TEST REPORT

Applicant Name:	Shenzhen Hollyland Technology Co., Ltd
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Report Number:	2501T45782E-RF-07B

Test Standard (s)

Item 21-2 of Article 2 Paragraph 1

Sample Description

Product Type:	Full-Duplex Wireless Intercom System
Model No.:	Solidcom BPK01
Multiple Model(s) No.:	Solidcom H1
Trade Mark:	HOLLYLAND, HOLLYVIEW
Date Received:	2025/05/28
Issue Date:	2025/07/15

Test Result:	Pass▲

▲ In the configuration tested, the EUT complied with the standards above.

Prepared and Checked By:

Ekko Wu
RF Engineer

Approved By:

Nancy Wang
RF Supervisor

Note: The information marked# is provided by the applicant, the laboratory is not responsible for its authenticity and this information can affect the validity of the result in the test report. Customer model name, addresses, names, trademarks etc. are included.

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DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
0	2501T45782E-RF-07B	Original Report	2025/07/15

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Product		Full-Duplex Wireless Intercom System
Tested Model		Solidcom BPK01
Multiple Model(s)		Solidcom H1
Radio Type		DECT
DECT Technical Parameters	Modulation Type	GFSK
	Frequency Range	1895.616-1902.528MHz
	Output Power	200mW
	Antenna Gain#	ANT1/ANT2: 1.0dBi (It is provided by the applicant)
Nominal Power Supply		DC 3.8V from battery or DC 5V from USB-C port/ Charging contacts
Sample serial number		33NI-2(Assigned by BACL, Shenzhen)
Sample/EUT Status		Good condition
Adapter Information		N/A
Note: The Multiple models are electrically identical with the test model except for model name and sales channel. Please refer to the declaration letter# for more detail, which was provided by manufacturer.		

Objective

The objective of the manufacturer is to demonstrate compliance with Radio Law of Japan, rules and limits for this device, Article 2, Paragraph 1, Item (21)-2-Digital cordless phone.

Test Method

MIC Notice No.88 Appendix No.81 and

TELEC-T254: Radio Equipment Characteristic Test Method for Radio Station of Time Division Multiple Access System Broadband Digital Cordless Telephone (TDMA System Broadband Digital Cordless Telephone)

Measurement Uncertainty

Item	Expanded Measurement uncertainty
Frequency Error	56.6Hz(k=2, 95% level of confidence)
RF output power, conducted	0.86dB(k=2, 95% level of confidence)
Unwanted Emission, conducted	1.60dB(k=2, 95% level of confidence)
Temperature	±1℃
Supply voltages	±0.4%
Time	±1%

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

Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Shenzhen) to collect test data is located on the 5F(B-West) , 6F, 7F, the 3rd Phase of Wan Li Industrial Building D, Shihua Rd, FuTian Free Trade Zone, Shenzhen, China.

Each test item follows test standards and with no deviation.

EUT TEST CONFIGURATION

Description of Test Configuration

The system was configured for testing in a testing mode which was selected by manufacturer.

Note: The EUT is a slave device.

Channel List

Channel	Frequency (MHz)	Channel	Frequency (MHz)
0	1902.528	1	1900.800
2	1899.072	3	1897.344
4	1895.616	/	/

Note: Test on channel 0, 2 and 4.

The EUT has the voltage regulator chip SY8088IAAC which has a fluctuation of the output voltage to the RF circuit is less than ±1%. So only test at the normal voltage ($3.8V_{DC}$).

EUT Exercise Software

"XCOM V2.0"[#] exercise software was used and the power level is Default[#]. The software and power level was provided by the applicant.

Equipment Modifications

No modification was made to the EUT tested.

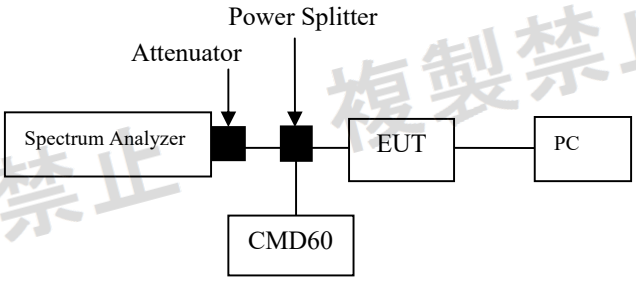
Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
Rohde & Schwarz	Digital Radio Communication Tester	CMD60	830553/018
Lenovo	PC	TIANYI510Pro-18ICB	R3NO28B21001
Hollyland	Full-Duplex Wireless Intercom System	Solidcom ANT01	Unknown

External I/O Cable

Cable Description	Length (m)	From/Port	To
USB Cable	1.0	EUT	PC

Configuration of Test Setup



SUMMARY OF TEST RESULTS

Article 2, Paragraph 1, Item (21)-2	
Description of Test	**Result**
Frequency Tolerance	Compliant
Occupied Bandwidth	Compliant
Unwanted Emission Strength	Compliant
Antenna Output Power and Power Tolerance	Compliant
Transmitter Rate of Modulation Signal	Compliant
Secondary Radiated Emission Strength	Compliant
Carrier Sensing Function	Compliant
Construction Protection Confirmation	Compliant
Leakage Power at No-Carrier Transmission	Compliant
Interference Prevention Function	Compliant
Automatic Transmission Stop Function	Compliant
Intercommunication Mode	Compliant
Power Control Function	Not Applicable
Specific Absorption Rate at Human	Not Applicable*

Not Applicable: the manufacturer declared the device not support this function.
Note: The EUT has two antennas and cannot work at the same time. Pre-test the antenna output power with Ant 1 and Ant 2, the Ant 2 was the larger one which was chosen for the full test.

TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date	Calibration Authority	Calibration Method
Rohde & Schwarz	Spectrum Analyzer	FSV40-N	102259	2024/12/04	2025/12/03	BACL Cal	c)
Rohde & Schwarz	Digital Radio Communication Tester	CMD60	830553/018	2025/04/29	2026/04/28	BACL Cal	c)
Keysight	MXG Vector Signal Generator	N5182B	MY53051503	2024/12/04	2025/12/03	BACL Cal	c)
WEINSCHEL	3dB Attenuator	Unknown	F-03-EM220	2024/06/27	2025/06/26	BACL	d)
WEINSCHEL	3dB Attenuator	Unknown	F-03-EM220	2025/06/26	2026/06/25	BACL	d)
Unknown	10dB Attenuator	Unknown	F-03-EM190	2024/06/27	2025/06/26	BACL	d)
Unknown	10dB Attenuator	Unknown	F-03-EM190	2025/06/26	2026/06/25	BACL	d)
HP	Power Splitter	11667A	1610A	2024/06/27	2025/06/26	BACL	d)
HP	Power Splitter	11667A	1610A	2025/06/26	2026/06/25	BACL	d)
Unknown	RF Cable	65475	01670515	2024/06/27	2025/06/26	BACL	d)
Unknown	RF Cable	65475	01670515	2025/06/26	2026/06/25	BACL	d)

Note: Calibration Method

a) Calibration conducted by the National Institute of Information and Communications Technology (NICR) or a designated calibration agency under Article 102-18 paragraph (1)

b) Correction conducted pursuant to the provisions of Article 135 or Article 144 of the Measurement Law (Law No. 51 of 1992) ~Japan Calibration Service System~

c) Calibration conducted in foreign countries, which shall be equivalent to the calibration conducted by the NICT or a designated calibration agency under Article 102-18 paragraph (1)

d) Calibration conducted by using other equipment that listed above from a) to c)

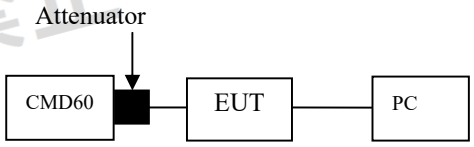
*** Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

FREQUENCY DEVIATION

Limit

10 ppm

Test Procedure



1. Set the EUT in a continuously transmitting mode.
2. Record the reading on the CMD60.

Test Data

Environmental Conditions

Temperature:	25.5 ℃
Relative Humidity:	50 %
ATM Pressure:	99.6 kPa

The testing was performed by Rainbow Zhu on 2025-06-09.

Test Result: Compliant

Test Mode: Transmitting

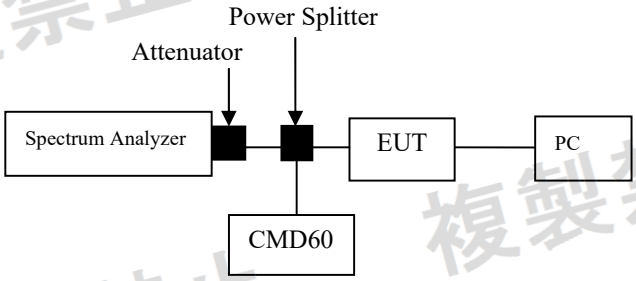
GFSK	Frequency Error (kHz)	Result (ppm)	Limit (ppm)
Low channel	1	0.53	10
Middle channel	2	1.05	10
High channel	2	1.05	10

OCCUPIED BANDWIDTH

Limit

Equal or Less than 1728 kHz

Test Procedure



(1) The spectrum analyzer is set as follows:

- Central frequency: 1895.616, 1899.072, 1902.528 MHz
- Sweep frequency width: 2 times to 3.5 times of bandwidth
- Resolution bandwidth: ＜1% bandwidth
- Video bandwidth: Same as resolution bandwidth
- Y scale 10 dB/Div
- Input level: Carrier wave level sufficiently higher than spectrum analyzer noise level
- Sweep time: Minimum time ensuring measurement accuracy
- Data points: More than 400
- Sweep mode: Continuous
- Detection mode: Positive peak
- Display mode: Max hold

(2) The values obtained in spectrum analyzer measurements are processed using an external or internal computer.

Test Data

Environmental Conditions

Temperature:	25.5 ℃
Relative Humidity:	50 %
ATM Pressure:	99.6 kPa

The testing was performed by Rainbow Zhu on 2025-06-09.

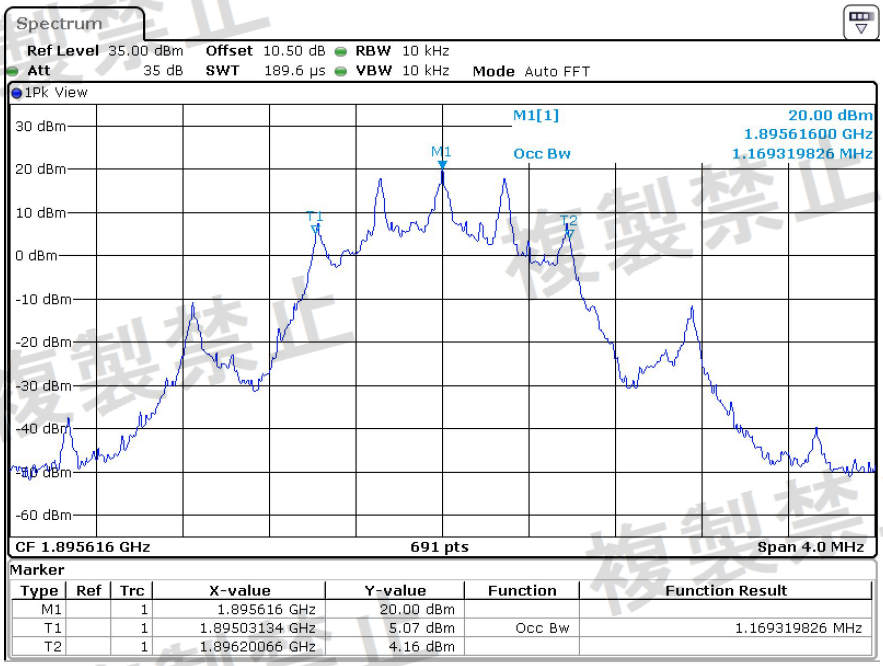
Test Result: Compliant

Test Mode: Transmitting

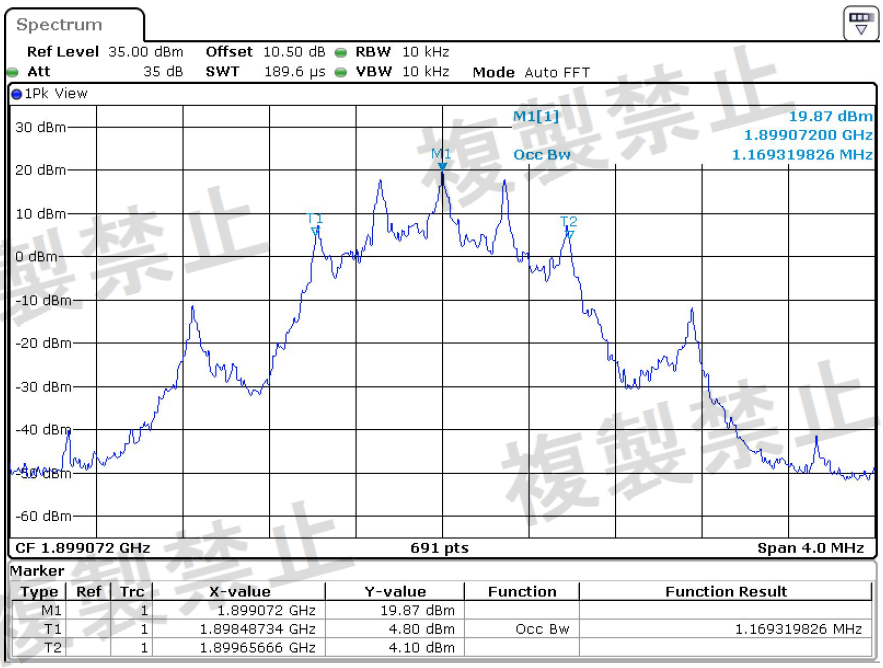
Please refer to the below plots for normal voltage test.

Test condition	Low channel	Mid channel	High channel	Limit (MHz)
	(MHz)			
Normal Voltage	1.169	1.169	1.169	≤1.728

Low channel:



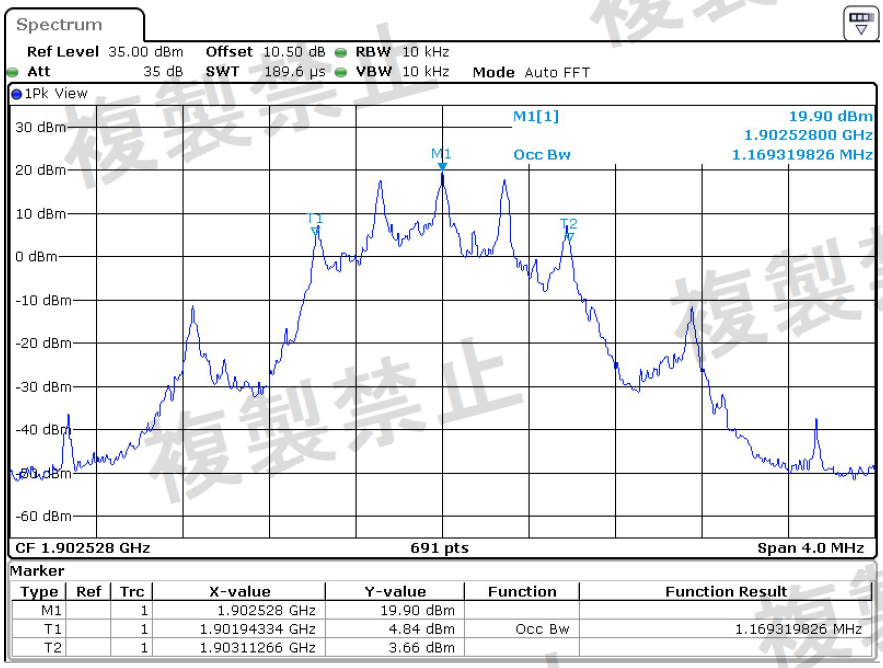
Middle channel:



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High channel:



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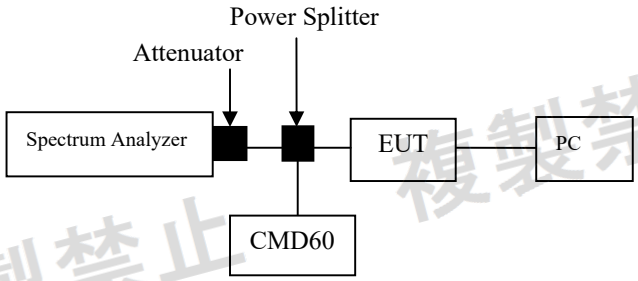
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UNWANTED EMISSION STRENGTH IN THE SPURIOUS AREA

Limit

1. Unwanted Emission Strength, Spurious Area 30 MHz ~ 10 GHz : -36dBm / MHz or less

Test Procedure



The setting of spectrum analyzer as below table:

Spectrum Parameter	Setting
RB/VB	1MHz/1MHz
Detector	Peak
Trace	Max Hold
Sweep time	1 burst per 1 sample

1. Connect the EUT and base stations.
2. EUT have transmitter the maximum modulation signal and fixed channelize.

Test Data

Environmental Conditions

Temperature:	25.5 ℃
Relative Humidity:	50 %
ATM Pressure:	99.6 kPa

The testing was performed by Rainbow Zhu on 2025-06-09.

Test Result: Compliant

Test Mode: Transmitting

Low channel

Channel	Frequency Band	Item	Result	Limited
Low channel (1895.616MHz)	30MHz-1GHz	Frequency/MHz	482.7	/
		Spurious Emission (dBm/MHz)	-47.39	-36 dBm/MHz
	1 GHz -1.891296GHz	Frequency/MHz	1890.7	/
		Spurious Emission (dBm/MHz)	-36.90	-36 dBm/MHz
	1.899936-10GHz	Frequency/MHz	1905.9	/
		Spurious Emission (dBm/MHz)	-39.62	-36 dBm/MHz

Middle channel

Channel	Frequency Band	Item	Result	Limited
Middle channel (1899.072MHz)	30MHz-1GHz	Frequency/MHz	180.9	/
		Spurious Emission (dBm/MHz)	-47.94	-36 dBm/MHz
	1 GHz -1.894752GHz	Frequency/MHz	1894.1	/
		Spurious Emission (dBm/MHz)	-38.29	-36 dBm/MHz
	1.903392-10GHz	Frequency/MHz	1909.4	/
		Spurious Emission (dBm/MHz)	-38.78	-36 dBm/MHz

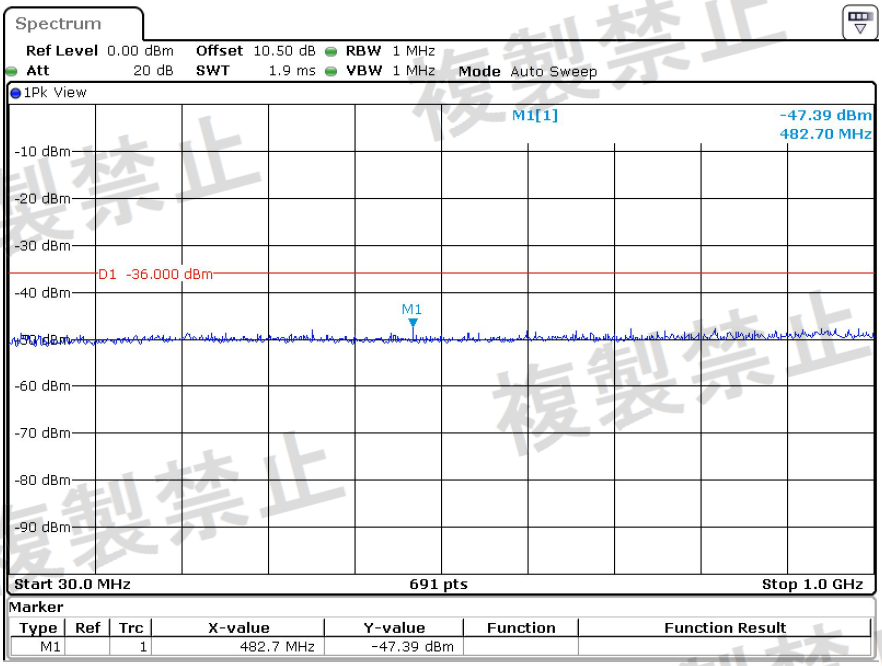
High channel

Channel	Frequency Band	Item	Result	Limited
High channel (1902.528MHz)	30MHz-1GHz	Frequency/MHz	989.5	/
		Spurious Emission (dBm/MHz)	-47.98	-36 dBm/MHz
	1 GHz -1.898208GHz	Frequency/MHz	1896.3	/
		Spurious Emission (dBm/MHz)	-38.46	-36 dBm/MHz
	1.906848-10GHz	Frequency/MHz	1912.8	/
		Spurious Emission (dBm/MHz)	-39.73	-36 dBm/MHz

Please refer to the below plots under normal conditions.

