

Test Report

Verified code: 215690

Report No.: E202501107526-16EN

Customer: Huizhou Desay SV Automotive Co., Ltd.

Address: No.103,Hechang 5th Road West, Zhongkai National Hi-tech Industrial Development Zone, Huizhou, Guangdong, P.R. China.

Sample Name: Remote Controller

Sample Model: CL595

Receive Sample Date: Jan.23,2025

Test Date: Feb.10,2025 ~ Feb.10,2025

Reference Document: ARIB STD-T66 Ver.3.8
MIC Article 2 Paragraph 1 Item 19

Test Result: Pass

Prepared by: Huang Lifang
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Wu HaotingApproved by: Xiao Liang
Xiao Liang

GRG METROLOGY & TEST GROUP CO., LTD.

Issued Date: 2025-03-21

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5. This testing report is only for scientific research, teaching, internal quality control, etc.

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REPORT ISSUED HISTORY

Report Version	Report No.	Description	Compile Date
1.0	E202501107526-16EN	Original Issue	2025-03-10

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1. TEST RESULT SUMMARY

ARIB STD-T66 Ver.3.8 MIC Article 2 Paragraph 1 Item 19		
Standard Section	Test Type	Test Result
Article 5	Frequency Error	PASS
Article 6	Occupied Bandwidth	PASS
Article 49.20(1); h & i	Spreading Bandwidth and Spreading Rate	Report only
Article 7	Unwanted Emissions Intensity	PASS
Article 14	Antenna Power and Antenna Power Tolerance	PASS
Article 24	Limitation of Collateral Emission of Receiver	PASS
Article 9.4, Article 6.2	Radio Interference Prevention Capability	Good
Article 49.20(1);a	Construction Protection Confirmation Method	PASS
Article 49.20(1);e	Transmission Antenna Gain(EIRP Antenna Power)	N/A ¹
Article 49.20(1);f	Transmission Radiation Angle Width(3dB Beamwidth)	N/A ²
Article 49.20(1);k	Dwell Time (FH employed)	PASS

Note: 1. Not applicable, because the EIRP power less than 12.14dBm/MHz.

2. Not applicable, because the EIRP power less than 6.91dBm/MHz.

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2. GENERAL DESCRIPTION OF EUT

2.1 APPLICANT

Name: Huizhou Desay SV Automotive Co., Ltd.
Address: No.103,Hechang 5th Road West, Zhongkai National Hi-tech Industrial Development Zone, Huizhou, Guangdong, P.R. China.

2.2 MANUFACTURER

Name: Huizhou Desay SV Automotive Co., Ltd.
Address: No.103,Hechang 5th Road West, Zhongkai National Hi-tech Industrial Development Zone, