中认信通
CHINA CERTIFICATION ICT CO., LTD (DONGGUAN)

ACCREDITED
TESTING LABORATORY
CERTIFICATE # 6356.01

TEST REPORT

Applicant: **Iconnect**

Address: No.9, Aly. 58, Ln. 112, Ruiguang Rd., Neihu Dist., Taipei City, Taiwan

FCC ID: **2AB8772921**

Product Name: **IEEE 802.11ah sub 1 GHz Devices**

Standard(s): **47 CFR Part 15, Subpart C(15.247)**
ANSI C63.10-2013
KDB 558074 D01 15.247 Meas Guidance v05r02

The above device has been tested and found compliant with the requirement of the relative standards by China Certification ICT Co., Ltd (Dongguan)

Report Number: **CR240100355-00B**

Date Of Issue: **2024/3/5**

Reviewed By: **Calvin Chen**

Title: RF Engineer

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Title: Manager

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Test Facility

The Test site used by China Certification ICT Co., Ltd (Dongguan) to collect test data is located on the No. 113, Pingkang Road, Dalang 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. : 442868, the FCC Designation No. : CN1314.

Declarations

China Certification ICT Co., Ltd (Dongguan) is not responsible for the authenticity of any test data provided by the applicant. Data included from the applicant that may affect test results are marked with a triangle symbol "▲". Customer model name, addresses, names, trademarks etc. are not considered data.

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

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CONTENTS

DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
1.0	CR240100355-00B	Original Report	2024/3/5

1.1 Product Description for Equipment under Test (EUT)

EUT Name:	IEEE 802.11ah sub 1 GHz Devices
EUT Model:	AHMC7292S
Multiple Model:	AHMC7292S-UART, AHM27292XXX,AHPI7292XXX, AHMB7292XXX, Tube-AHXXX, N2Q-AHXXX, HaLow-XXXX, AHST7394XXX, AHMB7394XXX, AHM27394XXX, AHPI7394XXX(X:Any alphanumeric character or blank)
Operation Frequency:	1MHz Bandwidth: 903.5-926.5 MHz 2MHz Bandwidth: 905-925 MHz 4MHz Bandwidth: 906-926 MHz
Maximum Peak Output Power (Conducted):	19.9 dBm
Modulation Type:	OFDM with BPSK, QPSK, 16-QAM, 64-QAM
Rated Input Voltage:	DC 5V
Serial Number:	2G2H-1
EUT Received Date:	2024/1/2
EUT Received Status:	Good
Note: The Multiple models is electrically identical with test model, please refer to the declaration letter for more detail, which was provided by manufacturer.	

Operation Frequency Detail:

IEEE802.11ah_1MHz Bandwidth Mode					
Channel	**Frequency (MHz)**	**Channel**	**Frequency (MHz)**	**Channel**	**Frequency (MHz)**
1	**903.5**	10	912.5	19	921.5
2	904.5	11	913.5	20	922.5
3	905.5	**12**	**914.5**	21	923.5
4	906.5	13	915.5	22	924.5
5	907.5	14	916.5	23	925.5
6	908.5	15	917.5	**24**	**926.5**
7	909.5	16	918.5	/	/
8	910.5	17	919.5	/	/
9	911.5	18	920.5	/	/

Per section 15.31(m), the below frequencies were performed the test:

Test Channel	Frequency (MHz)
Lowest	903.5
Middle	914.5
Highest	926.5

IEEE802.11ah_2MHz Bandwidth Mode			
Channel	**Frequency (MHz)**	**Channel**	**Frequency (MHz)**
1	**905**	7	917
2	907	8	919
3	909	9	921
4	911	10	923
5	913	**11**	**925**
6	**915**	/	/

Per section 15.31(m), the below frequencies were performed the test:	
Test Channel	**Frequency (MHz)**
Lowest	905
Middle	915
Highest	925

IEEE802.11ah_4MHz Bandwidth Mode			
Channel	**Frequency (MHz)**	**Channel**	**Frequency (MHz)**
1	**906**	4	918
2	910	5	922
3	**914**	**6**	**926**

Per section 15.31(m), the below frequencies were performed the test:	
Test Channel	**Frequency (MHz)**
Lowest	906
Middle	914
Highest	926

Antenna Information Detail▲:

Antenna Type	input impedance (Ohm)	Frequency Range (MHz)	Antenna Gain (dBi)
Dipole Antenna	50	902-928	0

The Method of §15.203 Compliance:

☐Antenna was permanently attached to the unit.

☒Antenna use a unique type of connector to attach to the EUT.

☐Unit was professionally installed, and installer shall be responsible for verifying that the correct antenna is employed with the unit.

Accessory Information:

No

1.2 Description of Test Configuration

1.2.1 EUT Operation Condition

EUT Operation Mode:	The system was configured for testing in Engineering Mode, which was provided by the manufacturer.
Equipment Modifications:	No
EUT Exercise Software:	DUT2DUT_v2.5.2.exe

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	Middle	Highest
1MHz Bandwidth	10	10	10
2MHz Bandwidth	10	10	10
4MHz Bandwidth	10	10	10

1.2.2 Support Equipment List and Details

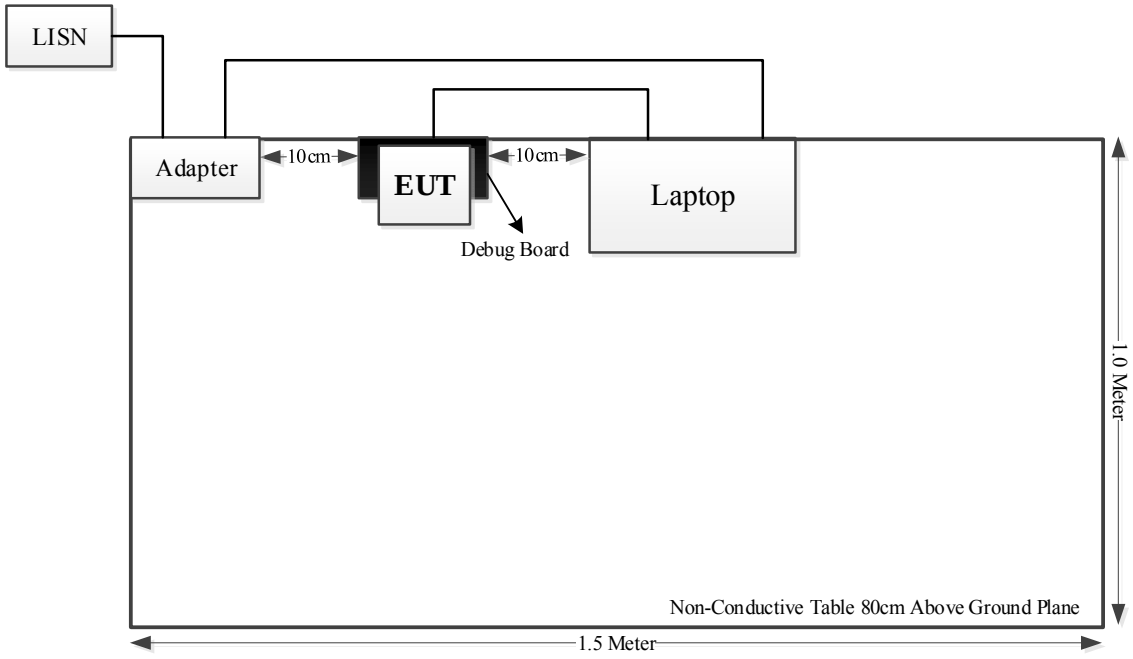
Manufacturer	Description	Model	Serial Number
Lenovo	Laptop	T460S	60PDTEK8
Lenovo	Adapter	ADLX45DLC3A	00HM613
Unknown	Debug Board	Unknown	Unknown

1.2.3 Support Cable List and Details

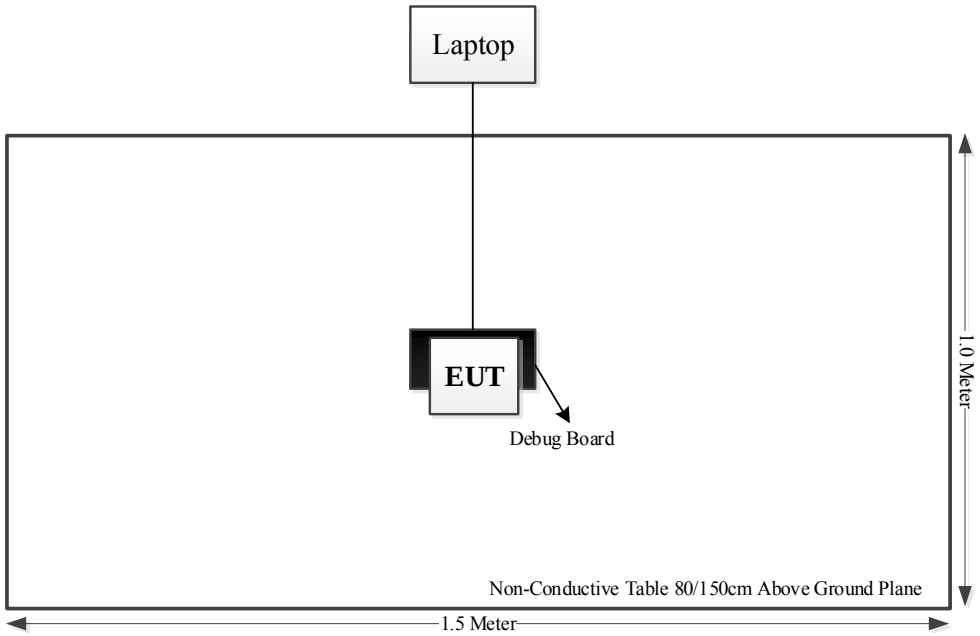
Cable Description	Shielding Type	Ferrite Core	Length (m)	From Port	To
AC Power Cable	No	No	1.2	LISN	Adapter
Adapter Output Power Cable	No	Yes	2.0	Adapter	Laptop
USB Cable	No	No	1.2	USB Cable Connecter/Laptop	Debug Board
USB Extension Cable	No	No	10	Laptop	USB Cable Connecter

1.2.4 Block Diagram of Test Setup

AC Line Conducted Emissions:



Spurious Emissions:



1.3 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	9k~30MHz: 4.12 dB 30M~200MHz: 4.15 dB,200M~1GHz: 5.61 dB,1G~6GHz: 5.14 dB, 6G~18GHz: 5.93 dB,18G~26.5G:5.47 dB,26.5G~40G:5.63 dB
Unwanted Emissions, conducted	±1.26 dB
Temperature	±1℃
Humidity	±5%
DC and low frequency voltages	±0.4%
Duty Cycle	1%
AC Power Lines Conducted Emission	2.8 dB (150 kHz to 30 MHz)

2. SUMMARY OF TEST RESULTS

Standard(s) Section	Test Items	Result
§15.207(a)	AC line conducted emissions	Compliant
§15.205, §15.209, §15.247(d)	Spurious Emissions	Compliant
§15.247 (a)(2)	6 dB 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
§15.203	Antenna Requirement	Compliant
FCC§15.247 (i) & §1.1307 & §2.1091	RF Exposure Evaluation	Compliant

3. REQUIREMENTS AND TEST PROCEDURES

3.1 AC Line Conducted Emissions

3.1.1 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 μH/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.

	Conducted limit (dBμV)	
Frequency of emission (MHz)	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:

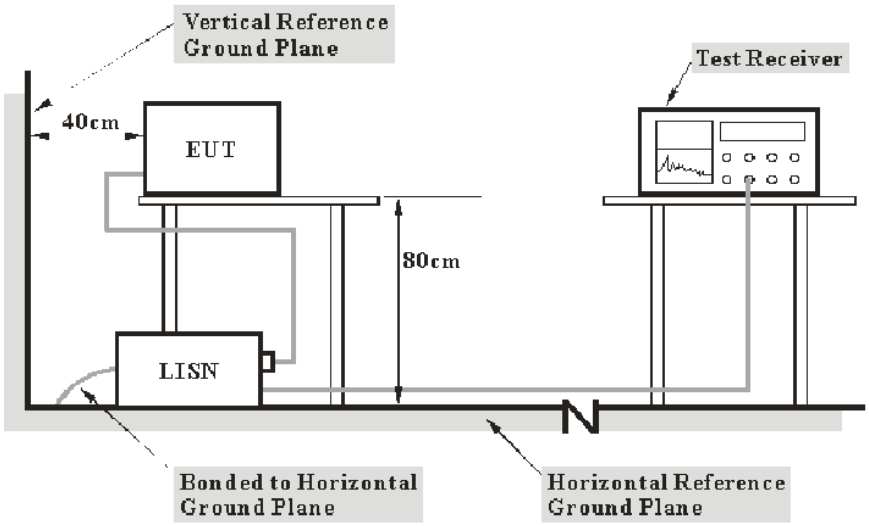
(1) For carrier current system containing their fundamental emission within the frequency band 535-1705 kHz and intended to be received using a standard AM broadcast receiver: no limit on conducted emissions.

(2) For all other carrier current systems: 1000 μV within the frequency band 535-1705 kHz, as measured using a 50 μH/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, obtainig their power through another device which is connected to the AC power lines, shall be tested to demonstrate compliance with the conducted limits.

3.1.2 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 C63.10-2013 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.

3.1.3 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

3.1.4 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.

3.1.5 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

3.2 Radiation Spurious Emissions

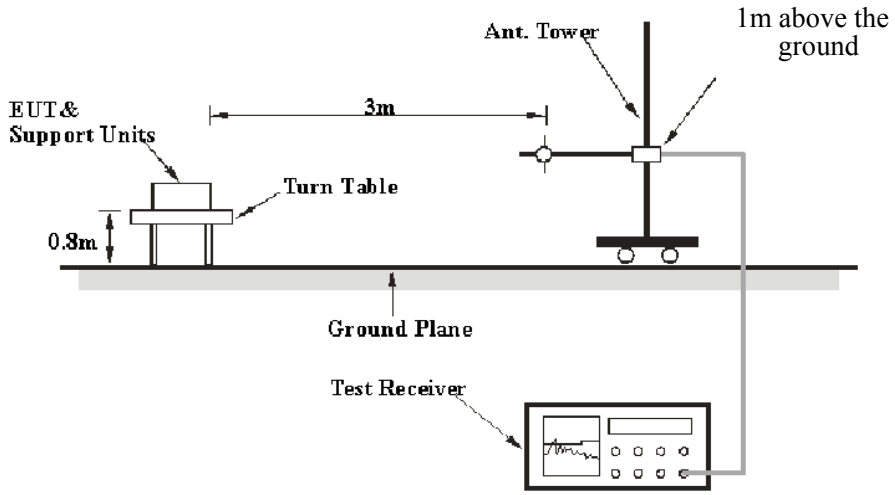
3.2.1 Applicable Standard

FCC §15.247 (d);

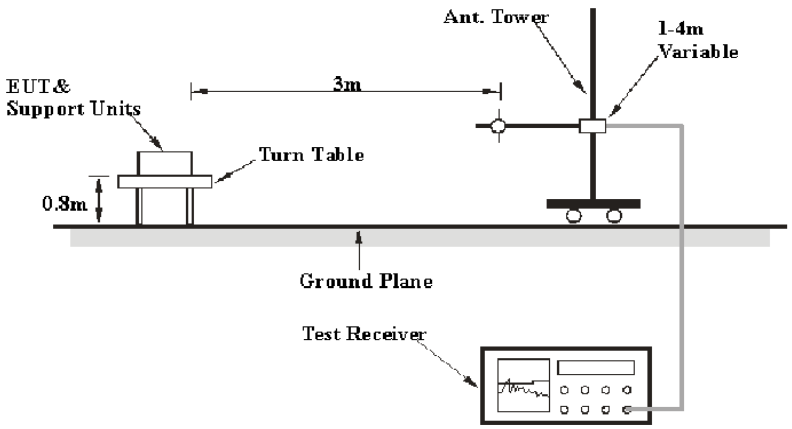
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the 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)).

