

TEST REPORT

Applicant: Xiamen Milesight IoT Co., Ltd.

Address: Building C09, Software Park Phase III, Xiamen 361024, Fujian, China

Product Name: IoT Controller

FCC ID: 2AYHY-UC100

Standard(s): 47 CFR Part 15, Subpart C(15.247)
ANSI C63.10-2020
KDB 558074 D01 15.247 Meas Guidance v05r02

Report Number: 2502T26290E-RF-00BA1

Report Date: 2025/10/17

The above device has been tested and found compliant with the requirement of the relative standards by Bay Area Compliance Laboratories Corp. (Dongguan).

Alice Tan

Reviewed By: Alice Tan

Title: RF Engineer

Pedro Yun

Approved By: Pedro Yun

Title: RF Supervisor

Bay Area Compliance Laboratories Corp. (Dongguan)
No.12, Pulong East 1st Road, Tangxia Town, Dongguan, Guangdong, China

Tel: +86-769-86858888

Fax: +86-769-86858891

www.baclcorp.com.cn

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DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
1.0	2502T26290E-RF-00BA1	Original Report	2025/10/17

1. GENERAL INFORMATION

1.1 General Description of Equipment under Test

EUT Name:	IoT Controller
EUT Model:	UC100-915M
Multiple Models:	NC100-915M
Operation Frequency:	902.3-925.4 MHz
Maximum Peak Output Power (Conducted) ▲:	21.15dBm
Modulation Type:	CSS
Rated Input Voltage:	5Vdc From Adapter or 5-24Vdc From DC Port
Serial Number:	For AC Line Conducted Emissions and Radiated Spurious Emissions test:33WL-2 For RF conducted test: 33WL-1
EUT Received Date:	2025/6/3
EUT Received Status:	Good
Note: The multiple models are electrically identical with the test model. Please refer to the declaration letter for more detail, which was provided by manufacturer.	

1.2 Accessory Information

Accessory Description	Manufacturer	Model	Parameters
Adapter 2#	HUIZHOU FUJIA APPLIANCE TECH. CO., LTD.	FJ-SW2050501000U	Input: AC 100-240V~50/60Hz,0.25A Max Output: DC 5V,1A

1.3 Antenna Information Detail ▲

Antenna	Antenna Type	input impedance (Ohm)	Frequency Range	Antenna Gain
#1	Dipole	50	902-928MHz	5dBi
#2	Ceiling-mounted antenna	50	900-930MHz	2.84dBi
The design of compliance with §15.203:				
☐ Unit uses a permanently attached antenna.				
☐ Unit uses a unique coupling to the intentional radiator.				
☒ Unit was professionally installed, and installer shall be responsible for verifying that the correct antenna is employed with the unit.				

1.4 Equipment Modifications

No modifications are made to the EUT during all test items.

2. SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
FCC §15.207(a)	AC Line Conducted Emissions	Compliant
FCC §15.205, §15.209, §15.247(d)	Radiated Spurious Emissions	Compliant
FCC §15.247(a)(1)(i)	20 dB Emission Bandwidth	Compliant*
FCC §15.247(a)(1)	Channel Separation	Compliant*
FCC §15.247(a)(1)(i)	Number Of Hopping Frequency	Compliant*
FCC §15.247(a)(1)(i)	Time Of Occupancy (dwell time)	Compliant*
FCC §15.247(b)(2)	Maximum Conducted Output Power	Reporting
FCC §15.247(d)	100 kHz Bandwidth Of Frequency Band Edge	Compliant*
FCC §15.203	Antenna Requirement	Compliant
FCC §15.247(i), §1.1310&§2.1091	Maximum Permissible Exposure	Compliant

Purpose:

This is Class II permissive change application based on the original device, FCC ID: 2AYHY-UC100, please refer to report No.: CR22060013-00B[▲], issued by China Certification ICT Co., Ltd (Dongguan) on 2022/7/28, which was provided by the manufacturer[▲]. Differences between the previous device and the current one are stated and guaranteed by the manufacturer, as following:

1. Update the Lora antenna(change the original PCB antenna to two external antennas).
2. Change Multiple Model to NC100-915M.
3. Change the adapter..

The Bay Area Compliance Laboratories Corp. (Dongguan) is responsible for all the information provided in this report, except when information is provided by the customer as identified in this report.

Note 1: For AC line conducted emissions, the maximum output power mode and channel was tested.

Note 2: For Radiated Spurious Emissions 9kHz~1GHz, the maximum output power mode and channel was tested.

Note 3: Per 15B report, Powered by DC 12V was the worst for AC Line Conducted Emissions and Powered by Adapter 2# was the worst for Radiated Spurious Emissions, so only performed it.

Note 4:

Compliant*: The change of the EUT does not affect the test result, the test data please refer to original report: CR22060013-00B[▲].

3. DESCRIPTION OF TEST CONFIGURATION

3.1 Operation Frequency Detail

Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	902.3	65	915.2
2	902.5	66	915.4
3	902.7	...	...
4	902.9	...	...
5	903.1	115	925.2
6	903.3	116	925.4
7	903.5	/	/
8	903.7	/	/
9	903.9	/	/
10	904.1	/	/
11	904.3	/	/
12	904.5	/	/
13	904.7	/	/
14	904.9	/	/
...	...	/	/
...	...	/	/
...	...	/	/
64	914.9	/	/

Note:

1. Each channel from 902.3MHz to 914.9MHz steps by 200k, Each channel between 915.2MHz and 925.4MHz steps by 200k.

2. The above frequencies in bold were performed the test.

3.2 EUT Operation Condition

The EUT was configured for testing in Engineering Mode, which was provided by the manufacturer. The EUT configuration as below:

EUT Exercise Software:	UartAssist V.5.0.2		
The software was provided by manufacturer. The maximum power was configured as below, that was provided by the manufacturer ▲:			
Test Modes	Power Level Setting		
	Lowest Channel	Middle Channel	Highest Channel
Lora-FHSS	default	default	default

3.3 Support Equipment List and Details

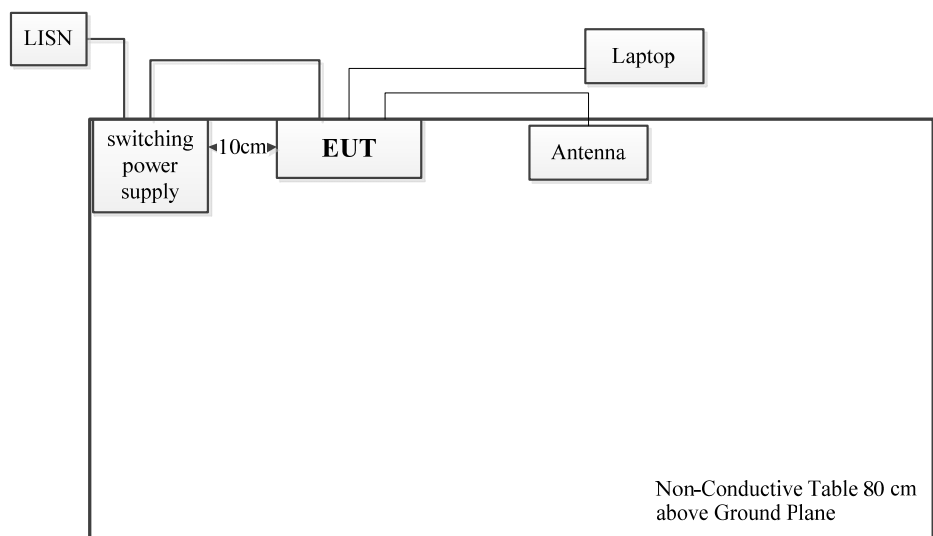
Manufacturer	Description	Model	Serial Number
Lenovo	Laptop	E450	PF-OMR8KV
Unknown	switching power supply	Unknown	Unknown

3.4 Support Cable List and Details

Cable Description	Shielding Type	Ferrite Core	Length (m)	From Port	To
DC Cable	No	No	1.5	Laptop	EUT
USB Cable	No	No	1.2	Adapter	EUT
DC Cable	No	No	1.5	switching power supply	EUT

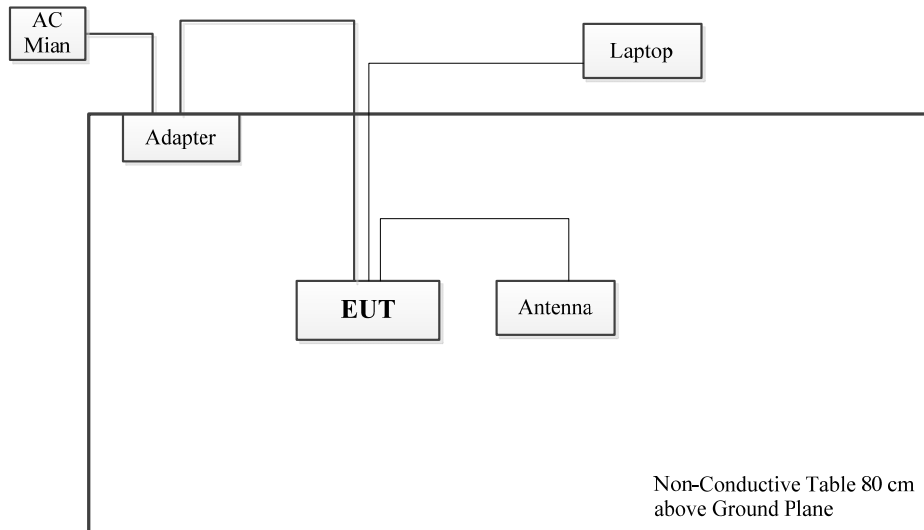
3.5 Block Diagram of Test Setup

AC line conducted emissions:

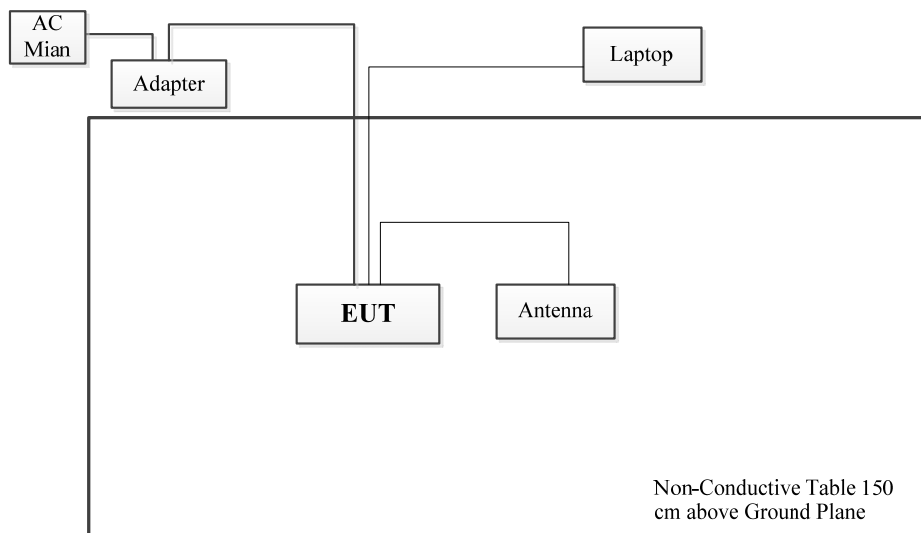


Spurious Emissions:

Below 1GHz:



Above 1GHz:



3.6 Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Dongguan) to collect test data is located on the No.12, Pulong East 1st Road, Tangxia Town, Dongguan, Guangdong, China.

