



RADIOTEST REPORT
Ordinance Article 2 paragraph 1 item (19)

Report Reference No. : EP2604321M01

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Applicant's name : Zhuhai Xprinter Electronics Technology Co., Ltd.

Address : 5/F, 1st Workshop, No.613 Huawei Road, Qianshan Industrial
Zone, Xiangzhou District, Zhuhai City, Guangdong Province,
P.R.China

Manufacturer's name : Zhuhai Xprinter Electronics Technology Co., Ltd.

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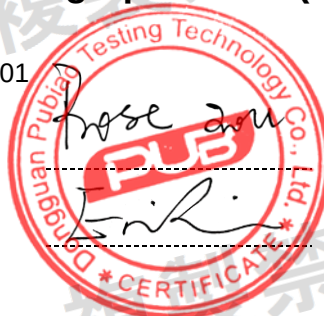


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Modified Information

Rev.	Summary	Date of Rev.	Report No.
Ver.1.0	Original Report	2026-07-24	EP2604321M01

TEST RESULT CERTIFICATION

Equipment under Test:	Thermal Barcode Printer, Thermal Label Printer
Test Model:	Z1Plus
Series Model:	T001Plus
Trade Mark	ORGBRO, ORGSTA
Applicant:	Zhuhai Xprinter Electronics Technology Co., Ltd.
Address:	5/F, 1st Workshop, No.613 Huawei Road, Qianshan Industrial Zone, Xiangzhou District, Zhuhai City, Guangdong Province, P.R.China
Manufacturer:	Zhuhai Xprinter Electronics Technology Co., Ltd.
Address:	5/F, 1st Workshop, No.613 Huawei Road, Qianshan Industrial Zone, Xiangzhou District, Zhuhai City, Guangdong Province, P.R.China
Standard:	Article 2 Paragraph 1 of Item 19, annex 43 and annex 1
Test result	Pass

This device described above has been tested by Dongguan Pubiao Testing Technology Co., Ltd, the test results show that the equipment under

test (EUT) is in compliance with Article 2 Paragraph 1 of Item 19, annex 43 and annex 1 requirements.

And it is applicable only to the tested sample identified in the report.

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be altered or revised by Dongguan Pubiao Testing Technology Co., Ltd, personal only, and shall be noted in the revision of the document.

1 SUMMARY

1.1 TEST STANDARDS

The tests were performed according to following standards:

MIC Notice No.88 Appendix No.43

1.2 TEST DESCRIPTION

Test Item	TEST REQUIREMENT	Result
Frequency Error	III	Pass
Antenna Output Power and Output Power Tolerance	VI	Pass
Occupied Bandwidth	IV	Pass
Spread spectrum bandwidth	IV	Pass
Unwanted Emission Strength	V	Pass
Secondary Radiated Emission Strength	VII	Pass
Transmission Antenna Gain (EIRP Antenna Power)	VIII	Pass
Dwell time	XI	Pass
Interference Prevention Function	X	Pass

Note:

(1) Spread spectrum bandwidth Only for reported.

1.3 TEST FACILITY

1.3.1 ADDRESS OF THE TEST LABORATORY

Dongguan Pubiao Testing Technology Co., Ltd
Room 101, Building 1, No.30, Minghua Road, Shijie, Shijie Town,
Dongguan, Guangdong, China.

1.4 MEASUREMENT UNCERTAINTY

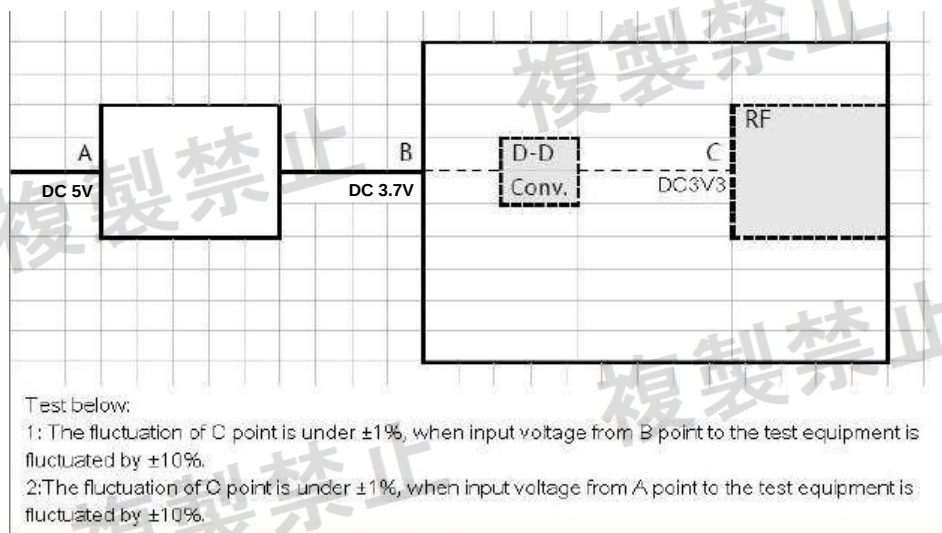
For the test methods, according to the present document, the measurement uncertainty figures shall be calculated in accordance with TR100028-1 [2] and shall correspond to an expansion factor (coverage factor) $K=1.96$ or $K=2$ (which provide confidence levels of respectively 95% and 95.5% in the case where the distributions characterizing the actual m

Parameter	Uncertainty
Frequency error / 99%&90% bandwidth	$\pm 1.62 \times 10^{-6}$
Total RF power, conducted	$\pm 0.8\text{dB}$
Spurious emissions, conducted	$\pm 0.8\text{dB}$
DC and low frequency voltages	$\pm 0.05\%$
Humidity	$\pm 5\%$
Dwell time	$\pm 2\%$
Temperature	$\pm 1^\circ\text{C}$

2 GENERAL INFORMATION

2.1 ENVIRONMENTAL CONDITIONS

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



The module was tested while in a continuous transmitter/receiver mode.

The EUT was tuned to a low, middle, and high channel for all tests. For all test case pre/scans were completed in all Modes to determine worst case levels.

Power Supply Voltage Fluctuation Test

Voltage Fluctuation Test	Normal Voltage	High Voltage +10% of Normal Voltage	Low Voltage -10% of Normal Voltage
Input DC Power(V)	24	26.4	21.6
RF Chip Input DC Power(V)	3.300	3.310	3.290
Voltage Variation (%)	/	0.3	-0.3

Note: 1. Voltage Variation (%)

= (RF chip Input high or Low Voltage-RFchip Input Normal Voltage)/RF chip Input Normal Voltage*100.

2. RF chip Input DC power fluctuation is verified at the power input PIN of the RF chip.

When the input supply voltage to the EUT from the external power source is varied by $\pm 10\%$, the 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 $\pm 1\%$, and the DC power fluctuation at the power input PIN of the RF chip is equal to or less than $\pm 1\%$. Exempt extremely high and low supply voltage condition tests, EUT only operated in normal voltage to test all regulations.

Temperature: 22.0 °C

Humidity: 48.0 % RH

Atmospheric Pressure: 101.1 mbar

2.2 GENERAL DESCRIPTION OF EUT

Product Name:	Thermal Barcode Printer, Thermal Label Printer
Brand Name:	ORGBRO, ORGSTA
Test Model:	Z1Plus
Series Model:	T001Plus
Model difference:	The configuration of each model is the same. The only difference lies in the model and appearance (the appearance differences include: color, LED indicator light and power feed button).
Power Rating:	For adapter: MODEL:YC60-2402500 INPUT:100-240V AC 50/60Hz 1.5A OUTPUT: 24.0V DC 2.5A 60.0W Manufacturer: Zhongshan City Youchuang Electronics Technology Co.,Ltd.
Hardware version:	V9.1
Software version:	V9120263001
Operation Frequency:	2402MHz~2480MHz
Supported type:	V5.0
Modulation:	GFSK, $\pi/4$ DQPSK
Operation frequency:	2402MHz to 2480MHz
Channel number:	79
Channel separation:	1 MHz
Antenna type:	PCB Antenna
Antenna gain:	-5.35 dBi

2.3 DESCRIPTION OF TEST MODES

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. RX and TX modes click the RX or TX buttons on the software. See the test software manual for detailed settings.

Test software: fcc_test_tool

Test mode	Power level	Rating power (mW/MHz)	Transmission rate (Mbps)
GFSK	default	1	1
$\pi/4$ DQPSK	default	1	2

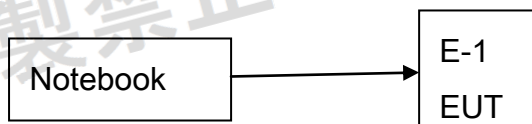
Operation Frequency List:

c	Frequency(MHz)	Channel	Frequency(MHz)
00	2402	40	2442
01	2403	41	2443
02	2404	42	2444
03	2405	43	2445
04	2406	44	2446
05	2407	45	2447
06	2408	46	2448
07	2409	47	2449
08	2410	48	2450
09	2411	49	2451
10	2412	50	2452
11	2413	51	2453
12	2414	52	2454
13	2415	53	2455
14	2416	54	2456
15	2417	55	2457
16	2418	56	2458
17	2419	57	2459
18	2420	58	2460
19	2421	59	2461
20	2422	60	2462
21	2423	61	2463
22	2424	62	2464
23	2425	63	2465
24	2426	64	2466
25	2427	65	2467
26	2428	66	2468
27	2429	67	2469
28	2430	68	2470
29	2431	69	2471
30	2432	70	2472
31	2433	71	2473
32	2434	72	2474
33	2435	73	2475
34	2436	74	2476
35	2437	75	2477
36	2438	76	2478
37	2439	77	2479
38	2440	78	2480
39	2441		

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

2.4 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

Mode 1:



2.5 DESCRIPTION OF NECESSARY ACCESSORIES AND 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.

Necessary accessories

Item	Equipment	Mfr/Brand	Model/Type No.	Serial Number	Note
1	Notebook	HUAWEI	NbDE-WDH9	WCTPM22406001541	N/A

2.6 MEASUREMENT INSTRUMENTS LIST

RF Connected Test equipment				
Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
Vector Signal Generator	Agilen	N5182A	MY50142585	2027-05-17
Wideband Radio Communication Tester	ROHDE & SCHWARZ	CMW500	132488-Sz	2027-05-17
MXA Signal Analyzer	KEYSIGHT	N9020A	MY50531325	2027-05-17
DC Power Supper	KEYSIGHT	E3642A	MY41002348	2027-05-17
RF control box	CDKMV	MW100-RFCB	MW210914PB	2027-01-08
Power detection box	CDKMV	MW101-PSB	MW210914PB-22	2027-01-08

Note: The calibration of the above-mentioned instruments shall be carried out in accordance with Clause C below.

Remark:

(a) Calibration conducted by the National institute of information and Communications Technology (NICT) in Japan (hereinafter referred to as "NICT") or a designated calibration agency under Article 102-18 paragraph (1) in JRL.

(b) Correction conducted pursuant to the provisions of Article 135 or Article 144 of the Measurement Act (Act No. 51 of 1992).