3.2.2 EUT Setup

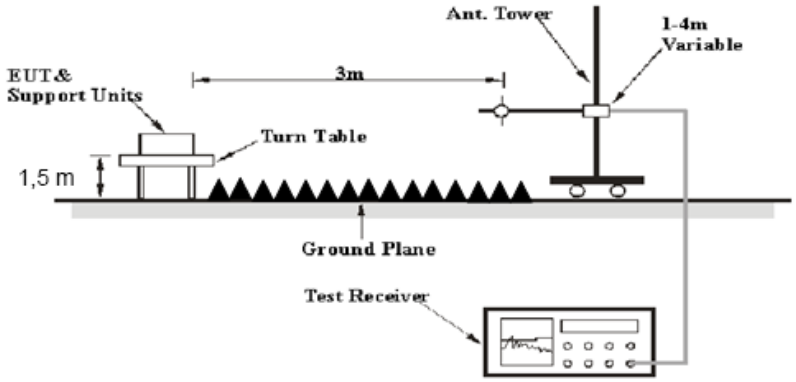
9 kHz-30MHz:



30MHz-1GHz:



Above 1GHz:



The radiated emissions were performed in the 3 meters distance, using the setup accordance with the ANSI C63.10-2013. 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.

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.

3.2.3 EMI Test Receiver & Spectrum Analyzer Setup

The system was investigated from 9 kHz to 10 GHz.

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

9kHz-1000MHz:

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

1GHz- 10GHz:

Measurement	Duty cycle	RBW	Video B/W
PK	Any	1MHz	3 MHz
Ave.	>98%	1MHz	10 Hz
	<98%	1MHz	1/T

Note: T is minimum transmission duration

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.

3.2.4 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 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.

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

3.2.5 Corrected Amplitude & Margin Calculation

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

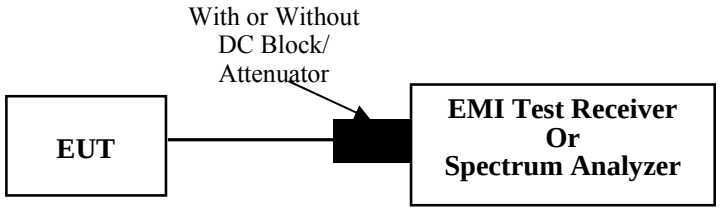
3.3 6 dB Emission Bandwidth

3.3.1 Applicable Standard

FCC §15.247 (a)(2)

Systems using digital modulation techniques may operate in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

3.3.2 EUT Setup



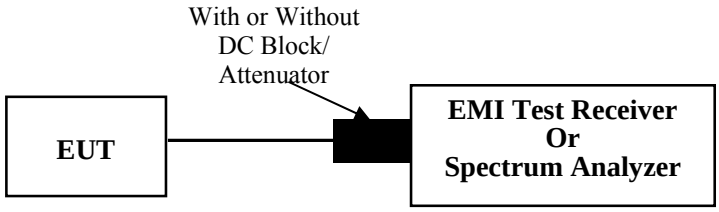
3.3.3 Test Procedure

According to ANSI C63.10-2013 Section 11.8

a) Set RBW = 100 kHz.
b) Set the video bandwidth (VBW) ≥ 3×RBW.
c) Detector = Peak.
d) Trace mode = max hold.
e) Sweep = auto couple.
f) Allow the trace to stabilize.
g) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

3.4 99% Occupied Bandwidth

3.4.1 EUT Setup



3.4.2 Test Procedure

According to ANSI C63.10-2013 Section 6.9.3

The occupied bandwidth is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers are each equal to 0.5% of the total mean power of the given emission.
The following procedure shall be used for measuring 99% power bandwidth:
a) The instrument center frequency is set to the nominal EUT channel center frequency. The frequency span for the spectrum analyzer shall be between 1.5 times and 5.0 times the OBW.
b) The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to 5% of the OBW, and VBW shall be approximately three times the RBW, unless otherwise specified by the applicable requirement.
c) Set the reference level of the instrument as required, keeping the signal from exceeding the maximum input mixer level for linear operation. In general, the peak of the spectral envelope shall be more than [10 log (OBW/RBW)] below the reference level. Specific guidance is given in 4.1.5.2.
d) Step a) through step c) might require iteration to adjust within the specified range.
e) Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.
f) Use the 99% power bandwidth function of the instrument (if available) and report the measured bandwidth.
g) If the instrument does not have a 99% power bandwidth function, then the trace data points are recovered and directly summed in linear power terms. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5% of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5% of the total is reached; that frequency is recorded as the upper frequency. The 99% power bandwidth is the difference between these two frequencies.
h) The occupied bandwidth shall be reported by providing plot(s) of the measuring instrument display; the plot axes and the scale units per division shall be clearly labeled. Tabular data may be reported in addition to the plot(s).

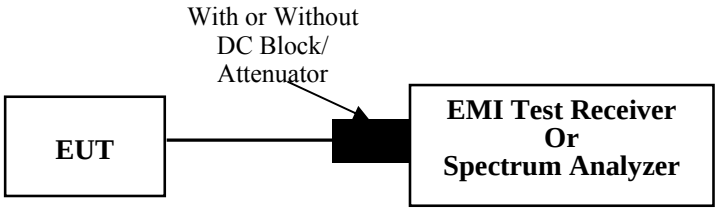
3.5 Maximum Conducted Output Power

3.5.1 Applicable Standard

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.

3.5.2 EUT Setup



3.5.3 Test Procedure

According to ANSI C63.10-2013 Section 11.9.1.1

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 ≥ DTS bandwidth.
b) Set VBW ≥ [3 × RBW].
c) Set span ≥ [3 × RBW].
d) Sweep time = auto couple.
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.

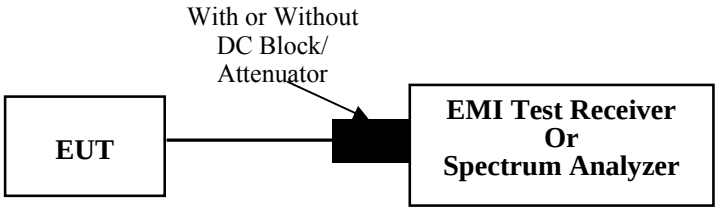
3.6 Maximum Power Spectral Density

3.6.1 Applicable Standard

FCC §15.247 (e)

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.

3.6.2 EUT Setup



3.6.3 Test Procedure

According to ANSI C63.10-2013 Section 11.10.2

a) Set analyzer center frequency to DTS channel center frequency.
b) Set the span to 1.5 times the DTS bandwidth.
c) Set the RBW to 3 kHz ≤ RBW ≤ 100 kHz.
d) Set the VBW ≥ [3 × RBW].
e) Detector = peak.
f) Sweep time = auto couple.
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.

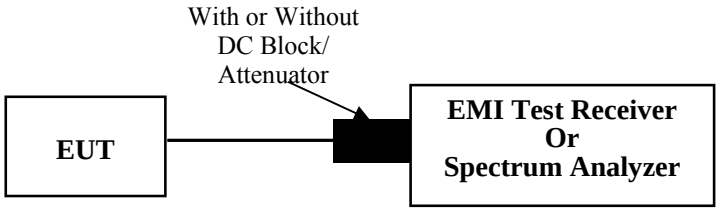
3.7 100 kHz Bandwidth of Frequency Band Edge

3.7.1 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)).

3.7.2 EUT Setup



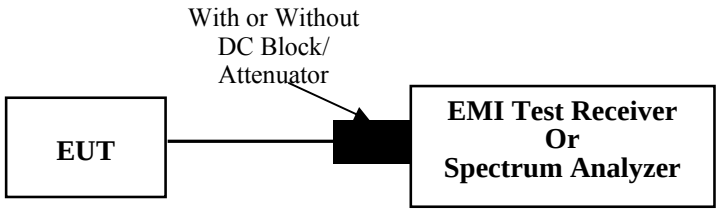
3.7.3 Test Procedure

According to ANSI C63.10-2013 Section 11.11

a) Set the center frequency and span to encompass frequency range to be measured.
b) Set the RBW = 100 kHz.
c) Set the VBW ≥ [3 × RBW].
d) Detector = peak.
e) Sweep time = auto couple.
f) Trace mode = max hold.
g) Allow trace to fully stabilize.
h) Use the peak marker function to determine the maximum amplitude level.
Ensure that the amplitude of all unwanted emissions outside of the authorized frequency band (excluding restricted frequency bands) is attenuated by at least the minimum requirements specified in 11.11. Report the three highest emissions relative to the limit.

3.8 Duty Cycle

3.8.1 EUT Setup



3.8.2 Test Procedure

According to ANSI C63.10-2013 Section 11.6

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 ≥ OBW if possible; otherwise, set RBW to the largest available value.
3) Set VBW ≥ 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 ≤ 16.7 μs.)

3.9 Antenna Requirement

3.9.1 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.

3.9.2 Judgment

Compliant. Please refer to the Antenna Information detail in Section 1.

4. TEST DATA AND RESULTS

4.1 AC Line Conducted Emissions

Serial Number:	2G2H-1	Test Date:	2024/2/23
Test Site:	CE	Test Mode:	Transmitting (Tested at maximum output power mode: 4MHz Bandwidth mode, Lowest Channel)
Tester:	David Huang	Test Result:	Pass

Environmental Conditions:

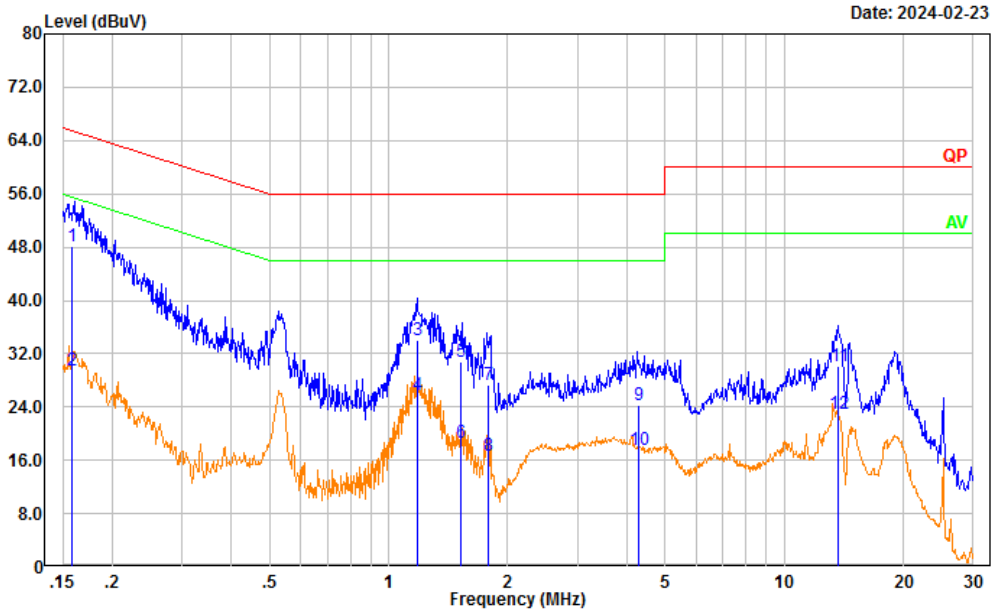
Temperature: (℃)	23.2	Relative Humidity: (%)	43	ATM Pressure: (kPa)	101.5

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	LISN	ENV216	101134	2023/3/31	2024/3/30
R&S	EMI Test Receiver	ESR3	102726	2023/3/31	2024/3/30
MICRO-COAX	Coaxial Cable	UTIFLEX	C-0200-01	2023/8/6	2024/8/5
Audix	Test Software	E3	190306 (V9)	N/A	N/A

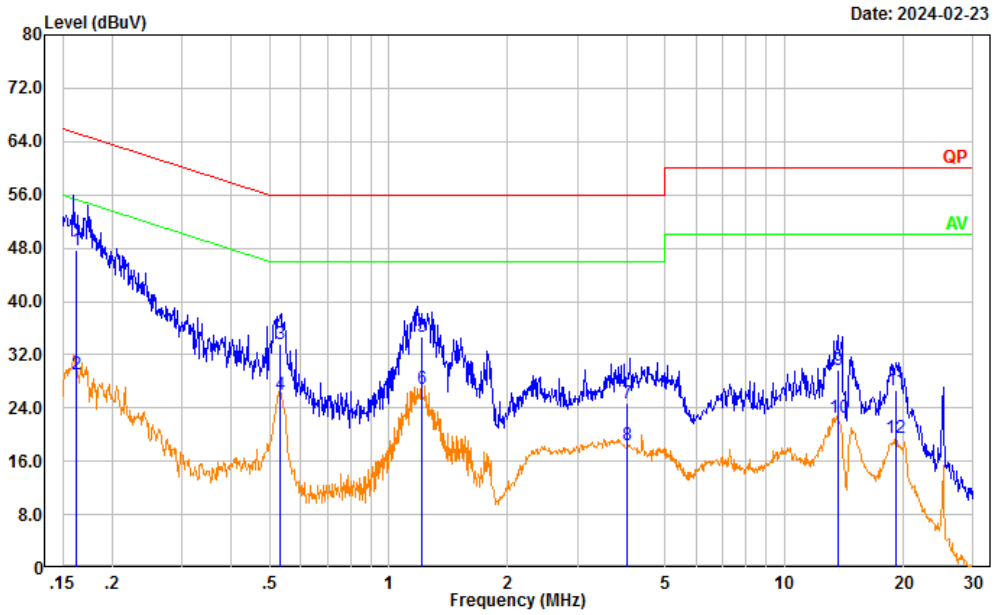
** Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

Project No.: CR240100355-RF
Tester: David Huang
Port: Line
Note: Transmitting(4M)



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB)	Result (dBµV)	Limit (dBµV)	Margin (dB)	Detector
1	0.158	38.56	9.61	48.17	65.55	17.38	QP
2	0.158	19.89	9.61	29.50	55.55	26.05	Average
3	1.181	24.31	9.62	33.93	56.00	22.07	QP
4	1.181	16.13	9.62	25.75	46.00	20.25	Average
5	1.518	21.26	9.63	30.89	56.00	25.11	QP
6	1.518	9.12	9.63	18.75	46.00	27.25	Average
7	1.783	17.77	9.63	27.40	56.00	28.60	QP
8	1.783	6.99	9.63	16.62	46.00	29.38	Average
9	4.299	14.67	9.65	24.32	56.00	31.68	QP
10	4.299	7.84	9.65	17.49	46.00	28.51	Average
11	13.719	20.56	9.68	30.24	60.00	29.76	QP
12	13.719	13.35	9.68	23.03	50.00	26.97	Average

Project No.: CR240100355-RF
Tester: David Huang
Port: neutral
Note: Transmitting(4M)



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB)	Result (dBµV)	Limit (dBµV)	Margin (dB)	Detector
1	0.162	38.03	9.61	47.64	65.34	17.70	QP
2	0.162	19.49	9.61	29.10	55.34	26.24	Average
3	0.531	24.02	9.61	33.63	56.00	22.37	QP
4	0.531	16.39	9.61	26.00	46.00	20.00	Average
5	1.215	24.97	9.62	34.59	56.00	21.41	QP
6	1.215	17.28	9.62	26.90	46.00	19.10	Average
7	3.992	15.02	9.65	24.67	56.00	31.33	QP
8	3.992	8.70	9.65	18.35	46.00	27.65	Average
9	13.679	19.94	9.68	29.62	60.00	30.38	QP
10	13.679	12.90	9.68	22.58	50.00	27.42	Average
11	19.063	16.92	9.69	26.61	60.00	33.39	QP
12	19.063	9.77	9.69	19.46	50.00	30.54	Average

4.2 Radiation Spurious Emissions

Serial Number:	2G2H-1	Test Date:	2024/1/11-2024/2/26
Test Site:	966-1, 966-2	Test Mode:	Transmitting
Tester:	Jeff Luo, Mack Huang	Test Result:	Pass

Environmental Conditions:					
Temperature: (℃)	23.2~26.3	Relative Humidity: (%)	44~57	ATM Pressure: (kPa)	101.3~101.4

