

**MIC REPORT**

Test Report No..... :	TCT260109E028	
Date of issue..... :	May 14, 2026	
Testing laboratory	Shenzhen TCT Testing Technology Co., Ltd.	
Testing location/ address:	2101 & 2201, Zhenchang Factory, Renshan Industrial Zone, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, China	
Applicant's name..... :	ST Engineering Aerospace Ltd	
Address..... :	540 Airport Road, Paya Lebar, Singapore 539938, Singapore	
Manufacturer's name ... :	ST Engineering Aerospace Ltd	
Address..... :	540 Airport Road, Paya Lebar, Singapore 539938, Singapore	
Standard(s)	Article 2, Paragraph1, item 19 MIC Notice No.88 Appendix No.43	
Product Name..... :	Video & Data & RC Link	
Trade Mark	N/A	
Model/Type reference..... :	V21	
Rating(s)	DC 12V	
Date of receipt of test item	Jan. 09, 2026	
Date (s) of performance of test..... :	Jan. 09, 2026 ~ May 14, 2026	
Tested by (+signature) ... :	Brews XU	
Check by (+signature).... :	Beryl ZHAO	
Approved by (+signature):	Tomsin	

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1. General Product Information

1.1. EUT description

Product Name.....:	Video & Data & RC Link
Model/Type reference.....:	V21
Hardware Version.....:	V21
Software Version	V1.2.1
Operation Frequency	2402MHz~2481MHz
Modulation Technology	QPSK: SC-FDMA 16QAM: SC-FDMA 64QAM: SC-FDMA
Bandwidth.....:	1.4MHz /3MHz /5MHz /10MHz /20MHz
Antenna Type.....:	External Antenna
Antenna Gain.....:	14dBi
Rating(s)	DC 12V

Note: The antenna gain listed in this report is provided by applicant, and the test laboratory is not responsible for this parameter.

1.2. Model(s) list

None.

1.3. Test Frequency

1.4MHz		3MHz	
Test channel	Frequency (MHz)	Test channel	Frequency (MHz)
Lowest channel	2402	Lowest channel	2403
Middle channel	2441.5	Middle channel	2441.5
Highest channel	2481	Highest channel	2480
5MHz		10MHz	
Test channel	Frequency (MHz)	Test channel	Frequency (MHz)
Lowest channel	2404	Lowest channel	2407
Middle channel	2441.5	Middle channel	2441.5
Highest channel	2479	Highest channel	2476
20MHz			
Test channel	Frequency (MHz)		
Lowest channel	2412.5		
Middle channel	2441.5		
Highest channel	2471.5		

2. Test Result Summary

Requirement	Appendix No.43	Result
Frequency Deviation	Section 3	PASS
Occupied frequency bandwidth	Section 4	PASS
Secondary emission of radio wave	Section 7	PASS
Antenna power and deviation, EIRP	Section 6	PASS
Spurious radiation or extraneous emission strength	Section 5	PASS
Main lobe width of transmitting antenna	Section 9	N/A
Interference suppression function	Section 10	N/A
Number of Carrier	Section 11	PASS
Carrier Sensing Function	Section 8	PASS

Note:

1. PASS: Test item meets the requirement.
2. Fail: Test item does not meet the requirement.
3. N/A: Test case does not apply to the test object.
4. The test result judgment is decided by the limit of test standard.

3. General Information

3.1. Test environment and mode

Operating Environment:			
Temperature:	25.0 °C		
Humidity:	54 % RH		
Atmospheric Pressure:	1010 mbar		
Voltage			
	Input voltage (V)	voltage (V)	Percent (%)
Normal	12	3.3	
+10%	10.8	3.3	0
-10%	13.2	3.3	0
Note: When the input voltage is reduced or increased by 10%, the regulator voltage changes is less than 1%. So the following test items are conducted in the normal voltage.			
Test Mode:			
Operation mode:	1) Keep the EUT in continuous transmitting by select channel and modulations; 2) Keep the EUT in continuous receiver mode by each modulation.		

3.2. Description of Support Units

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Equipment	Model No.	Serial No.	FCC ID	Trade Name
/	/	/	/	/

Note:

1. All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.
2. Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.

3.3. Test Instruments List

Conducted Emission						
Name	Model No.	Serial Number	Manufacturer	Date of Cal.	Due Date	Calibrated by
Spectrum Analyzer	N9020A	MY491006 19	Agilent	Jun. 26, 2025	Jun. 25, 2026	LiSai
Filter box	MW100-PSB	MW210530 TCT-19	MWRFtest	/	/	/
Power detector box	MW100-RFC B	MW210531 TCT	MWRFtest	Sep. 17, 2025	Sep. 16, 2026	LiSai
Programable tempratuce and humidity chamber	JQ-2000	510101234	JQ	Jun. 26, 2025	Jun. 25, 2026	LiSai
DC Power Supply	KR3005K	2203D0300 864	Kingrang	Jun. 26, 2025	Jun. 25, 2026	LiSai
Attenuator	VAT-10W2	2051	MCL	Jun. 26, 2025	Jun. 25, 2026	LiSai

Remark:

Measuring Equipment Calibration Information		
Used	Calibration Company Abbreviation	Full Name of calibration company
☒	LiSai	Guangzhou LiSai Metrology & Test Co., Ltd.
Calibration Information (Article 24-2, Paragraph 4 of the Radio Act)		
☐	(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	

4. Test Facilities

Shenzhen TCT Testing Technology Co., Ltd.

Address: 2101 & 2201, Zhenchang Factory, Renshan Industrial Zone, Fuhai Subdistrict,
Bao'an District, Shenzhen, Guangdong, China

TEL: +86-755-27673339

5. Measurement Uncertainty

The reported 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 %.

No.	Item	MU
1	RF power, conducted	± 0.12 dB
2	Spurious emissions, conducted	± 0.11 dB
3	Temperature	± 0.1 °C
4	Humidity	± 1.0 %

6. Test Results and Measurement Data

6.1. Frequency Deviation

6.1.1. Test Specification

Test Requirement:	Article 2 paragraph 1 item 19
Test Method:	Appendix No.43 Notification No.88 of MIC, 2004 section 3
Limits:	±50 ppm
Test Setup:	 The diagram illustrates the test setup. On the left is a green box labeled 'Spectrum Analyzer'. A cable connects it to a yellow box on the right labeled 'EUT' (Equipment Under Test).
Test Procedure:	1. Frequency accuracy of SA shall be less than 10% of limits tolerance (5ppm) 2. Setting of SA is following as: RBW:10 kHz / VBW:10 kHz 3. Center Frequency: The center frequency of testing for EUT 4. Sweep time: Auto 5. Sweep mode: Continuous sweep 6. Detect mode: Positive peak 7. EUT have transmitted modulation signal and fixed channelize. fl and fh is -20dB points, $f_c = (f_l + f_h) / 2$, f_c is declaring of channel frequency. Then the frequency error formula is $(f - f_c) / f_c \times 10^6$ ppm and the limit is less than ±50 ppm.
Test Result:	PASS

6.1.2. Test Data

1.4MHz

Test conditions		2402MHz	2441.5MHz	2481MHz	Limit	Result
Volt.(dc)	Temp.					
12V	25°C	2402.012 MHz	2441.512 MHz	2481.012 MHz	±50 ppm	PASS
		5.00ppm	4.92ppm	4.84ppm		

3MHz

Test conditions		2403MHz	2441.5MHz	2480MHz	Limit	Result
Volt.(dc)	Temp.					
12V	25°C	2403.012 MHz	2441.512 MHz	2480.012 MHz	±50 ppm	PASS
		4.99ppm	4.92ppm	4.84ppm		

5MHz

Test conditions		2404MHz	2441.5MHz	2479MHz	Limit	Result
Volt.(dc)	Temp.					
12V	25°C	2404.012 MHz	2441.512 MHz	2479.012 MHz	±50 ppm	PASS
		4.99ppm	4.92ppm	4.84ppm		

10MHz

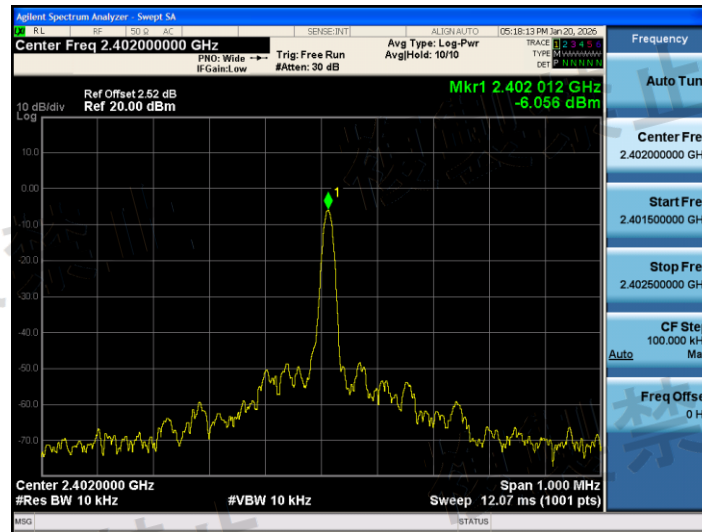
Test conditions		2407MHz	2441.5MHz	2476MHz	Limit	Result
Volt.(dc)	Temp.					
12V	25°C	2407.012 MHz	2441.512 MHz	2476.012 MHz	±50 ppm	PASS
		4.99ppm	4.92ppm	4.85ppm		

20MHz

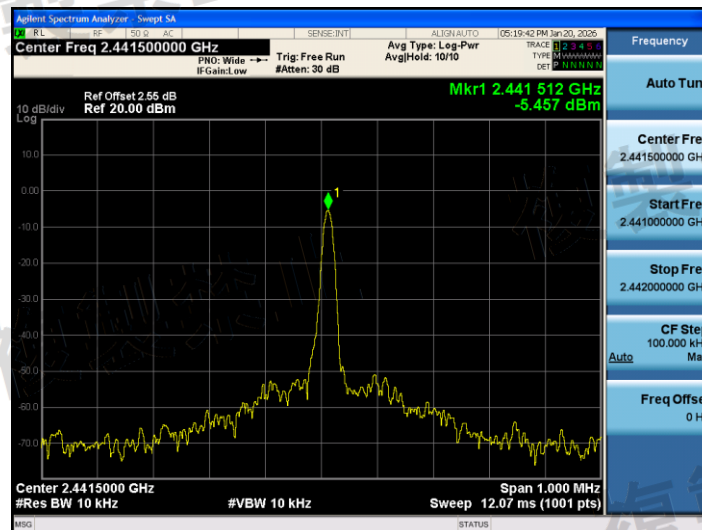
Test conditions		2412.5MHz	2441.5MHz	2471.5MHz	Limit	Result
Volt.(dc)	Temp.					
12V	25°C	2412.512 MHz	2441.512 MHz	2471.512 MHz	±50 ppm	PASS
		4.97ppm	4.92ppm	4.86ppm		