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

(d) Calibration, etc., conducted by using measuring instruments and other equipment listed in the right column of appended table No. 3, which shall have been given any type of calibration, etc. listed above from (a) to (c)

From JRL Article 24 .2, paragraph 4, Item 2 "

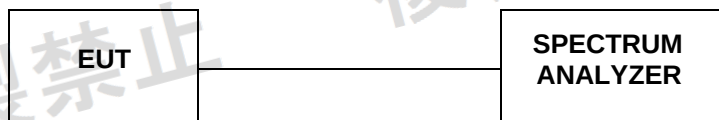
3 TEST CONDITIONS AND RESULTS

3.1 FREQUENCY ERROR

3.1.1 LIMIT

±50ppm

3.1.2 TEST CONFIGURATION



3.1.3 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: 2MHz

RBW: 10 KHz

VBW: 10 KHz

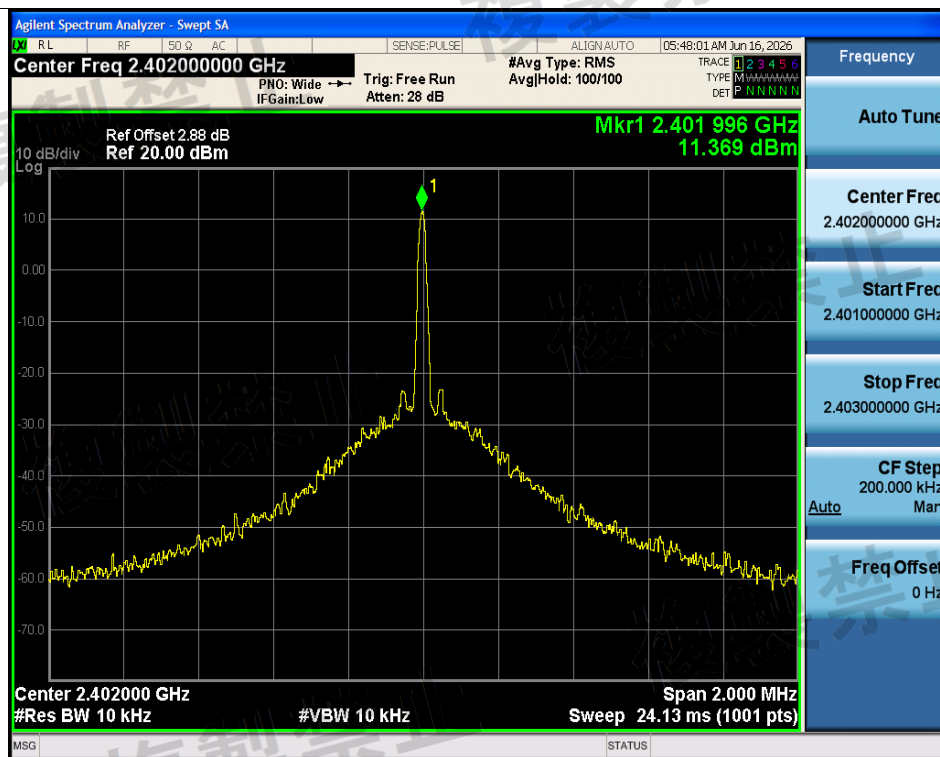
Sweep time: Auto

Detector mode: Positive peak

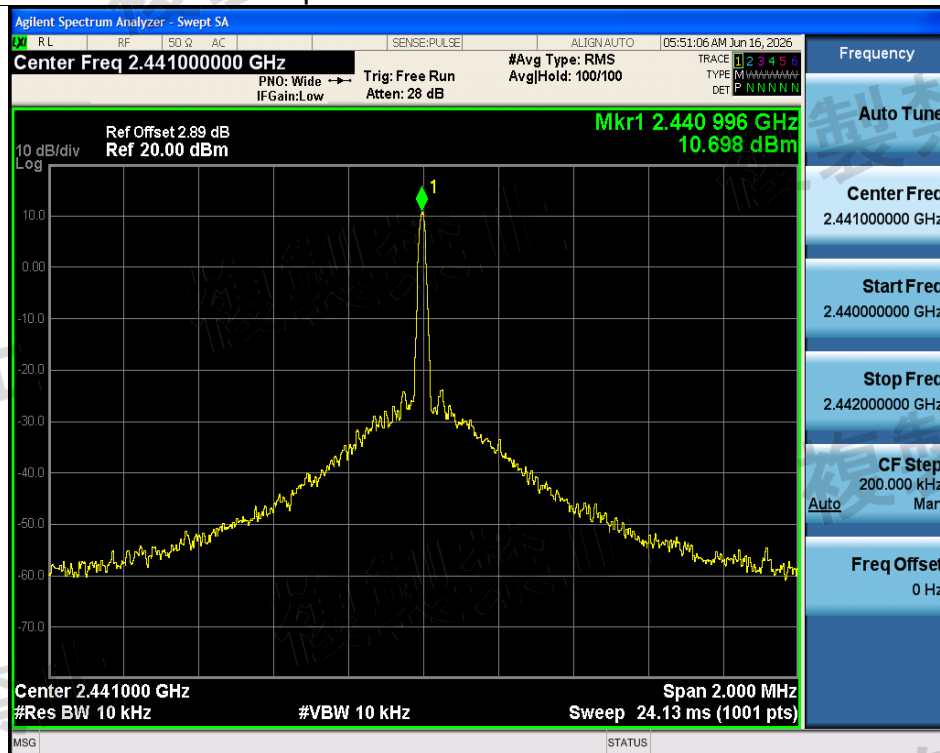
Indication mode: max hold

3.1.4 TEST RESULTS

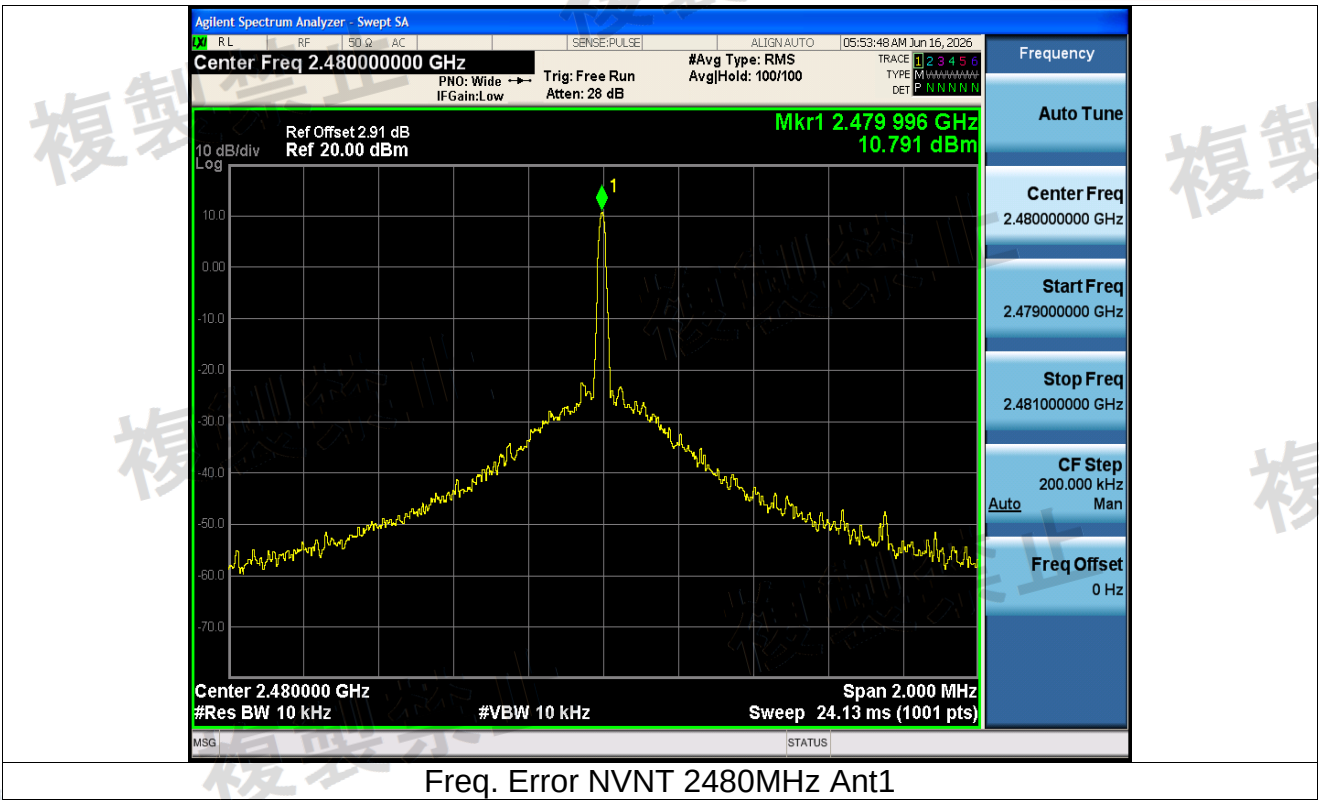
Testvoltage (V)	Frequency (MHz)	Measured Frequency (MHz)	Frequency Error (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
3.7VDC	2402	2401.996	-4000	-1.67	50	Pass
	2441	2440.996	-4000	-1.64	50	Pass
	2480	2479.996	-4000	-1.61	50	Pass



Freq. Error NVNT 2402MHz Ant1



Freq. Error NVNT 2441MHz Ant1



3.2 ANTENNA OUTPUT POWER AND OUTPUT POWER TOLERANCE

3.2.1 LIMIT

1. ≤ 3 mW /MHz(FH, FH+DS , FH+OFDM from 2400 - 2483.5 MHz)
2. ≤ 10 mW/MHz(OFDM OBW<26MHz, DS, FH other than (1))
3. ≤ 5 mW/MHz (OFDM OBW 26 – 38MHz)
4. ≤ 10 mW (Other than (1) & (2) & (3) 10mW)

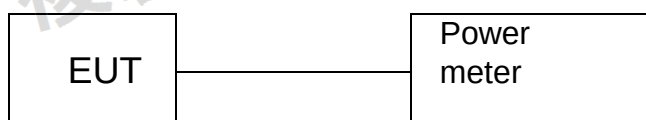
The Output Power Tolerance must be within +20%.

E.i.r.p:

- ≤ 22.14 dBm/MHz(OFDM,DS form 2400-2483.5MHz)

Note:E.I.R.P will not be applied to the transmission antenna which has a gain of 2.14dBi or less.

3.2.2 TEST CONFIGURATION



3.2.3 TEST RESULTS

1. Measure the total power by the Power Meter in a state of hopping mode.
2. Calculate the mean power per 1MHz by dividing the reading level by spread bandwidth.
3. Output power Density (Mw/MHz) = Total power (mW) / spread bandwidth(MHz)

3.2.4 TEST RESULTS

Mode	Frequency (MHz)	Power (dBm)	Power (mW)	Spread BW (MHz)	Power (mW/MHz)	Limit (mW/MHz)	Declared Power (mW/MHz)	Tolerance (%)	Upper Limit (%)	Verdict
BR	hopping	12.5	17.78	72.353	0.246	3	1	-75.4	20	Pass
EDR π/4DQPSK	hopping	18.4	69.18	72.251	0.957	3	1	-4.3	20	Pass

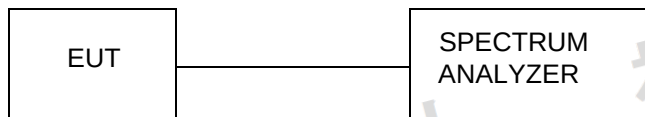
Antenna power=Hopping total power/spread bandwidth.

3.3 OCCUPIED BANDWIDTH AND SPREADING BANDWIDTH

3.3.1 LIMIT

- Occupied bandwidth: FH≤83.5 MHz; OFDM≤38 MHz, DS≤26 MHz; Others≤26 MHz

TEST CONFIGURATION



3.2.5 TEST PROCEDURE

- Setting of SA is following as follow:

RBW: 1MHz

VB: 1MHz

Sweep time: Auto

Sweep Mode: Continuous sweep

Detect mode: Positive peak

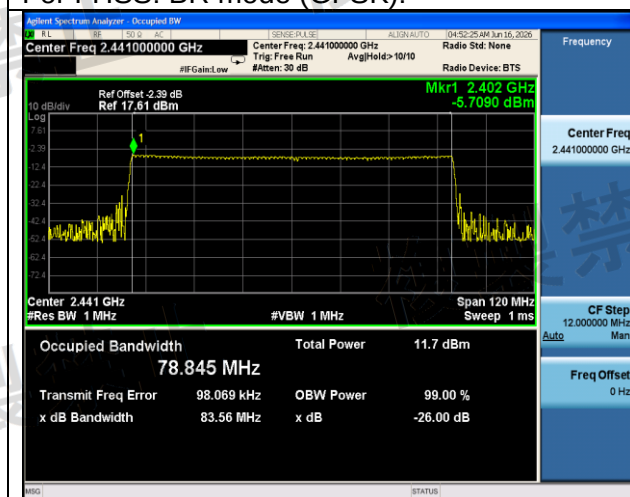
Trace mode: Max hold

- EUT have transmitted the maximum modulation signal and fixed channelize. SA set to 99% of occupied bandwidth to measure occupied bandwidth.