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Sunol Sciences	Antenna	JB6	A082520-5	2023/12/1	2026/11/30
BACL	Loop Antenna	1313-1A	3110611	2023/12/4	2026/12/3
R&S	EMI Test Receiver	ESR3	102724	2023/3/31	2024/3/30
TIMES MICROWAVE	Coaxial Cable	LMR-600-UltraFlex	C-0470-02	2023/7/16	2024/7/15
TIMES MICROWAVE	Coaxial Cable	LMR-600-UltraFlex	C-0780-01	2023/7/16	2024/7/15
Audix	Test Software	E3	201021 (V9)	N/A	N/A
AH	Double Ridge Guide Horn Antenna	SAS-571	1394	2023/2/22	2026/2/21
R&S	Spectrum Analyzer	FSV40	101591	2023/3/31	2024/3/30
MICRO-COAX	Coaxial Cable	UFA210A-1-1200-70U300	217423-008	2023/8/6	2024/8/5
MICRO-COAX	Coaxial Cable	UFA210A-1-2362-300300	235780-001	2023/8/6	2024/8/5
Mini	Pre-amplifier	ZVA-183-S+	5969001149	2023/11/8	2024/11/7

**** Statement of Traceability:*** *China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

Test Data:

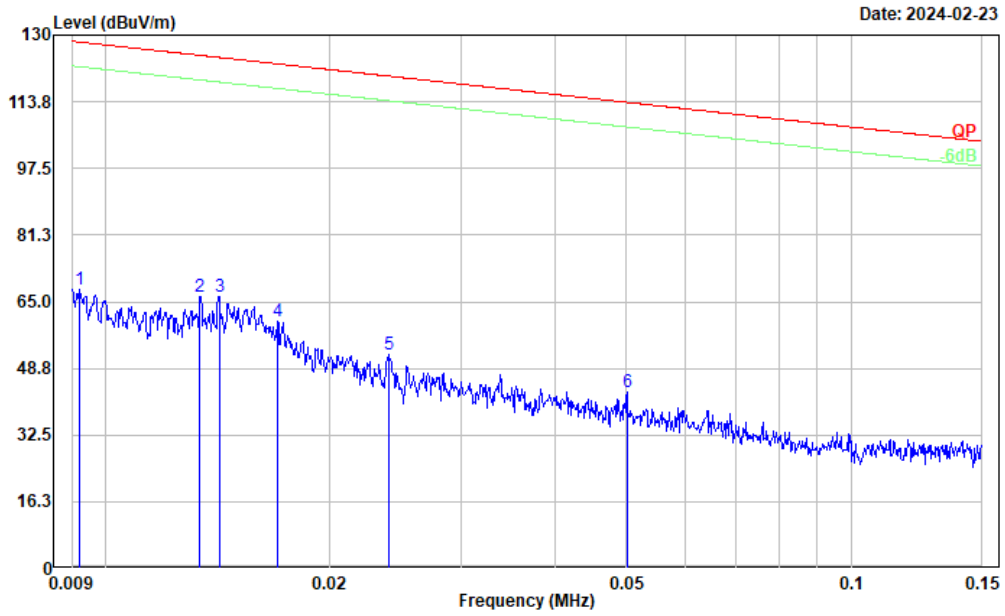
Please refer to the below table and plots.

After pre-scan in the X, Y and Z axes of orientation, the worst-case Y-axis is below:

Note: *for the Radiation Spurious Emissions Test in frequency range from 9kHz to 1GHz, the test was performed in the maximum output power mode: 4MHz Bandwidth mode, lowest channel.*

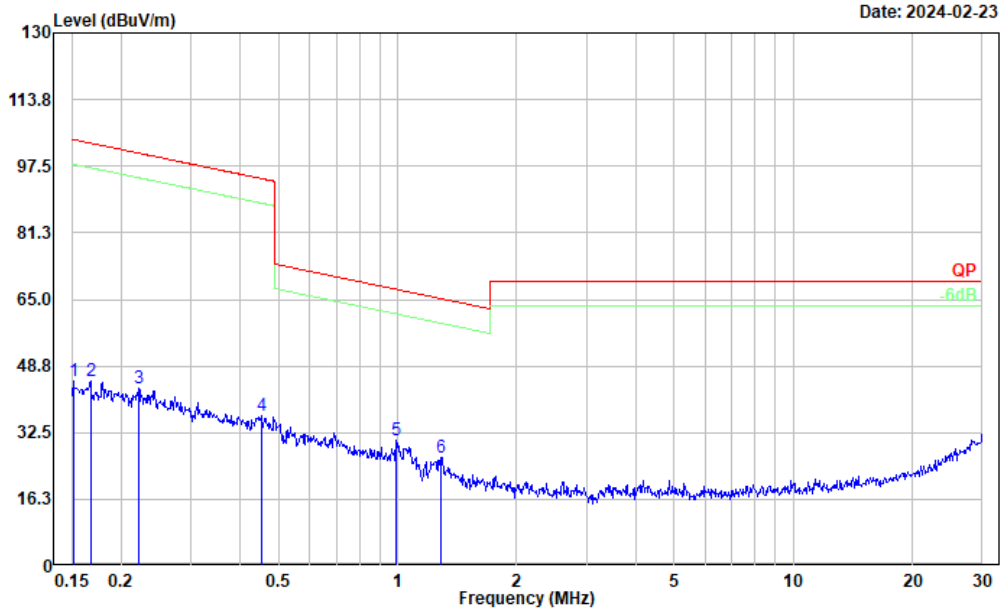
1) 9kMHz-30MHz:

Project No.: CR240100355-RF
Tester: Jeff Luo
Polarization: Parallel
Note: Transmitting



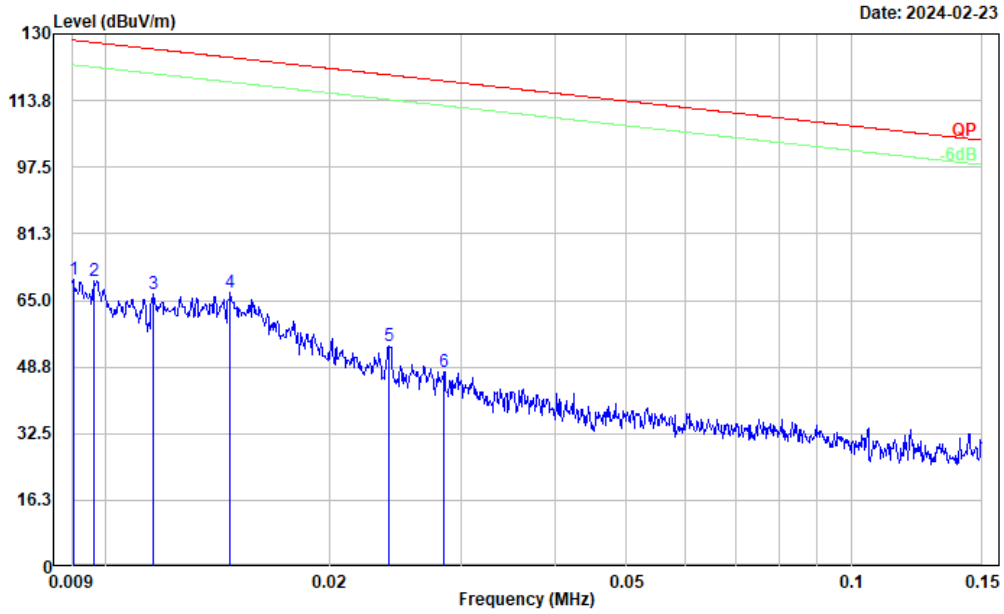
No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	0.009	32.63	35.41	68.04	128.30	60.26	Peak
2	0.013	33.48	32.75	66.23	125.07	58.84	Peak
3	0.014	33.74	32.35	66.09	124.56	58.47	Peak
4	0.017	29.16	30.98	60.14	123.00	62.86	Peak
5	0.024	24.45	27.57	52.02	120.02	68.00	Peak
6	0.050	22.71	20.40	43.11	113.61	70.50	Peak

Project No.: CR240100355-RF
Tester: Jeff Luo
Polarization: Parallel
Note: Transmitting



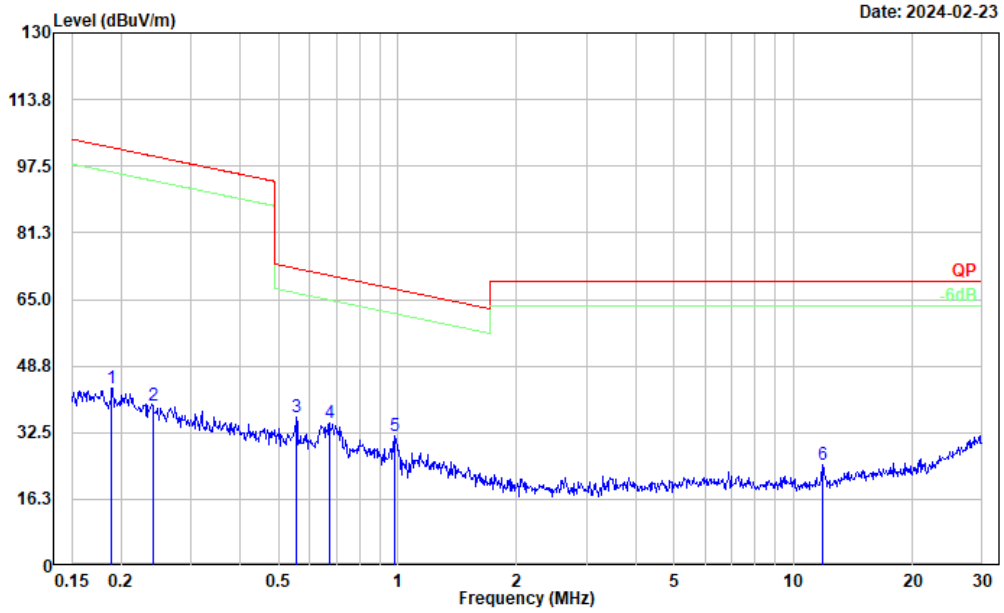
No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	0.152	32.83	12.21	45.04	103.99	58.95	Peak
2	0.168	33.51	11.46	44.97	103.12	58.15	Peak
3	0.222	34.25	8.94	43.19	100.68	57.49	Peak
4	0.452	34.53	2.00	36.53	94.51	57.98	Peak
5	0.994	34.69	-4.20	30.49	67.52	37.03	Peak
6	1.289	31.72	-5.28	26.44	65.22	38.78	Peak

Project No.: CR240100355-RF
Tester: Jeff Luo
Polarization: Perpendicular
Note: Transmitting



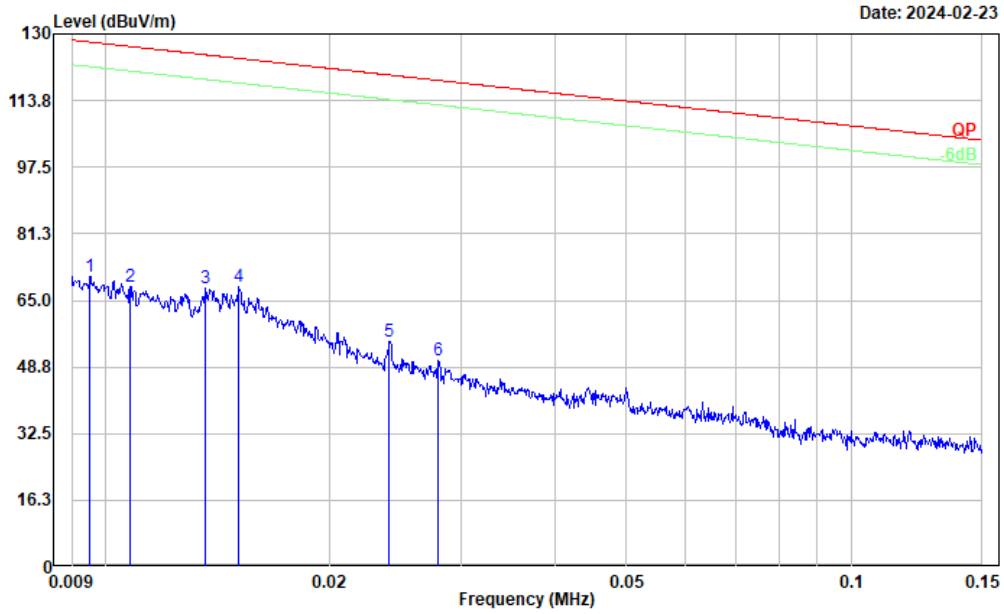
No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	0.009	34.31	35.64	69.95	128.47	58.52	Peak
2	0.010	35.01	34.89	69.90	127.93	58.03	Peak
3	0.012	32.89	33.63	66.52	126.32	59.80	Peak
4	0.015	34.76	32.11	66.87	124.27	57.40	Peak
5	0.024	26.24	27.57	53.81	120.02	66.21	Peak
6	0.028	22.35	25.37	47.72	118.53	70.81	Peak

Project No.: CR240100355-RF
Tester: Jeff Luo
Polarization: Perpendicular
Note: Transmitting



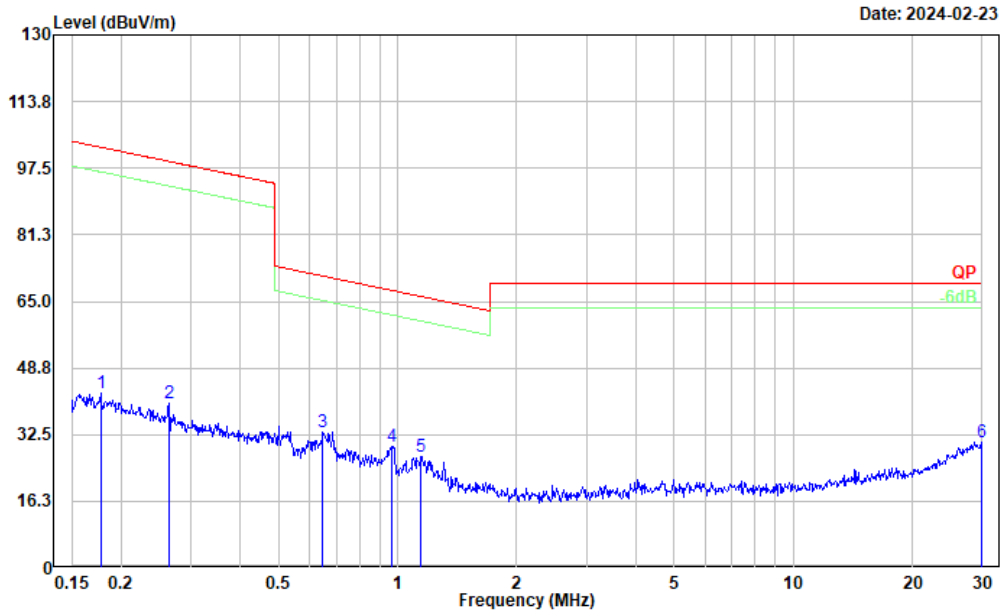
No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	0.189	32.97	10.45	43.42	102.06	58.64	Peak
2	0.240	30.87	8.08	38.95	99.99	61.04	Peak
3	0.555	35.84	0.29	36.13	72.69	36.56	Peak
4	0.672	35.91	-1.07	34.84	71.00	36.16	Peak
5	0.984	35.92	-4.11	31.81	67.62	35.81	Peak
6	11.870	32.62	-8.10	24.52	69.54	45.02	Peak

Project No.: CR240100355-RF
Tester: Jeff Luo
Polarization: Ground-parallel
Note: Transmitting



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	0.010	35.94	35.03	70.97	128.03	57.06	Peak
2	0.011	34.33	34.03	68.36	126.96	58.60	Peak
3	0.014	35.42	32.64	68.06	124.93	56.87	Peak
4	0.015	36.54	31.91	68.45	124.02	55.57	Peak
5	0.024	27.47	27.54	55.01	119.99	64.98	Peak
6	0.028	24.76	25.61	50.37	118.67	68.30	Peak