Low channel

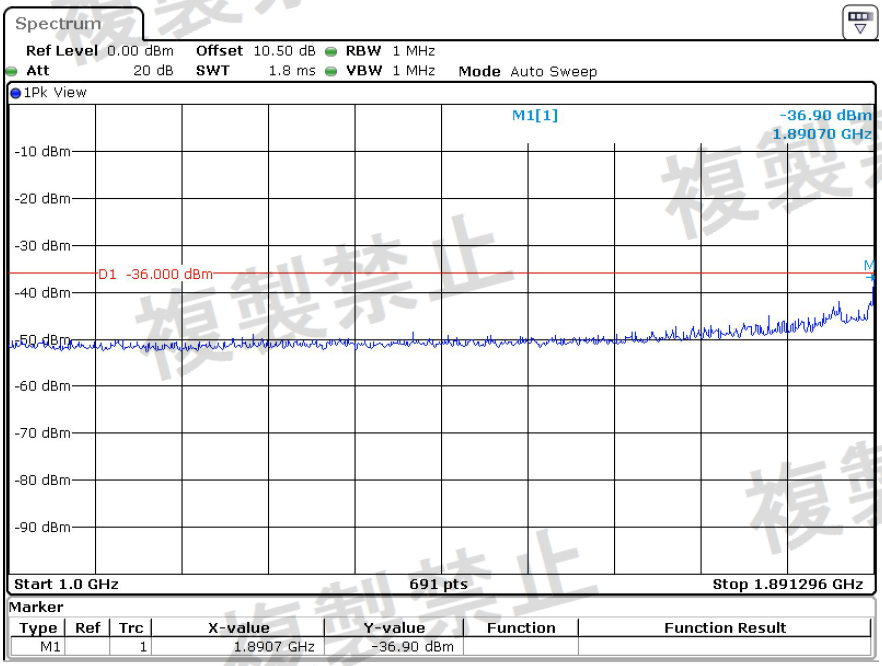
30 MHz~1 GHz



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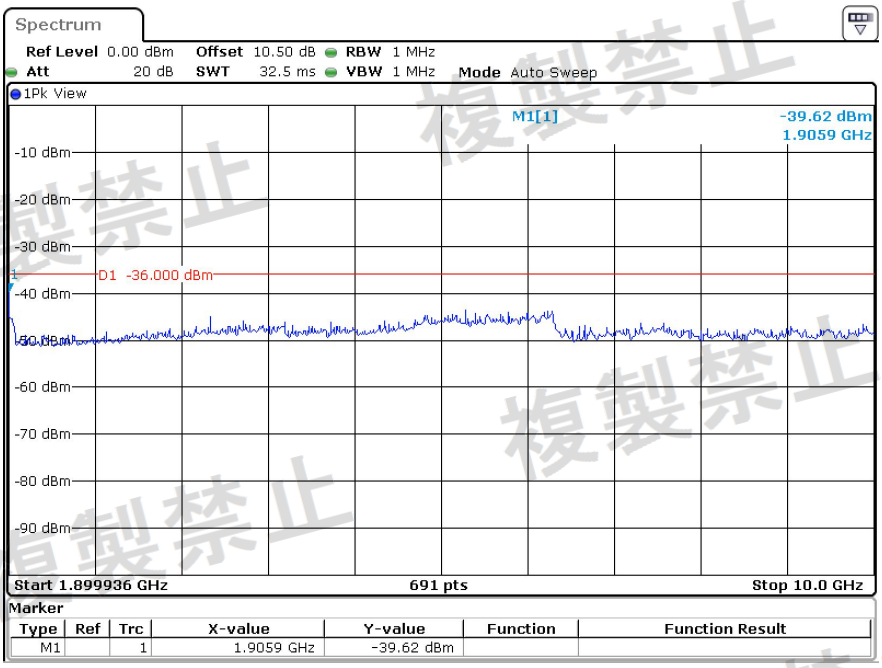
1 GHz ~1.891296GHz



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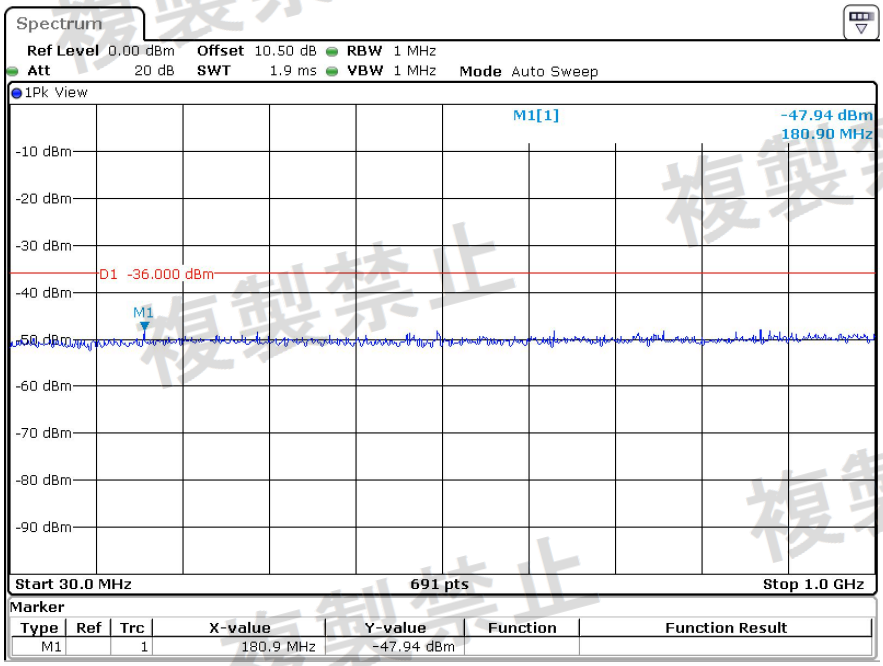
1899.936MHz-10GHz



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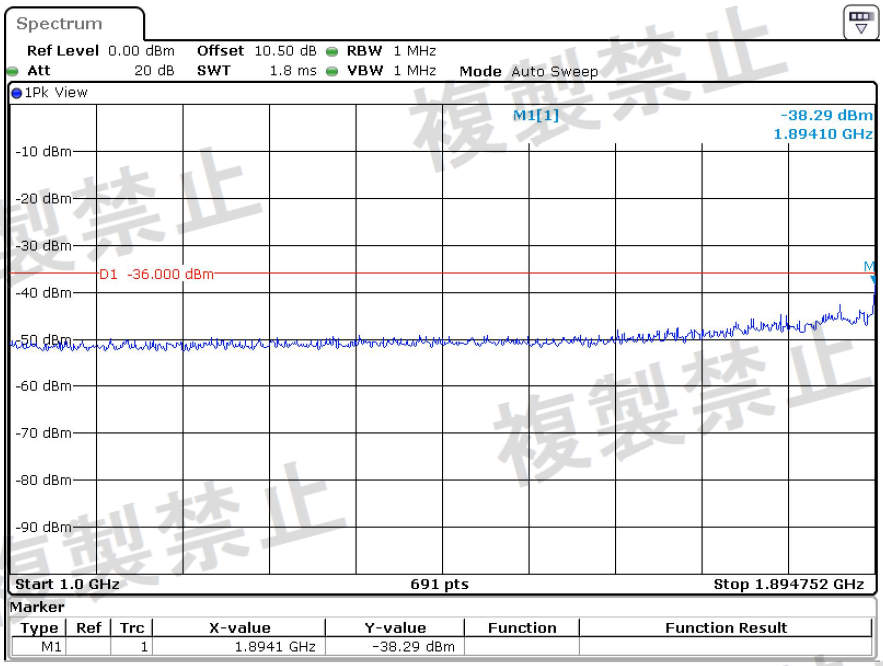
Middle channel

30 MHz~1 GHz



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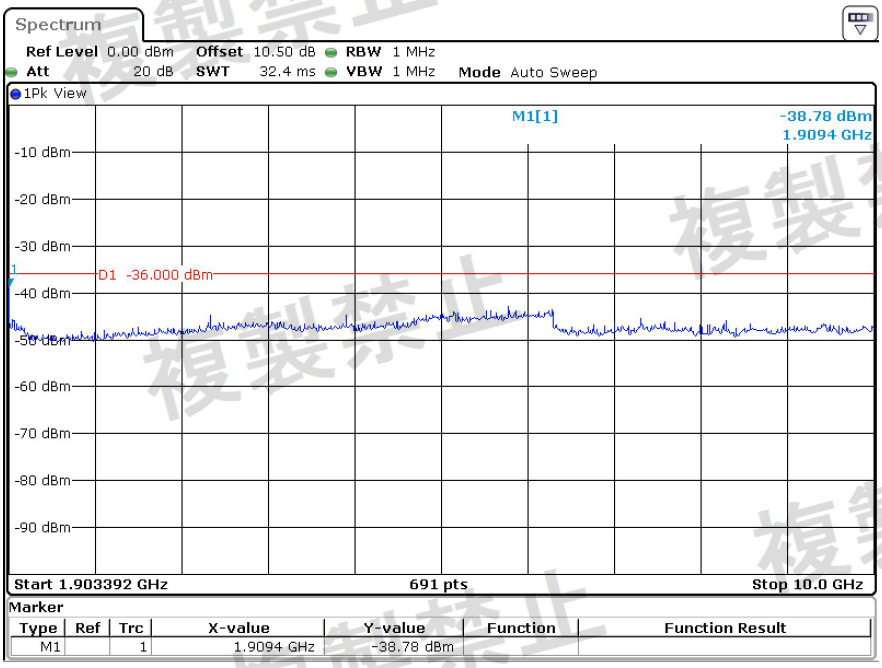
1 GHz ~1.894752GHz



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1903.392MHz-10GHz

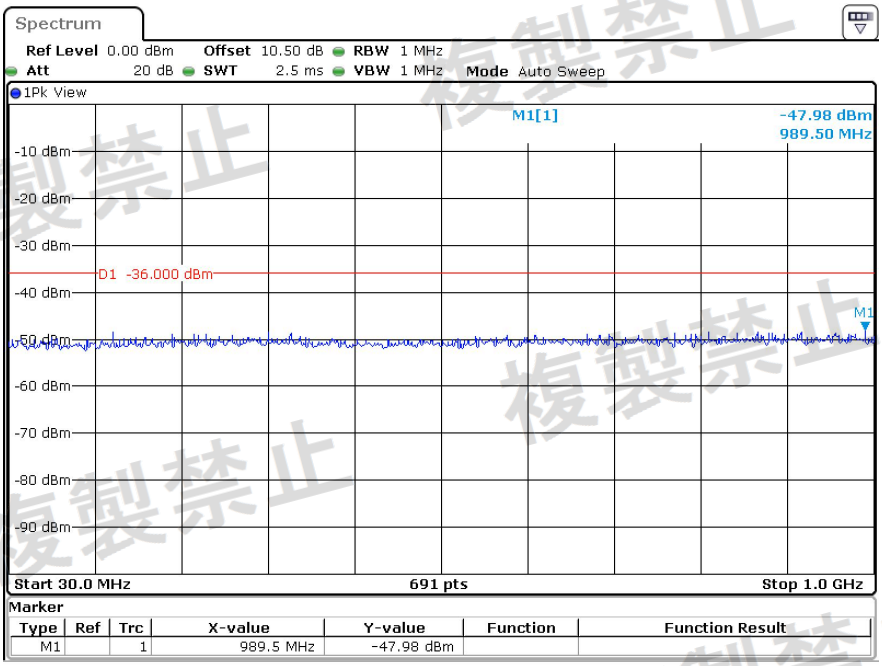


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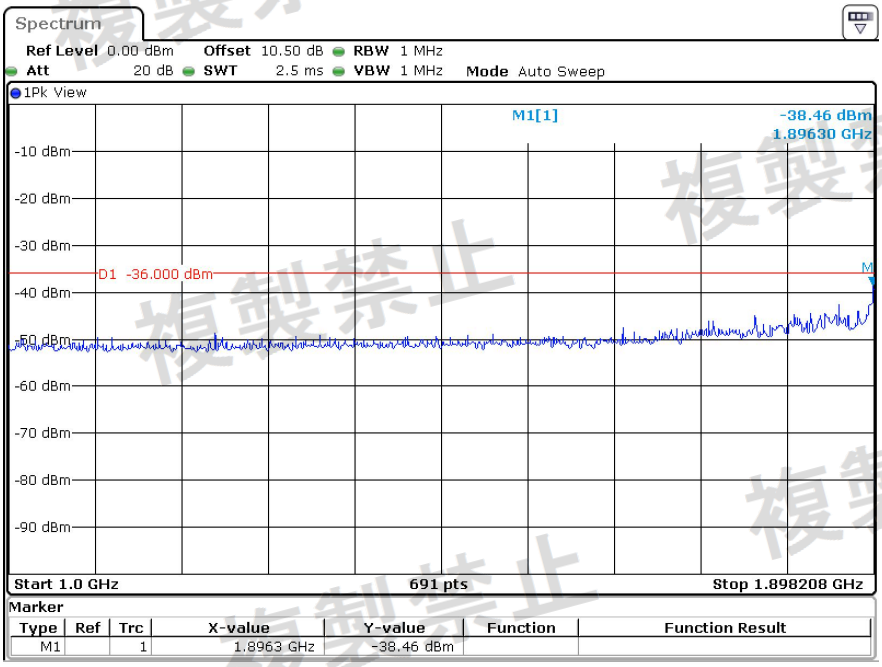
High channel

30 MHz~1 GHz



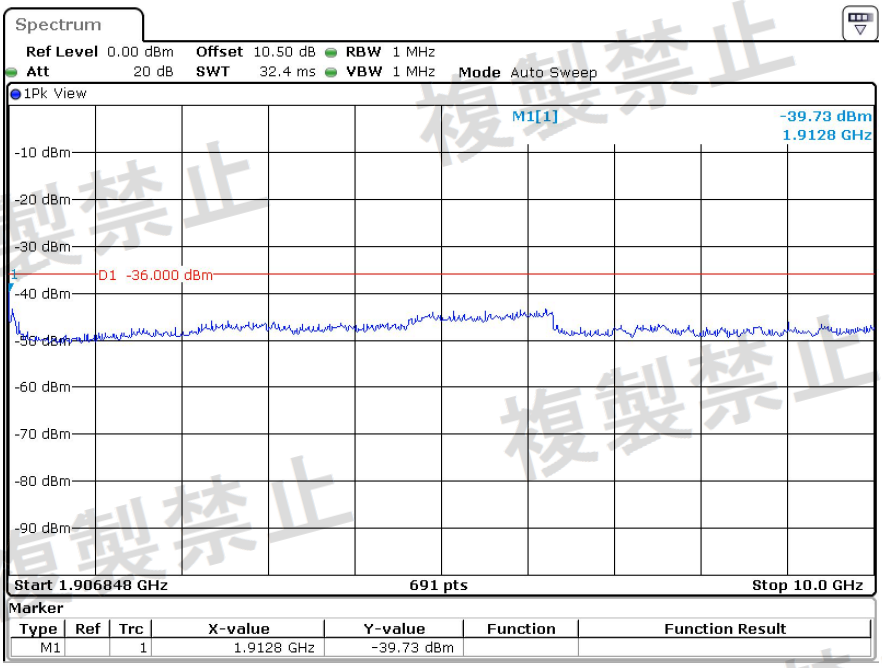
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1 GHz ~1.898208GHz



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Date: 9.JUN.2025 14:06:40

1906.848MHz-10GHz



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Date: 9.JUN.2025 14:09:54

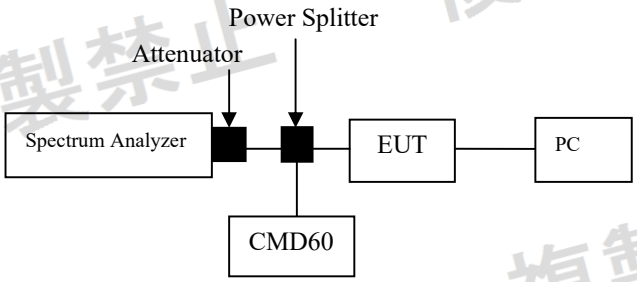
UNWANTED EMISSION STRENGTH IN THE OUTBAND AREA

Limit

2. Unwanted Emission Strength, Outband Area
Cf ± 864 (<) ~ (≤) 1228kHz : -5.6dBm / 192kHz or less
Cf ± 1228 (<) ~ (≤) 2592kHz : -9.5dBm / MHz or less
Cf ± 2592 (<) ~ (≤) 4320kHz : -29.5dBm / MHz or less

Test Procedure

Measurement System Diagram



The setting of spectrum analyzer as below table:

Pre-scan:

Spectrum Parameter	Setting
RB/VB	10kHz/10kHz
Detector	Peak
Trace	Max Hold
Sweep Mode	Single
Sweep time	1 burst per 1 sample

Measurement of the emission identified during the pre-scan:

Spectrum Parameter	Setting
RB/VB	10kHz/10kHz
Detector	RMS
Trace	Max Hold
Sweep Mode	Single
Sweep time	The time during which measurement accuracy is guaranteed (e.g. number of data points x burst period x any natural number)

1. Connect the EUT and base stations.
2. EUT have transmitter the maximum modulation signal and fixed channelize.
3. (Resolution bandwidth conversion value) = 10log(reference bandwidth)/(resolution bandwidth during measurement)

Unnecessary emission frequency Resolution bandwidth conversion value
Carrier frequency ± (864 kHz to 1228 kHz): 12.8dB
Carrier frequency ± (1,228 kHz to 2,592 kHz): 20.0dB
Carrier frequency ± (2,592 kHz to 4,320kHz): 20.0dB
The factors were added into the offset of the spectrum analyzer.

Test Data

Environmental Conditions

Temperature:	25.5 ℃
Relative Humidity:	50 %
ATM Pressure:	99.6 kPa

The testing was performed by Rainbow Zhu on 2025-06-09.

