

FCC PART 15.247 TEST REPORT

For

Chengdu Silent Smart Technology Co., Ltd.

303-7, Floor 3, Building 12, No.38, South Jinke Road, Jinniu Hi-tech Industrial Park, Chengdu, Sichuan, China

Tested Model: WS8408
FCC ID: 2BB8U-WS8408

Report Type: Original Report		Product Name: LoRa Module	
Report Number:	RSC260507001-0D		
Date of Report Issue:	2026-06-18		
Reviewed By:	Sula Huang 		
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GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Applicant	Chengdu Silent Smart Technology Co., Ltd.
Address	303-7, Floor 3, Building 12, No.38, South Jinke Road, Jinniu Hi-tech Industrial Park, Chengdu, Sichuan, China
Email	shenglguo777@163.com
Product	LoRa Module
Tested Model	WS8408
FCC ID	2BB8U-WS8408
Frequency*	904 MHz– 926 MHz
Modulation Type*	CSS
Antenna Gain*	4dBi
RF peak output power	9.37 dBm
Voltage*	DC 1.8-3.7V (Typical: DC 3.3V)
Measure approximately	20mm (L)×14mm (W)×2.8mm (H)
Sample serial number	260507001/02 (RF Radiated Test & RF Conducted Test) (assigned by the BACL, Chengdu)
Sample/EUT Status	The test sample was in good condition and received: 2026-05-07

Note: Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

Objective

This report is prepared on behalf of **Chengdu Silent Smart Technology Co., Ltd.** in accordance with Part 2, Subpart J, Part 15, Subparts A and C of the Federal Communications Commission's rules.

The tests were performed in order to determine the compliance of the EUT with FCC Part 15-Subpart C, section 15.203, 15.205, 15.207, 15.209 and 15.247 rules.

Measurement Uncertainty

Item			Measurement Uncertainty	U_{cispr}
AC power line conducted emission			2.95 dB	3.4 dB
Radiated Emission	30MHz-1GHz	H	5.32 dB	6.3dB
	30MHz-1GHz	V	6.36 dB	6.3dB
	1GHz-6GHz		5.75 dB	5.2dB
	6GHz-18GHz		6.60 dB	5.5dB

Item	Measurement Uncertainty
RF output power, conducted	$\pm 0.62\text{dB}$
Occupied Bandwidth	$\pm 0.41\%$
Power Spectrum Density, conducted	$\pm 0.66\text{dB}$
Spurious emissions, conducted	$\pm 2.52\text{dB}$
Humidity	$\pm 5\%$
Temperature	$\pm 1^{\circ}\text{C}$
Voltage(DC)	$\pm 0.4\%$
Voltage(AC,<10kHz)	$\pm 1\%$
Time	1%

Note: The extended uncertainty given in this report is obtained by combining the standard uncertainty times the corresponding inclusion factor K when the inclusion probability is about 95%.

Test Methodology

All measurements contained in this report were conducted with:

1. ANSI C63.10-2020 American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices.
2. KDB558074 D01 15.247 Meas Guidance v05r02.

Test Facility

The test site used by Bay Area Compliance Laboratories Corp. (Chengdu) to collect test data is located No.5040, Huilongwan Plaza, No. 1, Shawan Road, Jinniu District, Chengdu, Sichuan, China.

Bay Area Compliance Laboratories Corp. (Chengdu) lab is accredited to ISO/IEC 17025 by NVLAP (Lab code: 600346-0) and the FCC designation No.: CN5056. The facility also complies with the radiated and AC line conducted test site criteria set forth in ANSI C63.4-2014.

SYSTEM TEST CONFIGURATION

Description of Test Configuration*

The system was configured in testing mode, which was provided by manufacturer.

For LoRa mode, 23 channels are provided for testing:

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	904	7	910	13	916	19	922
2	905	8	911	14	917	20	923
3	906	9	912	15	918	21	924
4	907	10	913	16	919	22	925
5	908	11	914	17	920	23	926
6	909	12	915	18	921	-	-

EUT was tested with channel 1, 12 and 23.

Equipment Modifications

No modification was made to the EUT tested.

EUT Exercise Software*

The setting by the software as following table:

Test Mode	Test Software	XCOM V2.6		
500kHz	Test Frequency (MHz)	904	915	926
	Data Rate	2.4kbps	2.4kbps	2.4kbps
	Power Level	10	10	10

The RF module supports data rates (2.4k~62.5kbps) and each was pre-scan during test. Only the worst-case data rate(2.4kbps) are determined to be for each mode based upon investigations by measuring the average power, PSD across all data rates bandwidths and modulations.

Support Test Devices Description

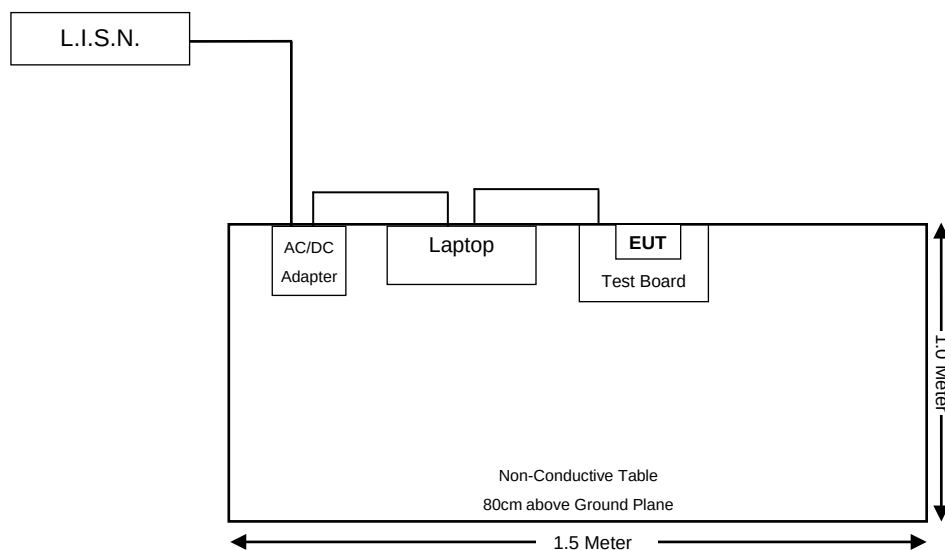
Manufacturer	Device Name	Model	Serial Number
Local			
Chengdu Silent Smart Technology Co., LTD	Test Board	No	1290086A_Y332_260528
Lenovo	Laptop	T460S	TP00072A
Lenovo	AC/DC Adapter	ADLX45NDC2A	SA10E75790

Support Test Cable Description

Cable Description	Length (m)	From / Port	To
Unshielded AC Power Cable	1.5	L.I.S.N.	AC/DC Adapter
Unshielded DC Power Cable	1.5	AC/DC Adapter	Laptop
Unshielded USB Power Cable With Ferrite	1.6	Laptop	Test Board

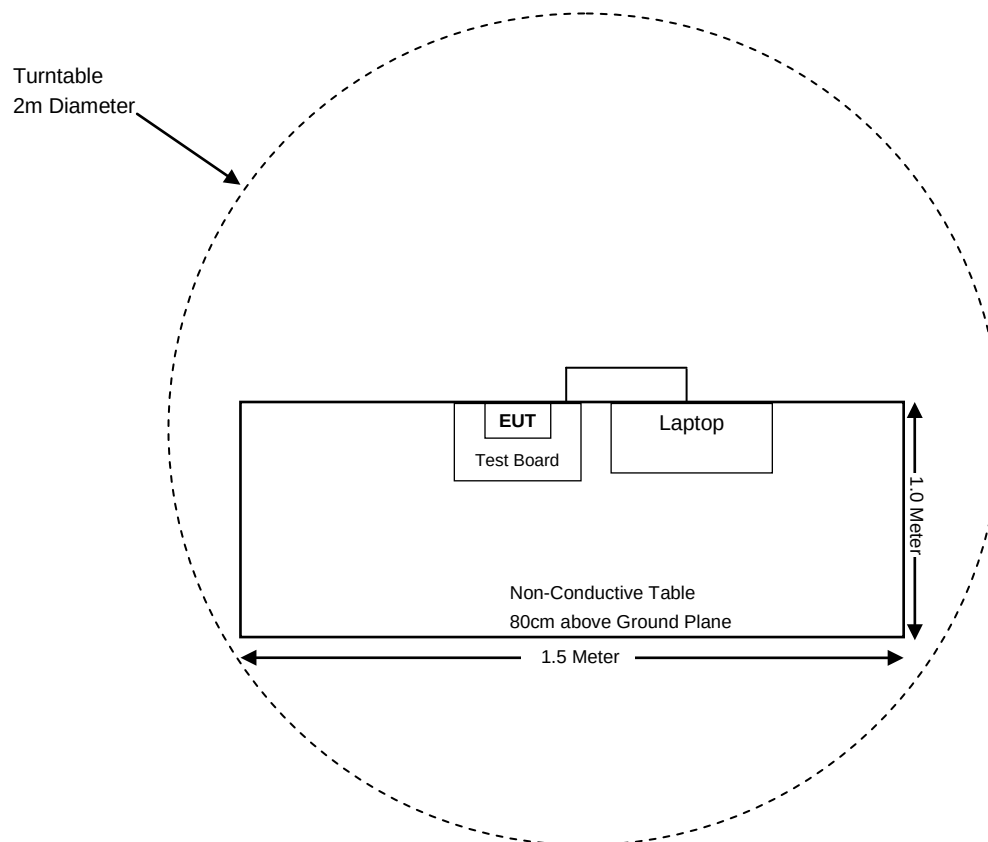
Block Diagram of Test Setup

Conducted Emissions:

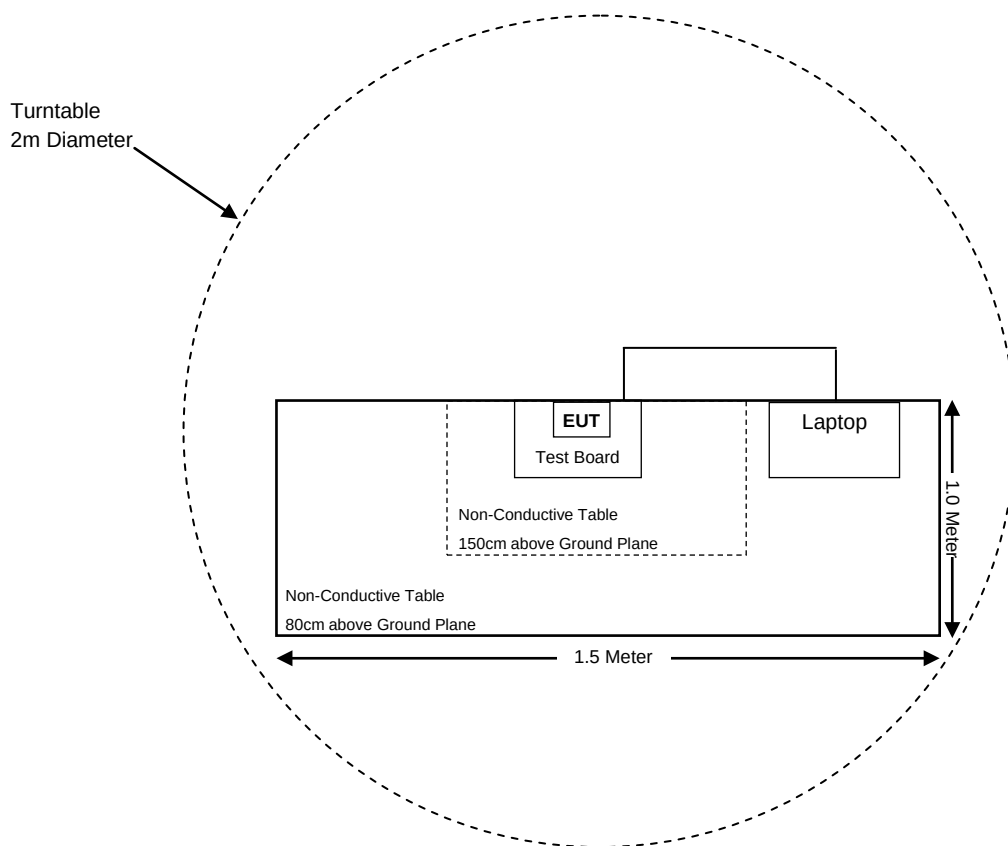


Radiated Emissions

Below 1GHz:



Above 1GHz:



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
FCC §15.247(i), §1.1307(b)(3)(i)	RF Exposure	Compliant
§15.203	Antenna Requirement	Compliant
§15.207 (a)	AC Line Conducted Emissions	Compliant
§15.205, §15.209, §15.247(d)	Raidated Spurious Emissions	Compliant
§15.247(d)	Conducted Spurious Emissions at Antenna Terminal	Compliant
§15.247 (a)(2)	6 dB Emission Bandwidth	Compliant
§15.247(b)(3)	Maximum conducted output power	Compliant
§15.247(d)	100 kHz Bandwidth of Frequency Band Edge	Compliant
§15.247(e)	Power Spectral Density	Compliant

Note: Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty.

TEST EQUIPMENTS LIST

Manufacturer	Description	Model Number	Serial Number	Calibration Date	Calibration Due Date
Conducted Emissions					
Rohde & Schwarz	EMI Test Receiver	ESCI	100028	2026-03-17	2027-03-16
Rohde & Schwarz	L.I.S.N.	ENV216	101112	2026-03-17	2027-03-16
HP	RF Limiter	11947A	3107A01270	2025-08-03	2026-08-02
UTIFLEX	Conducted Cable	L-E-003	000003	2025-10-27	2026-10-26
Rohde & Schwarz	EMC32	EMC32	V 8.52.0	NCR	NCR
Radiated Emissions (9kHz-30MHz)					
EMCT	Semi-Anechoic Chamber	966	001	2025-07-30	2028-07-29
Rohde & Schwarz	EMI Test Receiver	ESR3	102456	2026-03-17	2027-03-16
BACL CORP	Active Loop Antenna	1313-1A	4031411	2026-05-19	2027-05-18
Xin Hang Xun Wei Bo	RF Cable (Below 1GHz)	XH500A-N/J- N/J-2M-A	T-E271	2025-07-31	2026-07-30
Xin Hang Xun Wei Bo	RF Cable (Below 1GHz)	XH500A-N/J- N/J-7M-A	T-E268	2025-07-31	2026-07-30
Rohde & Schwarz	EMC32	EMC32	V9.10.00	NCR	NCR
Radiated Emissions (30MHz-1GHz)					
EMCT	Semi-Anechoic Chamber	966	001	2025-07-30	2028-07-29
Sonoma Instrument	Pre-Amplifier	310N	185444	2025-10-27	2026-10-26
Sunol Sciences	Broadband Antenna	JB3	A121808	2026-01-23	2027-01-22
INMET	Attenuator	18N-6dB	64671	2026-01-23	2027-01-22
Rohde & Schwarz	EMI Test Receiver	ESR3	102456	2026-03-17	2027-03-16
Huber+Suhener	RF Cable (Below 1GHz)	L-E-015	MY4345/EA	2025-07-31	2026-07-30
Xin Hang Xun Wei Bo	RF Cable (Below 1GHz)	XH500A-N/J-N/J -2M-A	T-E271	2025-07-31	2026-07-30
Xin Hang Xun Wei Bo	RF Cable (Below 1GHz)	XH500A-N/J-N/J -7M-A	T-E268	2025-07-31	2026-07-30
MICRO-TRONICS	900MHz Notch Filter	BRM50706	G216	2026-05-16	2027-05-15
Rohde & Schwarz	EMC32	EMC32	V9.10.00	NCR	NCR

Manufacturer	Description	Model Number	Serial Number	Calibration Date	Calibration Due Date
Radiated Emissions (1GHz-10GHz)					
EMCT	Semi-Anechoic Chamber	966	001	2025-07-30	2028-07-29
Rohde & Schwarz	Signal Analyzer	FSV40	101943	2026-03-17	2027-03-16
Rohde & Schwarz	EMI Test Receiver	ESIB40	100215	2026-03-17	2027-03-16
EMCO	Horn Antenna	3115	2192	2025-08-26	2026-08-25
A.H. Systems, inc.	Pre-Amplifier	PAM-0118P	509	2025-10-27	2026-10-26
Xin Hang Xun Wei Bo	RF Cable (Above 1GHz)	XH500A-SMA/J-N/J-2M-A	L-E-016	2026-01-28	2027-01-27
Xin Hang Xun Wei Bo	RF Cable (Above 1GHz)	XH500A-SMA/J-N/J-5M-A	L-E-017	2026-01-28	2027-01-27
MICRO-TRONICS	High Pass Filter	HPM50111	G216	2026-05-16	2027-05-15
Rohde & Schwarz	EMC32	EMC32	V9.10.00	NCR	NCR
RF Conducted Test					
Rohde & Schwarz	Spectrum Analyzer	FSV40-N	101456	2026-03-17	2027-03-16
Mini-Circuits	6dB Attenuator	BW-S6W5+	00433	2025-10-27	2026-10-26
Astrolab	RF Coaxial Cable	L-E-023	/	2026-01-28	2027-01-27

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

FCC §15.247(i), §1.1307(b)(3)(i) - RF EXPOSURE

Applicable Standard

According to §1.1307(b)(3)(i), 447498 D04 Interim General RF Exposure Guidance v01

(C) Or using Table 1 and the minimum separation distance (R in meters) from the body of a nearby person for the frequency (f in MHz) at which the source operates, the ERP (watts) is no more than the calculated value prescribed for that frequency. For the exemption in Table 1 to apply, R must be at least $\lambda/2\pi$, where λ is the free-space operating wavelength in meters. If the ERP of a single RF source is not easily obtained, then the available maximum time-averaged power may be used in lieu of ERP if the physical dimensions of the radiating structure(s) do not exceed the electrical length of $\lambda/4$ or if the antenna gain is less than that of a half-wave dipole (1.64 linear value).

Table 1 to § 1.1307(b)(3)(i)(C)—Single RF Sources Subject to Routine Environmental Evaluation

RF Source frequency (MHz)	Threshold ERP (watts)
0.3–1.34	$1,920 R^2$.
1.34–30	$3,450 R^2/f^2$.
30–300	$3.83 R^2$.
300–1,500	$0.0128 R^2 f$.
1,500–100,000	$19.2 R^2$.

RF Exposure Evaluation Result

Mode	Frequency (MHz)	Tune-up Conducted Power*	Ant Gain* (dBi)	Evaluation Distance (mm)	ERP		ERP Limit (mW)	Exemption
		(dBm)			(dBm)	(mW)		
DSS	904–926	10.50	4.0	200	12.35	17.18	462.85	Compliant
DTS	904–926	10.00	4.0	200	11.85	15.31	462.85	Compliant

1. Note: $\text{dBi} = \text{dBd} + 2.15$

2. DSS and DTS doesn't supports transmitting simultaneously.

Result: The device meets the Exemption at 20cm distances.

FCC §15.203 - ANTENNA REQUIREMENT

Applicable Standard

According to § 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 user of a standard antenna jack or electrical connector is prohibited. The structure and application of the EUT were analyzed to determine compliance with section §15.203 of the rules. §15.203 state that the subject device must meet the following criteria:

- a. Antenna must be permanently attached to the unit.
- b. Antenna must use a unique type of connector to attach to the EUT.
- c. The unit must be professionally installed, and installer shall be responsible for verifying that the correct antenna is employed with the unit.

Antenna Information*

The EUT use one Foldable antenna with RP-SMA-K connector and the maximum antenna gain is 4dBi, which fulfill the requirement of this section. Please refer to the EUT photos.

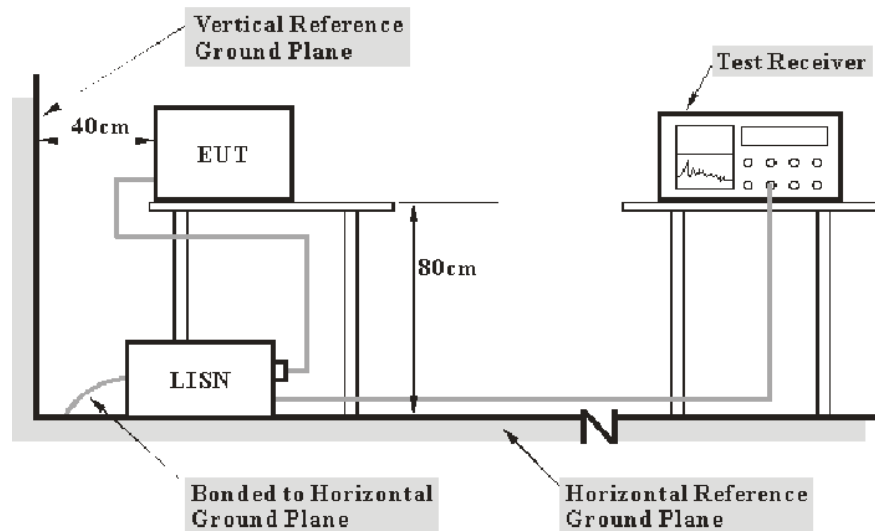
Result: Compliance

FCC §15.207 (a) – AC LINE CONDUCTED EMISSIONS

Applicable Standard

FCC§15.207

EUT Setup



Note: 1. Support units were connected to second LISN.
2. Both of LISNs (AMN) 80 cm from EUT and at the least 80 cm from other units and other metal planes support units.

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.

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

Test Procedure

During the conducted emission test, the adapter of laptop was connected to the L.I.S.N.

Maximizing procedure was performed on the six (6) highest emissions of the EUT.

All data was recorded in the Quasi-peak and average detection mode.

Corrected Amplitude & Margin Calculation

The basic equation is as follows:

$$V_C = V_R + A_C + VDF$$

$$C_f = A_C + VDF$$

Herein,

V_C (cord. Reading): corrected voltage amplitude

V_R : reading voltage amplitude

A_C : attenuation caused by cable loss

VDF: voltage division factor of AMN

C_f : Correction Factor

The “**Margin**” column of the following data tables indicates the degree of compliance within the applicable limit. For example, a margin of 7dB means the emission is 7dB below the limit. The equation for margin calculation is as follows:

$$\text{Margin} = \text{Limit} - \text{Corrected Amplitude}$$

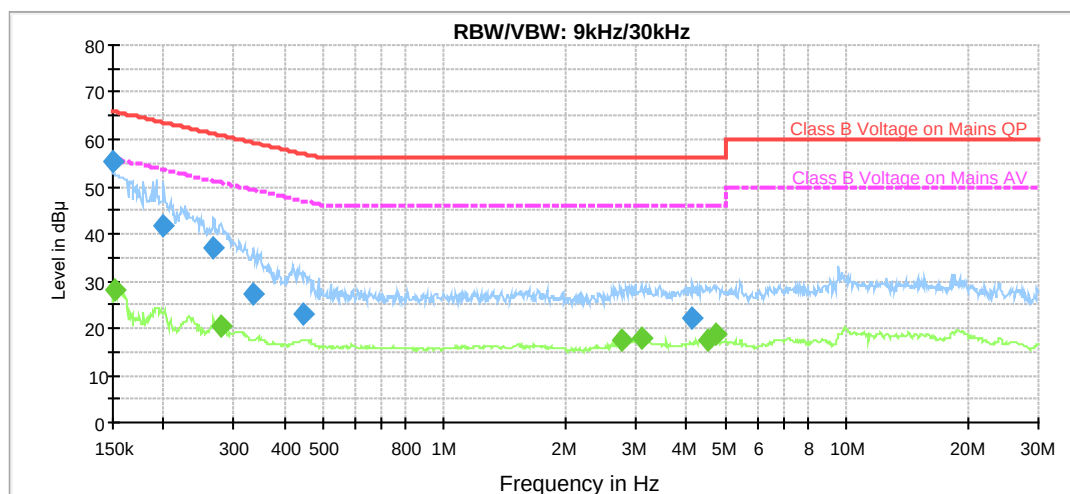
Test Data

Test Environment Conditions

Temperature:	27 °C
Relative Humidity:	48 %
ATM Pressure:	95 kPa

The testing was performed by Jack Cheng on 2026-06-09.

Test Mode: Transmitting_low channel_with maximum power output

AC120V/60Hz, Line:

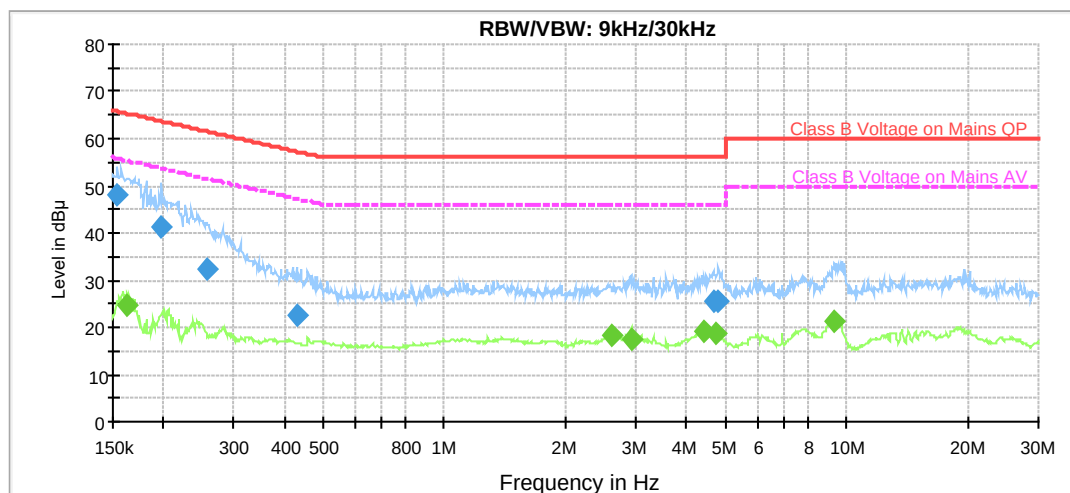
Project No.: RSC260507001 Tester: Jack Cheng

Frequency (MHz)	QuasiPeak (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.150000	55.5	5000.0	9.000	On	L1	19.7	10.5	66.0
0.200319	41.5	5000.0	9.000	On	L1	19.6	22.1	63.6
0.267519	37.1	5000.0	9.000	On	L1	19.6	24.1	61.2
0.336507	27.1	5000.0	9.000	On	L1	19.6	32.2	59.3
0.447156	22.9	5000.0	9.000	On	L1	19.7	34.0	56.9
4.135448	22.0	5000.0	9.000	On	L1	19.8	34.0	56.0

Frequency (MHz)	CAverage (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.152261	28.0	5000.0	9.000	On	L1	19.7	27.9	55.9
0.279801	20.3	5000.0	9.000	On	L1	19.6	30.5	50.8
2.761033	17.4	5000.0	9.000	On	L1	19.7	28.6	46.0
3.081236	17.8	5000.0	9.000	On	L1	19.8	28.2	46.0
4.501380	17.6	5000.0	9.000	On	L1	19.8	28.4	46.0
4.708041	18.6	5000.0	9.000	On	L1	19.8	27.4	46.0

Note:

- 1) Correction Factor = LISN VDF (Voltage Division Factor) + Cable Loss + Transient Limiter Attenuation
The corrected factor has been input into the transducer of the test software.
- 2) Corrected Amplitude = Reading + Correction Factor
(The reading was calculated auto by test software and no reading indicated in data table)
- 3) Margin = Limit – Corrected Amplitude(QuasiPeak or CAverage)

AC120V/60Hz, Neutral:

Project No.: RSC260507001 Tester: Jack Cheng

Frequency (MHz)	QuasiPeak (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.153788	47.9	5000.0	9.000	On	N	19.7	17.9	65.8
0.198331	41.1	5000.0	9.000	On	N	19.6	22.6	63.7
0.255776	32.3	5000.0	9.000	On	N	19.6	29.3	61.6
0.429666	22.5	5000.0	9.000	On	N	19.7	34.8	57.3
4.661311	25.3	5000.0	9.000	On	N	19.8	30.7	56.0
4.802910	25.5	5000.0	9.000	On	N	19.8	30.5	56.0

Frequency (MHz)	CAverage (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.163273	24.5	5000.0	9.000	On	N	19.6	30.8	55.3
2.600632	18.2	5000.0	9.000	On	N	19.7	27.8	46.0
2.916744	17.6	5000.0	9.000	On	N	19.7	28.4	46.0
4.434529	19.2	5000.0	9.000	On	N	19.8	26.8	46.0
4.708041	18.8	5000.0	9.000	On	N	19.8	27.2	46.0
9.323751	21.5	5000.0	9.000	On	N	19.9	28.5	50.0

Note:

- 1) Correction Factor = LISN VDF (Voltage Division Factor) + Cable Loss + Transient Limiter Attenuation
The corrected factor has been input into the transducer of the test software.
- 2) Corrected Amplitude = Reading + Correction Factor
(The reading was calculated auto by test software and no reading indicated in data table)
- 3) Margin = Limit – Corrected Amplitude(QuasiPeak or CAverage)

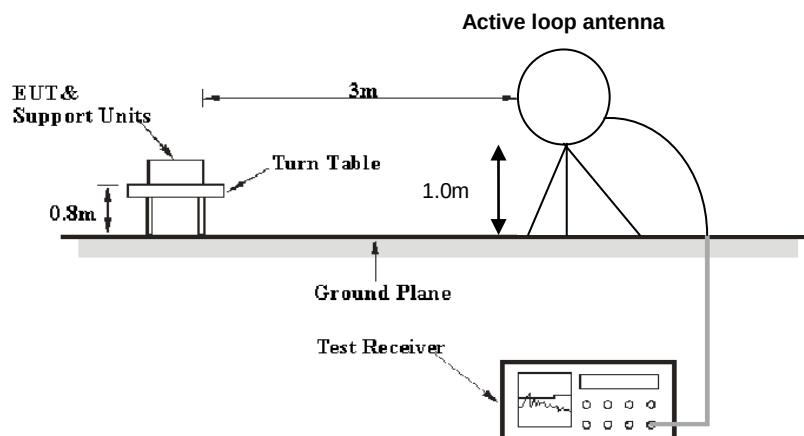
FCC §15.209, §15.205 & §15.247(d) - RADIATED SPURIOUS EMISSIONS & BAND EDGE

Applicable Standard

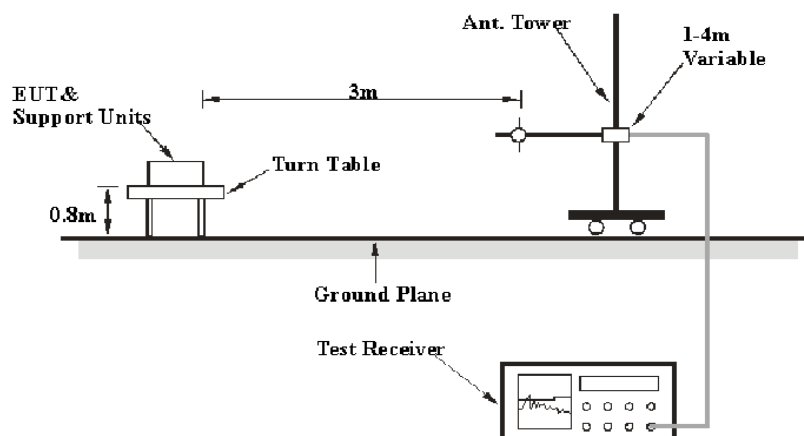
FCC §15.247 (d); §15.209; §15.205;

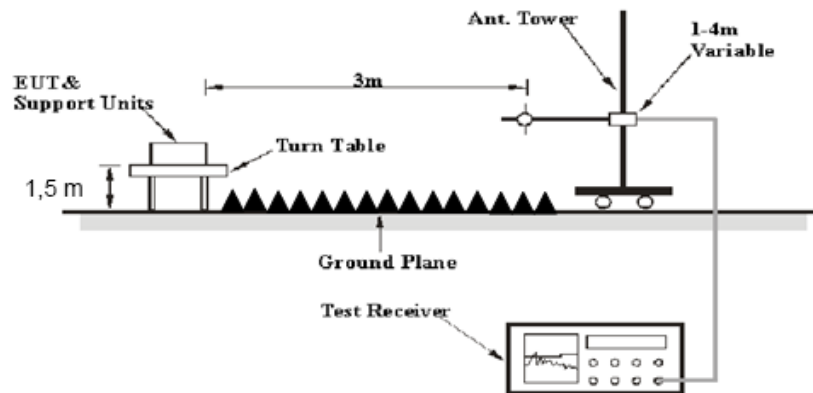
EUT Setup

9 kHz – 30 MHz:



30 MHz - 1GHz:



Above 1GHz:

The radiated emission tests were performed in the 3 meters chamber test site, 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.

The spacing between the peripherals was 10 cm.

EMI Test Receiver & Signal Analyzer Setup

The system was investigated from 9 kHz to 10 GHz.

During the radiated emission test, the EMI test receiver or Signal Analyzer was set with the following configurations:

Frequency Range	RBW	Video B/W	Measurement	Detector
9 kHz – 150 kHz	200 Hz	1 kHz	PK	PK
	200 Hz	/	QP	QP
150 kHz – 30 MHz	9 kHz	30 kHz	PK	PK
	9 kHz	/	QP	QP
30 MHz – 1000 MHz	120 kHz	500 kHz	PK	PK
	120 kHz	/	QP	QP

Mode	Frequency Range	Duty Cycle	RBW	Video B/W	Measurement	Detector
SPA	Above 1GHz	Any	1 MHz	3 MHz	PK	PK
		>98%	1 MHz	10 Hz	AV	PK
		<98%	1 MHz	$\geq 1/T_{on}$	AV	PK
EMI	Above 1GHz	Pre-scan				
		Any	1 MHz	3 MHz	PK	PK
		Any	1 MHz	3 MHz	AV	AV
		Final measurement				
		Any	1 MHz	/	PK	PK
		Any	1 MHz	/	AV	CAV

Note: T_{on} is minimum transmission duration.

The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1GHz. Radiated emission limits in these three bands are based on measurements employing an average detector.

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.

Test Procedure

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

Data was recorded in Quasi-peak detection mode for frequency range of 30 MHz-1 GHz, peak and Average detection modes for frequencies above 1 GHz.

Corrected Amplitude & Margin Calculation

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

where

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

E_{Log} is the field strength of the emission, in dBuV/m

For 9 kHz-30 MHz test, the test distance is 3m, so the extrapolation limit shall be calculated by the below equation:

$$E_{MeaLimit} = E_{SpecLimit} + 40 \times \log(D_{Spec}/D_{Mea})$$

$$E[dB(\mu V/m)] = V[dB(\mu V)] + L_c[dB] - G_{PA}[dB] + AF^E [dB(m^{-1})]$$

$$H[dB(\mu A/m)] = E[dB(\mu V/m)] - 51.5dB$$

E is the electric field strength (to be compared with the limit),

H is the magnetic field strength (to be compared with the limit),

V is the voltage level measured by the receiver or spectrum analyzer,

L_c is the cable loss,

G_{PA} is the gain of the preamplifier (if used), and

AF^E is the electric antenna factor

The Corrected Amplitude is calculated by adding the Antenna Loss and Cable Loss, and subtracting the Amplifier Gain from the Meter Reading. The basic equation is as follows:

$$\text{Corrected Amplitude (MaxPeak or QuasiPeak)} = \text{Meter Reading} + \text{Antenna Loss} + \text{Cable Loss} - \text{Amplifier Gain}$$

The “**Margin**” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of 7dB means the emission is 7dB below the limit. The equation for margin calculation is as follows:

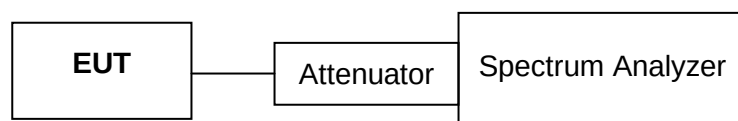
$$\text{Margin} = \text{Limit} - \text{Corrected Amplitude}$$

Conducted Spurious Emission At Antenna Port:

Connect the antenna port through an attenuator to the spectrum analyzer input; in the results, account for all losses between the unlicensed wireless device output and the spectrum analyzer. The instrument shall span 30 MHz to 10 times the operating frequency in GHz, with a resolution bandwidth of 100 kHz, video bandwidth of 300 kHz, and a coupled sweep time with a peak detector.

- a) Set the center frequency and span to encompass frequency range to be measured.
- b) Set the RBW = 100 kHz.
- c) Set the VBW $\geq [3 \times \text{RBW}]$.
- d) Detector = peak.
- e) Sweep time = No faster than coupled (auto) time.
- f) Trace mode = max-hold.
- g) Allow trace to fully stabilize.
- h) Use the peak marker function to determine the maximum unwanted emissions amplitude level.

Test Setup Block



Test Data

Test Environment Conditions

Temperature:	21 °C	25 °C
Relative Humidity:	57 %	47 %
ATM Pressure:	95 kPa	96.0 kPa
Date:	2026-05-14	2026-06-10

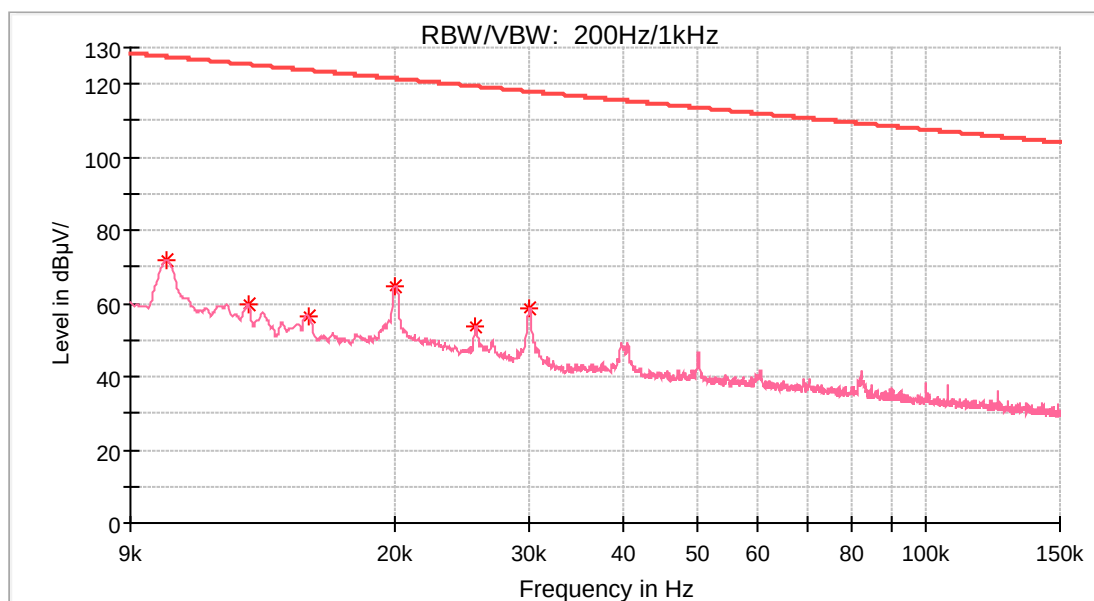
The testing was performed by Jack Cheng.

Test Mode: Transmitting

- Note: 1. Configuration the antenna of EUT with Y-axis and it is the worst case.
2. The active loop antenna was performed for three orientations (parallel, perpendicular, ground parallel) and perpendicular is worst case

Radiated Spurious Emissions:**1) 9 kHz to 150 kHz_low channel_with maximum power output**

Perpendicular:



Project No.: RSC260507001 Tester: Jack Cheng

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Azimuth (deg)	Corr. (dB)
0.010043	71.93	127.55	55.62	100.0	352.0	24.2
0.012835	59.78	125.42	65.64	100.0	126.0	23.3
0.015430	56.50	123.82	67.32	100.0	120.0	24.3
0.020083	64.90	121.53	56.63	100.0	217.0	26.0
0.025610	53.91	119.42	65.51	100.0	322.0	25.4
0.030150	58.77	118.00	59.23	100.0	3.0	25.0

Note:

Corrected Amplitude = Corrected Factor + Reading

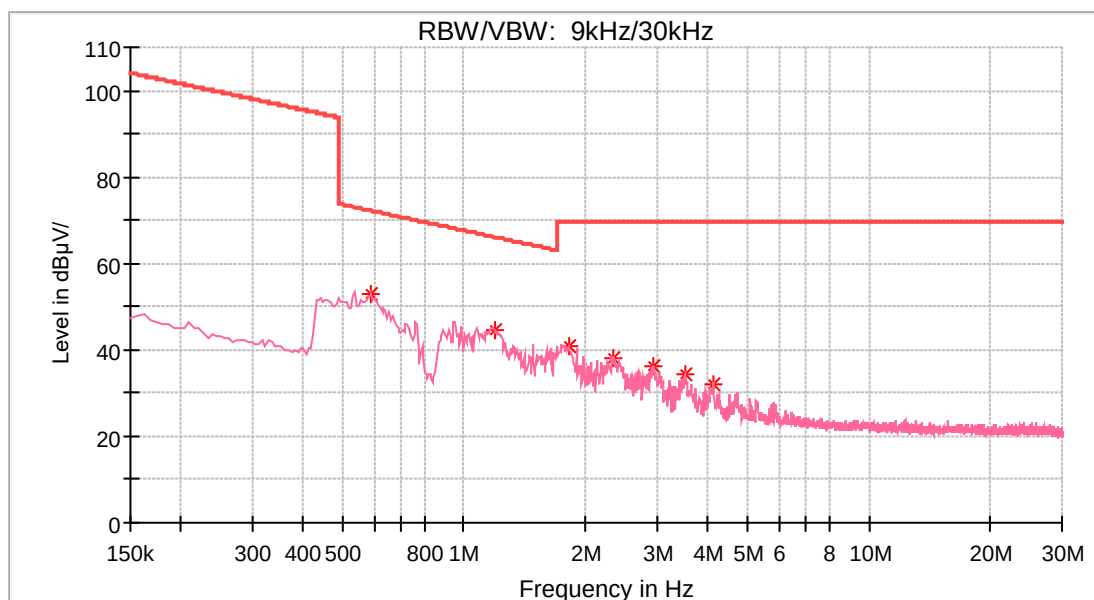
(Note: The reading was calculated auto by test software and no reading indicated in data table)

Corrected Factor=Antenna factor (RX) + Cable Loss – Amplifier Factor

Margin = Limit- Corr. Amplitude (MaxPeak, QuasiPeak or Average)

2) 150 kHz to 30 MHz_low channel_ with maximum power output

Perpendicular:



Project No.: RSC260507001 Tester: Jack Cheng

Frequency (MHz)	MaxPeak (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Height (cm)	Azimuth (deg)	Corr. (dB)
0.591780	52.88	72.17	19.28	100.0	269.0	2.4
1.188780	44.58	66.12	21.54	100.0	269.0	-2.2
1.809660	40.75	69.50	28.75	100.0	280.0	-3.9
2.346960	38.00	69.50	31.50	100.0	259.0	-4.8
2.937990	36.31	69.50	33.19	100.0	256.0	-5.3
3.505140	34.27	69.50	35.23	100.0	252.0	-5.8

Note:

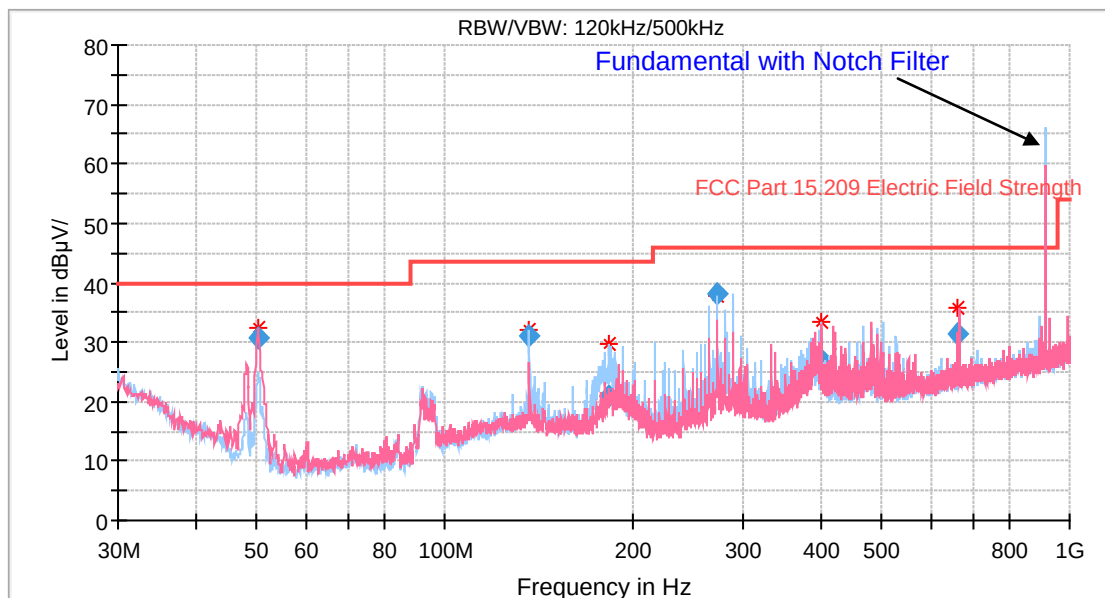
Corrected Amplitude = Corrected Factor + Reading

(Note: The reading was calculated auto by test software and no reading indicated in data table)

Corrected Factor=Antenna factor (RX) + Cable Loss – Amplifier Factor

Margin = Limit- Corr. Amplitude (MaxPeak, QuasiPeak or Average)

3) 30 MHz to 1 GHz_low channel_ with maximum power output



Project No.: RSC260507001 Tester: Jack Cheng

Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
50.423600	30.75	40.00	9.25	10000.0	120.000	104.0	V	112.0	-18.7
136.587800	30.90	43.50	12.60	10000.0	120.000	216.0	H	37.0	-12.7
182.809000	21.08	43.50	22.42	10000.0	120.000	181.0	H	199.0	-14.2
273.165000	38.27	46.00	7.73	10000.0	120.000	113.0	H	73.0	-11.8
399.857200	27.07	46.00	18.93	10000.0	120.000	217.0	H	217.0	-9.2
663.795400	31.24	46.00	14.76	10000.0	120.000	109.0	V	14.0	-4.4

Note:

Corrected Amplitude = Corrected Factor + Reading

(Note: The reading was calculated auto by test software and no reading indicated in data table)

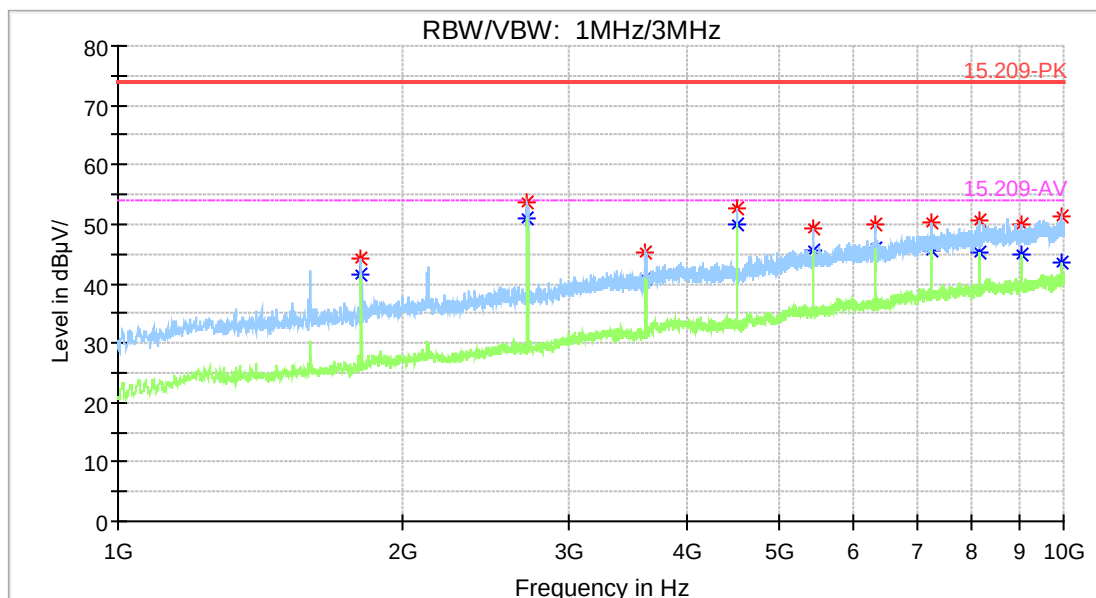
Corrected Factor=Antenna factor (RX) + Cable Loss – Amplifier Factor

Margin = Limit- Corr. Amplitude (MaxPeak, QuasiPeak or Average)

4) 1GHz-10GHz

Note: If the peak detected amplitude can be shown to comply with the average limit, then it is not necessary to perform a separate average measurement.

Low Channel_Horizontal



Project No.: RSC260507001 Tester: Jack Cheng

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Azimuth (deg)	Corr. (dB)
1807.300000	44.28	---	74.00	29.72	H	128.0	-13.1
1808.200000	---	41.38	54.00	12.62	H	128.0	-13.1
2711.800000	---	50.92	54.00	3.08	H	158.0	-9.6
2711.800000	53.63	---	74.00	20.37	H	158.0	-9.6
3614.500000	45.30	---	74.00	28.70	H	115.0	-6.7
3615.400000	---	40.79	54.00	13.21	H	104.0	-6.7
4519.900000	52.80	---	74.00	21.20	H	296.0	-5.1
4519.900000	---	49.80	54.00	4.20	H	292.0	-5.1
5424.400000	49.23	---	74.00	24.77	H	270.0	-2.6
5424.400000	---	45.54	54.00	8.46	H	270.0	-2.6
6327.100000	---	45.81	54.00	8.19	H	270.0	-1.8
6328.000000	49.95	---	74.00	24.05	H	254.0	-1.8
7230.700000	50.17	---	74.00	23.83	H	200.0	-0.3
7230.700000	---	45.59	54.00	8.41	H	200.0	-0.3
8135.200000	50.64	---	74.00	23.36	H	254.0	0.3
8137.900000	---	45.30	54.00	8.70	H	260.0	0.3
9038.800000	---	44.91	54.00	9.09	H	102.0	1.0
9038.800000	49.97	---	74.00	24.03	H	102.0	1.0
9927.100000	51.30	---	74.00	22.70	H	358.0	2.1
9944.200000	---	43.45	54.00	10.55	H	312.0	2.2

Note:

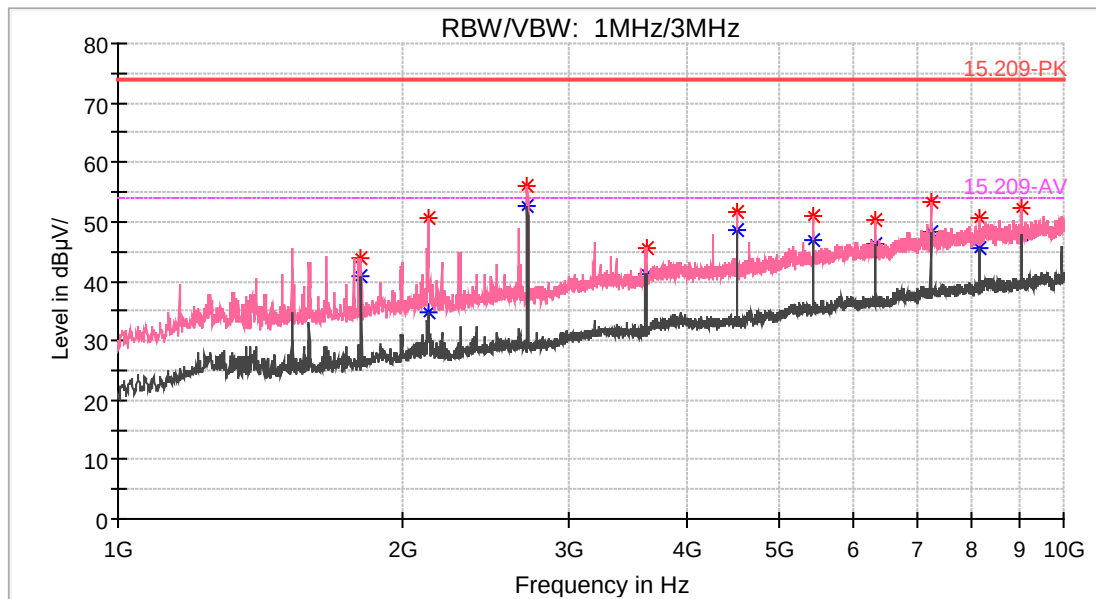
Corrected Amplitude = Corrected Factor + Reading

(Note: The reading was calculated auto by test software and no reading indicated in data table)

Corrected Factor=Antenna factor (RX) + Cable Loss – Amplifier Factor

Margin = Limit- Corr. Amplitude (MaxPeak or Average)

Low Channel_Vertical



Project No.: RSC260507001 Tester: Jack Cheng

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Azimuth (deg)	Corr. (dB)
1808.200000	---	40.83	54.00	13.17	V	109.0	-13.1
1808.200000	43.95	---	74.00	30.05	V	109.0	-13.1
2130.400000	---	34.86	54.00	19.14	V	282.0	-11.1
2132.200000	50.80	---	74.00	23.20	V	64.0	-11.1
2710.900000	55.94	---	74.00	18.06	V	143.0	-9.6
2710.900000	---	52.68	54.00	1.32	V	143.0	-9.6
3616.300000	45.57	---	74.00	28.43	V	32.0	-6.7
3616.300000	---	41.32	54.00	12.68	V	24.0	-6.7
4519.000000	51.51	---	74.00	22.49	V	353.0	-5.1
4520.800000	---	48.75	54.00	5.25	V	354.0	-5.1
5422.600000	51.07	---	74.00	22.93	V	148.0	-2.6
5422.600000	---	46.93	54.00	7.07	V	148.0	-2.6
6326.200000	50.34	---	74.00	23.66	V	281.0	-1.8
6328.900000	---	46.09	54.00	7.91	V	288.0	-1.8
7232.500000	53.34	---	74.00	20.66	V	281.0	-0.2
7232.500000	---	48.42	54.00	5.58	V	281.0	-0.2
8135.200000	---	45.58	54.00	8.42	V	126.0	0.3
8136.100000	50.52	---	74.00	23.48	V	270.0	0.3
9038.800000	---	47.90	54.00	6.10	V	126.0	1.0
9039.700000	52.41	---	74.00	21.59	V	306.0	1.0

Note:

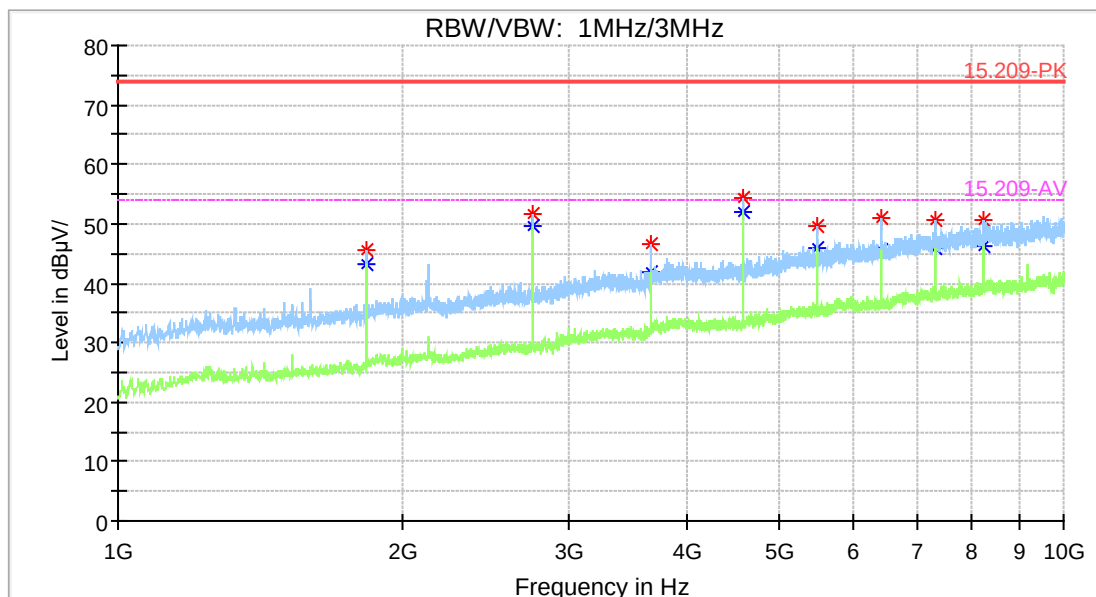
Corrected Amplitude = Corrected Factor + Reading

(Note: The reading was calculated auto by test software and no reading indicated in data table)

Corrected Factor=Antenna factor (RX) + Cable Loss – Amplifier Factor

Margin = Limit- Corr. Amplitude (MaxPeak or Average)

Middle Channel_Horizontal



Project No.: RSC260507001 Tester: Jack Cheng

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Azimuth (deg)	Corr. (dB)
1829.800000	45.55	---	74.00	28.45	H	184.0	-12.6
1829.800000	---	43.24	54.00	10.76	H	174.0	-12.6
2744.200000	---	49.75	54.00	4.25	H	152.0	-9.4
2744.200000	51.73	---	74.00	22.27	H	155.0	-9.4
3659.500000	---	41.82	54.00	12.18	H	306.0	-6.0
3660.400000	46.68	---	74.00	27.32	H	310.0	-6.0
4575.700000	---	51.83	54.00	2.17	H	296.0	-5.0
4575.700000	54.43	---	74.00	19.57	H	296.0	-5.0
5489.200000	---	46.03	54.00	7.97	H	271.0	-2.6
5490.100000	49.75	---	74.00	24.25	H	160.0	-2.6
6405.400000	50.92	---	74.00	23.08	H	263.0	-1.9
6405.400000	---	45.71	54.00	8.29	H	266.0	-1.9
7319.800000	50.74	---	74.00	23.26	H	206.0	0.0
7319.800000	---	45.92	54.00	8.08	H	206.0	0.0
8234.200000	50.74	---	74.00	23.26	H	276.0	0.5
8235.100000	---	46.33	54.00	7.67	H	260.0	0.5

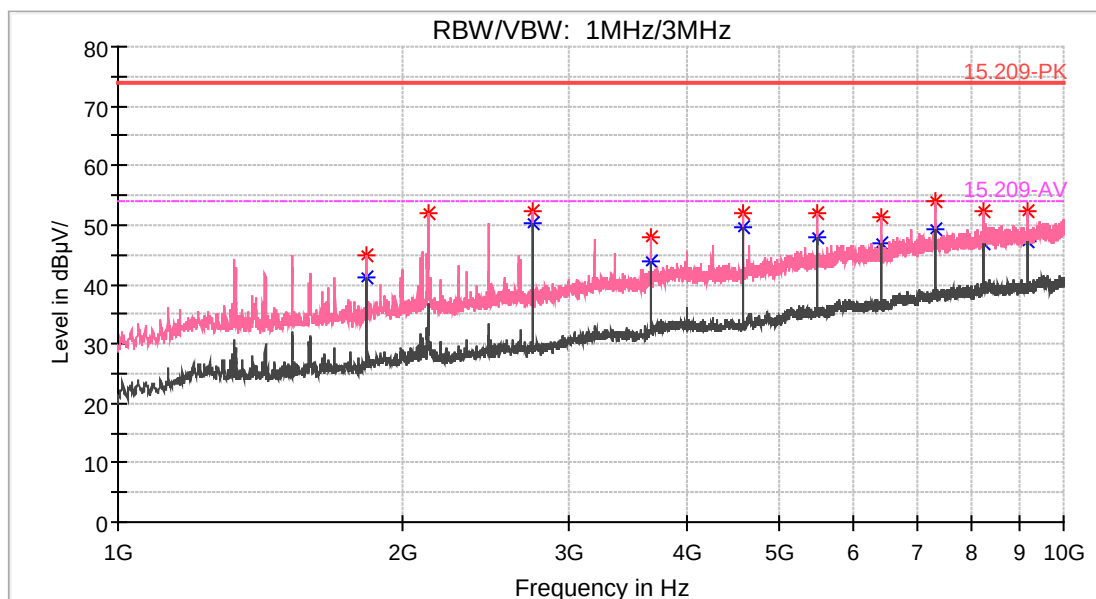
Note:

Corrected Amplitude = Corrected Factor + Reading

(Note: The reading was calculated auto by test software and no reading indicated in data table)

Corrected Factor=Antenna factor (RX) + Cable Loss – Amplifier Factor

Margin = Limit- Corr. Amplitude (MaxPeak or Average)

Middle Channel_Vertical

Project No.: RSC260507001 Tester: Jack Cheng

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Azimuth (deg)	Corr. (dB)
1829.800000	44.95	---	74.00	29.05	V	73.0	-12.6
1829.800000	---	41.33	54.00	12.67	V	1.0	-12.6
2132.200000	51.82	---	74.00	22.18	V	251.0	-11.1
2744.200000	---	50.38	54.00	3.62	V	324.0	-9.4
2745.100000	52.30	---	74.00	21.70	V	319.0	-9.4
3659.500000	47.91	---	74.00	26.09	V	169.0	-6.0
3659.500000	---	43.82	54.00	10.18	V	169.0	-6.0
4573.900000	51.85	---	74.00	22.15	V	353.0	-5.0
4573.900000	---	49.47	54.00	4.53	V	353.0	-5.0
5489.200000	---	47.93	54.00	6.07	V	171.0	-2.6
5491.000000	52.05	---	74.00	21.95	V	150.0	-2.6
6404.500000	51.45	---	74.00	22.55	V	281.0	-1.9
6406.300000	---	47.02	54.00	6.98	V	150.0	-1.9
7318.900000	53.93	---	74.00	20.07	V	298.0	0.0
7318.900000	---	49.23	54.00	4.77	V	298.0	0.0
8234.200000	---	46.83	54.00	7.17	V	134.0	0.5
8234.200000	52.19	---	74.00	21.81	V	134.0	0.5
9148.600000	---	47.38	54.00	6.62	V	89.0	0.9
9150.400000	52.20	---	74.00	21.80	V	57.0	0.9

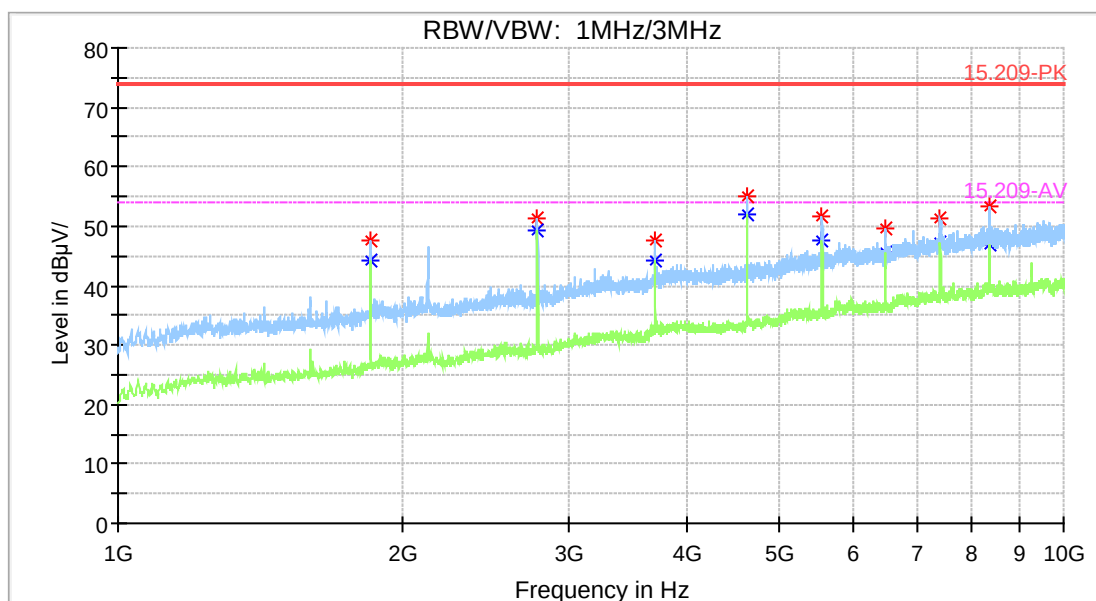
Note:

Corrected Amplitude = Corrected Factor + Reading

(Note: The reading was calculated auto by test software and no reading indicated in data table)

Corrected Factor=Antenna factor (RX) + Cable Loss – Amplifier Factor

Margin = Limit- Corr. Amplitude (MaxPeak or Average)

High Channel_Horizontal

Project No.: RSC260507001 Tester: Jack Cheng

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Azimuth (deg)	Corr. (dB)
1852.300000	---	44.28	54.00	9.72	H	115.0	-12.1
1852.300000	47.66	---	74.00	26.34	H	115.0	-12.1
2777.500000	51.42	---	74.00	22.58	H	228.0	-9.2
2777.500000	---	49.19	54.00	4.81	H	306.0	-9.2
3704.500000	47.60	---	74.00	26.40	H	59.0	-5.3
3704.500000	---	44.08	54.00	9.92	H	109.0	-5.3
4629.700000	55.13	---	74.00	18.87	H	304.0	-4.3
4629.700000	---	52.15	54.00	1.85	H	304.0	-4.3
5554.900000	51.58	---	74.00	22.42	H	163.0	-2.6
5554.900000	---	47.47	54.00	6.53	H	163.0	-2.6
6481.000000	49.56	---	74.00	24.44	H	259.0	-1.6
6481.900000	---	45.59	54.00	8.41	H	264.0	-1.6
7408.000000	---	47.09	54.00	6.91	H	206.0	0.3
7408.000000	51.19	---	74.00	22.81	H	206.0	0.3
8332.300000	---	46.90	54.00	7.10	H	249.0	0.7
8335.000000	53.29	---	74.00	20.71	H	255.0	0.8

Note:

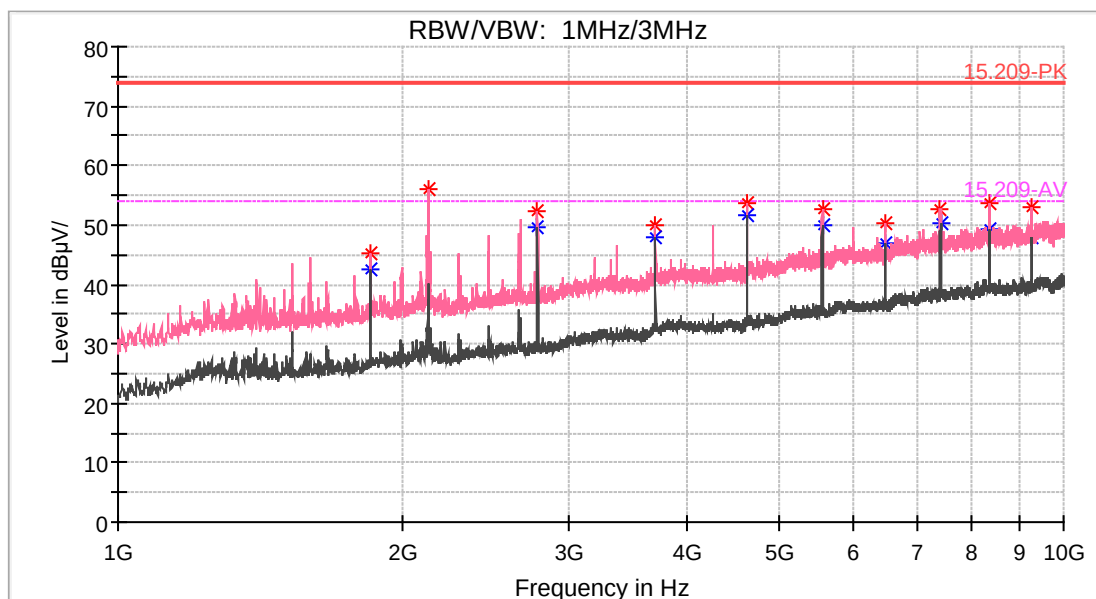
Corrected Amplitude = Corrected Factor + Reading

(Note: The reading was calculated auto by test software and no reading indicated in data table)

Corrected Factor=Antenna factor (RX) + Cable Loss – Amplifier Factor

Margin = Limit- Corr. Amplitude (MaxPeak or Average)

High Channel_Vertical



Project No.: RSC260507001 Tester: Jack Cheng

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Azimuth (deg)	Corr. (dB)
1851.400000	---	42.42	54.00	11.58	V	120.0	-12.1
1851.400000	45.17	---	74.00	28.83	V	120.0	-12.1
2126.800000	56.18	---	74.00	17.82	V	104.0	-11.1
2126.800000	---	40.82	54.00	13.18	V	104.0	-11.1
2778.400000	---	49.61	54.00	4.39	V	211.0	-9.2
2778.400000	52.30	---	74.00	21.70	V	0.0	-9.2
3704.500000	49.99	---	74.00	24.01	V	200.0	-5.3
3704.500000	---	47.93	54.00	6.07	V	200.0	-5.3
4629.700000	---	51.55	54.00	2.45	V	14.0	-4.3
4629.700000	53.77	---	74.00	20.23	V	14.0	-4.3
5555.800000	52.67	---	74.00	21.33	V	176.0	-2.6
5555.800000	---	50.02	54.00	3.98	V	176.0	-2.6
6481.000000	---	46.85	54.00	7.15	V	287.0	-1.6
6481.900000	50.30	---	74.00	23.70	V	276.0	-1.6
7408.000000	52.77	---	74.00	21.23	V	284.0	0.3
7409.800000	---	50.19	54.00	3.81	V	276.0	0.3
8332.300000	53.68	---	74.00	20.32	V	232.0	0.7
8335.000000	---	49.14	54.00	4.86	V	237.0	0.8
9259.300000	---	47.94	54.00	6.06	V	127.0	1.7
9262.900000	52.99	---	74.00	21.01	V	95.0	1.7

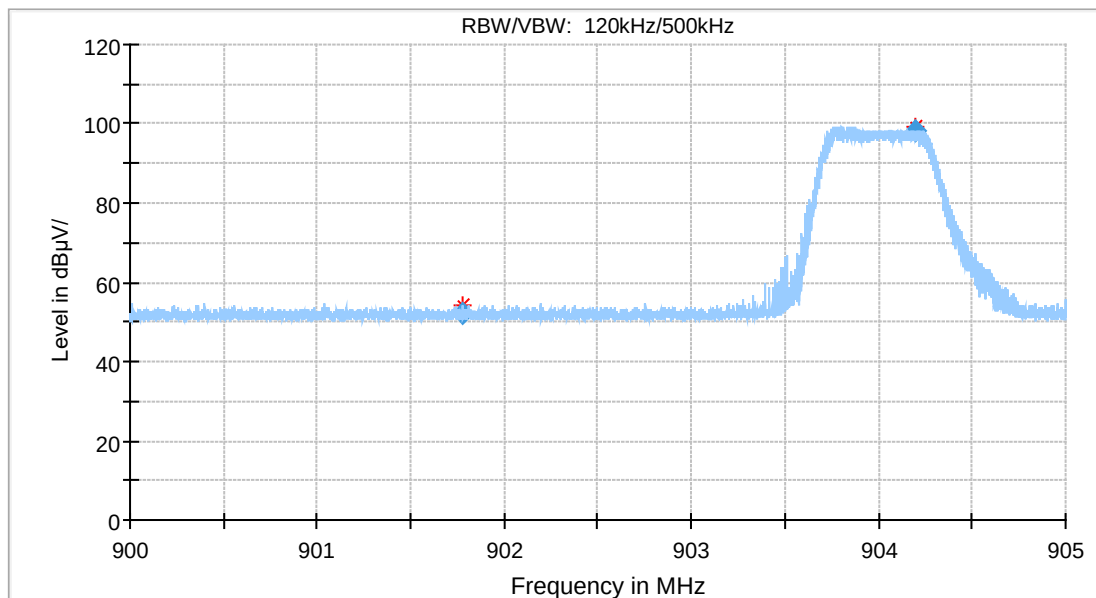
Note:

Corrected Amplitude = Corrected Factor + Reading

(Note: The reading was calculated auto by test software and no reading indicated in data table)

Corrected Factor=Antenna factor (RX) + Cable Loss – Amplifier Factor

Margin = Limit- Corr. Amplitude (MaxPeak or Average)

5) Band Edge (Measured without LNA)**Left_Horizontal**

Project No.: RSC260507001 Tester: Jack Cheng

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
904.193600	98.16	---	---	10000.0	120.000	103.0	H	350.0	31.2
901.772600	52.14	78.16	26.02	10000.0	120.000	165.0	H	185.0	31.2

Note:

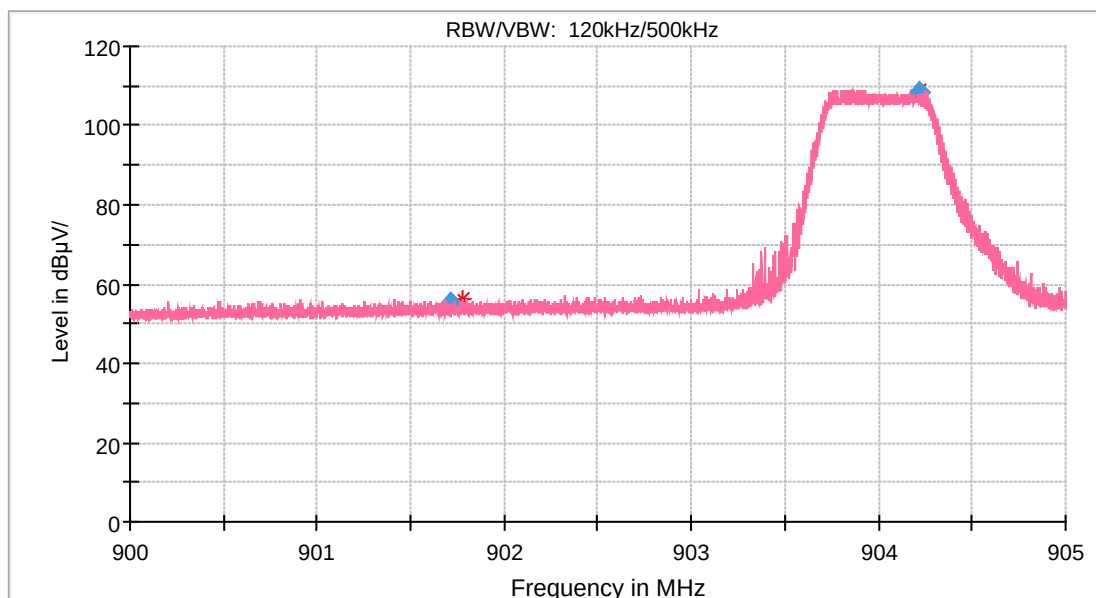
Corrected Amplitude = Corrected Factor + Reading

(Note: The reading was calculated auto by test software and no reading indicated in data table)

Corrected Factor=Antenna factor (RX) + Cable Loss

Margin = Limit- Corr. Amplitude (MaxPeak or QuasiPeak)

Left_Vertical



Project No.: RSC260507001 Tester: Jack Cheng

Frequency (MHz)	QuasiPeak (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
904.219100	108.34	---	---	10000.0	120.000	120.0	V	157.0	31.2
901.712400	55.00	88.34	33.34	10000.0	100.000	104.0	V	179.0	31.2