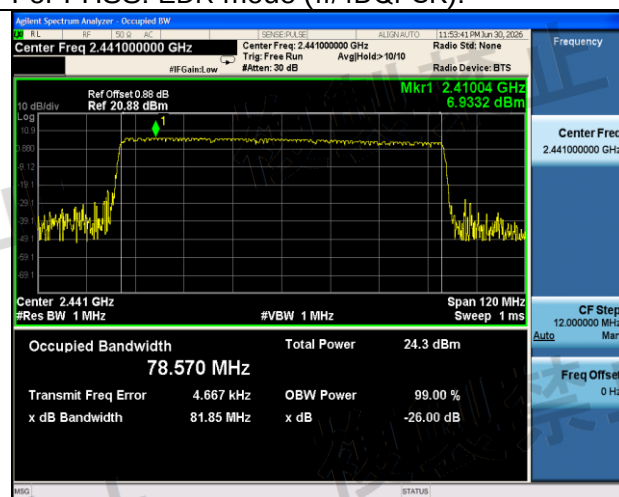
3.2.6 TEST RESULTS

Condition	Mode	Frequency (MHz)	99% OBW (MHz)	Upper Limit (MHz)	Verdict
NVNT	BR	Hopping	78.845	83.5	Pass
NVNT	EDR $\pi/4$ DQPSK	Hopping	78.570	83.5	Pass

Result plot as follows:Bandwidth 99%
For FHSS: BR mode (GFSK):

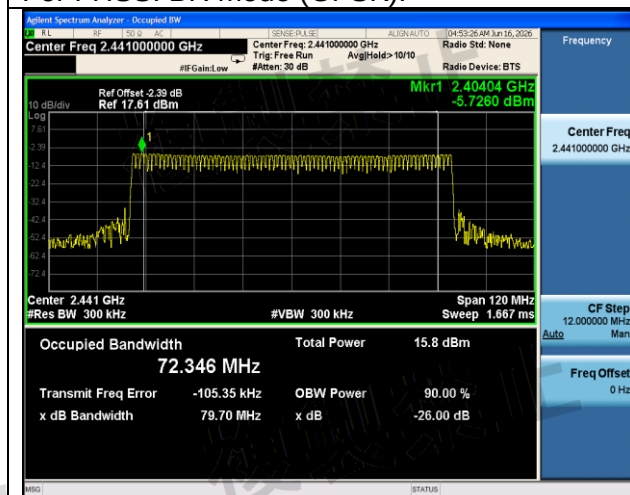


Result plot as follows:Bandwidth 99%
For FHSS: EDR mode ($\pi/4$ DQPSK):

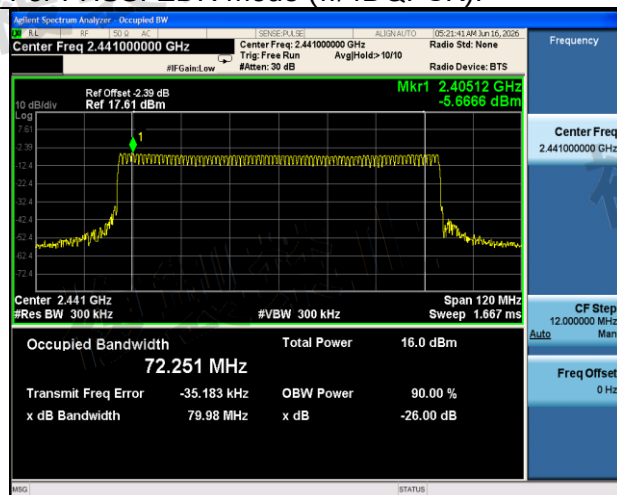


Condition	Mode	Frequency (MHz)	90% OBW (MHz)
NVNT	BR	Hopping	72.346
NVNT	EDR $\pi/4$ DQPSK	Hopping	72.251

Result plot as follows: Bandwidth 90%
For FHSS: BR mode (GFSK):



Result plot as follows: Bandwidth 90%
For FHSS: EDR mode ($\pi/4$ DQPSK):



3.4 DWELL TIME

3.4.1 LIMIT

Item	Limits
Hopping Freq. Dwell Time	$\leq 0.4 \text{ sec (In } 0.4 \text{ sec} \times \text{ spreading rate)}$

3.4.2 MEASURING INSTRUMENTS AND SETTING

Please refer to section 5 in this report. The following table is the setting of the spectrum analyzer.

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	0 MHz
RB	1 MHz
VB	1 MHz
Detector	Peak
Trace	Max Hold
Sweep	Continuous

3.4.3 TEST PROCEDURES

- The transmitter output (antenna port) was connected to the spectrum analyzer
- Set RBW of spectrum analyzer to 1MHz and VBW to 1MHz.
- Use a video trigger with the trigger level set to enable triggering only on full pulses.
- Sweep Time is more than once pulse time.
- Set the center frequency on any frequency would be measure and set the frequency span to zero span.
- Measure the maximum time duration of one single pulse.
- Set the EUT for all packet transmitting.
- Measure the maximum time duration of one single pulse.

3.4.4 TEST SETUP LAYOUT



3.4.5 TEST RESULT

Test result:

Modulation Mode	Channel Number	Packet type	Pluse width (ms)	DwellTime (ms)	Limit (ms)	Verdict
GFSK	0	DH1	0.381	108.64	<400	PASS
	0	DH3	1.637	232.04	<400	PASS
	0	DH5	2.885	274.22	<400	PASS
$\pi/4$ DQPSK	0	DH1	0.390	110.56	<400	PASS
	0	DH3	1.643	232.89	<400	PASS
	0	DH5	2.891	273.20	<400	PASS

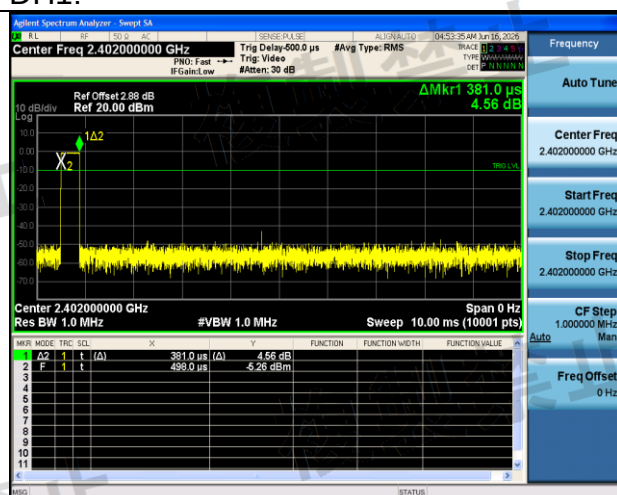
Note:

1. Dwell Time(DH1)=PW*(1600/2/79)*0.4*Spread factor
2. Dwell Time(DH3)=PW*(1600/4/79)*0.4*Spread factor
3. Dwell Time(DH5)=PW*(1600/6/79)*0.4*Spread factor

Result plot as follows:

BR mode (GFSK):

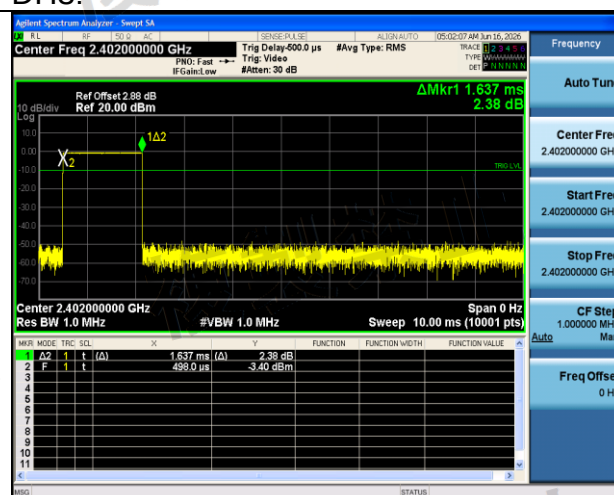
DH1:



Result plot as follows:

BR mode (GFSK):

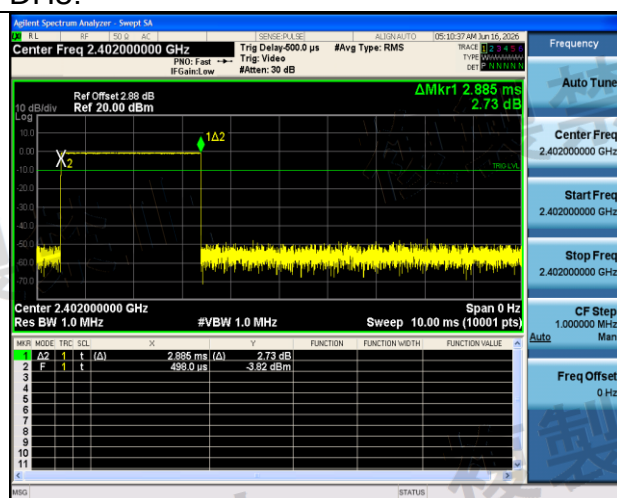
DH3:



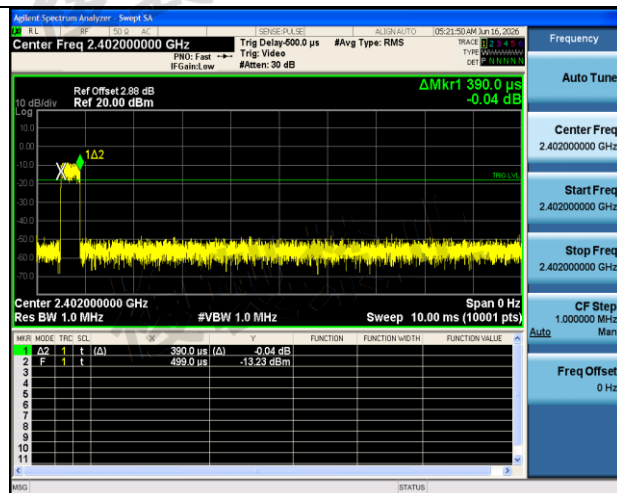
Result plot as follows:

BR mode (GFSK):

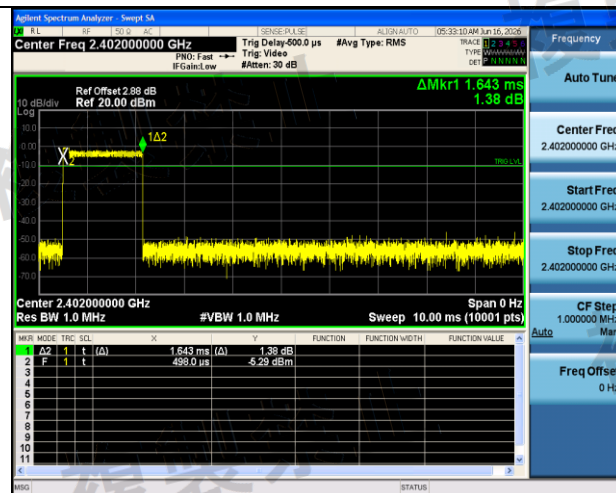
DH5:



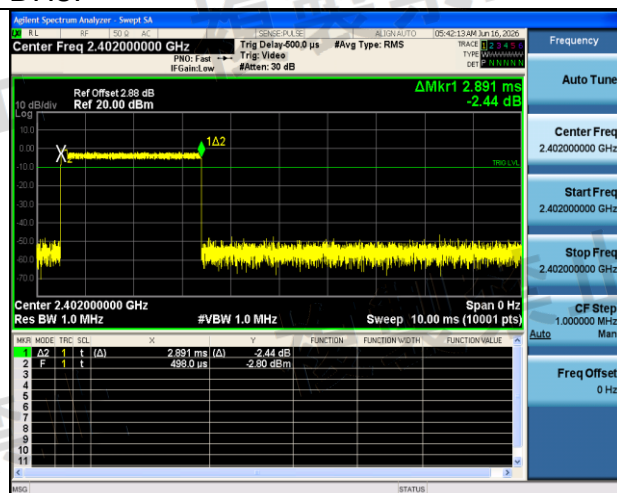
Result plot as follows:
BR mode ($\pi/4$ DQPSK):
DH1:



Result plot as follows:
BR mode ($\pi/4$ DQPSK):
DH3:



Result plot as follows:
BR mode ($\pi/4$ DQPSK):
DH5:



3.5 UNWANTED EMISSION STRENGTH

3.5.1 LIMIT

Below 2387 MHz: 2.5 μ W/MHz or less

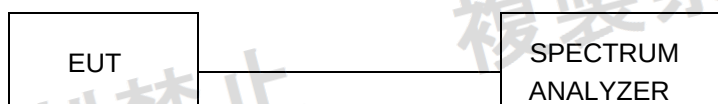
2387 to 2400 MHz: 25 μ W/MHz or less

2483.5 Through 2496.5 MHz: 25 μ W/MHz or less

Over 2496.5 MHz: 2.5 μ W/MHz or less

Test Freq. Range	Limit μ W/MHz	dBm/MHz
$30\text{MHz} \leq f \leq 1000\text{MHz}$	2.5 μ W/MHz or less	-26dBm/MHz
$1000\text{MHz} < f \leq 2387\text{MHz}$	25 μ W/MHz or less	-26dBm/MHz
$2387\text{MHz} < f \leq 2400\text{MHz}$	25 μ W/MHz or less	-16dBm/MHz
$2483.5\text{MHz} \leq f < 2496.5\text{MHz}$	25 μ W/MHz or less	-16dBm/MHz
$2496.5\text{MHz} \leq f < 12500\text{MHz}$	2.5 μ W/MHz or less	-26dBm/MHz