Test Result: Compliant

Test Mode: Transmitting

Low channel (1895.616MHz)	Item	Reading Level (dBm)	limit
1891.296MHz-1893.024MHz	Frequency/MHz	1892.740	/
	Spurious Emission (dBm/MHz)	-34.37	-29.5dBm/MHz
1893.024MHz-1894.388MHz	Frequency/MHz	1894.379	/
	Spurious Emission (dBm/MHz)	-22.33	-9.5dBm/MHz
1894.388MHz-1894.752MHz	Frequency/MHz	1894.464	/
	Spurious Emission (dBm/kHz)	-11.79	-5.6dBm/kHz
1896.48MHz-1896.844MHz	Frequency/MHz	1896.767	/
	Spurious Emission (dBm/kHz)	-11.95	-5.6dBm/kHz
1896.844MHz-1898.208MHz	Frequency/MHz	1896.857	/
	Spurious Emission (dBm/MHz)	-22.84	-9.5dBm/MHz
1898.208MHz-1899.936MHz	Frequency/MHz	1899.075	/
	Spurious Emission (dBm/MHz)	-33.02	-29.5dBm/MHz

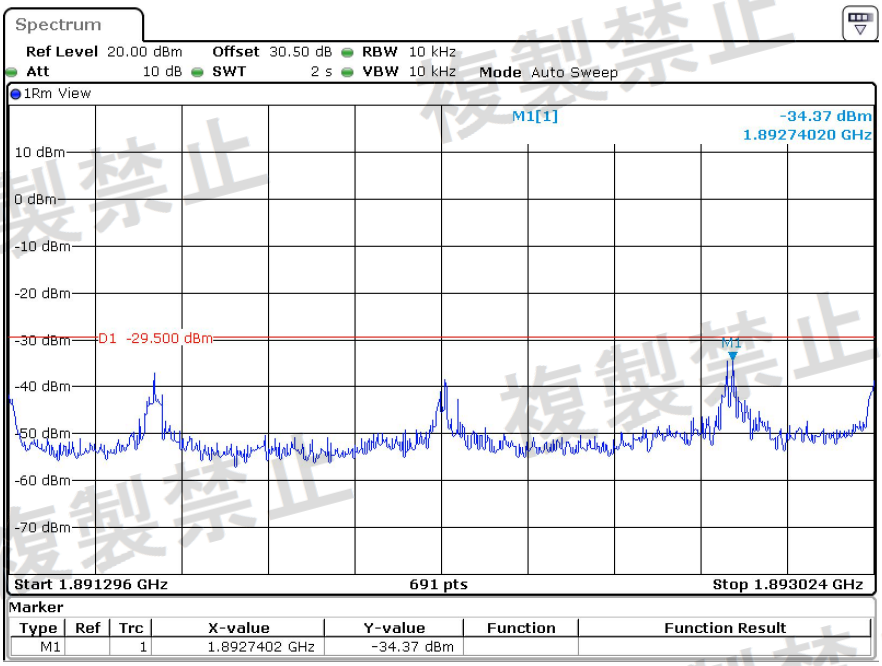
Middle channel (1899.072MHz)	Item	Reading Level (dBm)	limit
1894.752MHz-1896.48MHz	Frequency/MHz	1895.619	/
	Spurious Emission (dBm/MHz)	-32.79	-29.5dBm/MHz
1896.48MHz-1897.844MHz	Frequency/MHz	1897.80	/
	Spurious Emission (dBm/MHz)	-10.56	-9.5dBm/MHz
1897.844MHz-1898.208MHz	Frequency/MHz	1897.919	/
	Spurious Emission (dBm/kHz)	-11.79	-5.6dBm/kHz
1899.936MHz-1900.3MHz	Frequency/MHz	1900.223	/
	Spurious Emission (dBm/kHz)	-12.19	-5.6dBm/kHz
1900.3MHz-1901.664MHz	Frequency/MHz	1900.301	/
	Spurious Emission (dBm/MHz)	-10.69	-9.5dBm/MHz
1901.664MHz-1903.392MHz	Frequency/MHz	1901.955	/
	Spurious Emission (dBm/MHz)	-35.03	-29.5dBm/MHz

High channel (1902.528MHz)	Item	Reading Level (dBm)	limit
1898.208MHz-1899.936MHz	Frequency/MHz	1899.652	/
	Spurious Emission (dBm/MHz)	-34.78	-29.5dBm/MHz
1899.936MHz-1901.3MHz	Frequency/MHz	1901.279	/
	Spurious Emission (dBm/MHz)	-11.52	-9.5dBm/MHz
1901.3MHz-1901.664MHz	Frequency/MHz	1901.374	/
	Spurious Emission (dBm/kHz)	-12.13	-5.6dBm/kHz
1903.392MHz-1903.756	Frequency/MHz	1903.679	/
	Spurious Emission (dBm/kHz)	-12.30	-5.6dBm/kHz
1903.756MHz-1905.12MHz	Frequency/MHz	1903.757	/
	Spurious Emission (dBm/MHz)	-10.77	-9.5dBm/MHz
1905.12MHz-1906.848MHz	Frequency/MHz	1905.409	/
	Spurious Emission (dBm/MHz)	-33.56	-29.5dBm/MHz

Please refer to the below plots under normal conditions.

Low channel

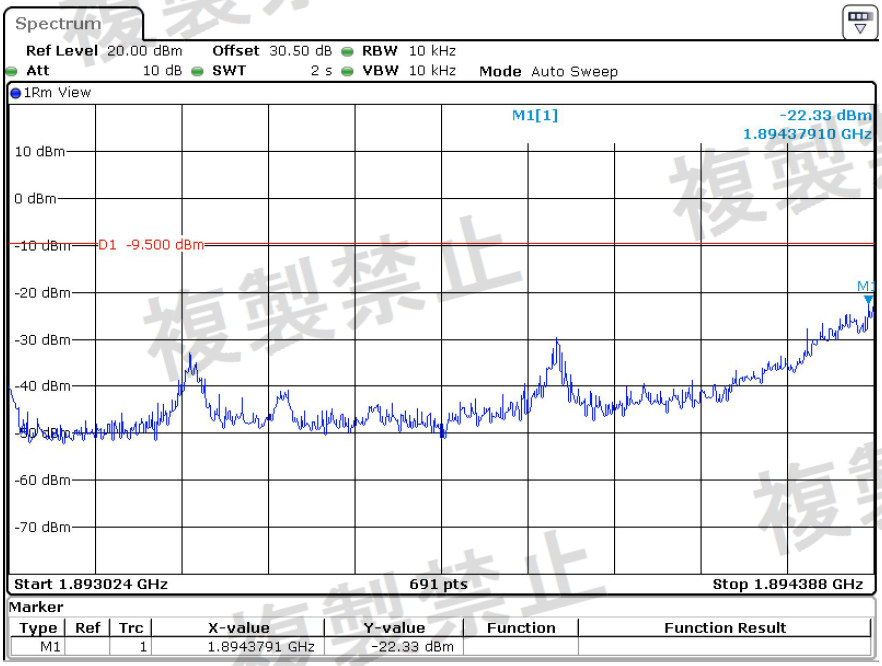
1.891296 GHz~1.893024 GHz



ProjectNo.:2501T45782E-RF-PP Tester:Rainbow Zhu

Date: 9.JUN.2025 16:14:05

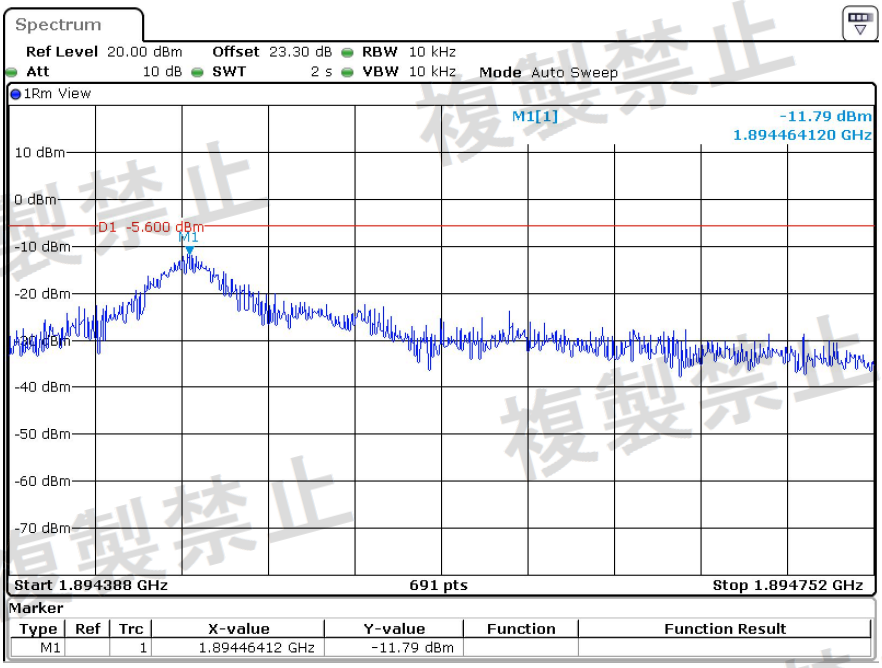
1.893024 GHz~1.894388 GHz



ProjectNo.:2501T45782E-RF-PP Tester:Rainbow Zhu

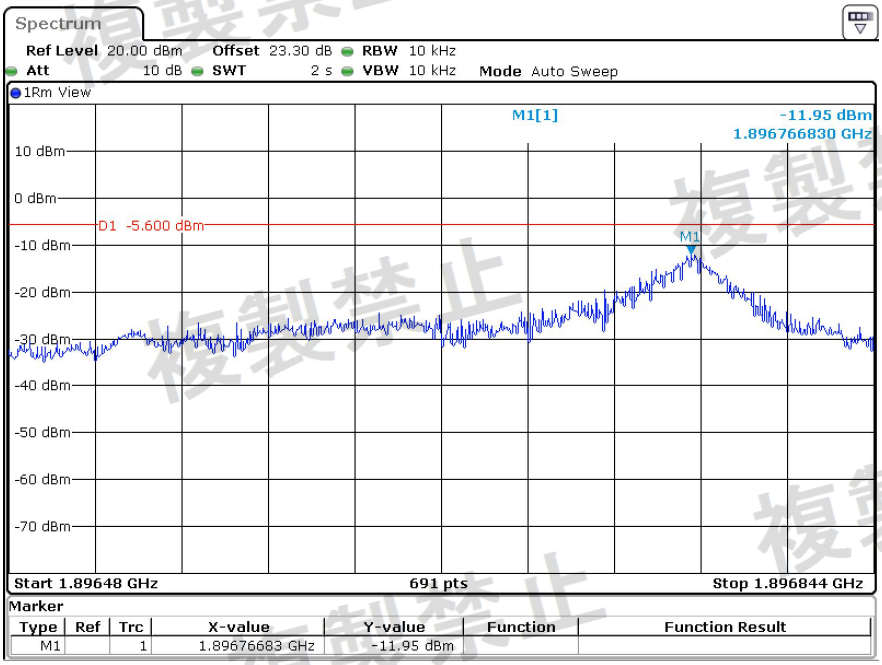
Date: 9.JUN.2025 16:07:02

1.894388 GHz~1.894752 GHz



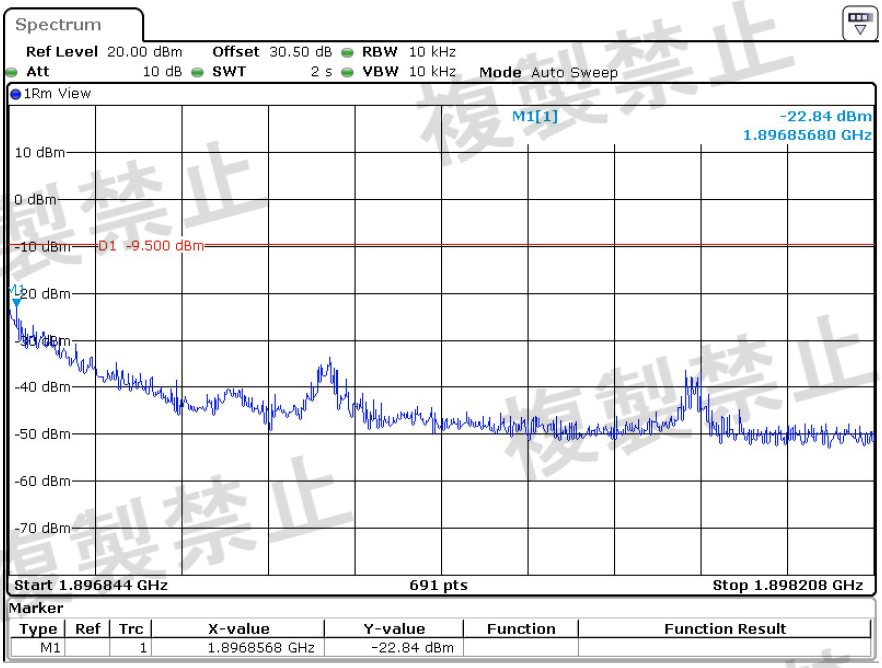
ProjectNo.:2501T45782E-RF-PP Tester:Rainbow Zhu
Date: 9.JUN.2025 15:57:22

1.89648 GHz ~1.896844 GHz



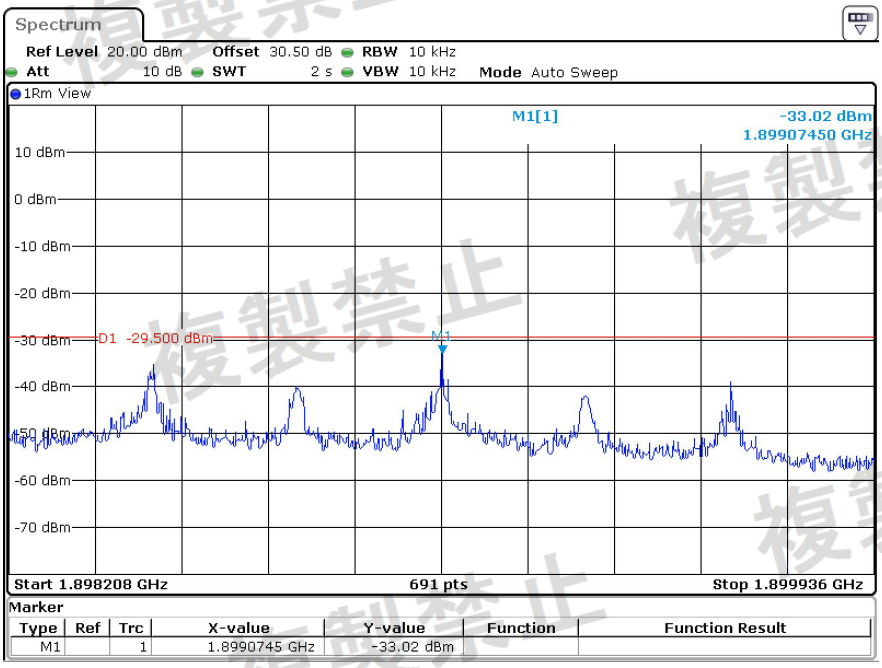
ProjectNo.:2501T45782E-RF-PP Tester:Rainbow Zhu
Date: 9.JUN.2025 15:53:57

1.896844 GHz~1.898208 GHz



ProjectNo.:2501T45782E-RF-PP Tester:Rainbow Zhu
Date: 9.JUN.2025 16:03:32

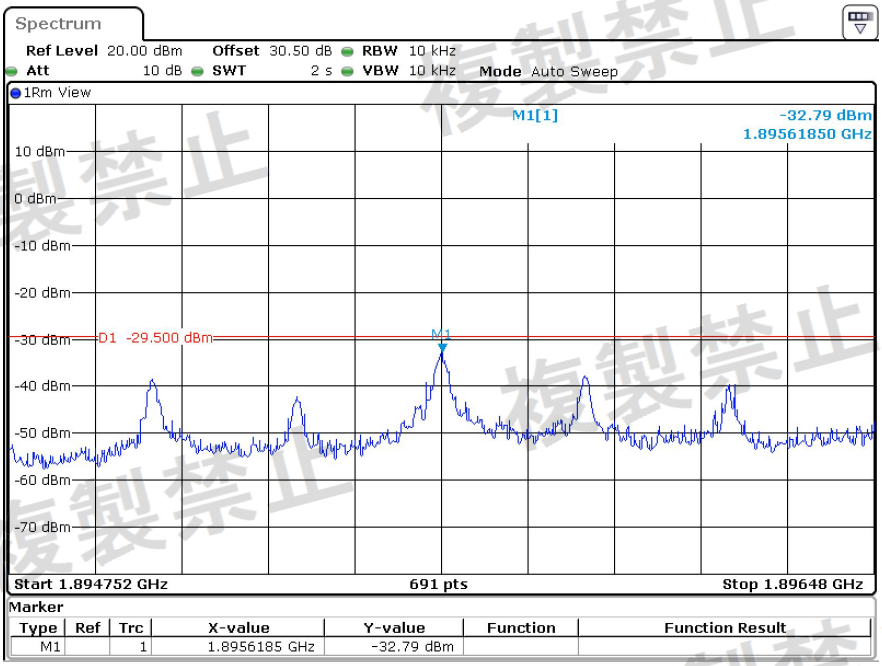
1.898208 GHz ~1.899936 GHz



ProjectNo.:2501T45782E-RF-PP Tester:Rainbow Zhu
Date: 9.JUN.2025 16:10:37

Middle channel

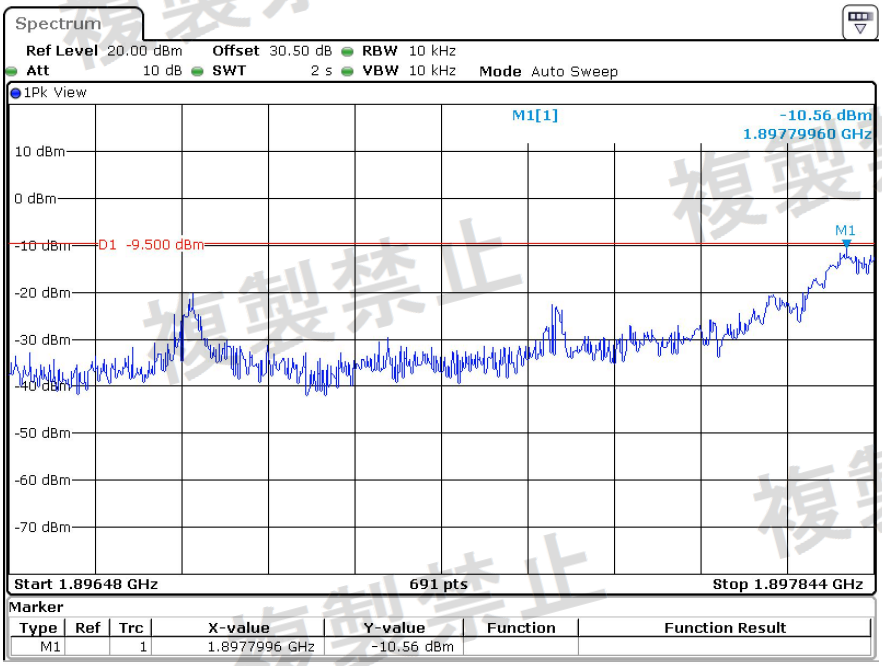
1.894752 GHz~1.89648 GHz



ProjectNo.:2501T45782E-RF-PP Tester:Rainbow Zhu

Date: 9.JUN.2025 15:47:18

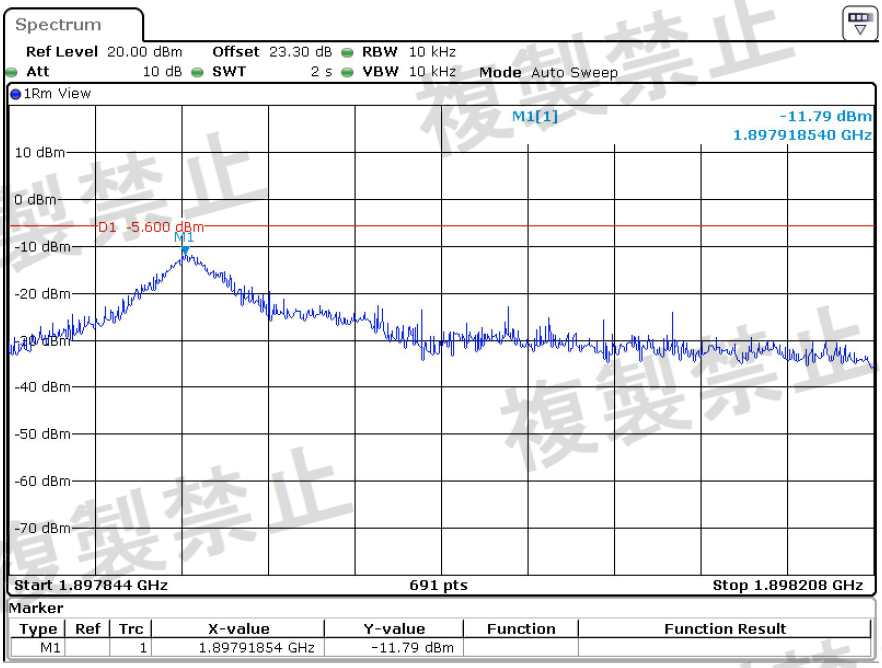
1.89648 GHz~1.897844GHz



ProjectNo.:2501T45782E-RF-PP Tester:Rainbow Zhu

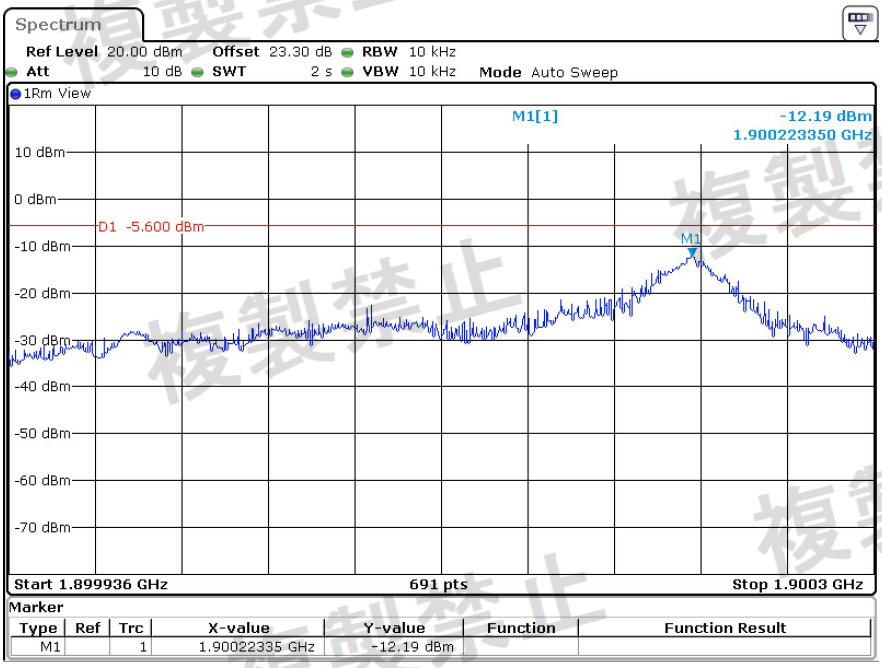
Date: 9.JUN.2025 15:28:12

1.897844GHz~1.898208 GHz



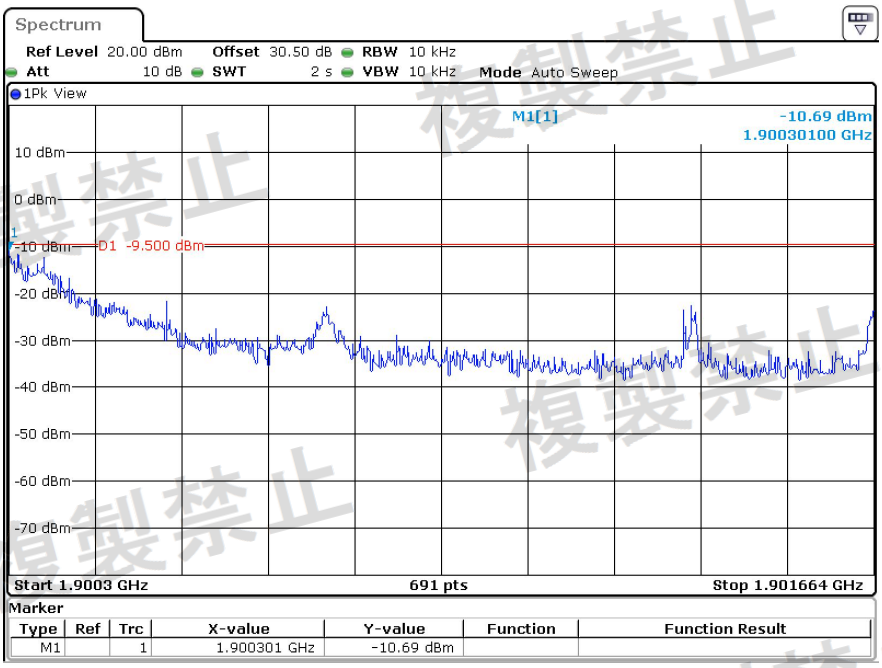
ProjectNo.:2501T45782E-RF-PP Tester:Rainbow Zhu
Date: 9.JUN.2025 15:16:36