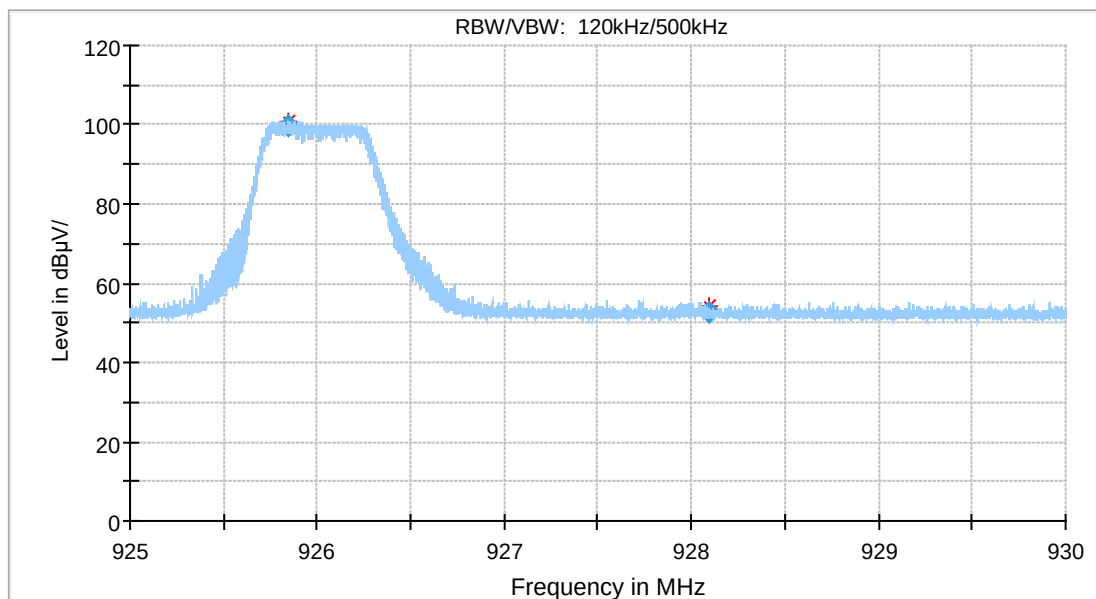
Note:

Corrected Amplitude = Corrected Factor + Reading

(Note: The reading was calculated auto by test software and no reading indicated in data table)

Corrected Factor=Antenna factor (RX) + Cable Loss – Amplifier Factor

Margin = Limit- Corr. Amplitude (MaxPeak, QuasiPeak)

Right_Horizontal

Project No.: RSC260507001 Tester: Jack Cheng

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
925.847727	99.76	---	---	10000.0	120.000	104.0	H	353.0	31.4
928.089113	52.52	79.76	27.24	10000.0	120.000	103.0	H	4.0	31.5

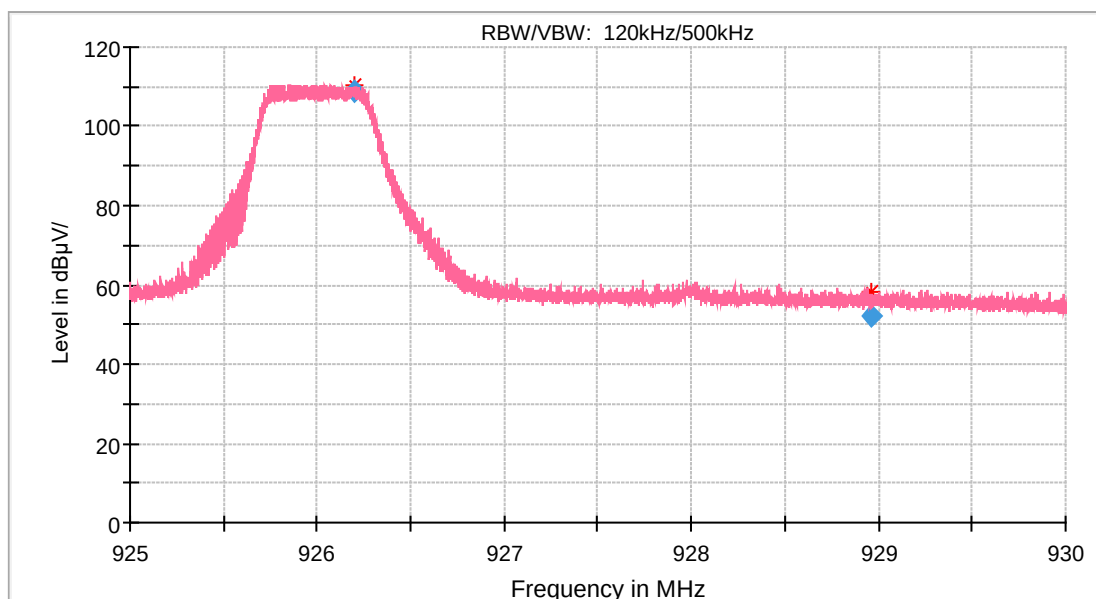
Note:

Corrected Amplitude = Corrected Factor + Reading

(Note: The reading was calculated auto by test software and no reading indicated in data table)

Corrected Factor=Antenna factor (RX) + Cable Loss

Margin = Limit- Corr. Amplitude (MaxPeak or QuasiPeak)

Right_Vertical

Project No.: RSC260507001 Tester: Jack Cheng

Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
926.203800	108.97	---	---	10000.0	120.000	120.0	V	161.0	31.4
928.963522	52.38	88.97	36.59	10000.0	120.000	108.0	V	165.0	31.5

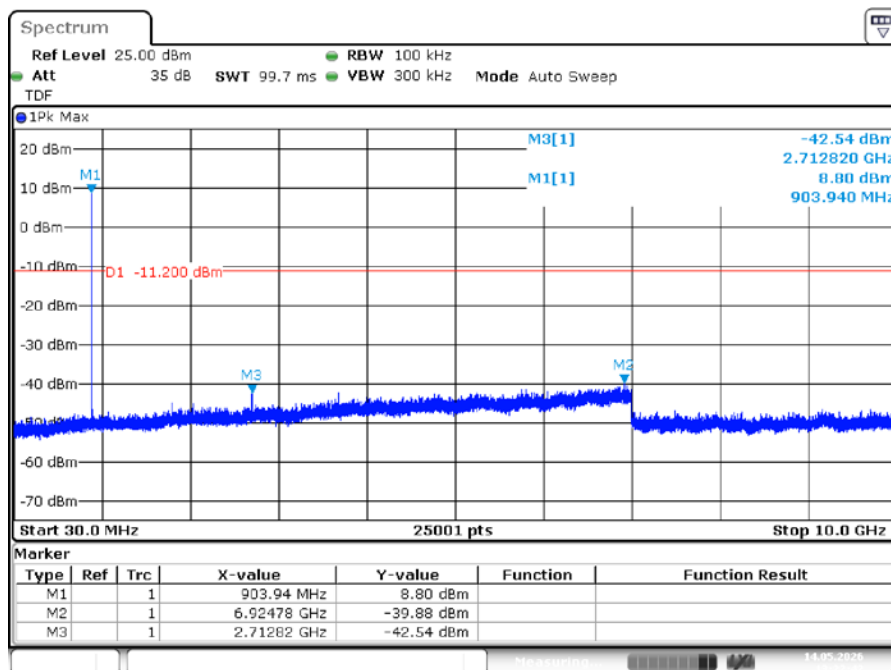
Note:

Corrected Amplitude = Corrected Factor + Reading

(Note: The reading was calculated auto by test software and no reading indicated in data table)

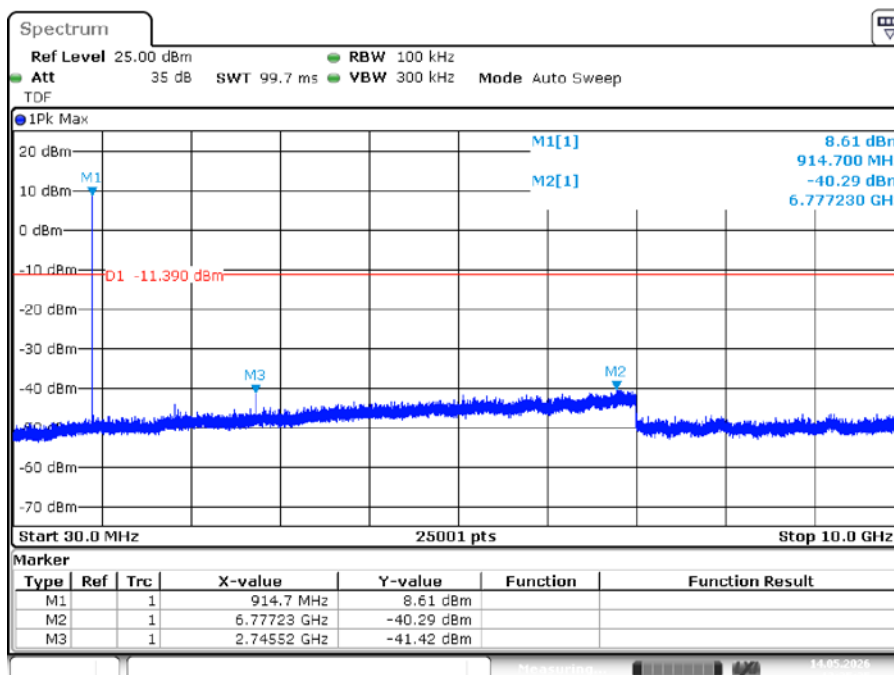
Corrected Factor=Antenna factor (RX) + Cable Loss

Margin = Limit- Corr. Amplitude (MaxPeak or QuasiPeak)

Conducted Spurious Emission At Antenna Port:**Low Channel**

Project No: RSC260507001 Tester: Jack Cheng

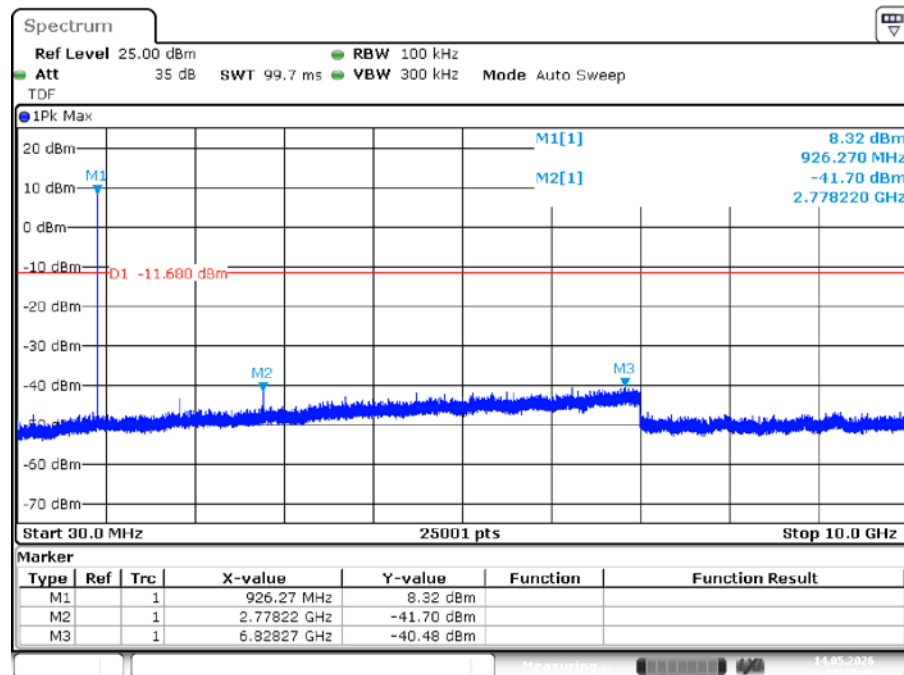
Date: 14.MAY.2026 13:22:42

Middle Channel

Project No: RSC260507001 Tester: Jack Cheng

Date: 14.MAY.2026 13:25:35

High Channel



Project.No:RSC260507001 Tester:Jack Cheng

Date: 14.MAY.2026 13:27:40

FCC §15.247(a) (2) – 6 dB EMISSION BANDWIDTH

Applicable Standard

Systems using digital modulation techniques may operate in the 902–928 MHz, 2400–2483.5 MHz, 5725–5850 MHz bands.

The minimum 6 dB bandwidth shall be at least SRD.

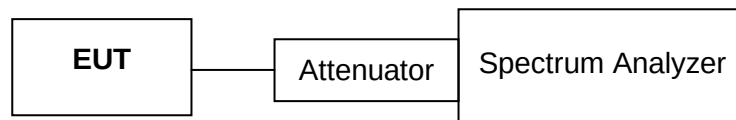
Test Procedure

ANSI C63.10-2020 Clause 11.8.1 Option 1

The steps for the first option are as follows:

- a) Set RBW = shall be in the range of 1% to 5% of the OBW but not less than 100 kHz.
- b) Set the VBW $\geq [3 \times \text{RBW}]$.
- c) Detector = peak.
- d) Trace mode = max-hold.
- e) Sweep = No faster than coupled (auto) time.
- f) Allow the trace to stabilize.
- g) Measure the maximum width of the emission by placing two markers, one at the lowest frequency and the other at the highest frequency of the envelope of the spectral display, such that each marker is at or slightly below the “–6 dB down amplitude”. If a marker is below this “–6 dB down amplitude” value, then it shall be as close as possible to this value.

Test Setup Block



Note: One short RF cable with low loss connected to the EUT antenna port.
The path loss of the RF cable/attenuator was offset into the setting of test equipment.

Test Data

Environmental Conditions

Temperature:	21 °C
Relative Humidity:	57 %
ATM Pressure:	95 kPa

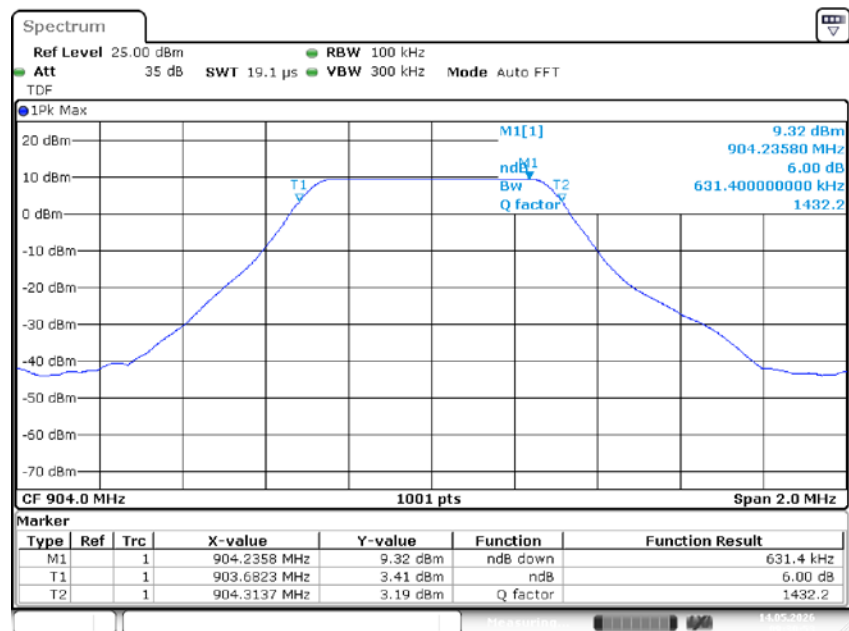
The testing was performed by Jack Cheng on 2026-05-14.