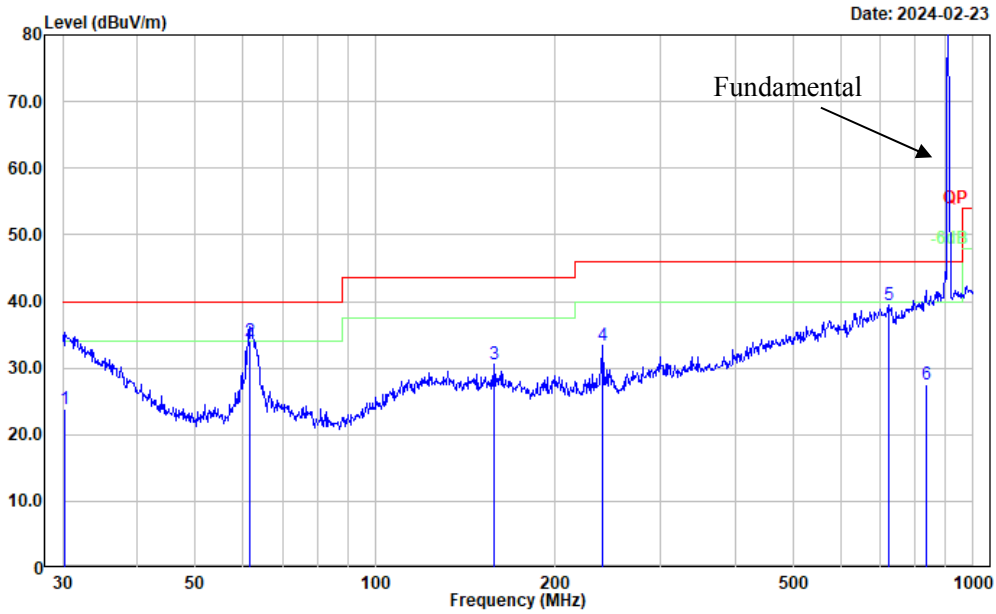
Project No.: CR240100355-RF
Tester: Jeff Luo
Polarization: Ground-parallel
Note: Transmitting



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	0.178	31.54	11.00	42.54	102.61	60.07	Peak
2	0.264	33.02	6.97	39.99	99.16	59.17	Peak
3	0.647	33.87	-0.79	33.08	71.33	38.25	Peak
4	0.963	33.54	-3.94	29.60	67.80	38.20	Peak
5	1.147	32.03	-4.77	27.26	66.25	38.99	Peak
6	29.841	38.09	-7.40	30.69	69.54	38.85	Peak

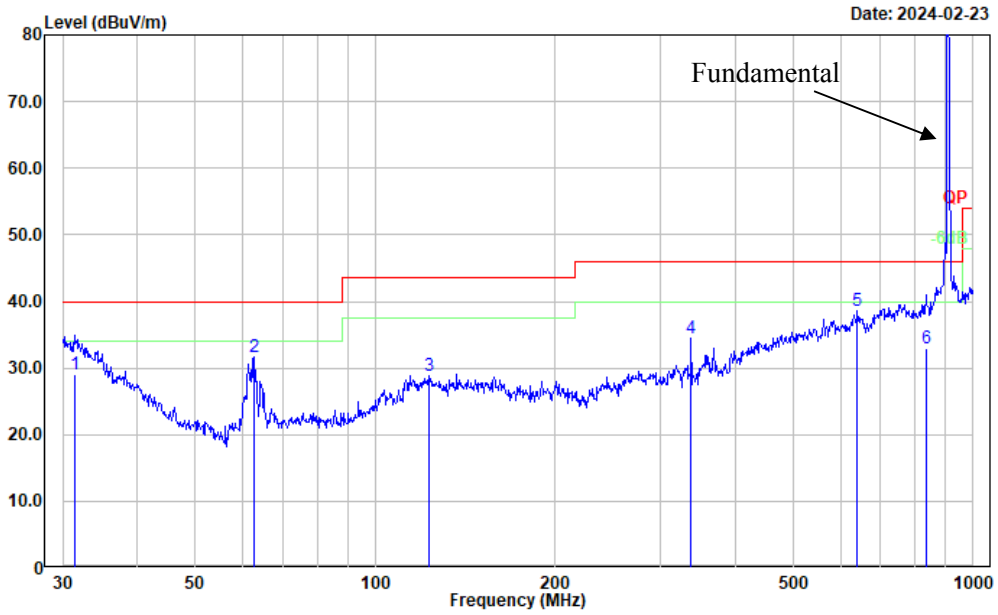
2) 30MHz-1GHz:

Project No.: CR240100355-RF
Tester: Jeff Luo
Polarization: horizontal
Note: Transmitting



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	30.317	-3.70	27.63	23.93	40.00	16.07	QP
2	61.778	20.10	14.02	34.12	40.00	5.88	QP
3	158.112	10.80	19.69	30.49	43.50	13.01	Peak
4	239.987	14.62	18.67	33.29	46.00	12.71	Peak
5	721.726	10.94	28.54	39.48	46.00	6.52	Peak
6	833.317	-2.52	30.05	27.53	46.00	18.47	QP

Project No.: CR240100355-RF
Tester: Jeff Luo
Polarization: vertical
Note: Transmitting



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	31.399	2.08	26.91	28.99	40.00	11.01	QP
2	62.871	17.53	14.13	31.66	40.00	8.34	Peak
3	123.266	8.19	20.70	28.89	43.50	14.61	Peak
4	337.216	12.91	21.65	34.56	46.00	11.44	Peak
5	640.611	10.89	27.62	38.51	46.00	7.49	Peak
6	833.317	3.01	30.05	33.06	46.00	12.94	QP

3) Radiated Band Edge Test and Radiation Spurious Emissions Test from 1GHz to 10GHz:

1MHz Bandwidth Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Low Channel:				903.5	MHz		
903.50	72.31	QP	H	30.75	103.06	N/A	N/A
903.50	78.66	QP	V	30.75	109.41	N/A	N/A
902.00	33.45	QP	V	30.68	64.13	89.41	25.28
1807.000	45.21	PK	H	0.60	45.81	74.00	28.19
1807.000	32.82	AV	H	0.60	33.42	54.00	20.58
1807.000	52.16	PK	V	0.60	52.76	74.00	21.24
1807.000	38.71	AV	V	0.60	39.31	54.00	14.69
2710.500	53.20	PK	H	4.81	58.01	74.00	15.99
2710.500	40.12	AV	H	4.81	44.93	54.00	9.07
2710.500	61.20	PK	V	4.81	66.01	74.00	7.99
2710.500	47.79	AV	V	4.81	52.60	54.00	**1.40**
3614.000	36.62	PK	H	7.19	43.81	74.00	30.19
3614.000	25.02	AV	H	7.19	32.21	54.00	21.79
3614.000	37.26	PK	V	7.19	44.45	74.00	29.55
3614.000	25.86	AV	V	7.19	33.05	54.00	20.95
Middle Channel:				914.5	MHz		
914.50	71.27	QP	H	30.93	102.20	N/A	N/A
914.50	76.67	QP	V	30.93	107.60	N/A	N/A
1829.000	44.70	PK	H	0.66	45.36	74.00	28.64
1829.000	32.23	AV	H	0.66	32.89	54.00	21.11
1829.000	50.73	PK	V	0.66	51.39	74.00	22.61
1829.000	37.56	AV	V	0.66	38.22	54.00	15.78
2743.500	51.17	PK	H	4.87	56.04	74.00	17.96
2743.500	38.67	AV	H	4.87	43.54	54.00	10.46
2743.500	58.77	PK	V	4.87	63.64	74.00	10.36
2743.500	45.69	AV	V	4.87	50.56	54.00	3.44
3658.000	36.10	PK	H	7.25	43.35	74.00	30.65
3658.000	24.56	AV	H	7.25	31.81	54.00	22.19
3658.000	36.84	PK	V	7.25	44.09	74.00	29.91
3658.000	24.13	AV	V	7.25	31.38	54.00	22.62
High Channel:				926.5	MHz		
926.50	69.46	QP	H	30.94	100.40	N/A	N/A
926.50	76.14	QP	V	30.94	107.08	N/A	N/A
928.00	34.31	QP	V	30.95	65.26	87.08	21.82
1853.000	44.10	PK	H	0.75	44.85	74.00	29.15
1853.000	31.23	AV	H	0.75	31.98	54.00	22.02
1853.000	48.26	PK	V	0.75	49.01	74.00	24.99
1853.000	35.77	AV	V	0.75	36.52	54.00	17.48
2779.500	47.74	PK	H	4.91	52.65	74.00	21.35
2779.500	36.11	AV	H	4.91	41.02	54.00	12.98
2779.500	54.23	PK	V	4.91	59.14	74.00	14.86
2779.500	42.10	AV	V	4.91	47.01	54.00	6.99
3706.000	36.20	PK	H	7.47	43.67	74.00	30.33
3706.000	24.12	AV	H	7.47	31.59	54.00	22.41
3706.000	36.63	PK	V	7.47	44.10	74.00	29.90
3706.000	24.18	AV	V	7.47	31.65	54.00	22.35

2MHz Bandwidth Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Low Channel:				905	MHz		
905.00	70.30	QP	H	30.81	101.11	N/A	N/A
905.00	75.15	QP	V	30.81	105.96	N/A	N/A
902.00	30.26	QP	V	30.68	60.94	85.96	25.02
1810.000	41.87	PK	H	0.60	42.47	74.00	31.53
1810.000	30.20	AV	H	0.60	30.80	54.00	23.20
1810.000	51.10	PK	V	0.60	51.70	74.00	22.30
1810.000	38.69	AV	V	0.60	39.29	54.00	14.71
2715.000	51.41	PK	H	4.83	56.24	74.00	17.76
2715.000	38.36	AV	H	4.83	43.19	54.00	10.81
2715.000	57.96	PK	V	4.83	62.79	74.00	11.21
2715.000	44.87	AV	V	4.83	49.70	54.00	**4.30**
3620.000	37.65	PK	H	7.19	44.84	74.00	29.16
3620.000	26.82	AV	H	7.19	34.01	54.00	19.99
3620.000	37.82	PK	V	7.19	45.01	74.00	28.99
3620.000	26.41	AV	V	7.19	33.60	54.00	20.40
Middle Channel:				915	MHz		
915.00	68.02	QP	H	30.93	98.95	N/A	N/A
915.00	73.01	QP	V	30.93	103.94	N/A	N/A
1830.000	44.92	PK	H	0.67	45.59	74.00	28.41
1830.000	32.45	AV	H	0.67	33.12	54.00	20.88
1830.000	48.90	PK	V	0.67	49.57	74.00	24.43
1830.000	35.69	AV	V	0.67	36.36	54.00	17.64
2745.000	50.51	PK	H	4.88	55.39	74.00	18.61
2745.000	38.64	AV	H	4.88	43.52	54.00	10.48
2745.000	52.85	PK	V	4.88	57.73	74.00	16.27
2745.000	40.36	AV	V	4.88	45.24	54.00	8.76
3660.000	36.01	PK	H	7.26	43.27	74.00	30.73
3660.000	24.33	AV	H	7.26	31.59	54.00	22.41
3660.000	37.12	PK	V	7.26	44.38	74.00	29.62
3660.000	25.22	AV	V	7.26	32.48	54.00	21.52
High Channel:				925	MHz		
925.00	66.34	QP	H	30.93	97.27	N/A	N/A
925.00	73.47	QP	V	30.93	104.40	N/A	N/A
928.00	31.25	QP	V	30.95	62.20	84.40	22.20
1850.000	41.36	PK	H	0.74	42.10	74.00	31.90
1850.000	29.63	AV	H	0.74	30.37	54.00	23.63
1850.000	48.21	PK	V	0.74	48.95	74.00	25.05
1850.000	36.55	AV	V	0.74	37.29	54.00	16.71
2775.000	46.87	PK	H	4.90	51.77	74.00	22.23
2775.000	35.69	AV	H	4.90	40.59	54.00	13.41
2775.000	53.85	PK	V	4.90	58.75	74.00	15.25
2775.000	43.54	AV	V	4.90	48.44	54.00	5.56
3700.000	36.32	PK	H	7.46	43.78	74.00	30.22
3700.000	24.25	AV	H	7.46	31.71	54.00	22.29
3700.000	36.54	PK	V	7.46	44.00	74.00	30.00
3700.000	25.30	AV	V	7.46	32.76	54.00	21.24

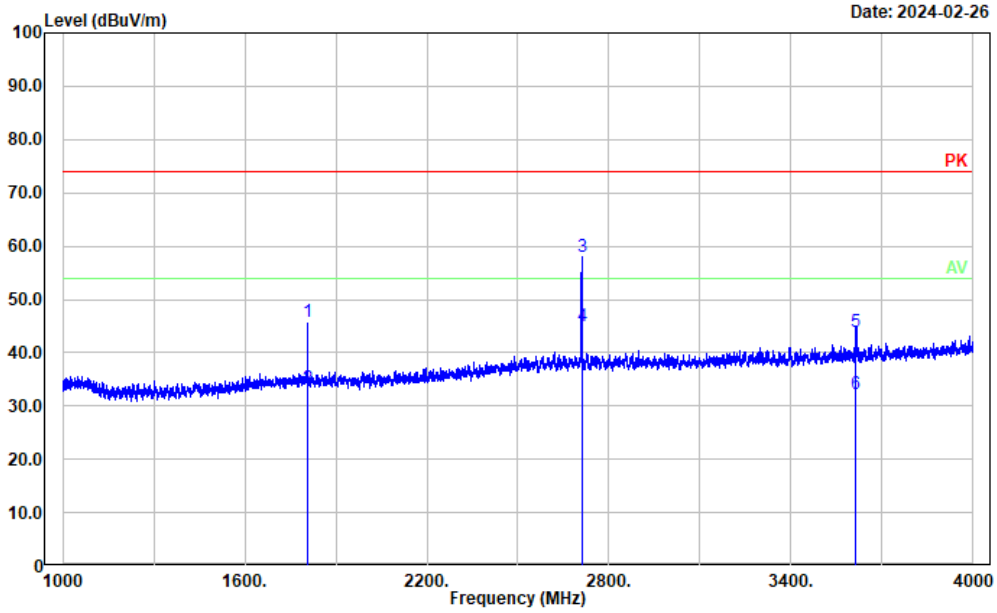
4MHz Bandwidth Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Low Channel:				906	MHz		
906.00	63.54	QP	H	30.84	94.38	N/A	N/A
906.00	71.31	QP	V	30.84	102.15	N/A	N/A
902.00	24.30	QP	V	30.68	54.98	82.15	27.17
1812.000	40.60	PK	H	0.61	41.21	74.00	32.79
1812.000	28.44	AV	H	0.61	29.05	54.00	24.95
1812.000	46.84	PK	V	0.61	47.45	74.00	26.55
1812.000	34.27	AV	V	0.61	34.88	54.00	19.12
2718.000	45.81	PK	H	4.83	50.64	74.00	23.36
2718.000	33.63	AV	H	4.83	38.46	54.00	15.54
2718.000	51.61	PK	V	4.83	56.44	74.00	17.56
2718.000	38.79	AV	V	4.83	43.62	54.00	10.38
3624.000	36.24	PK	H	7.19	43.43	74.00	30.57
3624.000	24.33	AV	H	7.19	31.52	54.00	22.48
3624.000	36.69	PK	V	7.19	43.88	74.00	30.12
3624.000	24.31	AV	V	7.19	31.50	54.00	22.50
Middle Channel:				914	MHz		
914.00	65.31	QP	H	30.94	96.25	N/A	N/A
914.00	70.51	QP	V	30.94	101.45	N/A	N/A
1828.000	38.41	PK	H	0.67	39.08	74.00	34.92
1828.000	26.33	AV	H	0.67	27.00	54.00	27.00
1828.000	46.57	PK	V	0.67	47.24	74.00	26.76
1828.000	34.50	AV	V	0.67	35.17	54.00	18.83
2742.000	45.52	PK	H	4.87	50.39	74.00	23.61
2742.000	33.79	AV	H	4.87	38.66	54.00	15.34
2742.000	49.39	PK	V	4.87	54.26	74.00	19.74
2742.000	37.41	AV	V	4.87	42.28	54.00	11.72
3656.000	35.78	PK	H	7.24	43.02	74.00	30.98
3656.000	23.31	AV	H	7.24	30.55	54.00	23.45
3656.000	37.13	PK	V	7.24	44.37	74.00	29.63
3656.000	25.09	AV	V	7.24	32.33	54.00	21.67
High Channel:				926	MHz		
926.00	63.00	QP	H	30.94	93.94	N/A	N/A
926.00	69.65	QP	V	30.94	100.59	N/A	N/A
928.00	36.10	QP	V	30.95	67.05	80.59	13.54
1852.000	38.11	PK	H	0.75	38.86	74.00	35.14
1852.000	26.03	AV	H	0.75	26.78	54.00	27.22
1852.000	46.68	PK	V	0.75	47.43	74.00	26.57
1852.000	34.55	AV	V	0.75	35.30	54.00	18.70
2778.000	45.37	PK	H	4.90	50.27	74.00	23.73
2778.000	33.65	AV	H	4.90	38.55	54.00	15.45
2778.000	51.01	PK	V	4.90	55.91	74.00	18.09
2778.000	38.44	AV	V	4.90	43.34	54.00	10.66
3704.000	35.43	PK	H	7.47	42.90	74.00	31.10
3704.000	23.20	AV	H	7.47	30.67	54.00	23.33
3704.000	36.84	PK	V	7.47	44.31	74.00	29.69
3704.000	24.37	AV	V	7.47	31.84	54.00	22.16