3.5.2 TEST CONFIGURATION



3.5.3 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-12.5GHz

RBW: 100 KHz (30MHz-1GHz), 1MHz (1GHz-12.5GHz)

VBW:100 KHz (30MHz-1GHz), 1MHz (1GHz-12.5GHz)

Sweep time: Auto

Detector mode: Positive peak

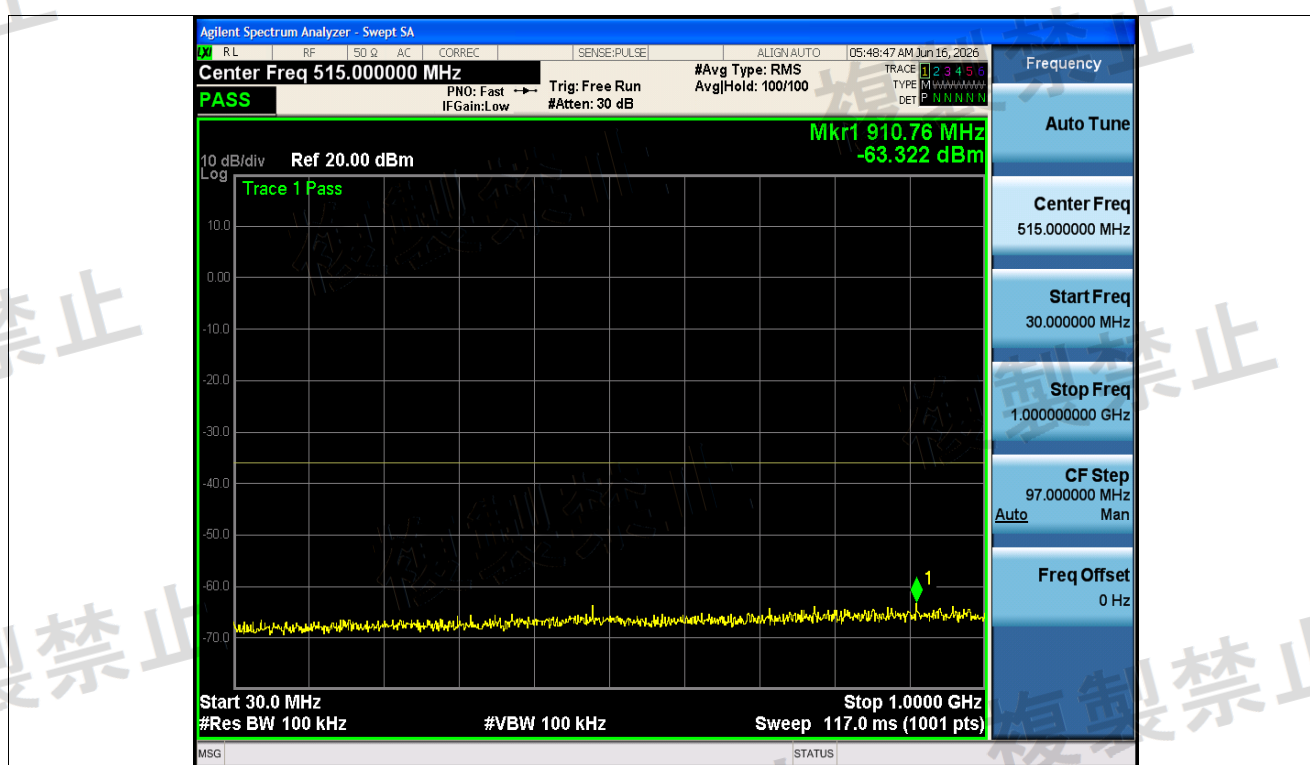
Indication mode: max hold

3.5.4 TEST RESULTS

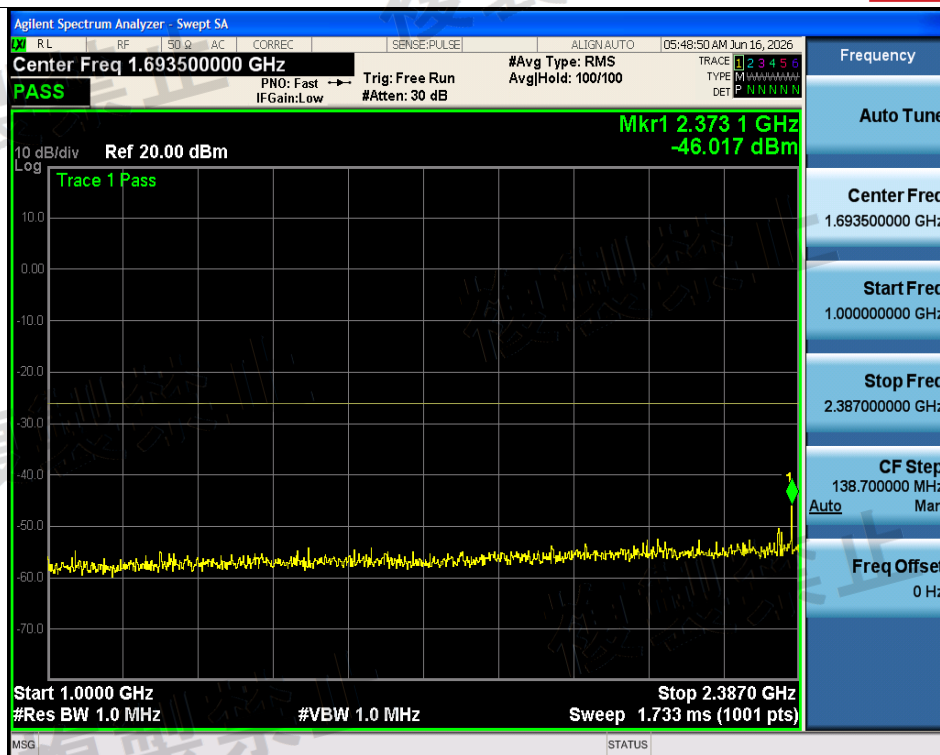
Bluetooth (GFSK, $\pi/4$ -DQPSK) mode have been tested, and the worst result (GFSK) was report as below:

Frequency (MHz)	Range (MHz)	Emission Frequency (MHz)	Max Peak Value (dBm)	Max Peak Value (uW)	Limit Start(uW)	Limit Stop (uW)	Verdict
2402	30-1000	910.76	-53.32*	0.005	2.5	2.5	Pass
2402	1000-2387	2373.13	-46.02	0.025	2.5	2.5	Pass
2402	2387-2400	2399.91	-25.05	3.1261	25	25	Pass
2402	2483.5-2496.5	2485.23	-51.06	0.0078	25	25	Pass
2402	2496.5-13000	11750.08	-46.91	0.0204	2.5	2.5	Pass
2441	30-1000	895.24	-53.75*	0.004	2.5	2.5	Pass
2441	1000-2387	2384.23	-50.67	0.0086	2.5	2.5	Pass
2441	2387-2400	2396.69	-45.96	0.0254	25	25	Pass
2441	2483.5-2496.5	2484.77	-50.27	0.0094	25	25	Pass
2441	2496.5-13000	11739.58	-47.68	0.0171	2.5	2.5	Pass
2480	30-1000	763.32	-53.22*	0.005	2.5	2.5	Pass
2480	1000-2387	2113.76	-52.92	0.0051	2.5	2.5	Pass
2480	2387-2400	2389.37	-50.22	0.0095	25	25	Pass
2480	2483.5-2496.5	2483.63	-30.75	0.8414	25	25	Pass
2480	2496.5-13000	12768.92	-48.15	0.0153	2.5	2.5	Pass

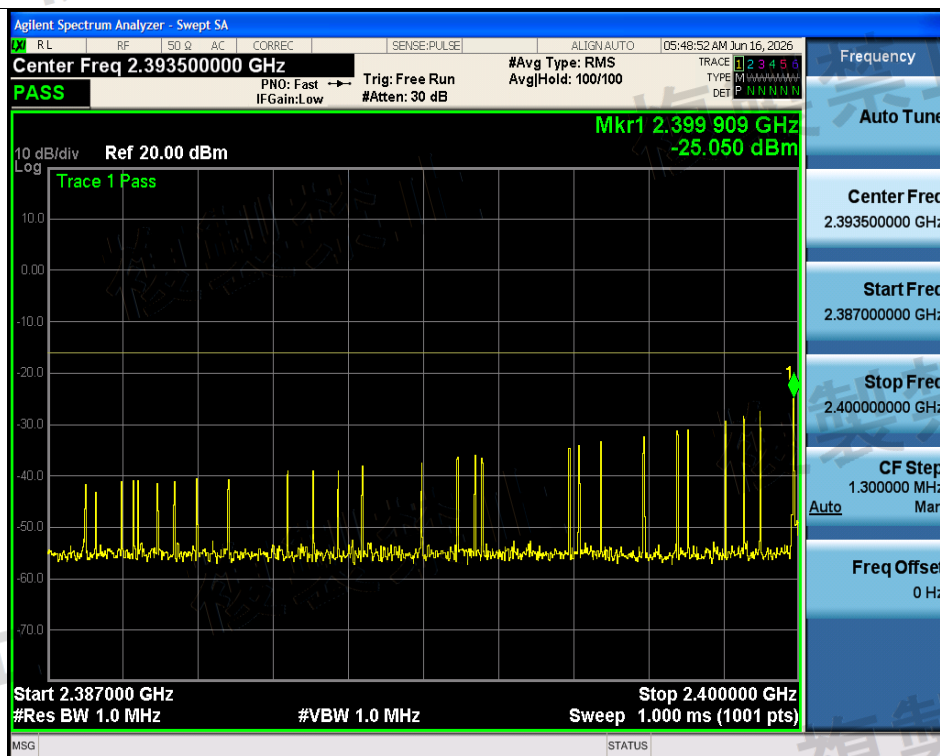
* 30M-1GHz test level (dBm/MHz) = measure level(dBm/100kHz) +10*log (1MHz/100kHz)



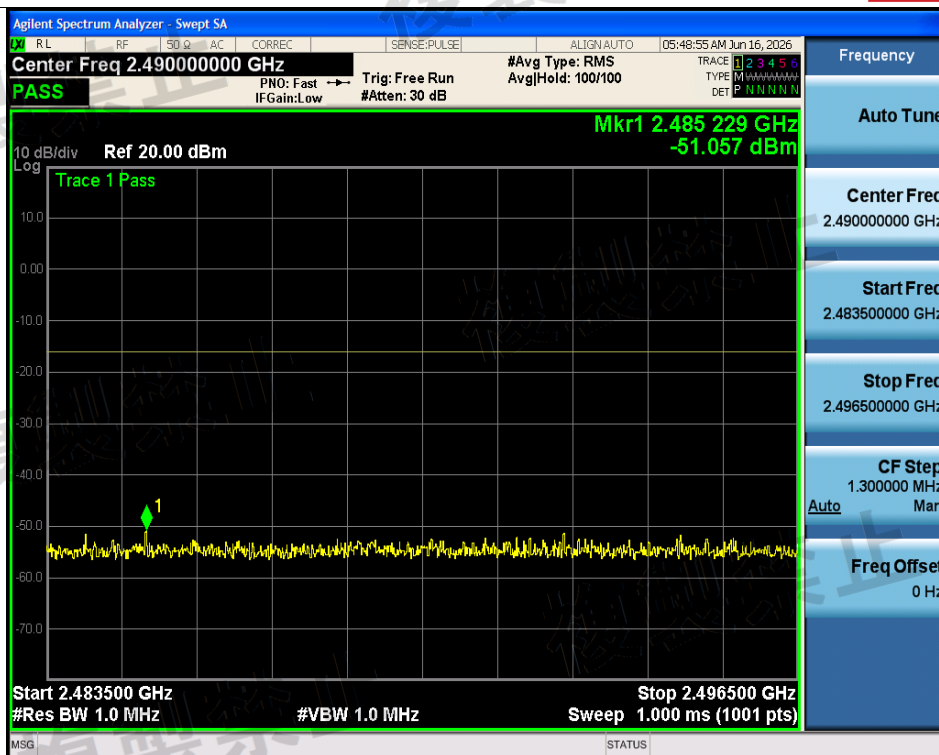
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 @ 30MHz-1000MHz



