

TEST REPORT

Product Name : M5Cap CC1101

Brand Name : 
M5STACK

Model : Cap CC1101

Series Model : N/A

Applicant : M5Stack Technology Co., Ltd

Address : Block A10, Expo Bay South Coast, Fuhai Street, Bao'an District,
Shenzhen, China

Manufacturer : M5Stack Technology Co., Ltd

Address : Block A10, Expo Bay South Coast, Fuhai Street, Bao'an District,
Shenzhen, China

Standard(s) : Article 2, paragraph 1, item 8

Date of Receipt : Jun. 09, 2026

Date of Test : Jun. 09, 2026~ Jul. 07, 2026

Issued Date : Jul. 08, 2026

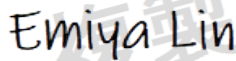
Issued By:

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Note: This device has been tested and found to comply with the standard(s) listed, this test report merely corresponds to the test sample. It is not permitted to copy extracts of these test result without the written permission of the test laboratory. This report shall not be reproduced except in full, without the written approval of Dongguan Yaxu (AiT) Technology Limited. If there is a need to alter or revise this document, the right belongs to Dongguan Yaxu (AiT) Technology Limited, and it should give a prior written notice of the revision document. This test report must not be used by the client to claim product endorsement.

Report Revise Record

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	/	Jul 08, 2026	Valid	Initial release

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1 TEST SUMMARY

1.1 Test Standards

The tests were performed according to following standards:

[MIC Notice No.88 Appendix No.22](#)

1.2 Test Summary

Test Item	Result
Frequency Tolerance	Pass
Antenna Output Power	Pass
Tolerances of Occupied Bandwidth	Pass
Unwanted Emission Strength	Pass
Secondary Radiated Emission Strength	Pass
Adjacent channel leakage power	Pass
Transmission Time Restriction	Pass
Construction protection method	Pass
Interference Prevention Function	Pass
Antenna Structure	Pass

1.3 Test Facility

The test facility is recognized, certified or accredited by the following organizations:

CNAS-Registration No: L6177

Dongguan Yaxu (AiT) technology Limited is accredited to ISO/IEC 17025:2017 general Requirements for the competence of testing and calibration laboratories (CNAS-CL01 Accreditation Criteria for the competence of testing and calibration laboratories) on April 18, 2022

FCC-Registration No.: 362653 Designation Number: CN1457

Dongguan Yaxu (AiT) technology Limited has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files.

IC-Registration No.: 6819 CAB identifier: CN0122

The 3m Semi-anechoic chamber of Dongguan Yaxu (AiT) technology Limited has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 6819A

A2LA-Lab Cert. No.: 6317.01

Dongguan Yaxu (AiT) technology Limited has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

1.4 Measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report according to CISPR 16 - 4 "Specification for radio disturbance and immunity measuring apparatus and methods – Part 4: Uncertainty in EMC Measurements" and is documented in the Dongguan Yaxu (AiT) Technology Limited's quality system according to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Test	Range	Measurement Uncertainty	Notes
Frequency counter	9KHz-40GHz	$\pm 0.5 \times 10^{-7}$ Hz	(1)
Power Line Conducted Emission	150KHz~30MHz	± 1.20 dB	(1)
Disturbance Power Emission	30MHz~300MHz	± 2.96 dB	(1)
Radiated Emission E/H-field	9K-30MHz	± 4.0 dB	(1)
Radiated Emission Test	30MHz~1GHz	± 3.75 dB	(1)
Radiated Emission Test	1GHz~18GHz	± 3.88 dB	(1)

The report uncertainty of measurement $y \pm U$, where expanded uncertainty U is based on a standard uncertainty Multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately 95%.

2 GENGNERAL INFORMATION

2.1 Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

Voltage	Normal Voltage	DC5.00V
	High Voltage	DC5.50V
	Low Voltage	DC4.50V
Other	Normal Temperature	25°C
	Relative Humidity	55 %
	Air Pressure	989 hPa

2.2 General Description of EUT

Product Name:	M5Cap CC1101
Model/Type reference:	Cap CC1101
Serial Model:	N/A
Power rating:	DC 5V 1000mA
Hardware Version:	N/A
Software Version:	N/A
Sample(s) Status:	AiTDG-260609002-1
UHF RFID:	
Frequency band:	922.0MHz~923.4MHz
Operation frequency:	922.0MHz, 922.8MHz, 923.4MHz
Modulation:	FSK
Channel number:	3
Antenna port:	1
Antenna type:	External Antenna
Antenna gain:	2.14 dBi
Remark: The above DUT's information was declared by manufacturer. For more detailed features description, please refer to the manufacturer's specifications or the User's Manual.	

2.3 Description of Test Modes and Test Frequency

The EUT has been tested under typical operating condition. The Applicant provides communication tools software to control the EUT for staying in continuous transmitting and receiving mode for testing.

Operation Frequency List:

Channel	Frequency(MHz)
1	922.0
2	922.8
3	923.4

Note: Test performed at the lowest/middle/highest frequencies selected in the list above for EUT supported while working on TX/RX mode.

2.4 Equipment List for the Test

No	Test Equipment	Manufacturer	Model No	Serial No	Cal. Date	Cal. Due Date	Cal. Institution
1	SIGNAL Analyzer	R&S	FSV40	101470	2025.09.26	2026.09.25	LISAI
2	EMI Measuring Receiver	R&S	ESPI	100773	2025.09.25	2026.09.24	LISAI
3	Mobile phone	Samsung	GALAXY S4	R33D20 SQYNW	N/A	N/A	LISAI
4	DC Power supply	Manson	HCS-3604	G521100 129	2025.09.25	2026.09.24	LISAI
5	Digital Phosphor Oscilloscope	Tektronix	TDS3012	B021220	2025.09.25	2026.09.24	LISAI
6	Signal Generator	Agilent	N5182A	MY50143 009	2025.09.26	2026.09.25	LISAI
7	RF Automatic Test system	MW	MW100-RFCB	21033016	2025.09.26	2026.09.25	LISAI
8	RF Software	MW	MTS 8310	2.0.0.0	N/A	N/A	N/A

Note: Calibration by the calibration agencies listed in the table correspond to paragraph 4 (ii) (c) of Article 24-2 in the Radio Law.

☐ (a) Calibration conducted by the National Institute of Information and Communications Technology (NICT) or a designated calibration agency under Article 102-18-1 of the Radio Act.

☐ (b) Calibration conducted based on the regulations of Article 135 or 144 of the Measurement Act.

☒ (c) Calibration conducted in foreign countries, which is equivalent to calibration conducted by the NICT or a designated calibration agency under Article 102-18-1 of the Radio Act.

☐ (d) Calibration, etc. conducted by using measuring instruments and other facilities listed at the bottom of appended table 3 of the Radio Act, which is to have been calibrated as described in (a) through (c) above.

2.5 Special Accessories

Follow auxiliary equipment(s) test with EUT that provided by the manufacturer or laboratory is listed as follow:

Description	Manufacturer	Model	Serial No.	Provided by	Other
Controller	M5Stack	STAMPS3A	N/A	Manufacturer	/

2.6 Table for Parameters of Test Software Setting

During testing, Channel & Power Controlling Software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product.

Power Parameters:

Test Software Version	CMD Command		
Channel	Low	Middle	High
Power level setting	Default	Default	Default

2.7 Test Voltage

POWER SUPPLY VOLTAGE FLUCTUATION TEST

Voltage Fluctuation Test	Normal Voltage	High Voltage +10% of Normal Voltage	Low Voltage -10% of Normal Voltage
Power supply	DC 5V	DC 5.5V	DC 4.5V
Output To RF Module	DC 3.3V	DC 3.3V	DC 3.3V
Voltage Variation (%)	--	--	--

Note:

Voltage Variation (%)

= (Output high or Low Voltage - Output Normal Voltage) / Output Normal Voltage * 100

During the input supply voltage to the EUT from the external power source is varied by +/- 10%, if output voltage had been confirmed that the fluctuation of power supply to the RF circuit of EUT (excluding power source) is equal to or less than +/-1%. Exempt extremely high and low supply voltage condition test, EUT only operated in normal voltage to test all regulations.

The sample power supply was confirmed that input voltage variation at the radio unit in the radio equipment to be tested is less than +1% against a variation of +10% at the input voltage from the external power supply to the radio equipment, and the radio equipment was designed so as to be operated in a specified voltage variation limit within +10%, Radio can only test at normal Voltage.

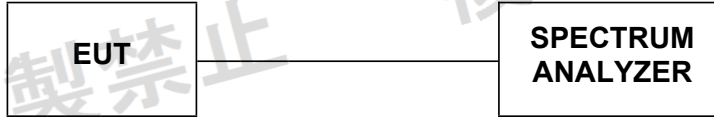
3 Test conditions and Results

3.1 Frequency Tolerance

LIMIT

20ppm

TEST CONFIGURATION



TEST PROCEDURE

The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram as TEST CONFIGURATION shows.

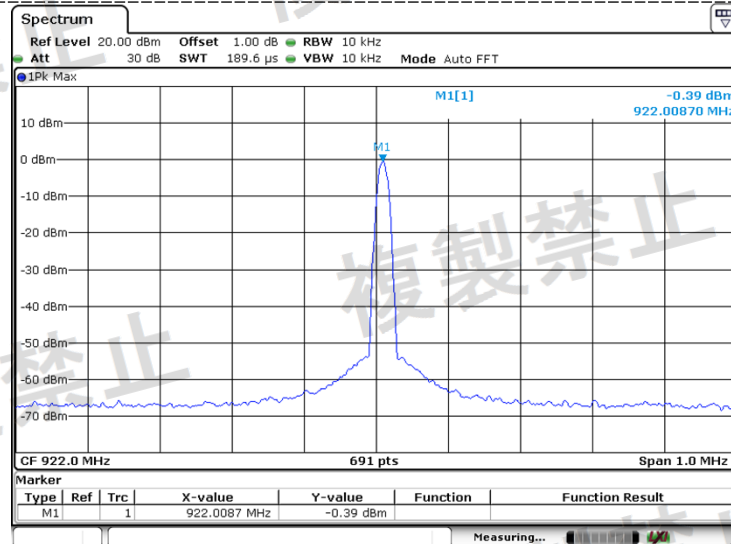
EUT Condition: non-modulation

Spectrum Condition:

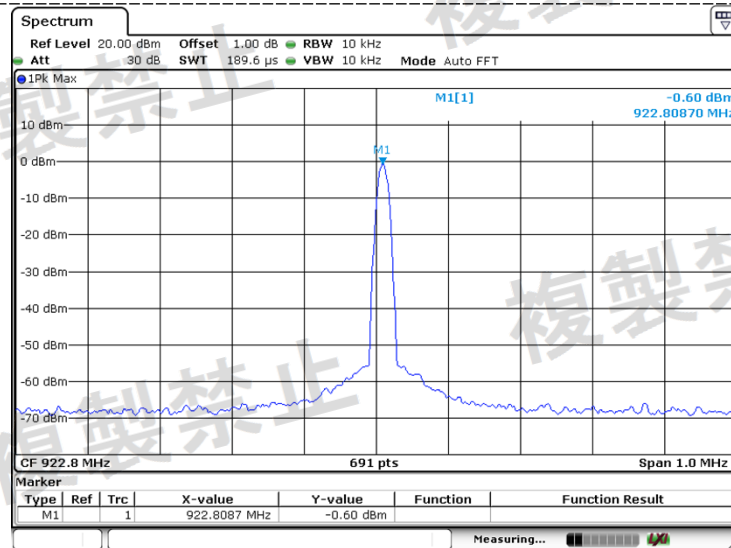
- Frequency: test frequency
- Span: 2 to 3.5 times the limit of occupied bandwidth
- RBW: 1% of limit of occupied bandwidth
- VBW: equal the RBW
- Sweep time: Auto
- Detector mode: Positive peak
- Indication mode: max hold

TEST RESULTS

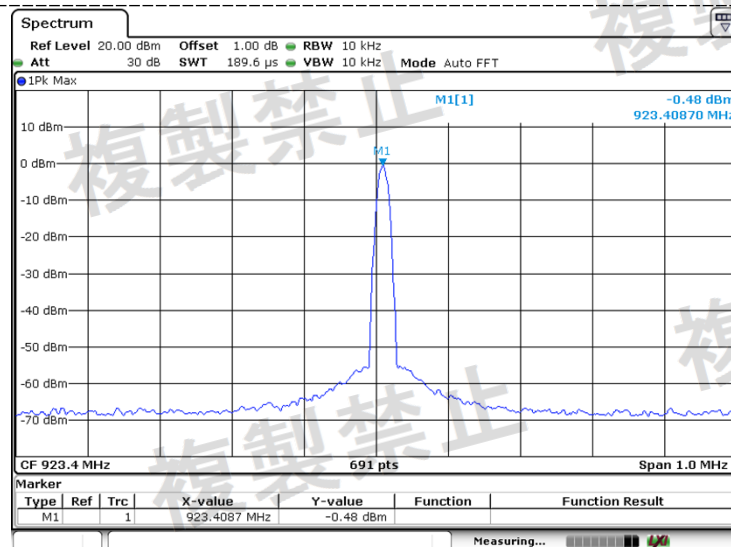
Frequency (MHz)	Read (MHz)	Deviation (MHz)	Tolerance (ppm)	Limit (ppm)	Result
922.0	922.0087	0.0087	9.44	20	Pass
922.8	922.0087	0.0087	9.43		
923.4	923. 4087	0.0087	9.42		



922.0MHz



922.8MHz



923.4MHz

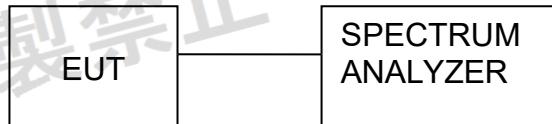
3.2 Antenna Output Power

LIMIT

- $\leq 0.25W$

The Output Power Tolerance must be within +20%, -80%.

TEST CONFIGURATION



TEST PROCEDURE

Step 1:

Connect the UUT to the spectrum analyzer as TEST CONFIGURATION and use the following settings:

- Centre Frequency: The centre frequency of the channel under test.
- RBW: 1 MHz
- VBW: 1 MHz
- Span: Wide enough to cover the complete power envelope of the signal of the UUT.
- Detector: Peak
- Trace Mode: Max Hold

Step 2:

When the trace is complete, find the peak value of the power envelope and record the frequency.

Step 3:

Make the following changes to the settings of the spectrum analyzer:

- Centre Frequency: Equal to the frequency recorded in step 2.
- Span: 0 MHz
- RBW: 1 MHz
- VBW: 1 MHz
- Detector: RMS
- Trace Mode: Clear Write

TEST RESULTS

Channel (MHz)	Average burst power(dBm)	Output power (W)	Limit (W)	Rated output power (W)	Tolerance (%)	Limit	Result
922.0	18.740	0.0748	0.25	0.075	-0.27%	-80%~+20%	Pass
922.8	18.719	0.0745	0.25	0.075	-0.67%	-80%~+20%	Pass
923.4	18.785	0.0756	0.25	0.075	0.80%	-80%~+20%	Pass

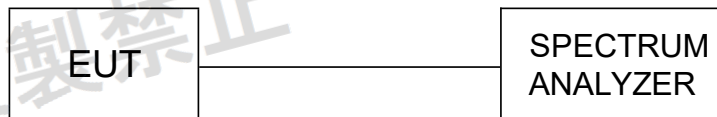
3.3 Tolerances of Occupied Bandwidth

LIMIT

Occupied frequency bandwidth: $\leq (200 \times n)$ kHz

Notes: $n = 1$ (n is a number of unit radio channels constituting the radio channel and is an integer from 1 to 5.)

TEST CONFIGURATION



TEST PROCEDURE

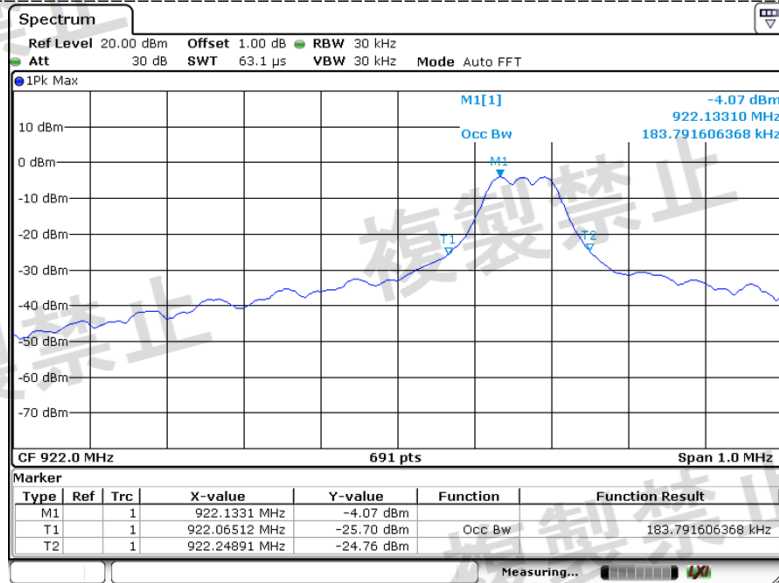
The occupied bandwidth is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers are each equal to 0.5% of the total mean power of the given emission.

1. Connect the UUT to the spectrum analyzer as TEST CONFIGURATION.
2. Set spectrum analyzer to 99% power bandwidth test mode and setting as follow:
 - Centre Frequency: The centre frequency of the channel under test.
 - Span: 2 to 3.5 times the limit of occupied bandwidth
 - RBW: 1% of limit of occupied bandwidth
 - VBW: = RBW
 - Detector: Peak
 - Trace Mode: Max Hold
3. Wait the trace to stabilize and record this value.
4. Use the marker function to determine the left point and right point and recorded.

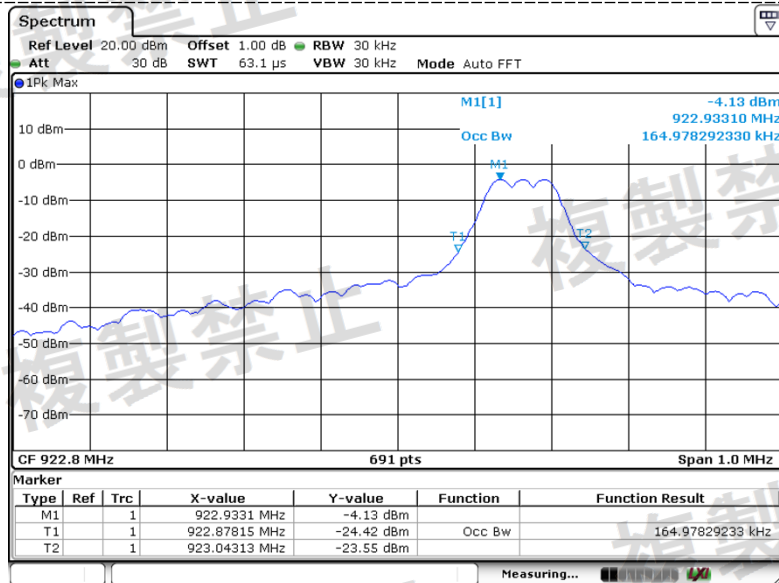
TEST RESULTS

Test Frequency (MHz)	Occupied Channel Bandwidth (KHz)	Limit	Result
922.0	183.792	$\leq 200\text{KHz}$	Pass
922.8	164.978		Pass
923.4	183.792		Pass

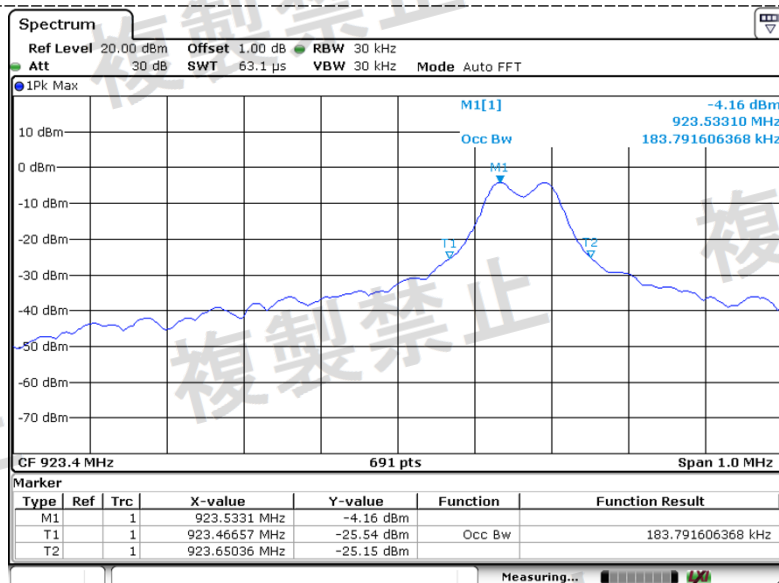
RFID



922.0MHz



922.8MHz



923.4MHz

3.4 Unwanted Emission Strength

LIMIT

Frequency band	Spurious emission/ Unwanted Emission	Reference bandwidth
$f \leq 710\text{MHz}$	-36 dBm	100 kHz
$710\text{MHz} < f \leq 900\text{MHz}$	-55 dBm	1 MHz
$900\text{MHz} < f \leq 915\text{MHz}$	-55 dBm	100 kHz
$915\text{MHz} < f \leq 915.7\text{MHz}$	-36 dBm	100 KHz
$915.7\text{MHz} < f \leq 923.5\text{MHz}^*$	-29 dBm	100 kHz
$923.5\text{MHz} < f \leq 930\text{MHz}$	-36 dBm	100 kHz
$930\text{MHz} < f \leq 1000\text{MHz}$	-55 dBm	100 kHz
$1000\text{MHz} < f \leq 1215\text{MHz}$	-45 dBm	1 MHz
$1215\text{MHz} < f$	-30 dBm	1 MHz

*(Except for $|f-f_c| \leq (200+100 \times n)$ kHz if bandwidth of unit radio channel is 200kHz, except for $|f-f_c| \leq (100+50 \times n)$ kHz if bandwidth of unit radio channel is 100kHz.

Except for $|f-f_c| \leq (100+100 \times n)$ kHz if frequency band is $921.9\text{MHz} \leq f \leq 922.1\text{MHz}$ and $922.7\text{MHz} \leq 922.9\text{MHz}$ and $923.3\text{MHz} \leq 923.5\text{MHz}$. Where n is a number of unit radiochannels constituting the radio channel and is an integer from 1 to 5)

TEST CONFIGURATION



TEST PROCEDURE

The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram as TEST CONFIGURATION shows.