Test plots as follows:
1.4MHz

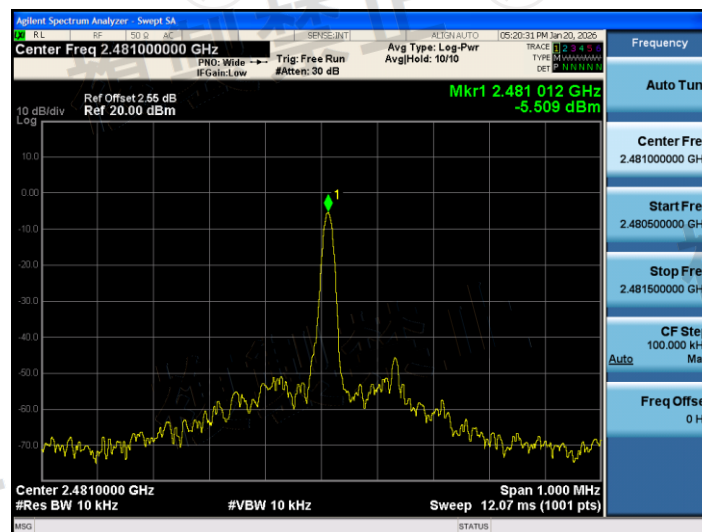
2402MHz



2441.5MHz

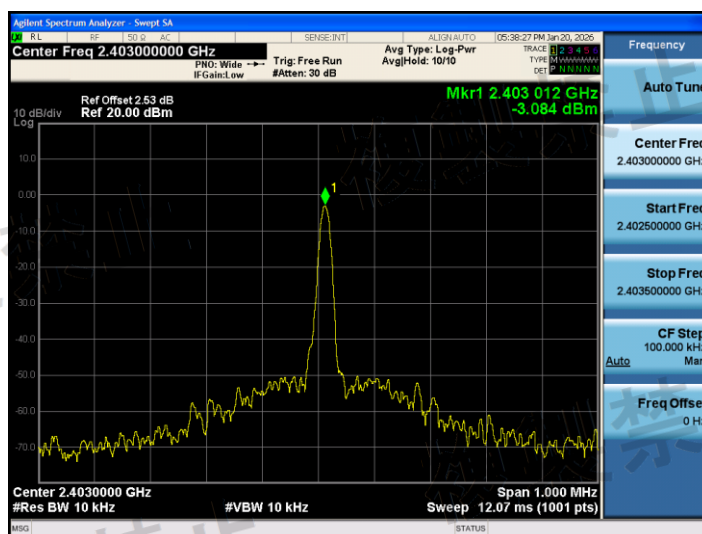


2481MHz

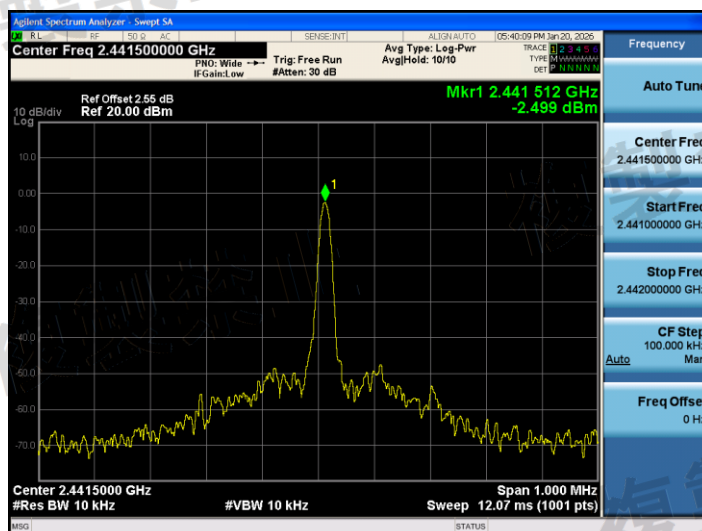


3MHz

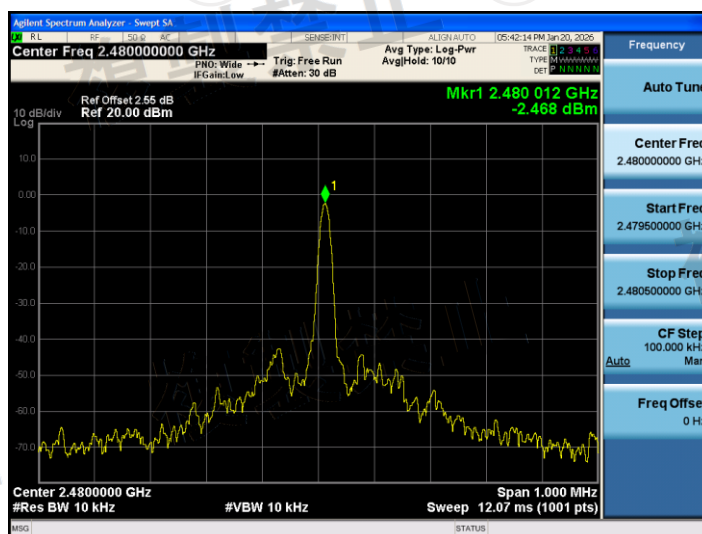
2403MHz



2441.5MHz

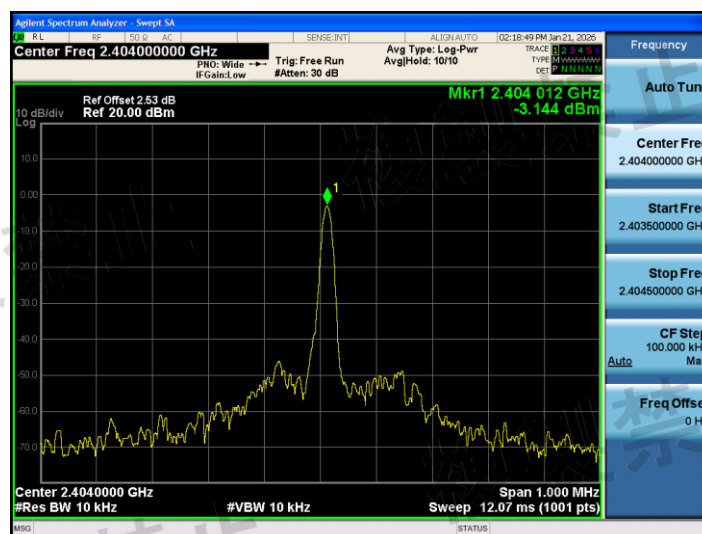


2480MHz

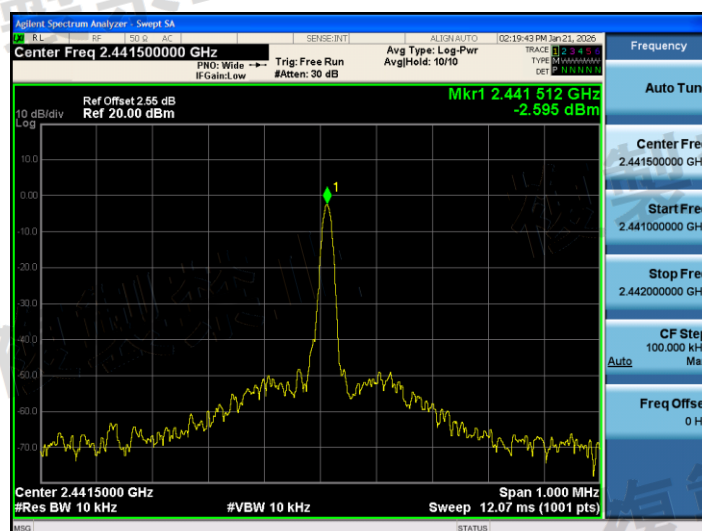


5MHz

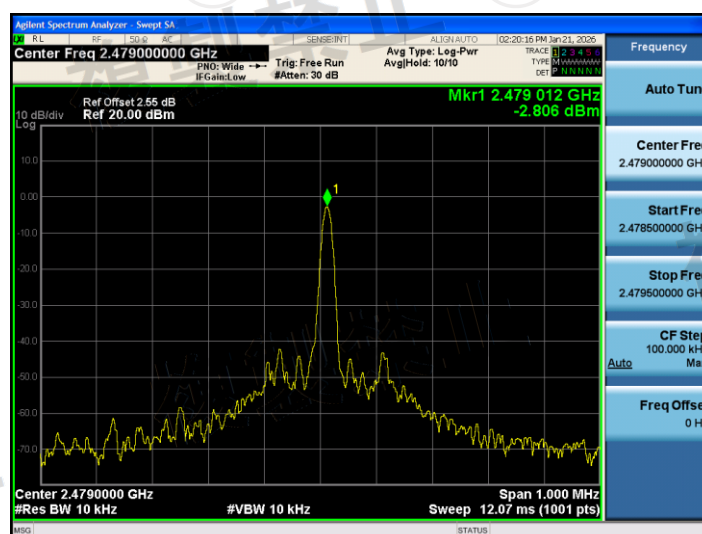
2404MHz



2441.5MHz

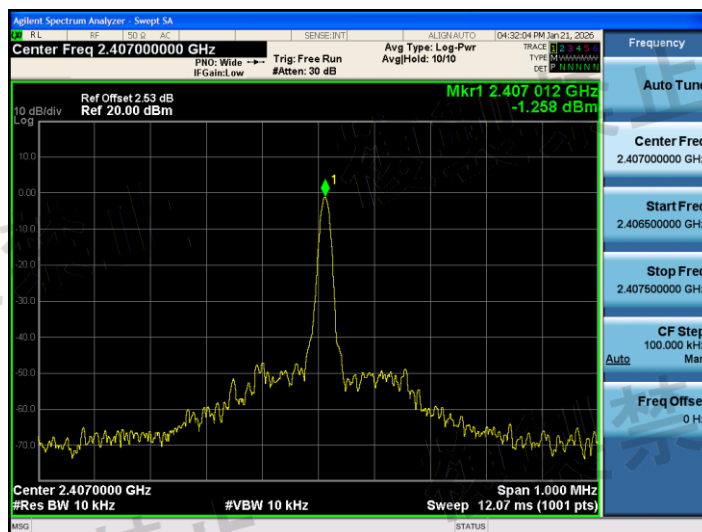


2479MHz

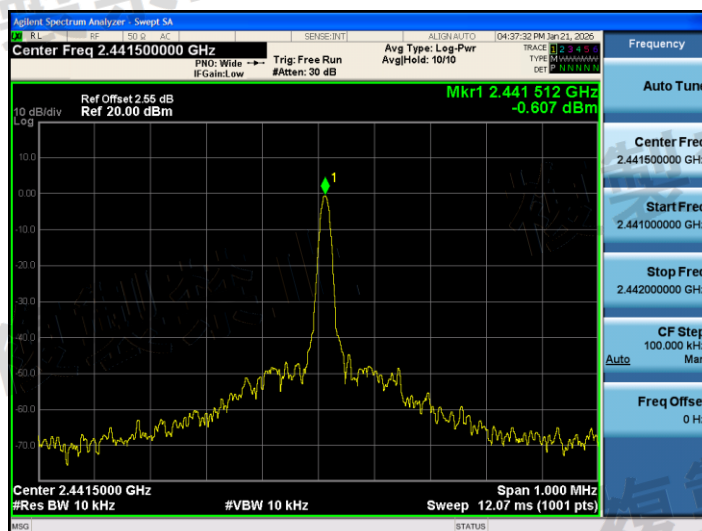


10MHz

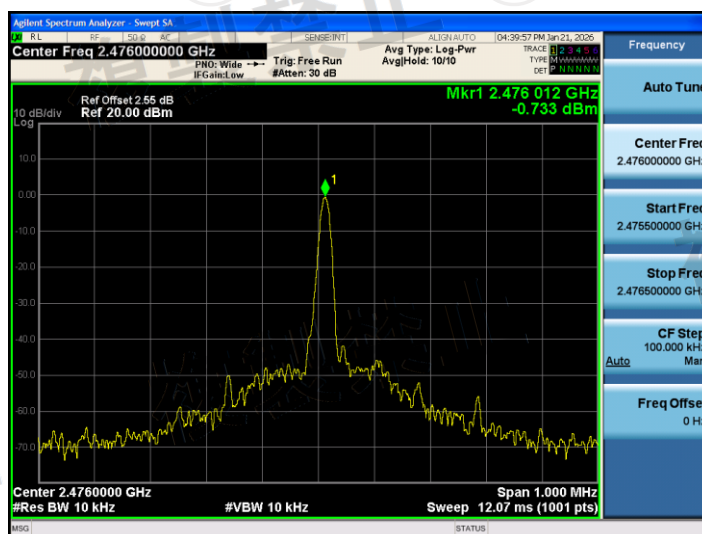
2407MHz



2441.5MHz

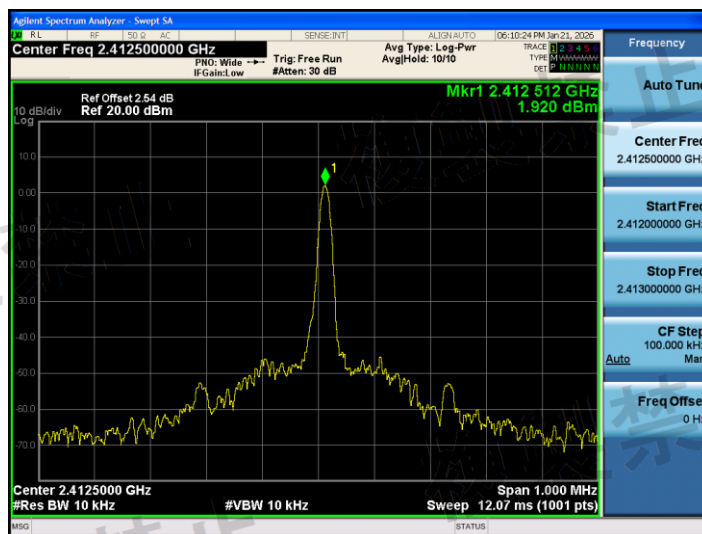


2476MHz

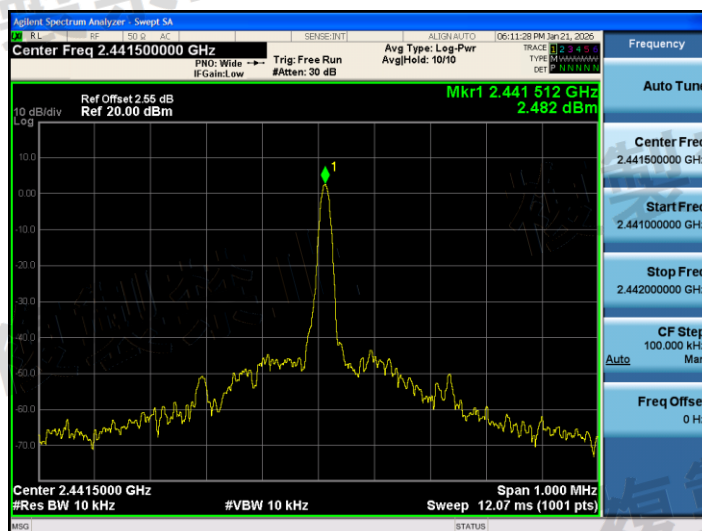


20MHz

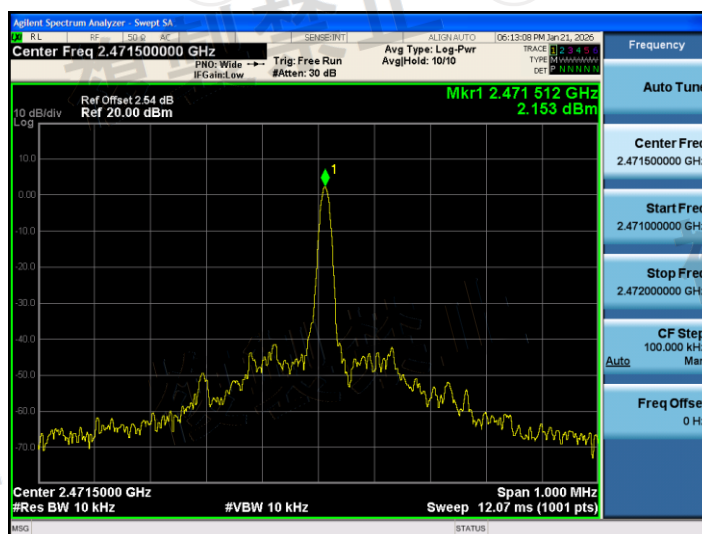
2412.5MHz



2441.5MHz



2471.5MHz



6.2. Occupied frequency bandwidth

6.2.1. Test Specification

Test Requirement:	Article 2 paragraph 1 item 19
Test Method:	Appendix No.43 Notification No.88 of MIC, 2004 section 4
Limit:	Occupied frequency bandwidth for OFDM: ≤ 26 MHz
Test Setup:	 The diagram illustrates the test setup. On the left is a green rectangular box representing the Spectrum Analyzer. A horizontal line connects it to a yellow rectangular box on the right, which is labeled 'EUT' (Equipment Under Test). Below the Spectrum Analyzer box is the text 'Spectrum Analyzer', and below the EUT box is the text 'EUT'.
Test Procedure:	1. Setting of SA is following as: RBW:300 kHz / VBW: 300 kHz / Sweep time: Auto / Sweep Mode: Continuous sweep / Detect mode: Positive peak / Trace mode: Max hold 2. EUT have transmitted the maximum modulation signal and fixed channelize. SA set to 99% of occupied bandwidth to measure occupied bandwidth. 3. SA set to 90% of occupied bandwidth to measure Spread Spectrum Bandwidth.
Test Result:	PASS

6.2.2. Test Data

QPSK:

Occupied Frequency Bandwidth						
Test Condition		Lowest (MHz)	Middle (MHz)	Highest (MHz)	Limit (MHz)	Result
Volt.(dc)	Temp.					
1.4MHz						
12V	25℃	1.58	1.58	1.59	≤ 26	PASS
3MHz						
12V	25℃	2.60	2.60	2.60	≤ 26	PASS
5MHz						
12V	25℃	4.86	4.86	4.86	≤ 26	PASS
10MHz						
12V	25℃	9.28	9.28	9.29	≤ 26	PASS
20MHz						
12V	25℃	17.96	18.01	17.95	≤ 26	PASS

16QAM:

Occupied Frequency Bandwidth						
Test Condition		Lowest (MHz)	Middle (MHz)	Highest (MHz)	Limit (MHz)	Result
Volt.(dc)	Temp.					
1.4MHz						
12V	25℃	1.57	1.57	1.57	≤ 26	PASS
3MHz						
12V	25℃	2.57	2.57	2.57	≤ 26	PASS
5MHz						
12V	25℃	4.82	4.82	4.82	≤ 26	PASS
10MHz						
12V	25℃	9.27	9.27	9.27	≤ 26	PASS
20MHz						
12V	25℃	17.99	17.99	18.00	≤ 26	PASS

64QAM:

570mm

Occupied Frequency Bandwidth						
Test Condition		Lowest (MHz)	Middle (MHz)	Highest (MHz)	Limit (MHz)	Result
Volt.(dc)	Temp.					
1.4MHz						
12V	25℃	1.45	1.45	1.45	≤ 26	PASS
3MHz						
12V	25℃	2.60	2.60	2.60	≤ 26	PASS
5MHz						
12V	25℃	4.90	4.92	4.89	≤ 26	PASS
10MHz						
12V	25℃	9.43	9.42	9.42	≤ 26	PASS
20MHz						
12V	25℃	18.01	18.00	18.01	≤ 26	PASS

QPSK:

1.4MHz

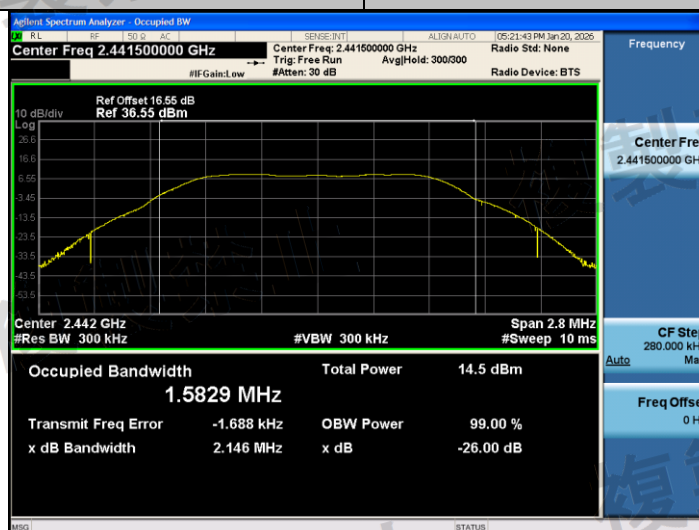
Test Item: 99% Occupied Frequency Bandwidth

Test channel: Lowest channel



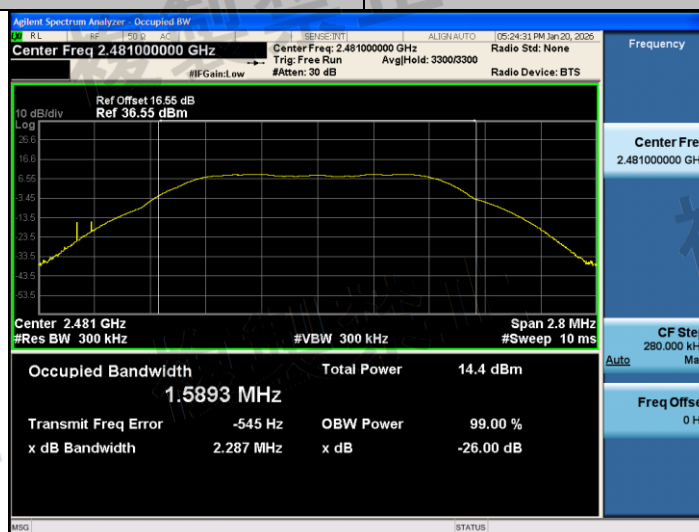
Test Item: 99% Occupied Frequency Bandwidth

Test channel: Middle channel



Test Item: 99% Occupied Frequency Bandwidth

Test channel: Highest channel



3MHz

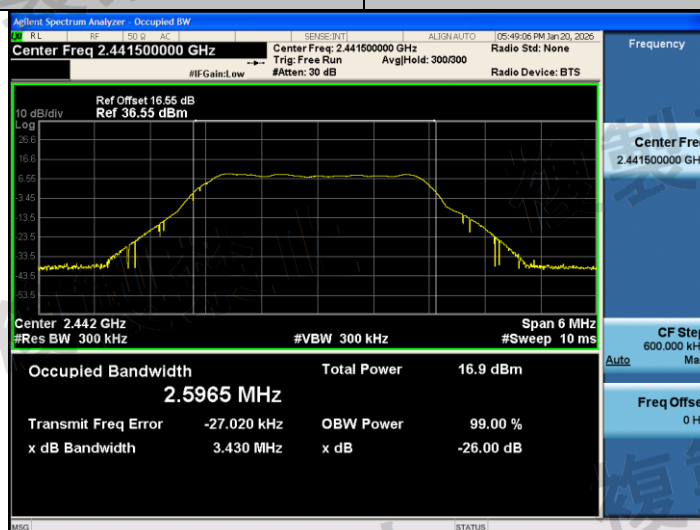
Test Item: 99% Occupied Frequency Bandwidth

Test channel: Lowest channel



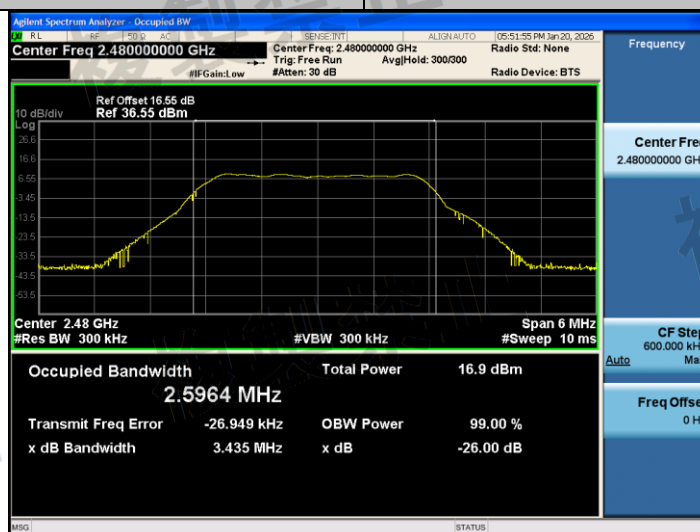
Test Item: 99% Occupied Frequency Bandwidth

Test channel: Middle channel



Test Item: 99% Occupied Frequency Bandwidth

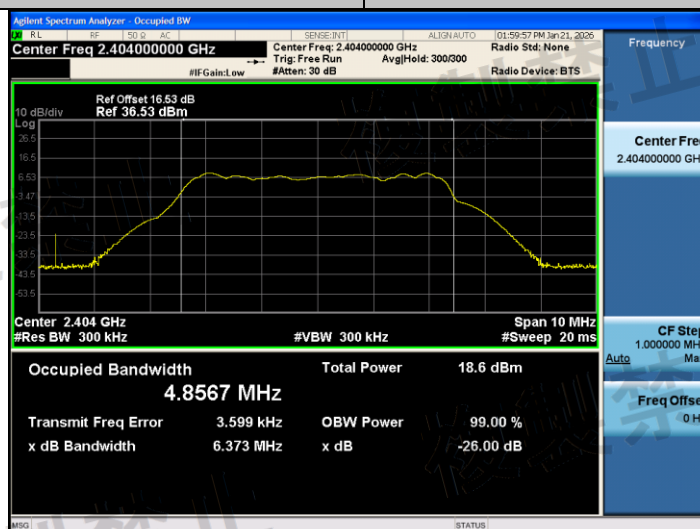
Test channel: Highest channel



5MHz

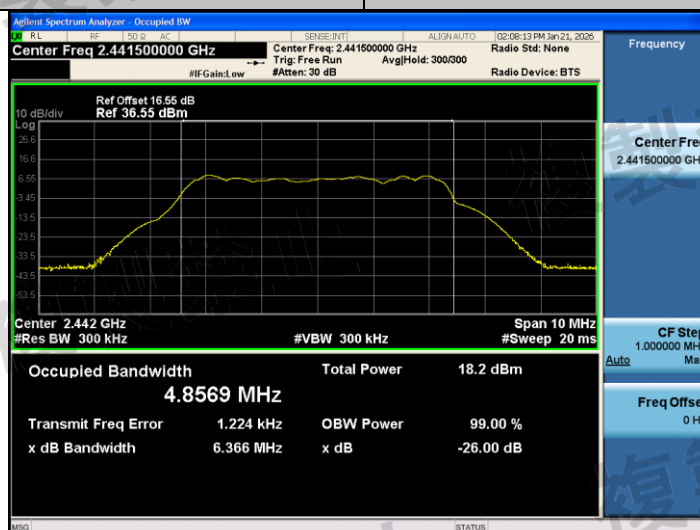
Test Item: 99% Occupied Frequency Bandwidth

Test channel: Lowest channel



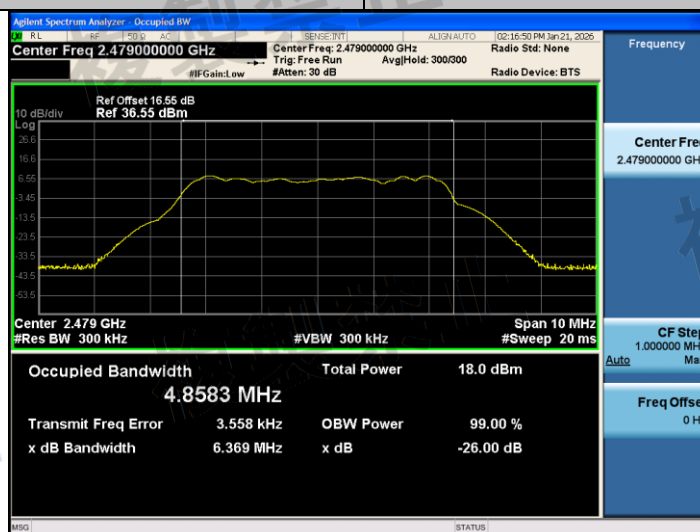
Test Item: 99% Occupied Frequency Bandwidth

Test channel: Middle channel



Test Item: 99% Occupied Frequency Bandwidth

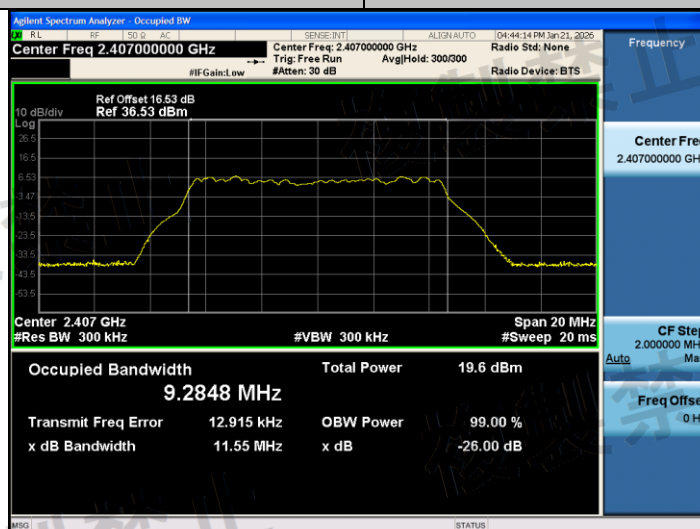
Test channel: Highest channel



10MHz

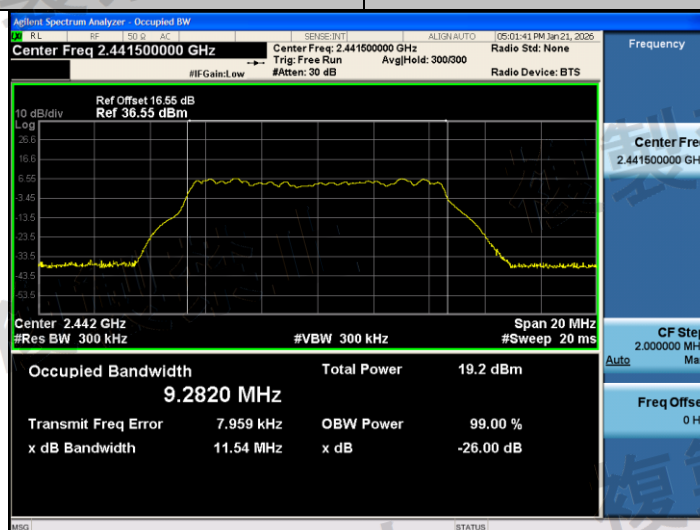
Test Item: 99% Occupied Frequency Bandwidth

Test channel: Lowest channel



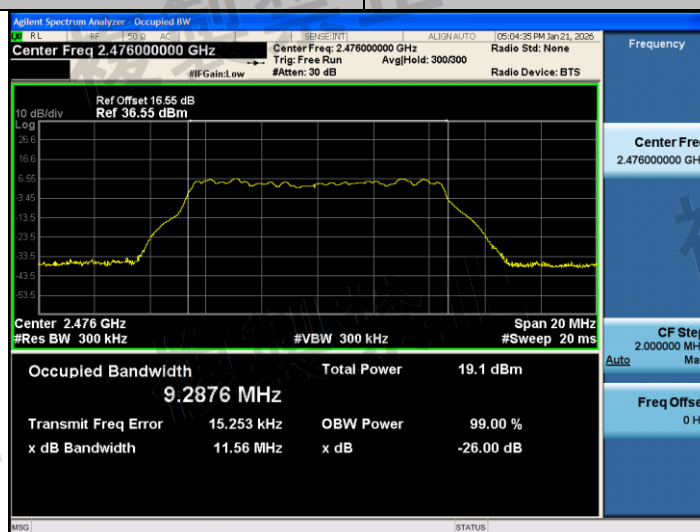
Test Item: 99% Occupied Frequency Bandwidth