The lab has been recognized as the FCC accredited lab under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No. : 829273, the FCC Designation No. : CN5044.

The lab has been recognized by Innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements, the CAB identifier: CN0022.

3.7 Measurement Uncertainty

Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty. The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval.

Parameter	Measurement Uncertainty
Occupied Channel Bandwidth	±5 %
RF output power, conducted	±0.61dB
Power Spectral Density, conducted	±0.61 dB
Unwanted Emissions, radiated	9kHz~30MHz: 3.3dB, 30MHz~200MHz: 4.55 dB, 200MHz~1GHz: 5.92 dB, 1GHz~6GHz: 4.98 dB, 6GHz~18GHz: 5.89 dB, 18GHz~26.5GHz:5.47 dB, 26.5GHz~40GHz:5.63 dB
Unwanted Emissions, conducted	±2.47 dB
Temperature	±1℃
Humidity	±5%
DC and low frequency voltages	±0.4%
Duty Cycle	1%
AC Power Lines Conducted Emission	3.11 dB (150 kHz to 30 MHz)

4. REQUIREMENTS AND TEST PROCEDURES

4.1 AC Line Conducted Emissions

4.1.1 Applicable Standard

FCC§15.207(a).

(a) Except as shown in paragraphs (b) and (c) of this section, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50 μ H/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between the frequency ranges.

Frequency of emission (MHz)	Conducted limit (dB μ V)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

(b) The limit shown in paragraph (a) of this section shall not apply to carrier current systems operating as intentional radiators on frequencies below 30 MHz. In lieu thereof, these carrier current systems shall be subject to the following standards:

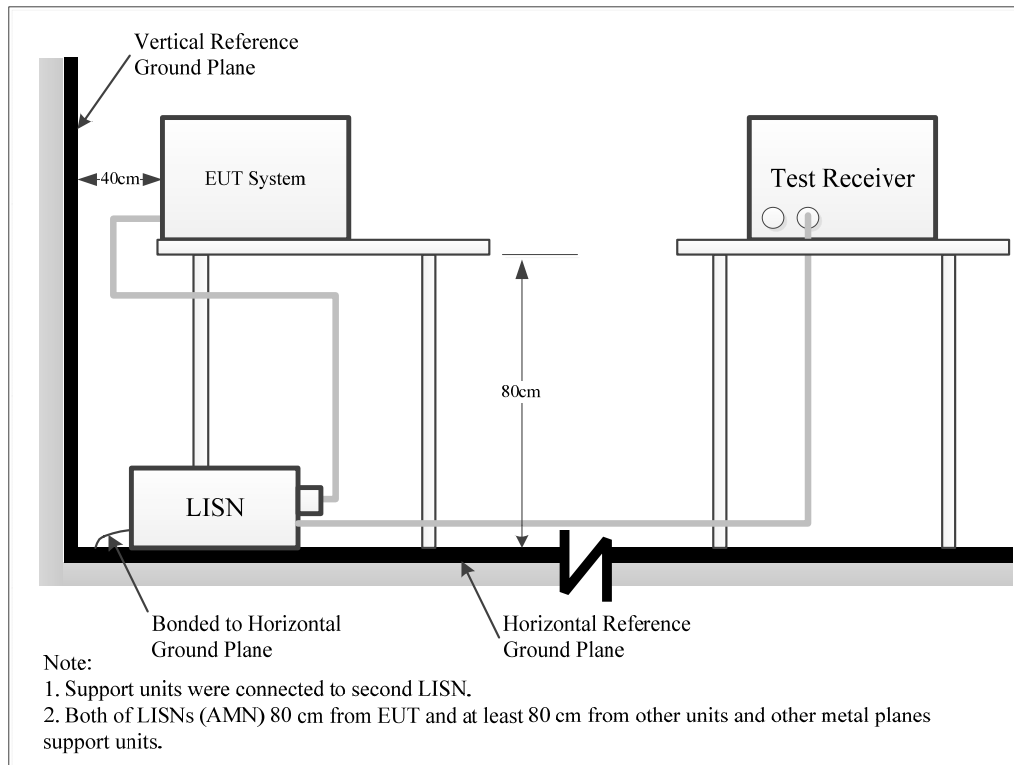
(1) For carrier current system containing their fundamental emission within the frequency band 535-1705 kHz and intended to be received using a standard AM broadcast receiver: no limit on conducted emissions.

(2) For all other carrier current systems: 1000 μ V within the frequency band 535-1705 kHz, as measured using a 50 μ H/50 ohms LISN.

(3) Carrier current systems operating below 30 MHz are also subject to the radiated emission limits in §15.205, §15.209, §15.221, §15.223, or §15.227, as appropriate.

(c) Measurements to demonstrate compliance with the conducted limits are not required for devices which only employ battery power for operation and which do not operate from the AC power lines or contain provisions for operation while connected to the AC power lines. Devices that include, or make provisions for, the use of battery chargers which permit operating while charging, AC adapters or battery eliminators or that connect to the AC power lines indirectly, obtaining their power through another device which is connected to the AC power lines, shall be tested to demonstrate compliance with the conducted limits.

4.1.2 EUT Setup



The setup of EUT is according with per ANSI C63.10-2020 measurement procedure. The specification used was with the FCC Part 15.207 limits.

The spacing between the peripherals was 10 cm.

The adapter or EUT was connected to the main LISN with a 120 V/60 Hz AC power source.

4.1.3 EMI Test Receiver Setup

The EMI test receiver was set to investigate the spectrum from 150 kHz to 30 MHz.

During the conducted emission test, the EMI test receiver was set with the following configurations:

Frequency Range	IF B/W
150 kHz – 30 MHz	9 kHz

4.1.4 Test Procedure

The frequency and amplitude of the six highest ac power-line conducted emissions relative to the limit, measured over all the current-carrying conductors of the EUT power cords, and the operating frequency or frequency to which the EUT is tuned (if appropriate), should be reported, unless such emissions are more than 20 dB below the limit. AC power-line conducted emissions measurements are to be separately carried out only on each of the phase (“hot”) line(s) and (if used) on the neutral line(s), but not on the ground [protective earth] line(s). If less than six emission frequencies are within 20 dB of the limit, then the noise level of the measuring instrument at representative frequencies should be reported. The specific conductor of the power-line cord for each of the reported emissions should be identified. Measure the six highest emissions with respect to the limit on each current-carrying conductor of each power cord associated with the EUT (but not the power cords of associated or peripheral equipment that are part of the test configuration). Then, report the six highest emissions with respect to the limit from among all the measurements identifying the frequency and specific current-carrying conductor identified with the emission. The six highest emissions should be reported for each of the current-carrying conductors, or the six highest emissions may be reported over all the current-carrying conductors.

4.1.5 Corrected Amplitude & Margin Calculation

The basic equation is as follows:

Result = Reading + Factor

Factor = attenuation caused by cable loss + voltage division factor of AMN

The “**Margin**” column of the following data tables indicates the degree of compliance within the applicable limit. The equation for margin calculation is as follows:

Margin = Limit – Result

4.1.6 Test Result

Please refer to section 5.1.