EUT Condition: modulation

Spectrum Condition:

Frequency: 30MHz-10GHz

RBW: equal to the Reference bandwidth

VBW: equal to RBW

Sweep time: Auto

Detector mode: Positive peak

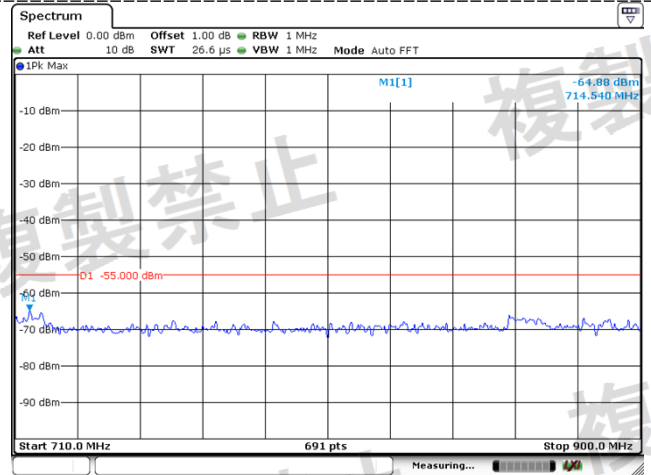
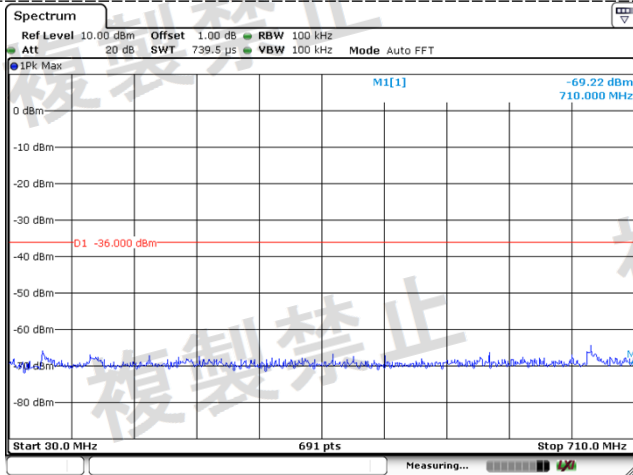
Indication mode: max hold

TEST RESULTS

Mode	Frequency (MHz)	Range (MHz)	Emission Frequency (MHz)	Max Peak Value (dBm)	Max RMS Value (dBm)	Limit (dBm)	Verdict
RFID	922	30-710	710.00	-69.22	NA	-36	Pass
RFID	922	710-900	714.540	-64.88	NA	-55	Pass
RFID	922	900-915	901.682	-75.76	NA	-55	Pass
RFID	922	915-915.7	915.099	-70.50	NA	-36	Pass
RFID	922	915.7-921.8	921.795	-55.82	NA	-29	Pass
RFID	922	922.2-923.5	922.201	-31.78	NA	-29	Pass
RFID	922	923.5-930	923.956	-69.98	NA	-36	Pass
RFID	922	930-1000	949.700	-73.56	NA	-55	Pass
RFID	922	1000-1215	1000.16	-68.46	NA	-45	Pass
RFID	922	1215-10000	6981	-49.62	NA	-30	Pass
RFID	922.8	30-710	669.16	-77.42	NA	-36	Pass
RFID	922.8	710-900	713.44	-65.25	NA	-55	Pass
RFID	922.8	900-915	901.118	-75.79	NA	-55	Pass
RFID	922.8	915-915.7	915.360	-74.38	NA	-36	Pass
RFID	922.8	915.7-922.6	922.595	-55.89	NA	-29	Pass
RFID	922.8	923.0-923.5	923.00	-31.69	NA	-29	Pass
RFID	922.8	923.5-930	923.505	-53.15	NA	-36	Pass
RFID	922.8	930-1000	930.150	-68.49	NA	-55	Pass
RFID	922.8	1000-1215	1167.86	-69.32	NA	-45	Pass
RFID	922.8	1215-10000	2772	-50.35	NA	-30	Pass
RFID	923.4	30-710	663.26	-76.38	NA	-36	Pass
RFID	923.4	710-900	860.54	-65.62	NA	-55	Pass
RFID	923.4	900-915	909.345	-75.20	NA	-55	Pass
RFID	923.4	915-915.7	915.014	-75.91	NA	-36	Pass
RFID	923.4	915.7-923.2	923.195	-30.51	NA	-29	Pass
RFID	923.4	923.5-930	923.504	-39.41	NA	-36	Pass
RFID	923.4	930-1000	952.640	-74.68	NA	-55	Pass
RFID	923.4	1000-1215	1113.10	-68.44	NA	-45	Pass
RFID	923.4	1215-10000	2772	-50.20	NA	-30	Pass

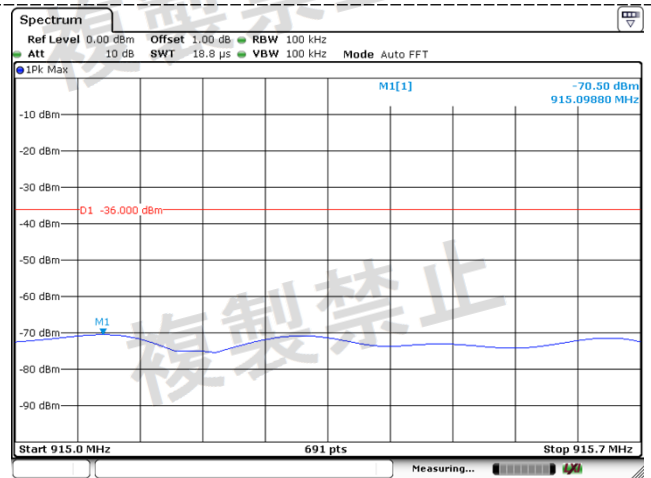
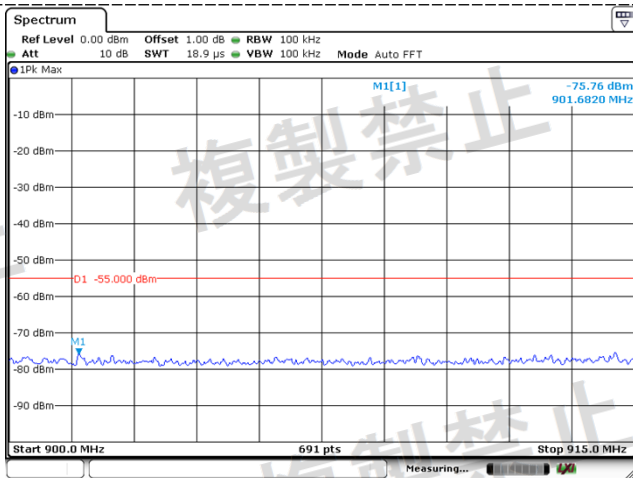
Test Frequency:

922.0MHz



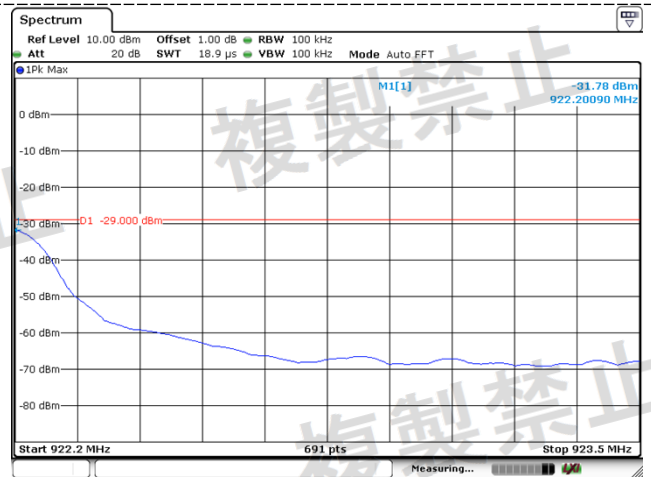
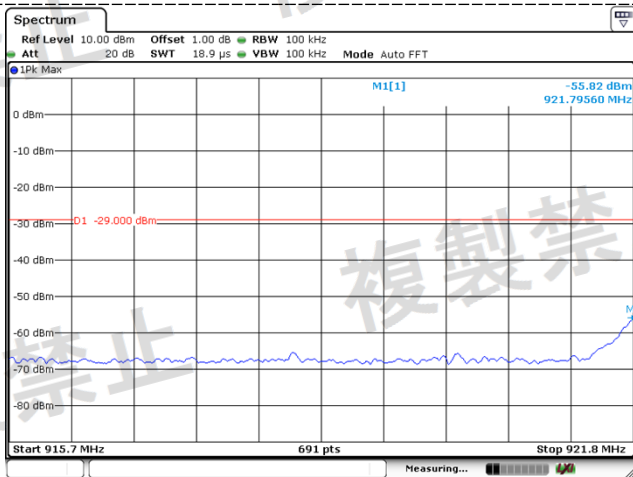
30MHz~710MHz