Test channel: Middle channel



Test Item: 99% Occupied Frequency Bandwidth

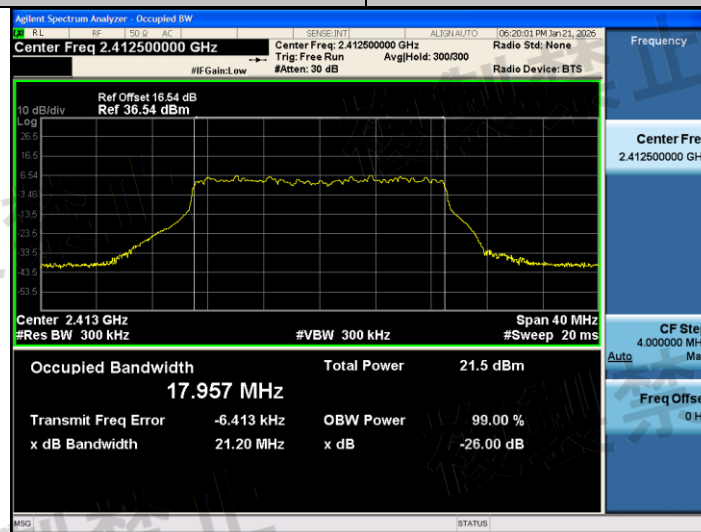
Test channel: Highest channel



20MHz

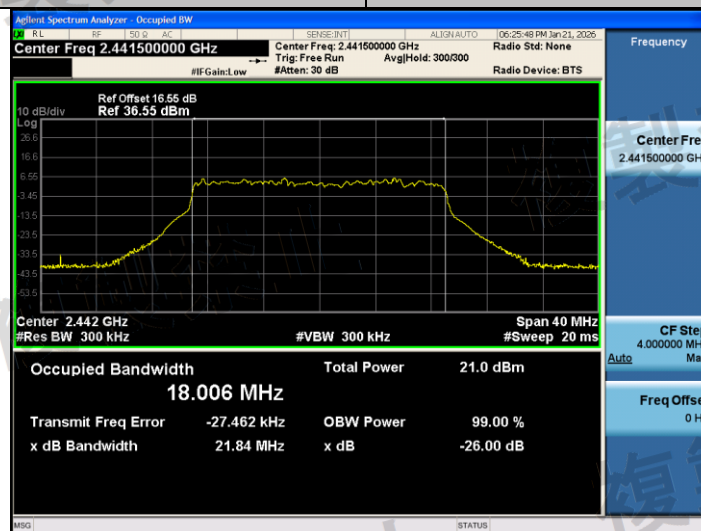
Test Item: 99% Occupied Frequency Bandwidth

Test channel: Lowest channel



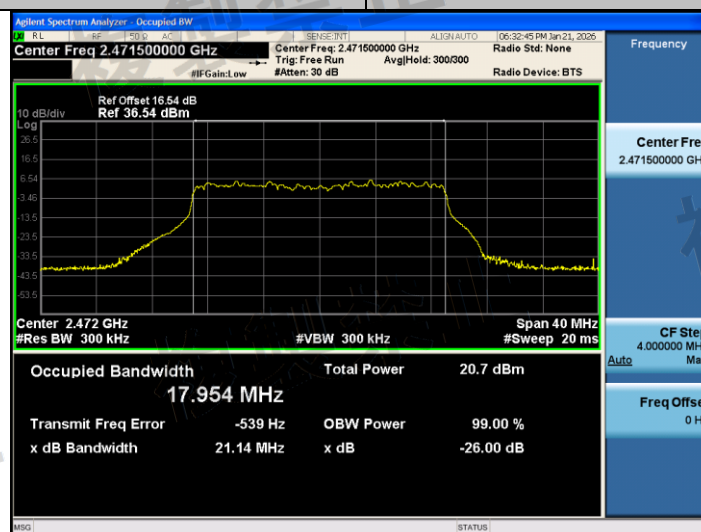
Test Item: 99% Occupied Frequency Bandwidth

Test channel: Middle channel



Test Item: 99% Occupied Frequency Bandwidth

Test channel: Highest channel

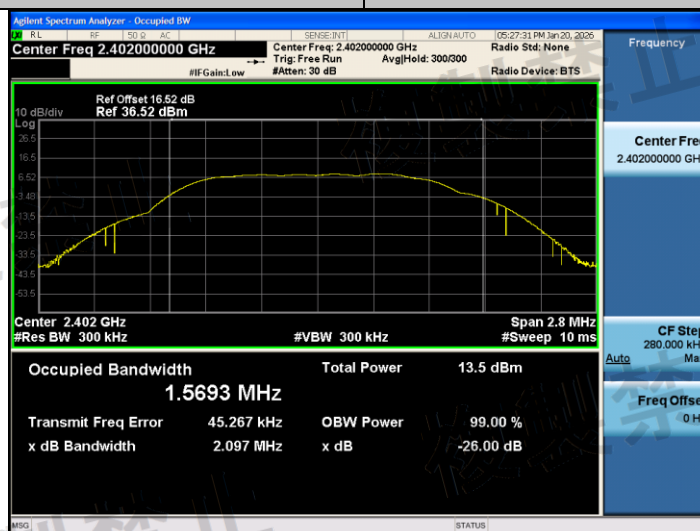


16QAM:

1.4MHz

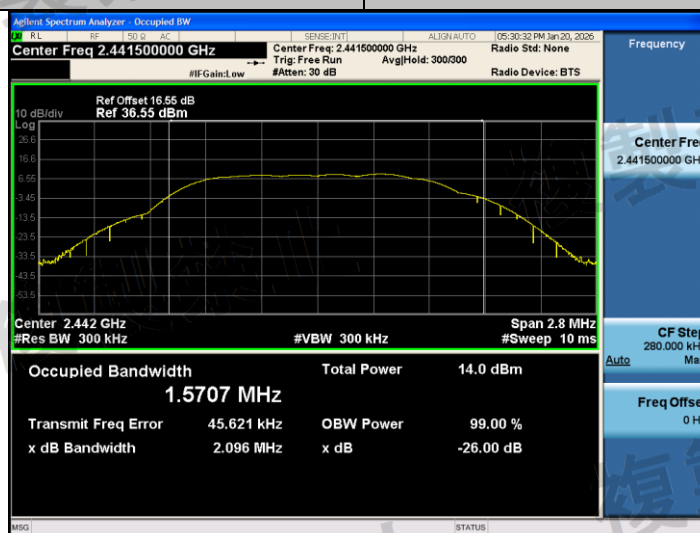
Test Item: 99% Occupied Frequency Bandwidth

Test channel: Lowest channel



Test Item: 99% Occupied Frequency Bandwidth

Test channel: Middle channel



Test Item: 99% Occupied Frequency Bandwidth

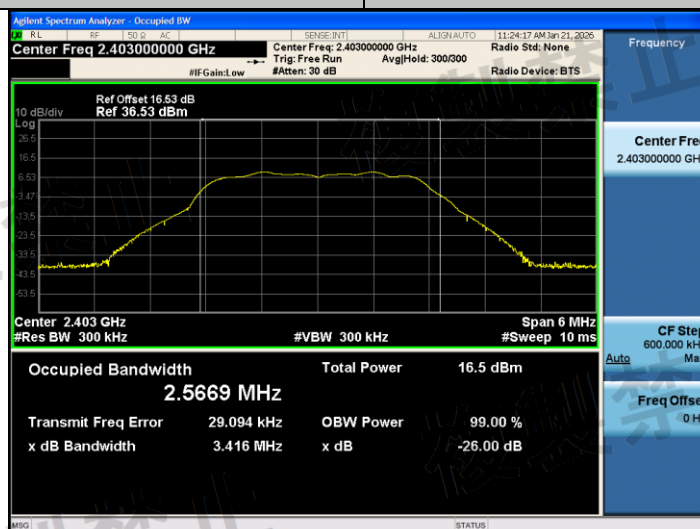
Test channel: Highest channel



3MHz

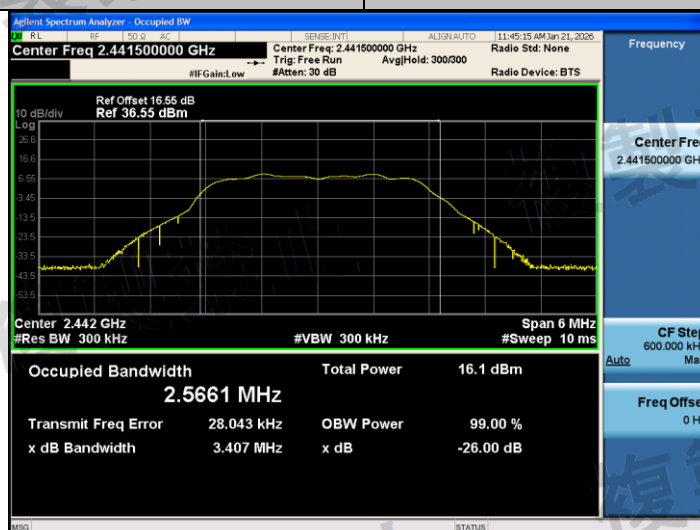
Test Item: 99% Occupied Frequency Bandwidth

Test channel: Lowest channel



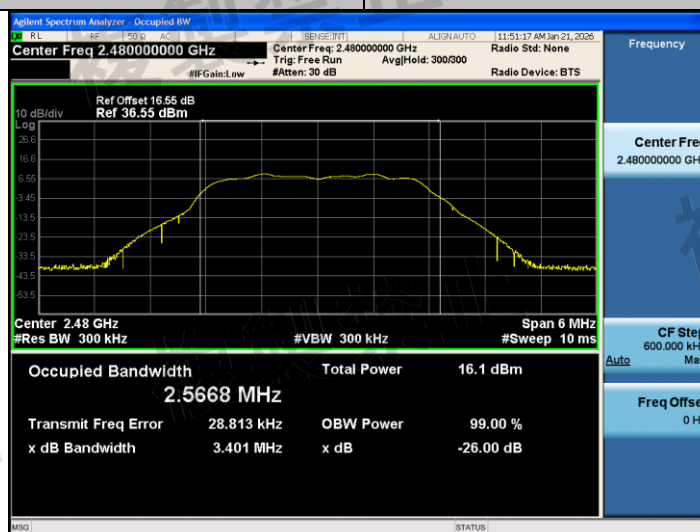
Test Item: 99% Occupied Frequency Bandwidth

Test channel: Middle channel



Test Item: 99% Occupied Frequency Bandwidth

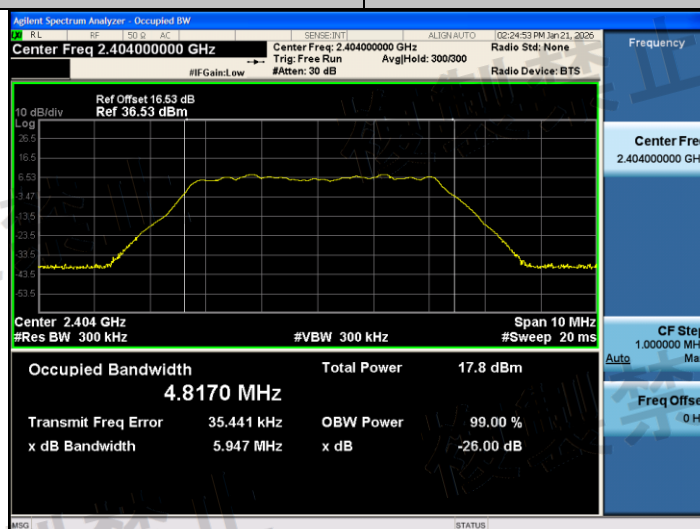
Test channel: Highest channel



5MHz

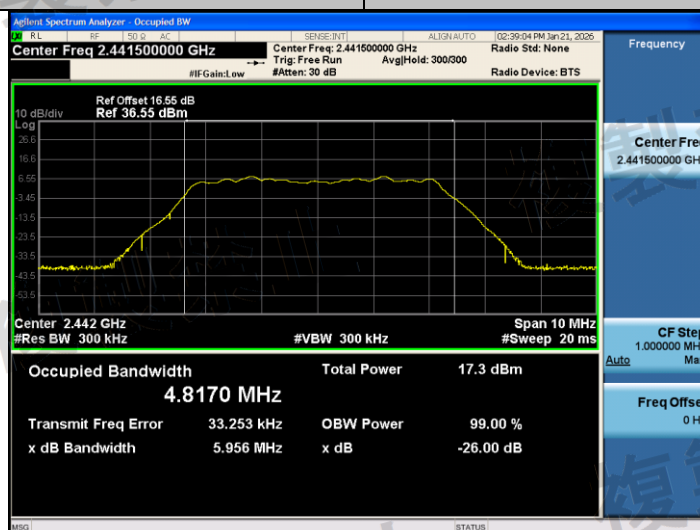
Test Item: 99% Occupied Frequency Bandwidth

Test channel: Lowest channel



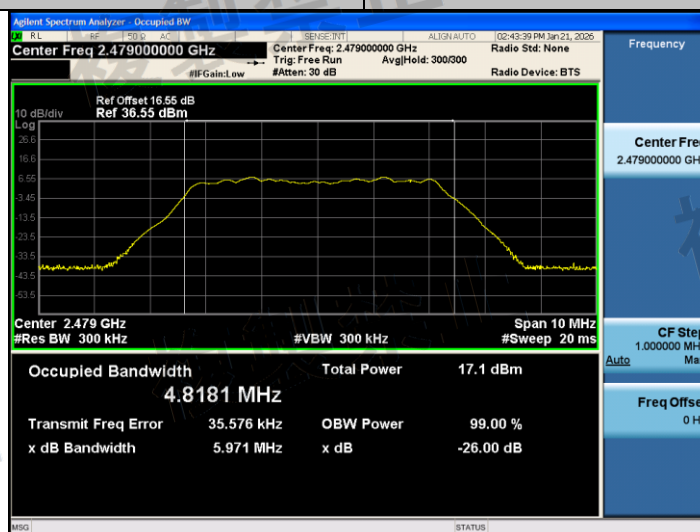
Test Item: 99% Occupied Frequency Bandwidth

Test channel: Middle channel



Test Item: 99% Occupied Frequency Bandwidth

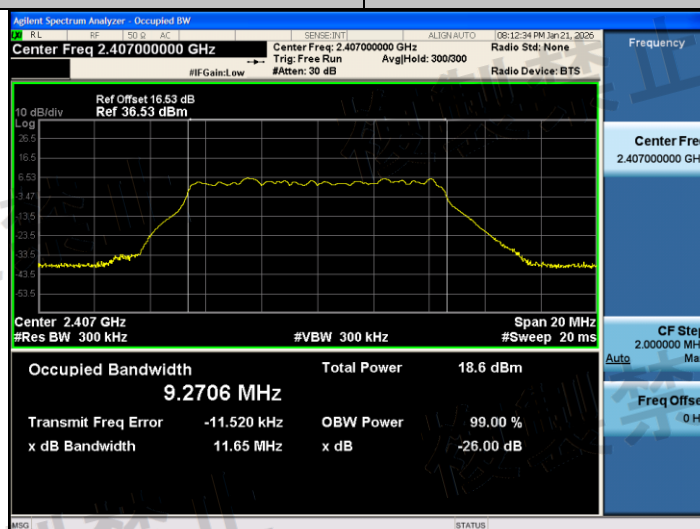
Test channel: Highest channel



10MHz

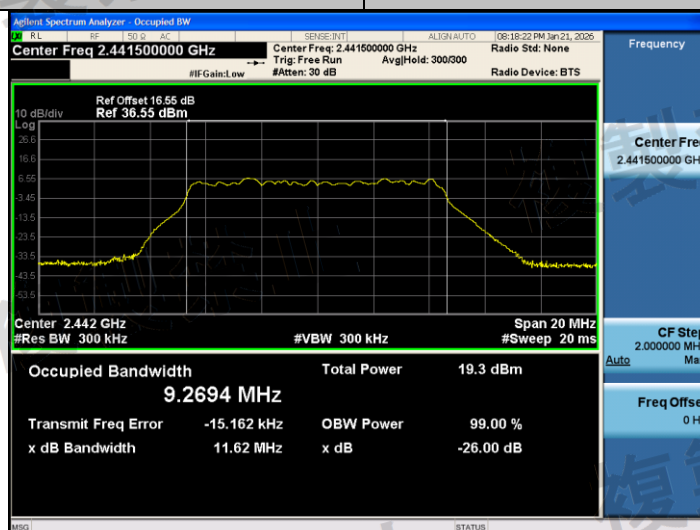
Test Item: 99% Occupied Frequency Bandwidth

Test channel: Lowest channel



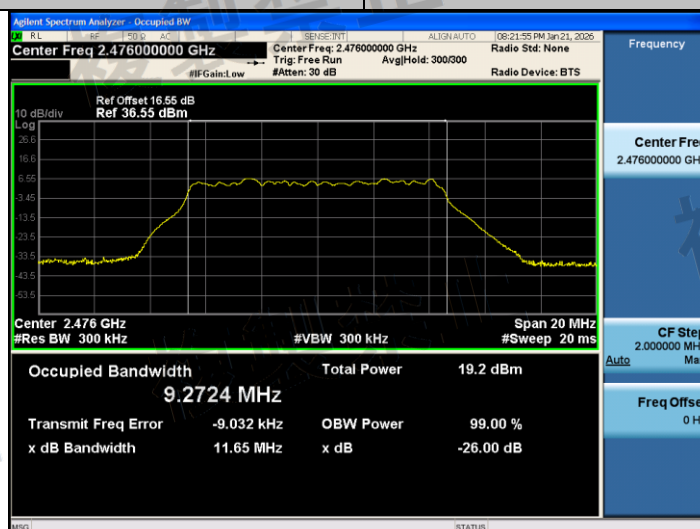
Test Item: 99% Occupied Frequency Bandwidth

Test channel: Middle channel



Test Item: 99% Occupied Frequency Bandwidth

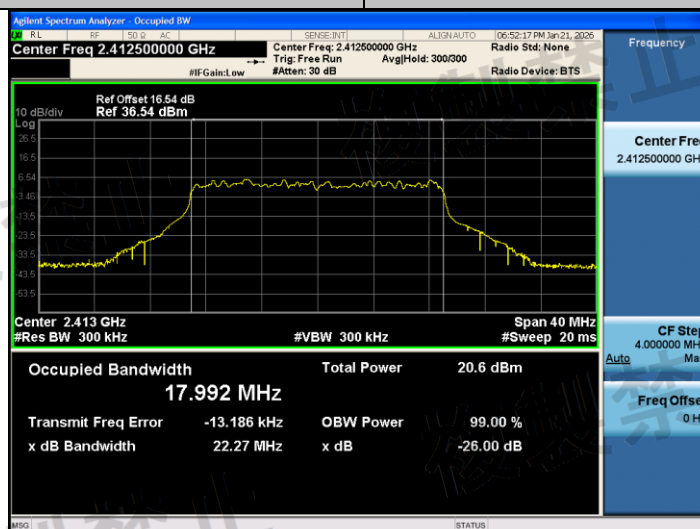
Test channel: Highest channel



20MHz

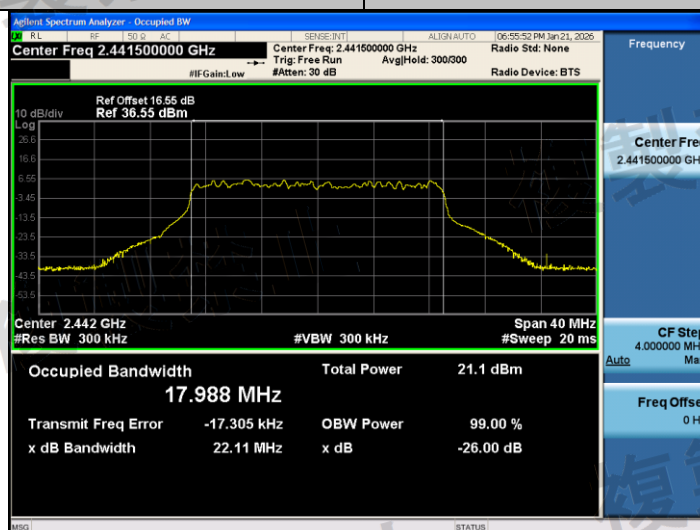
Test Item: 99% Occupied Frequency Bandwidth

Test channel: Lowest channel



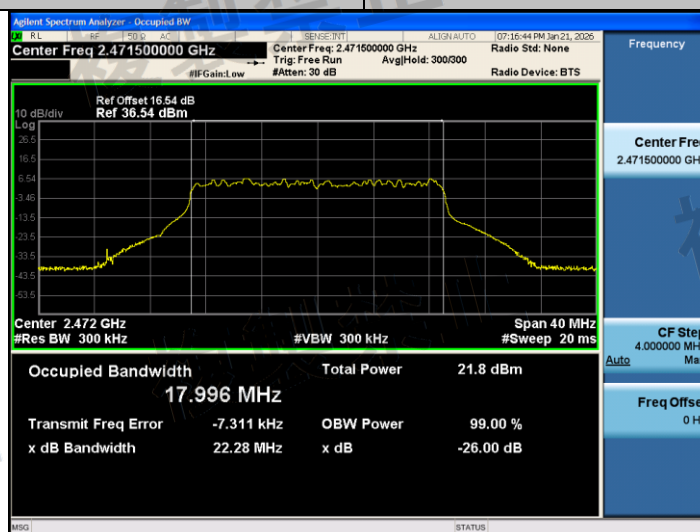
Test Item: 99% Occupied Frequency Bandwidth

Test channel: Middle channel



Test Item: 99% Occupied Frequency Bandwidth

Test channel: Highest channel

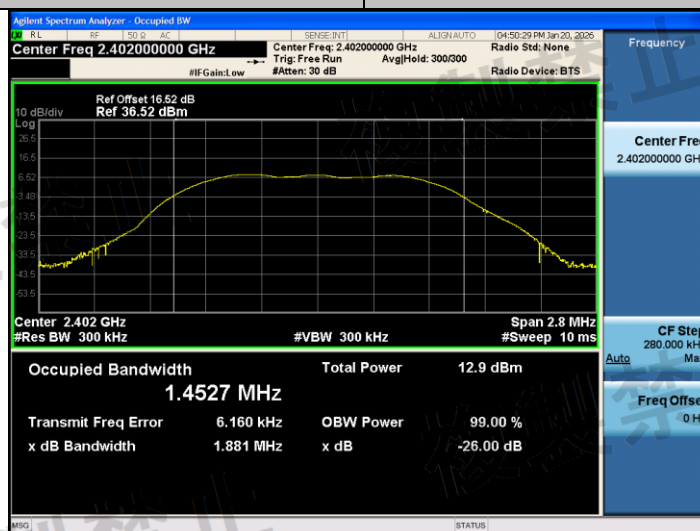


64QAM:

1.4MHz

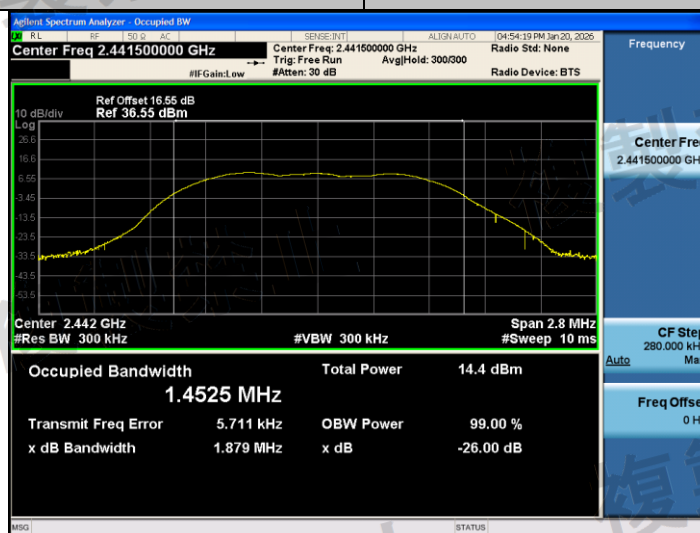
Test Item: 99% Occupied Frequency Bandwidth

Test channel: Lowest channel



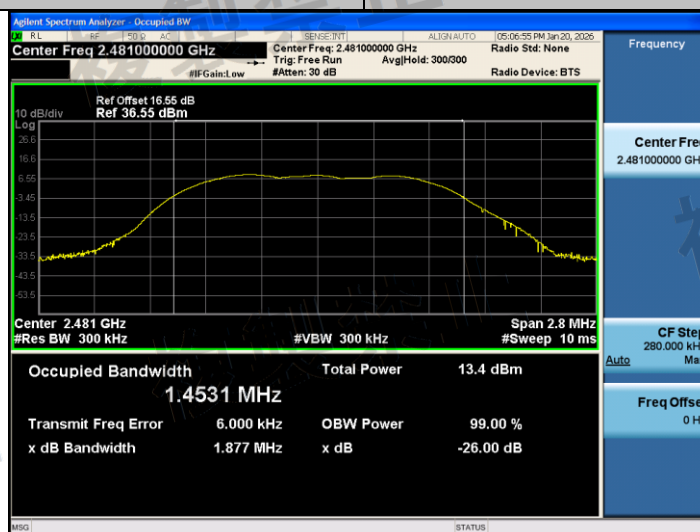
Test Item: 99% Occupied Frequency Bandwidth

Test channel: Middle channel



Test Item: 99% Occupied Frequency Bandwidth

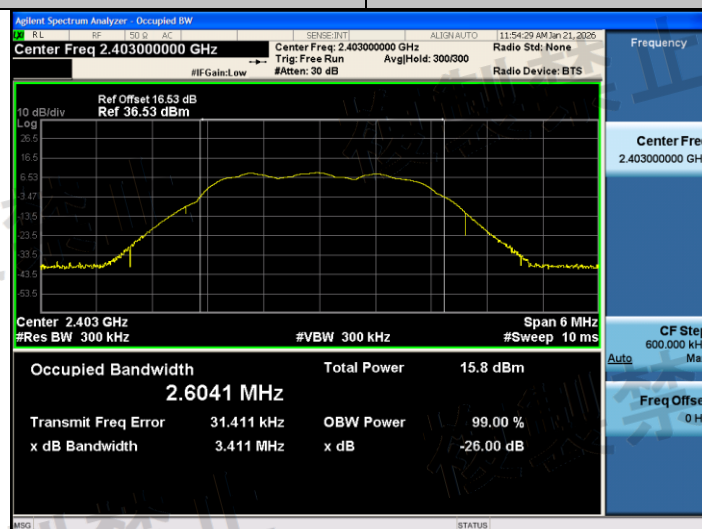
Test channel: Highest channel



3MHz

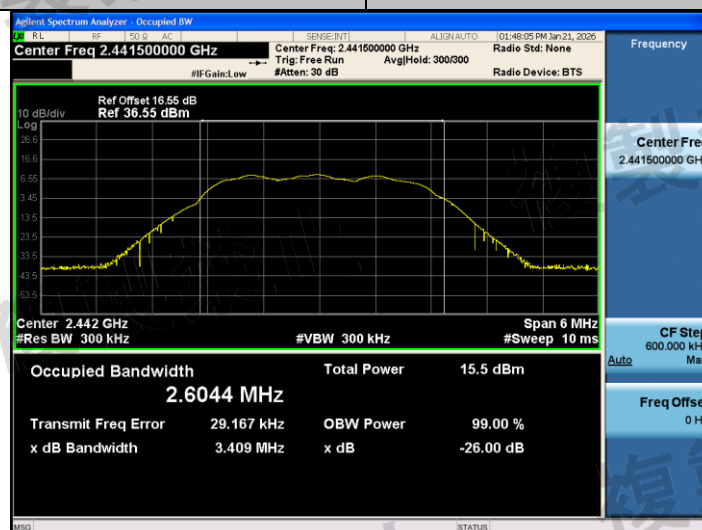
Test Item: 99% Occupied Frequency Bandwidth

Test channel: Lowest channel



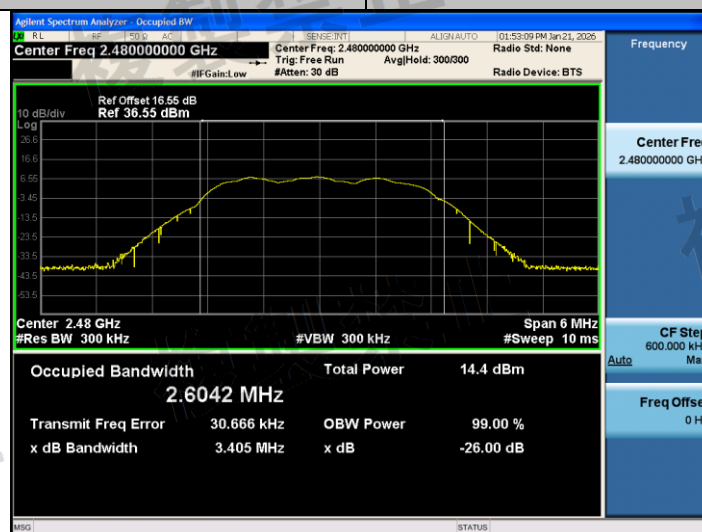
Test Item: 99% Occupied Frequency Bandwidth

Test channel: Middle channel



Test Item: 99% Occupied Frequency Bandwidth

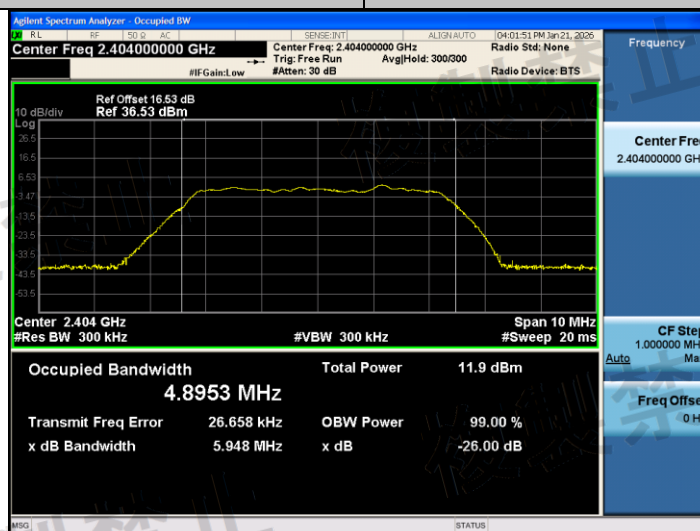
Test channel: Highest channel



5MHz

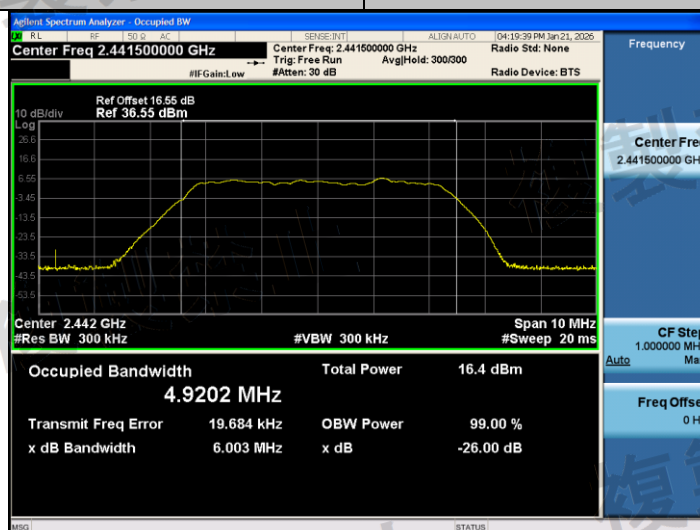
Test Item: 99% Occupied Frequency Bandwidth

Test channel: Lowest channel



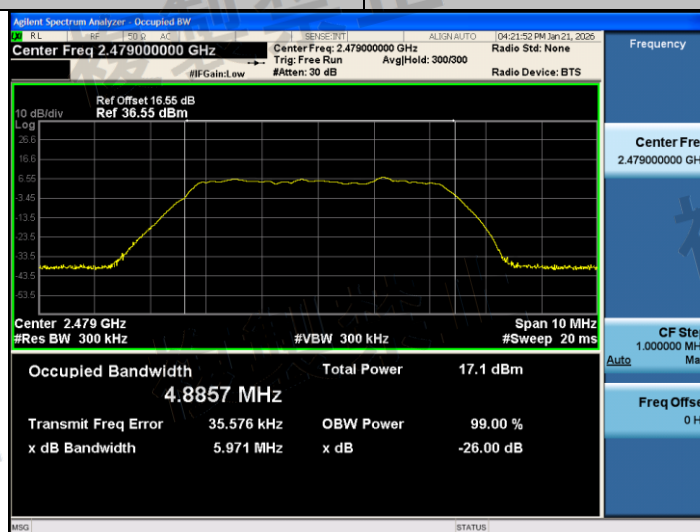
Test Item: 99% Occupied Frequency Bandwidth

Test channel: Middle channel



Test Item: 99% Occupied Frequency Bandwidth

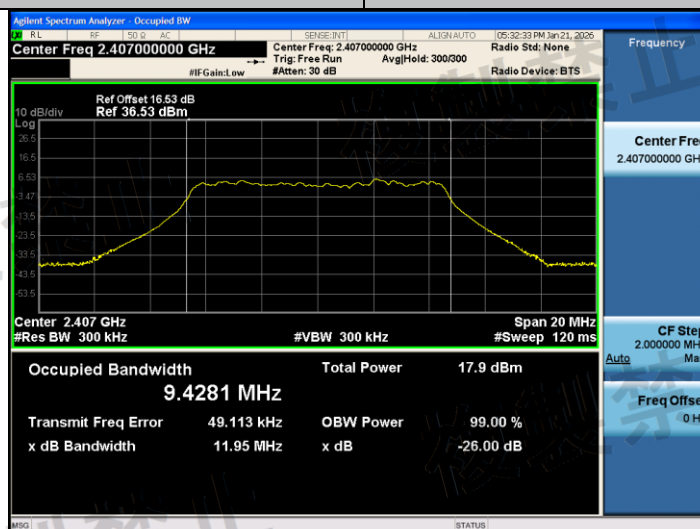
Test channel: Highest channel



10MHz

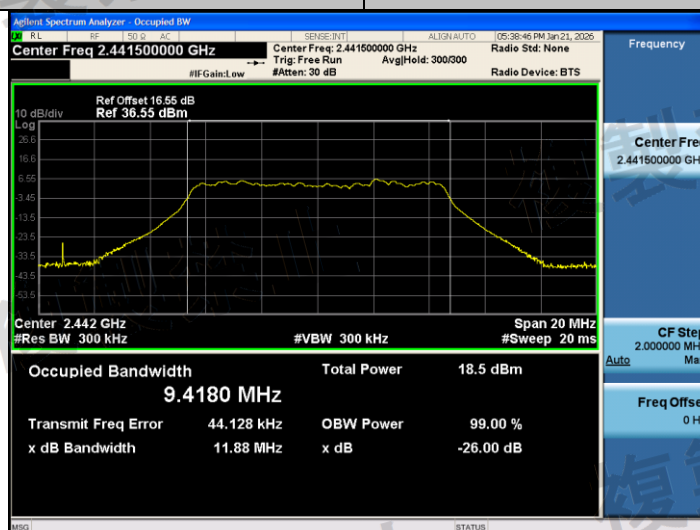
Test Item: 99% Occupied Frequency Bandwidth

Test channel: Lowest channel



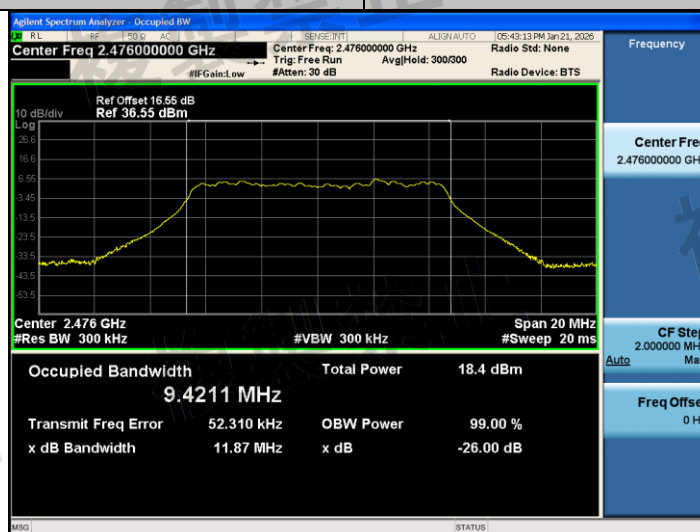
Test Item: 99% Occupied Frequency Bandwidth

Test channel: Middle channel



Test Item: 99% Occupied Frequency Bandwidth

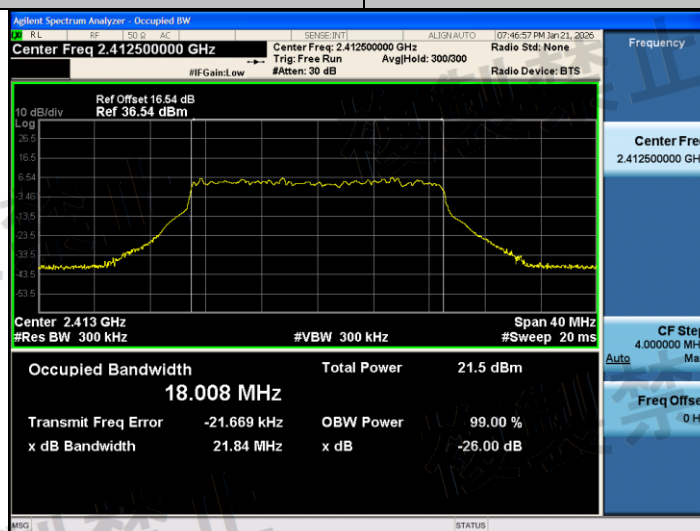
Test channel: Highest channel



20MHz

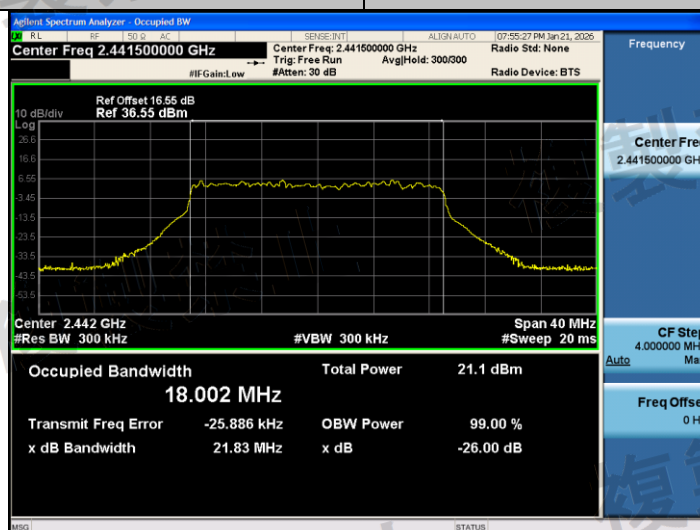
Test Item: 99% Occupied Frequency Bandwidth

Test channel: Lowest channel



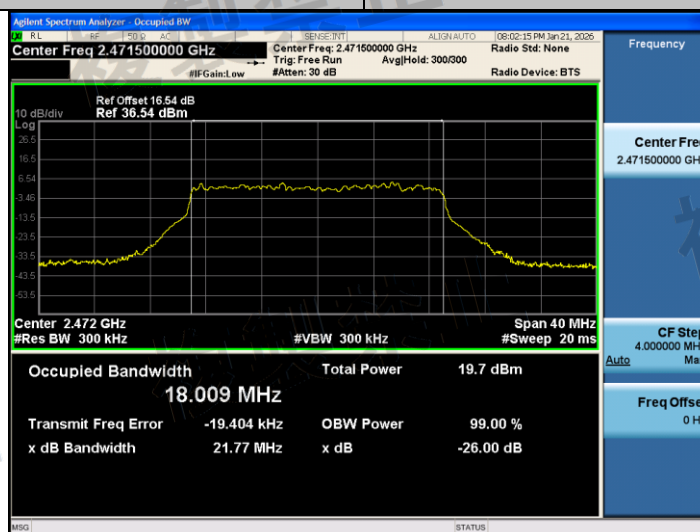
Test Item: 99% Occupied Frequency Bandwidth

Test channel: Middle channel



Test Item: 99% Occupied Frequency Bandwidth

Test channel: Highest channel



6.3. Secondary emission of radio wave

6.3.1. Test Specification

Test Requirement:	Article 2 paragraph 1 item 19
Test Method:	Appendix No.43 Notification No.88 of MIC, 2004 section 7
Limit:	4 nW for below 1 GHz, 20 nW for above 1 GHz
Test Setup:	 Spectrum Analyzer EUT
Test Procedure:	1. EUT have the continuous reception mode and fixed only one channelize. 2. Setting of SA is following as RB / VB: 100 kHz (below 1GHz emissions) / 1 MHz (above 1GHz emissions) /Sweep time: Auto / Sweep Mode: Continuous sweep / Detect mode: Positive peak / Trace mode: Max hold
Test Result:	PASS

6.3.2. Test data

QPSK:

1.4MHz							
Test conditions		Frequency Range (MHz)	Record Frequency (MHz)	Read Level (dBm)	Read Level (nW)	Limit(nW)	Result
Volt.(dc)	Temp.						
12V	25℃	30-1000	726.46	-75.11	0.031	4	PASS
		1000-13000	2584.00	-56.36	2.312	20	
3MHz							
Test conditions		Frequency Range (MHz)	Record Frequency (MHz)	Read Level (dBm)	Read Level (nW)	Limit(nW)	Result
Volt.(dc)	Temp.						
12V	25℃	30-1000	868.08	-74.29	0.037	4	PASS
		1000-13000	2416.00	-56.80	2.089	20	
5MHz							
Test conditions		Frequency Range (MHz)	Record Frequency (MHz)	Read Level (dBm)	Read Level (nW)	Limit(nW)	Result
Volt.(dc)	Temp.						
12V	25℃	30-1000	903.97	-73.24	0.047	4	PASS
		1000-13000	11992.00	-58.06	1.563	20	
10MHz							
Test conditions		Frequency Range (MHz)	Record Frequency (MHz)	Read Level (dBm)	Read Level (nW)	Limit(nW)	Result
Volt.(dc)	Temp.						
12V	25℃	30-1000	916.58	-74.19	0.038	4	PASS
		1000-13000	2476.00	-53.77	4.198	20	
20MHz							
Test conditions		Frequency Range (MHz)	Record Frequency (MHz)	Read Level (dBm)	Read Level (nW)	Limit(nW)	Result
Volt.(dc)	Temp.						
12V	25℃	30-1000	824.43	-70.35	0.092	4	PASS
		1000-13000	2596.00	-54.21	3.793	20	

16QAM:

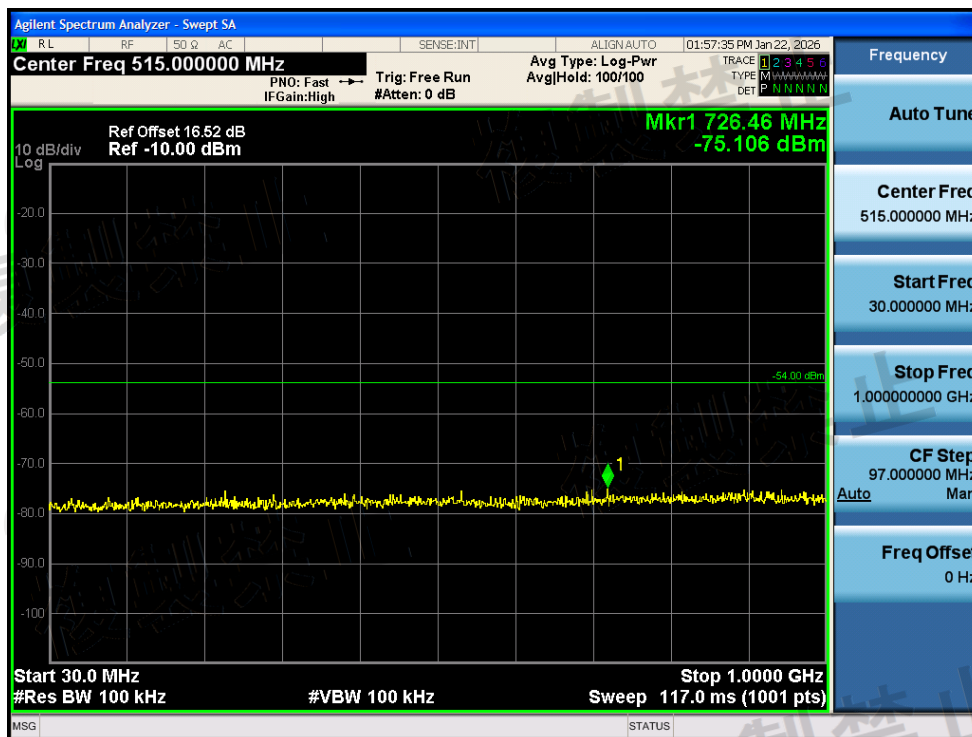
1.4MHz							
Test conditions		Frequency Range (MHz)	Record Frequency (MHz)	Read Level (dBm)	Read Level (nW)	Limit(nW)	Result
Volt.(dc)	Temp.						
12V	25℃	30-1000	826.37	-74.90	0.032	4	PASS
		1000-13000	2404.00	-53.34	4.634	20	
3MHz							
Test conditions		Frequency Range (MHz)	Record Frequency (MHz)	Read Level (dBm)	Read Level (nW)	Limit(nW)	Result
Volt.(dc)	Temp.						
12V	25℃	30-1000	898.15	-74.23	0.038	4	PASS
		1000-13000	2464.00	-56.01	2.506	20	
5MHz							
Test conditions		Frequency Range (MHz)	Record Frequency (MHz)	Read Level (dBm)	Read Level (nW)	Limit(nW)	Result
Volt.(dc)	Temp.						
12V	25℃	30-1000	821.52	-74.29	0.037	4	PASS
		1000-13000	2428.00	-51.14	7.691	20	
10MHz							
Test conditions		Frequency Range (MHz)	Record Frequency (MHz)	Read Level (dBm)	Read Level (nW)	Limit(nW)	Result
Volt.(dc)	Temp.						
12V	25℃	30-1000	250.19	-74.47	0.036	4	PASS
		1000-13000	2536.00	-53.92	4.055	20	
20MHz							
Test conditions		Frequency Range (MHz)	Record Frequency (MHz)	Read Level (dBm)	Read Level (nW)	Limit(nW)	Result
Volt.(dc)	Temp.						
12V	25℃	30-1000	880.69	-74.93	0.032	4	PASS
		1000-13000	11884.00	-58.78	1.324	20	

64QAM:

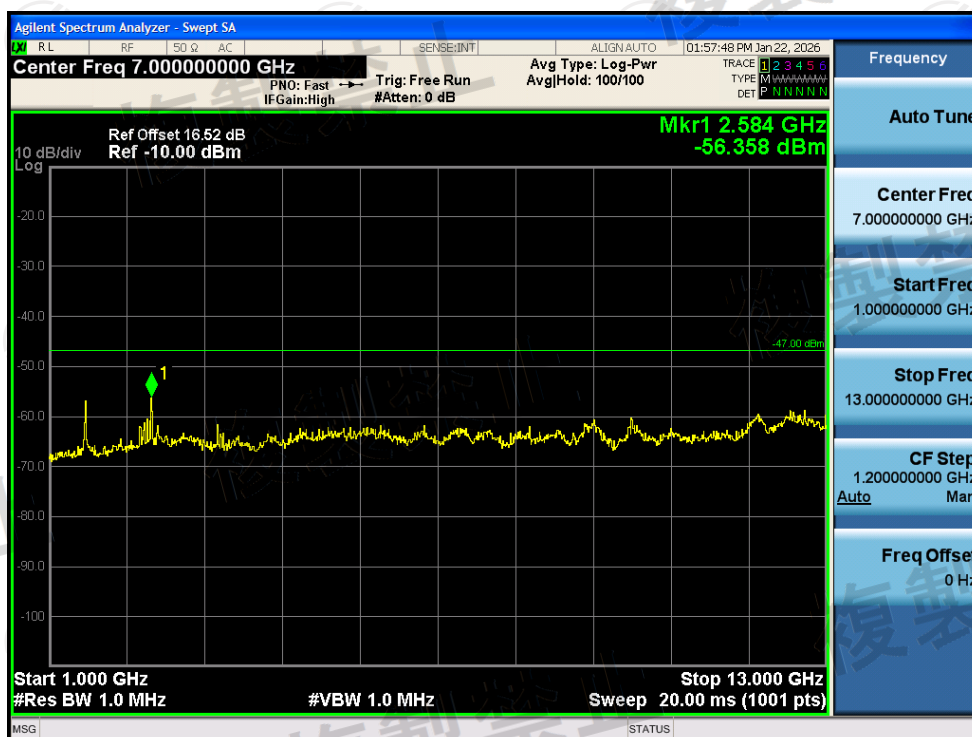
1.4MHz							
Test conditions		Frequency Range (MHz)	Record Frequency (MHz)	Read Level (dBm)	Read Level (nW)	Limit(nW)	Result
Volt.(dc)	Temp.						
12V	25℃	30-1000	873.90	-74.51	0.035	4	PASS
		1000-13000	2608.00	-50.18	9.594	20	
3MHz							
Test conditions		Frequency Range (MHz)	Record Frequency (MHz)	Read Level (dBm)	Read Level (nW)	Limit(nW)	Result
Volt.(dc)	Temp.						
12V	25℃	30-1000	250.19	-74.78	0.033	4	PASS
		1000-13000	2416.00	-55.87	2.588	20	
5MHz							
Test conditions		Frequency Range (MHz)	Record Frequency (MHz)	Read Level (dBm)	Read Level (nW)	Limit(nW)	Result
Volt.(dc)	Temp.						
12V	25℃	30-1000	831.22	-68.44	0.143	4	PASS
		1000-13000	2416.00	-51.85	6.531	20	
10MHz							
Test conditions		Frequency Range (MHz)	Record Frequency (MHz)	Read Level (dBm)	Read Level (nW)	Limit(nW)	Result
Volt.(dc)	Temp.						
12V	25℃	30-1000	833.16	-65.27	0.297	4	PASS
		1000-13000	2524.00	-54.32	3.698	20	
20MHz							
Test conditions		Frequency Range (MHz)	Record Frequency (MHz)	Read Level (dBm)	Read Level (nW)	Limit(nW)	Result
Volt.(dc)	Temp.						
12V	25℃	30-1000	894.27	-74.46	0.036	4	PASS
		1000-13000	2608.00	-51.91	6.442	20	

Test plots in normal condition as follows:

QPSK:
1.4MHz

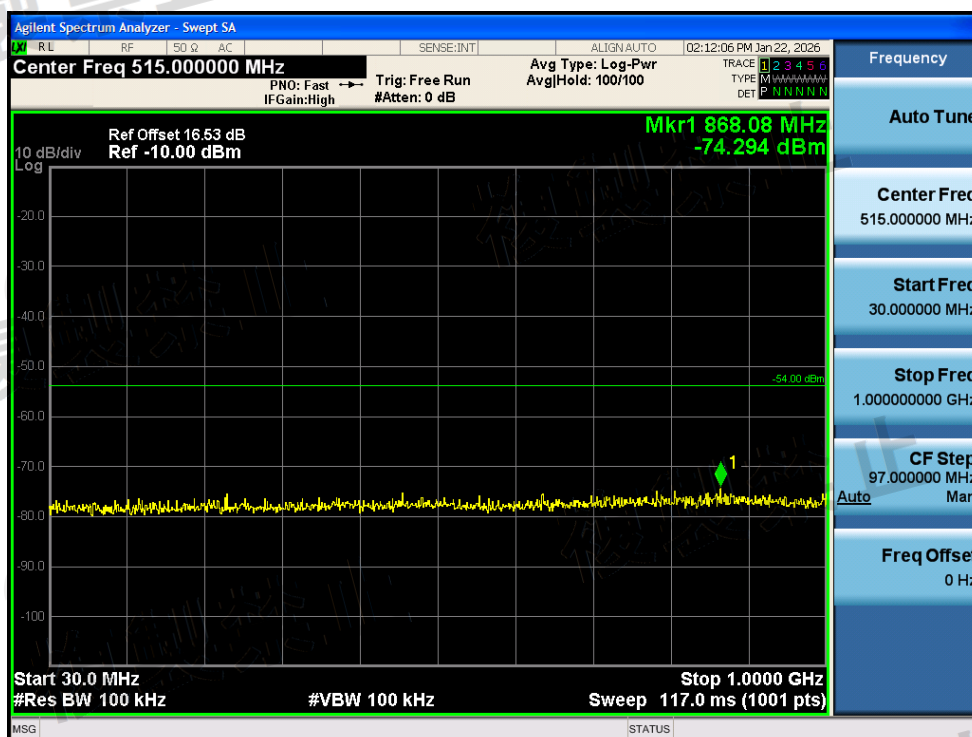


30MHz~1GHz

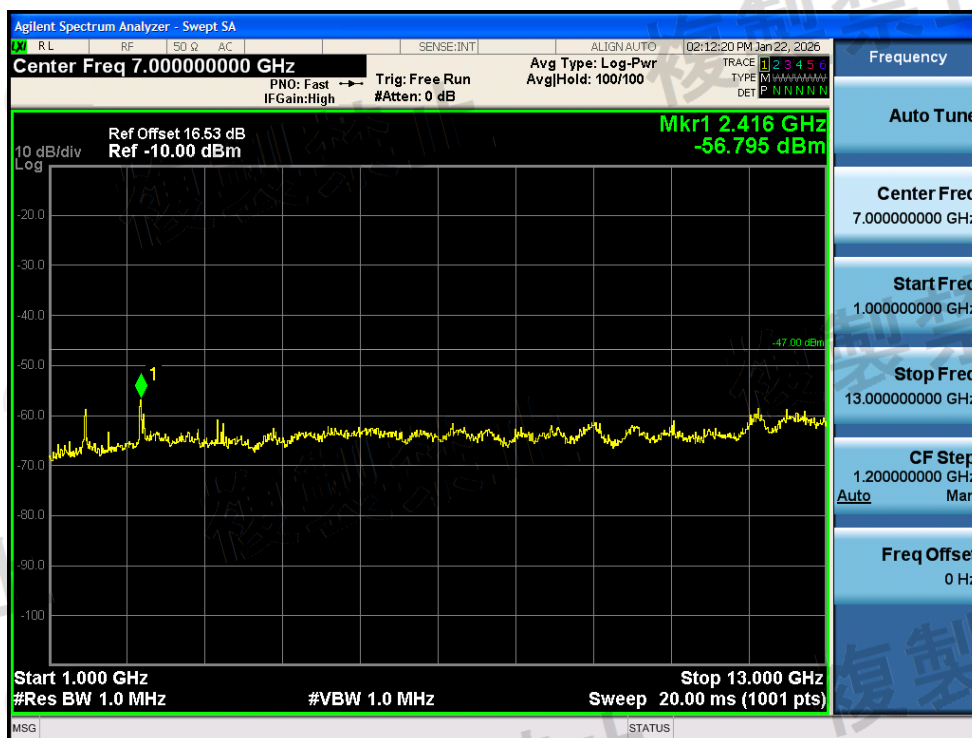


1GHz~13GHz

3MHz

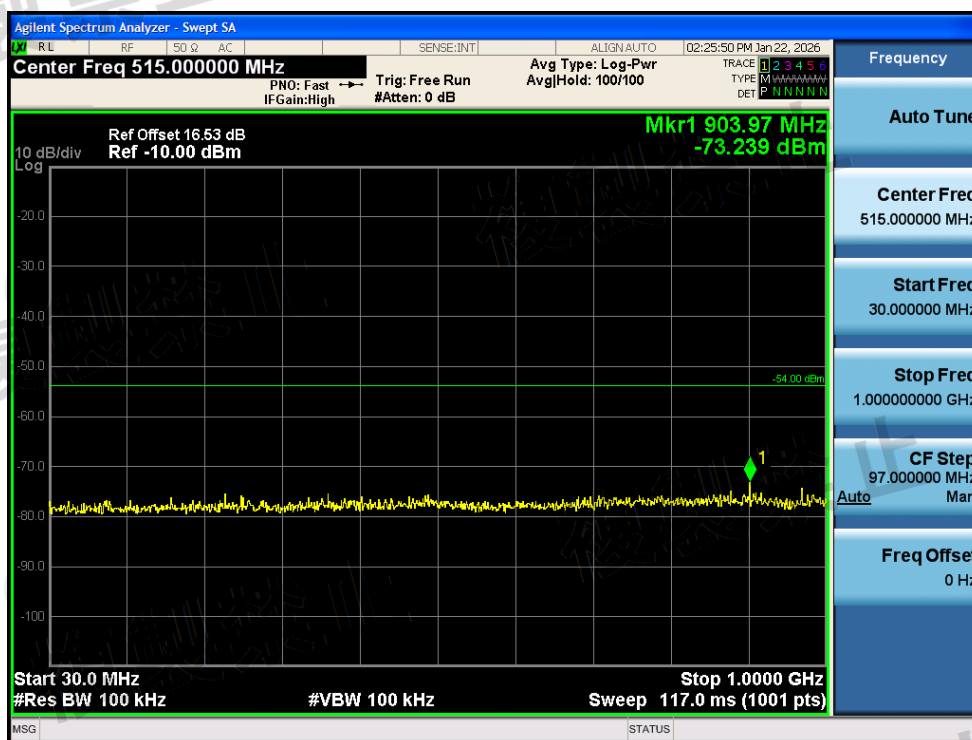


30MHz~1GHz

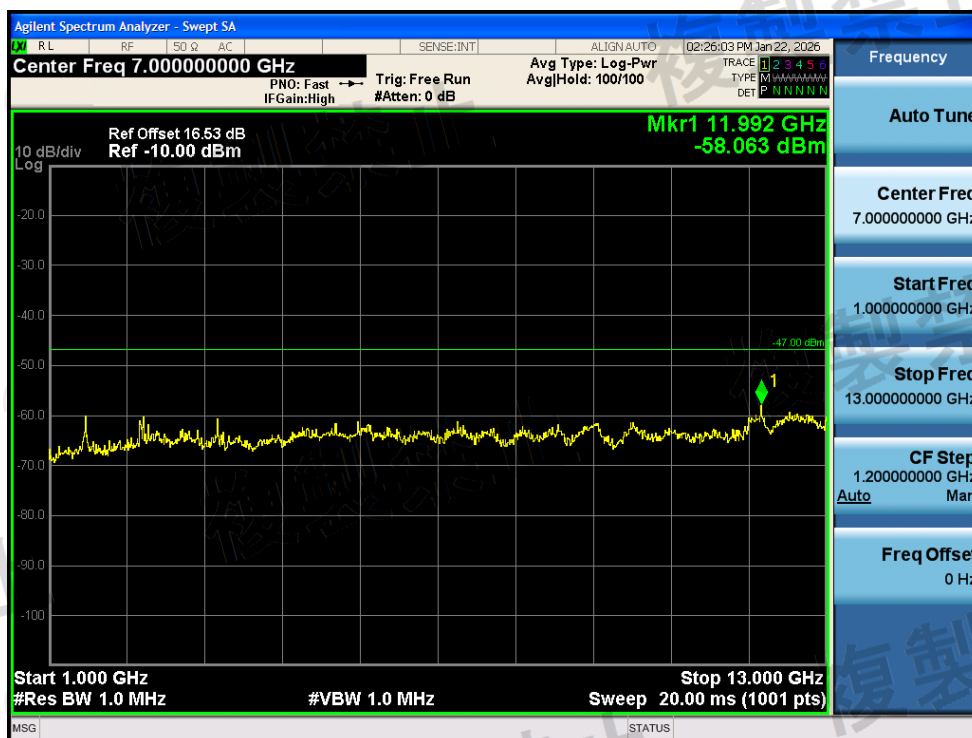


1GHz~13GHz

5MHz

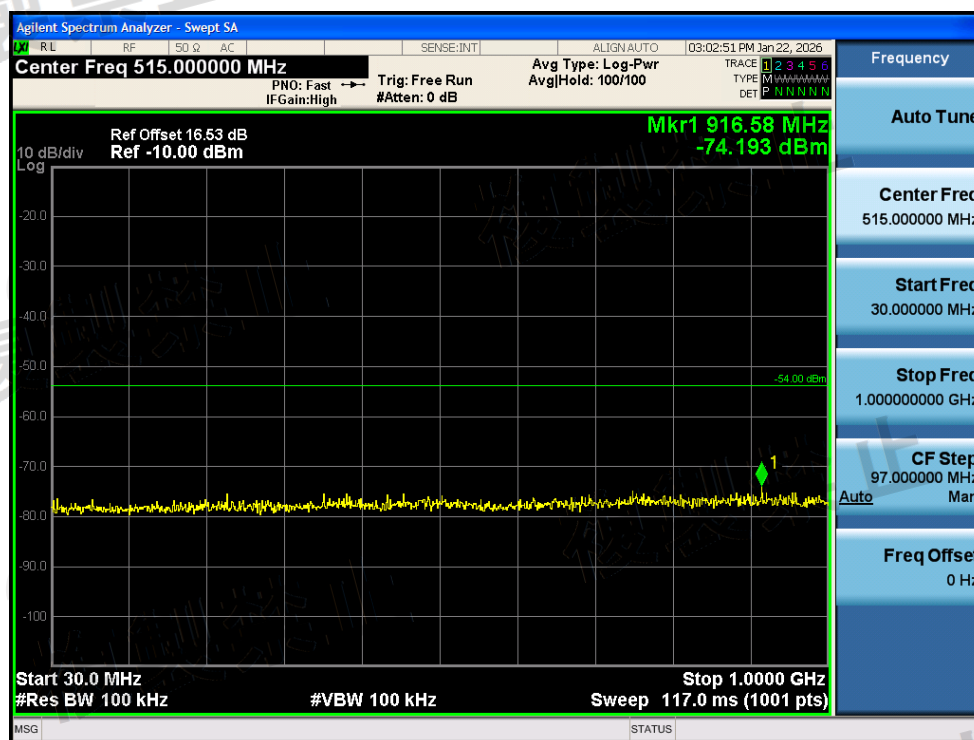


30MHz~1GHz

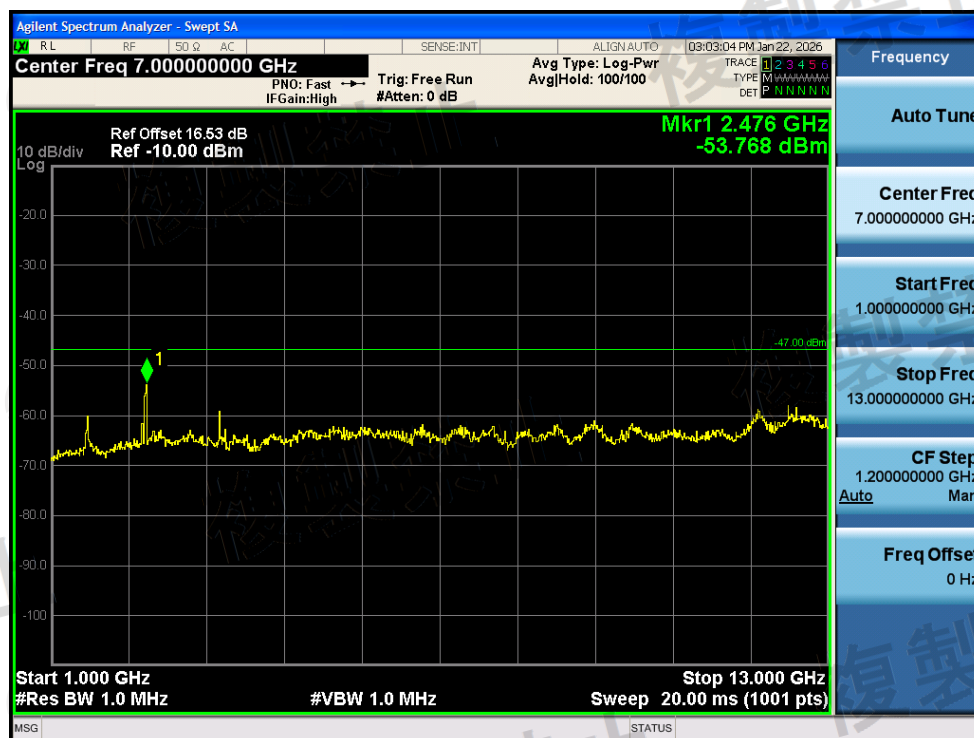


1GHz~13GHz

10MHz

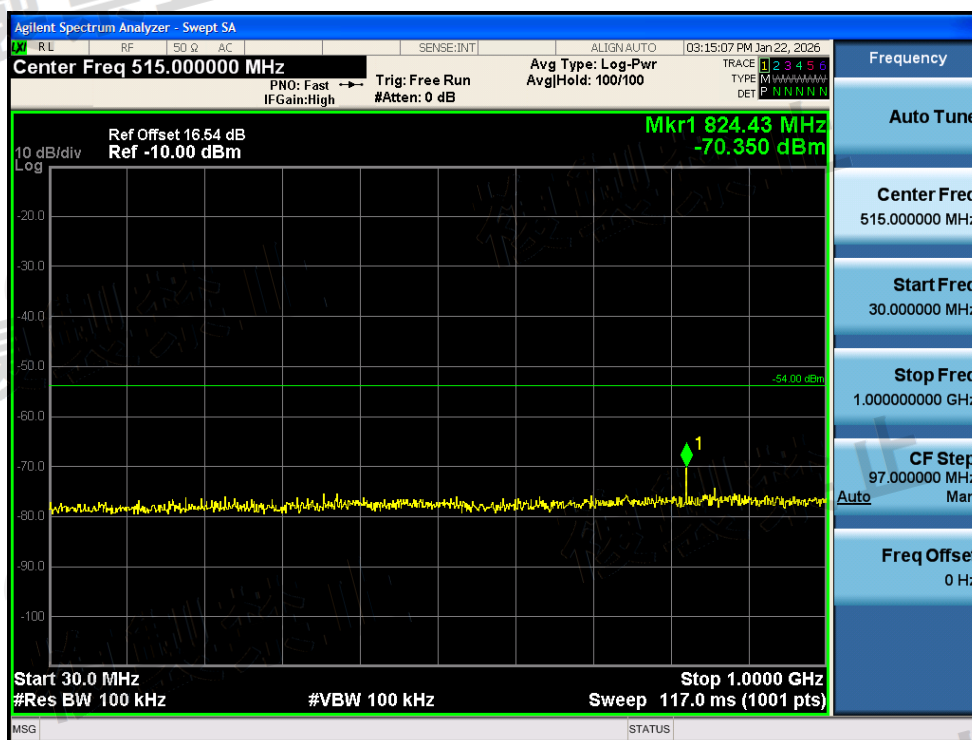


30MHz~1GHz

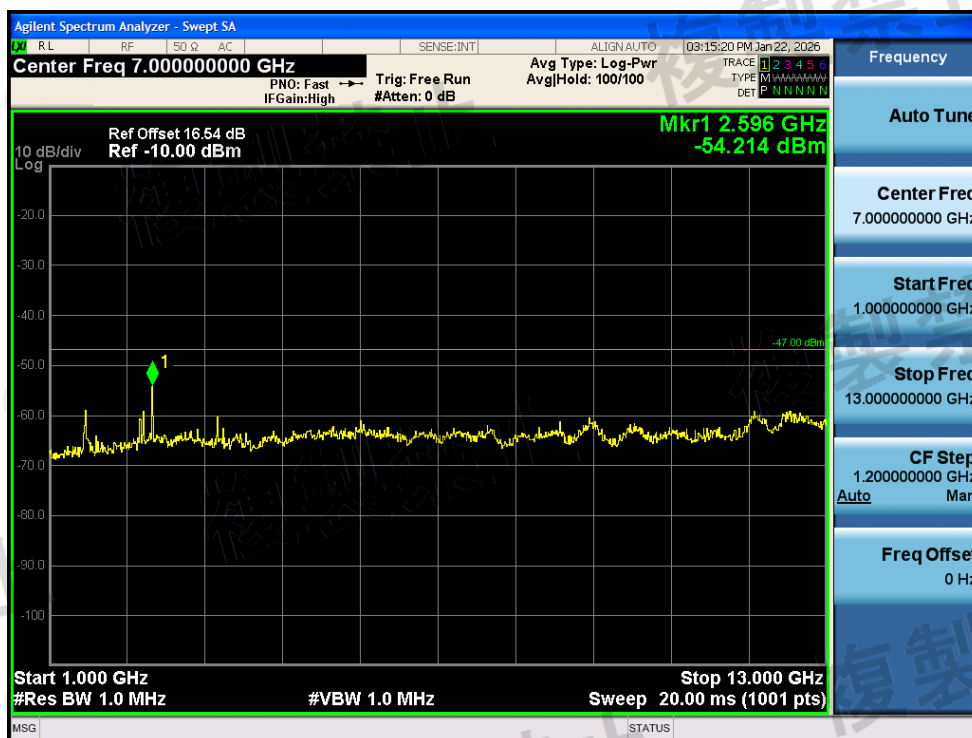


1GHz~13GHz

20MHz

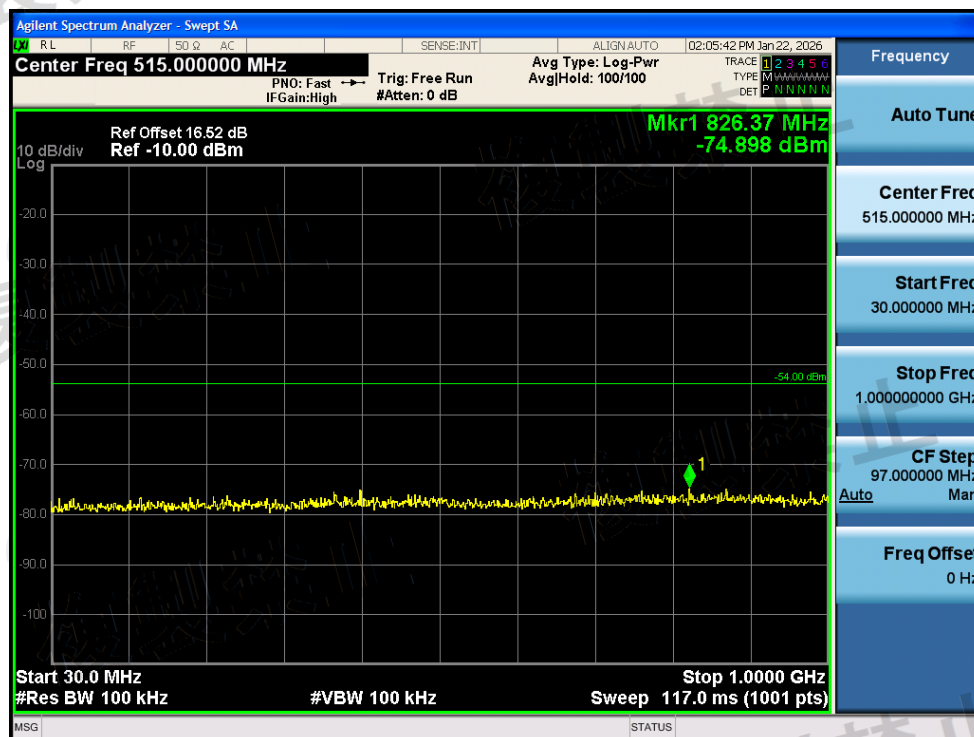


30MHz~1GHz

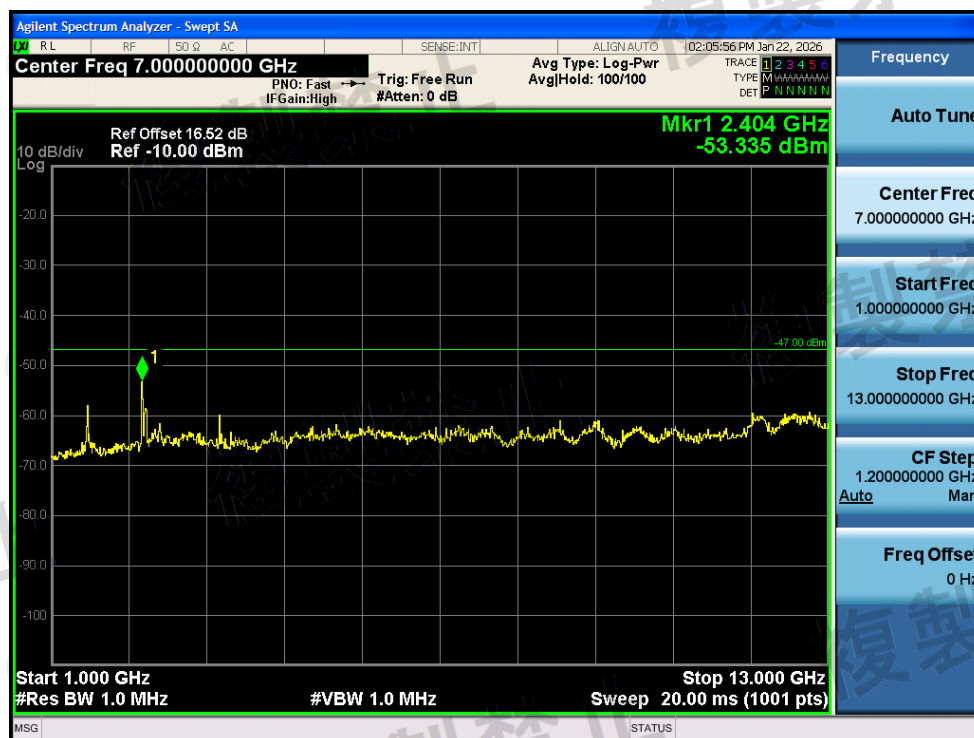


1GHz~13GHz

16QAM:
1.4MHz

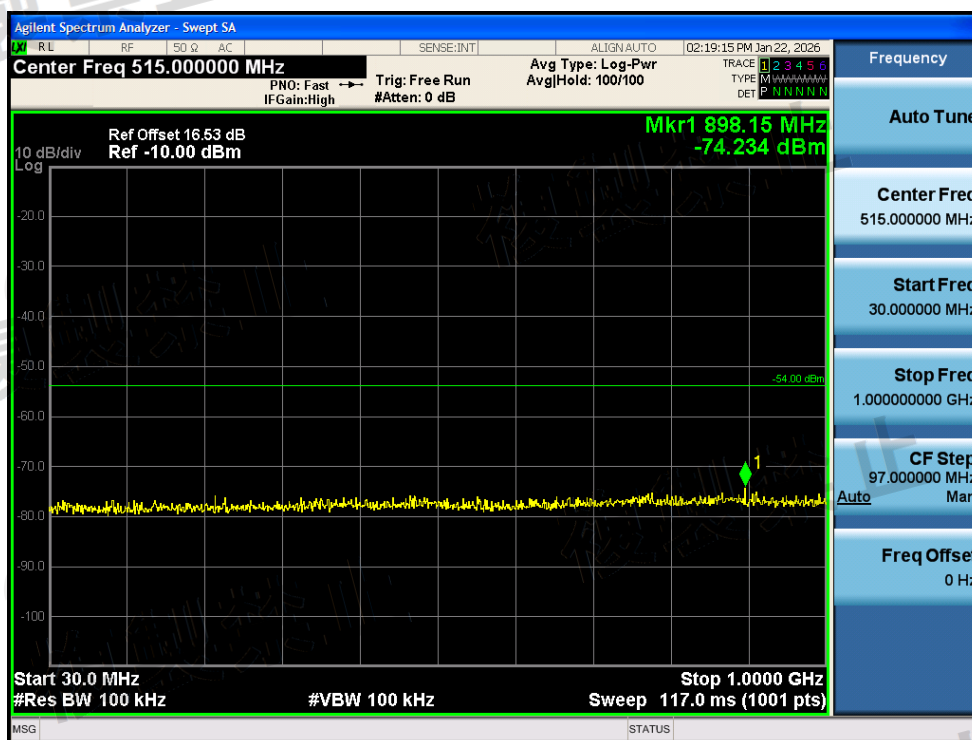


30MHz~1GHz

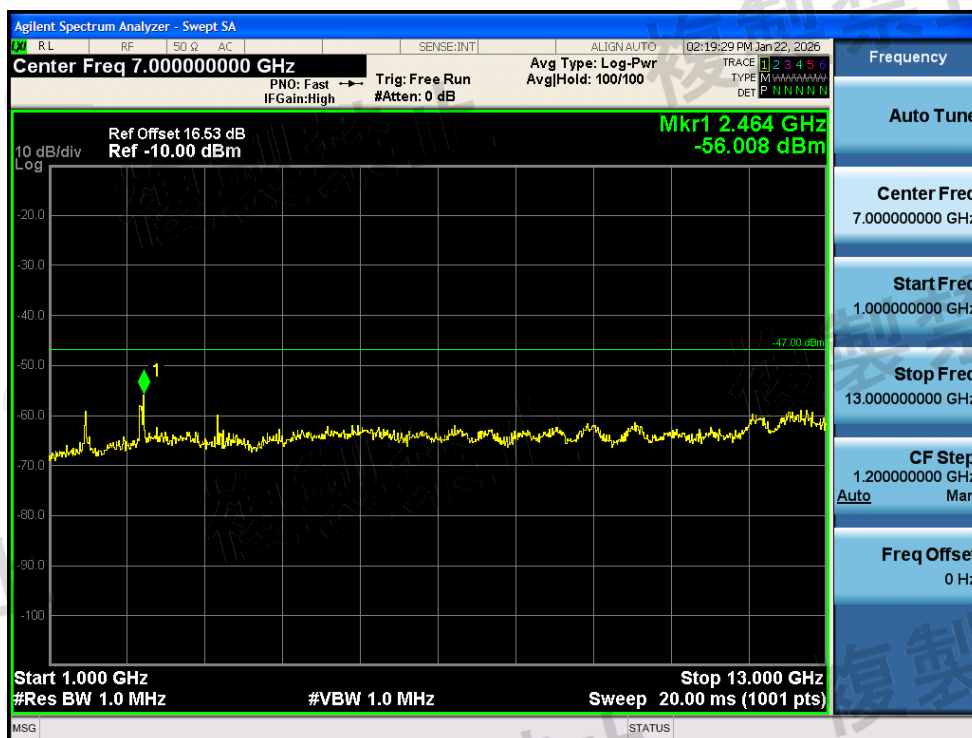


1GHz~13GHz

3MHz

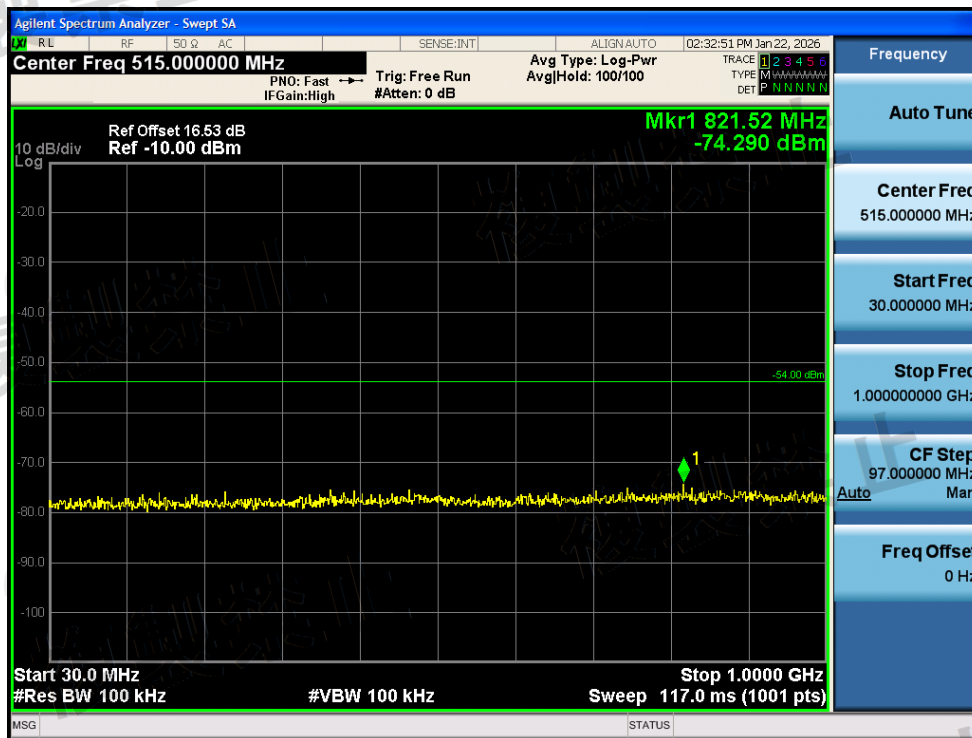


30MHz~1GHz

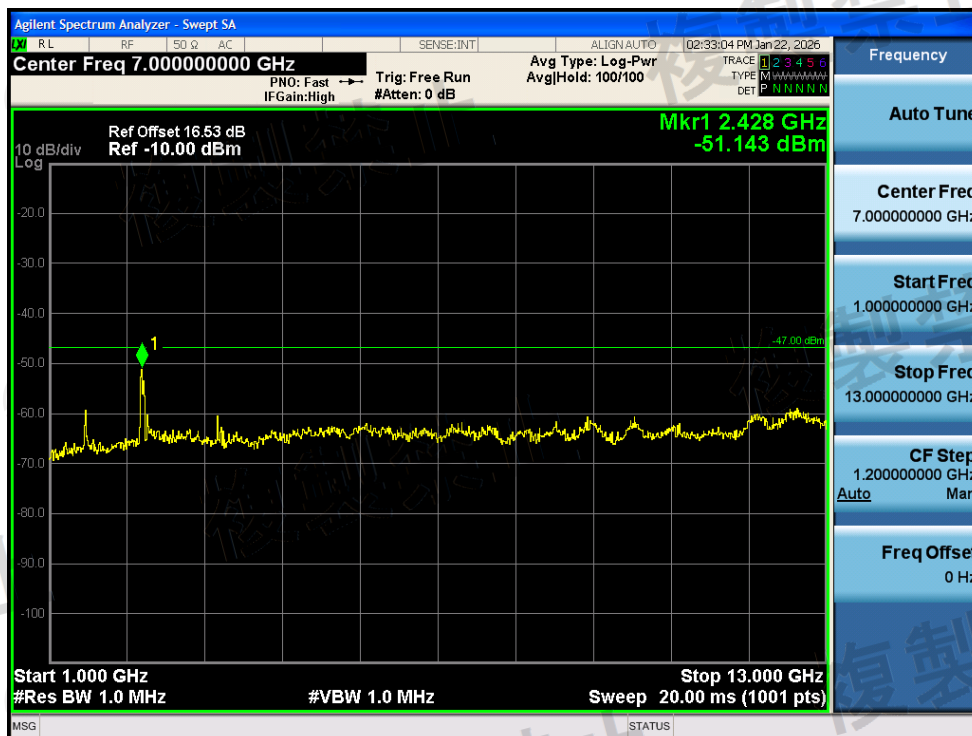


1GHz~13GHz

5MHz

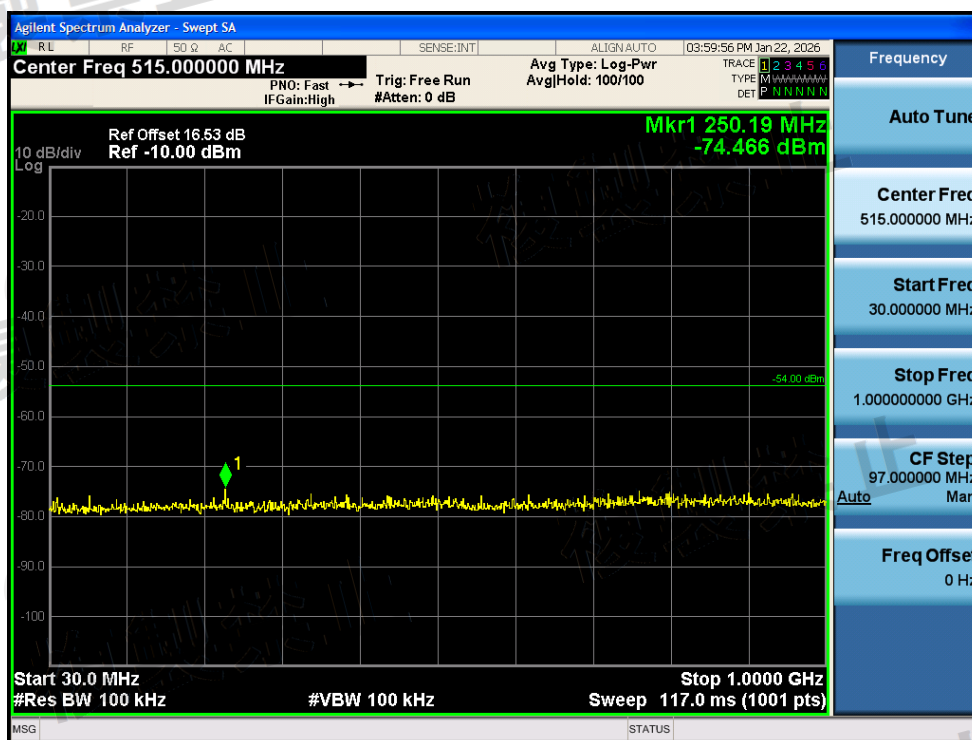


30MHz~1GHz

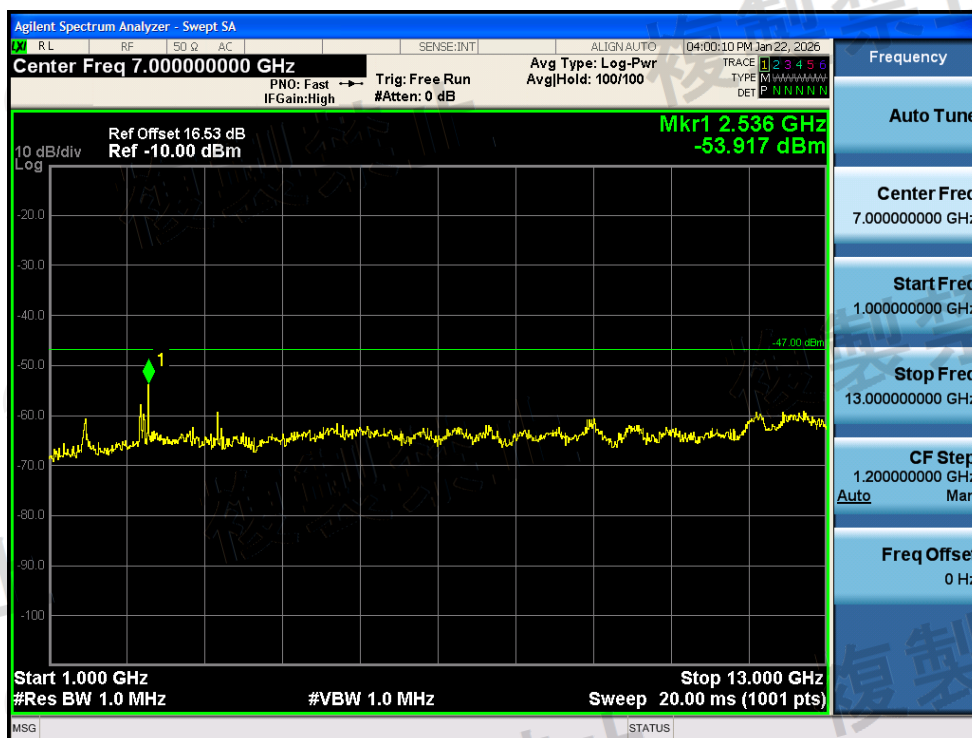


1GHz~13GHz

10MHz

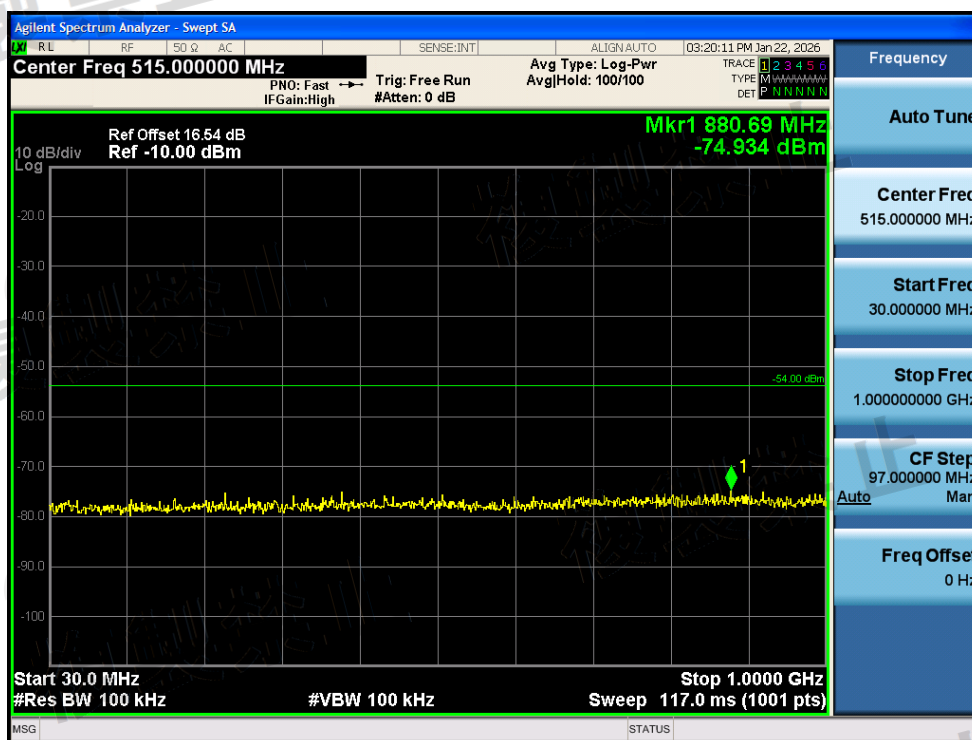


30MHz~1GHz

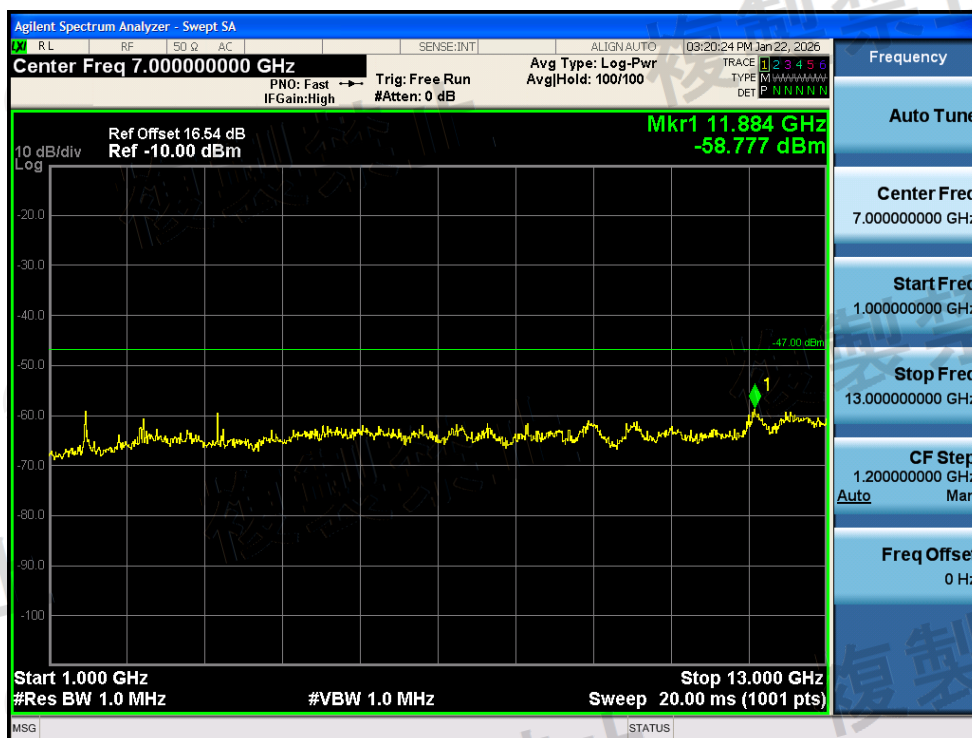


1GHz~13GHz

20MHz

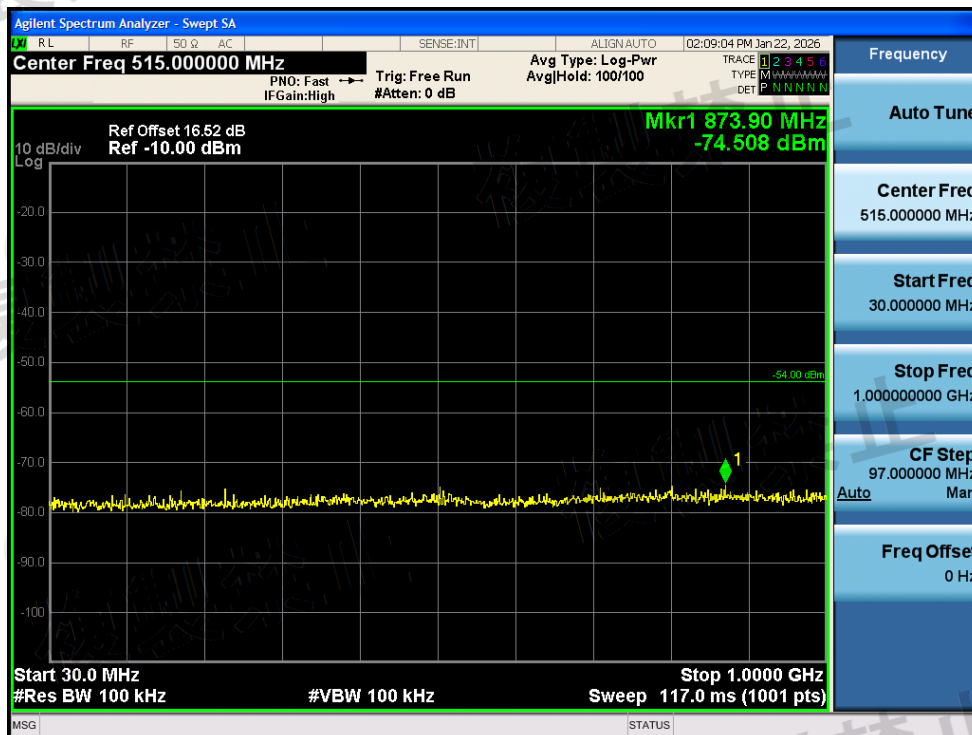


30MHz~1GHz

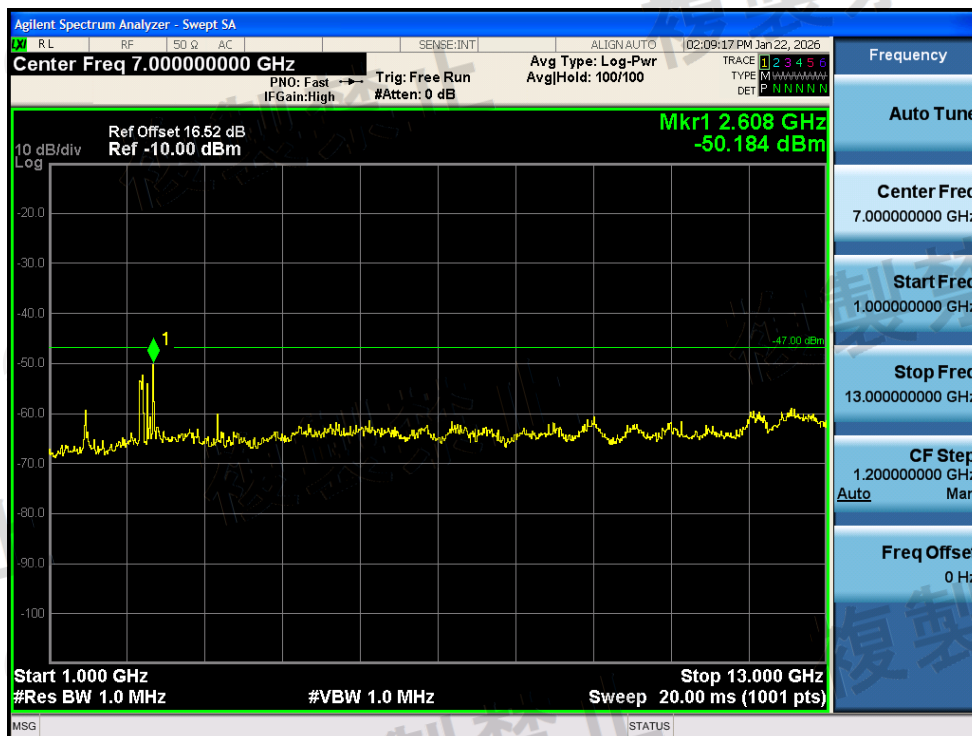


1GHz~13GHz

64QAM:
1.4MHz

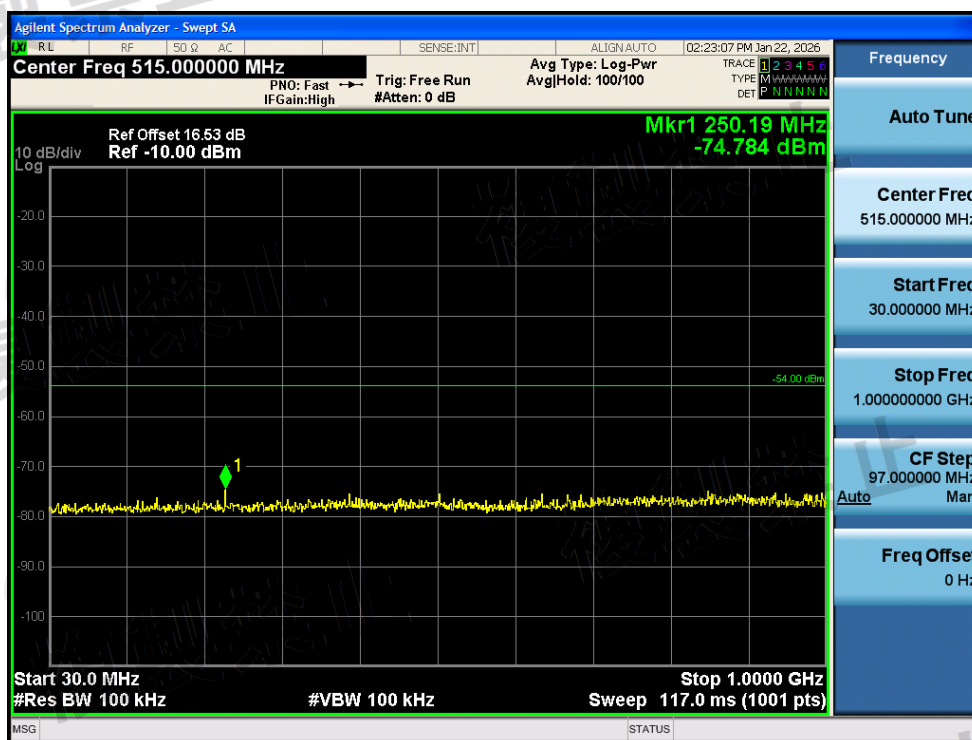


30MHz~1GHz

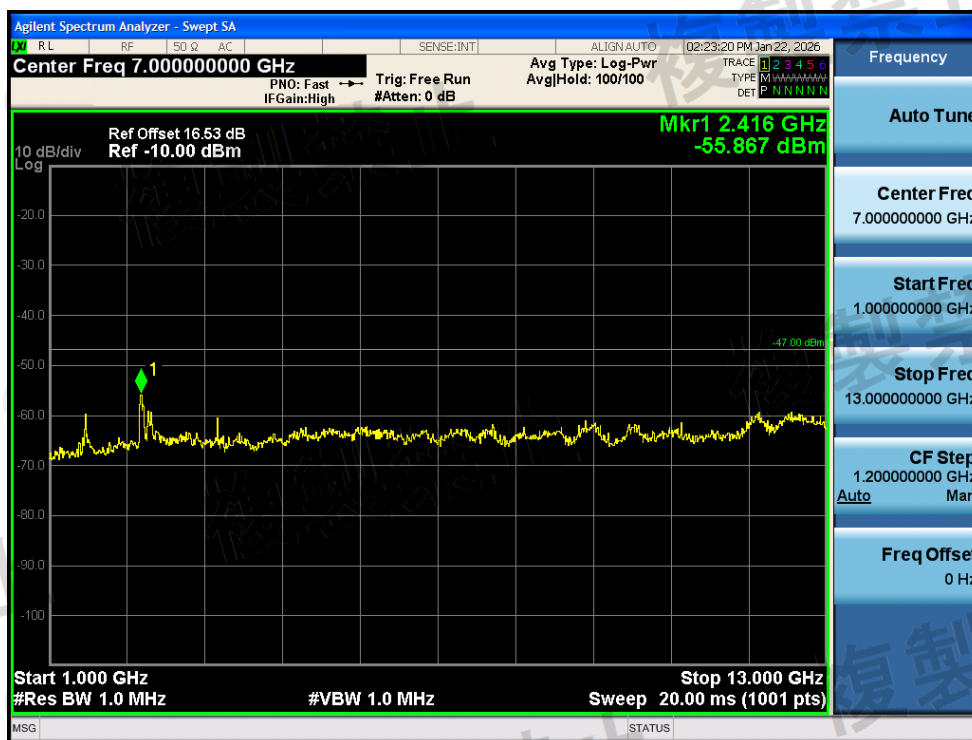


1GHz~13GHz

3MHz

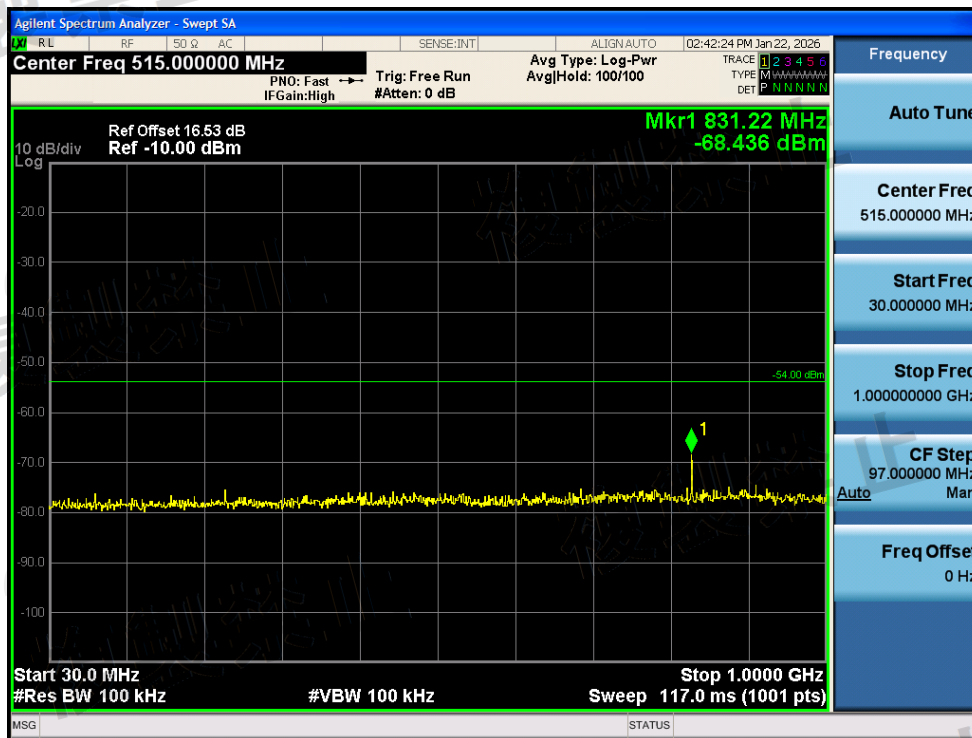


30MHz~1GHz

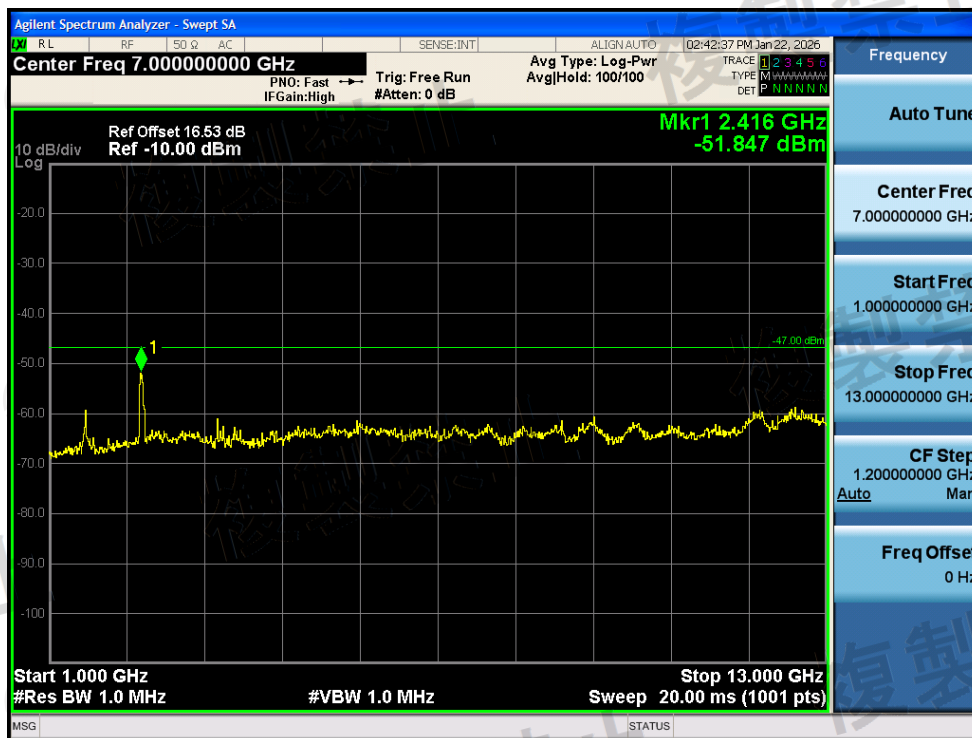


1GHz~13GHz

5MHz

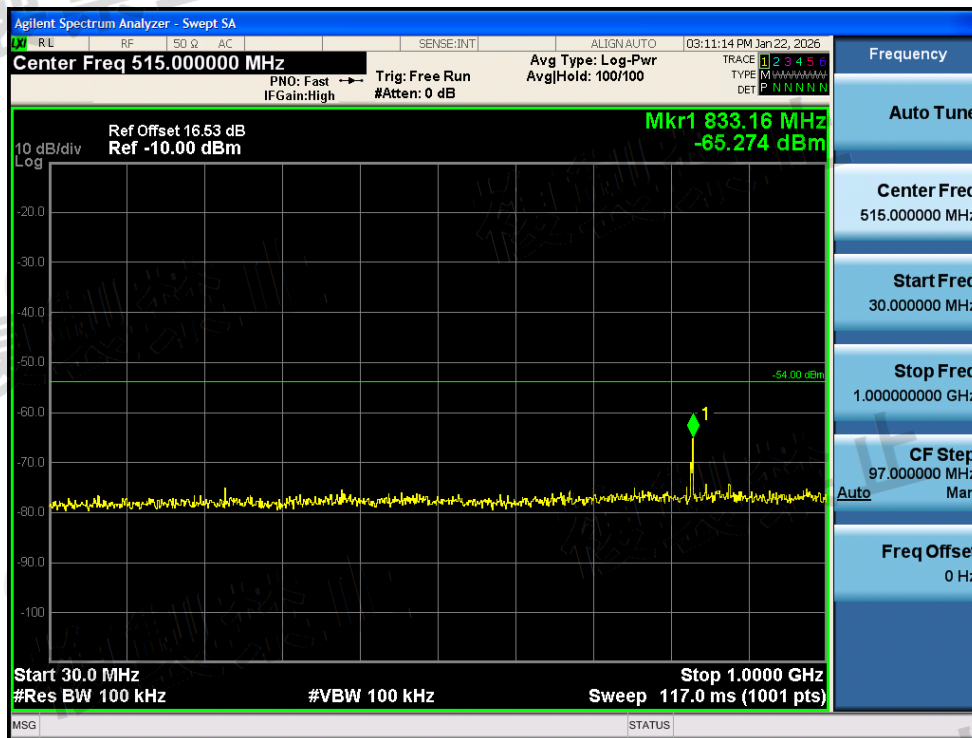


30MHz~1GHz

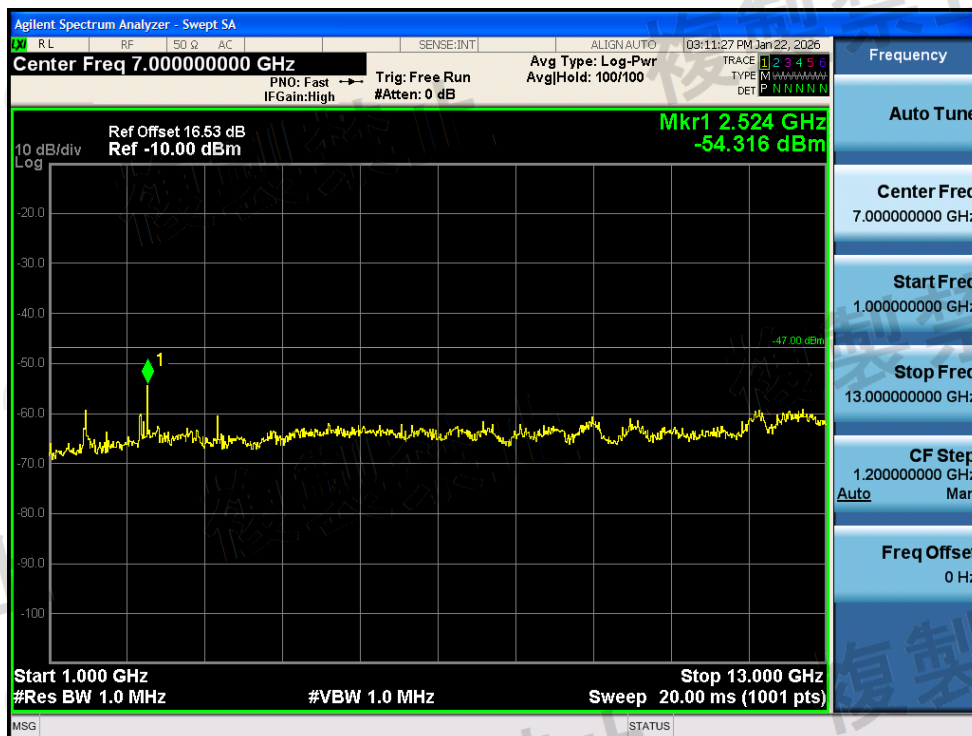


1GHz~13GHz

10MHz

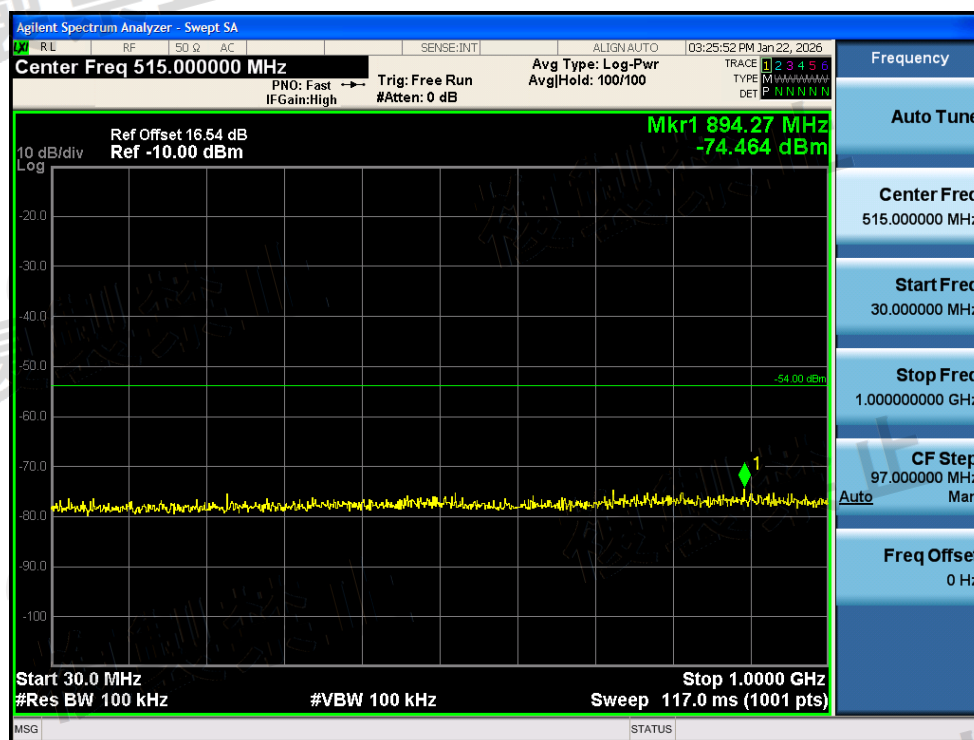


30MHz~1GHz

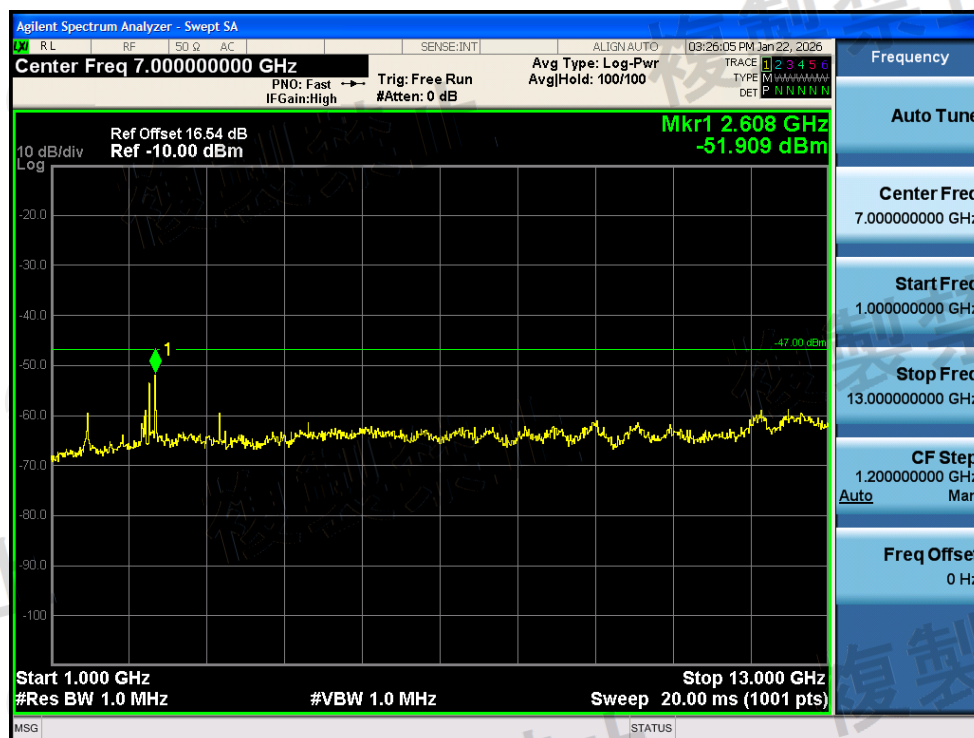


1GHz~13GHz

20MHz



30MHz~1GHz



1GHz~13GHz

6.4. Antenna power and deviation, EIRP

6.4.1. Test Specification

Test Requirement:	Article 2 paragraph 1 item 19
Test Method:	Appendix No.43 Notification No.88 of MIC, 2004 section 6
Limit:	Antenna Power: ≤ 10 mW/MHz Deviation: + 20% E.I.R.P: ≤ 12.14 dBm/MHz
Test Setup:	 The diagram illustrates the test setup. On the left is a green box labeled 'Spectrum Analyzer'. A cable connects it to a yellow box on the right labeled 'EUT' (Equipment Under Test).
Test Procedure:	1. Connect the UUT to the spectrum analyzer and use the following settings: Centre Frequency: The centre frequency of the channel under test. RBW: 1MHz/VBW: 1MHz/ Span: Wide enough to cover the complete power envelope of the signal of the EUT. / Detector: Peak. / Trace Mode: Max Hold. 2. When the trace is complete, find the peak value of the power envelope and record the frequency. 3. Set the peak value point as the centre Frequency, Span =0, find the peak value of the power envelope and record the frequency. 4. Calculated the Maximum deviation and recorded the results. Deviation = (Antenna Power – Rated Output Power) / Rated Output Power * 100%
Test Result:	PASS

6.4.2. Test data

QPSK:

Test Condition	Channel	Measured Power (dBm/MHz)	Antenna Power (mW/MHz)	Limit (mW/MHz)	Rated Power (mW/MHz)	Maximum Deviation (%)	Limit (%)	Result