4.2 Radiated Spurious Emissions

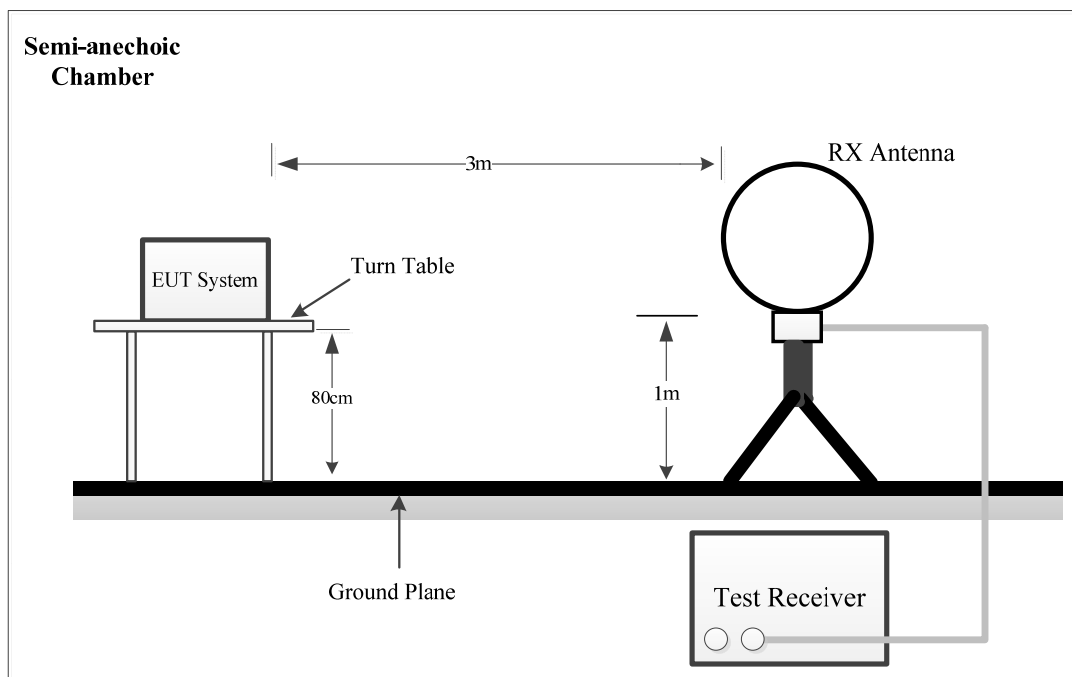
4.2.1 Applicable Standard

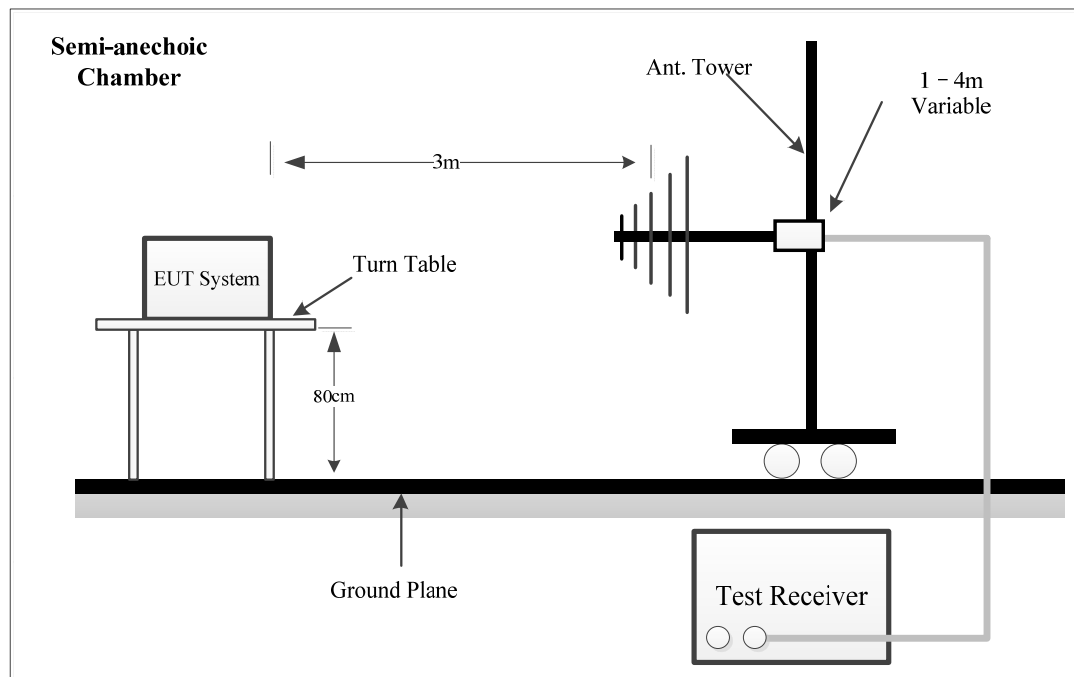
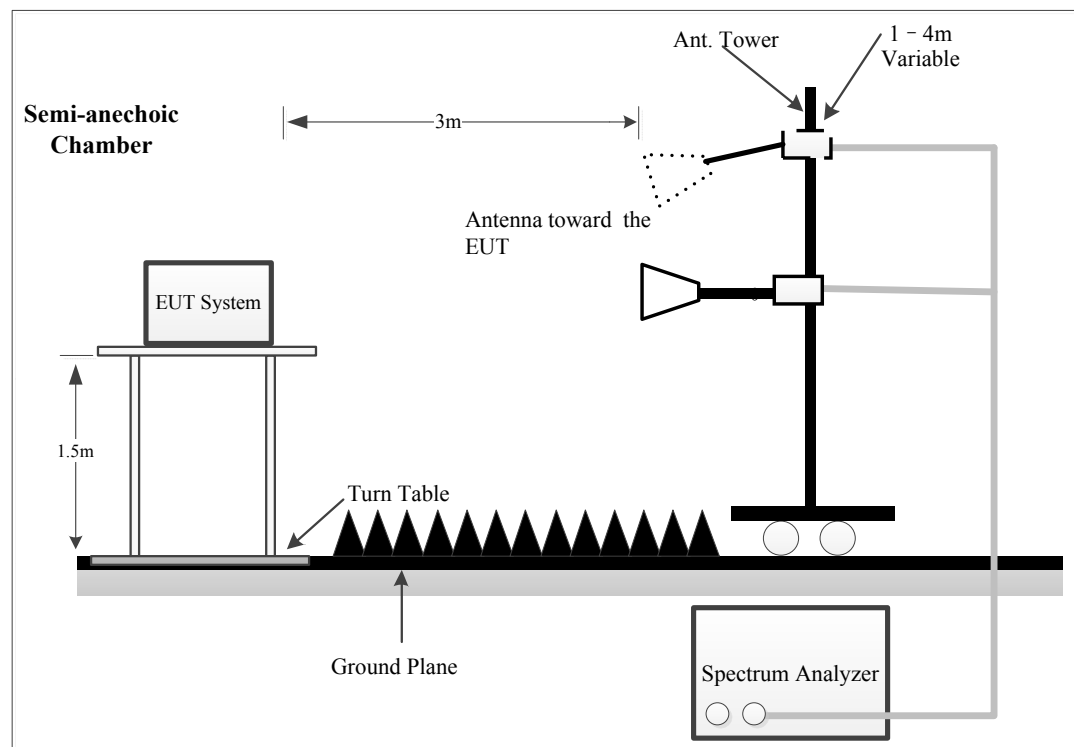
FCC §15.247 (d);

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

4.2.2 EUT Setup

9kHz~30MHz:



30MHz~1GHz:**Above 1GHz:**

The radiated emissions were performed in the 3 meters distance, using the setup accordance with the ANSI C63.10-2020. The specification used was the FCC 15.209, and FCC 15.247 limits.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

For 9kHz-30MHz test, the lowest height of the magnetic antenna shall be 1 m above the ground and three antenna orientations (parallel, perpendicular, and ground-parallel) shall be measured.

4.2.3 EMI Test Receiver & Spectrum Analyzer Setup

During the radiated emission test, the EMI test receiver & Spectrum Analyzer Setup were set with the following configurations:

9kHz-1000MHz:

Frequency Range	Measurement	RBW	Video B/W	IF B/W	Detector
9 kHz – 150 kHz	QP/AV	300 Hz	1 kHz	200 Hz	QP/AV
150 kHz – 30 MHz	QP/AV	10 kHz	30 kHz	9 kHz	QP/AV
30 MHz – 1000 MHz	PK	100 kHz	300 kHz	/	PK
	QP	/	/	120 kHz	QP

Above 1GHz:

Pre-scan:

Measurement	RBW	Video B/W	Detector
PK	1MHz	3 MHz	PK
Ave.	1MHz	5kHz	PK

Final measurement for emission identified during the pre-scan:

Measurement	RBW	Video B/W	Detector
PK	1MHz	3 MHz	PK
Ave.	1MHz	10 Hz	PK

4.2.4 Test Procedure

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

Data was required in Quasi-peak detection mode for frequency range of 9 kHz-1 GHz except 9-90 kHz, 110-490 kHz, employing an average detector, peak and Average detection modes for frequencies above 1 GHz.

If the maximized peak measured value complies with under the QP/Average limit more than 6dB, then it is unnecessary to perform an QP/Average measurement.

All emissions under the average limit and under the noise floor have not recorded in the report.

4.2.5 Corrected Result & Margin Calculation

$$E_{Log} = 20 \times \log_{10}(E_{Linear})$$

E_{Linear} is the field strength of the emission, in $\mu V/m$

E_{Log} is the field strength of the emission, in $dB\mu V/m$

For 9kHz-30MHz test, test distance is 3m, extrapolation limit shall be calculated using Equation:

$$E_{limit-measure} = E_{limit-Standard} + 40 \times \log_{10} (d_{standard}/d_{measure})$$

The basic equation is as follows:

Result = Reading + Factor

Factor = Antenna Factor + Cable Loss- Amplifier Gain

The “**Margin**” column of the following data tables indicates the degree of compliance within the applicable limit. The equation for margin calculation is as follows:

Margin = Limit – Result

4.2.6 Test Result

Please refer to section 5.2.

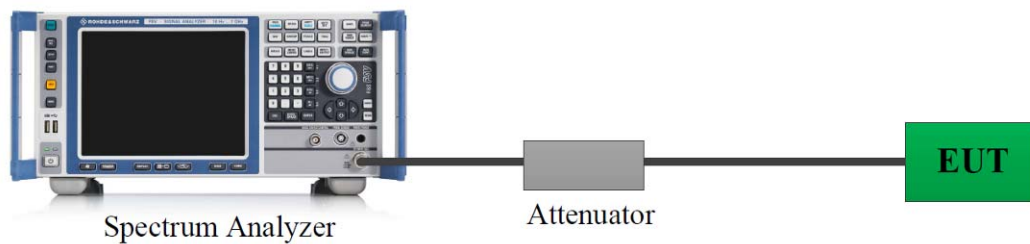
4.3 Maximum Conducted Output Power

4.3.1 Applicable Standard

FCC §15.247 (b)(2)

For frequency hopping systems operating in the 902–928 MHz band: 1 watt for systems employing at least 50 hopping channels; and, 0.25 watts for systems employing less than 50 hopping channels, but at least 25 hopping channels, as permitted under paragraph (a)(1)(i) of this section.

4.3.2 EUT Setup



A short RF cable with low cable loss connected to the EUT antenna port, which was provided by manufacturer. The insert loss of this RF cable/attenuator was offset into the setting of test equipment.

4.3.3 Test Procedure

According to ANSI C63.10-2020 Section 7.8.5

This is an RF-conducted test to evaluate maximum peak output power. Use a direct connection between the antenna port of the unlicensed wireless device and the spectrum analyzer, through suitable attenuation. Offset the Insertion loss of the RF cable, DC Block/ Attenuator into the spectrum analyzer. The hopping shall be disabled for this test:

- a) Use the following spectrum analyzer settings:
 - 1) Span: Approximately five times the 20 dB bandwidth, centered on a hopping channel.
 - 2) RBW > 20 dB bandwidth of the emission being measured.
 - 3) VBW $\geq$ RBW.
 - 4) Sweep: Auto.
 - 5) Detector function: Peak.
 - 6) Trace: Max hold.
- b) Allow trace to stabilize.
- c) Use the marker-to-peak function to set the marker to the peak of the emission.
- d) The indicated level is the peak output power, after any corrections for external attenuators and cables.
- e) A plot of the test results and setup description shall be included in the test report.

NOTE—A peak responding power meter may be used, where the power meter and sensor system video bandwidth is greater than the occupied bandwidth of the unlicensed wireless device, rather than a spectrum analyzer.

4.3.4 Test Result

Please refer to section 5.3.

4.4 Antenna Requirement

4.4.1 Applicable Standard

FCC §15.203

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

This requirement does not apply to carrier current devices or to devices operated under the provisions of §§15.211, 15.213, 15.217, 15.219, 15.221, or §15.236. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with §15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

4.4.2 Judgment

Compliant. Please refer to the Antenna Information detail in Section 1.3.

5. TEST DATA AND RESULTS

5.1 AC Line Conducted Emissions

Serial Number:	33WL-2	Test Date:	2025/06/18
Test Site:	CE	Test Mode:	Transmitting
Tester:	Yukin Qiu	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	26.3	Relative Humidity: (%)	70	ATM Pressure: (kPa)	100.9
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Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	LISN	ENV216	101614	2024/9/5	2025/9/4
Unknown	Coaxial Cable	RG 142	C-0200-05	2025/5/6	2026/5/5
R&S	EMI Test Receiver	ESCI	101121	2024/9/5	2025/9/4
Audix	Test Software	E3	191218 V9	N/A	N/A

** Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

Test Data:

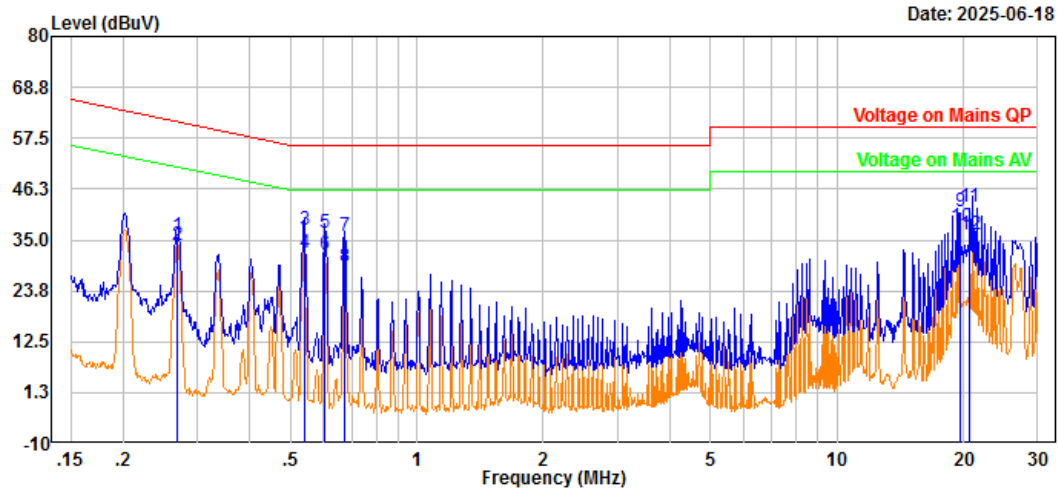
Please refer to the below plots.