4) Worst Radiation Spurious Emissions Margin Test Plots

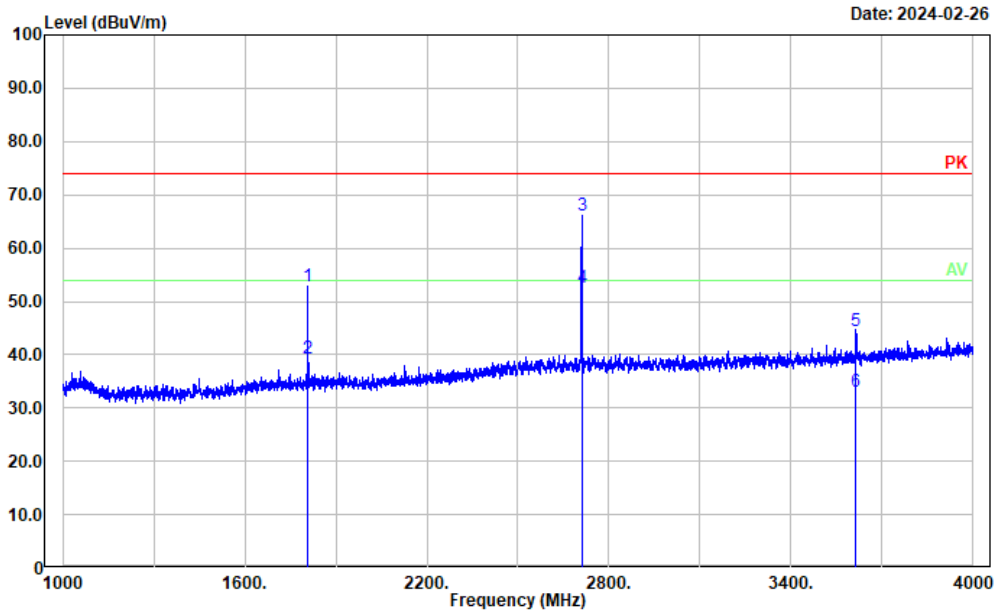
1MHz Bandwidth mode Lowest channel was the worst case

Project No.: CR240100355-RF
Tester: Mack Huang
Polarization: horizontal
Note:



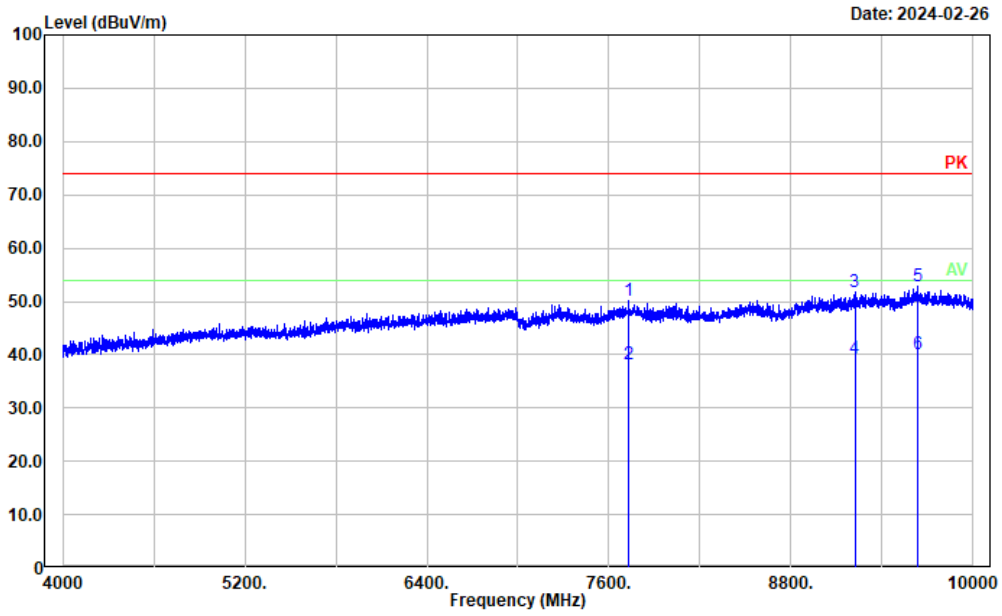
No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	1807.000	45.21	0.60	45.81	74.00	28.19	Peak
2	1807.000	32.82	0.60	33.42	54.00	20.58	Average
3	2710.500	53.20	4.81	58.01	74.00	15.99	Peak
4	2710.500	40.12	4.81	44.93	54.00	9.07	Average
5	3614.000	36.62	7.19	43.81	74.00	30.19	Peak
6	3614.000	25.02	7.19	32.21	54.00	21.79	Average

Project No.: CR240100355-RF
Tester: Mack Huang
Polarization: vertical
Note:



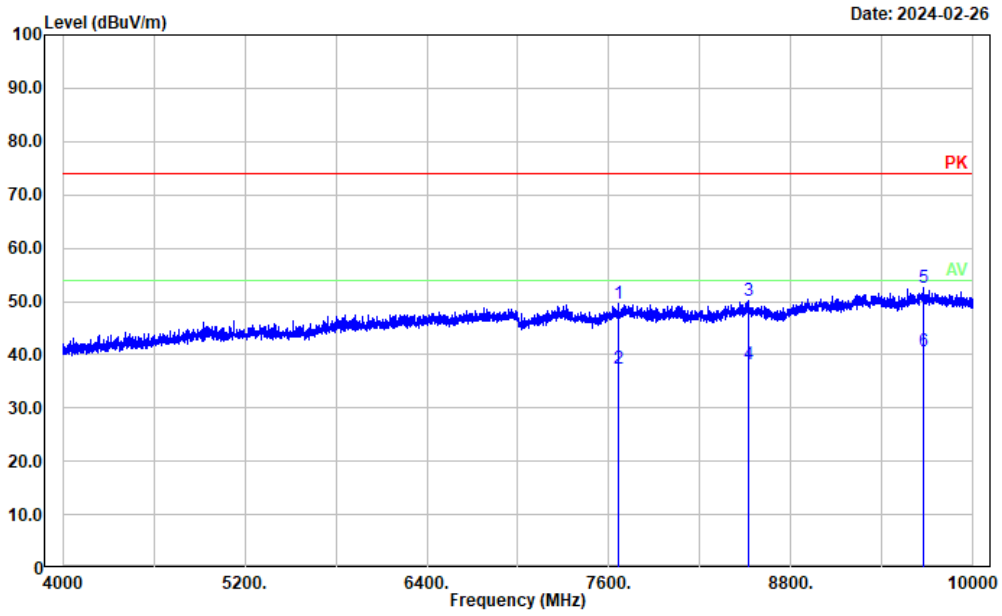
No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	1807.000	52.16	0.60	52.76	74.00	21.24	Peak
2	1807.000	38.71	0.60	39.31	54.00	14.69	Average
3	2710.500	61.20	4.81	66.01	74.00	7.99	Peak
4	2710.500	47.79	4.81	52.60	54.00	1.40	Average
5	3614.000	37.26	7.19	44.45	74.00	29.55	Peak
6	3614.000	25.86	7.19	33.05	54.00	20.95	Average

Project No.: CR240100355-RF
Tester: Mack Huang
Polarization: horizontal
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	7729.600	34.24	16.01	50.25	74.00	23.75	Peak
2	7729.600	22.24	16.01	38.25	54.00	15.75	Average
3	9220.000	33.13	18.64	51.77	74.00	22.23	Peak
4	9220.000	20.69	18.64	39.33	54.00	14.67	Average
5	9630.400	33.52	19.28	52.80	74.00	21.20	Peak
6	9630.400	20.84	19.28	40.12	54.00	13.88	Average

Project No.: CR240100355-RF
Tester: Mack Huang
Polarization: vertical
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	7660.000	33.42	16.10	49.52	74.00	24.48	Peak
2	7660.000	21.33	16.10	37.43	54.00	16.57	Average
3	8515.600	32.85	17.26	50.11	74.00	23.89	Peak
4	8515.600	20.95	17.26	38.21	54.00	15.79	Average
5	9674.800	33.25	19.21	52.46	74.00	21.54	Peak
6	9674.800	21.31	19.21	40.52	54.00	13.48	Average

4.3 6 dB Emission Bandwidth

Serial Number:	2G2H-1	Test Date:	2024/2/22~2024/3/5
Test Site:	RF	Test Mode:	Transmitting
Tester:	LingLing Li	Test Result:	Pass

Environmental Conditions:					
Temperature: (℃)	26.1-27.1	Relative Humidity: (%)	54-60	ATM Pressure: (kPa)	100.3-100.9

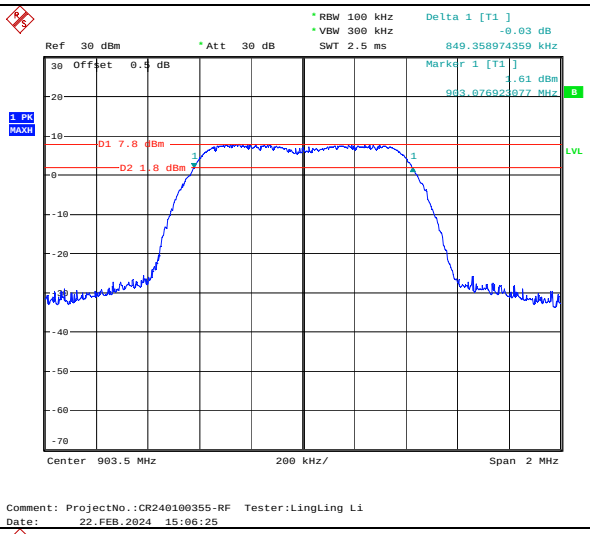
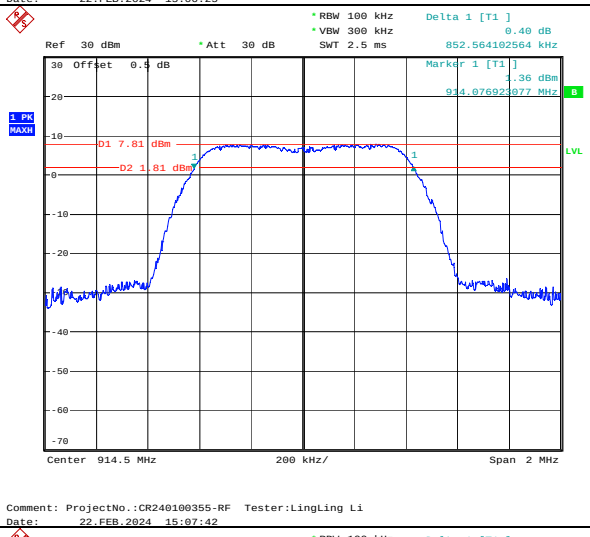
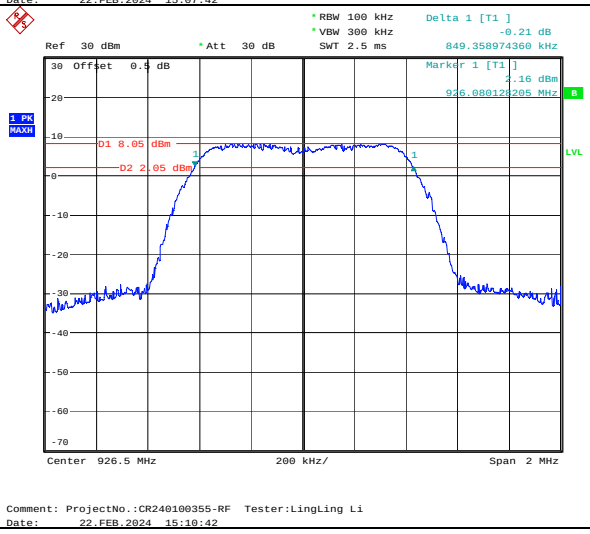
Test Equipment List and Details:

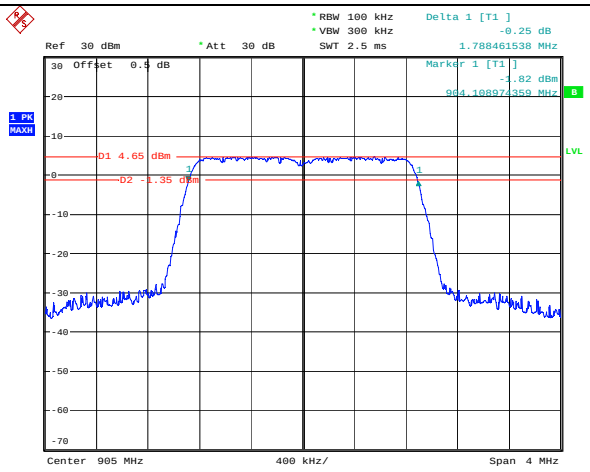
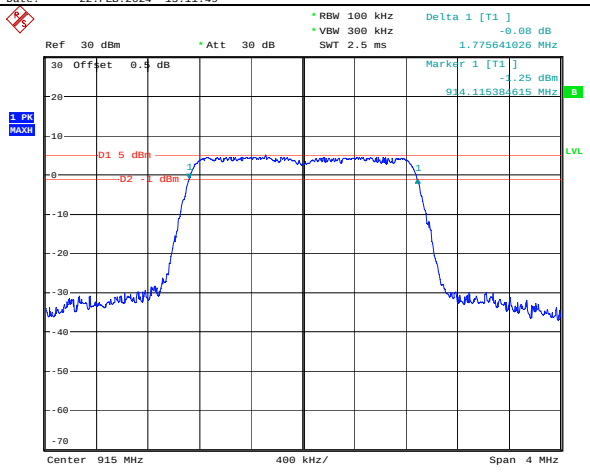
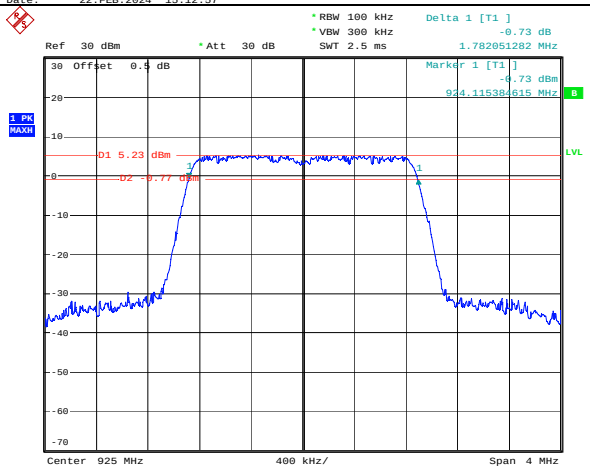
Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSU26	100147	2023/3/31	2024/3/30
zhuoxiang	Coaxial Cable	SMA-178	211001	Each time	N/A