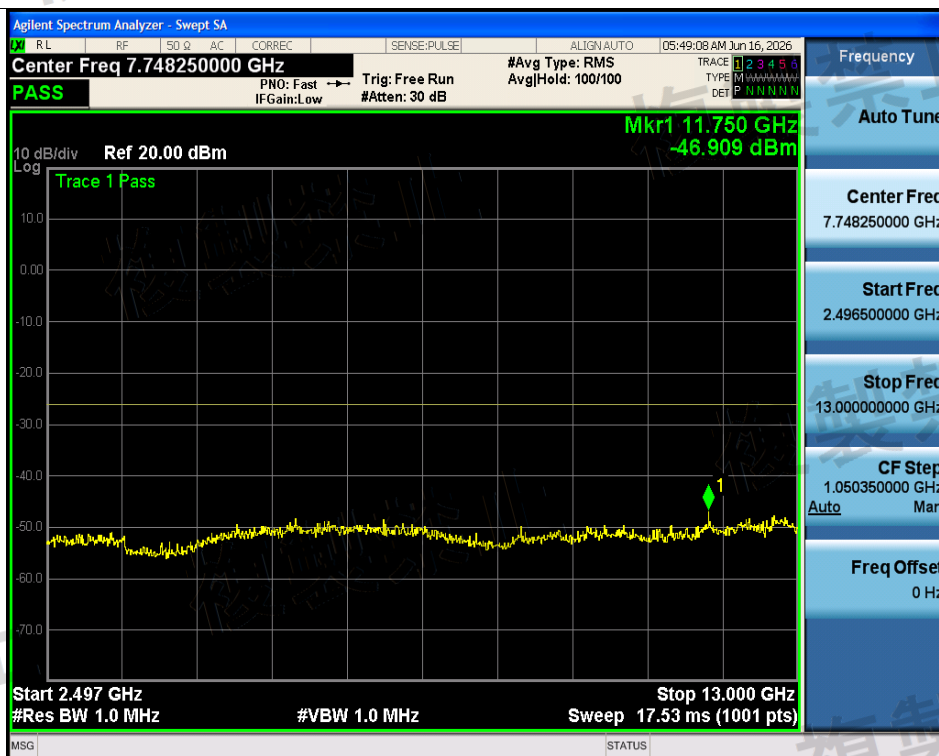
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 @ 1000MHz-2387MHz



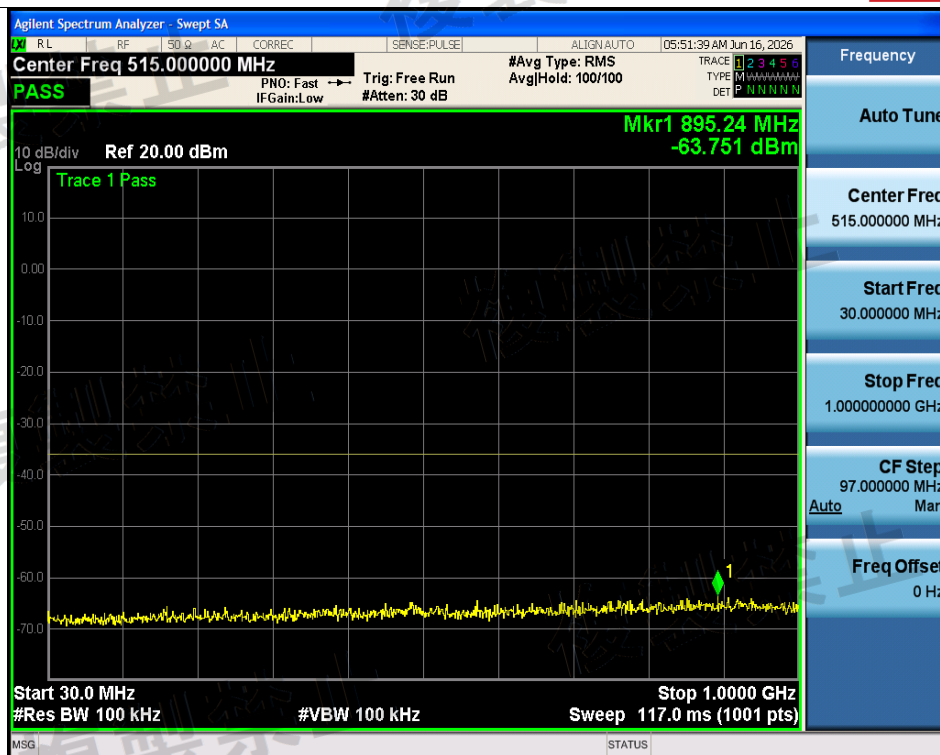
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 @ 2387MHz-2400MHz



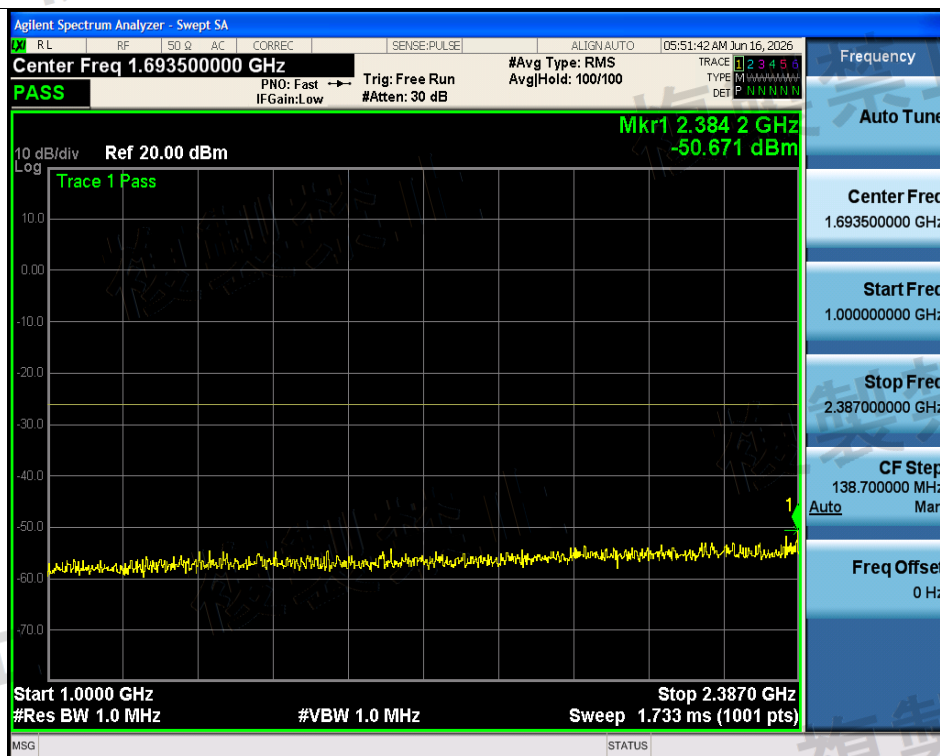
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 @ 2483.5MHz-2496.5MHz



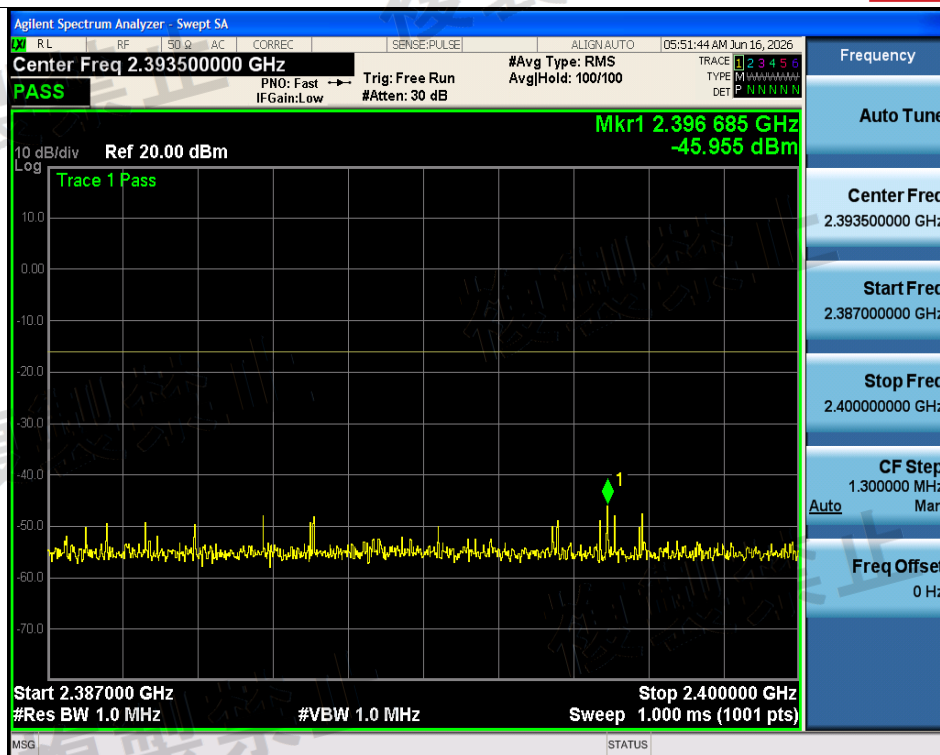
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 @ 2496.5MHz-13000MHz



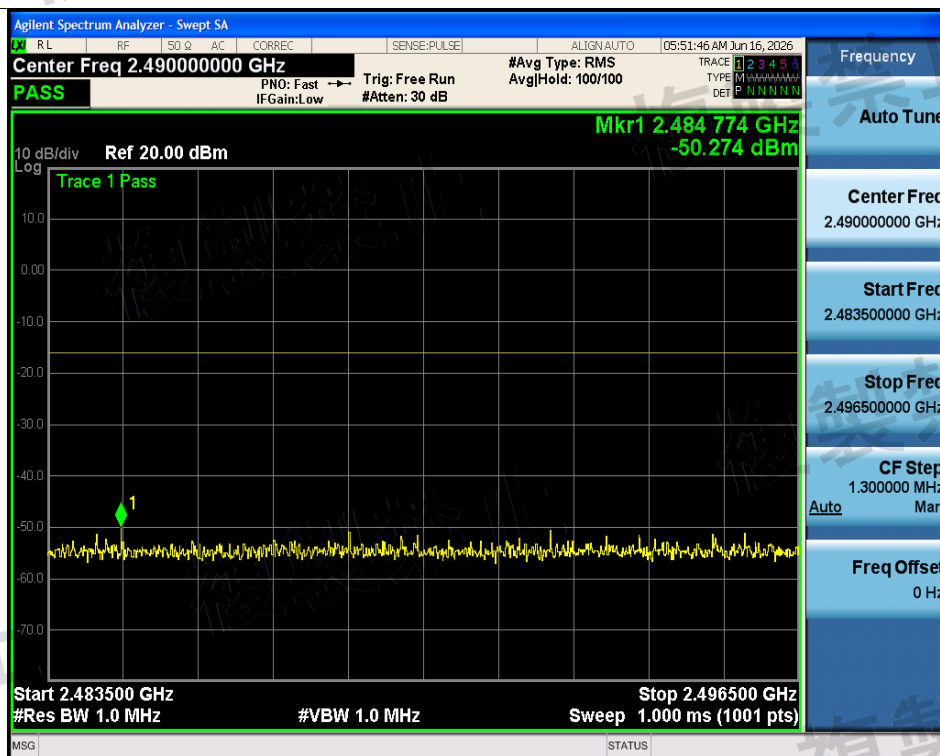
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 @ 30MHz-1000MHz