Note: Low channel Antenna #2 was tested.

Test was only performed at Antenna #2 since it was the worst per report:2502T26290E-RF-00CA1.

Project No.: 2502T26290E-RF-A1
Port: Line
Test Mode: Transmitting
IF B/W 9kHz PK/AV

Serial No.: 33WL-2
Tester: Yukin Qiu
Note: 125k

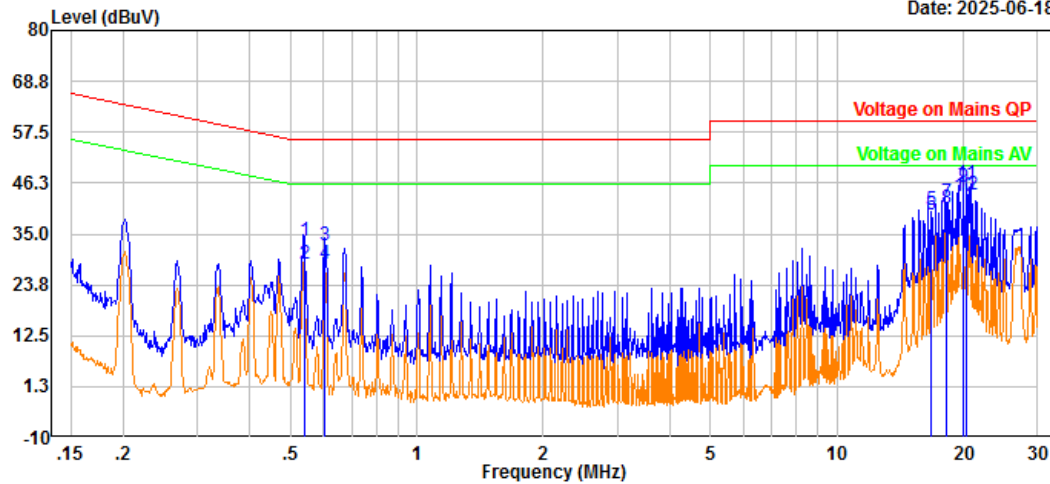


No.	Frequency (MHz)	Reading (dBμV)	Factor (dB)	Result (dBμV)	Limit (dBμV)	Margin (dB)	Measurement
1	0.269	25.03	10.80	35.83	61.15	25.32	QP
2	0.269	22.98	10.80	33.78	51.15	17.37	Average
3	0.539	26.28	10.81	37.09	56.00	18.91	QP
4	0.539	21.19	10.81	32.00	46.00	14.00	Average
5	0.605	25.55	10.81	36.36	56.00	19.64	QP
6	0.605	20.86	10.81	31.67	46.00	14.33	Average
7	0.673	24.90	10.81	35.71	56.00	20.29	QP
8	0.673	18.25	10.81	29.06	46.00	16.94	Average
9	19.714	30.44	10.93	41.37	60.00	18.63	QP
10	19.714	27.12	10.93	38.05	50.00	11.95	Average
11	20.581	31.30	10.93	42.23	60.00	17.77	QP
12	20.581	25.43	10.93	36.36	50.00	13.64	Average

Project No.: 2502T26290E-RF-A1
Port: neutral
Test Mode: Transmitting
IF B/W 9kHz PK/AV

Serial No.: 33WL-2
Tester: Yukin Qiu
Note: 125k

Date: 2025-06-18



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB)	Result (dBμV)	Limit (dBμV)	Margin (dB)	Measurement
1	0.539	22.91	10.71	33.62	56.00	22.38	QP
2	0.539	17.74	10.71	28.45	46.00	17.55	Average
3	0.605	21.80	10.71	32.51	56.00	23.49	QP
4	0.605	17.61	10.71	28.32	46.00	17.68	Average
5	16.685	29.46	10.91	40.37	60.00	19.63	QP
6	16.685	28.24	10.91	39.15	50.00	10.85	Average
7	18.230	31.08	10.92	42.00	60.00	18.00	QP
8	18.230	29.62	10.92	40.54	50.00	9.46	Average
9	19.979	34.39	10.93	45.32	60.00	14.68	QP
10	19.979	32.36	10.93	43.29	50.00	6.71	Average
11	20.252	35.10	10.93	46.03	60.00	13.97	QP
12	20.252	32.64	10.93	43.57	50.00	6.43	Average

5.2 Radiated Spurious Emissions

1) 9kHz - 1GHz

Serial Number:	33WL-2	Test Date:	2025/6/25~2025/10/17
Test Site:	Chamber10m	Test Mode:	Transmitting
Tester:	Zoo Zou	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	24.3-30.3	Relative Humidity: (%)	39-62	ATM Pressure: (kPa)	100.1-100.9
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Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
EMCO	Passive Loop Antenna	6512	9706-1206	2023/10/25	2026/10/24
Sunol Sciences	Hybrid Antenna	JB3	A060611-1	2023/9/6	2026/9/5
Narda	Coaxial Attenuator	779-6dB	04269	2023/9/6	2026/9/5
Unknown	Coaxial Cable	C-NJNJ-50	C-1000-01	2024/7/1	2025/6/30
Unknown	Coaxial Cable	C-NJNJ-50	C-0400-04	2024/7/1	2025/6/30
Unknown	Coaxial Cable	C-NJNJ-50	C-0530-01	2024/7/1	2025/6/30
Sonoma	Amplifier	310N	185914	2024/8/26	2025/8/25
Audix	Test Software	E3	191218 V9	N/A	N/A
E-Microwave	Band Rejection Filter	OBF-ZP-902-928-SMAF	OE01902428	2025/6/6	2026/6/5
Unknown	Coaxial Cable	C-NJNJ-50	C-1000-01	2025/7/1	2026/6/30
Unknown	Coaxial Cable	C-NJNJ-50	C-0400-04	2025/7/1	2026/6/30
Unknown	Coaxial Cable	C-NJNJ-50	C-0530-01	2025/7/1	2026/6/30
Sonoma	Amplifier	310N	185914	2025/8/25	2026/8/24
R&S	EMI Test Receiver	ESR3	102453	2025/6/25	2026/6/24

* Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

Test Data:

Please refer to the below plots.

After pre-scan in the X, Y and Z axes of orientation, the worst case is refer to plots.

Note: Low channel was tested.

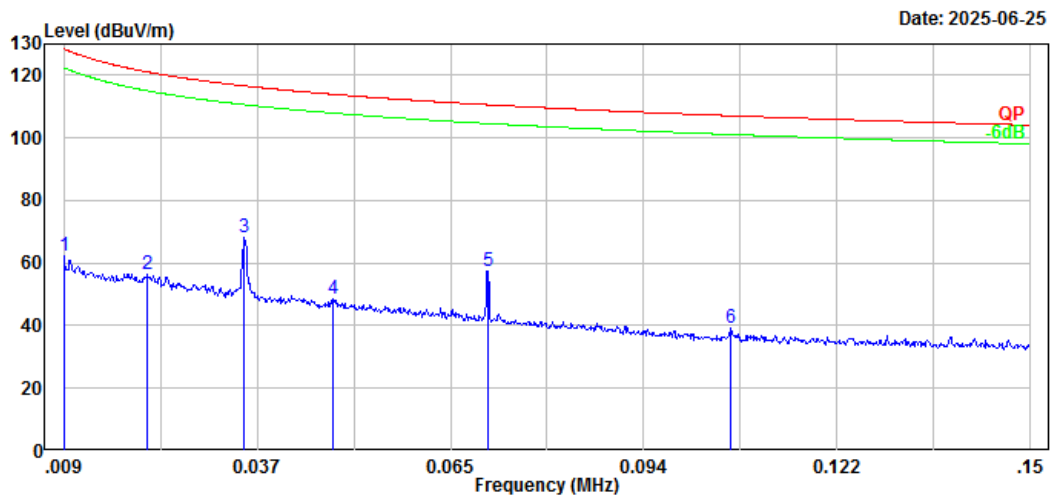
9kHz~30MHz

Three antenna orientations (parallel, perpendicular, and ground-parallel) was measured, the worst orientations was below:

Antenna #1

Project No.: 2502T26290E-RF-A1
Polarization: Parallel
Test Mode: Transmitting
Note: Lora 125k Chain0
RBW:300Hz VBW:1kHz

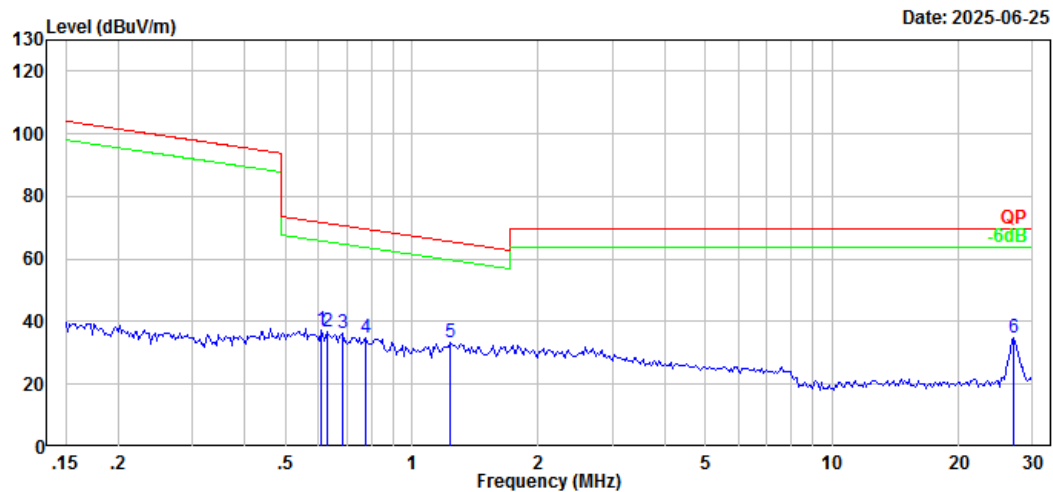
Serial No.: 33WL-2
Tester: Zoo Zou



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Measurement
1	0.009	6.07	56.14	62.21	128.52	66.31	Peak
2	0.021	2.98	53.37	56.35	121.05	64.70	Peak
3	0.035	17.47	50.62	68.09	116.63	48.54	Peak
4	0.048	0.61	48.16	48.77	113.94	65.17	Peak
5	0.071	13.18	44.25	57.43	110.59	53.16	Peak
6	0.106	0.54	38.79	39.33	107.07	67.74	Peak

Project No.: 2502T26290E-RF-A1
Polarization: Parallel
Test Mode: Transmitting
Note: Lora 125k Chain0
RBW:10kHz VBW:30kHz