1.899936 GHz~1.9003 GHz



ProjectNo.:2501T45782E-RF-PP Tester:Rainbow Zhu
Date: 9.JUN.2025 15:10:33

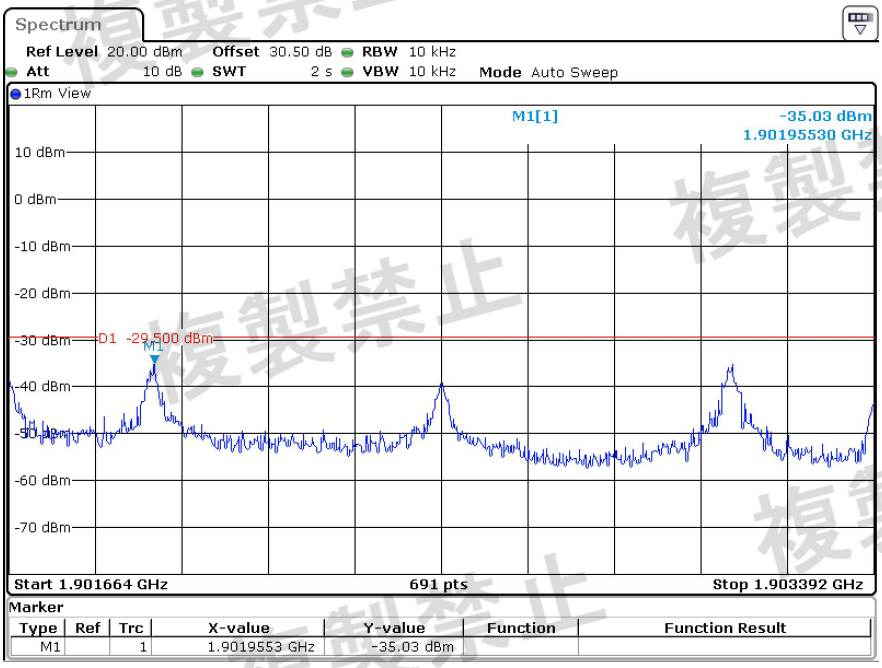
1.9003 GHz ~1.901664 GHz



ProjectNo.:2501T45782E-RF-PP Tester:Rainbow Zhu

Date: 9.JUN.2025 15:22:19

1.901664 GHz~1.903392 GHz

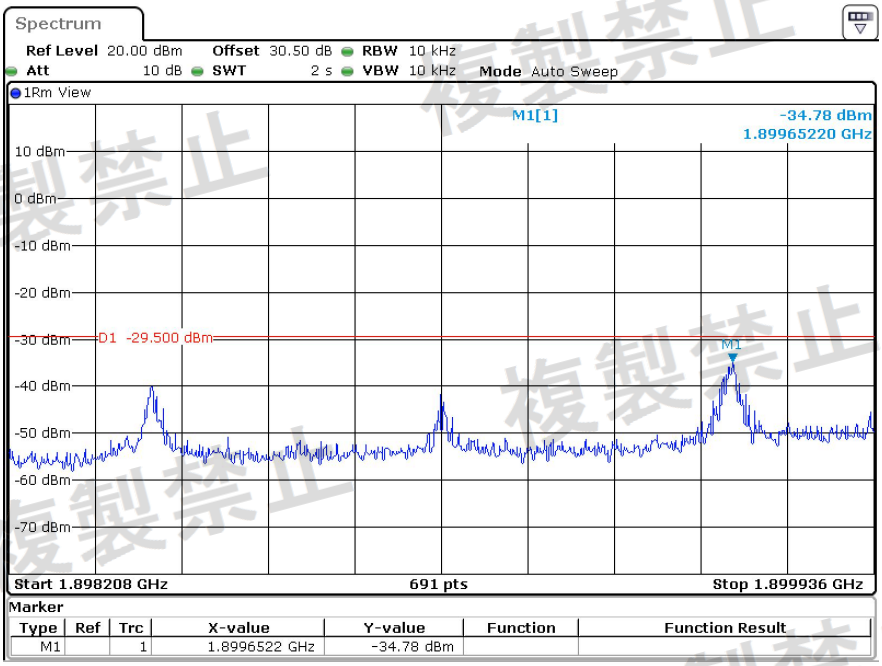


ProjectNo.:2501T45782E-RF-PP Tester:Rainbow Zhu

Date: 9.JUN.2025 15:43:24

High channel

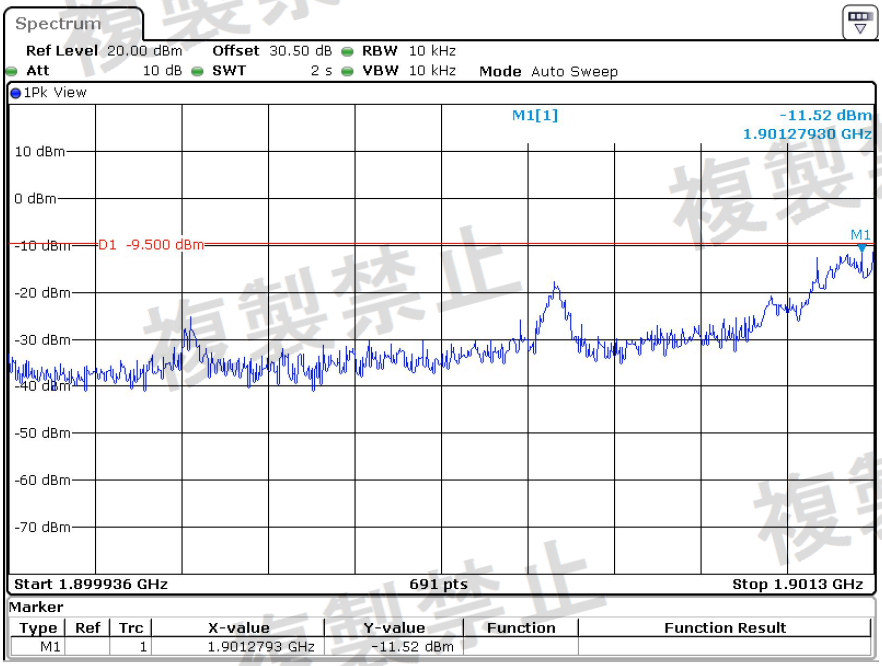
1.898208 GHz~1.899936 GHz



ProjectNo.:2501T45782E-RF-PP Tester:Rainbow Zhu

Date: 9.JUN.2025 15:02:30

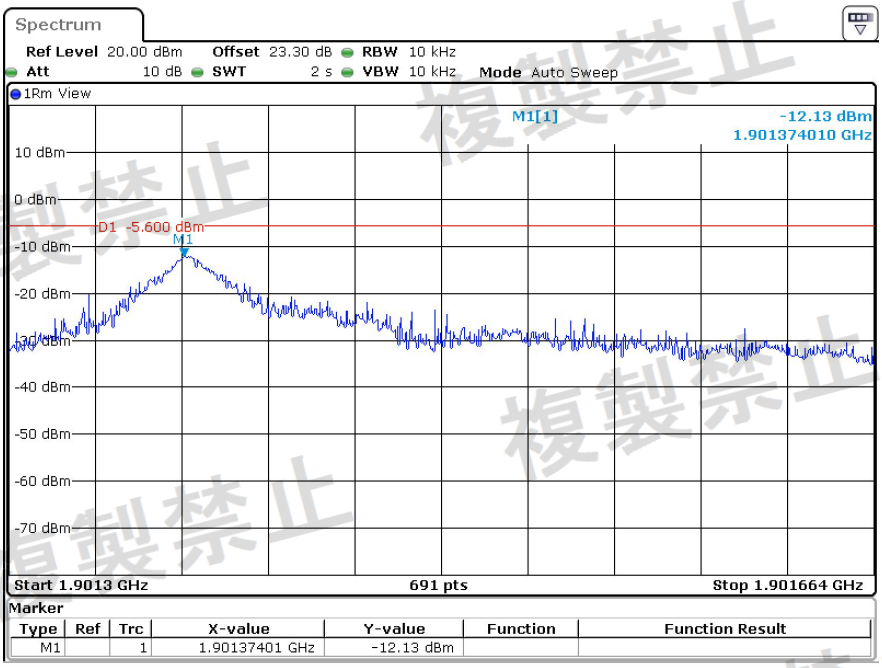
1.899936 GHz~1.9013 GHz



ProjectNo.:2501T45782E-RF-PP Tester:Rainbow Zhu

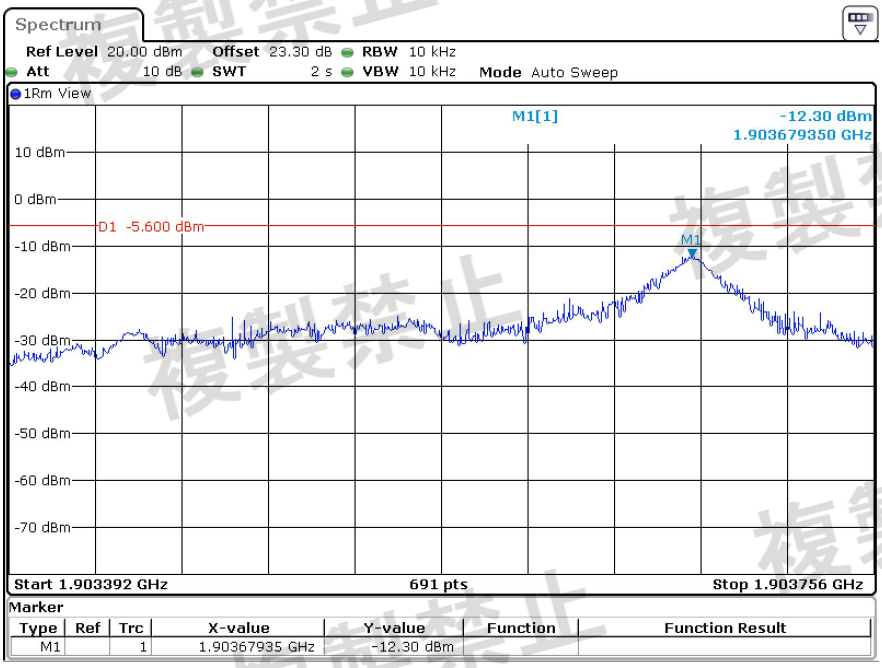
Date: 9.JUN.2025 14:53:01

1.9013 GHz~1.901664 GHz



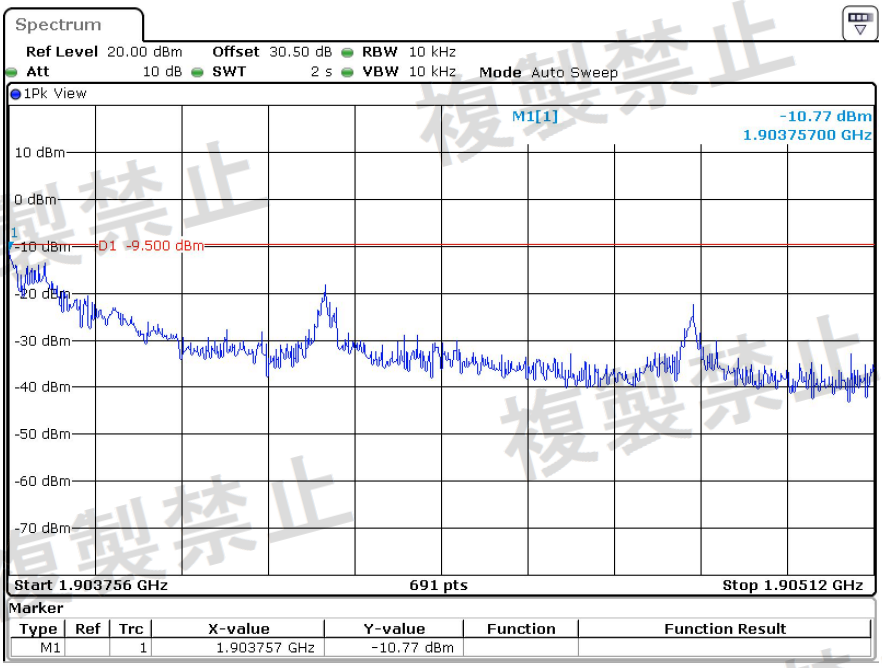
ProjectNo.:2501T45782E-RF-PP Tester:Rainbow Zhu
Date: 9.JUN.2025 14:48:40

1.903392 GHz ~1.903756 GHz



ProjectNo.:2501T45782E-RF-PP Tester:Rainbow Zhu
Date: 9.JUN.2025 14:44:26

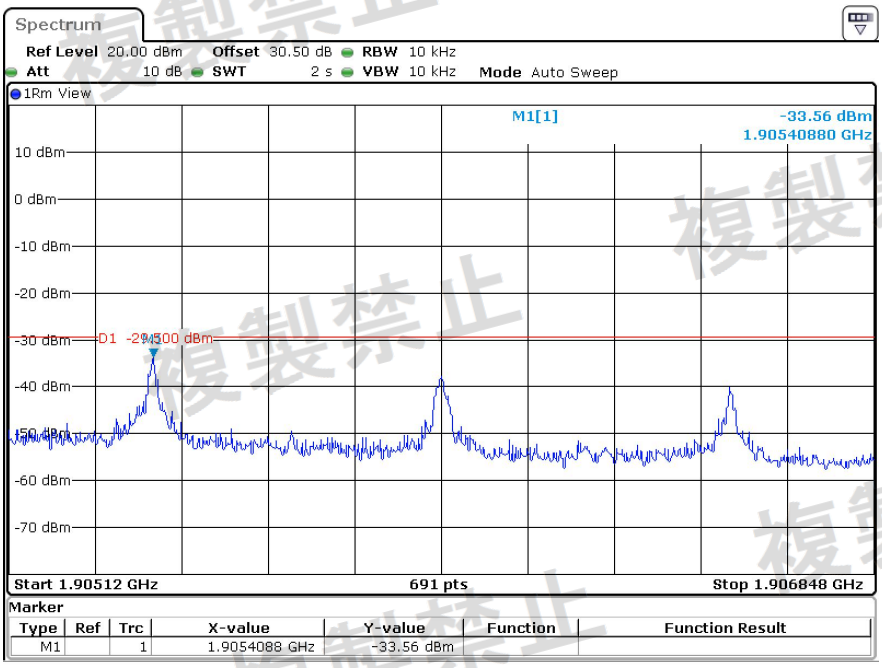
1.903756 GHz~1.90512 GHz



ProjectNo.:2501T45782E-RF-PP Tester:Rainbow Zhu

Date: 9.JUN.2025 14:51:14

1.90512 GHz ~1.906848 GHz



ProjectNo.:2501T45782E-RF-PP Tester:Rainbow Zhu

Date: 9.JUN.2025 14:58:11

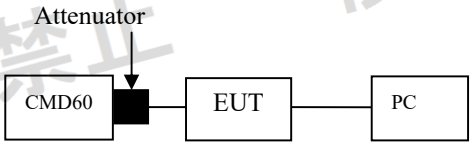
ANTENNA OUTPUT POWER AND ANTENNA POWER TOLERANCE

Limit

Item	Limit
Antenna Power	≤ 0.24W
Permissible deviation	+20～-80%

Transmitter antenna gain	4dBi or less (When the E.I.R.P. is 240 mW + 4 dB or less, the shortage can be compensated for by the transmitter antenna gain.)

Test Procedure



1. Set the EUT in a continuously transmitting mode.
2. Record the reading on the CMD60.

Test Data

Environmental Conditions

Temperature:	25.5 ℃
Relative Humidity:	50 %
ATM Pressure:	99.6 kPa

The testing was performed by Rainbow Zhu on 2025-06-09.

