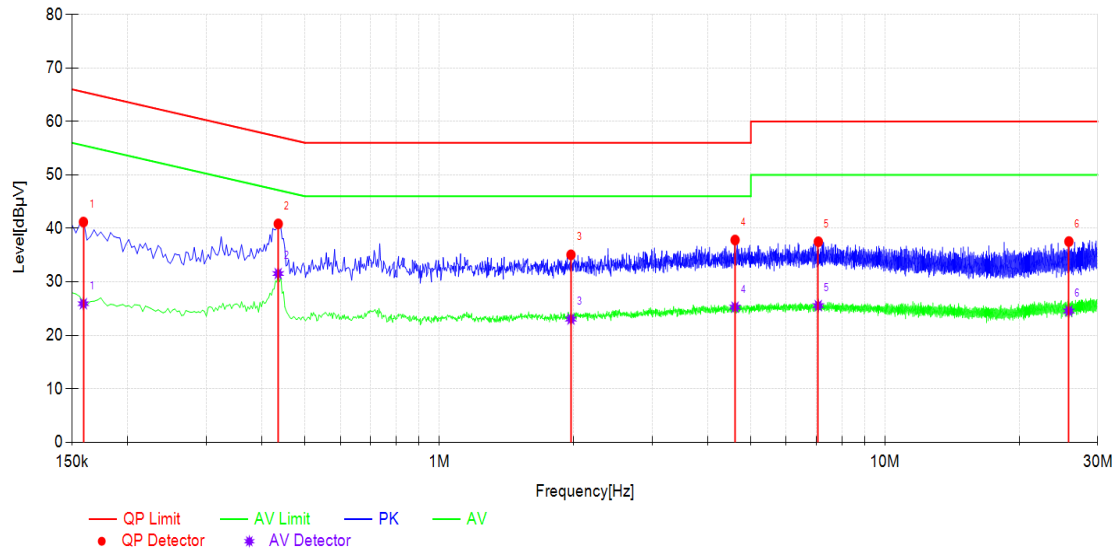
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Mode:	Tx	Channel:	915MHz
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Start of Test: 2025-10-23 16:00:05

Test Graph



Final Data List										
NO.	Freq. [MHz]	Factor [dB]	QP Value [dBμV]	QP Limit [dBμV]	QP Margin [dB]	AV Value [dBμV]	AV Limit [dBμV]	AV Margin [dB]	Type	Verdict
1	0.159	10.27	41.20	65.52	24.32	25.92	55.52	29.60	L1	PASS
2	0.435	10.27	40.85	57.16	16.31	31.55	47.16	15.61	L1	PASS
3	1.974	10.28	35.07	56.00	20.93	23.05	46.00	22.95	L1	PASS
4	4.608	10.32	37.84	56.00	18.16	25.27	46.00	20.73	L1	PASS
5	7.083	10.42	37.51	60.00	22.49	25.56	50.00	24.44	L1	PASS
6	25.849	10.76	37.54	60.00	22.46	24.56	50.00	25.44	L1	PASS

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Appendix C: Radiated emission

The report only records the worst-case emission levels.

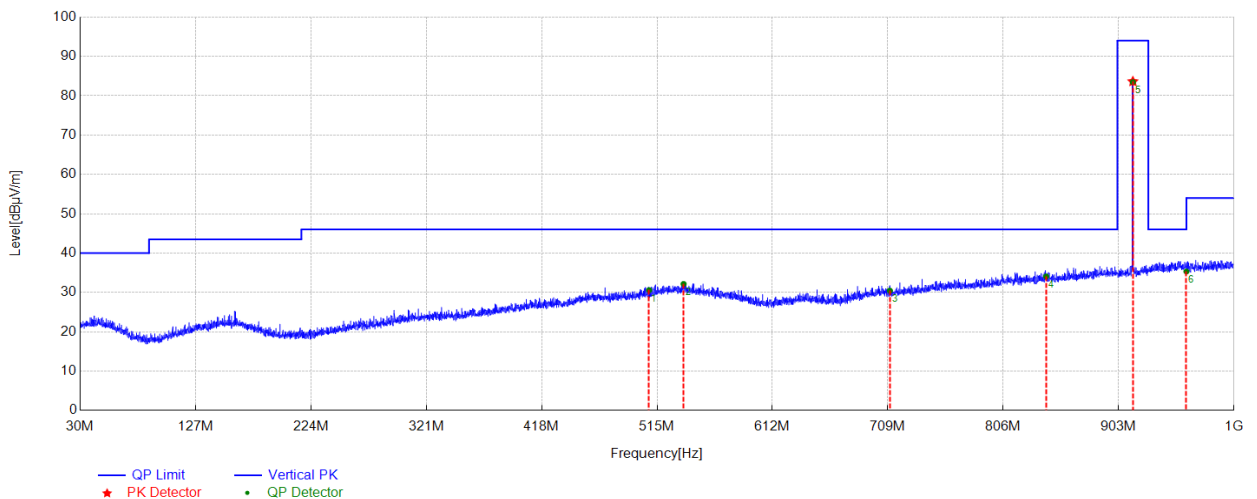
For radiated emissions in the frequency range of 9 kHz to 30 MHz, a preliminary scan was performed. Per FCC §15.31(o), emissions that were more than 20 dB below the applicable limit are not reported.