Tx. Spurious NVNT 1-DH1 2441MHz Ant1 @ 1000MHz-2387MHz



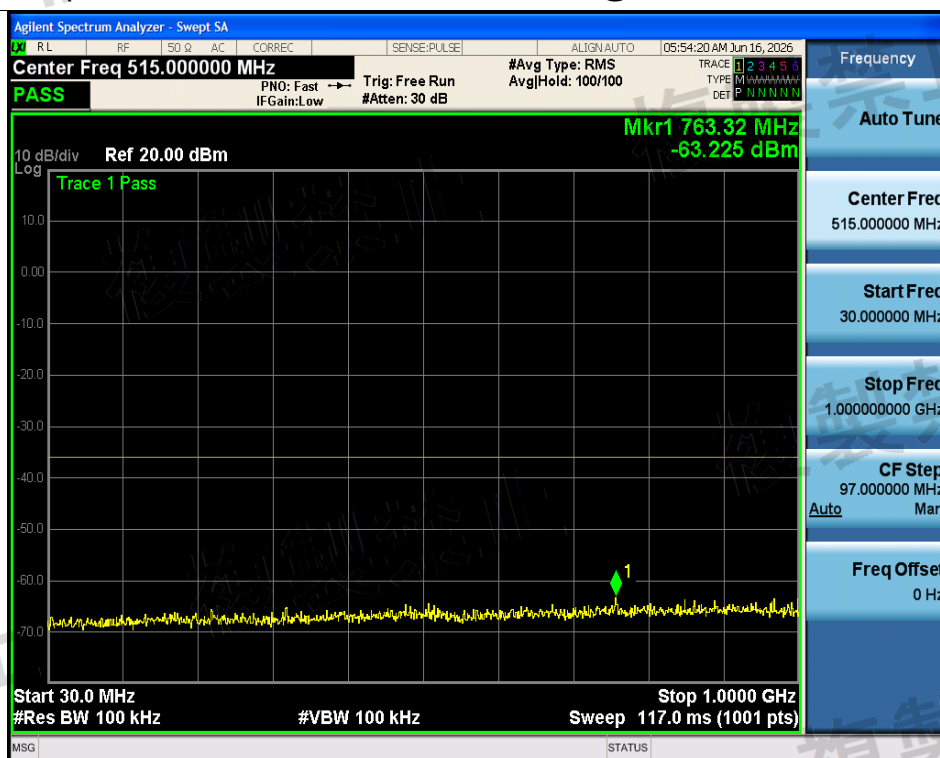
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 @ 2387MHz-2400MHz



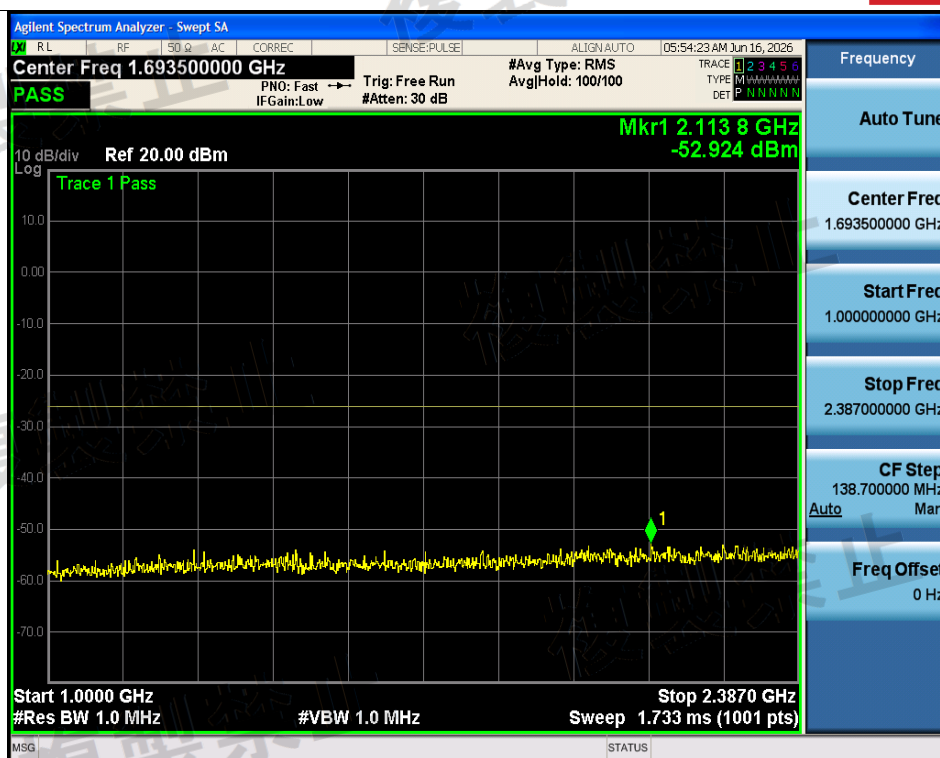
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 @ 2483.5MHz-2496.5MHz



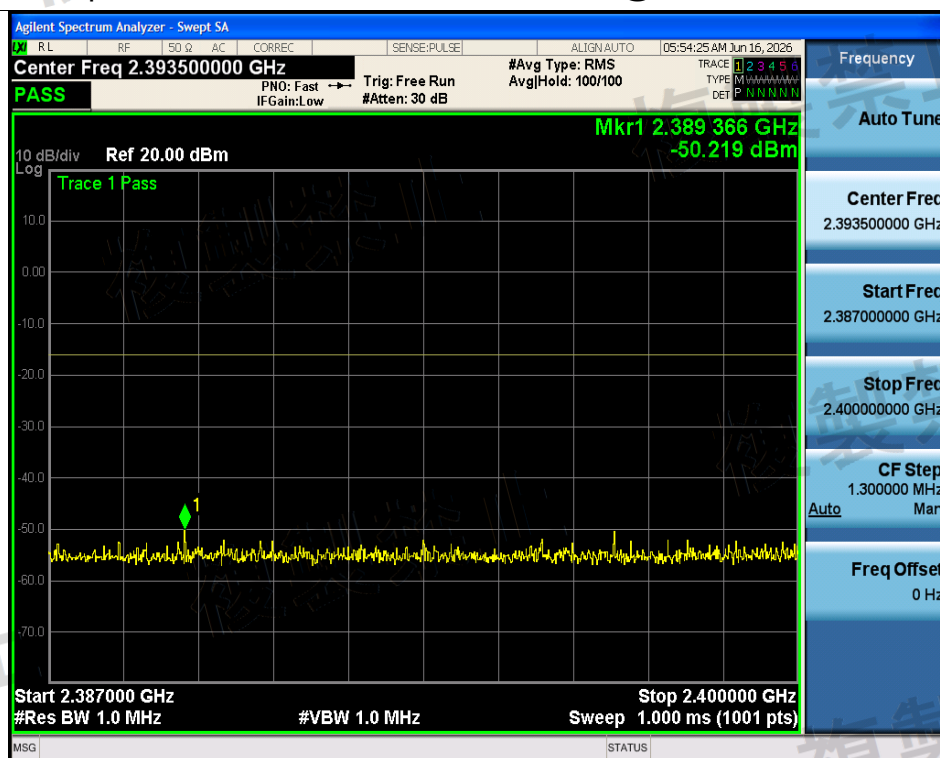
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 @ 2496.5MHz-13000MHz



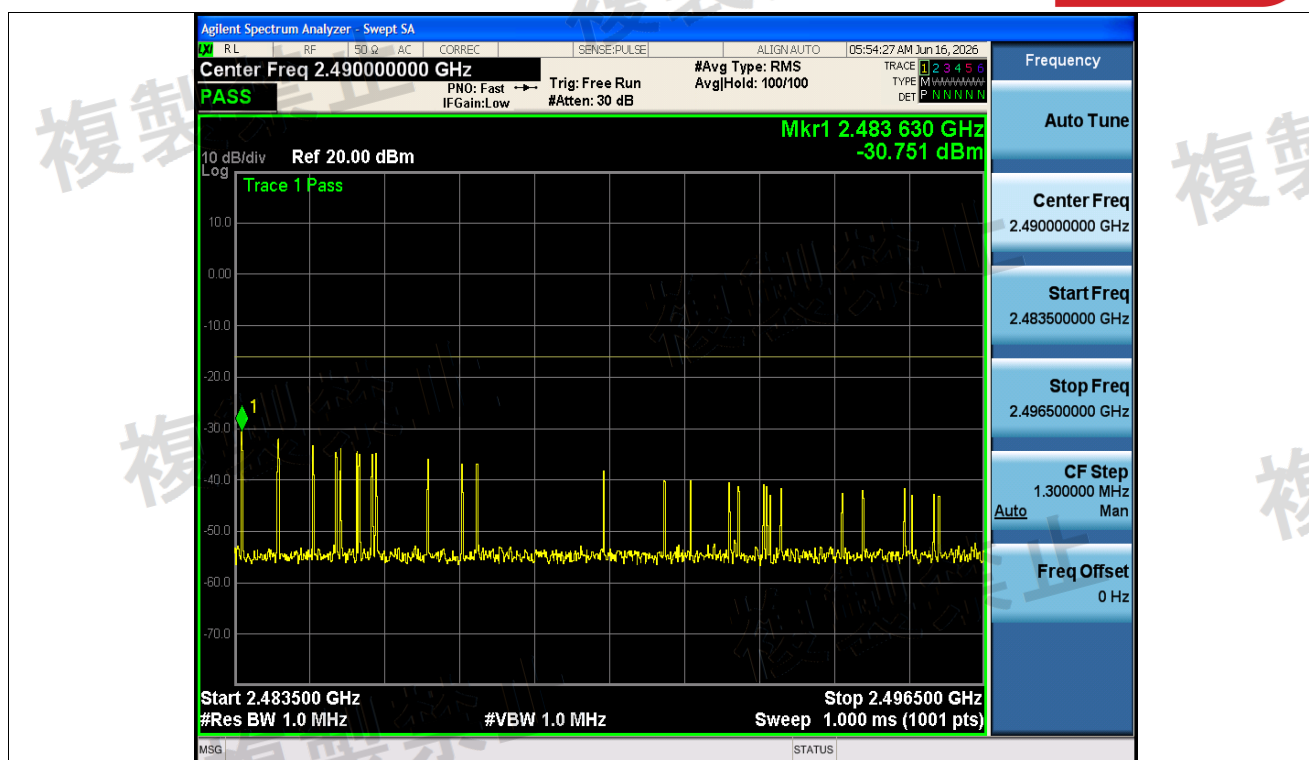
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 @ 30MHz-1000MHz



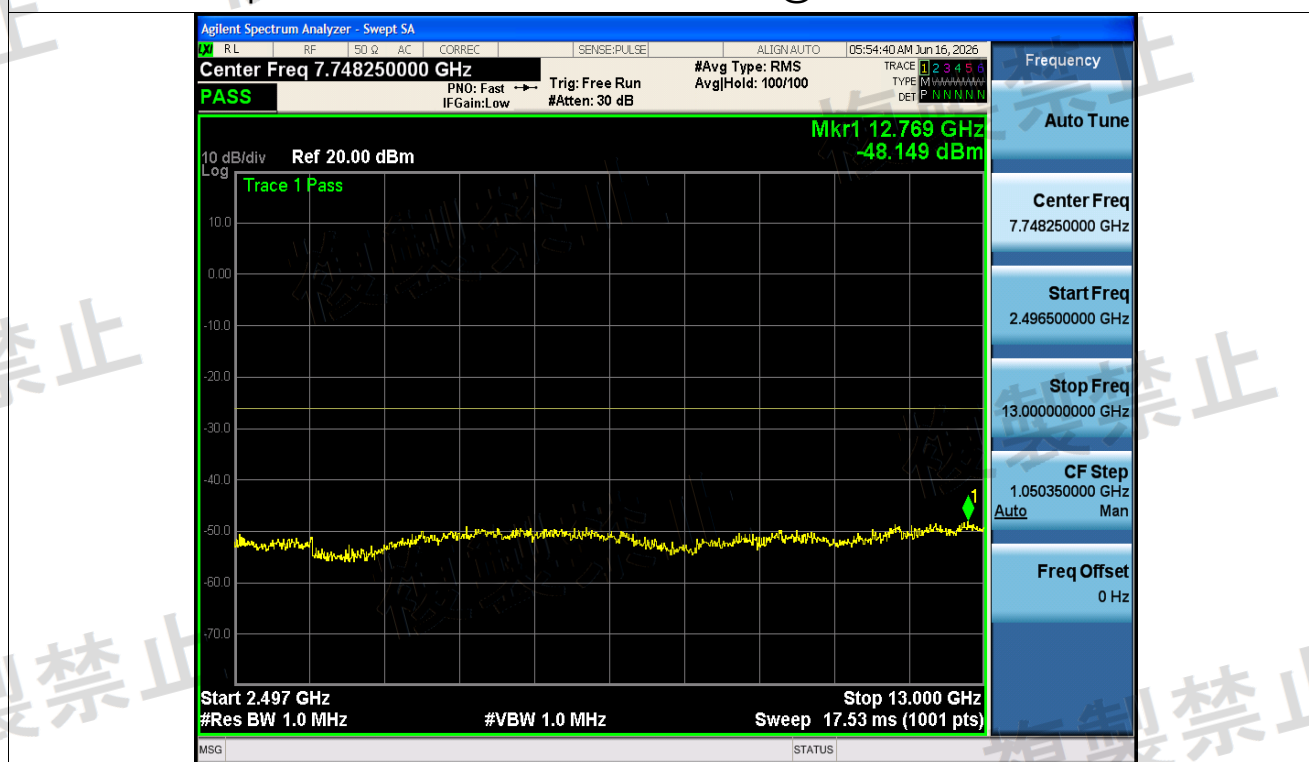
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 @ 1000MHz-2387MHz



Tx. Spurious NVNT 1-DH1 2480MHz Ant1 @ 2387MHz-2400MHz



Tx. Spurious NVNT 1-DH1 2480MHz Ant1 @ 2483.5MHz-2496.5MHz



Tx. Spurious NVNT 1-DH1 2480MHz Ant1 @ 2496.5MHz-13000MHz

3.6 SECONDARY RADIATED EMISSION STRENGTH

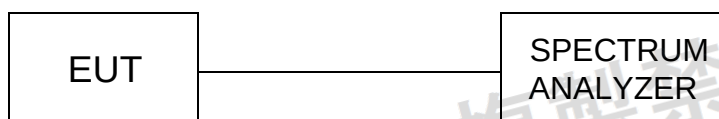
3.6.1 LIMIT

Below 1GHz: 4.0nW or less

Above 1GHz: 20nW or less

Test Freq. Range	Limit (nW)	Limit (dBm)
$30\text{MHz} \leq f \leq 1000\text{MHz}$	4.0	-54
$1000\text{MHz} < f \leq 13000\text{MHz}$	20	-47

3.6.2 TEST CONFIGURATION



3.6.3 TEST PROCEDURE

If power level of lower emissions are more than 1/10 of limit (.4nW for $f < 1\text{GHz}$, 2nW for $f \geq 1\text{GHz}$), all those are to be indicated in the 2nd and 3rd lines. If others are 1/10 or less more of the limit, no necessary to be indicated.