12V, 25°C								
1.4MHz	Low	-2.55	0.56	10	1.00	-44.00	20	PASS
	Mid	-1.88	0.65			-35.00		PASS
	High	-1.96	0.64			-36.00		PASS

The Rated Power is 1.00mW/MHz, which declared by manufacturer.

Maximum Tolerance = (Antenna Power - Rated Power) / Rated power * 100%

Test Condition	Channel	Measured Power (dBm/MHz)	Antenna Power (mW/MHz)	Limit (mW/MHz)	Rated Power (mW/MHz)	Maximum Deviation (%)	Limit (%)	Result
12V, 25°C								
3MHz	Low	-2.77	0.53	10	1.00	-47.00	20	PASS
	Mid	-2.16	0.61			-39.00		PASS
	High	-2.25	0.60			-40.00		PASS

The Rated Power is 1.00mW/MHz, which declared by manufacturer.

Maximum Tolerance = (Antenna Power - Rated Power) / Rated power * 100%

Test Condition	Channel	Measured Power (dBm/MHz)	Antenna Power (mW/MHz)	Limit (mW/MHz)	Rated Power (mW/MHz)	Maximum Deviation (%)	Limit (%)	Result
12V, 25°C								
5MHz	Low	-1.90	0.65	10	1.00	-35.00	20	PASS
	Mid	-2.27	0.59			-41.00		PASS
	High	-2.50	0.56			-44.00		PASS

The Rated Power is 1.00mW/MHz, which declared by manufacturer.

Maximum Tolerance = (Antenna Power - Rated Power) / Rated power * 100%

Test Condition	Channel	Measured Power (dBm/MHz)	Antenna Power (mW/MHz)	Limit (mW/MHz)	Rated Power (mW/MHz)	Maximum Deviation (%)	Limit (%)	Result
12V, 25°C								
10MHz	Low	-2.25	0.60	10	1.00	-40.00	20	PASS
	Mid	-2.60	0.55			-45.00		PASS
	High	-2.80	0.52			-48.00		PASS

The Rated Power is 1.00mW/MHz, which declared by manufacturer.

Maximum Tolerance = (Antenna Power - Rated Power) / Rated power * 100%

Test Condition	Channel	Measured Power (dBm/MHz)	Antenna Power (mW/MHz)	Limit (mW/MHz)	Rated Power (mW/MHz)	Maximum Deviation (%)	Limit (%)	Result
12V, 25°C								
20MHz	Low	-2.86	0.52	10	1.00	-48.00	20	PASS
	Mid	-2.81	0.52			-48.00		PASS
	High	-3.75	0.42			-58.00		PASS

The Rated Power is 1.00mW/MHz, which declared by manufacturer.

Maximum Tolerance = (Antenna Power - Rated Power) / Rated power * 100%

16QAM:

Test Condition	Channel	Measured Power (dBm/MHz)	Antenna Power (mW/MHz)	Limit (mW/MHz)	Rated Power (mW/MHz)	Maximum Deviation (%)	Limit (%)	Result
12V, 25°C								
1.4MHz	Low	-2.06	0.62	10	1.00	-38.00	20	PASS
	Mid	-2.54	0.56			-44.00		PASS
	High	-2.62	0.55			-45.00		PASS

The Rated Power is 1.00mW/MHz, which declared by manufacturer.

Maximum Tolerance = (Antenna Power - Rated Power) / Rated power * 100%

Test Condition	Channel	Measured Power (dBm/MHz)	Antenna Power (mW/MHz)	Limit (mW/MHz)	Rated Power (mW/MHz)	Maximum Deviation (%)	Limit (%)	Result
12V, 25°C								
3MHz	Low	-2.60	0.55	10	1.00	-45.00	20	PASS
	Mid	-2.10	0.62			-38.00		PASS
	High	-2.08	0.62			-38.00		PASS

The Rated Power is 1.00mW/MHz, which declared by manufacturer.

Maximum Tolerance = (Antenna Power - Rated Power) / Rated power * 100%

Test Condition	Channel	Measured Power (dBm/MHz)	Antenna Power (mW/MHz)	Limit (mW/MHz)	Rated Power (mW/MHz)	Maximum Deviation (%)	Limit (%)	Result
12V, 25°C								
5MHz	Low	-1.89	0.65	10	1.00	-35.00	20	PASS
	Mid	-2.37	0.58			-42.00		PASS
	High	-2.61	0.55			-45.00		PASS