Test Mode: Transmitting

Test Result: Compliant

Normal voltage:

ANT1

Frequency	1895.616MHz	1899.072MHz	1902.528MHz	Limit
Antenna power (dBm)	21.90	22.30	23.00	23.8
Antenna power(mW)	154.88	169.82	199.53	240
Antenna power error(%)	-22.56	-15.09	-0.23	-80~+20
EIRP(dBm)	22.90	23.30	24.00	27.8

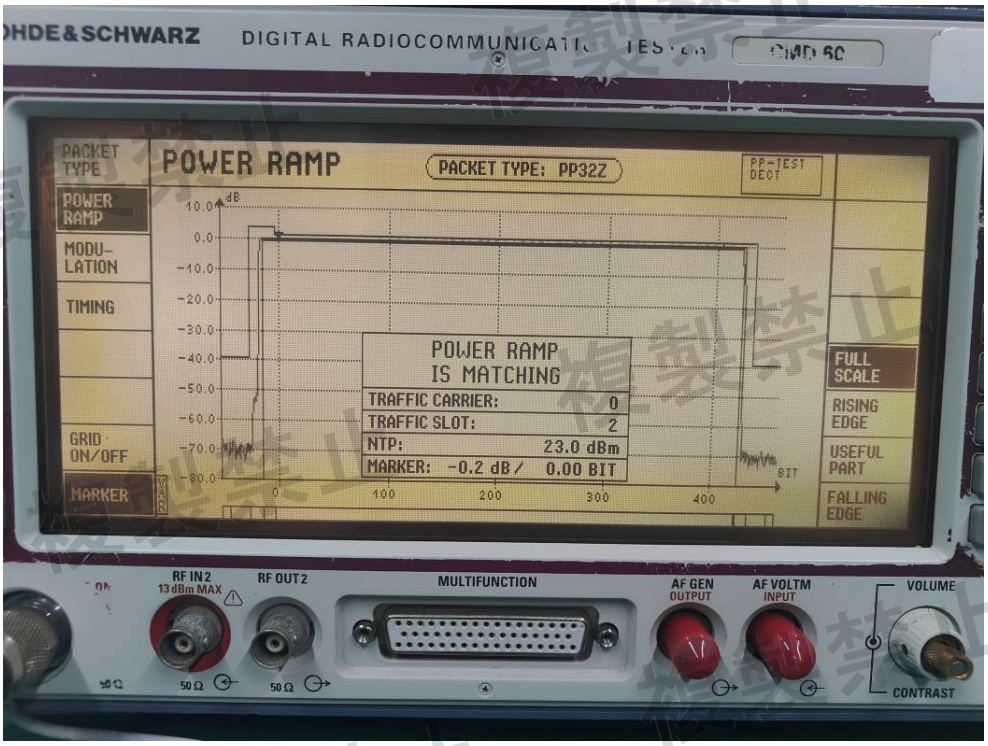
ANT2

Frequency	1895.616MHz	1899.072MHz	1902.528MHz	Limit
Antenna power (dBm)	22.00	22.40	23.10	23.8
Antenna power(mW)	158.49	173.78	204.17	240
Antenna power error(%)	-20.76	-13.11	2.08	-80~+20
EIRP(dBm)	23.00	23.40	24.10	27.8

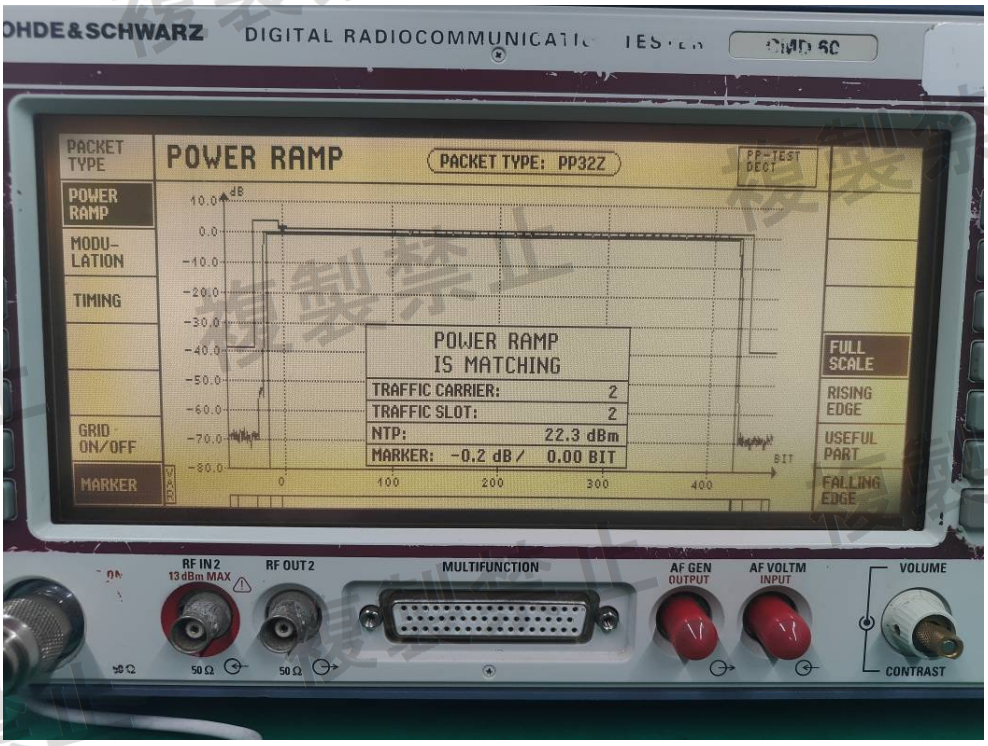
Note:
1) Antenna output power tolerance = (Antenna output power - declared power)/declared power*100%.
2) Maximum antenna gain is 1dBi for ANT1/ANT2.
3) The declared power is 200mW.

ANT1
Normal voltage:

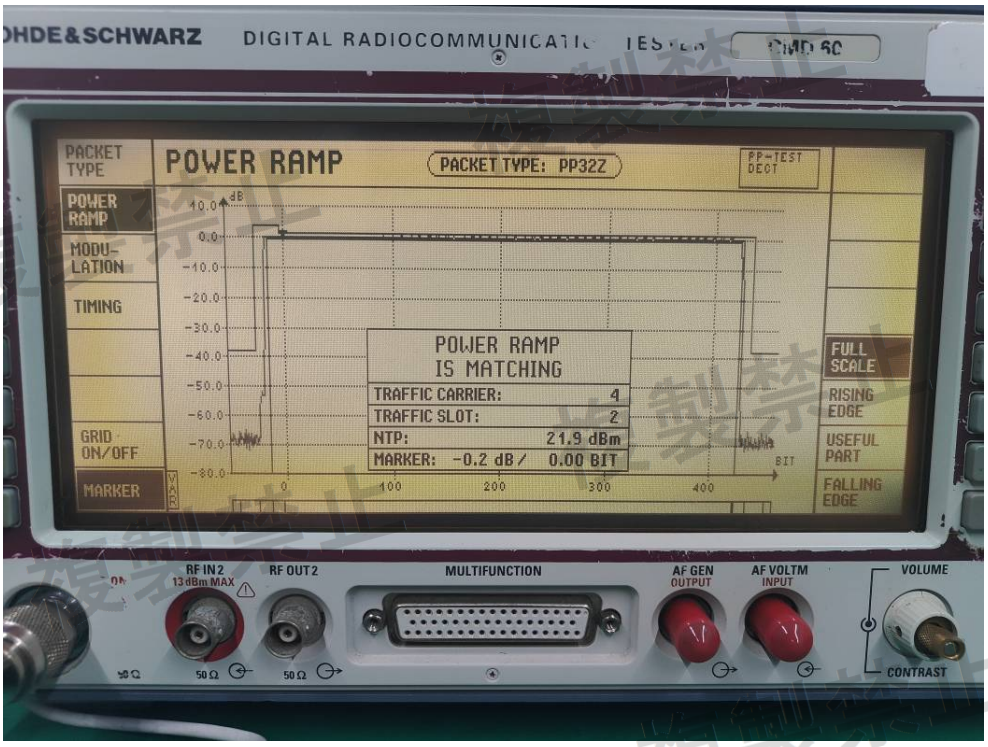
High channel



Middle channel

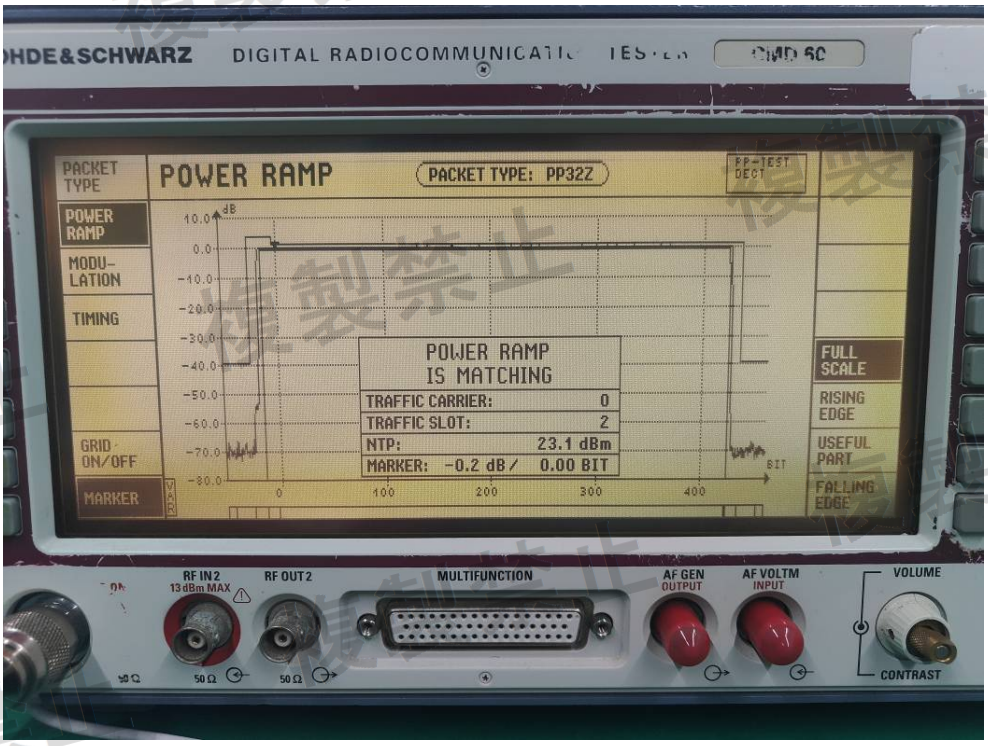


Low channel

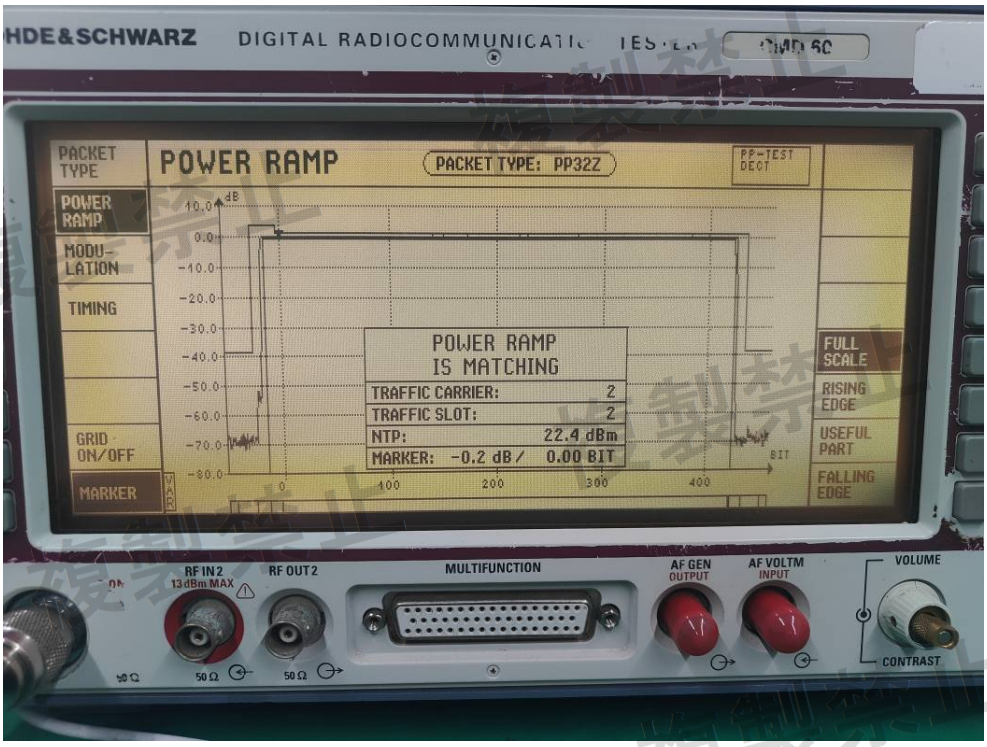


ANT2
Normal voltage:

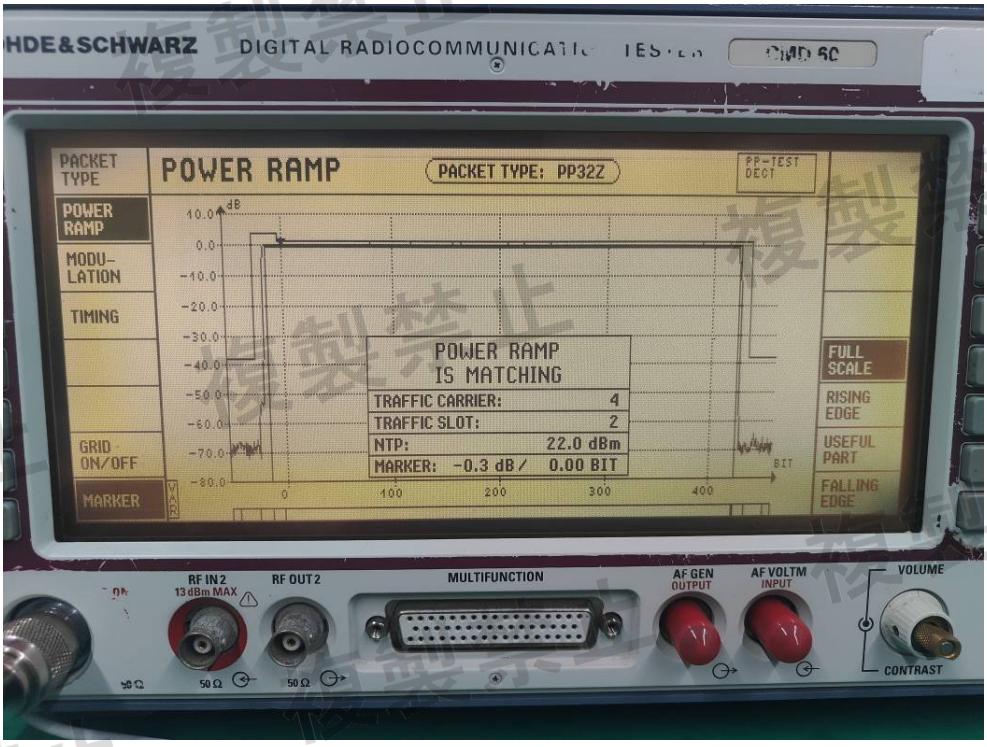
High channel



Middle channel



Low channel

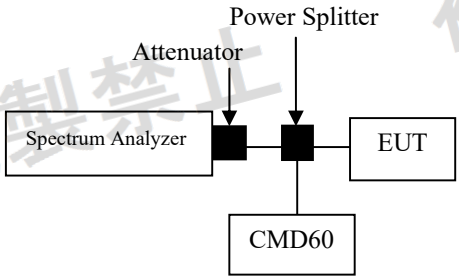


TRANSMITTER RATE OF MODULATION SIGNAL AND BIT ERROR RATE

Limit

Modulation	Rate
FSK, π/2-BPSK	1152 kbit/s
π/4-QPSK	2304 kbit/s
π/8-8PSK	3456 kbit/s
16QAM	4608 kbit/s
64QAM	6912 kbit/s
Tolerance: $\pm 100*10^{-6}$	

Test Procedure



1. Set the EUT at the test frequency and transmitting in normal operation condition.
2. For each modulation method, use an external test device to check the possibility of line connection with test equipment.

Test Data

Environmental Conditions

Temperature:	25.5 ℃
Relative Humidity:	50 %
ATM Pressure:	99.6 kPa

The testing was performed by Rainbow Zhu on 2025-06-09.

Test Mode: Transmitting

Test Result: Compliant, please see the below tables

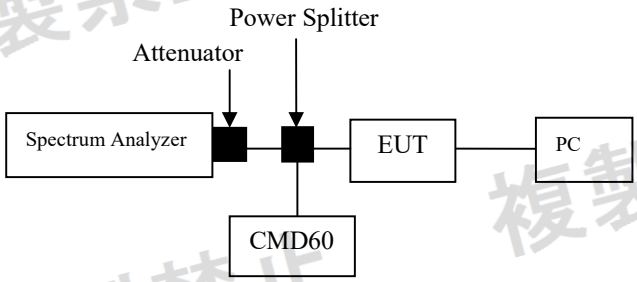
Item	Modulation Method	Test Result
Transmission Rate of Modulation Signal	GFSK	Line connection good

SECONDARY RADIATED EMISSION STRENGTH

Limit

Frequency	Limit
30-1000 MHz	2 nW/100kHz
1000-1880 MHz	20 nW/100kHz
1880-1906.1 MHz	2 nW/1MHz
1880.05-1906.05MHz	Consecutive 10 channels: 20nW/MHz (100 kHz interval 261 channels)
1880.015-1906.085MHz	Arbitrary 2 channels: 250nW/30kHz (30 kHz interval 870 channels)
1906.1 MHz-12.75 GHz	20 nW/100 kHz

Test Procedure



Conditions of Application Equipment (EUT)

- The modulation state shall be “continuous receiving mode”.

Test Data

Environmental Conditions

Temperature:	24.8~25.5 ℃
Relative Humidity:	50~51 %
ATM Pressure:	99.6~100.1 kPa

The testing was performed by Rainbow Zhu from 2025-06-09 to 2025-06-27.

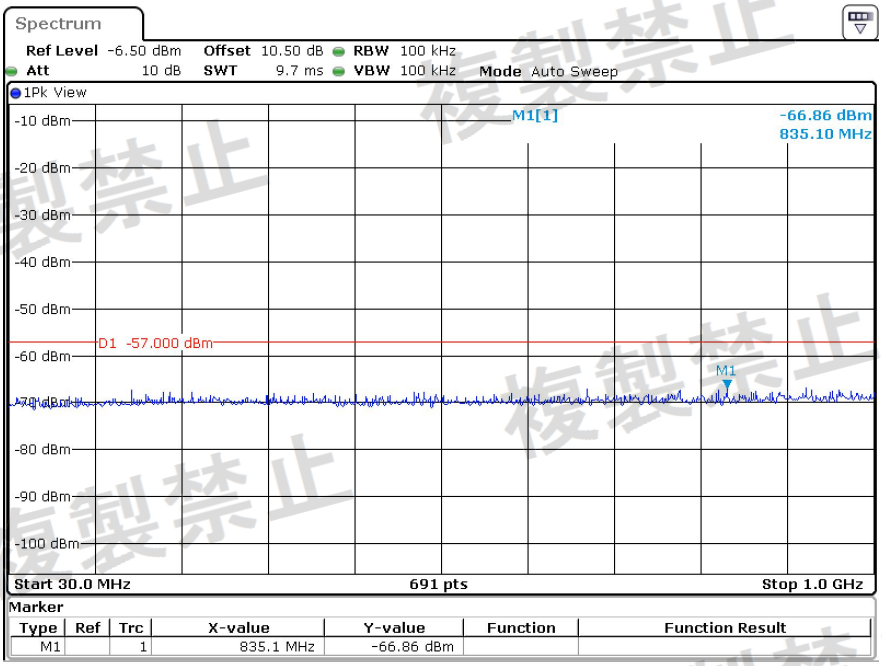
Test Result: Compliant, please see the below tables and plots

Normal Condition Test Data as below:

Frequency Band	Item	Low Channel	Middle Channel	High Channel	Limited
30-1GHz	Frequency/MHz	835.1	649.8	256.7	/
	Spurious Emission (dBm/100kHz)	-66.86	-66.50	-66.83	2nW/100kHz (-57dBm/100kHz)
	Spurious Emission (nW /100kHz)	0.206	0.224	0.207	
1-1.88GHz	Frequency/MHz	1710	1866.6	1825.9	/
	Spurious Emission (dBm/100kHz)	-62.25	-62.06	-61.75	20nW/100kHz (-47dBm/100kHz)
	Spurious Emission (nW /100kHz)	0.596	0.622	0.668	
1.88005-1.90605GHz	Frequency/MHz	1904.865	1894.593	1883.681	/
	Spurious Emission (dBm/MHz)	-52.09	-53.29	-53.24	20nW/MHz (-47dBm/MHz)
	Spurious Emission (nW /MHz)	6.180	4.688	4.742	
1.880015-1.906085GHz	Frequency/MHz	1885.655	1899.086	1894.635	/
	Spurious Emission (dBm/30kHz)	-67.41	-67.20	-67.34	250nW/30kHz (-36dBm/30kHz)
	Spurious Emission (nW /30kHz)	0.182	0.191	0.185	
1.88-1.9061GHz	Frequency/MHz	1897.583	1882.096	1903.513	/
	Spurious Emission (dBm/MHz)	-68.75	-67.68	-69.02	2nW/MHz (-57dBm/MHz)
	Spurious Emission (nW /MHz)	0.133	0.171	0.125	
1.9061-12.75GHZ	Frequency/MHz	6857.1	6936.1	6873.1	/
	Spurious Emission (dBm/100kHz)	-62.98	-62.33	-62.95	20nW/100kHz (-47dBm/100kHz)
	Spurious Emission (nW /100kHz)	0.504	0.585	0.507	

Low channel:

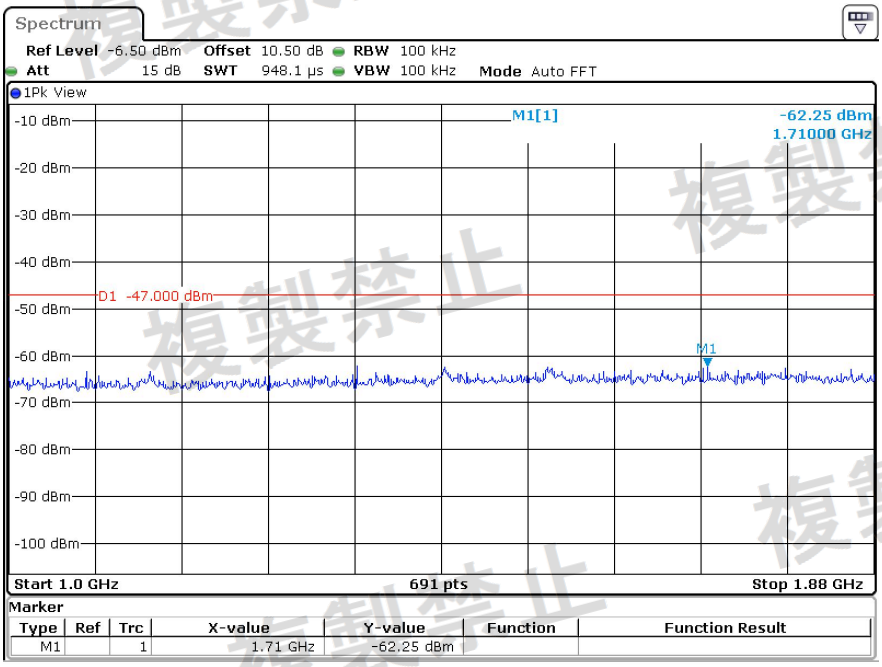
30 MHz~1 GHz



ProjectNo.:2501T45782E-RF-PP Tester:Rainbow Zhu

Date: 9.JUN.2025 17:14:07

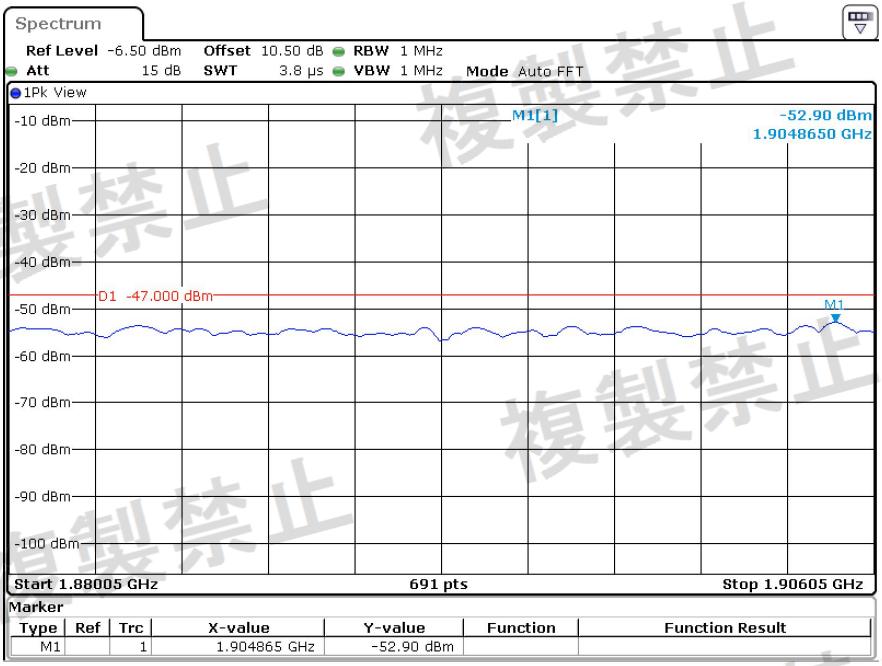
1 GHz~1.880 GHz



ProjectNo.:2501T45782E-RF-PP Tester:Rainbow Zhu

Date: 9.JUN.2025 17:15:40

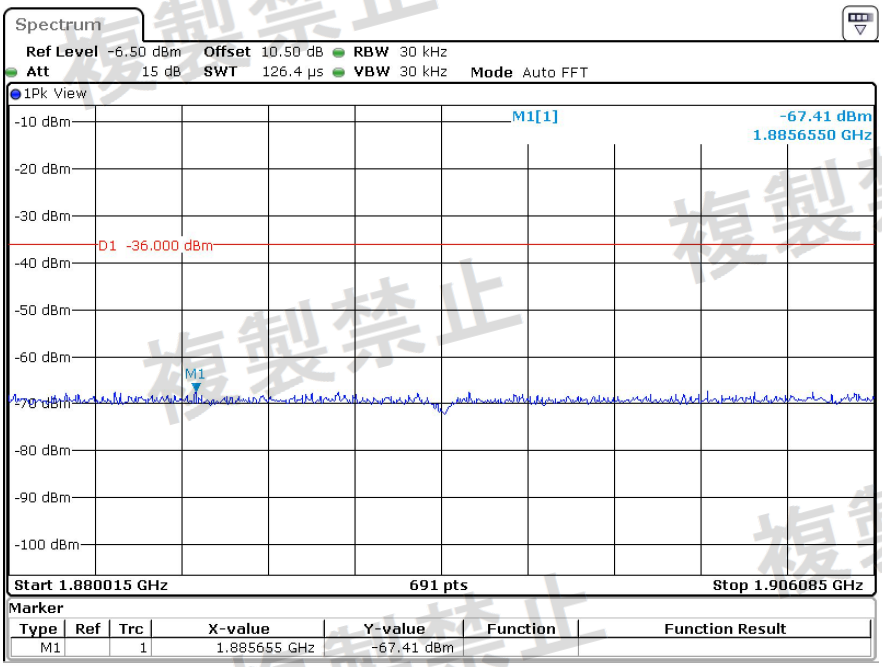
1.88005 GHz~1.90605 GHz



ProjectNo.:2501T45782E-RF-PP Tester:Rainbow Zhu

Date: 9.JUN.2025 17:17:50

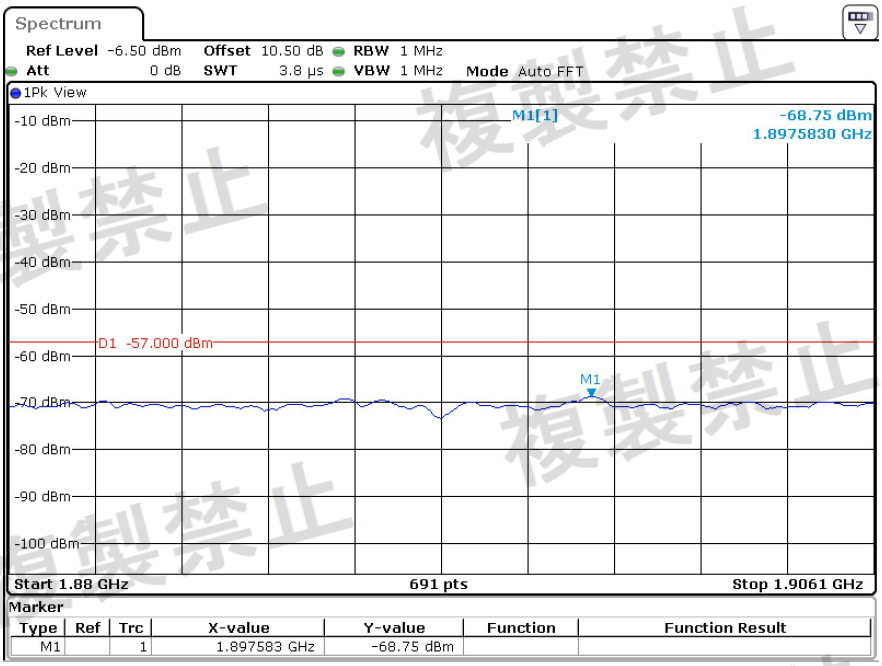
1.880015 GHz~1.906085 GHz



ProjectNo.:2501T45782E-RF-PP Tester:Rainbow Zhu

Date: 9.JUN.2025 17:21:25

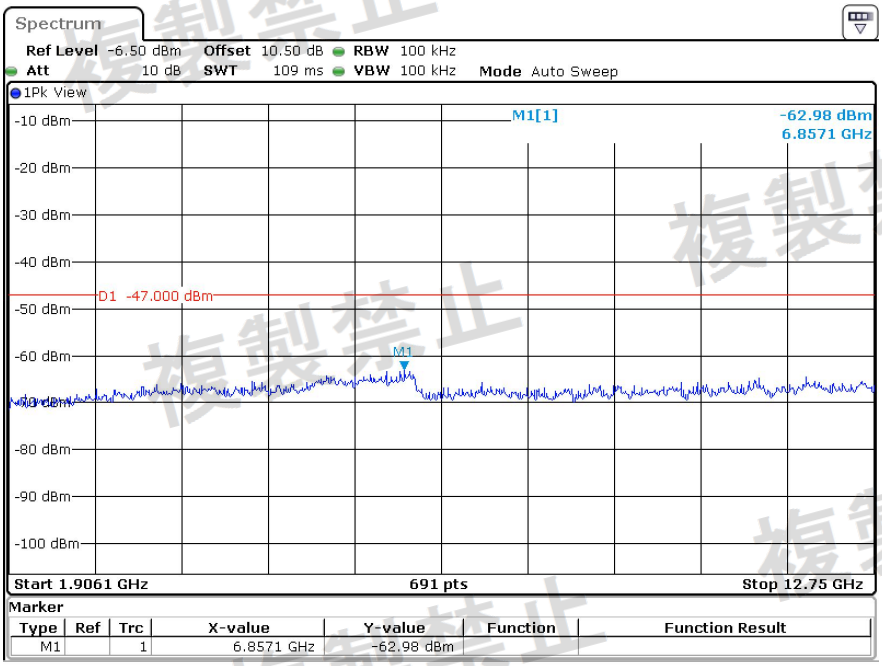
1.880 GHz~1.9061 GHz



ProjectNo.:2501T45782E-RF-PP Tester:Rainbow Zhu

Date: 9.JUN.2025 17:25:40

1.9061 GHz~12.75 GHz

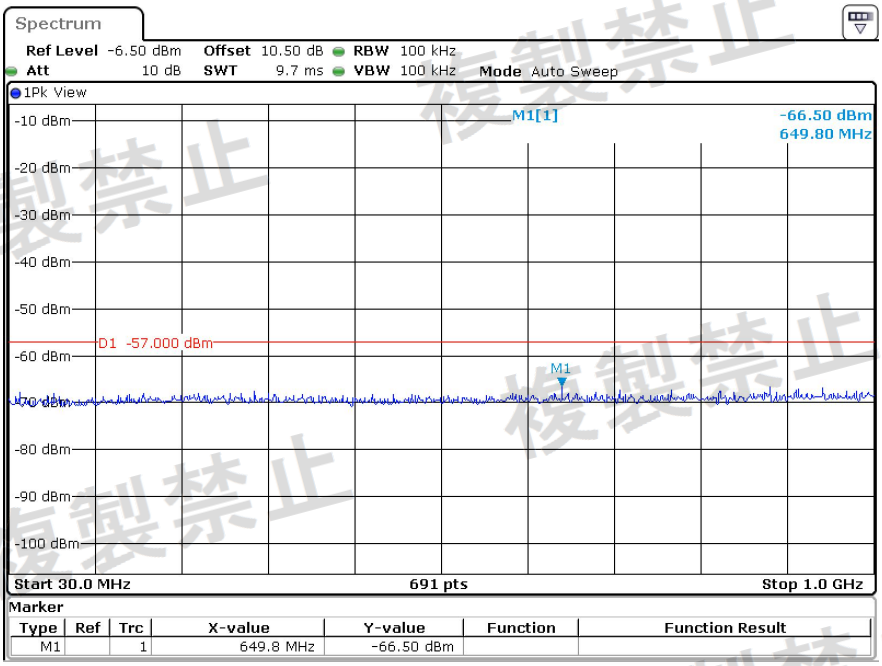


ProjectNo.:2501T45782E-RF-PP Tester:Rainbow Zhu

Date: 9.JUN.2025 17:28:23

Middle channel:

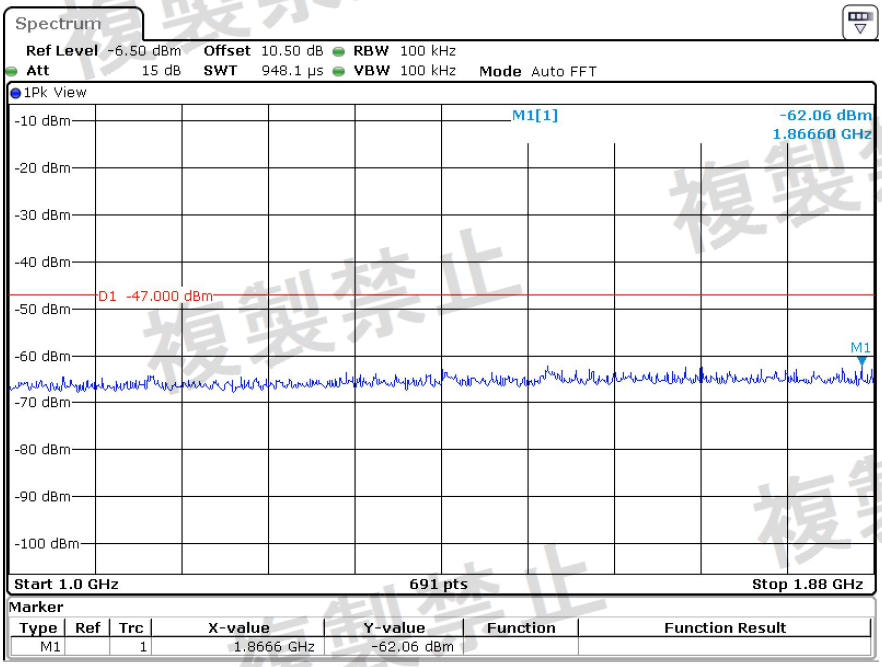
30 MHz~1 GHz



ProjectNo.:2501T45782E-RF-PP Tester:Rainbow Zhu

Date: 9.JUN.2025 17:01:22

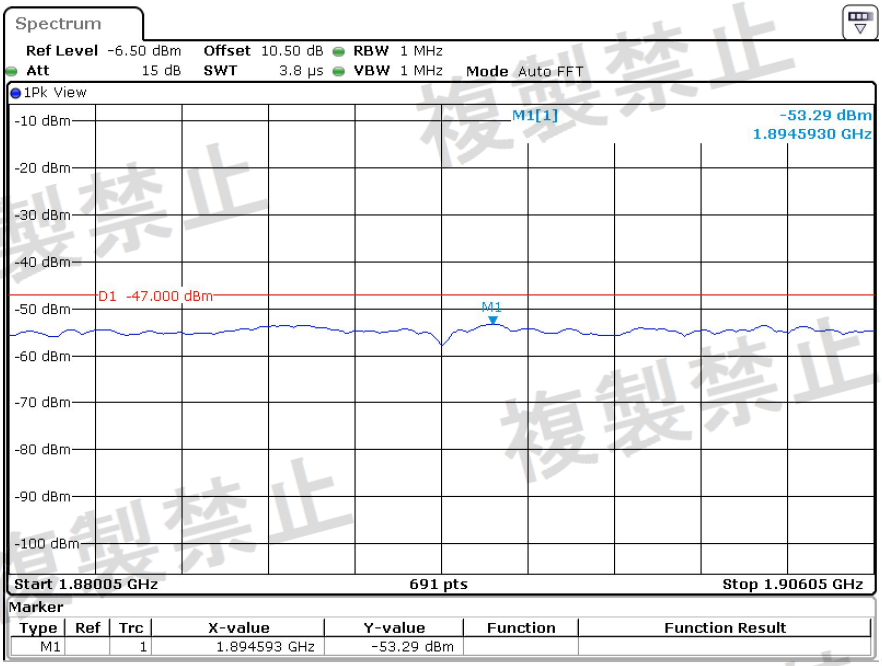
1 GHz~1.880 GHz



ProjectNo.:2501T45782E-RF-PP Tester:Rainbow Zhu

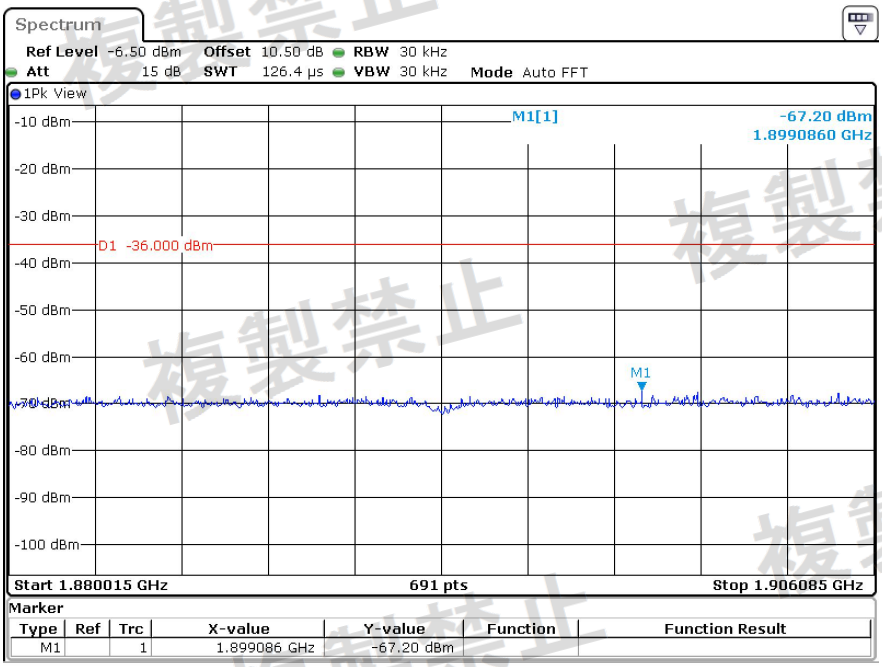
Date: 9.JUN.2025 17:02:55

1.88005 GHz~1.90605 GHz



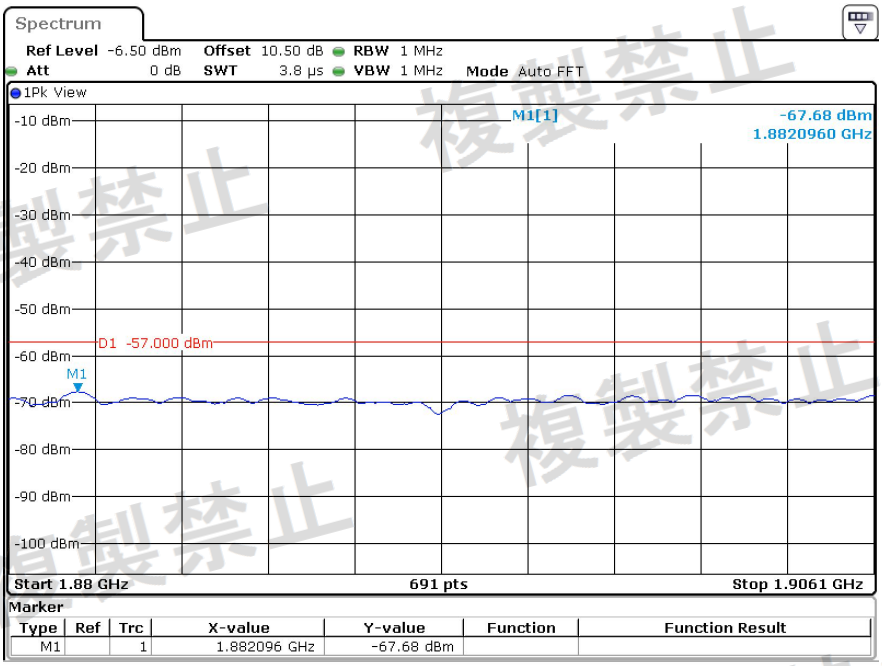
ProjectNo.:2501T45782E-RF-PP Tester:Rainbow Zhu
Date: 9.JUN.2025 17:05:29