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-13GHz

RBW: 100 KHz (30MHz-1GHz), 1MHz (1GHz-13GHz)

VBW: 100 KHz (30MHz-1GHz), 1MHz (1GHz-13GHz)

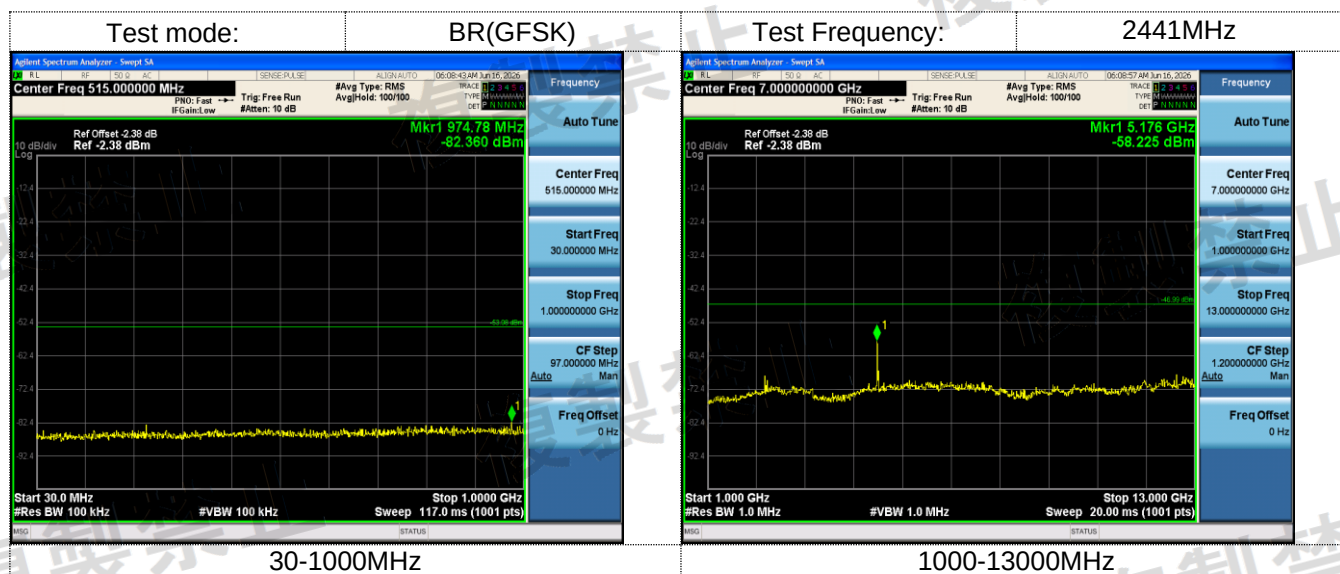
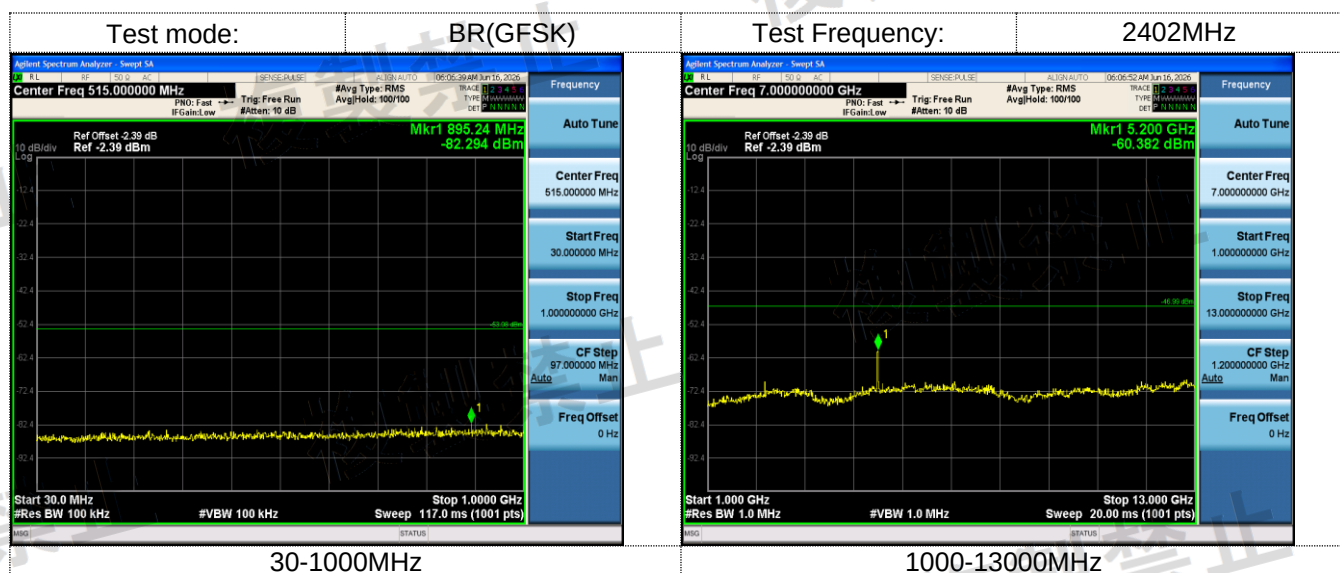
Sweep time: Auto

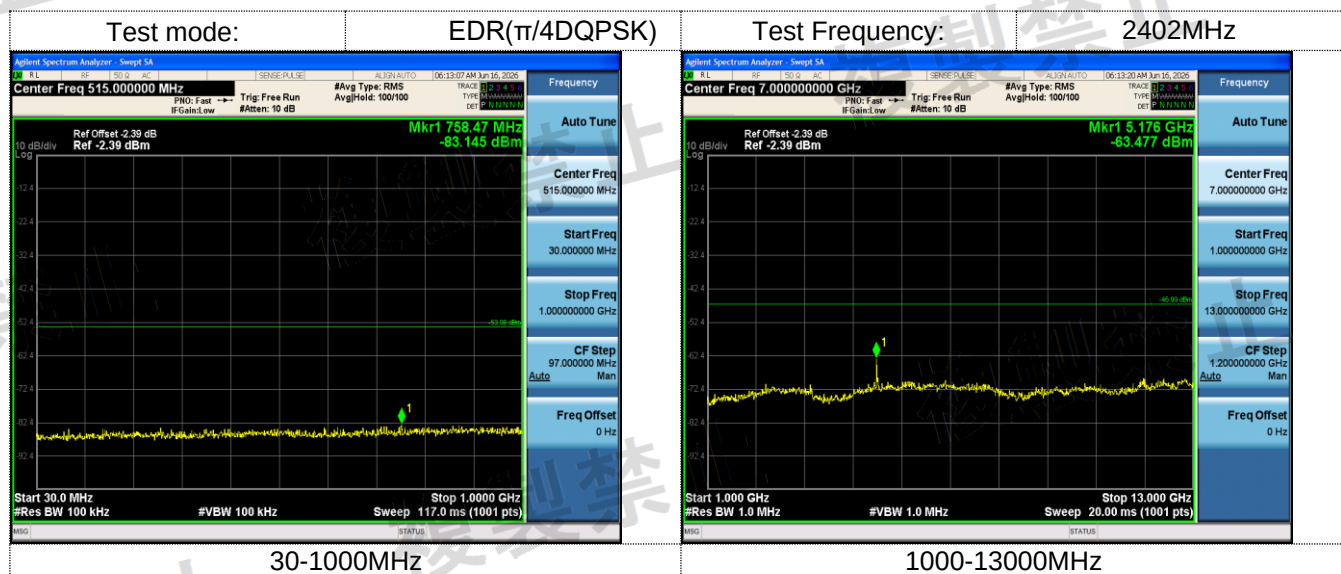
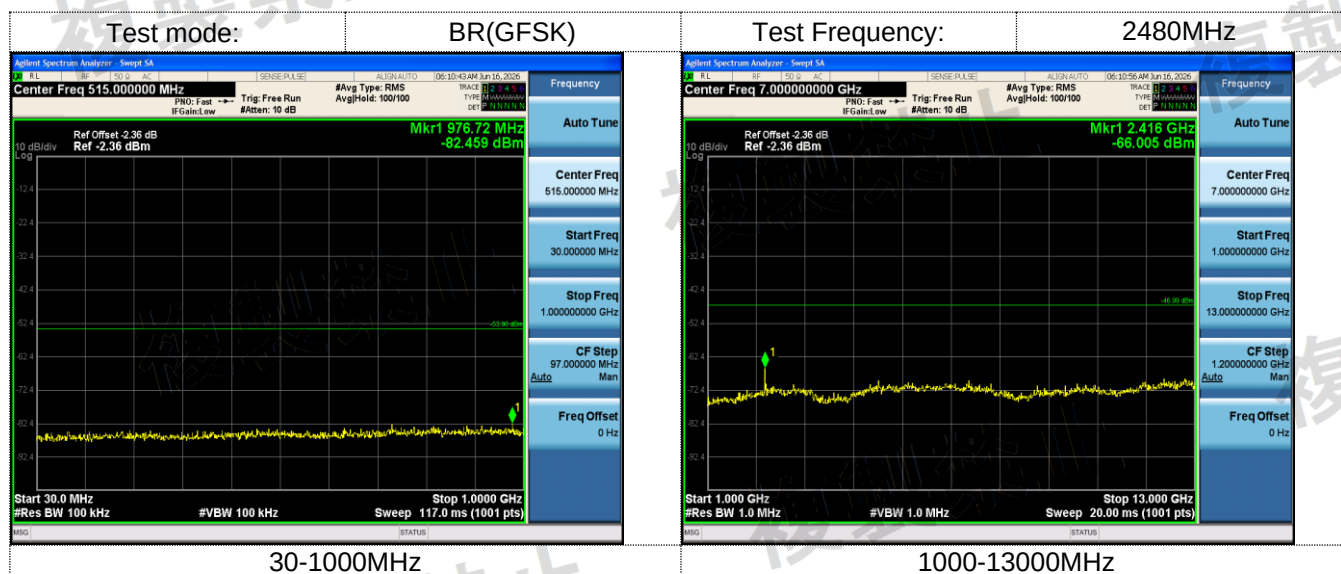
Detector mode: Positive peak