Serial No.: 33WL-2
Tester: Zoo Zou

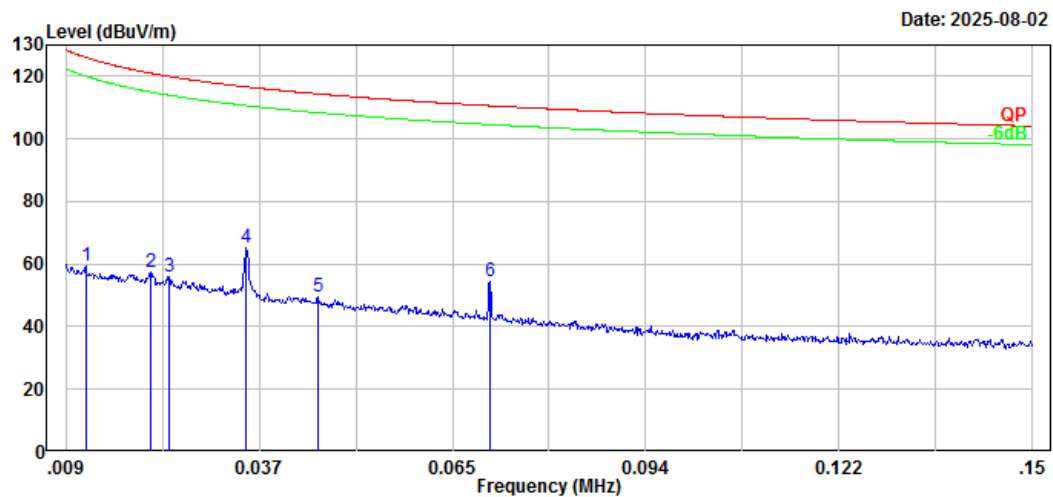


No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Measurement
1	0.608	14.73	22.39	37.12	71.89	34.77	Peak
2	0.627	14.77	22.20	36.97	71.61	34.64	Peak
3	0.683	14.87	21.64	36.51	70.86	34.35	Peak
4	0.775	13.95	20.78	34.73	69.73	35.00	Peak
5	1.236	17.98	15.51	33.49	65.59	32.10	Peak
6	26.984	30.64	4.17	34.81	69.54	34.73	Peak

Antenna #2

Project No.: 2502T26290E-RF-A1
Polarization: Parallel
Test Mode: Transmitting
Note: Lora 125k Chain1
RBW:300Hz VBW:1kHz

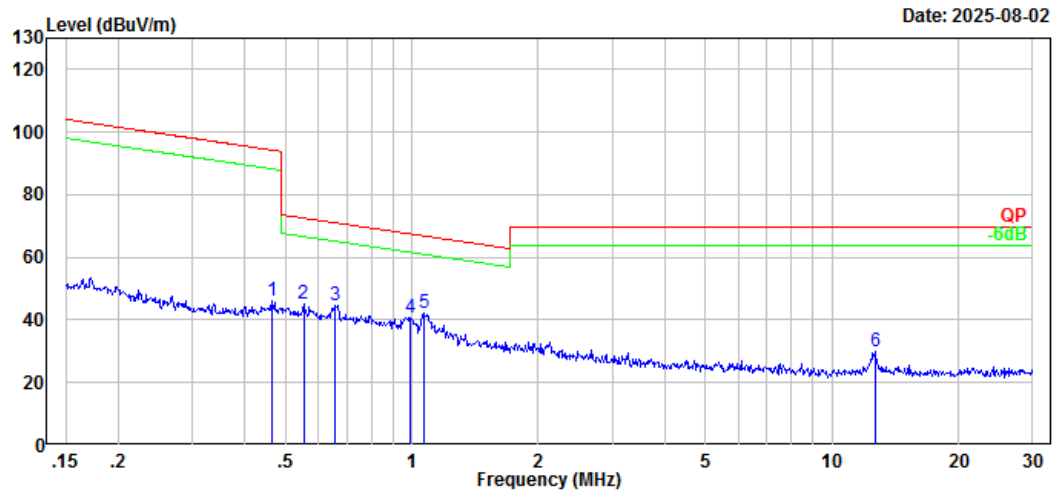
Serial No.: 33WL-2
Tester: Zoo Zou



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Measurement
1	0.012	3.99	55.46	59.45	126.05	66.60	Peak
2	0.021	3.82	53.35	57.17	120.99	63.82	Peak
3	0.024	2.98	52.87	55.85	119.97	64.12	Peak
4	0.035	14.43	50.62	65.05	116.63	51.58	Peak
5	0.046	1.15	48.56	49.71	114.39	64.68	Peak
6	0.071	10.00	44.25	54.25	110.59	56.34	Peak

Project No.: 2502T26290E-RF-A1
Polarization: Parallel
Test Mode: Transmitting
Note: Lora 125k Chain1
RBW:10kHz VBW:30kHz

Serial No.: 33WL-2
Tester: Zoo Zou



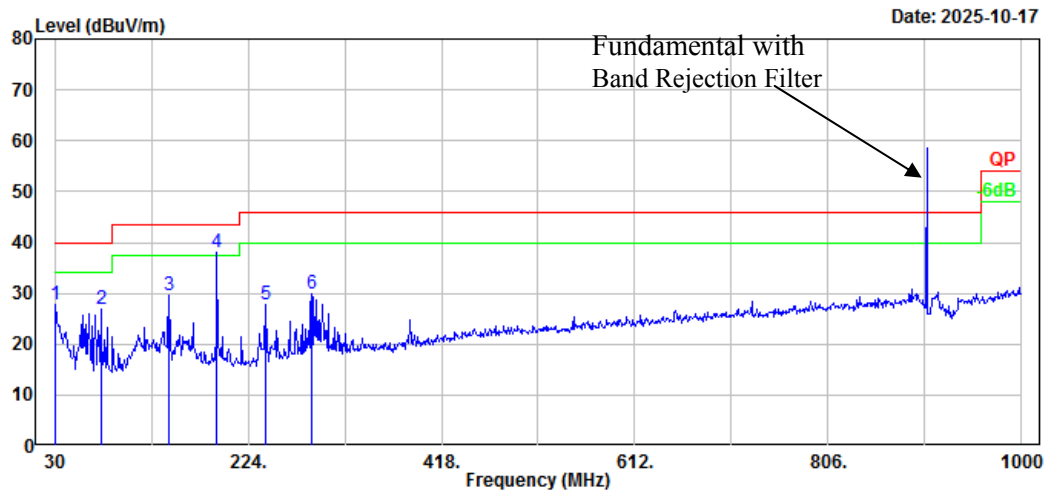
No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Measurement
1	0.466	19.41	26.69	46.10	94.23	48.13	Peak
2	0.552	19.10	25.90	45.00	72.74	27.74	Peak
3	0.658	20.05	24.72	44.77	71.19	26.42	Peak
4	0.994	21.62	19.34	40.96	67.52	26.56	Peak
5	1.065	23.03	18.95	41.98	66.91	24.93	Peak
6	12.649	22.37	7.36	29.73	69.54	39.81	Peak

30MHz-1GHz

Antenna #1

Project No.: 2502T26290E-RF-A1
Polarization: Horizontal
Test Mode: Transmitting
Note: Lora 125K Chain0
RBW:100kHz VBW:300kHz

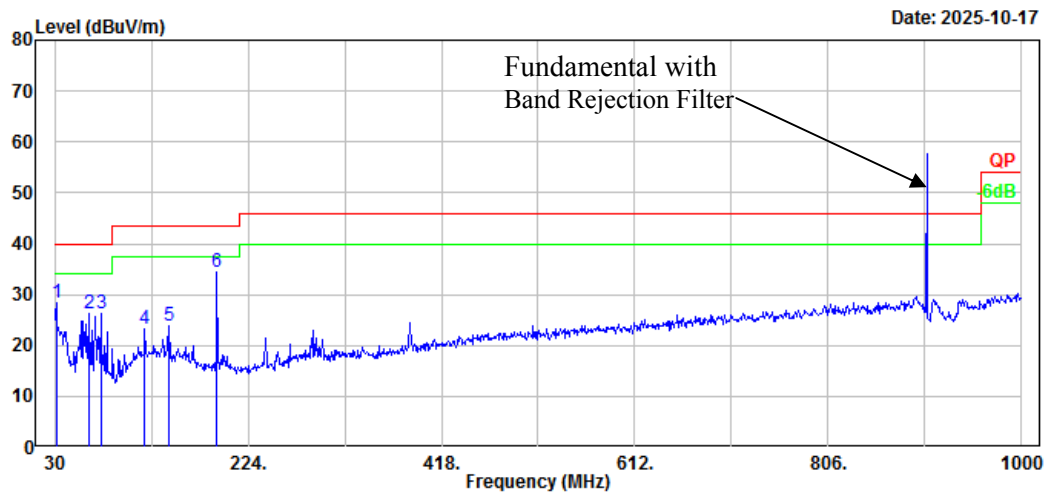
Serial No.: 33WL-2
Tester: Zoo Zou



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Measurement
1	30.000	29.53	-1.86	27.67	40.00	12.33	Peak
2	76.560	41.08	-14.11	26.97	40.00	13.03	Peak
3	144.460	39.12	-9.62	29.50	43.50	14.00	Peak
4	192.960	49.18	-11.00	38.18	43.50	5.32	QP
5	241.460	38.88	-10.99	27.89	46.00	18.11	Peak
6	288.020	38.61	-8.78	29.83	46.00	16.17	Peak

Project No.: 2502T26290E-RF-A1
Polarization: Vertical
Test Mode: Transmitting
Note: Lora 125K Chain0
RBW:100kHz VBW:300kHz

Serial No.: 33WL-2
Tester: Zoo Zou

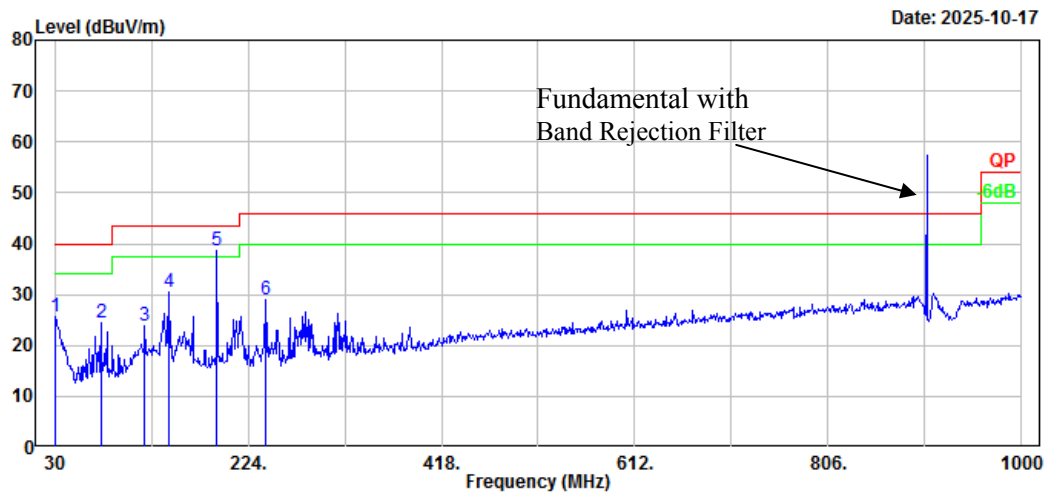


No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Measurement
1	31.940	31.32	-3.05	28.27	40.00	11.73	Peak
2	63.950	40.31	-13.91	26.40	40.00	13.60	Peak
3	76.560	40.28	-14.11	26.17	40.00	13.83	Peak
4	120.210	31.85	-8.61	23.24	43.50	20.26	Peak
5	144.460	33.58	-9.62	23.96	43.50	19.54	Peak
6	192.960	45.36	-11.00	34.36	43.50	9.14	Peak

Antenna #2

Project No.: 2502T26290E-RF-A1
Polarization: Horizontal
Test Mode: Transmitting
Note: Lora 125K Chain1
RBW:100kHz VBW:300kHz