Test Mode: Transmitting

Test Result: Compliance. Please refer to the following table and plots.

Mode	Channel	Frequency (MHz)	Result (kHz)	Limit (kHz)
LoRa	Low	904	631.40	≥500
	Middle	915	625.40	
	High	926	631.40	

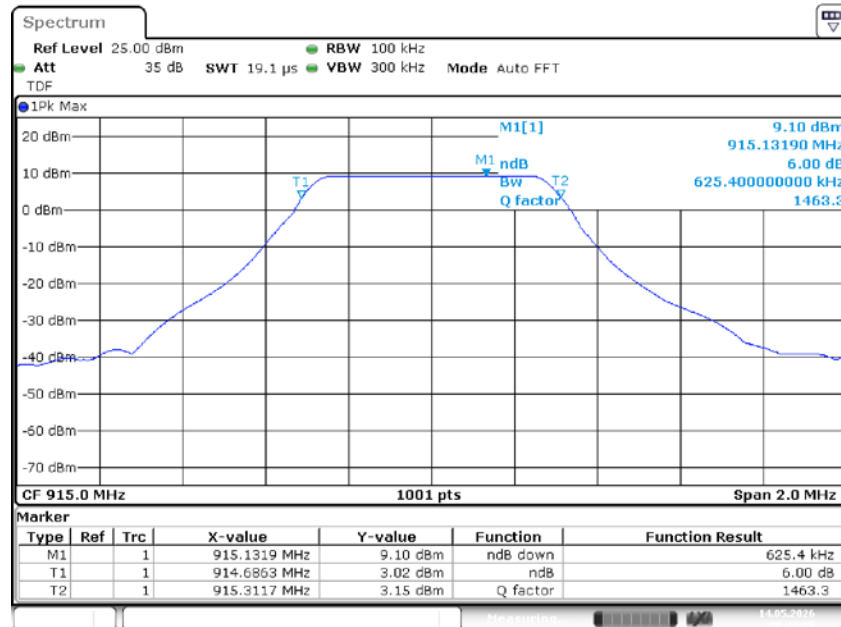
Low Channel



Project No: RSC260507001 Tester: Jack Cheng

Date: 14.MAY.2026 09:30:53

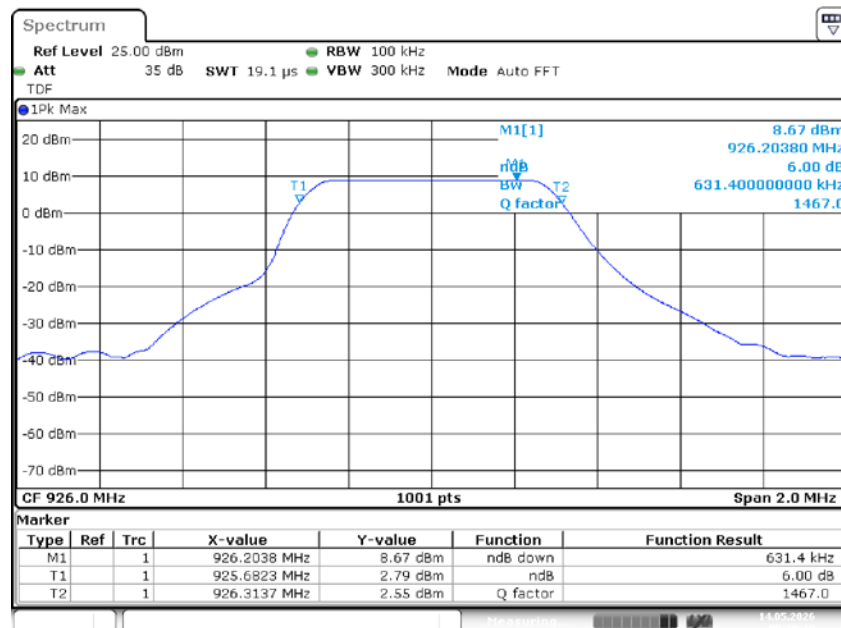
Middle Channel



Project No: RSC260507001 Tester: Jack Cheng

Date: 14.MAY.2026 09:34:08

High Channel



Project No: RSC260507001 Tester: Jack Cheng

Date: 14.MAY.2026 09:36:19

FCC §15.247(b) (3) - MAXIMUM CONDUCTED OUTPUT POWER

Applicable Standard

According to FCC §15.247(b) (3), for systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt. As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power. Maximum Conducted Output Power is defined as the total transmit power delivered to all antennas and antenna elements averaged across all symbols in the signaling alphabet when the transmitter is operating at its maximum power control level. Power must be summed across all antennas and antenna elements. The average must not include any time intervals during which the transmitter is off or is transmitting at a reduced power level. If multiple modes of operation are possible (e.g., alternative modulation methods), the maximum conducted output power is the highest total transmit power occurring in any mode.

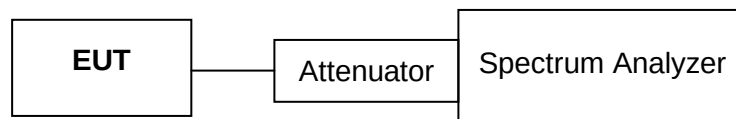
Test Procedure

ANSI C63.10-2020 Clause 11.9.1.1 $RBW \geq DTS$ bandwidth

The following procedure shall be used when an instrument with a resolution bandwidth that is greater than the DTS bandwidth is available to perform the measurement:

- a) Set the $RBW \geq DTS$ bandwidth.
- b) Set $VBW \geq [3 \times RBW]$.
- c) Set $span \geq [3 \times RBW]$.
- d) Sweep time = No faster than coupled (auto) time.
- e) Detector = peak.
- f) Trace mode = max hold.
- g) Allow trace to fully stabilize.
- h) Use peak marker function to determine the peak amplitude level.

Test Setup Block



Note: One short RF cable with low loss connected to the EUT antenna port.
The path loss of the RF cable/attenuator was offset into the setting of test equipment.

Test Data

Temperature:	21 °C
Relative Humidity:	57 %
ATM Pressure:	95 kPa

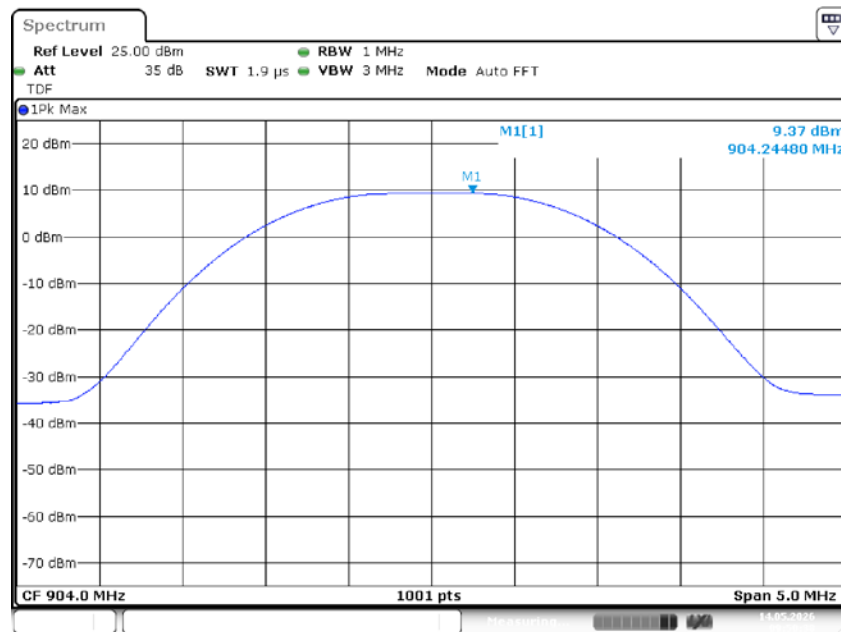
The testing was performed by Jack Cheng on 2026-05-14.

Test Mode: Transmitting

Test Result: Compliance. Please refer to the following table and plots.

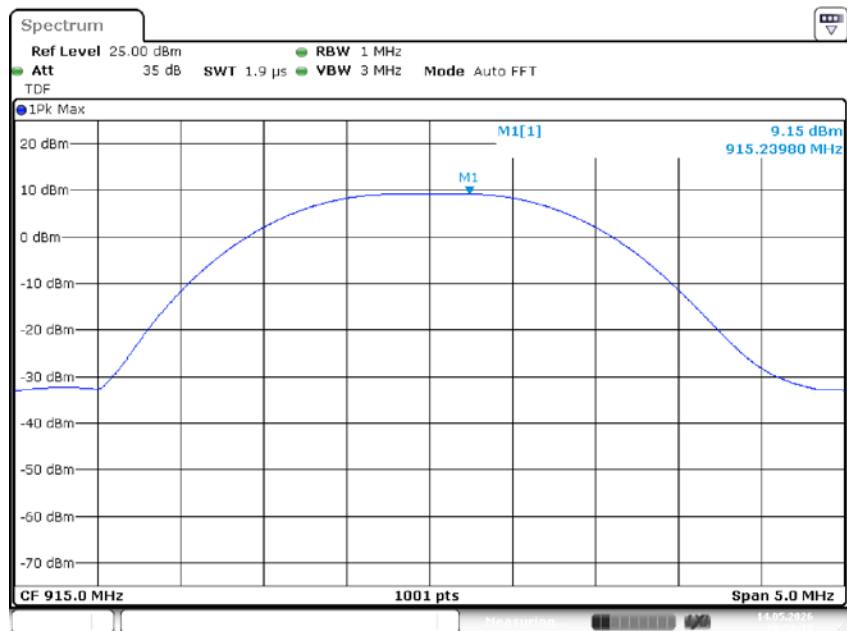
Mode	Channel	Frequency (MHz)	Conducted output power (dBm)	Limit (dBm)
LoRa	Low	904	9.37	≤30
	Middle	915	9.15	
	High	926	8.82	

Low Channel



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Date: 14 MAY 2026 09:50:38

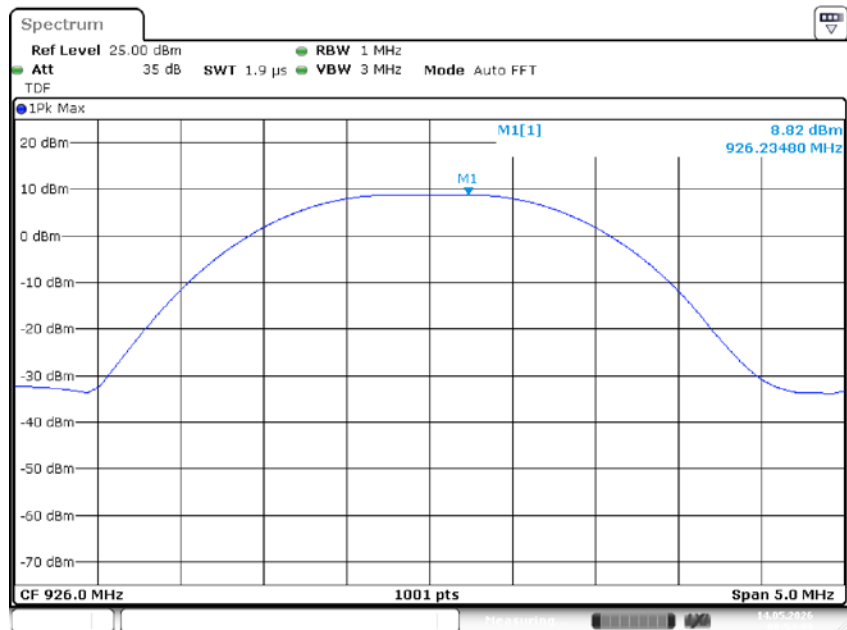
Middle Channel



Project No: RSC260507001 Tester: Jack Cheng

Date: 14 MAY 2026 09:52:19

High Channel



Project No: RSC260507001 Tester: Jack Cheng

Date: 14 MAY 2026 09:54:08

FCC §15.247(d) – 100 kHz BANDWIDTH OF FREQUENCY BAND EDGE

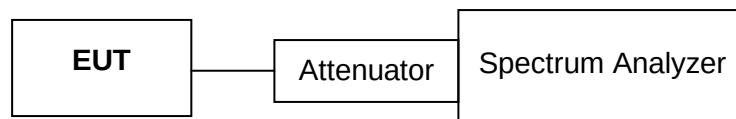
Applicable Standard

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)).

Test Procedure

1. Set RBW to 100 kHz and VBW of spectrum analyzer to 300 kHz with a convenient frequency span including 100 kHz bandwidth from band edge.
2. Measure the highest amplitude appearing on spectral display and set it as a reference level. Plot the graph with marking the highest point and edge frequency.
3. Repeat above procedures until all measured frequencies were complete.

Test Setup Block



Note: One short RF cable with low loss connected to the EUT antenna port.
The path loss of the RF cable/attenuator was offset into the setting of test equipment.

Test Data

Environmental Conditions

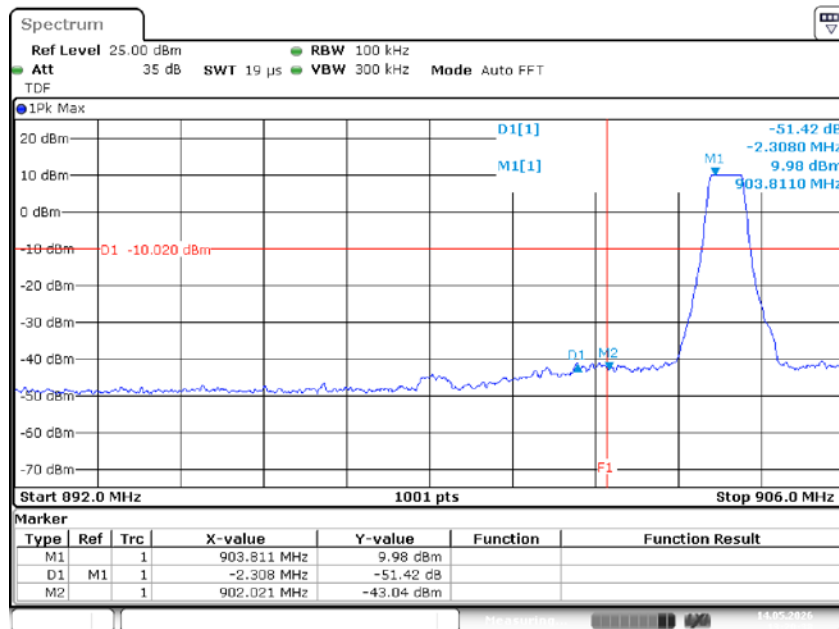
Temperature:	21 °C
Relative Humidity:	57 %
ATM Pressure:	95 kPa

The testing was performed by Jack Cheng on 2026-05-14.

Test mode: Transmitting

Test Result: Compliance. Please refer to following plots.