The Rated Power is 1.00mW/MHz, which declared by manufacturer.

Maximum Tolerance = (Antenna Power - Rated Power) / Rated power * 100%

Test Condition	Channel	Measured Power (dBm/MHz)	Antenna Power (mW/MHz)	Limit (mW/MHz)	Rated Power (mW/MHz)	Maximum Deviation (%)	Limit (%)	Result
12V, 25°C								
10MHz	Low	-2.99	0.50	10	1.00	-50.00	20	PASS
	Mid	-2.27	0.59			-41.00		PASS
	High	-2.43	0.57			-43.00		PASS

The Rated Power is 1.00mW/MHz, which declared by manufacturer.

Maximum Tolerance = (Antenna Power - Rated Power) / Rated power * 100%

Test Condition	Channel	Measured Power (dBm/MHz)	Antenna Power (mW/MHz)	Limit (mW/MHz)	Rated Power (mW/MHz)	Maximum Deviation (%)	Limit (%)	Result
12V, 25°C								
20MHz	Low	-3.43	0.45	10	1.00	-55.00	20	PASS
	Mid	-2.91	0.51			-49.00		PASS
	High	-4.37	0.37			-63.00		PASS

The Rated Power is 1.00mW/MHz, which declared by manufacturer.

Maximum Tolerance = (Antenna Power - Rated Power) / Rated power * 100%

64QAM:

Test Condition	Channel	Measured Power (dBm/MHz)	Antenna Power (mW/MHz)	Limit (mW/MHz)	Rated Power (mW/MHz)	Maximum Deviation (%)	Limit (%)	Result
12V, 25°C								
1.4MHz	Low	-2.16	0.61	10	1.00	-39.00	20	PASS
	Mid	-2.60	0.55			-45.00		PASS
	High	-2.68	0.54			-46.00		PASS

The Rated Power is 1.00mW/MHz, which declared by manufacturer.

Maximum Tolerance = (Antenna Power - Rated Power) / Rated power * 100%

Test Condition	Channel	Measured Power (dBm/MHz)	Antenna Power (mW/MHz)	Limit (mW/MHz)	Rated Power (mW/MHz)	Maximum Deviation (%)	Limit (%)	Result
12V, 25°C								
3MHz	Low	-2.24	0.60	10	1.00	-40.00	20	PASS
	Mid	-2.79	0.53			-47.00		PASS
	High	-2.74	0.53			-47.00		PASS

The Rated Power is 1.00mW/MHz, which declared by manufacturer.

Maximum Tolerance = (Antenna Power - Rated Power) / Rated power * 100%

Test Condition	Channel	Measured Power (dBm/MHz)	Antenna Power (mW/MHz)	Limit (mW/MHz)	Rated Power (mW/MHz)	Maximum Deviation (%)	Limit (%)	Result
12V, 25°C								
5MHz	Low	-2.23	0.60	10	1.00	-40.00	20	PASS
	Mid	-2.86	0.52			-48.00		PASS
	High	-2.27	0.59			-41.00		PASS

The Rated Power is 1.00mW/MHz, which declared by manufacturer.

Maximum Tolerance = (Antenna Power - Rated Power) / Rated power * 100%

Test Condition	Channel	Measured Power (dBm/MHz)	Antenna Power (mW/MHz)	Limit (mW/MHz)	Rated Power (mW/MHz)	Maximum Deviation (%)	Limit (%)	Result
12V, 25°C								
10MHz	Low	-2.80	0.52	10	1.00	-48.00	20	PASS
	Mid	-2.15	0.61			-39.00		PASS
	High	-2.33	0.58			-42.00		PASS

The Rated Power is 1.00mW/MHz, which declared by manufacturer.

Maximum Tolerance = (Antenna Power - Rated Power) / Rated power * 100%

Test Condition	Channel	Measured Power (dBm/MHz)	Antenna Power (mW/MHz)	Limit (mW/MHz)	Rated Power (mW/MHz)	Maximum Deviation (%)	Limit (%)	Result
12V, 25°C								
20MHz	Low	-2.25	0.60	10	1.00	-40.00	20	PASS
	Mid	-2.72	0.53			-47.00		PASS
	High	-3.96	0.40			-60.00		PASS

The Rated Power is 1.00mW/MHz, which declared by manufacturer.

Maximum Tolerance = (Antenna Power - Rated Power) / Rated power * 100%