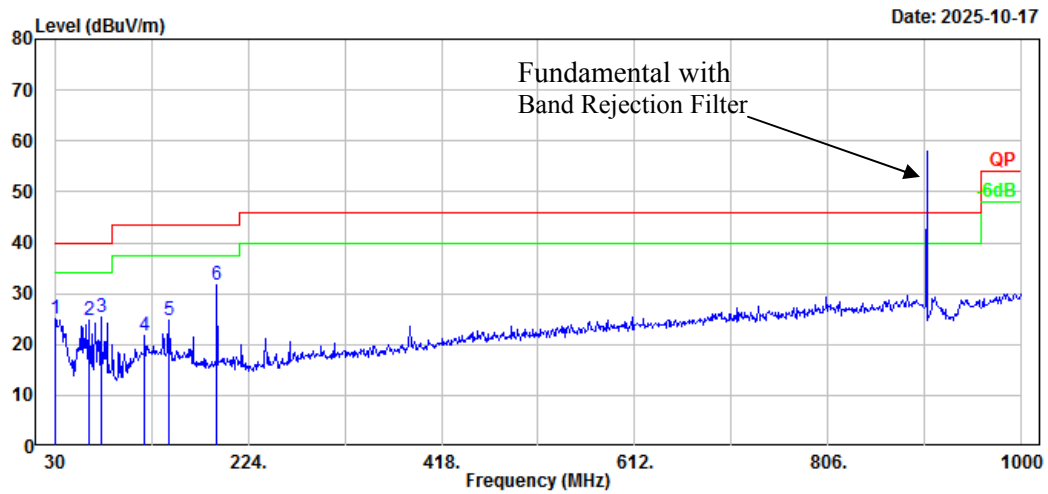
Serial No.: 33WL-2
Tester: Zoo Zou



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Measurement
1	30.000	27.46	-1.86	25.60	40.00	14.40	Peak
2	76.560	38.56	-14.11	24.45	40.00	15.55	Peak
3	120.210	32.33	-8.61	23.72	43.50	19.78	Peak
4	144.460	40.24	-9.62	30.62	43.50	12.88	Peak
5	192.960	49.69	-11.00	38.69	43.50	4.81	QP
6	241.460	39.85	-10.99	28.86	46.00	17.14	Peak

Project No.: 2502T26290E-RF-A1
Polarization: Vertical
Test Mode: Transmitting
Note: Lora 125K Chain1
RBW:100kHz VBW:300kHz

Serial No.: 33WL-2
Tester: Zoo Zou



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Measurement
1	30.000	26.97	-1.86	25.11	40.00	14.89	Peak
2	63.950	38.65	-13.91	24.74	40.00	15.26	Peak
3	76.560	39.33	-14.11	25.22	40.00	14.78	Peak
4	120.210	30.43	-8.61	21.82	43.50	21.68	Peak
5	144.460	34.49	-9.62	24.87	43.50	18.63	Peak
6	192.960	42.56	-11.00	31.56	43.50	11.94	Peak

2) 1-10GHz:

Serial Number:	33WL-2	Test Date:	2025/7/22
Test Site:	Chamber B	Test Mode:	Transmitting
Tester:	Alan Xie	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	25.3	Relative Humidity: (%)	50	ATM Pressure: (kPa)	99.5
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Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
ETS-Lindgren	Horn Antenna	3115	000 527 35	2023/9/7	2026/9/6
Xinhang Macrowave	Coaxial Cable	XH750A-N/J- SMA/J-10M	20231117004 #0001	2024/11/17	2025/11/16
AH	Preamplifier	PAM-0118P	469	2025/4/11	2026/4/10
R&S	Spectrum Analyzer	FSV40	101944	2024/9/6	2025/9/5
Audix	Test Software	E3	191218 V9	N/A	N/A
Decentest	Multiplex Switch Test Control Set & Filter Switch Unit	DT7220SCU & DT7220FCU	DC79902 & DC79905	2024/8/27	2025/8/26
E-Microwave	Band Rejection Filter	OBF-ZP-902-928- SMAF	OE01902428	2025/6/6	2026/6/5

** Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

Test Data:

Please refer to the below plots.

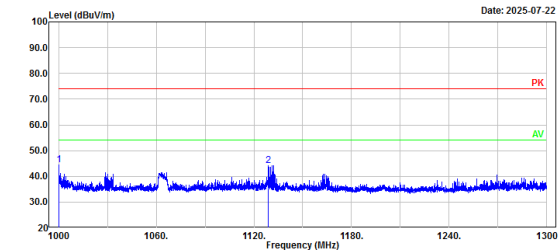
After pre-scan in the X, Y and Z axes of orientation, the worst case is refer to plots.

Antenna #1

Low Channel, Horizontal

Project No.: 2502T26290E-RF-A1
Polarization: Horizontal
Test Mode: Transmitting
Note: Lora_125k low channel 902.3MHz Chain0
Peak:RBW:1MHz,VBW:3MHz

Serial No.: 33WL-2
Tester: Alan Xie

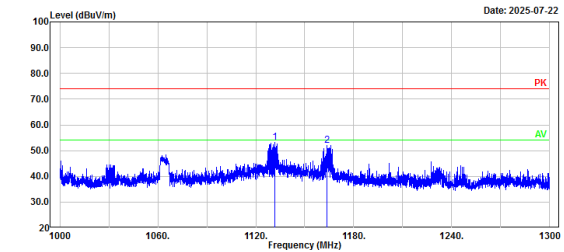


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Measurement
1	1000.30	56.05	-11.52	44.53	74.00	29.47	Peak
2	1128.64	55.76	-11.49	44.27	74.00	29.73	Peak

Low Channel, Vertical

Project No.: 2502T26290E-RF-A1
Polarization: Vertical
Test Mode: Transmitting
Note: Lora_125k low channel 902.3MHz Chain0
Peak:RBW:1MHz,VBW:3MHz

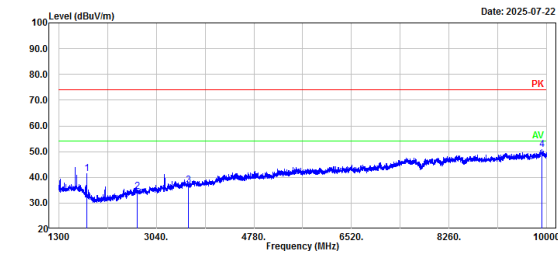
Serial No.: 33WL-2
Tester: Alan Xie



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Measurement
1	1131.70	64.80	-11.48	53.32	74.00	20.68	Peak
2	1163.50	63.43	-11.47	51.96	74.00	22.04	Peak

Project No.: 2502T26290E-RF-A1
Polarization: Horizontal
Test Mode: Transmitting
Note: Lora_125k low channel 902.3MHz Chain0
Peak:RBW:1MHz,VBW:3MHz

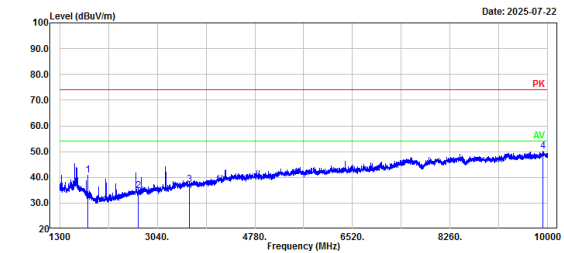
Serial No.: 33WL-2
Tester: Alan Xie



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Measurement
1	1804.60	55.01	-13.54	41.47	74.00	32.53	Peak
2	2706.90	46.69	-12.21	34.48	74.00	39.52	Peak
3	3609.20	46.96	-9.96	37.00	74.00	37.00	Peak
4	9913.00	49.05	1.61	50.66	74.00	23.34	Peak

Project No.: 2502T26290E-RF-A1
Polarization: Vertical
Test Mode: Transmitting
Note: Lora_125k low channel 902.3MHz Chain0
Peak:RBW:1MHz,VBW:3MHz

Serial No.: 33WL-2
Tester: Alan Xie

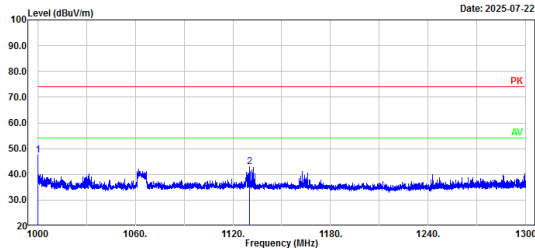


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Measurement
1	1804.60	54.44	-13.54	40.90	74.00	33.10	Peak
2	2706.90	47.10	-12.21	34.89	74.00	39.11	Peak
3	3609.20	47.05	-9.96	37.09	74.00	36.91	Peak
4	9916.48	48.66	1.61	50.27	74.00	23.73	Peak

Middle Channel, Horizontal

Project No.: 2502T26290E-RF-A1
Polarization: Horizontal
Test Mode: Transmitting
Note: Lora_125k middle channel 914.9MHz Chain0
Peak:RBW:1MHz,VBW:3MHz

Serial No.: 33WL-2
Tester: Alan Xie

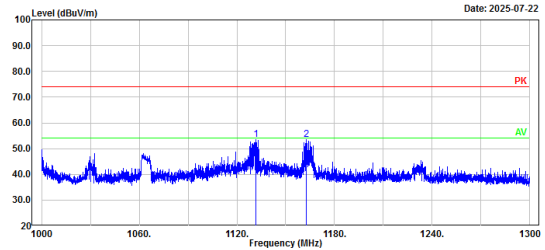


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Measurement
1	1000.24	58.84	-11.52	47.32	74.00	26.68	Peak
2	1130.14	54.55	-11.48	43.07	74.00	30.93	Peak

Middle Channel, Vertical

Project No.: 2502T26290E-RF-A1
Polarization: Vertical
Test Mode: Transmitting
Note: Lora_125k middle channel 914.9MHz Chain0
Peak:RBW:1MHz,VBW:3MHz

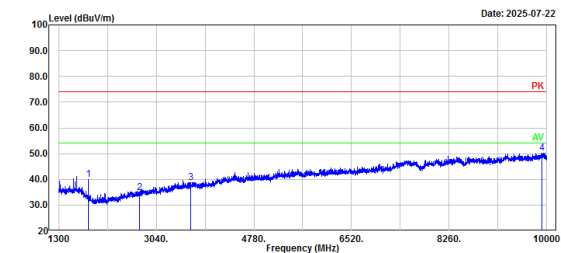
Serial No.: 33WL-2
Tester: Alan Xie



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Measurement
1	1131.52	64.85	-11.48	53.37	74.00	20.63	Peak
2	1162.60	64.91	-11.47	53.44	74.00	20.56	Peak

Project No.: 2502T26290E-RF-A1
Polarization: Horizontal
Test Mode: Transmitting
Note: Lora_125k middle channel 914.9MHz Chain0
Peak:RBW:1MHz,VBW:3MHz

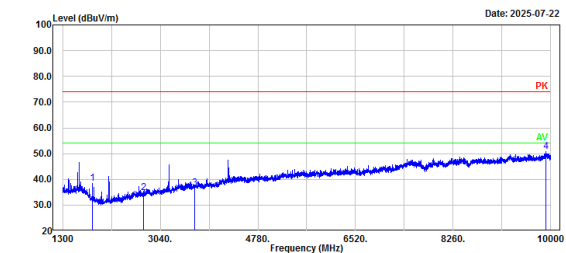
Serial No.: 33WL-2
Tester: Alan Xie



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Measurement
1	1829.80	53.60	-13.66	39.94	74.00	34.06	Peak
2	2744.70	46.84	-12.15	34.69	74.00	39.31	Peak
3	3659.60	48.44	-9.80	38.64	74.00	35.36	Peak
4	9907.78	48.75	1.58	50.33	74.00	23.67	Peak