1.880015 GHz~1.906085 GHz



ProjectNo.:2501T45782E-RF-PP Tester:Rainbow Zhu
Date: 9.JUN.2025 17:07:18

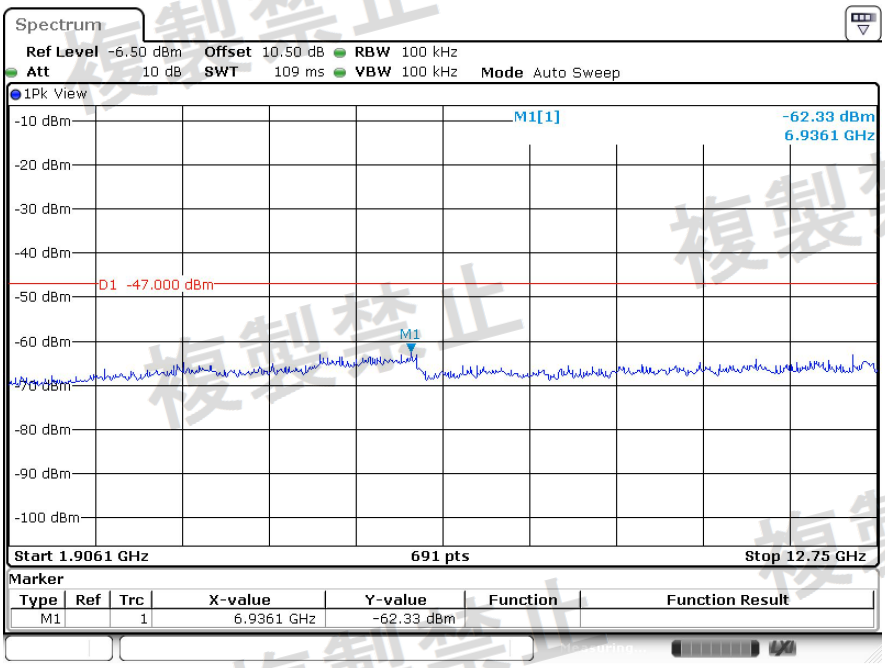
1.880 GHz~1.9061 GHz



ProjectNo.:2501T45782E-RF-PP Tester:Rainbow Zhu

Date: 9.JUN.2025 17:11:34

1.9061 GHz~12.75 GHz

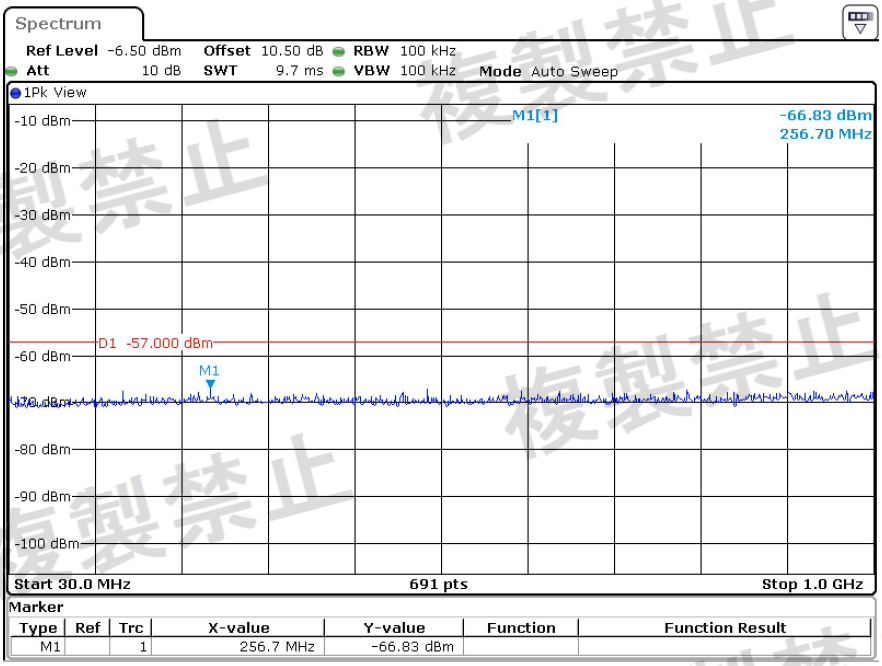


ProjectNo.:2501T45782E-RF-PP Tester:Rainbow Zhu

Date: 27.JUN.2025 09:13:33

High channel:

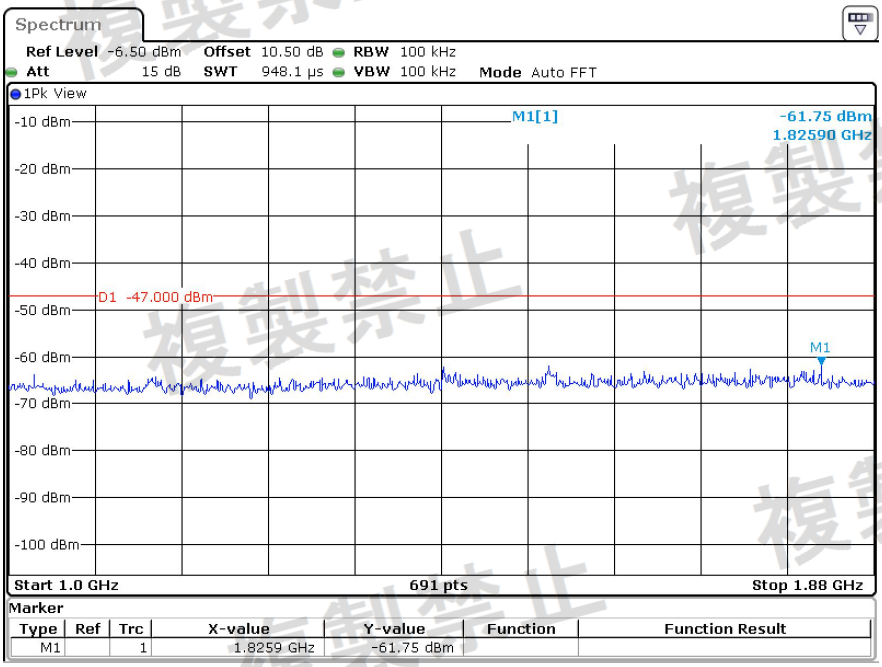
30 MHz~1 GHz



ProjectNo.:2501T45782E-RF-PP Tester:Rainbow Zhu

Date: 9.JUN.2025 16:20:22

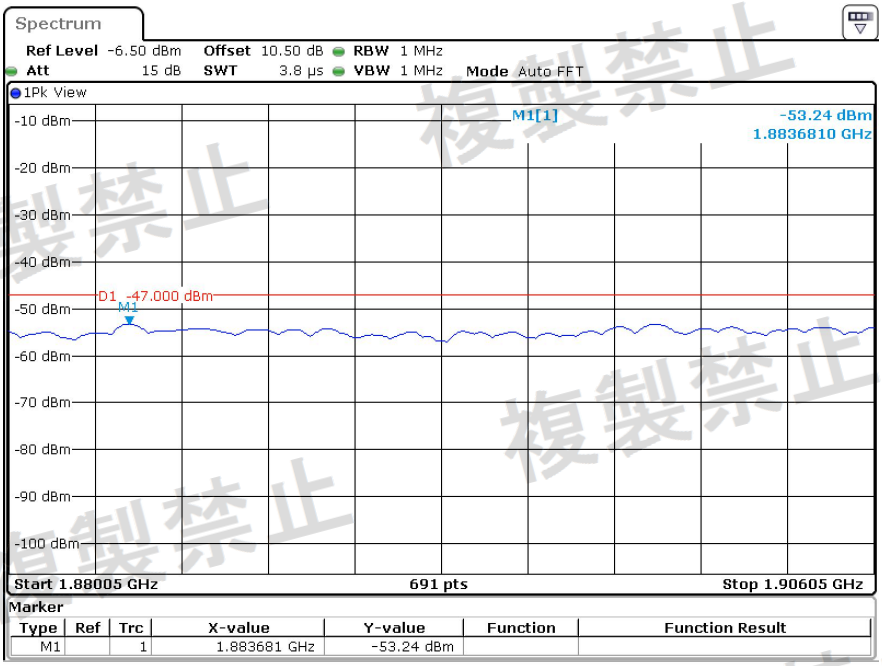
1 GHz~1.880 GHz



ProjectNo.:2501T45782E-RF-PP Tester:Rainbow Zhu

Date: 9.JUN.2025 16:22:23

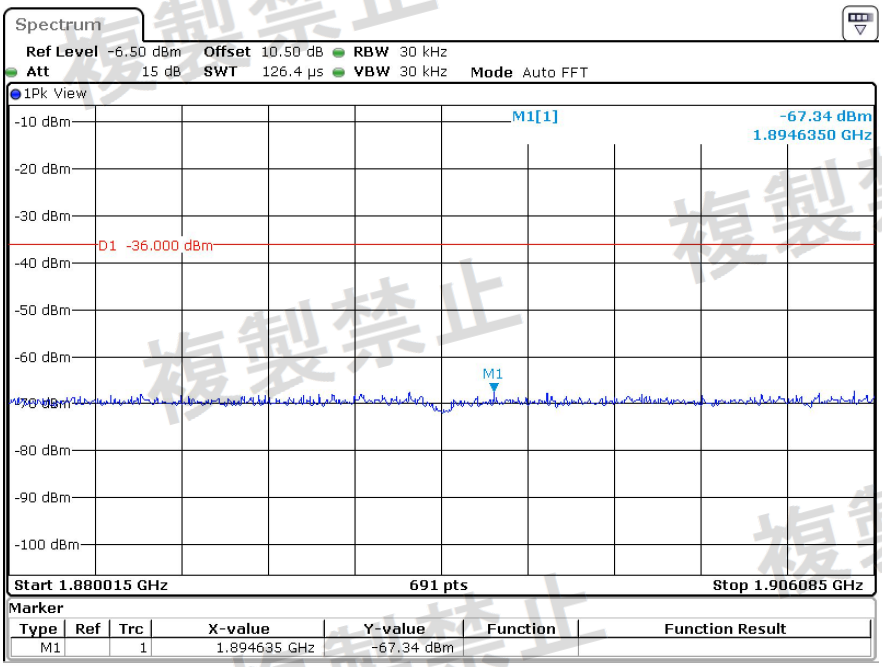
1.88005 GHz~1.90605 GHz



ProjectNo.:2501T45782E-RF-PP Tester:Rainbow Zhu

Date: 9.JUN.2025 16:25:15

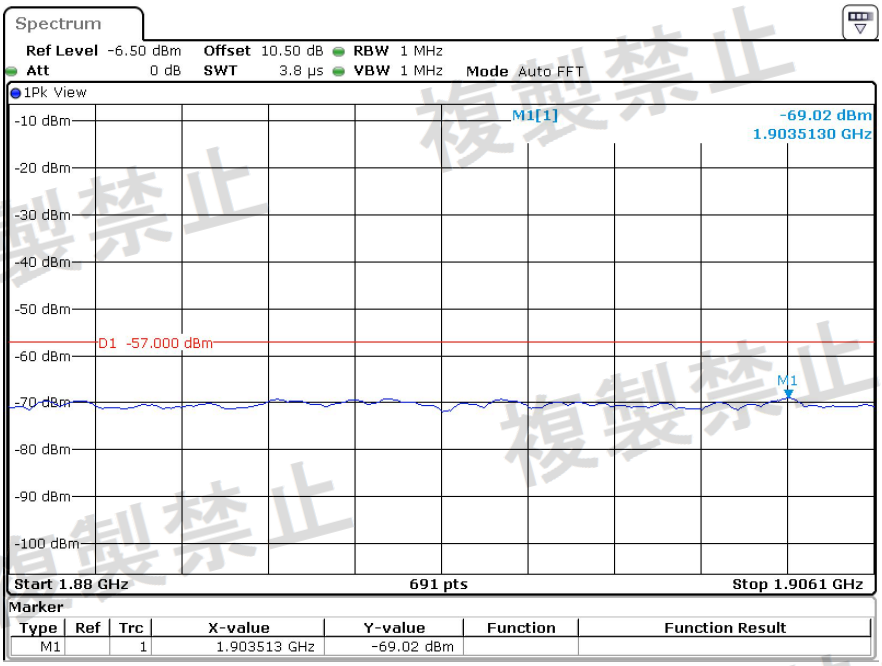
1.880015 GHz~1.906085 GHz



ProjectNo.:2501T45782E-RF-PP Tester:Rainbow Zhu

Date: 9.JUN.2025 16:27:19

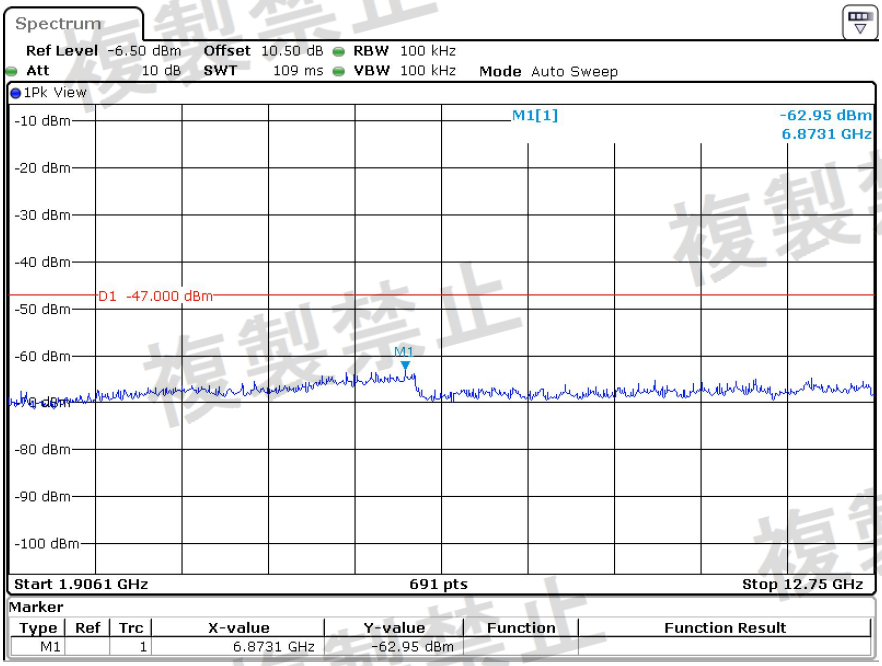
1.880 GHz~1.9061 GHz



ProjectNo.:2501T45782E-RF-PP Tester:Rainbow Zhu

Date: 9.JUN.2025 16:31:12

1.9061 GHz~12.75 GHz



ProjectNo.:2501T45782E-RF-PP Tester:Rainbow Zhu

Date: 9.JUN.2025 16:59:48

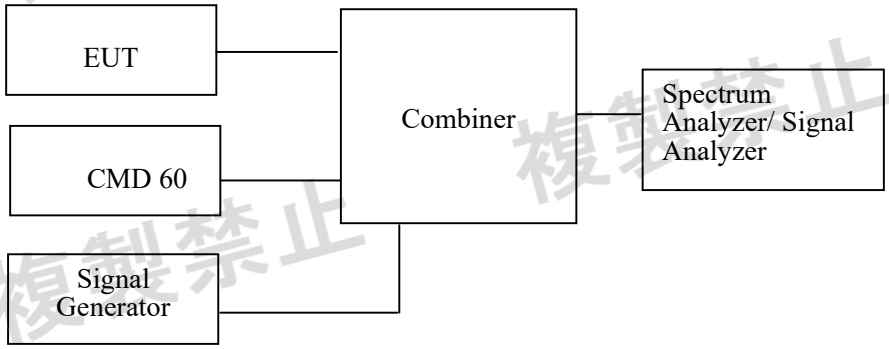
CARRIER SENSING FUNCTION

Limit

Consecutive 2 flame or more: -62 dBm or less
Base unit: 1897.344, 1899.072, 1900.8 MHz (control channel): -82 dBm or less

Test Procedure

Measurement System Diagram



Conditions of Application Equipment (EUT)

- Initially it is set to the reception state on the test frequency.
- It is set to the state described in the Measurement Procedure
- The transmission frequency shall be the test frequency.

Test Procedure

1. SG adjusted the frequency as same as the EUT transmitted signal and emitted the absence of modulation from SG

2. The SG power level is -82dBm.

2. Turn off the RF signal of the SG.

3. EUT have transmitted the maximum modulation signal and fixed channelize.

4. Setting of SA: RBW/VBW=3MHz/10MHz, Span= 0MHz, trig=free run, Detect mode=positive peak

5. SG RF signal on.

6. EUT shall be stop the transmitted any signal.

7. For transmitting carriers on frequencies of 1897.344MHz, 1899.072MHz, 1900.800MHz (base unit), tests from (1) to (6) shall be performed respectively by setting the frequency of the SG to 1898.45MHz and 1900.25MHz, for all frequencies on which carriers are transmitted.

Test Data

Environmental Conditions

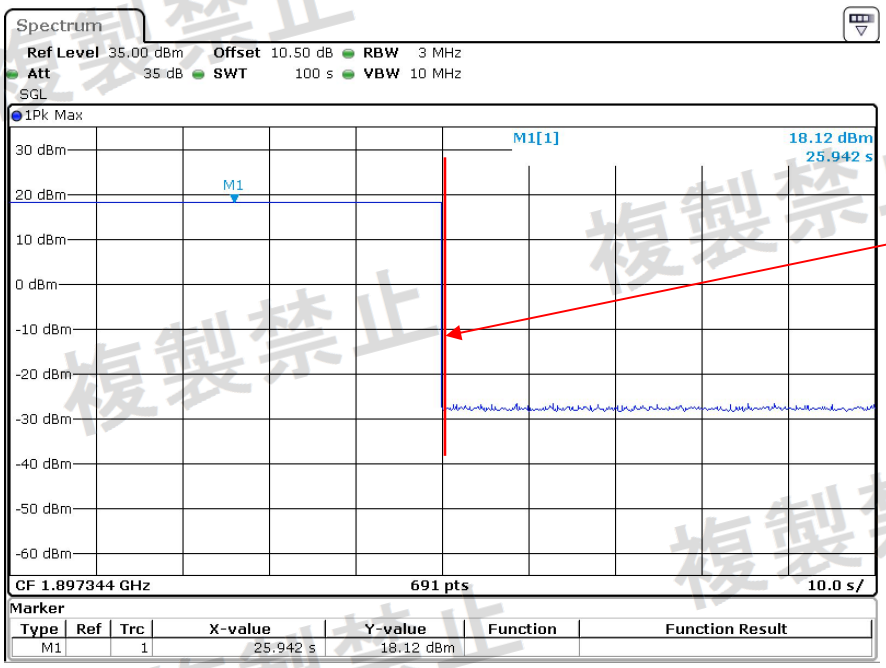
Temperature:	25.5 ℃
Relative Humidity:	50 %
ATM Pressure:	99.6 kPa

The testing was performed by Rainbow Zhu on 2025-06-09.