710MHz~900MHz



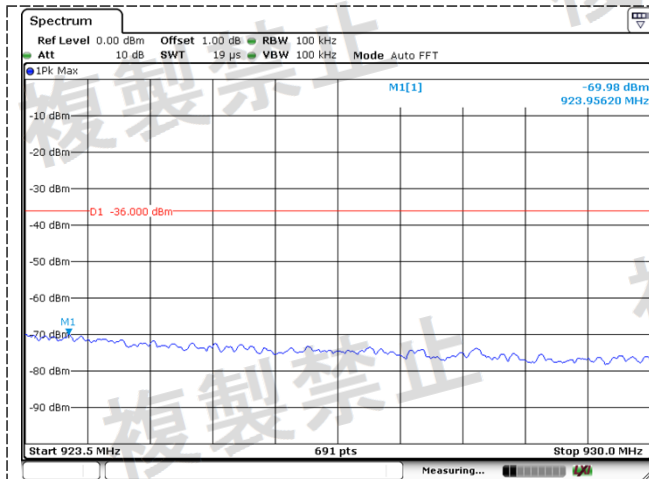
900MHz~915MHz

915MHz~915.7MHz

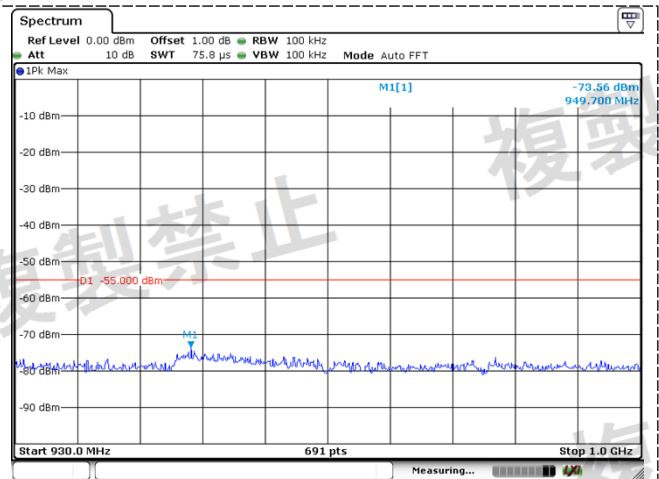


915.7MHz ~921.8MHz

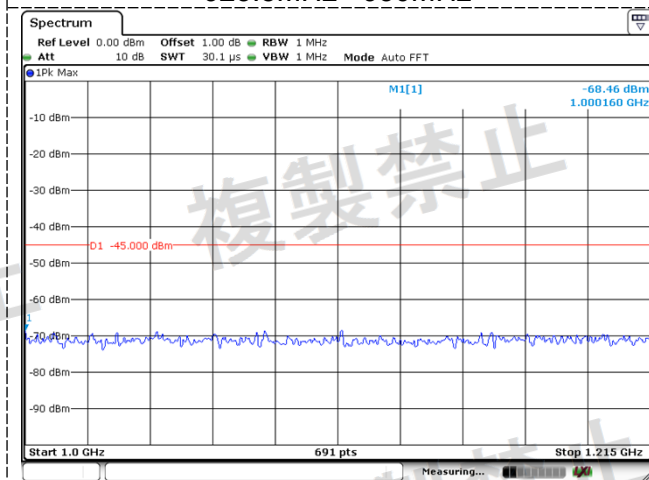
922.2MHz ~923.5MHz



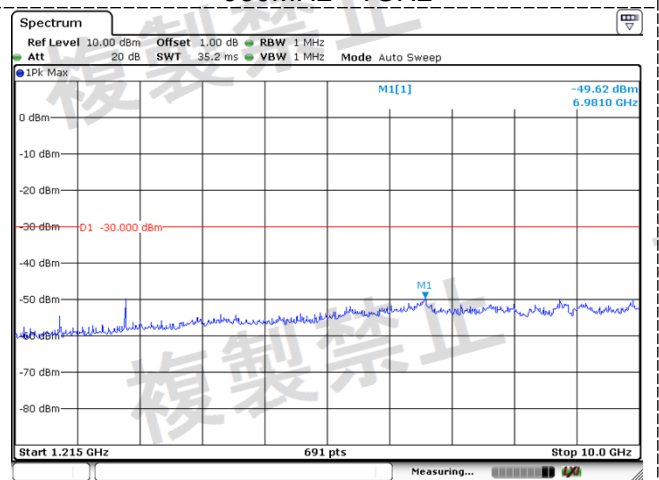
923.5MHz ~930MHz



930MHz ~1GHz



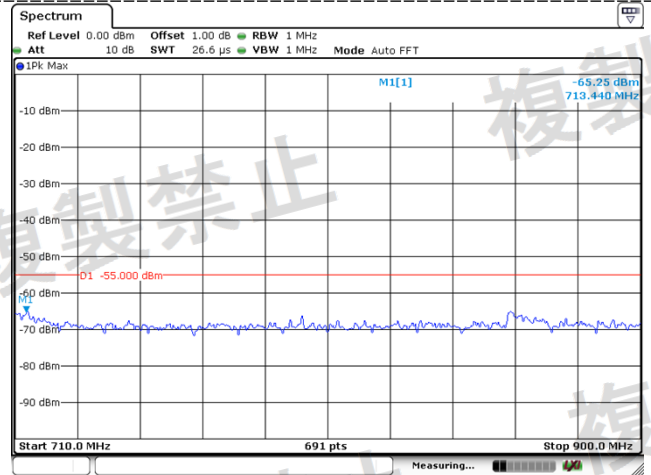
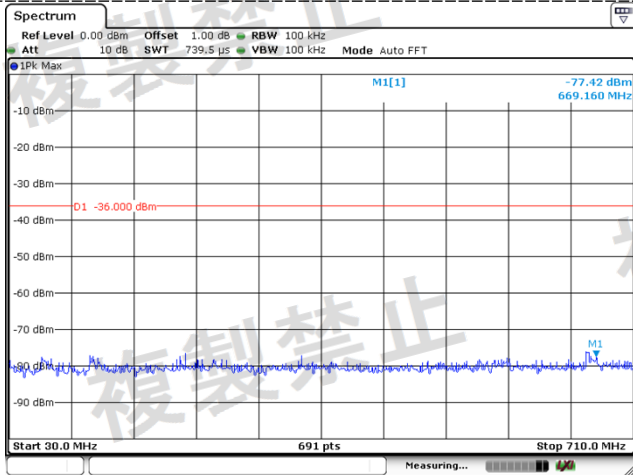
1GHz-1.215GHz



1.215GHz-10GHz

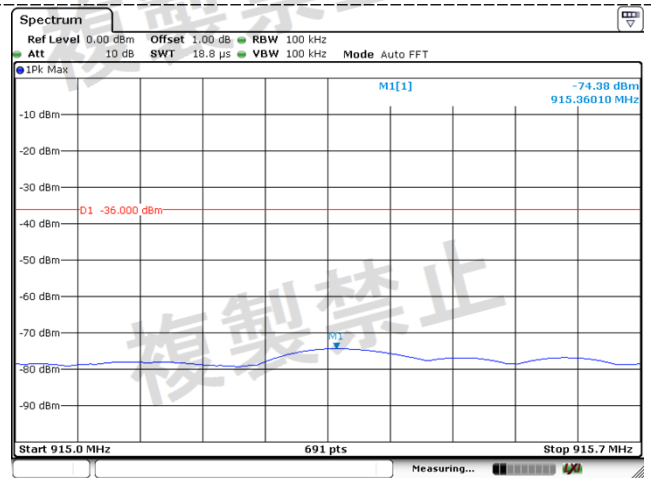
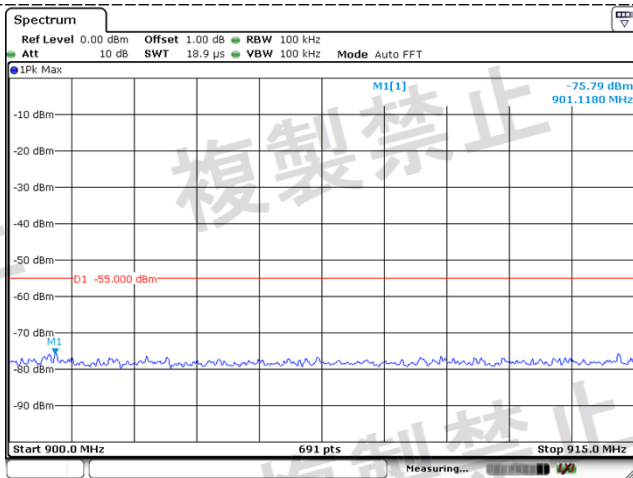
Test Frequency:

922.8MHz



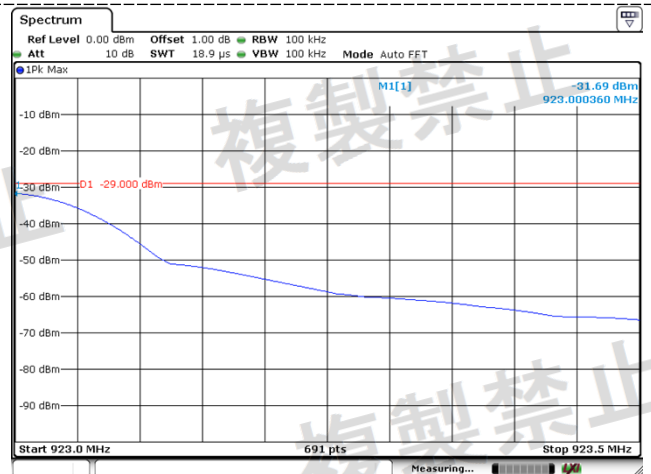
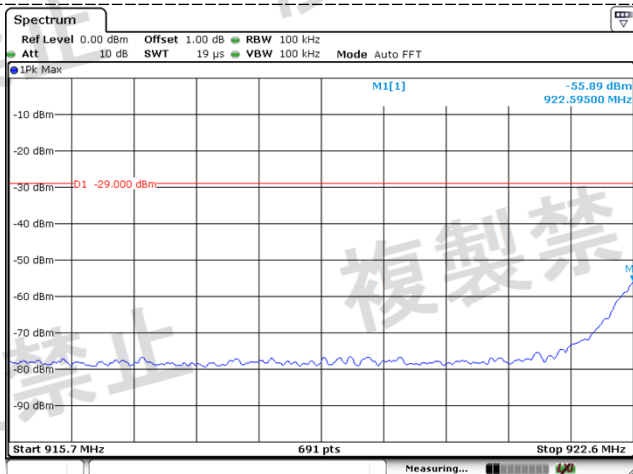
30MHz~710MHz