Project No.: 2502T26290E-RF-A1
Polarization: Vertical
Test Mode: Transmitting
Note: Lora_125k middle channel 914.9MHz Chain0
Peak:RBW:1MHz,VBW:3MHz

Serial No.: 33WL-2
Tester: Alan Xie

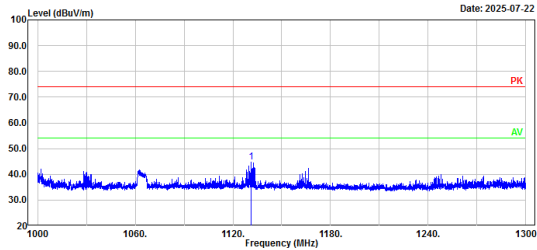


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Measurement
1	1829.80	52.20	-13.66	38.54	74.00	35.46	Peak
2	2744.70	47.08	-12.15	34.93	74.00	39.07	Peak
3	3659.60	46.49	-9.80	36.69	74.00	37.31	Peak
4	9906.04	49.11	1.58	50.69	74.00	23.31	Peak

High Channel, Horizontal

Project No.: 2502T26290E-RF-A1
Polarization: Horizontal
Test Mode: Transmitting
Note: Lora_125k high channel 925.4MHz Chain0
Peak:RBW:1MHz,VBW:3MHz

Serial No.: 33WL-2
Tester: Alan Xie

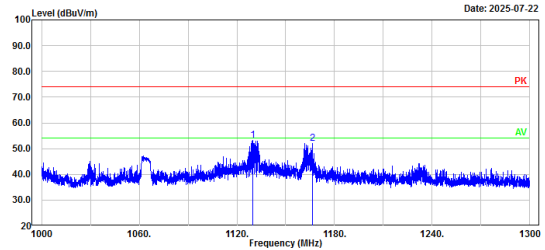


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Measurement
1	1130.98	56.32	-11.48	44.84	74.00	29.16	Peak

High Channel, Vertical

Project No.: 2502T26290E-RF-A1
Polarization: Vertical
Test Mode: Transmitting
Note: Lora_125k high channel 925.4MHz Chain0
Peak:RBW:1MHz,VBW:3MHz

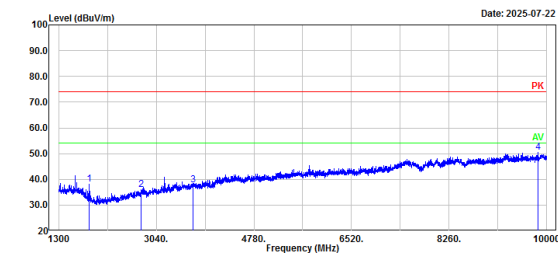
Serial No.: 33WL-2
Tester: Alan Xie



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Measurement
1	1129.54	64.77	-11.49	53.28	74.00	20.72	Peak
2	1166.38	63.52	-11.47	52.05	74.00	21.95	Peak

Project No.: 2502T26290E-RF-A1
Polarization: Horizontal
Test Mode: Transmitting
Note: Lora_125k high channel 925.4MHz Chain0
Peak:RBW:1MHz,VBW:3MHz

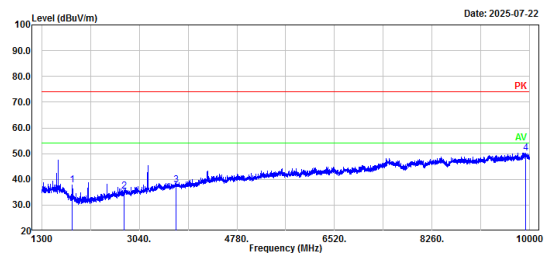
Serial No.: 33WL-2
Tester: Alan Xie



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Measurement
1	1850.80	51.78	-13.77	38.01	74.00	35.99	Peak
2	2776.20	48.16	-12.08	36.08	74.00	37.92	Peak
3	3701.60	47.59	-9.65	37.94	74.00	36.06	Peak
4	9836.44	48.68	1.51	50.39	74.00	23.61	Peak

Project No.: 2502T26290E-RF-A1
Polarization: Vertical
Test Mode: Transmitting
Note: Lora_125k high channel 925.4MHz Chain0
Peak:RBW:1MHz,VBW:3MHz

Serial No.: 33WL-2
Tester: Alan Xie



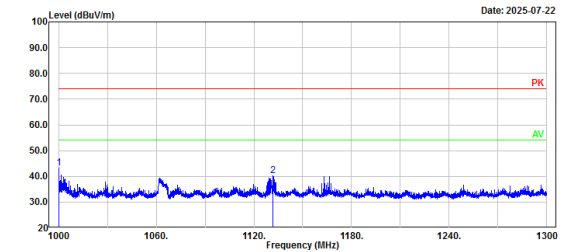
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Measurement
1	1850.80	51.51	-13.77	37.74	74.00	36.26	Peak
2	2776.20	47.54	-12.08	35.46	74.00	38.54	Peak
3	3701.60	47.54	-9.65	37.89	74.00	36.11	Peak
4	9930.40	48.68	1.64	50.32	74.00	23.68	Peak

Antenna #2

Low Channel, Horizontal

Project No.: 2502T26290E-RF-A1
Polarization: Horizontal
Test Mode: Transmitting
Note: Lora_125k low channel 902.3MHz Chain1
Peak:RBW:1MHz,VBW:3MHz

Serial No.: 33WL-2
Tester: Alan Xie

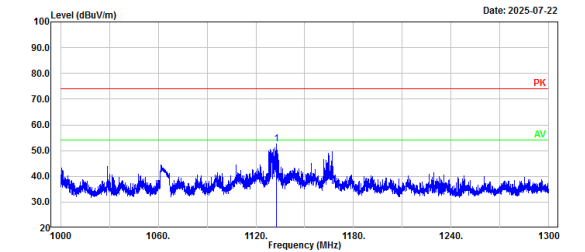


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Measurement
1	1000.24	54.64	-11.52	43.12	74.00	30.88	Peak
2	1131.76	51.71	-11.48	40.23	74.00	33.77	Peak

Low Channel, Vertical

Project No.: 2502T26290E-RF-A1
Polarization: Vertical
Test Mode: Transmitting
Note: Lora_125k low channel 902.3MHz Chain1
Peak:RBW:1MHz,VBW:3MHz

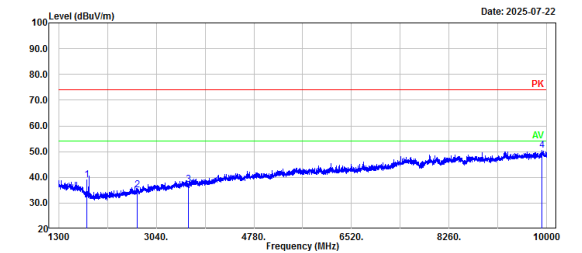
Serial No.: 33WL-2
Tester: Alan Xie



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Measurement
1	1132.48	64.18	-11.48	52.70	74.00	21.30	Peak

Project No.: 2502T26290E-RF-A1
Polarization: Horizontal
Test Mode: Transmitting
Note: Lora_125k low channel 902.3MHz Chain1
Peak:RBW:1MHz,VBW:3MHz

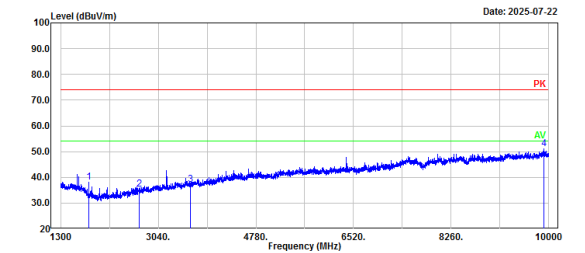
Serial No.: 33WL-2
Tester: Alan Xie



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Measurement
1	1804.60	52.46	-13.54	38.92	74.00	35.08	Peak
2	2706.90	47.24	-12.21	35.03	74.00	38.97	Peak
3	3609.20	47.23	-9.96	37.27	74.00	36.73	Peak
4	9911.26	48.83	1.59	50.42	74.00	23.58	Peak

Project No.: 2502T26290E-RF-A1
Polarization: Vertical
Test Mode: Transmitting
Note: Lora_125k low channel 902.3MHz Chain1
Peak:RBW:1MHz,VBW:3MHz

Serial No.: 33WL-2
Tester: Alan Xie

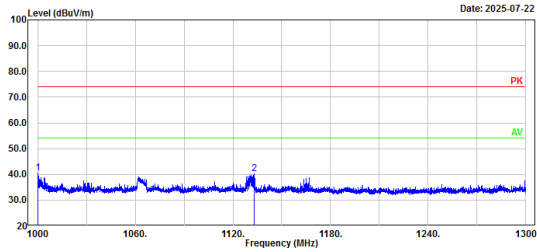


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Measurement
1	1804.60	51.79	-13.54	38.25	74.00	35.75	Peak
2	2706.90	47.56	-12.21	35.35	74.00	38.65	Peak
3	3609.20	47.04	-9.96	37.08	74.00	36.92	Peak
4	9909.52	49.59	1.59	51.18	74.00	22.82	Peak

Middle Channel, Horizontal

Project No.: 2502T26290E-RF-A1
Polarization: Horizontal
Test Mode: Transmitting
Note: Lora_125k middle channel 914.9MHz Chain1
Peak:RBW:1MHz,VBW:3MHz

Serial No.: 33WL-2
Tester: Alan Xie

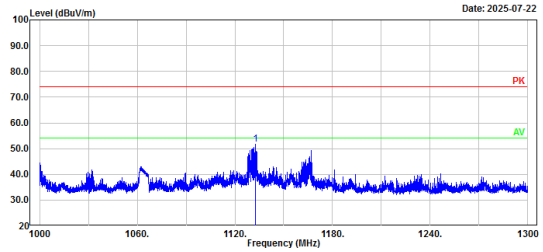


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Measurement
1	1000.00	52.04	-11.52	40.52	74.00	33.48	Peak
2	1132.90	51.58	-11.48	40.10	74.00	33.90	Peak

Middle Channel, Vertical

Project No.: 2502T26290E-RF-A1
Polarization: Vertical
Test Mode: Transmitting
Note: Lora_125k middle channel 914.9MHz Chain1
Peak:RBW:1MHz,VBW:3MHz

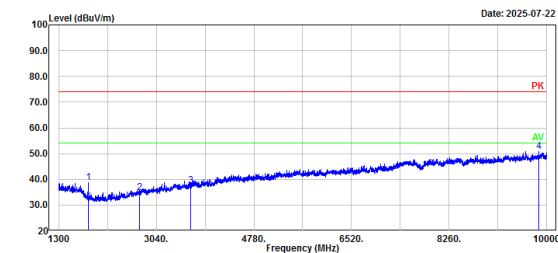
Serial No.: 33WL-2
Tester: Alan Xie



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Measurement
1	1132.84	63.27	-11.48	51.79	74.00	22.21	Peak