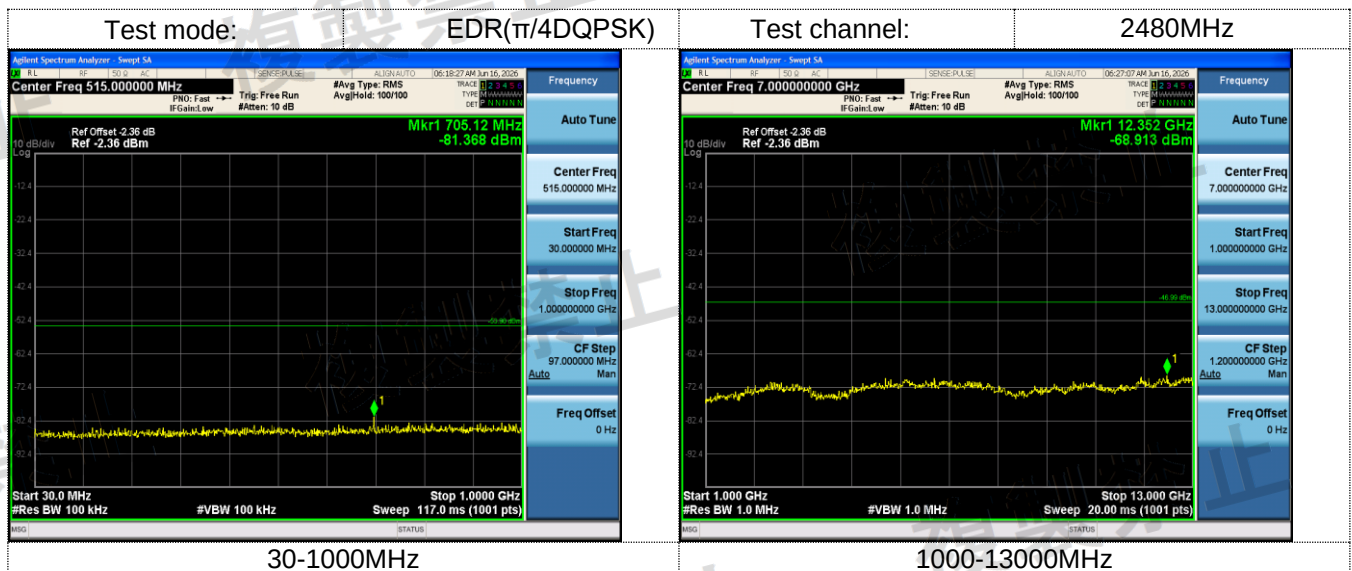
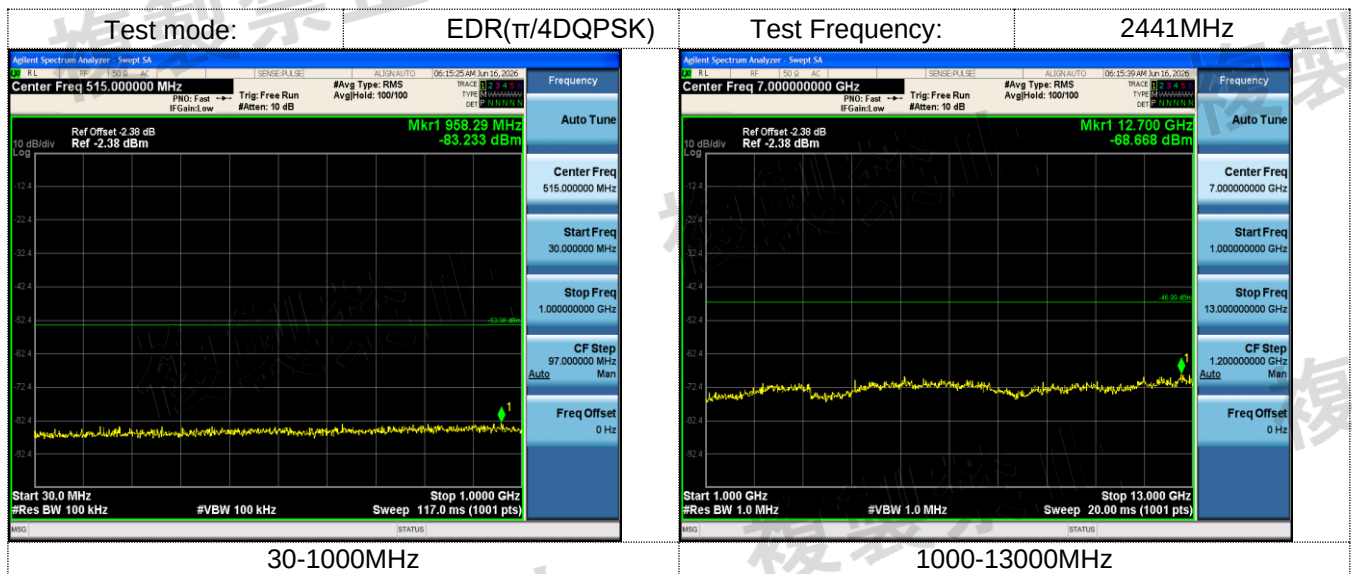
Indication mode: max hold

3.6.4 TEST RESULTS

Mode	Frequency (MHz)	Range (MHz)	Emission Frequency (MHz)	Max Peak Value (dBm)	Max Peak Value (nW)	Limit (nW)	Verdict
BR(GFSK)	2402	30-1000	895.24	-82.29	0.0059	4	Pass
	2402	1000-13000	5200.00	-60.38	0.9162	20	Pass
	2441	30-1000	974.78	-82.36	0.0058	4	Pass
	2441	1000-13000	5176.00	-58.23	1.5031	20	Pass
	2480	30-1000	976.72	-82.46	0.0057	4	Pass
	2480	1000-13000	2416.00	-66.01	0.2506	20	Pass
EDR(π /4DQPSK)	2402	30-1000	758.47	-83.15	0.0048	4	Pass
	2402	1000-13000	5176.00	-63.48	0.4487	20	Pass
	2441	30-1000	958.29	-83.23	0.0048	4	Pass
	2441	1000-13000	12700.00	-68.67	0.1358	20	Pass
	2480	30-1000	705.12	-81.37	0.0073	4	Pass
	2480	1000-13000	12352.00	-68.91	0.1285	20	Pass







3.7 TRANSMISSION ANTENNA GAIN(EIRP ANTENNA POWER MEASUREMENT)

3.7.1 Limit

Item	Limits
EIRP Power Density	$\leq 16.91\text{dBm/MHz}$ (FH form 2427 - 2470.75 MHz) $\leq 22.14\text{dBm/MHz}$ (OFDM,DS from 2400~2483.5MHz) $\leq 22.14\text{dBm}$ (Other from 2400~2483.5MHz)
Note: This test item is not applied for radio equipment with equivalent isotropic radiation power lower than 12.14dBm/MHz, but Antenna Power(Conducted) limit is 10 mW/MHz (10 dBm/MHz), So the test item will not be applied to the transmission antenna which has a gain of 2.14dBi or less	

3.7.2 MEASURING INSTRUMENTS AND SETTING

Please refer to section 5 in this report. The following table is the setting of spectrum analyzer.

Spectrum Parameter	Setting
Attenuation	Auto
RB/VB	1 MHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

3.7.3 TEST PROCEDURES

Attenuation of the attenuator shall be set to provide an optimum input level to the spectrum analyzer.

- Set the spectrum analyzer as follows for searching the frequency that outputs the maximum antenna power:

Center frequency:	Test frequency
Frequency sweep width:	Approximately twice of the occupied bandwidth
Resolution bandwidth:	1MHz
Video bandwidth:	Approximately three times of the resolution bandwidth
Y-axis scale:	10dB/Div
Sweep time:	Minimum time to ensure the measuring accuracy (In the case of burst wave, one burst shall be included per data point.)
Trigger condition:	Free run
Data points:	400 points or more
Sweep mode:	Continuous sweep
Detection mode:	Positive peak
Display mode:	Maximum hold

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

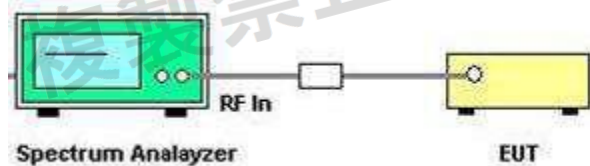
In the case of bandwidth above RBW, connect to power meter directly.

- Calculate antenna power density by the formula below $PT(\text{mW/MHz}) = 10 \times \text{Conducted power density}(\text{dBm})/10$

- EIRP = Antenna Power + Antenna Gain

3.7.4 TEST SETUP LAYOUT

For EUT radiation measurement



3.7.5 TEST DEVIATION

There is no deviation with the original standard.

3.7.6 EUT OPERATION DURING TEST

The EUT was programmed to be in continuously transmitting mode.

3.7.7 RESULTS OF TRANSMISSION ANTENNA GAIN

Mode	Frequency (MHz)	Antenna	Antenna Power (mW/MHz)	Antenna Power (dBm/MHz)	Gain (dBi)	EIRP Power (dBm/MHz)	Limit (dBm/MHz)	Verdict
GFSK	hopping	Ant1	0.246	-6.09	-5.35	-11.44	6.91	Pass
Π/4-DQPSK	hopping	Ant1	0.957	-0.19	-5.35	-5.54	6.91	Pass

Note: EIRP = Output Power + Antenna Gain

Transmitting Antenna Absolute Gain: 12.14 dBi or less (When an E.I.R.P. is less than the limit, the shortage can be compensated for by the gain of the transmitting antenna.)

3.8 CONSTRUCTION PROTECTION METHOD

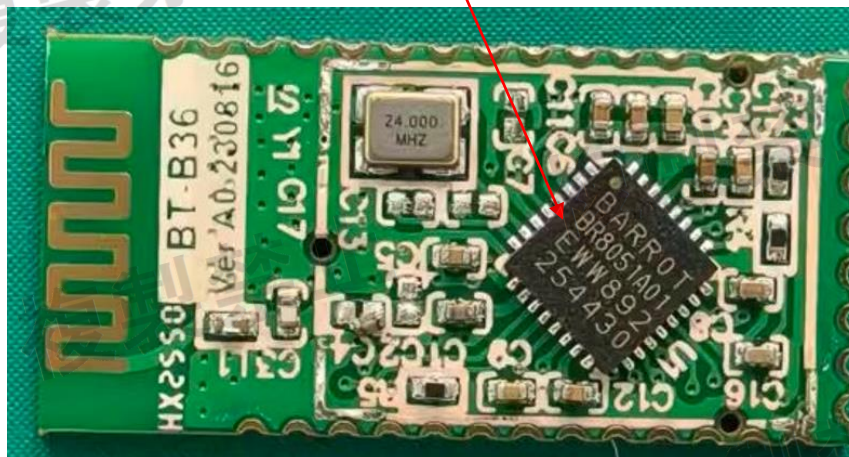
3.8.1 Requirement

We apply the product for Japan RF certification. All high-frequency section and modulation section packet in one IC ,and The RF IC is Soldering BT RF IC in PCB, the chip pin spacing is very small, the customer can't change it. Please refer to following for photo for details.

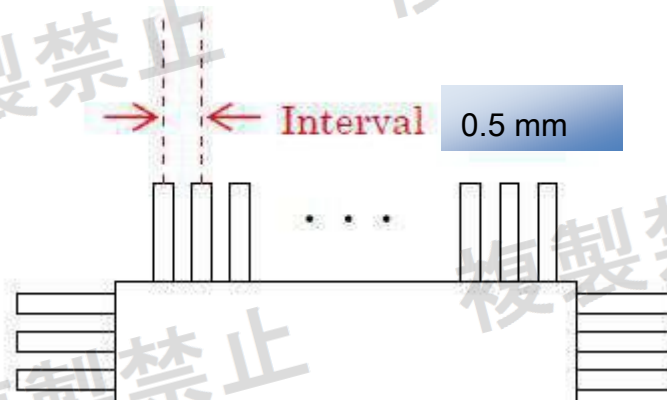
The interval of terminals: 0.5mm

Number of the terminals: 32

BT/BLE Chip

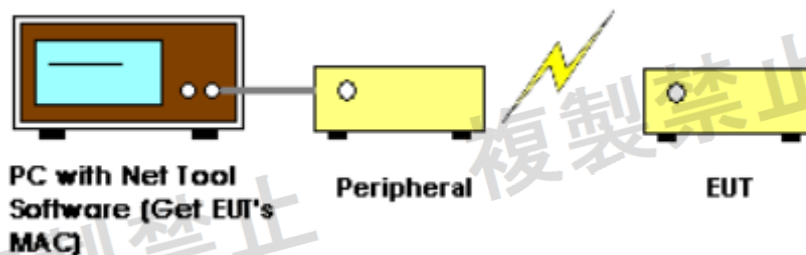


interval of terminals:



3.9 INTERFERENCE PREVENTION FUNCTION

3.9.1 For EUT communication link measurement



3.9.2 Requirement

Clarify, the one automatically to transmit and to receive identification code with the wireless equipment of the wireless station used in the same premises.

3.9.3 Interference Prevention Function Confirm

A communication link was made where the ID code is correct (Identical).

3.9.4 TEST PROCEDURE

1. Connect the EUT in network
2. Open the software
3. We can get the information as follows:
MAC: 10:23:81:8E:E1:C2

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