710MHz~900MHz



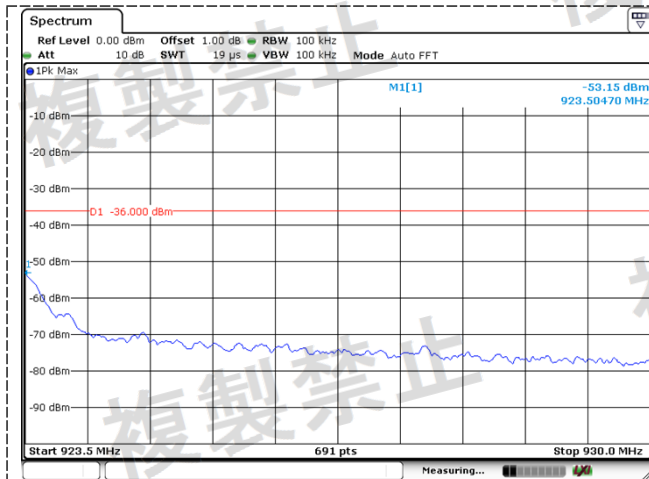
900MHz~915MHz

915MHz~915.7MHz

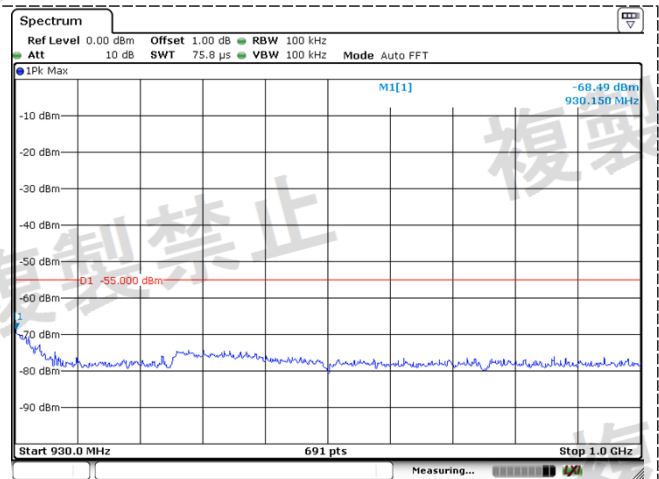


915.7MHz ~922.6MHz

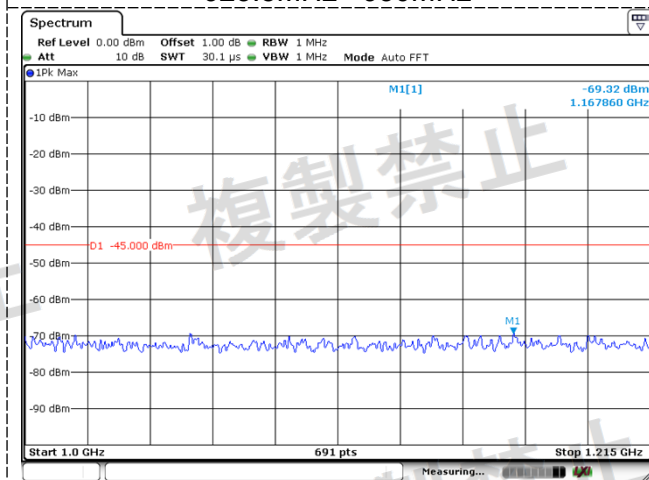
923.0MHz ~923.5MHz



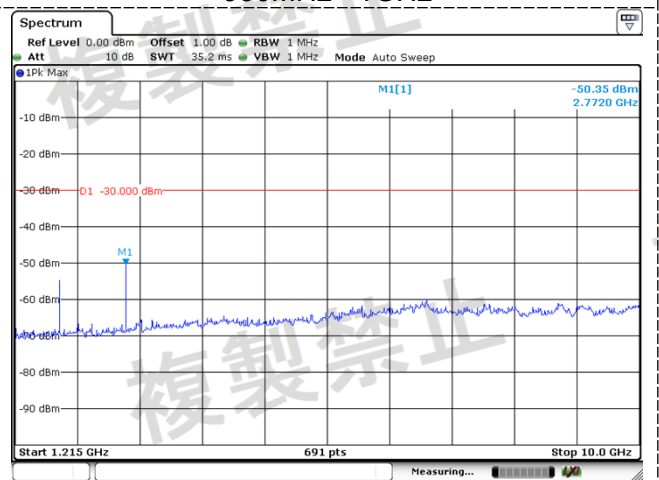
923.5MHz ~930MHz



930MHz ~1GHz



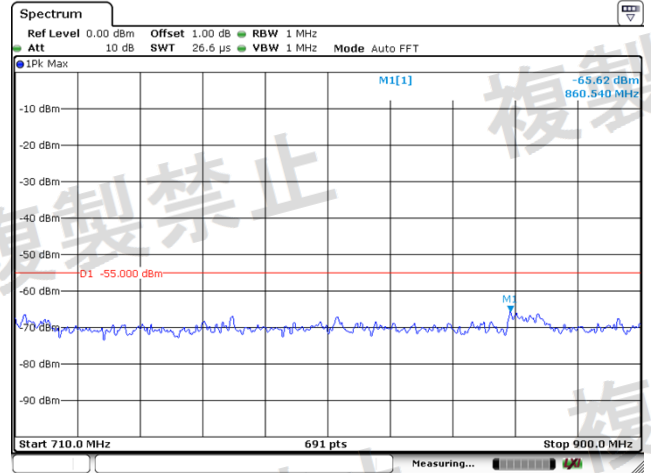
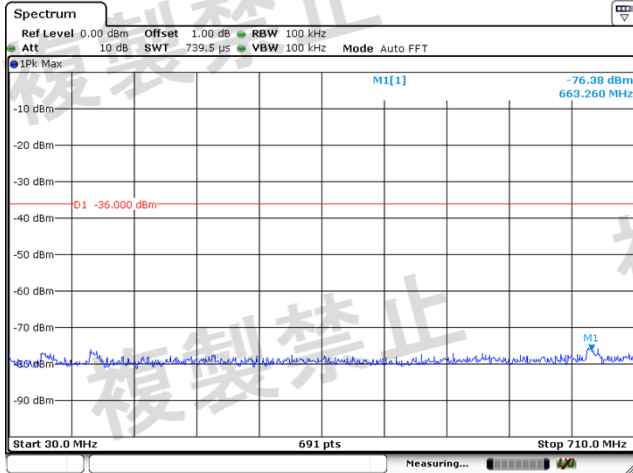
1GHz-1.215GHz



1.215GHz-10GHz

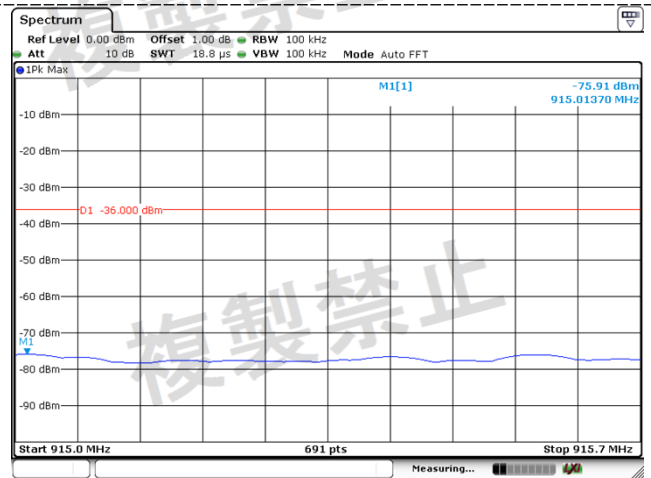
Test Frequency:

923.4MHz



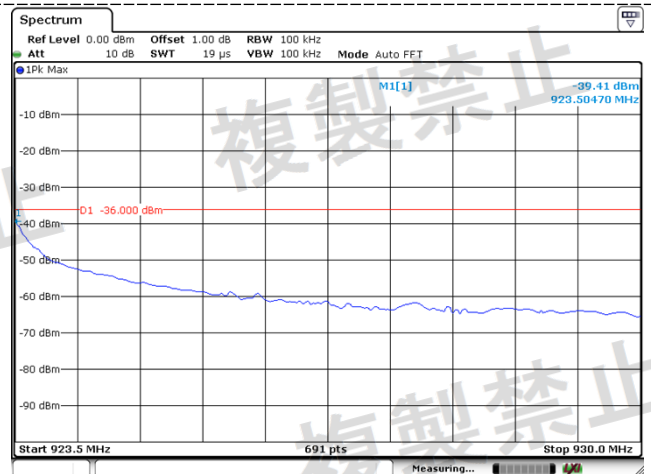
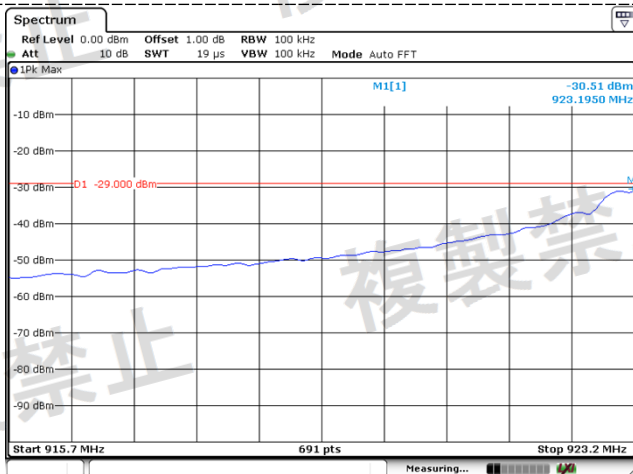
30MHz~710MHz

710MHz~900MHz



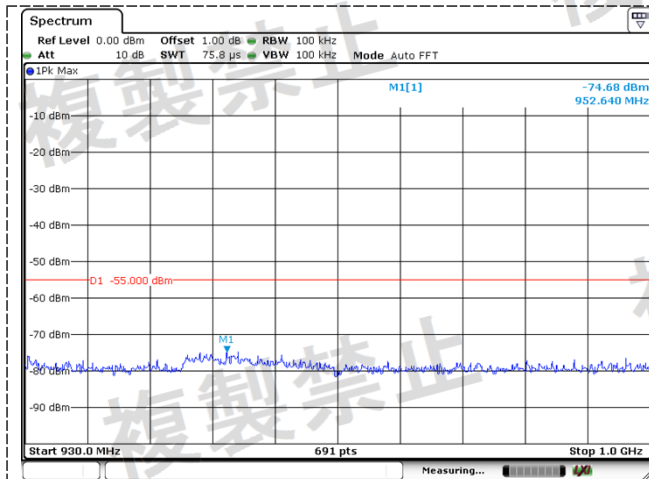
900MHz~915MHz

915MHz~915.7MHz

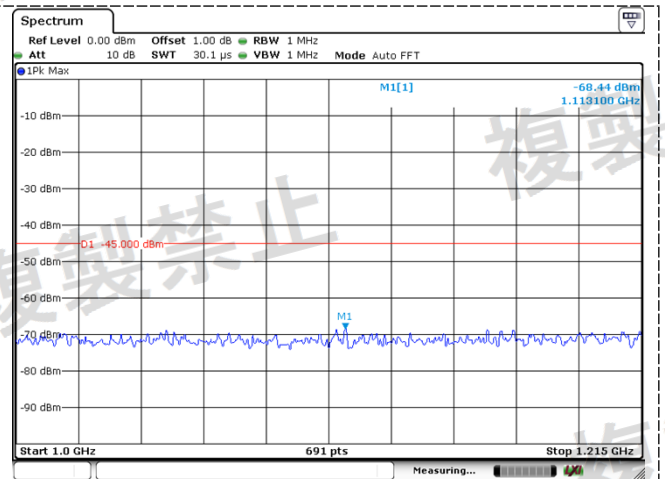


915.7MHz ~923.2MHz

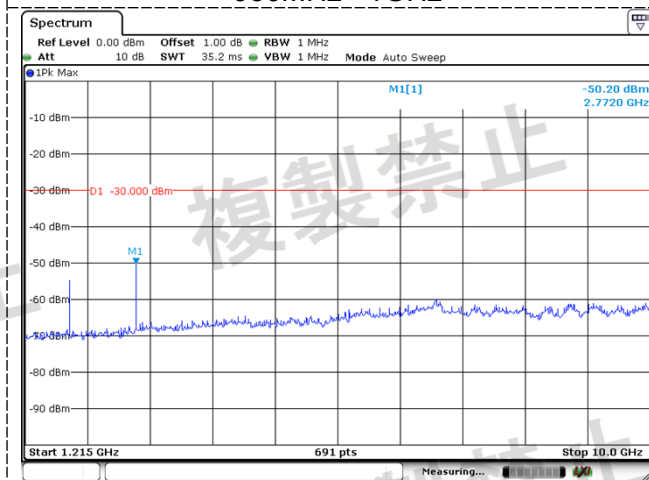
923.5MHz ~930MHz



930MHz ~1GHz



1GHz-1.215GHz



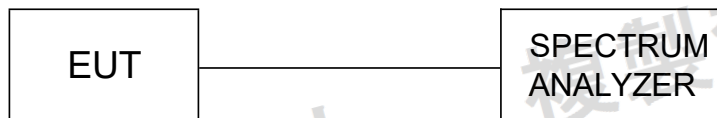
1.215GHz-10GHz

3.5 Secondary Radiated Emission Strength

LIMIT

Frequency band	Spurious emission/ Unwanted Emission	Reference bandwidth
$f \leq 710 \text{ MHz}$	-54 dBm	100 kHz
$710 \text{ MHz} < f \leq 900 \text{ MHz}$	-55 dBm	1 MHz
$900 \text{ MHz} < f \leq 915 \text{ MHz}$	-55 dBm	100 kHz
$915 \text{ MHz} < f \leq 930 \text{ MHz}$	-54 dBm	100 kHz
$930 \text{ MHz} < f \leq 1000 \text{ MHz}$	-55 dBm	100 kHz
$1000 \text{ MHz} < f$	-47 dBm	1 MHz

TEST CONFIGURATION



TEST PROCEDURE

The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram as TEST CONFIGURATION shows.