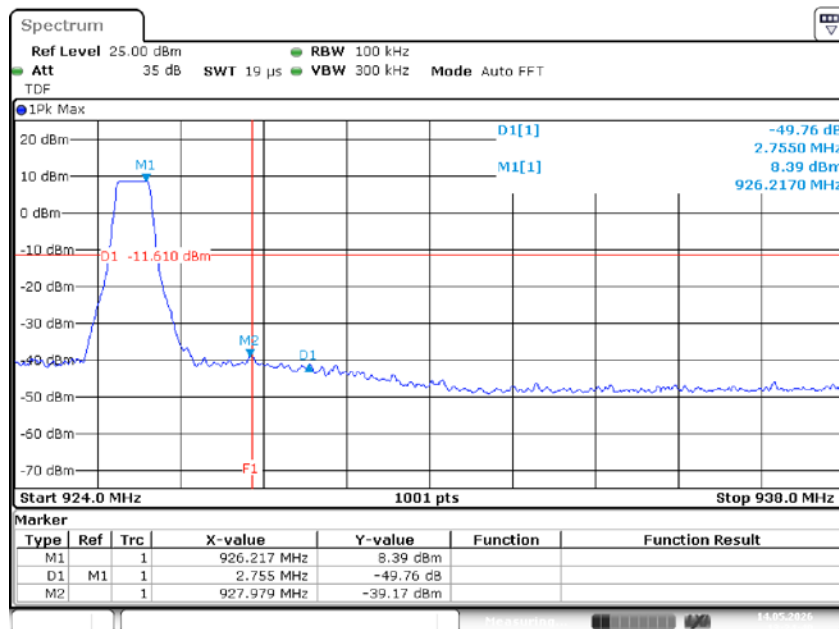
Band Edge, Left Side



Project No: RSC260507001 Tester: Jack Cheng

Date: 14 MAY 2026 13:20:38

Band Edge, Right Side



Project No: RSC260507001 Tester: Jack Cheng

Date: 14 MAY 2026 13:24:40

FCC §15.247(e) - POWER SPECTRAL DENSITY

Applicable Standard

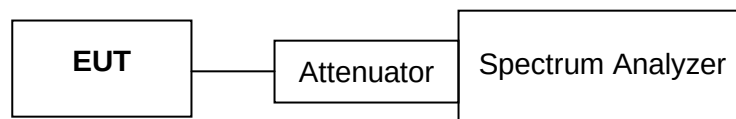
For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of paragraph (b) of this section. The same method of determining the conducted output power shall be used to determine the power spectral density.

Test Procedure

ANSI C63.10-2020 Clause 11.10.2(PKPSD)

- a) Set analyzer center frequency to DTS channel center frequency.
- b) Set the span >1.5 times the DTS bandwidth.
- c) Set the RBW to $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.
- d) Set the VBW $\geq [3 \times \text{RBW}]$.
- e) Detector = peak.
- f) Sweep time = No faster than coupled (auto) time.
- g) Trace mode = max-hold.
- h) Allow trace to fully stabilize.
- i) Use the peak marker function to determine the maximum amplitude level within the RBW.
- j) If measured value exceeds requirement, then reduce RBW (but no less than 3 kHz) and repeat.

Test Setup Block



Note: One short RF cable with low loss connected to the EUT antenna port.
The path loss of the RF cable/attenuator was offset into the setting of test equipment.

Test Data

Environmental Conditions

Temperature:	21 °C
Relative Humidity:	57 %
ATM Pressure:	95 kPa

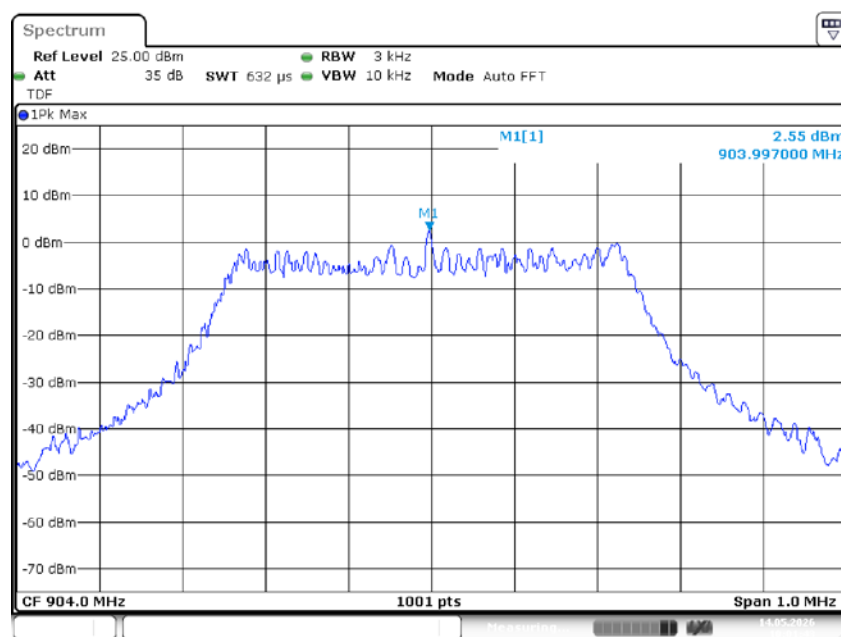
The testing was performed by Jack Cheng on 2026-05-14.

Test Mode: Transmitting

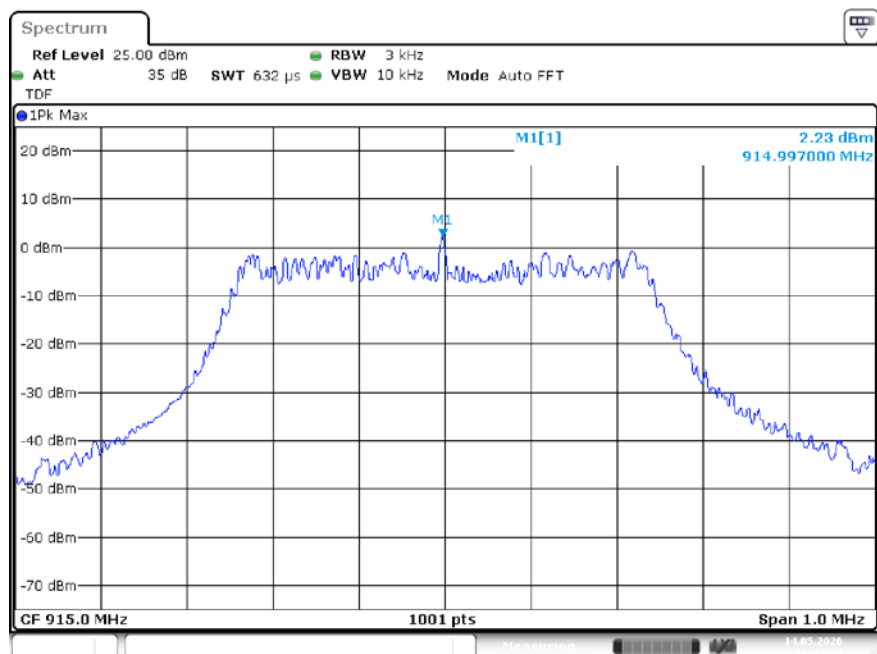
Test Result: Compliance. Please refer to the following table and plots.

Mode	Channel	Frequency (MHz)	Result (dBm/3kHz)	Limit (dBm/3kHz)
LoRa	Low	904	2.55	≤8.0
	Middle	915	2.23	
	High	926	1.86	

Power Spectral Density, Low Channel



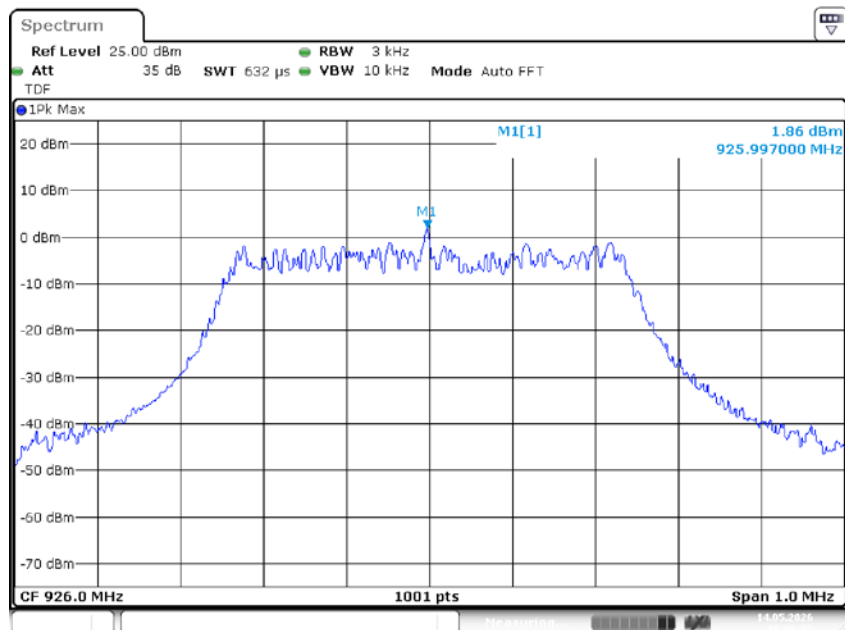
Power Spectral Density, Middle Channel



Project.No:RSC260507001 Tester:Jack Cheng

Date: 14.MAY.2026 10:03:54

Power Spectral Density, High Channel



Project.No:RSC260507001 Tester:Jack Cheng

Date: 14.MAY.2026 10:06:36

DUTY CYCLE

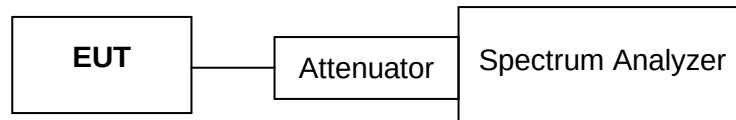
Test Procedure

ANSI C63.10-2020 Clause 11.6

Measurements of duty cycle and transmission duration shall be performed using one of the following techniques:

- a) A diode detector and an oscilloscope that together have a sufficiently short response time to permit accurate measurements of the ON and OFF times of the transmitted signal.
- b) The zero-span mode on a spectrum analyzer or EMI receiver if the response time and spacing between bins on the sweep are sufficient to permit accurate measurements of the ON and OFF times of the transmitted signal:
 - 1) Set the center frequency of the instrument to the center frequency of the transmission.
 - 2) Set RBW $\geq$ OBW if possible; otherwise, set RBW to the largest available value.
 - 3) Set VBW $\geq$ RBW. Set detector = peak or average.
 - 4) The zero-span measurement method shall not be used unless both RBW and VBW are $> 50/T$ and the number of sweep points across duration T exceeds 100. (For example, if VBW and/or RBW are limited to 3 MHz, then the zero-span method of measuring the duty cycle shall not be used if $T \leq 16.7 \mu\text{s}$.)

Test Setup Block



Note: One short RF cable with low loss connected to the EUT antenna port.
The path loss of the RF cable/attenuator was offset into the setting of test equipment.

Test Data

Environmental Conditions

Temperature:	21 °C
Relative Humidity:	57 %
ATM Pressure:	95 kPa

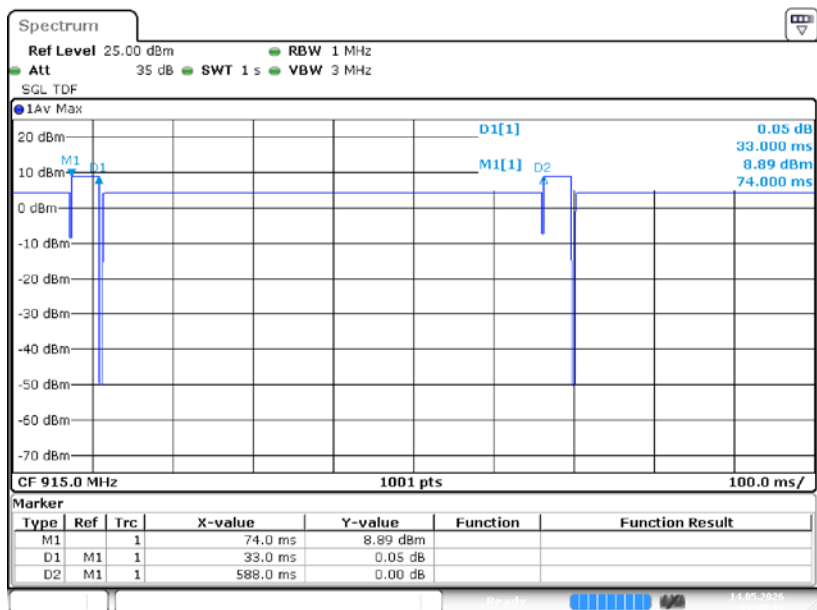
The testing was performed by Jack Cheng on 2026-05-14.

Test Mode: Transmitting

Test Result: Compliance. Please refer to the following table and plots.

Mode	T _{on}	T _p	Duty Cycle	1/ T _{on}	VBW Setting
	(ms)	(ms)	(%)	(kHz)	(kHz)
LoRa	93.6	100	93.6	0.01	0.01

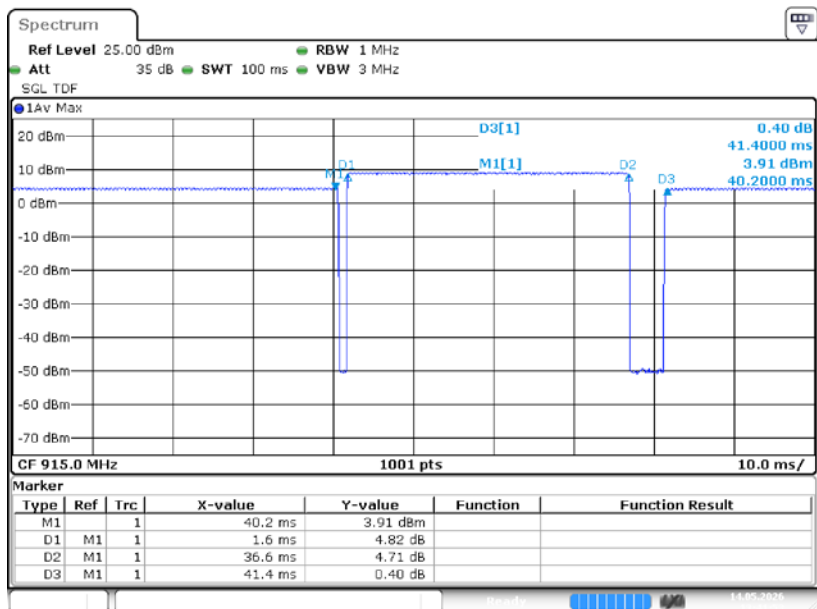
Duty Cycle (1s)



Project No: RSC260507001 Tester: Jack Cheng

Date: 14 MAY 2026 13:40:12

Duty Cycle (100ms)



Project No: RSC260507001 Tester: Jack Cheng

Date: 14 MAY 2026 13:41:53

TEST SETUP PHOTOGRAPHS

Please refer to EXHIBIT D - TEST SETUP PHOTOGRAPHS.

EUT PHOTOGRAPHS

Please refer to EXHIBIT B – EUT EXTERNAL PHOTOGRAPHS and EXHIBIT C – EUT INTERNAL PHOTOGRAPHS.

END OF REPORT