For radiated emissions at frequencies above 1 GHz, per ANSI C63.10-2020, Section 6.6.4.3, Note 1, if the peak measured value complies with the average limit, an average measurement is not required. Therefore, for frequencies where the peak result complies with the average limit, average (AV) emission values may be omitted from the table below.

Mode:	Tx	Channel:	915MHz
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Start of Test: 2025-10-20 17:11:57

Test Graph



QP Final Data List									
NO.	Freq. [MHz]	Factor [dB/m]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
1	508.3312	0.20	30.60	46.00	15.40	100	110	Vertical	PASS
2	537.3100	1.14	32.17	46.00	13.83	200	175	Vertical	PASS
3	710.6975	5.05	30.48	46.00	15.52	200	120	Vertical	PASS
4	842.1325	7.34	34.08	46.00	11.92	200	341	Vertical	PASS
5	915.0189	8.78	83.46	94.00	10.54	112.5	148	Vertical	PASS
6	960.0000	10.29	35.33	46.00	10.67	200	285	Vertical	PASS

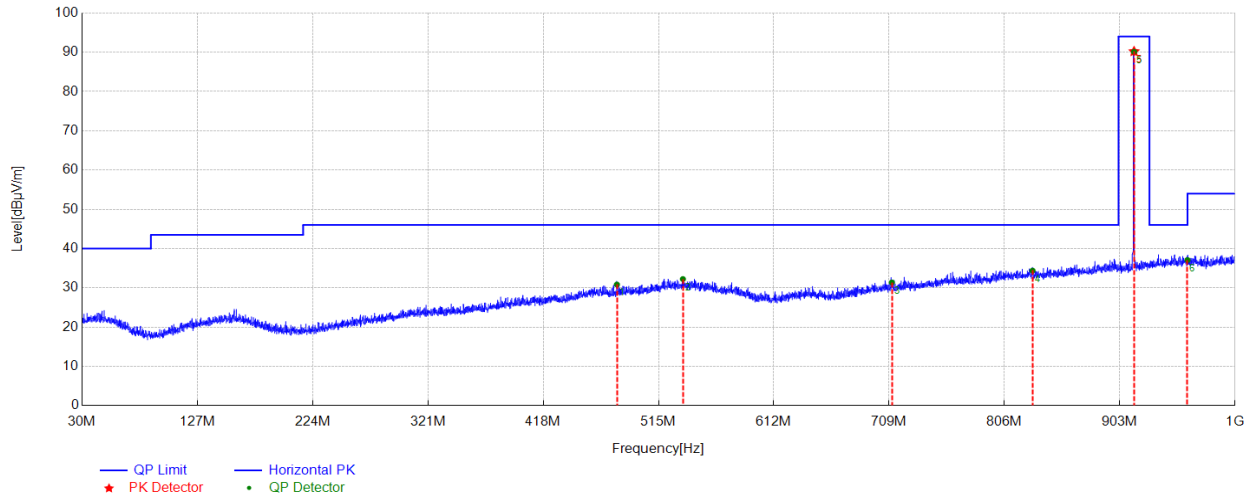
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Mode:	Tx	Channel:	915MHz
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Start of Test: 2025-10-20 17:14:54

Test Graph



QP Final Data List

NO.	Freq. [MHz]	Factor [dB/m]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
1	479.9588	-0.13	30.86	46.00	15.14	200	242	Horizontal	PASS
2	535.4912	1.10	32.25	46.00	13.75	200	182	Horizontal	PASS
3	711.3038	5.06	31.39	46.00	14.61	100	150	Horizontal	PASS
4	829.6438	7.44	34.39	46.00	11.61	200	232	Horizontal	PASS
5	915.0454	8.78	90.13	94.00	3.87	104.7	252	Horizontal	PASS
6	960.0000	10.29	37.10	46.00	8.90	200	154	Horizontal	PASS

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Mode:	Tx	Channel:	915MHz
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Start of Test: 2025-10-25 11:18:45

Final Data List										
NO.	Freq. [MHz]	Factor [dB/m]	PK Value [dBμV/m]	PK Limit [dBμV/m]	PK Margin [dB]	AV Limit [dBμV/m]	Height [cm]	Angle [°]	Polarity	Verdict
1	1830.0000	-21.78	36.92	74.00	37.08	54.00	150	157	Vertical	PASS
2	1830.0000	-21.78	37.86	74.00	36.14	54.00	150	342	Horizontal	PASS
3	2745.0000	-18.94	40.04	74.00	33.96	54.00	150	321	Vertical	PASS
4	2745.0000	-18.94	39.28	74.00	34.72	54.00	150	217	Horizontal	PASS
5	3660.0000	-17.09	36.30	74.00	37.70	54.00	150	306	Horizontal	PASS
6	3660.0000	-17.09	35.13	74.00	38.87	54.00	150	84	Vertical	PASS
7	4575.0000	-14.72	38.75	74.00	35.25	54.00	150	39	Vertical	PASS
8	4575.0000	-14.72	37.52	74.00	36.48	54.00	150	66	Horizontal	PASS
9	5490.0000	-12.27	41.09	74.00	32.91	54.00	150	116	Vertical	PASS
10	5490.0000	-12.27	41.80	74.00	32.20	54.00	150	359	Horizontal	PASS
11	6405.0000	-10.72	40.79	74.00	33.21	54.00	150	182	Horizontal	PASS
12	6405.0000	-10.72	40.53	74.00	33.47	54.00	150	48	Vertical	PASS

--End of report--

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