EUT Condition: modulation

Spectrum Condition:

Frequency: 30MHz-10GHz

RBW: equal to the Reference bandwidth

VBW: equal to RBW

Sweep time: Auto

Detector mode: Positive peak

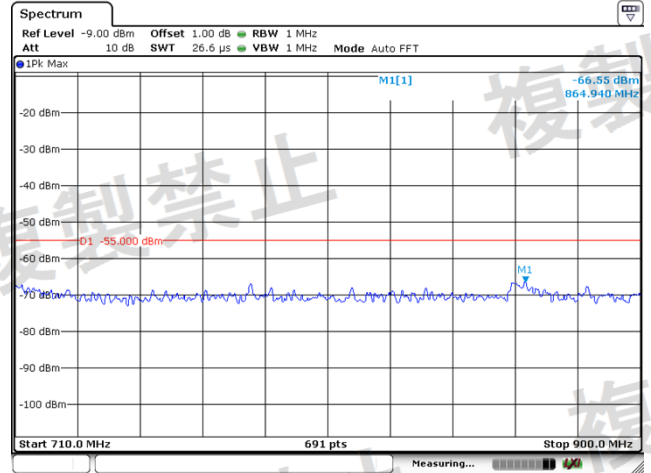
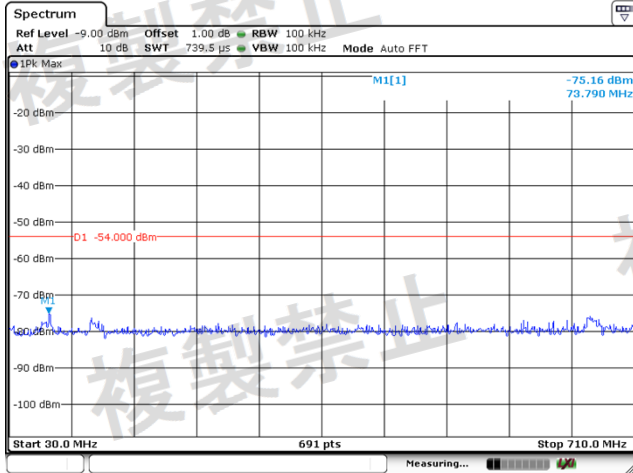
Indication mode: max hold

TEST RESULTS

Mode	Frequency (MHz)	Range (MHz)	Emission Frequency (MHz)	Max Peak Value (dBm)	Max RMS Value (dBm)	Limit (dBm)	Verdict
RFID	922	30-710	73.790	-75.16	NA	-54	Pass
RFID	922	710-900	864.940	-66.55	NA	-55	Pass
RFID	922	900-915	914.967	-76.51	NA	-55	Pass
RFID	922	915-930	922.457	-76.70	NA	-54	Pass
RFID	922	930-1000	949.91	-75.75	NA	-55	Pass
RFID	922	1000-10000	6998	-60.06	NA	-47	Pass
RFID	922.8	30-710	74.78	-75.64	NA	-54	Pass
RFID	922.8	710-900	862.47	-65.87	NA	-55	Pass
RFID	922.8	900-915	913.339	-75.91	NA	-55	Pass
RFID	922.8	915-930	922.609	-76.63	NA	-54	Pass
RFID	922.8	930-1000	948.290	-74.26	NA	-55	Pass
RFID	922.8	1000-10000	9928	-60.84	NA	-47	Pass
RFID	923.4	30-710	74.78	-76.33	NA	-54	Pass
RFID	923.4	710-900	861.64	-66.72	NA	-55	Pass
RFID	923.4	900-915	906.349	-76.51	NA	-55	Pass
RFID	923.4	915-930	916.552	-76.39	NA	-54	Pass
RFID	923.4	930-1000	948.51	-75.51	NA	-55	Pass
RFID	923.4	1000-10000	6985	-60.91	NA	-47	Pass

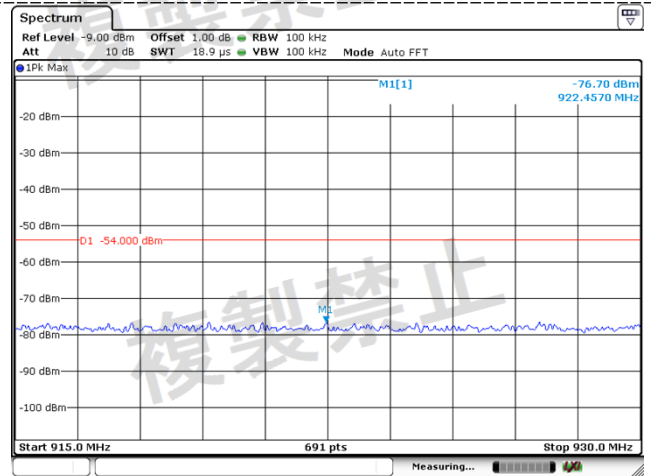
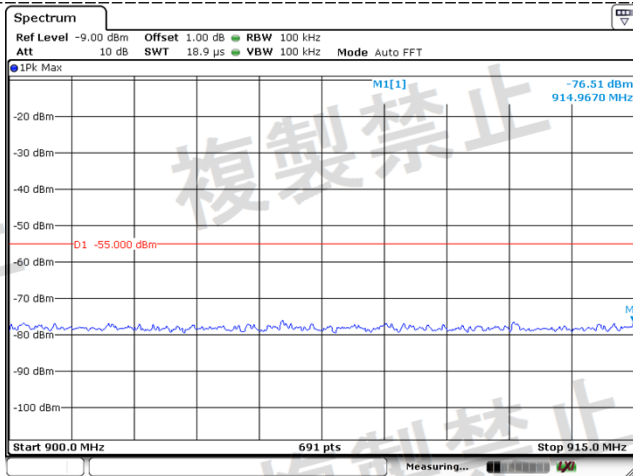
Test Frequency:

922.0MHz



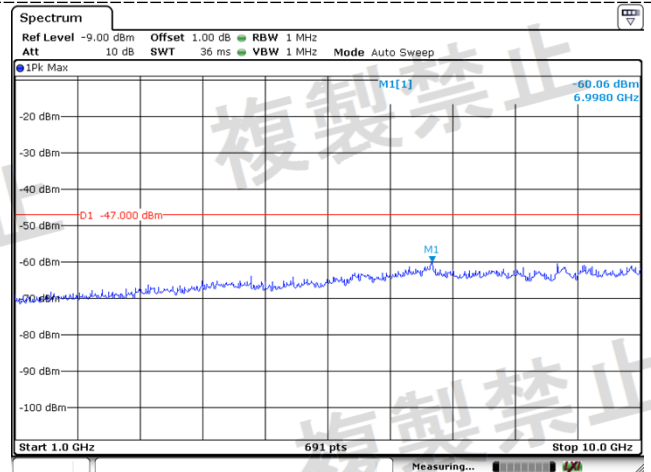
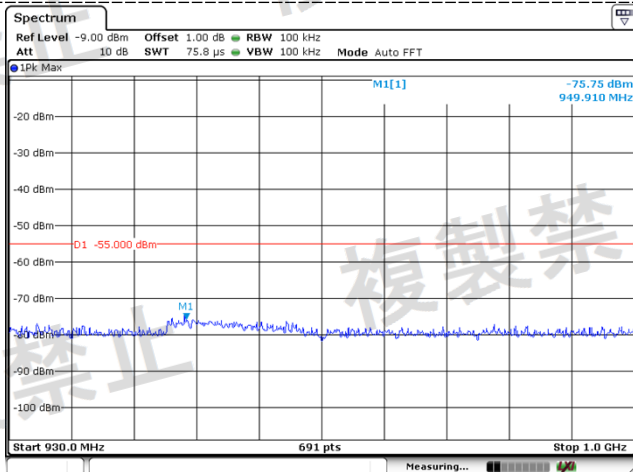
30MHz~710MHz

710MHz~900MHz



900MHz~915MHz

915MHz~930MHz

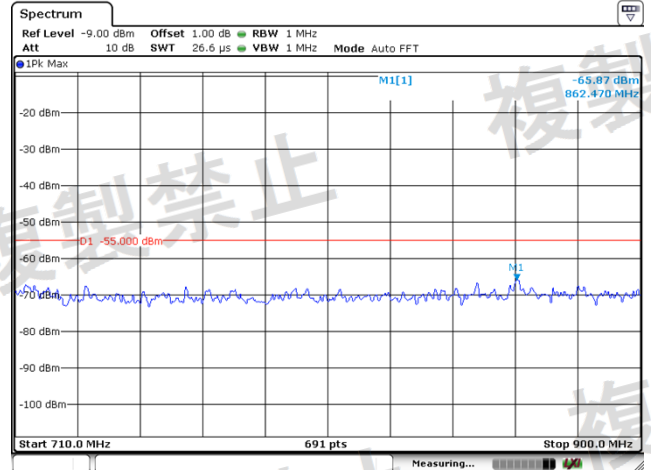
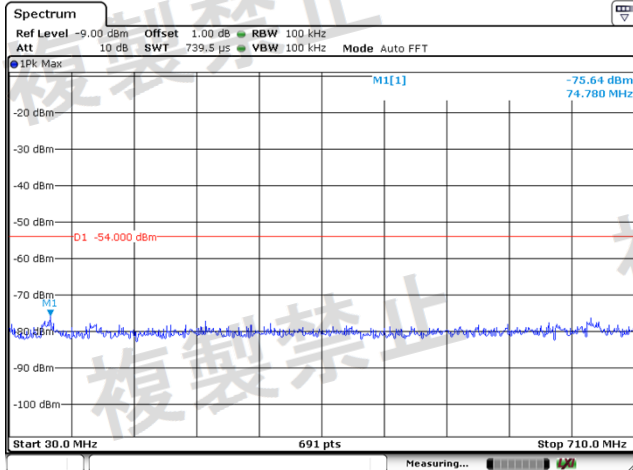


930MHz ~1000MHz

1GHz ~10GHz

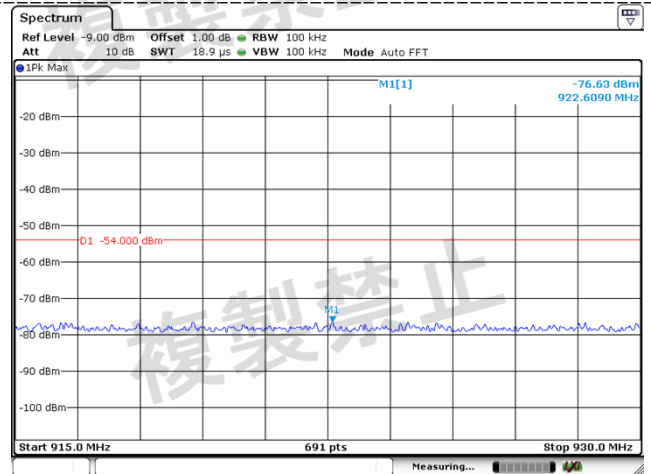
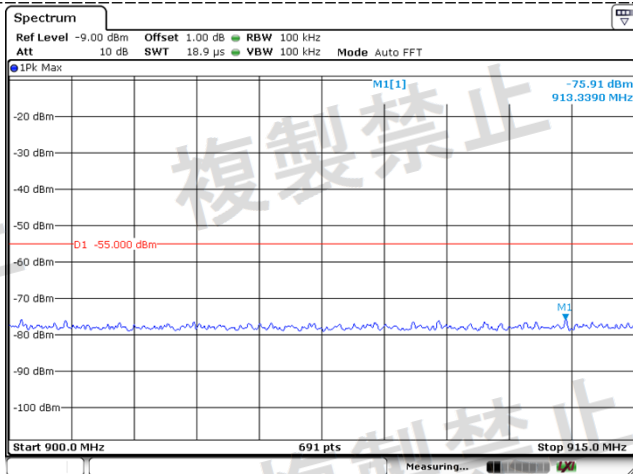
Test Frequency:

922.8MHz



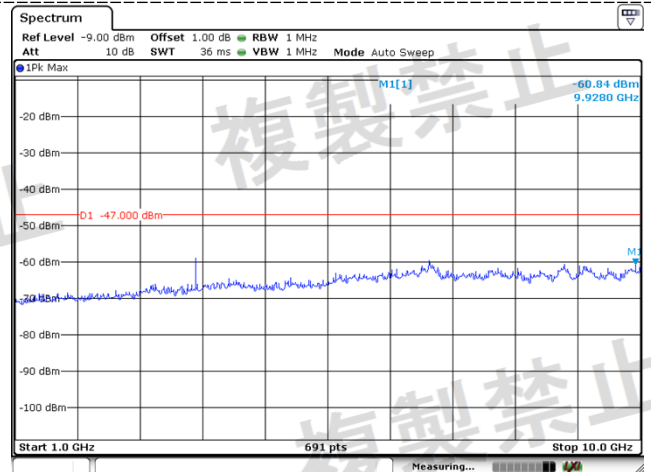
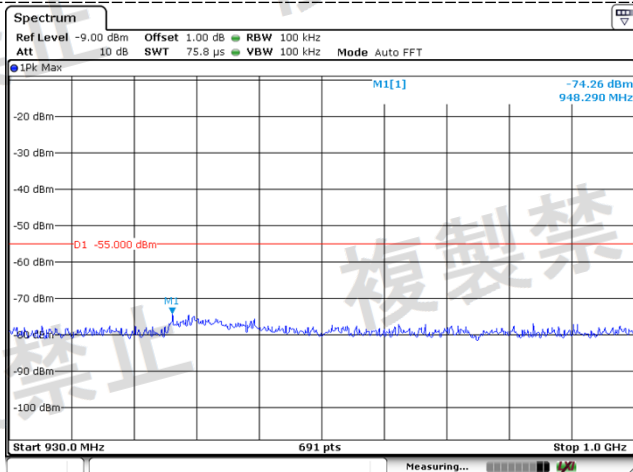
30MHz~710MHz

710MHz~900MHz



900MHz~915MHz

915MHz~930MHz

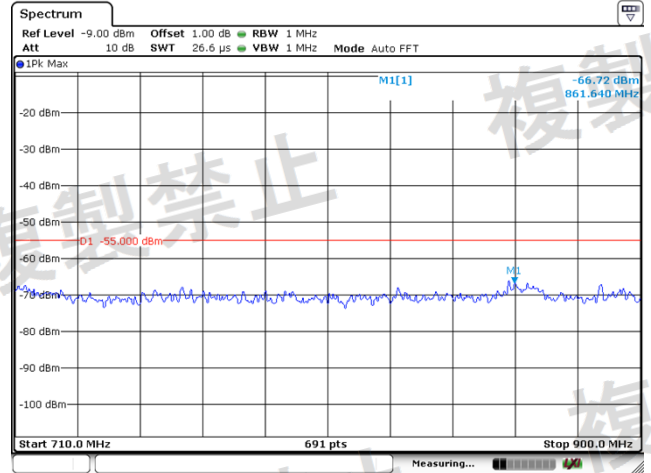
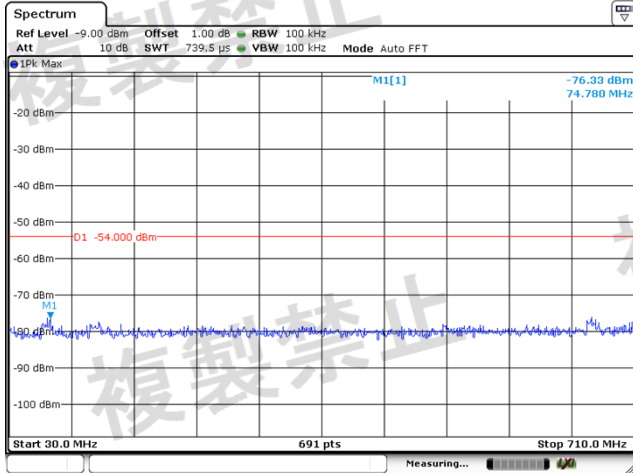


930MHz ~1000MHz

1GHz ~10GHz

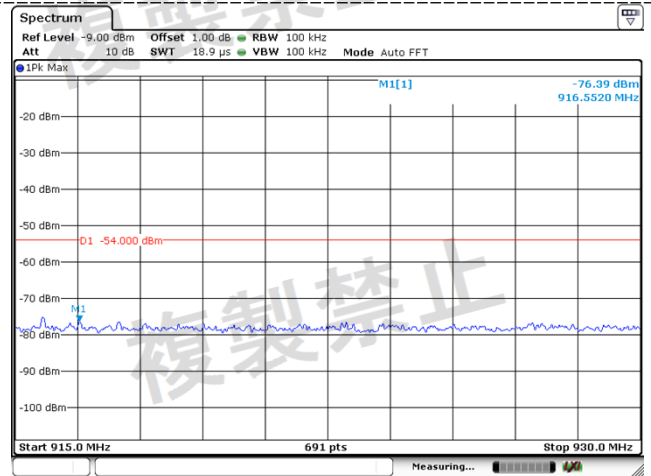
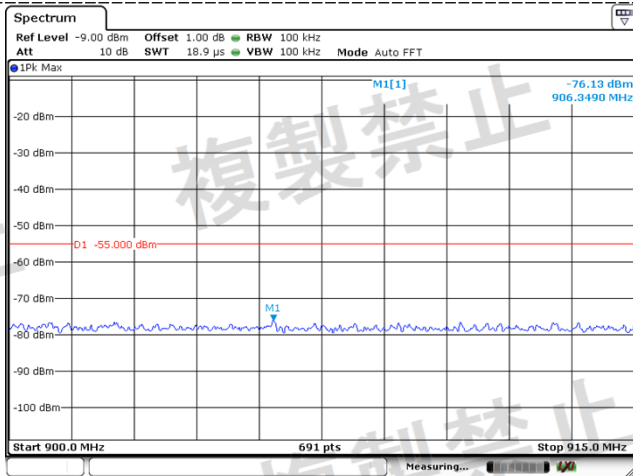
Test Frequency:

923.4MHz



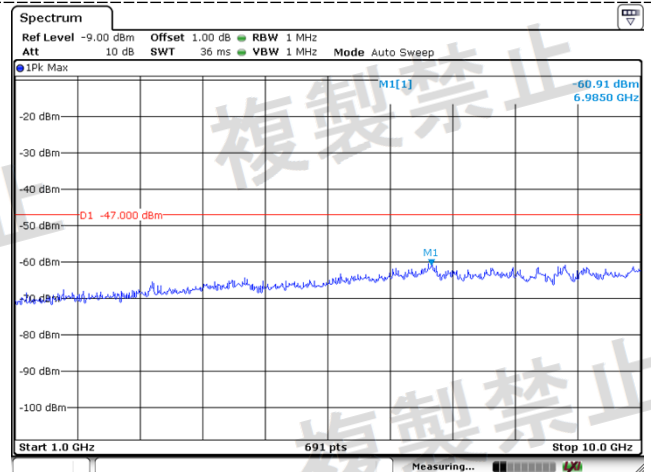
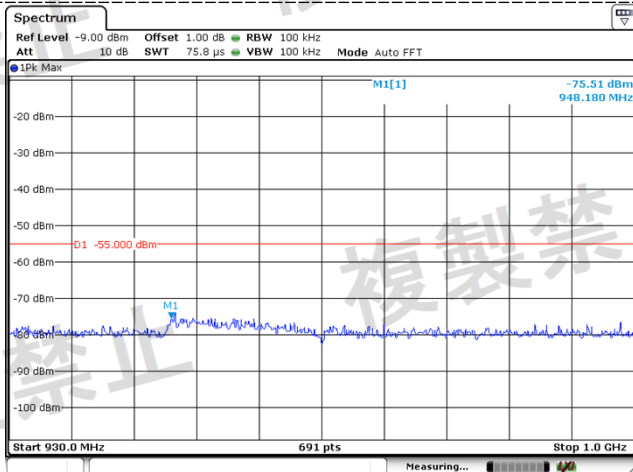
30MHz~710MHz

710MHz~900MHz



900MHz~915MHz

915MHz~930MHz



930MHz ~1000MHz

1GHz ~10GHz

3.6 Adjacent channel leakage power

LIMIT

A. Spectral power at the both edges of a radio channel It shall be 4 dBm or less, respectively.

B. Leakage power in a unit radio channel adjacent to a radio channel It shall be -5 dBm or less, respectively.

TEST CONFIGURATION



TEST PROCEDURE

The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram as TEST CONFIGURATION shows.

Use Spectrum's ACP measurement function and set spectrum analyzer as follow:

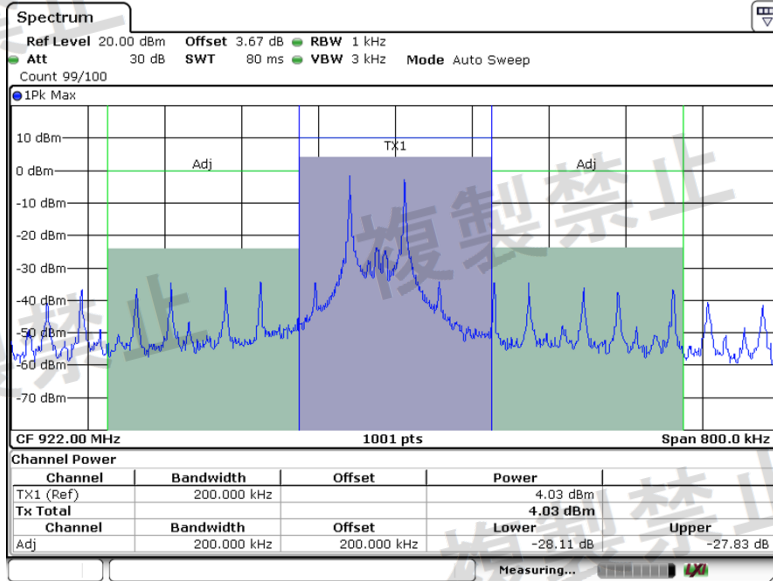
Spectrum Condition:

- Frequency: test frequency
- Span: .>4 times integrate bandwidth
- RBW: 1 KHz
- VBW: 3 x RBW
- Sweep time: Auto
- Sweep mode: single
- Detector mode: Peak
- Indication mode: max hold

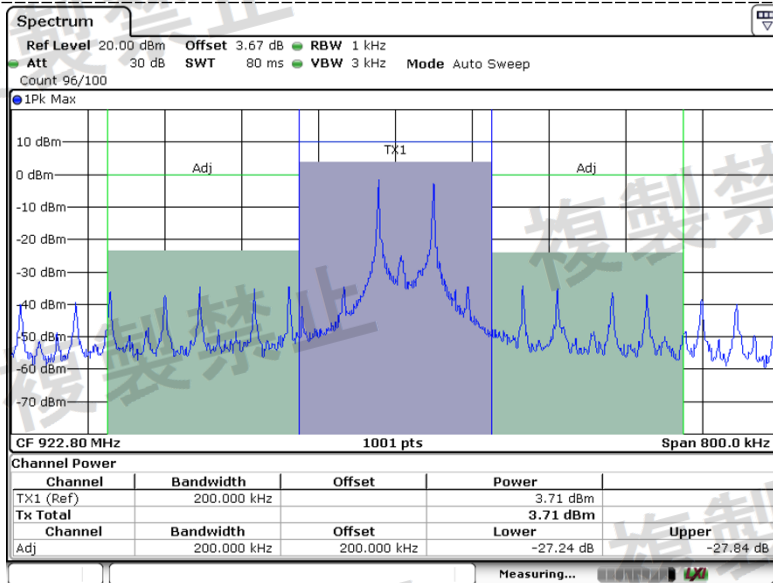
TEST RESULTS

Channel (MHz)	Adjacent Channel Power (dBm)		Limit	Result
	Lower	Upper		
922.0	-28.11	-27.83	Adjacent unit channels : -5dBm or less Radio channel both ends : 4dBm or less	Pass
922.8	-27.24	-27.84		Pass
923.4	-27.63	-28.28		Pass