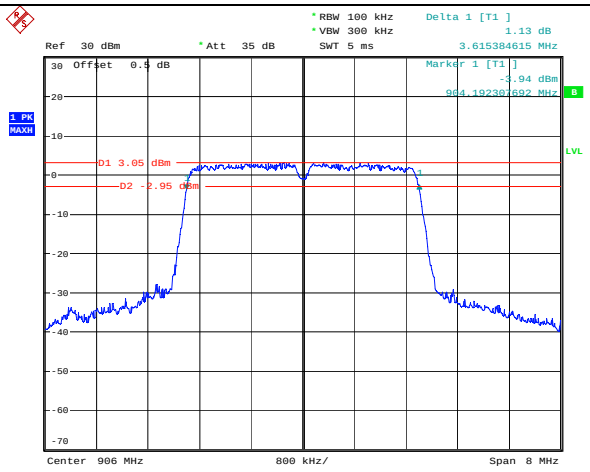
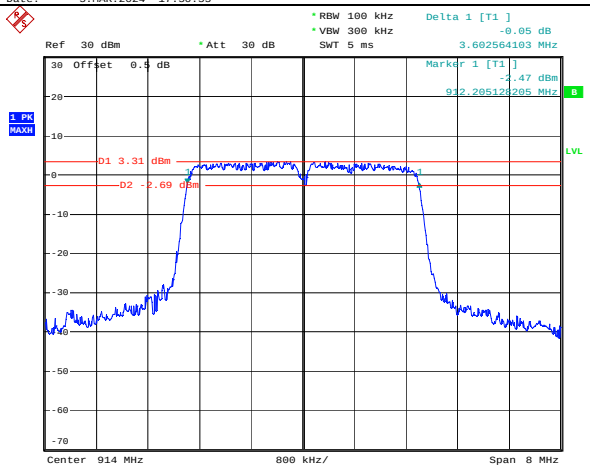
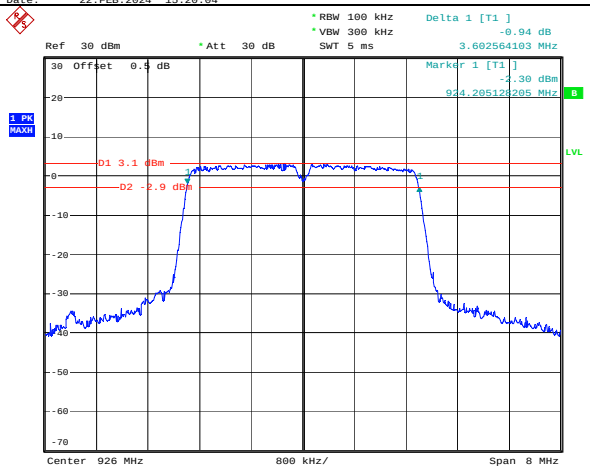
** Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

Test Data:

Test Mode	Test Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (MHz)
1MHz Bandwidth	903.5	0.849	≥0.5
	914.5	0.853	≥0.5
	926.5	0.849	≥0.5
2MHz Bandwidth	905	1.788	≥0.5
	915	1.776	≥0.5
	925	1.782	≥0.5
4MHz Bandwidth	906	3.615	≥0.5
	914	3.603	≥0.5
	926	3.603	≥0.5

6dB Emission Bandwidth	
1MHz Bandwidth Lowest Channel	
1MHz Bandwidth Middle Channel	
1MHz Bandwidth Highest Channel	

6dB Emission Bandwidth	
2MHz Bandwidth Lowest Channel	
2MHz Bandwidth Middle Channel	
2MHz Bandwidth Highest Channel	

6dB Emission Bandwidth	
4MHz Bandwidth Lowest Channel	
4MHz Bandwidth Middle Channel	
4MHz Bandwidth Highest Channel	

4.4 99% Occupied Bandwidth

Serial Number:	2G2H-1	Test Date:	2024/2/22
Test Site:	RF	Test Mode:	Transmitting
Tester:	LingLing Li	Test Result:	Pass

Environmental Conditions:					
Temperature: (℃)	27.1	Relative Humidity: (%)	60	ATM Pressure: (kPa)	100.9

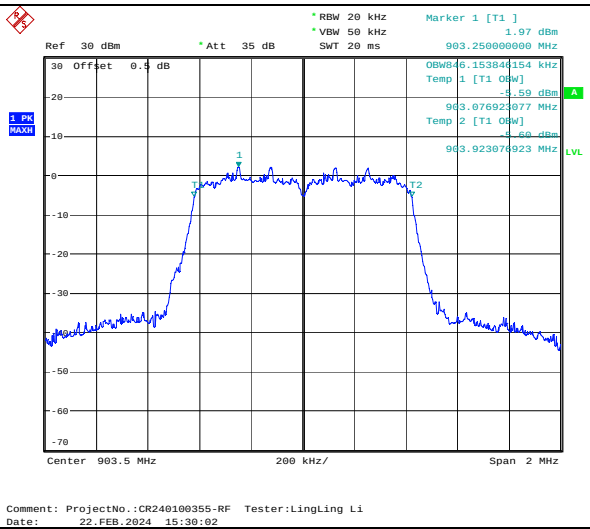
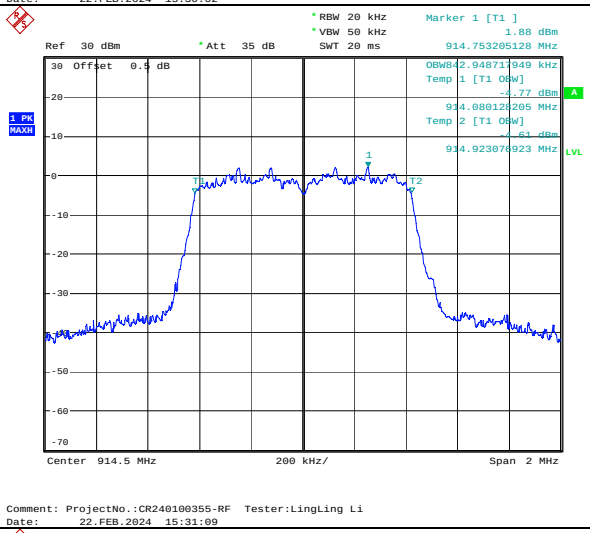
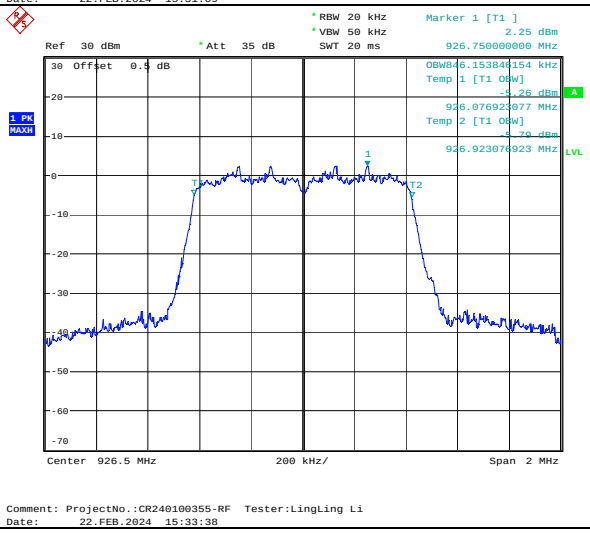
Test Equipment List and Details:

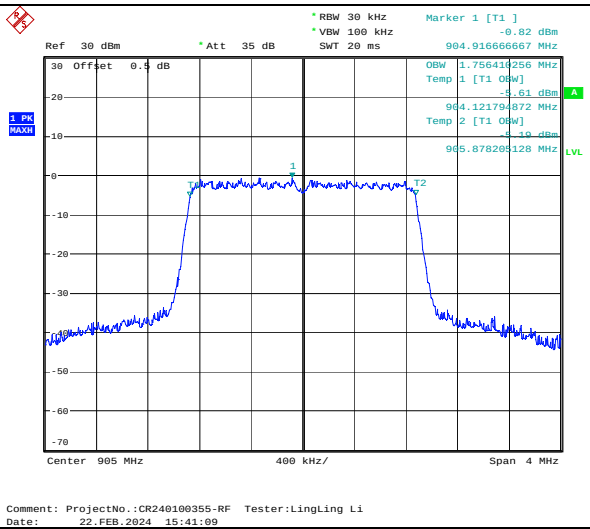
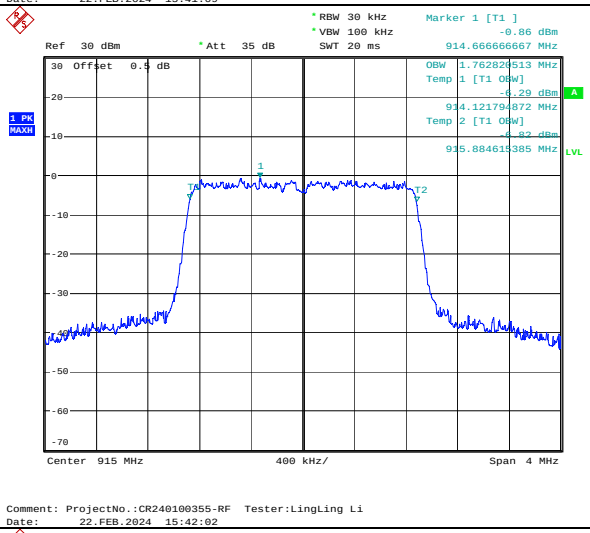
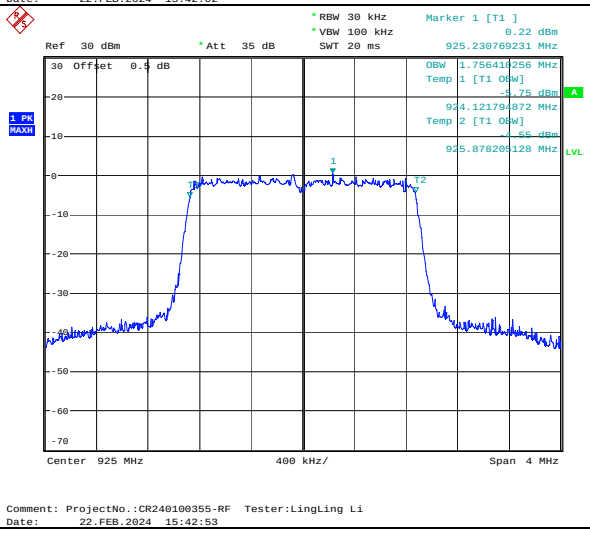
Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSU26	100147	2023/3/31	2024/3/30
zhuoxiang	Coaxial Cable	SMA-178	211001	Each time	N/A

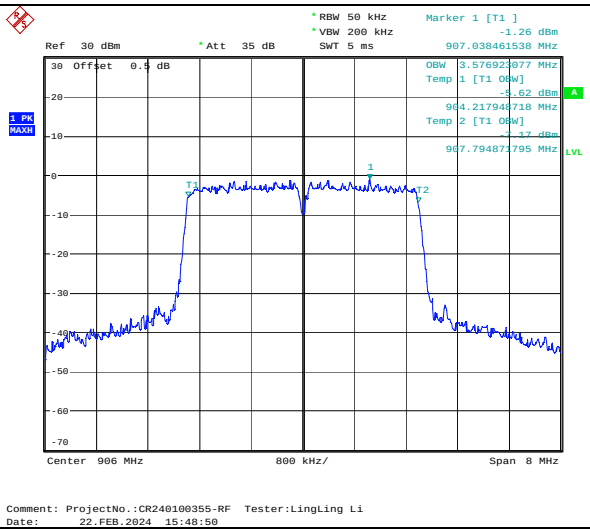
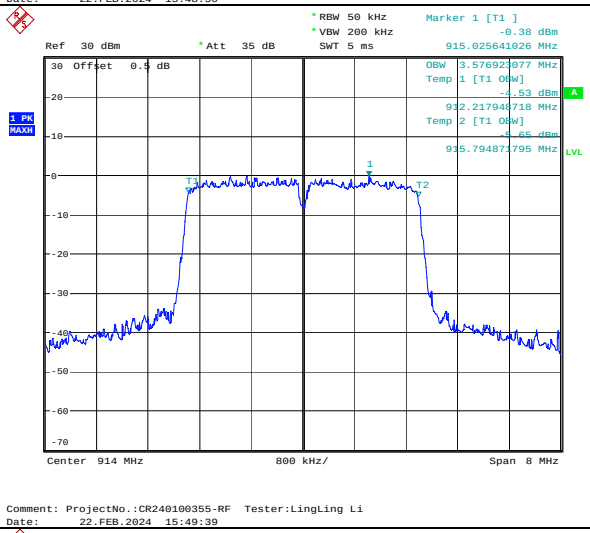
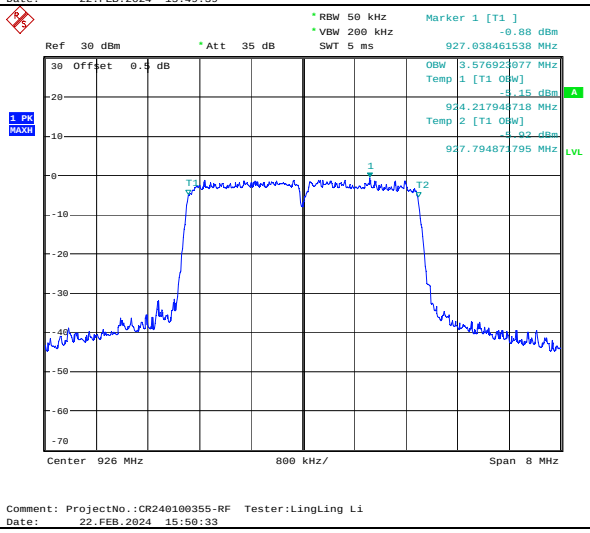
** Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

Test Data:

Test Mode	Test Frequency (MHz)	99% Occupied Bandwidth (MHz)
1MHz Bandwidth	903.5	0.846
	914.5	0.843
	926.5	0.846
2MHz Bandwidth	905	1.756
	915	1.763
	925	1.756
4MHz Bandwidth	906	3.577
	914	3.577
	926	3.577

99% Occupied Bandwidth	
1MHz Bandwidth Lowest Channel	
1MHz Bandwidth Middle Channel	
1MHz Bandwidth Highest Channel	

99% Occupied Bandwidth	
2MHz Bandwidth Lowest Channel	 Comment: ProjectNo.:CR240100355-RF Tester:LingLing Li Date: 22.FEB.2024 15:41:09
2MHz Bandwidth Middle Channel	 Comment: ProjectNo.:CR240100355-RF Tester:LingLing Li Date: 22.FEB.2024 15:42:02
2MHz Bandwidth Highest Channel	 Comment: ProjectNo.:CR240100355-RF Tester:LingLing Li Date: 22.FEB.2024 15:42:53

99% Occupied Bandwidth	
4MHz Bandwidth Lowest Channel	
4MHz Bandwidth Middle Channel	
4MHz Bandwidth Highest Channel	

4.5 Maximum Conducted Output Power

Serial Number:	2G2H-1	Test Date:	2024/2/22
Test Site:	RF	Test Mode:	Transmitting
Tester:	LingLing Li	Test Result:	Pass

Environmental Conditions:					
Temperature: (℃)	27.1	Relative Humidity: (%)	60	ATM Pressure: (kPa)	100.9

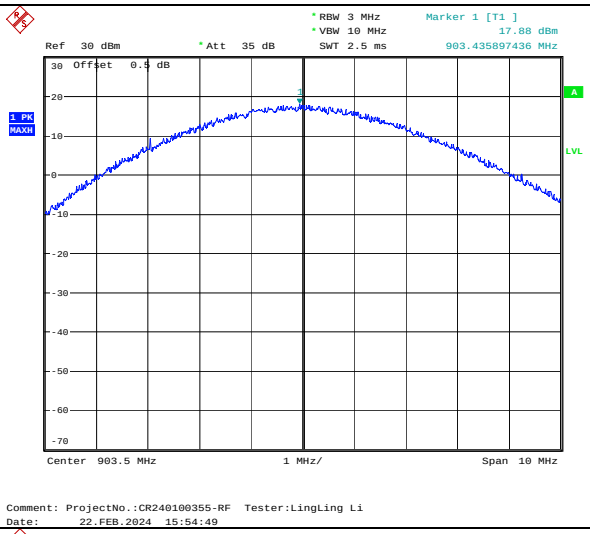
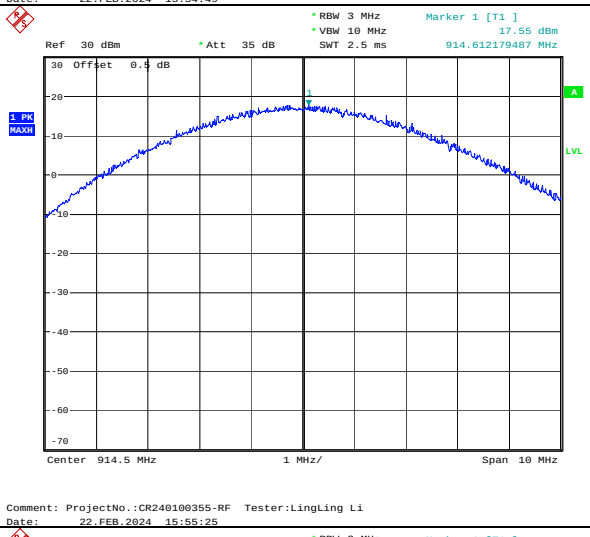
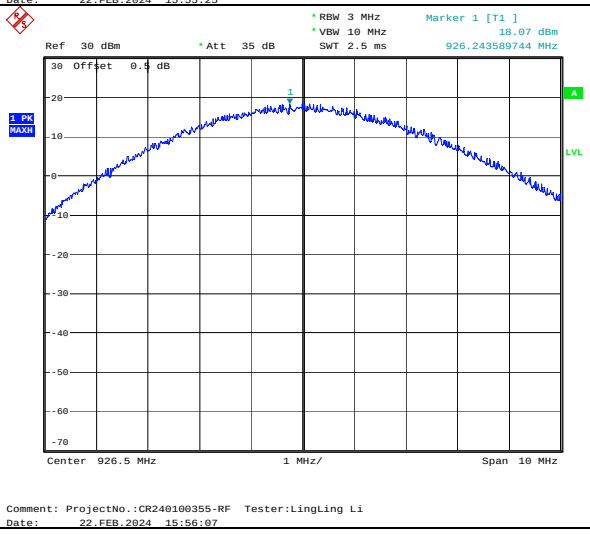
Test Equipment List and Details:

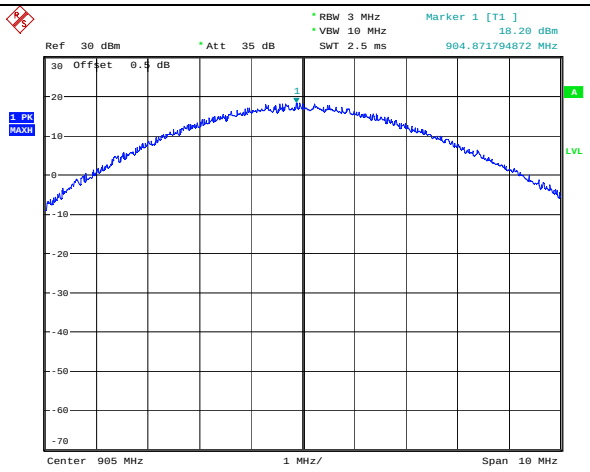
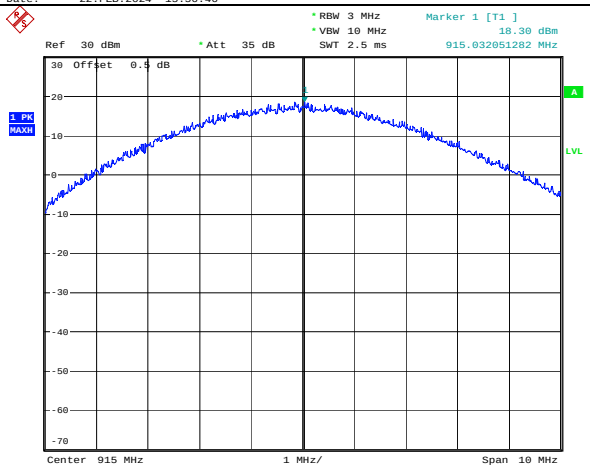
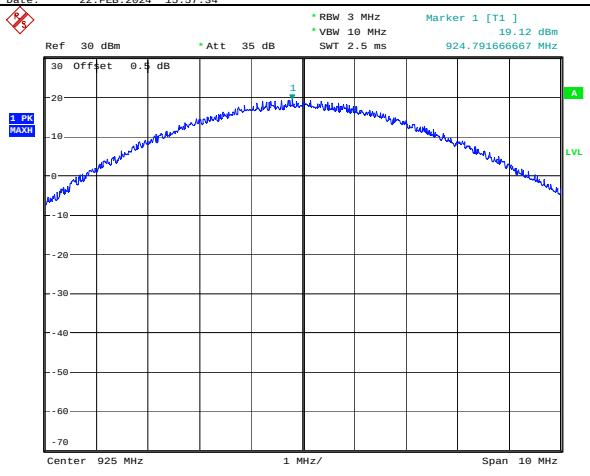
Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSU26	100147	2023/3/31	2024/3/30
zhuoxiang	Coaxial Cable	SMA-178	211001	Each time	N/A

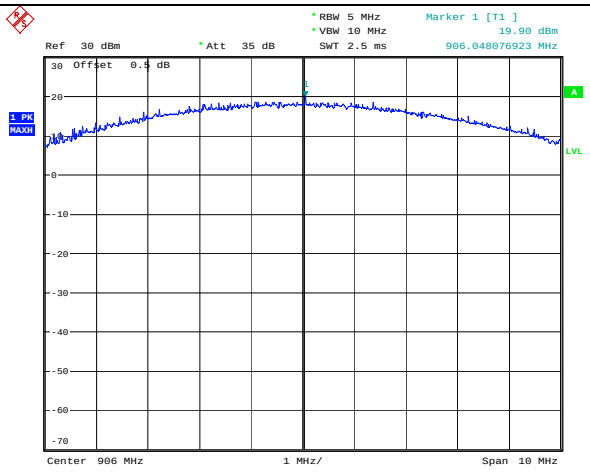
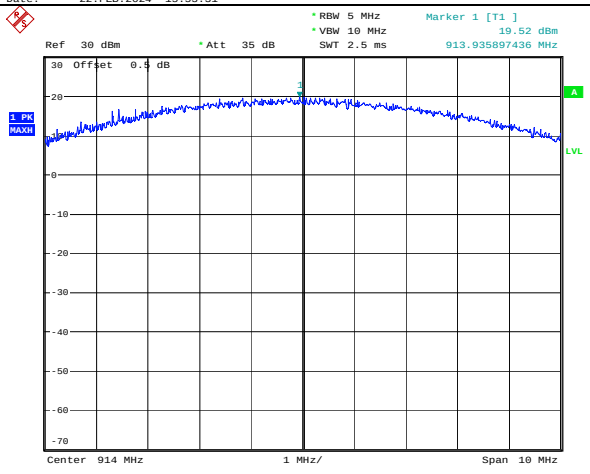
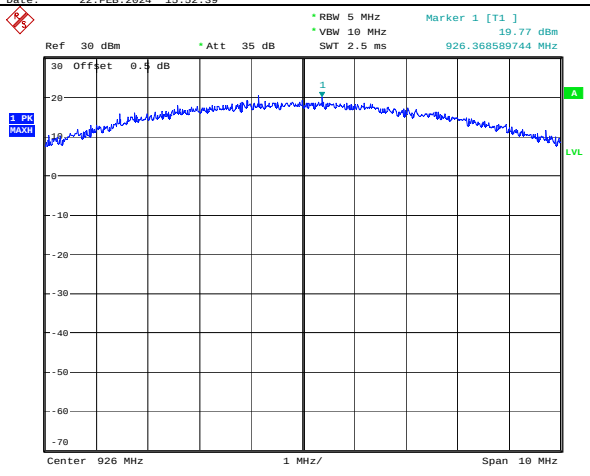
** Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

Test Data:

Test Mode	**Test Frequency (MHz)**	**Maximum Conducted Peak Output Power (dBm)**	**Limit (dBm)**
1MHz Bandwidth	903.5	17.88	≤30
	914.5	17.55	≤30
	926.5	18.07	≤30
2MHz Bandwidth	905	18.20	≤30
	915	18.30	≤30
	925	19.12	≤30
4MHz Bandwidth	906	**19.90**	≤30
	914	19.52	≤30
	926	19.77	≤30

Maximum Conducted Output Power	
1MHz Bandwidth Lowest Channel	 Comment: ProjectNo.:CR240100355-RF Tester:LingLing Li Date: 22.FEB.2024 15:54:49
1MHz Bandwidth Middle Channel	 Comment: ProjectNo.:CR240100355-RF Tester:LingLing Li Date: 22.FEB.2024 15:55:25
1MHz Bandwidth Highest Channel	 Comment: ProjectNo.:CR240100355-RF Tester:LingLing Li Date: 22.FEB.2024 15:56:07

Maximum Conducted Output Power	
2MHz Bandwidth Lowest Channel	 Comment: ProjectNo.:CR240100355-RF Tester:LingLing Li Date: 22.FEB.2024 15:56:46
2MHz Bandwidth Middle Channel	 Comment: ProjectNo.:CR240100355-RF Tester:LingLing Li Date: 22.FEB.2024 15:57:34
2MHz Bandwidth Highest Channel	 Comment: ProjectNo.:CR240100355-RF Tester:LingLing Li Date: 22.FEB.2024 15:58:02

Maximum Conducted Output Power	
4MHz Bandwidth Lowest Channel	 Comment: ProjectNo.:CR240100355-RF Tester:LingLing Li Date: 22.FEB.2024 15:53:31
4MHz Bandwidth Middle Channel	 Comment: ProjectNo.:CR240100355-RF Tester:LingLing Li Date: 22.FEB.2024 15:52:39
4MHz Bandwidth Highest Channel	 Comment: ProjectNo.:CR240100355-RF Tester:LingLing Li Date: 22.FEB.2024 15:52:04

4.6 Maximum Power Spectral Density

Serial Number:	2G2H-1	Test Date:	2024/2/22
Test Site:	RF	Test Mode:	Transmitting
Tester:	LingLing Li	Test Result:	Pass

Environmental Conditions:					
Temperature: (℃)	27.1	Relative Humidity: (%)	60	ATM Pressure: (kPa)	100.9

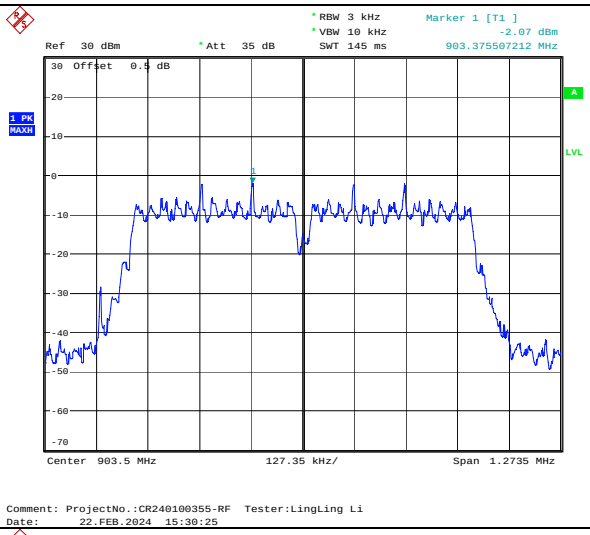
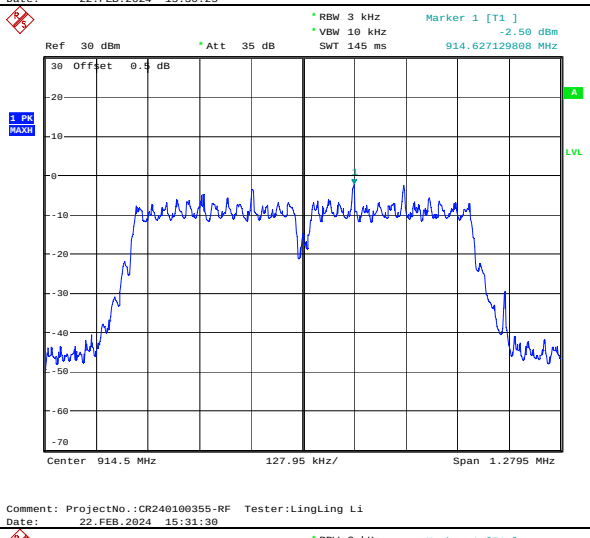
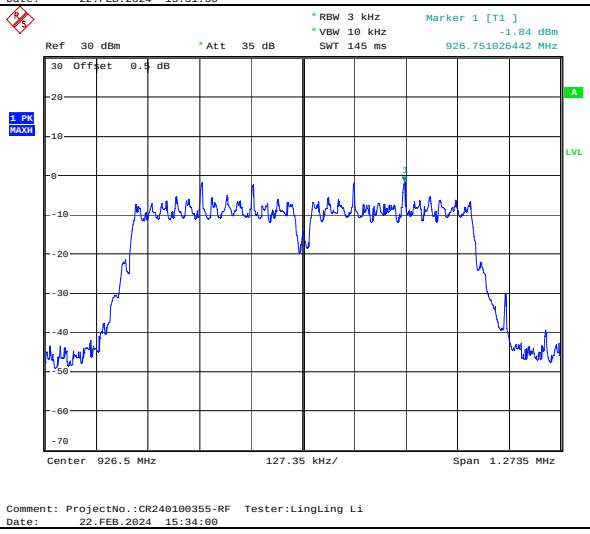
Test Equipment List and Details:

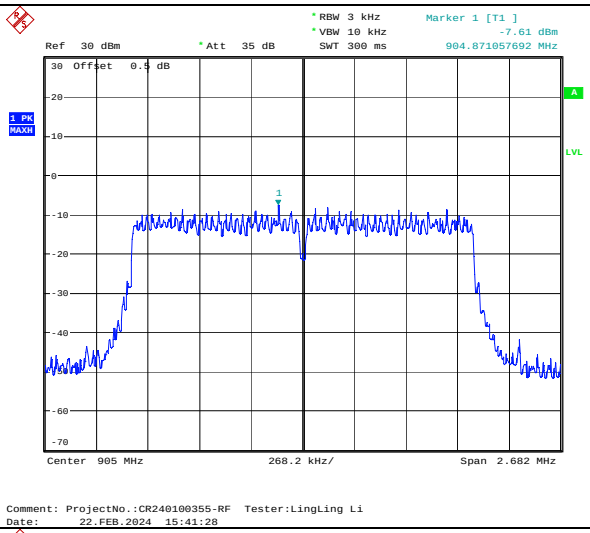
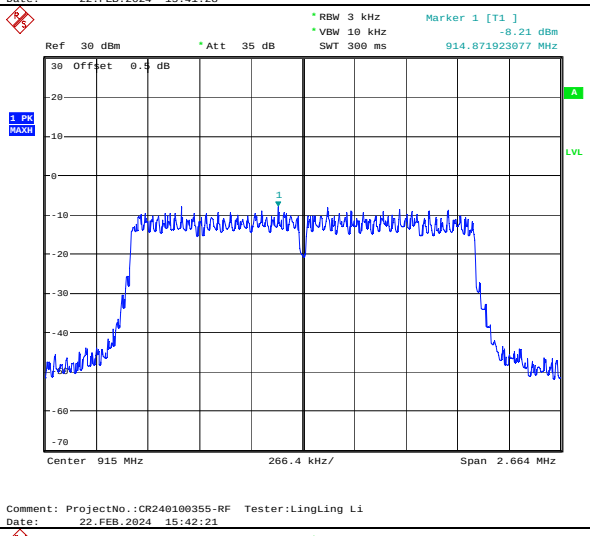
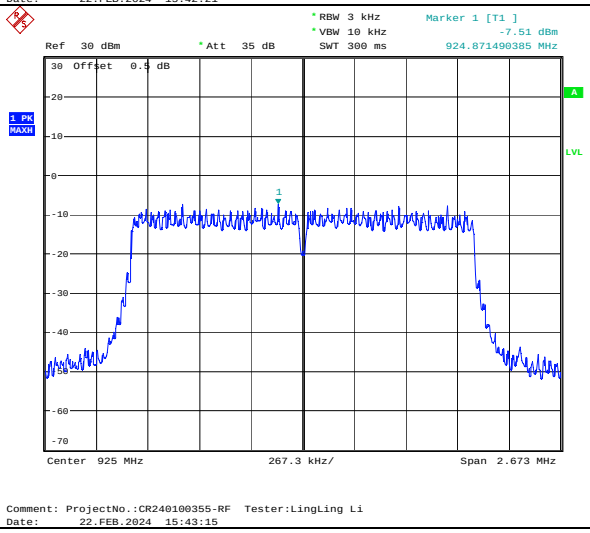
Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSU26	100147	2023/3/31	2024/3/30
zhuoxiang	Coaxial Cable	SMA-178	211001	Each time	N/A