Test Mode: Receiving

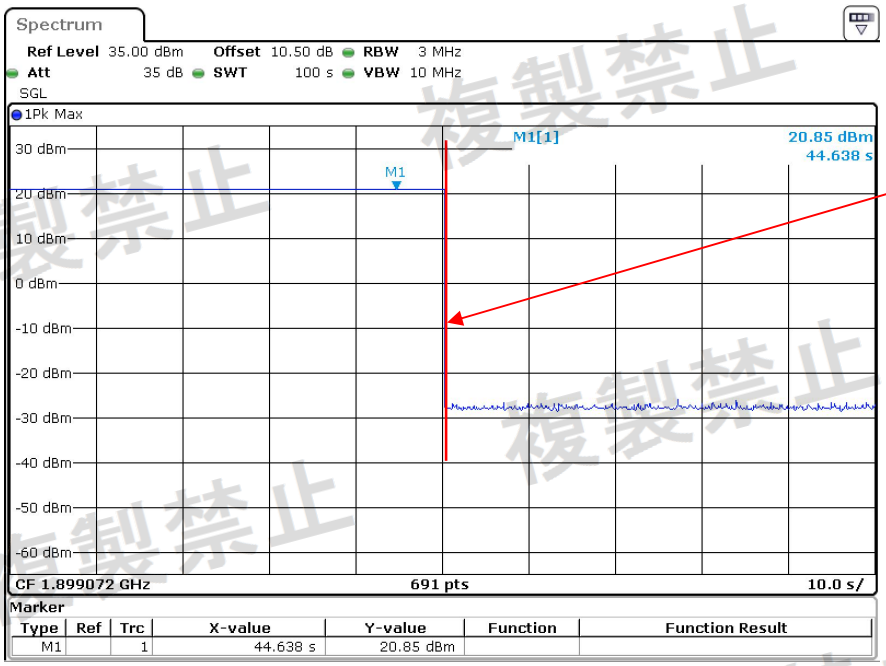
Test Result: Compliant

1897.344 MHz



With interference signal on, EUT cease transmit

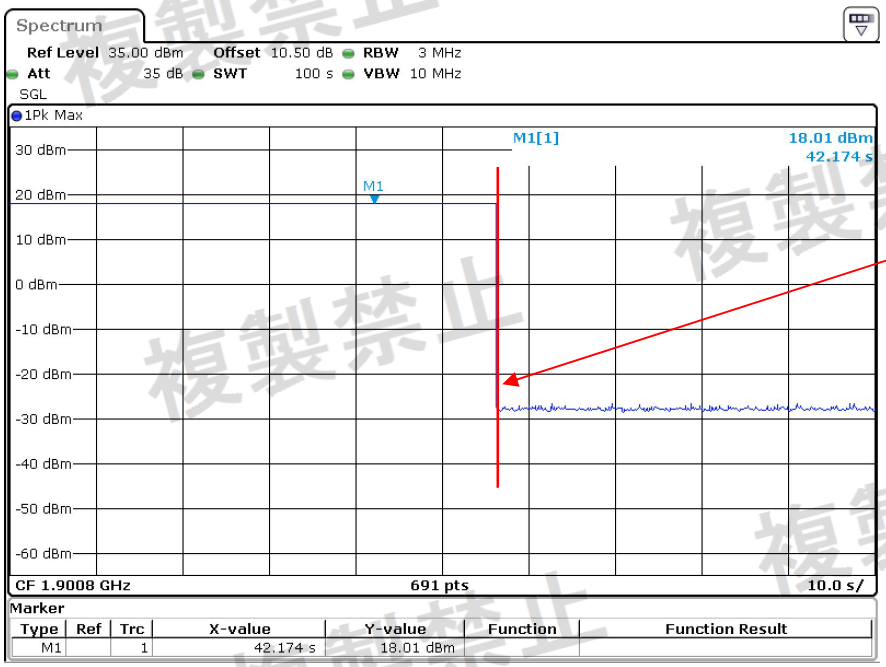
1899.072 MHz



With interference signal on, EUT cease transmit

ProjectNo.:2501T45782E-RF-PP Tester:Rainbow Zhu
Date: 9.JUN.2025 13:38:01

1900.8 MHz



With interference signal on, EUT cease transmit

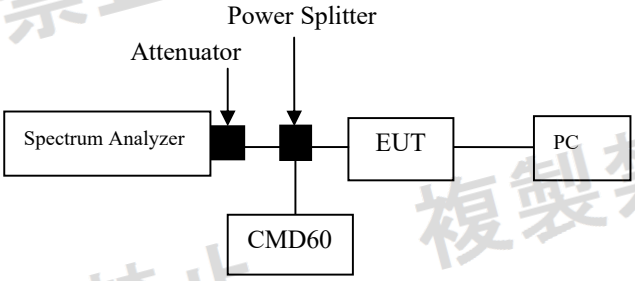
ProjectNo.:2501T45782E-RF-PP Tester:Rainbow Zhu
Date: 9.JUN.2025 13:32:03

LEAKAGE POWER AT NO-CARRIER TRANSMISSION

Limit

Less or equal than 80 nW

Test Procedure



The setting of spectrum analyzer as below table:

Spectrum Parameter	Setting
RB/VB	3MHz/10MHz
Span	0Hz
Detector	Peak
Sweep mode	Single
Sweep time	>10ms

Test Data

Environmental Conditions

Temperature:	24.8~25.5 ℃
Relative Humidity:	50~53 %
ATM Pressure:	99.6~100.1 kPa

The testing was performed by Rainbow Zhu from 2025-06-09 to 2025-07-15.

Calculation formula list below:

Leakage power=P+10.8-10*Log **(P_{on}/P_{off})**

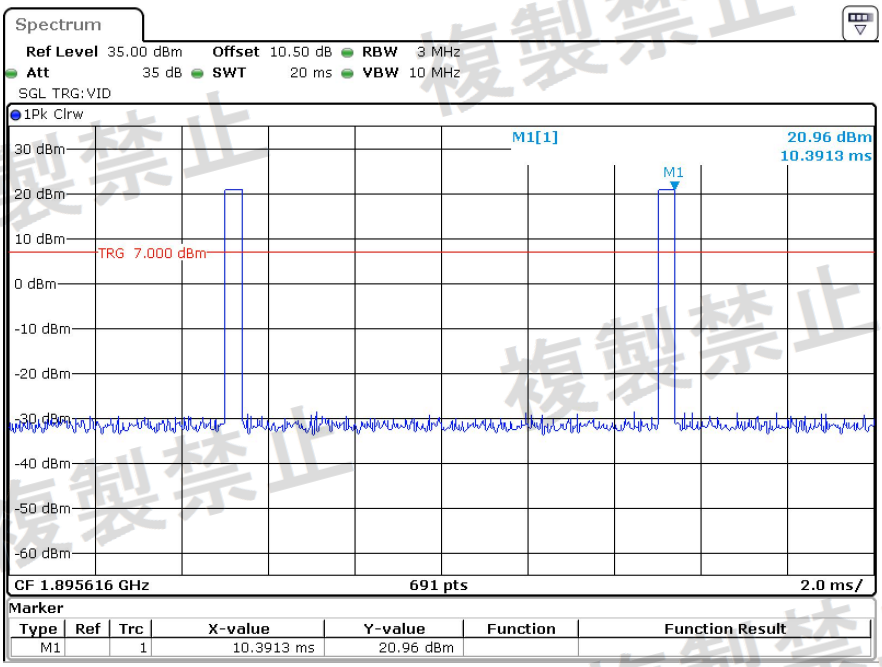
Note: The antenna power "P" please refer to the section "antenna output power and power tolerance".

Normal Voltage

Item	Low channel	Middle channel	High channel	Limit	Result
Antenna power(dBm)	22.00	22.40	23.10	23.8	Pass
Pon(dBm)	20.96	20.89	20.81	/	
Pon(mW)	124.74	122.74	120.50	/	
Poff(dBm)	-54.73	-55.08	-54.87	/	
Poff(mW)	0.00000337	0.00000310	0.00000326	/	
Leak power (nW)	51.40	52.84	66.37	80	

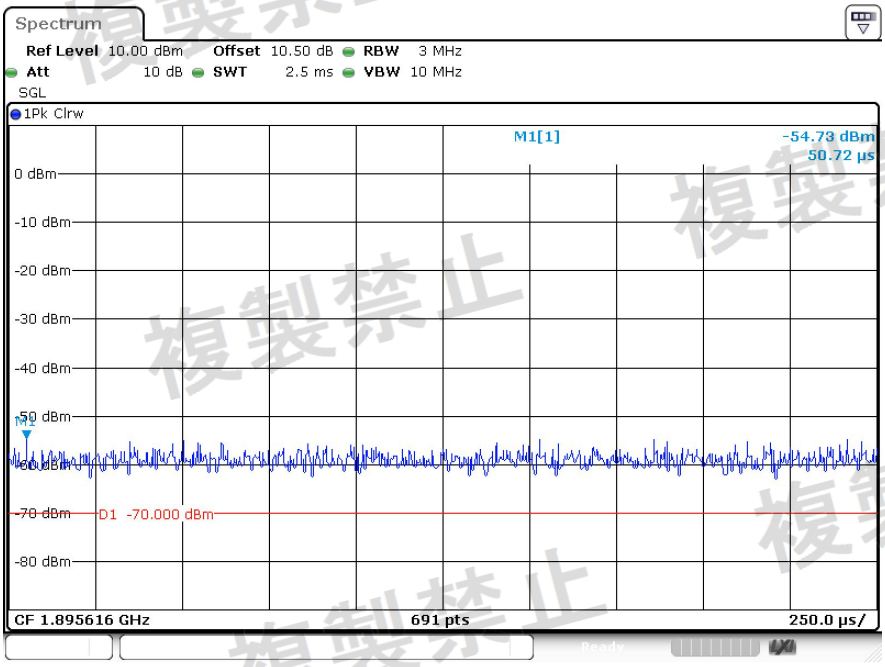
Normal test data:
Low channel:

On



ProjectNo.:2501T45782E-RF-PP Tester:Rainbow Zhu
Date: 9.JUN.2025 13:53:51

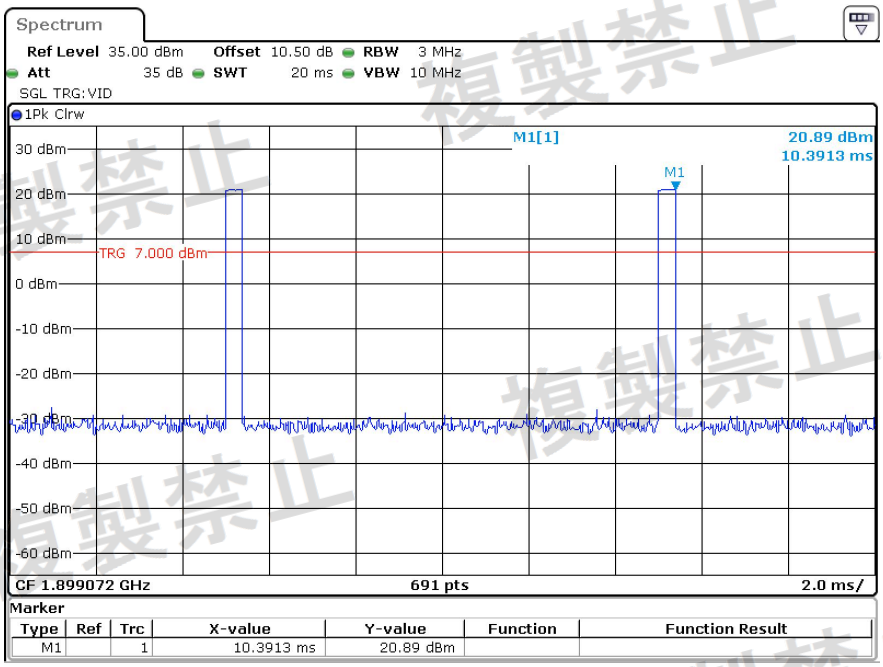
Off



ProjectNo.:2501T45782E-RF-PP Tester:Rainbow Zhu
Date: 15.JUL.2025 09:34:13

Middle channel:

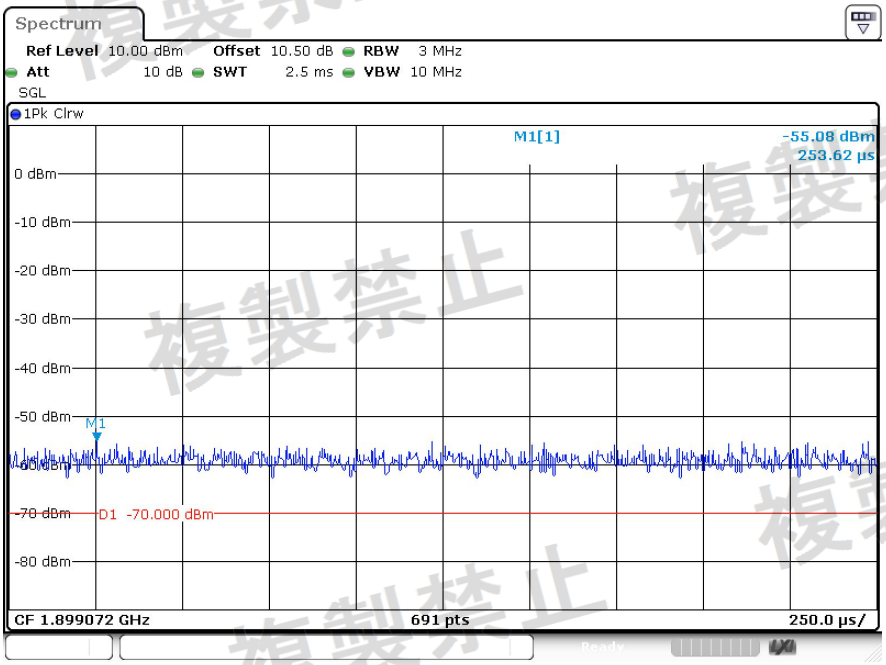
On



ProjectNo.:2501T45782E-RF-PP Tester:Rainbow Zhu

Date: 9.JUN.2025 13:52:49

Off

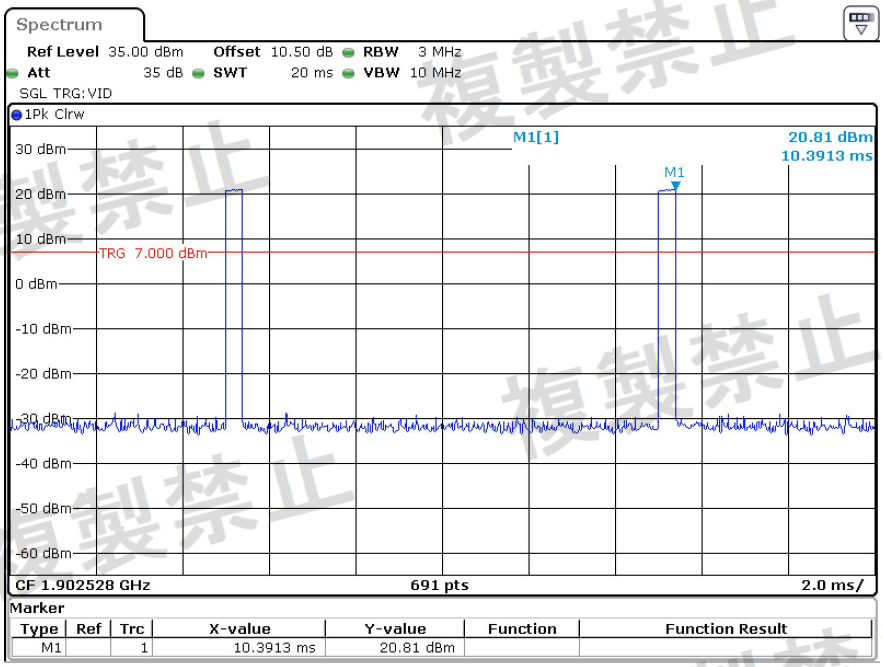


ProjectNo.:2501T45782E-RF-PP Tester:Rainbow Zhu

Date: 15.JUL.2025 09:35:52

High channel:

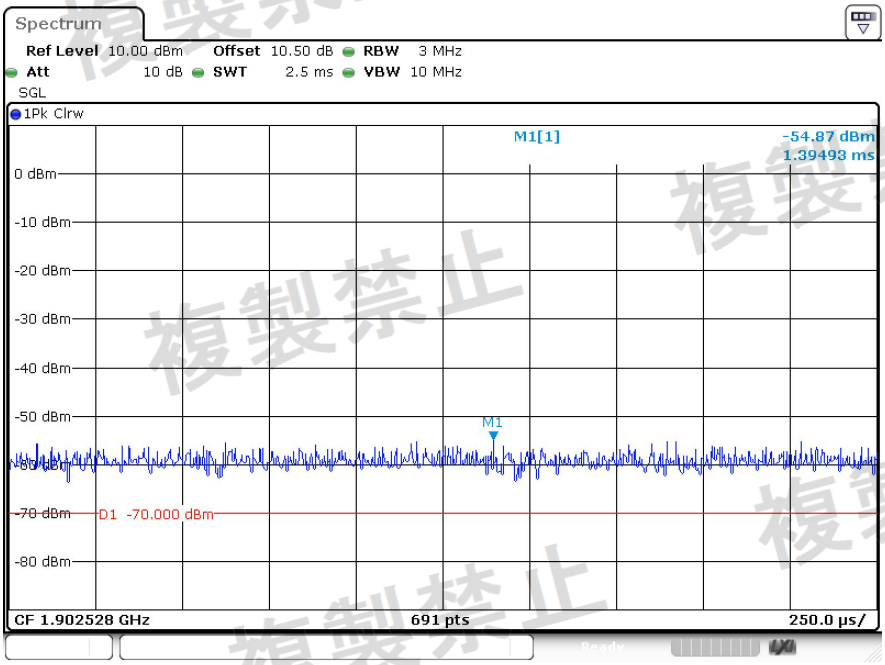
On



ProjectNo.:2501T45782E-RF-PP Tester:Rainbow Zhu

Date: 9.JUN.2025 13:49:46

Off



ProjectNo.:2501T45782E-RF-PP Tester:Rainbow Zhu

Date: 15.JUL.2025 09:32:25

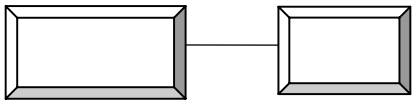
INTERFERENCE PREVENTION FUNCTION

Requirement

The EUT shall have the interference prevention capability to transmit or to receive the identification automatically, so that sender and receiver shall exclude other equipment.

Test Procedure

Measurement System Diagram



In the case that the EUT has the function of automatically transmitting the identification code:
1. Transmit the predetermined identification codes from EUT
2. Check the transmitted identification codes with the demodulator.

In the case of receiving the identification codes:
1. Transmit the predetermined identification codes from the counterpart.
2. Check if communication is normal
3. Transmit the signal other than predetermined ID codes from the counterpart.
4. Check if the EUT stops the transmission, or if it displays that identification codes are different from the predetermined ones.

Test Data

Environmental Conditions

Temperature:	25.5 ℃
Relative Humidity:	50 %
ATM Pressure:	99.6 kPa

The testing was performed by Rainbow Zhu on 2025-06-09.

Test Result: Good.

AUTOMATIC TRANSMISSION STOP FUNCTION

Requirement

The EUT shall have the functions as below:

When emissions are radiated continuously because of a failure in the radio equipment, the radiation shall be automatically stopped before the radiation continues for 60 seconds.

When operation for stopping communications is performed or emissions of speech channels are not received, the radiation of emissions shall be stopped automatically.

Test Procedure

1. Using CMD 60 to monitor the EUT, when emissions are radiated continuously.
2. Using central station (Solidcom ANT01) to monitor the EUT, when operation for stopping communications.

Test Data

Environmental Conditions

Temperature:	25.5 ℃
Relative Humidity:	50 %
ATM Pressure:	99.6 kPa

The testing was performed by Rainbow Zhu on 2025-06-09.

Test Result: This equipment has been implemented for automatic transmission stop functions.

INTERCOMMUNICATION MODE

Requirement

The EUT shall have the functions as below:

1. Frequency : 1895.616, 1897.344MHz
(Not memorize the identification sign of the master : 1895.616MHz)
2. The speech time shall not exceed 30 minutes.
3. After a speech finishes, the radiation of emissions shall be stopped for 1/90 or longer (atleast 2 seconds) of the time required for the speech.



Test Procedure

1. The EUT communication with the central station.
2. Set the sweep time of spectrum analyzer larger than 30 minutes.
3. Monitor the emission on the spectrum analyzer.

Result

Environmental Conditions

Temperature:	25.5 ℃
Relative Humidity:	50 %
ATM Pressure:	99.6 kPa

The testing was performed by Rainbow Zhu on 2025-06-09.

Result: Pass

CONSTRUCTION PROTECTION CONFIRMATION

Limit

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 Result

The EUT has shielding case for the high-frequency section and modulation section. Please refer to the EUT photos.

SPECIFIC ABSORPTION RATE AT HUMAN

Requirement

Specific Absorption Rate at Human (Head-SAR, Body-SAR)	2W / kg (Limbs : 4W / kg) *SAR requirement is not applied to the equipment of the following. ・Body : "Average power : 20mW or less (If multiple radio waves can be emitted at the same time, the sum of the average power of each radio wave divided by the threshold value is 1 or less)", or "Equipment that the separation distance between the human body and the transmission antenna (except head and both hand) is used in at least 20cm." ・Head : "Average power : 20mW or less (If multiple radio waves can be emitted at the same time, the sum of the average power of each radio wave divided by the threshold value is 1 or less)", or "Equipment that is not used in close proximity to the human head"

Test Data

The tune-up Peak antenna power is 23.01dBm (200mW), the antenna gain is 1.0dBi.

So the maximum tune up EIRP is 23.01dBm+ 1.0dBi=24.01dBm (251.77mW)

For DECT, duty cycle is 1:24

So, the time base average power= tune-up EIRP * duty cycle=10.49mW<20mW

Result: Not Applicable. This equipment is excluded from SAR test.

EUT PHOTOGRAPHS

Please refer to the attachment 2501T45782E-RF External photo and 2501T45782E-RF Internal photo.

TEST SETUP PHOTOGRAPHS

Please refer to the attachment 2501T45782E-RF-07B Test Setup photo.

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