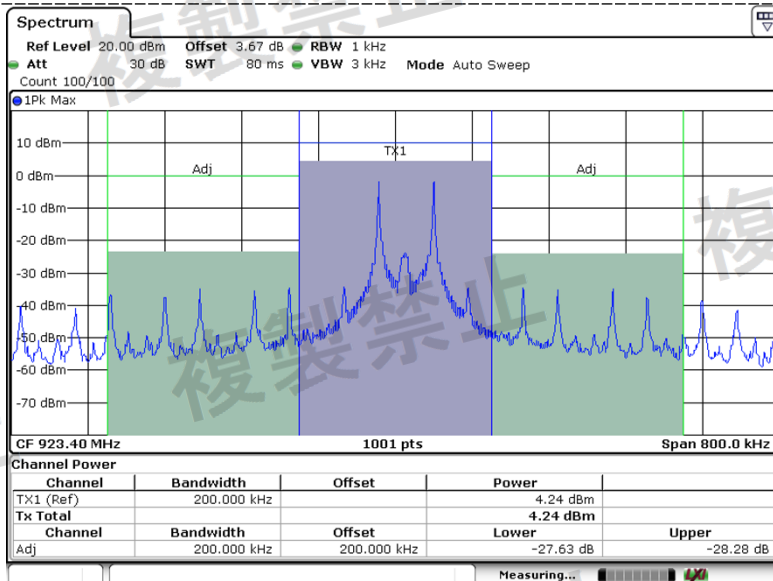
RFID



922.0MHz



922.8MHz



923.4MHz

3.7 Transmission Time Restriction

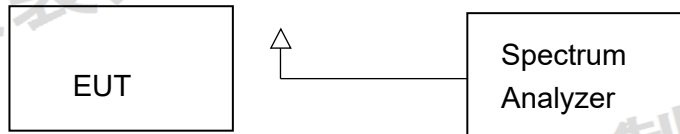
LIMIT

Transmission time: 4s or less*

Suspend time: 50ms or more*

*It may emit again without waiting 50ms, if it is within 4s after its first emission. The emission shall start after carrier sense is performed for 128 μ s or more and the emission shall finish within this 4s interval.)

TEST CONFIGURATION

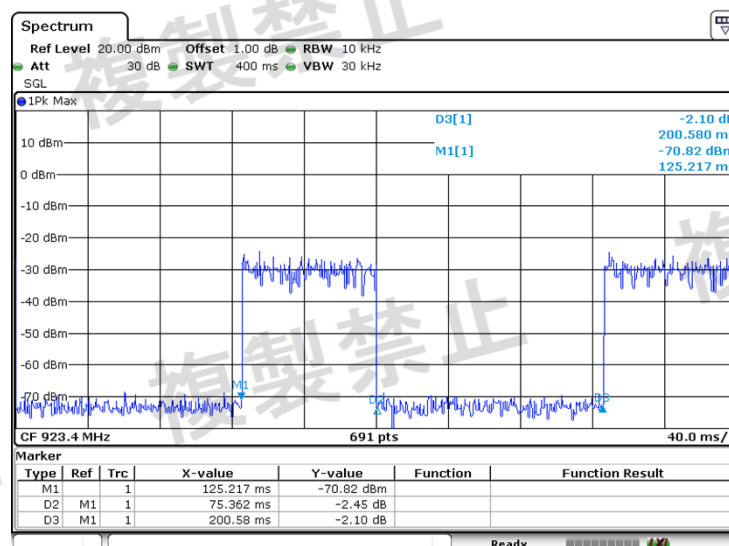


TEST PROCEDURE

- The EUT was placed on a wooded table which is 0.8m height and close to receiver antenna of spectrum analyzer.
- Set spectrum analyzer as follow:
 - Centre Frequency: The centre frequency of the channel under test.
 - Span: 0Hz
 - RBW: 1MHz
 - VBW: = RBW
 - Sweep time: = Auto
 - Detector: Peak
 - Sweep Mode: Single

TEST RESULTS

Transmission time (ms)	Suspend time (ms)	Result
75.362	125.217	Pass



3.8 CARRIER SENSE CAPABILITY

Requirement

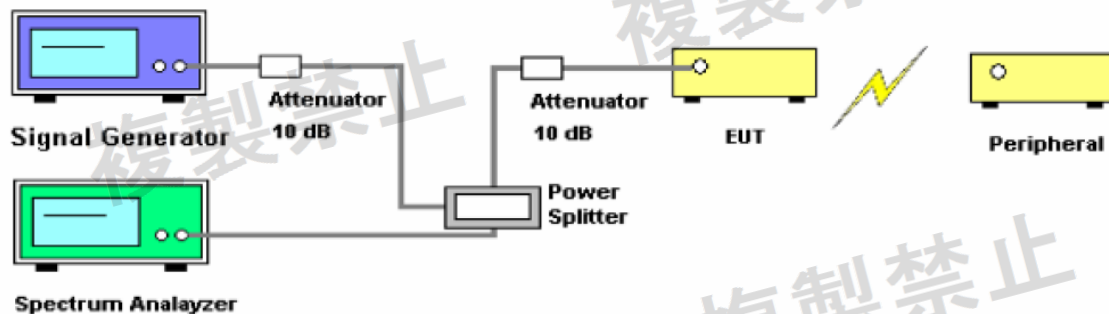
Controller shall have functions that comply with the conditions A, B and C specified below.

A. Carrier sense level When the amount of the received power at the antenna input is -74 dBm or more, the controller shall prohibit transmission of radio wave in the same channel of the received power.

B. Bandwidth of carrier sense The receiving bandwidth for carrier sense shall be the same bandwidth of its transmitting radio channel. In this regulation, emission shall be prohibited when the carrier sense level on the intended radio channel is more than -74 dBm (200 kHz x n) at the antenna input. (Note: n is the number of the unit radio channels used simultaneously in a radio channel. n=1, 2, 3.)

C. Carrier sense time Time duration shall be more than 5 ms to detect whether the intended radio channel is open or not. In this regulation, time duration is calculated as follows: $\text{Time} \geq 5 + (R \times 0.5)$ ms, where R is a random integer from 0 to 10.

TEST CONFIGURATION



TEST PROCEDURE

1. Set The EUT state in "normal mode link".
2. SG adjusted the frequency as same as the EUT transmitted signal and power level is -74 dBm
3. Turn off the RF signal of the SG.
4. EUT have transmitted the maximum modulation signal and fixed channelize.
5. Setting the spectrum as Bellow :
RBW/VBW=1MHz/1MHz
Span=0MHz
Sweep time=auto
Sweep mode=continuous
Detect mode=positive peak
6. SG RF signal on.
7. Conform the transmitting status of the device.

TEST RESULTS

Good, Compliant, no radio waves emit.

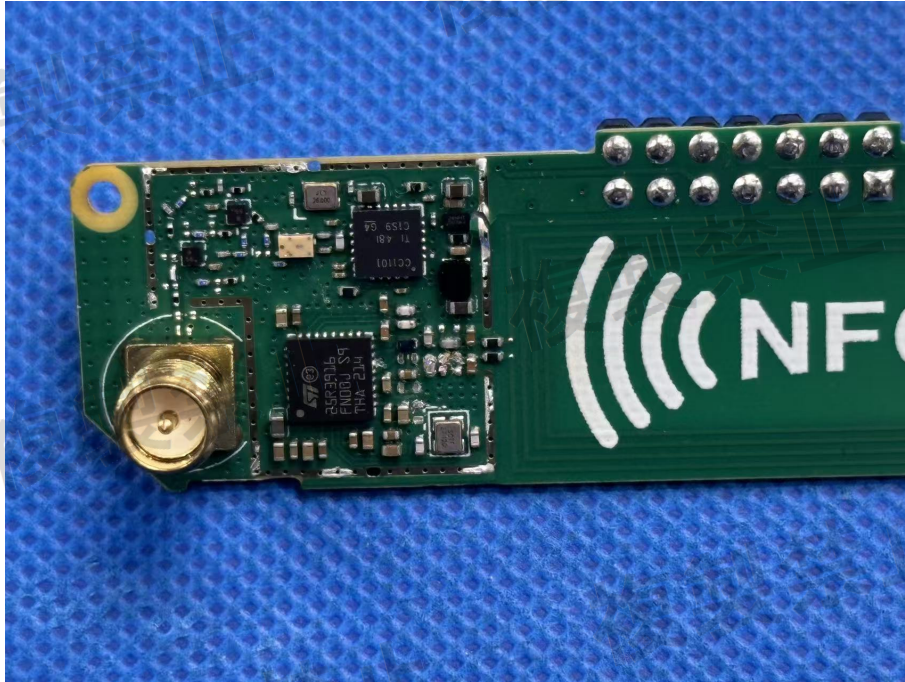
FREQUENCY(MHz)	PCS (dBm)	C.F(dB)	S.G LEVEL
922.0	-43.80	10.22	-33.58
922.8	-43.27	10.22	-33.05
923.4	-43.99	10.22	-33.77

3.9 Construction protection method

The high-frequency section and modulation section of the radio equipment except for the antenna system shall not be capable of being opened easily

Confirmation method

All high-frequency section and modulation section packet in one IC, End user cannot modify easily.



3.10 Interference Prevention Function

Requirement

Automatic Transmission or Receiving function of Identification Sign.

Confirmation

The device use transmits register mechanism to achieve Transmission or Receiving with Identification Sign.

3.11 Antenna Structure

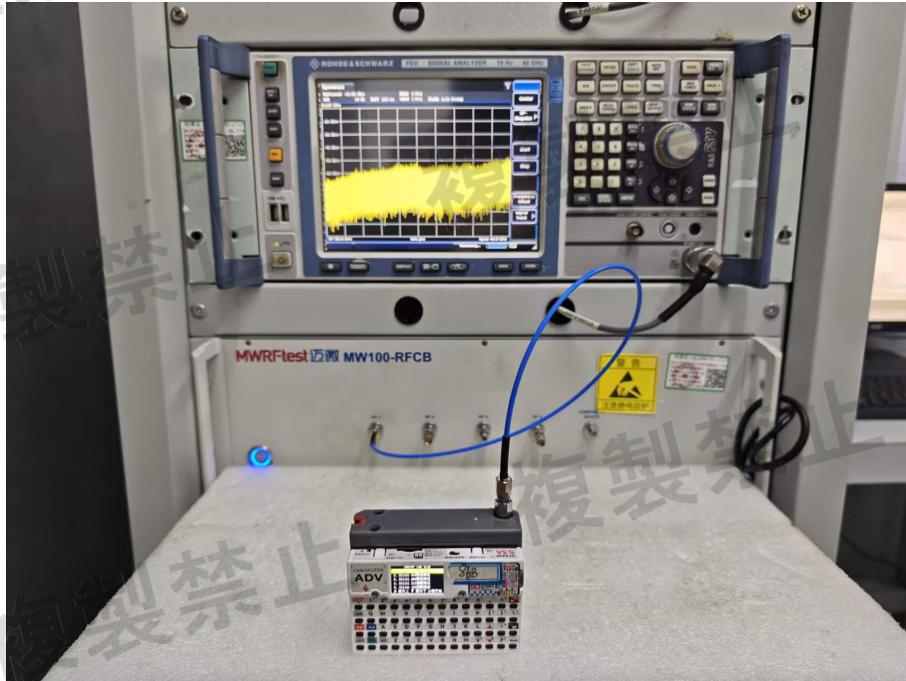
Requirement

The gain of antenna used should less than 3dBi.

Confirmation

The gain of antenna used is 2.14dBi, good.

4 TEST SETUP



5 PHOTOS OF THE EUT

Please refer to test report AiTDG-260609002

***** End of Report *****