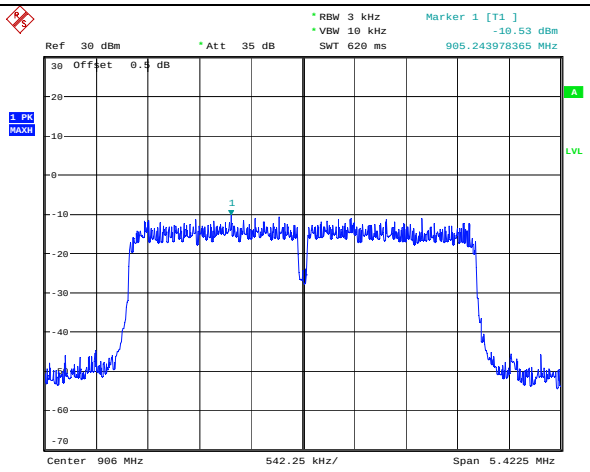
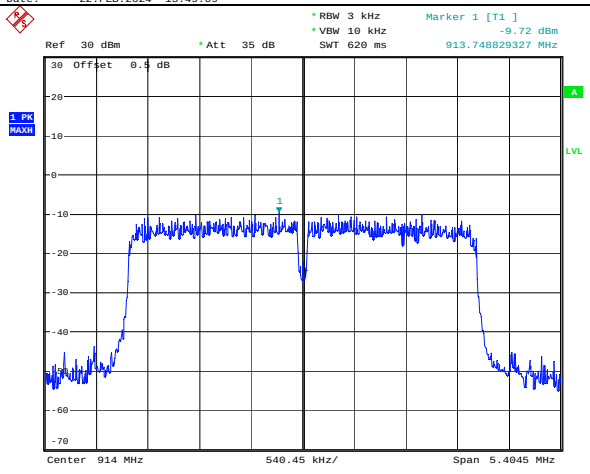
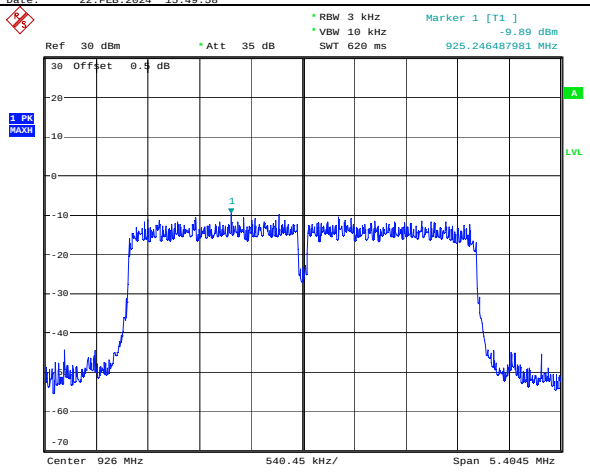
** Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

Test Data:

Test Mode	Test Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)
1MHz Bandwidth	903.5	-2.07	≤8.00
	914.5	-2.5	≤8.00
	926.5	-1.84	≤8.00
2MHz Bandwidth	905	-7.61	≤8.00
	915	-8.21	≤8.00
	925	-7.51	≤8.00
4MHz Bandwidth	906	-10.53	≤8.00
	914	-9.72	≤8.00
	926	-9.89	≤8.00

Maximum power spectral density	
1MHz Bandwidth Lowest Channel	
1MHz Bandwidth Middle Channel	
1MHz Bandwidth Highest Channel	

Maximum power spectral density	
2MHz Bandwidth Lowest Channel	
2MHz Bandwidth Middle Channel	
2MHz Bandwidth Highest Channel	

Maximum power spectral density	
4MHz Bandwidth Lowest Channel	 Comment: ProjectNo.:CR240100355-RF Tester:LingLing Li Date: 22.FEB.2024 15:49:09
4MHz Bandwidth Middle Channel	 Comment: ProjectNo.:CR240100355-RF Tester:LingLing Li Date: 22.FEB.2024 15:49:58
4MHz Bandwidth Highest Channel	 Comment: ProjectNo.:CR240100355-RF Tester:LingLing Li Date: 22.FEB.2024 15:50:52

4.7 100 kHz Bandwidth of Frequency Band Edge

Serial Number:	2G2H-1	Test Date:	2024/2/22
Test Site:	RF	Test Mode:	Transmitting
Tester:	LingLing Li	Test Result:	Pass

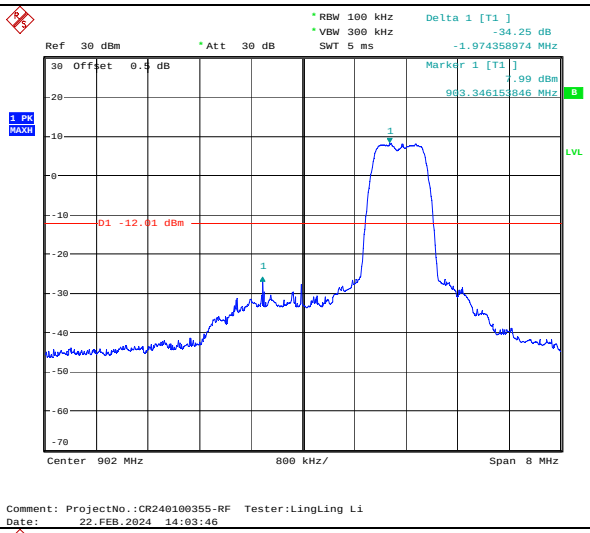
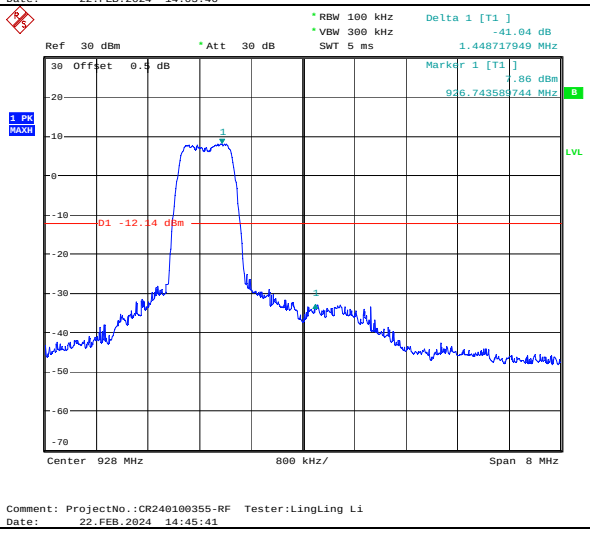
Environmental Conditions:					
Temperature: (℃)	27.1	Relative Humidity: (%)	60	ATM Pressure: (kPa)	100.9

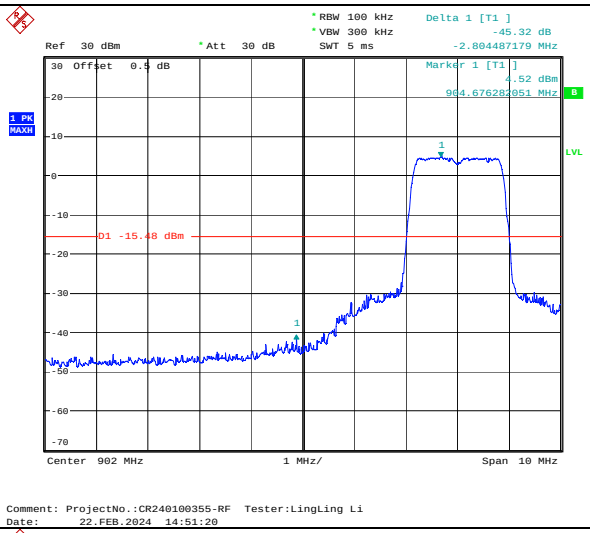
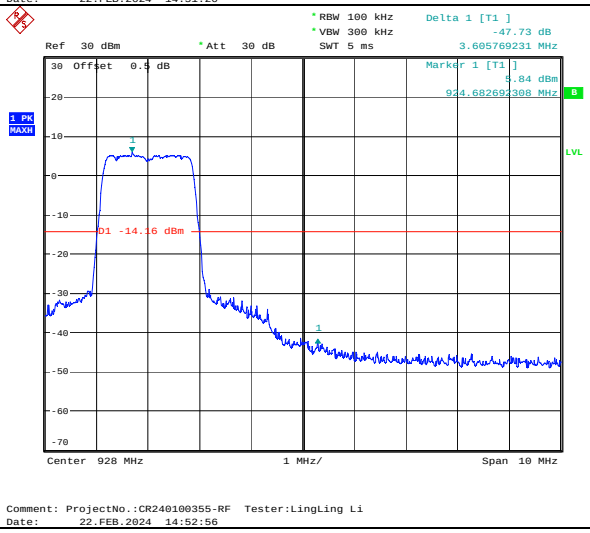
Test Equipment List and Details:

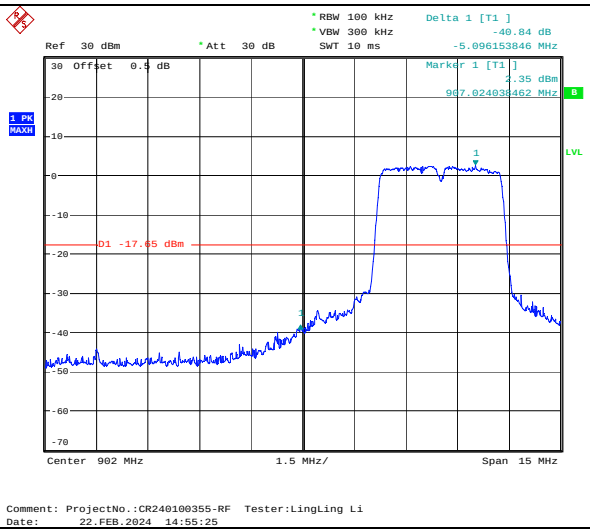
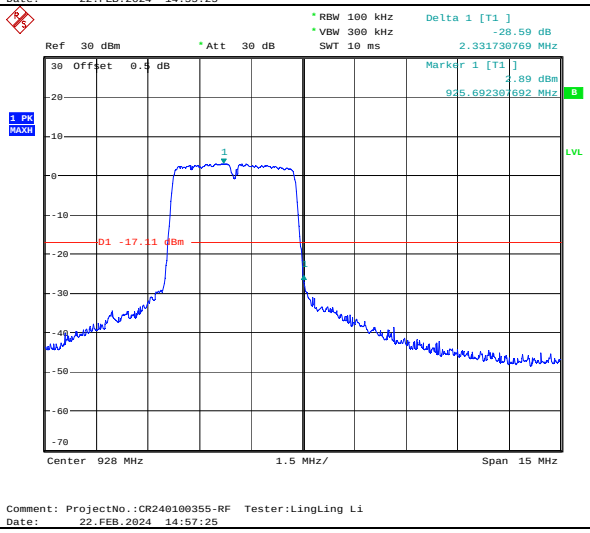
Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSU26	100147	2023/3/31	2024/3/30
zhuoxiang	Coaxial Cable	SMA-178	211001	Each time	N/A

** Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

Test Data:

100 kHz Bandwidth of Frequency Band Edge	
1MHz Bandwidth Lowest Band edge	
1MHz Bandwidth Highest Band edge	

100 kHz Bandwidth of Frequency Band Edge	
2MHz Bandwidth Lowest Band edge	
2MHz Bandwidth Highest Band edge	

100 kHz Bandwidth of Frequency Band Edge	
4MHz Bandwidth Lowest Band edge	
4MHz Bandwidth Highest Band edge	

4.8 Duty Cycle

Serial Number:	2G2H-1	Test Date:	2024/2/22
Test Site:	RF	Test Mode:	Transmitting
Tester:	LingLing Li	Test Result:	Pass

Environmental Conditions:					
Temperature: (℃)	27.1	Relative Humidity: (%)	60	ATM Pressure: (kPa)	100.9

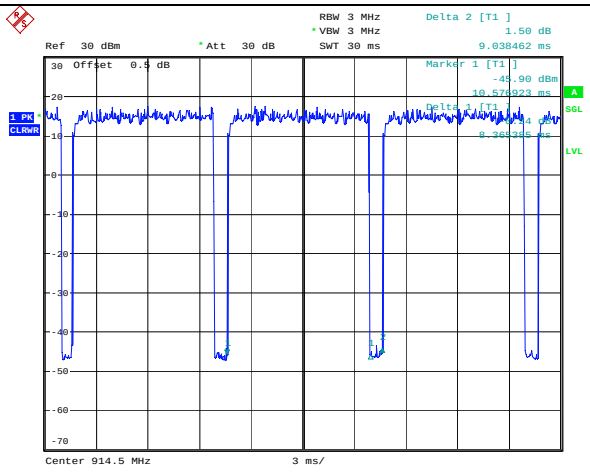
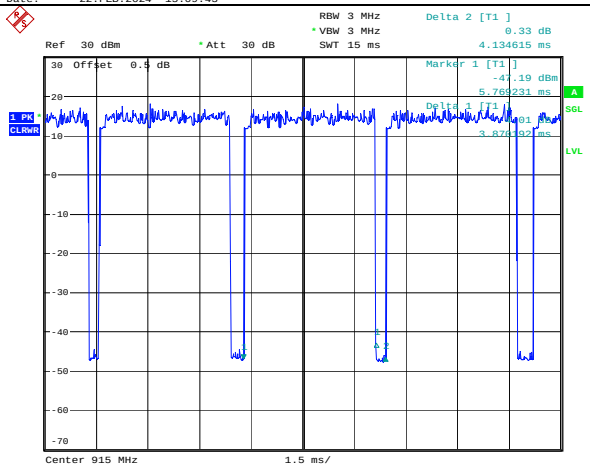
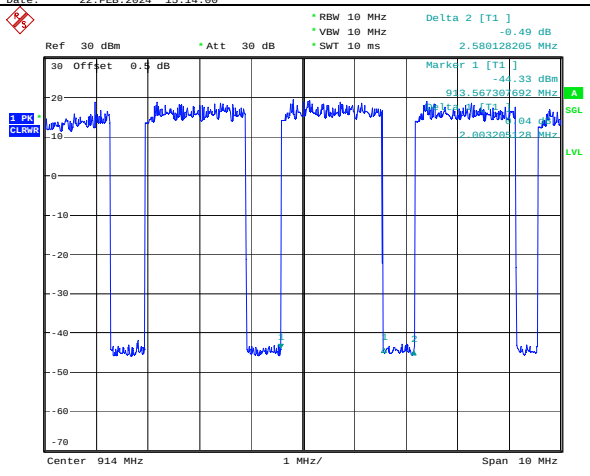
Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSU26	100147	2023/3/31	2024/3/30
zhuoxiang	Coaxial Cable	SMA-178	211001	Each time	N/A

** Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

Test Data:

Test Mode	Ton (ms)	Ton+off (ms)	Duty cycle (%)	1/T (Hz)	VBW Setting (kHz)
1MHz Bandwidth	8.365	9.038	92.55	120	0.2
2MHz Bandwidth	3.87	4.135	93.59	258	0.3
4MHz Bandwidth	2.003	2.58	77.64	499	0.5

Duty Cycle	
1MHz Bandwidth	
2MHz Bandwidth	
4MHz Bandwidth	

5. RF EXPOSURE EVALUATION

5.1 Applicable Standard

FCC §15.247 (i) and subpart §1.1307

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.

5. 2 Procedure

According to §1.1307(b)(3)(i)

(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^2f.
1,500-100,000	19.2R^2.

5.3 Measurement Result

Radio	Frequency (MHz)	λ /2 Π (mm)	Distance (mm)	Exemption ERP (mW)	Maximum Conducted Power including Tune-up Tolerance (dBm)	Antenna Gain (dBi)	ERP	
							dBm	mW
IEEE802.11ah	903.5-926.5	52.88	200	463	20	0.00	17.85	60.95

Note: The Maximum Conducted Power including Tune-up Tolerance was declared by manufacturer.

Result: The device compliant the MPE-Based Exemption at 20cm distances.

6. EUT PHOTOGRAPHS

Please refer to the attachment CR240100355-EXP EUT EXTERNAL PHOTOGRAPHS and CR240100355-INP EUT INTERNAL PHOTOGRAPHS

7. TEST SETUP PHOTOGRAPHS

Please refer to the attachment CR240100355-00B-TSP TEST SETUP PHOTOGRAPHS.

===== END OF REPORT =====