Project No.: 2502T26290E-RF-A1
Polarization: Horizontal
Test Mode: Transmitting
Note: Lora_125k middle channel 914.9MHz Chain1
Peak:RBW:1MHz,VBW:3MHz

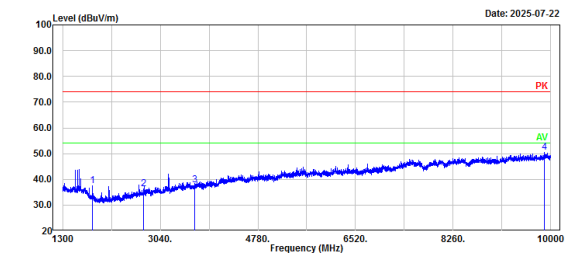
Serial No.: 33WL-2
Tester: Alan Xie



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Measurement
1	1829.80	52.31	-13.66	38.65	74.00	35.35	Peak
2	2744.70	46.93	-12.15	34.78	74.00	39.22	Peak
3	3659.60	47.33	-9.80	37.53	74.00	36.47	Peak
4	9855.58	49.34	1.53	50.87	74.00	23.13	Peak

Project No.: 2502T26290E-RF-A1
Polarization: Vertical
Test Mode: Transmitting
Note: Lora_125k middle channel 914.9MHz Chain1
Peak:RBW:1MHz,VBW:3MHz

Serial No.: 33WL-2
Tester: Alan Xie

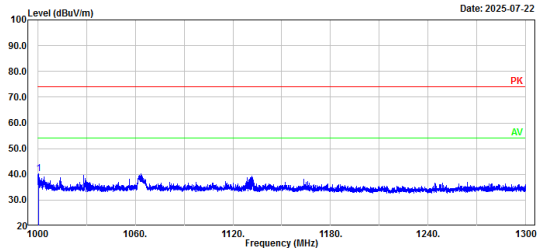


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Measurement
1	1829.80	51.19	-13.66	37.53	74.00	36.47	Peak
2	2744.70	48.37	-12.15	36.22	74.00	37.78	Peak
3	3659.60	47.49	-9.80	37.69	74.00	36.31	Peak
4	9868.64	48.87	1.57	50.44	74.00	23.56	Peak

High Channel, Horizontal

Project No.: 2502T26290E-RF-A1
Polarization: Horizontal
Test Mode: Transmitting
Note: Lora_125k high channel 925.4MHz Chain1
Peak:RBW:1MHz,VBW:3MHz

Serial No.: 33WL-2
Tester: Alan Xie

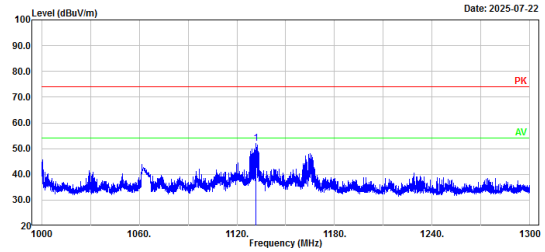


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Measurement
1	1000.48	51.72	-11.52	40.20	74.00	33.80	Peak

High Channel, Vertical

Project No.: 2502T26290E-RF-A1
Polarization: Vertical
Test Mode: Transmitting
Note: Lora_125k high channel 925.4MHz Chain1
Peak:RBW:1MHz,VBW:3MHz

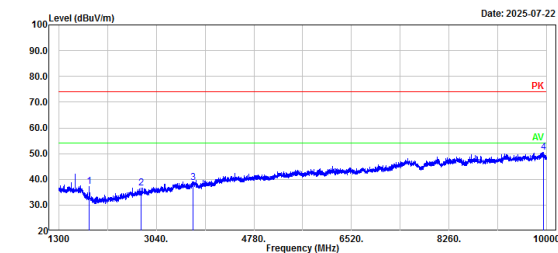
Serial No.: 33WL-2
Tester: Alan Xie



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Measurement
1	1131.58	63.53	-11.48	52.05	74.00	21.95	Peak

Project No.: 2502T26290E-RF-A1
Polarization: Horizontal
Test Mode: Transmitting
Note: Lora_125k high channel 925.4MHz Chain1
Peak:RBW:1MHz,VBW:3MHz

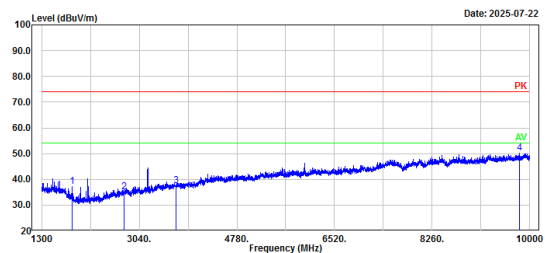
Serial No.: 33WL-2
Tester: Alan Xie



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Measurement
1	1850.80	50.85	-13.77	37.08	74.00	36.92	Peak
2	2776.20	48.55	-12.08	36.47	74.00	37.53	Peak
3	3701.60	48.51	-9.65	38.86	74.00	35.14	Peak
4	9942.58	48.79	1.68	50.47	74.00	23.53	Peak

Project No.: 2502T26290E-RF-A1
Polarization: Vertical
Test Mode: Transmitting
Note: Lora_125k high channel 925.4MHz Chain1
Peak:RBW:1MHz,VBW:3MHz

Serial No.: 33WL-2
Tester: Alan Xie



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Measurement
1	1850.80	51.08	-13.77	37.31	74.00	36.69	Peak
2	2776.20	47.29	-12.08	35.21	74.00	38.79	Peak
3	3701.60	47.27	-9.65	37.62	74.00	36.38	Peak
4	9820.78	48.69	1.51	50.20	74.00	23.80	Peak

5.3 Spot Check With Maximum Conducted Output Power

Serial No.:	33WL-1	Test Date:	2025/6/25
Test Site:	RF	Test Mode:	Transmitting
Tester:	Conor Fu	Test Result:	Pass

Environmental Conditions:

Temperature: (°C):	26.2	Relative Humidity: (%)	65	ATM Pressure: (kPa)	100.9
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Test Equipment List and Details:

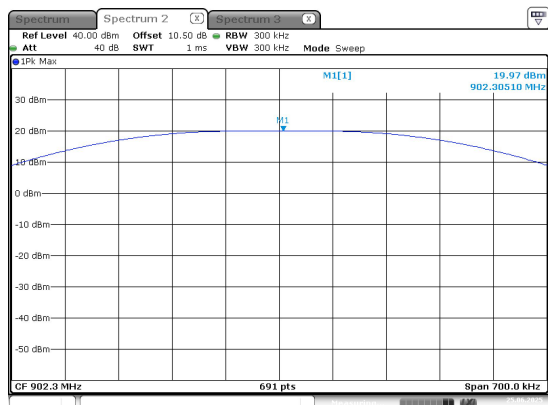
Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSV40	101589	2024/9/5	2025/9/4
Narda	Coaxial Attenuator	773-10	F-08-EM511	2025/6/6	2026/6/5

** Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

Test Data:

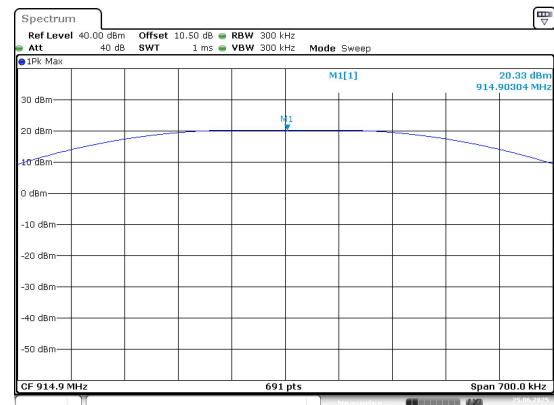
Test Channel	Test Frequency (MHz)	Peak Conducted Output Power (dBm)	Limits (dBm)
Lowest	902.3	19.97	≤30
Middle	914.9	20.33	≤30
Highest	925.4	19.83	≤30

Low



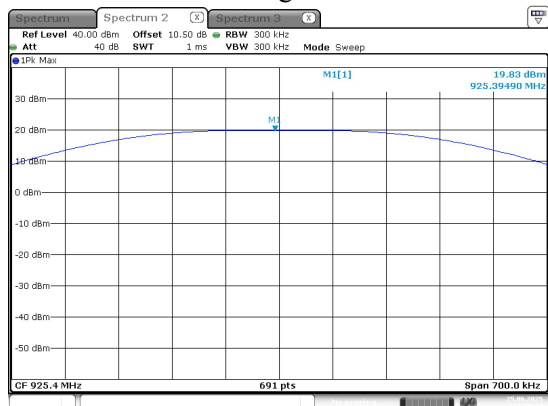
ProjectNo.:2502T26290E-RF-A1 Tester:Conor Fu
Date: 25.JUN.2025 17:56:42

Middle



ProjectNo.:2502T26290E-RF-A1 Tester:Conor Fu
Date: 25.JUN.2025 17:49:37

High



ProjectNo.:2502T26290E-RF-A1 Tester:Conor Fu
Date: 25.JUN.2025 17:58:34

Note:
The Spot Check data were similar to the original data.

EXHIBIT A - EUT PHOTOGRAPHS

Please refer to the attachment 2502T26290E-RF-A1-EXP EUT EXTERNAL PHOTOGRAPHS and 2502T26290E-RF-A1-INP EUT INTERNAL PHOTOGRAPHS.

EXHIBIT B - TEST SETUP PHOTOGRAPHS

Please refer to the attachment 2502T26290E-RF-00BA1-TSP TEST SETUP PHOTOGRAPHS.

EXHIBIT C - RF EXPOSURE EVALUATION

Maximum Permissible Exposure (MPE)

Applicable Standard

According to subpart §1.1310,15.247(i) systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

Limits for Maximum Permissible Exposure (MPE) (§1.1310, §2.1091)

(B) Limits for General Population/Uncontrolled Exposure				
Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)	Averaging Time (minutes)
0.3–1.34	614	1.63	*(100)	30
1.34–30	824/f	2.19/f	*(180/f ²)	30
30–300	27.5	0.073	0.2	30
300–1500	/	/	f/1500	30
1500–100,000	/	/	1.0	30

f = frequency in MHz; * = Plane-wave equivalent power density;

According to §1.1310 and §2.1091 RF exposure is calculated.

Calculation formula:

Prediction of power density at the distance of the applicable MPE limit

$S = PG/4\pi R^2$ = power density (in appropriate units, e.g. mW/cm²);

P = power input to the antenna (in appropriate units, e.g., mW);

G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally numeric gain;

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm);

Calculated Data:

Mode	Frequency (MHz)	Antenna Gain [▲]		Conducted output power including Tune-up Tolerance [▲]		Evaluation Distance (cm)	Power Density (mW/cm ²)	MPE Limit (mW/cm ²)
		(dBi)	(numeric)	(dBm)	(mW)			
Lora-FHSS	902.3-925.4	5	3.16	22	158.49	20.00	0.100	0.6
Lora-DTS	904.6-926.9	5	3.16	21	125.89	20.00	0.079	0.6

Note:

The Antenna Gain and Conducted output power including Tune-up Tolerance provided by manufacturer.

Lora-FHSS and Lora-DTS can't transmit simultaneously.

Result: The device meet FCC MPE at 20 cm distance

***** END OF REPORT *****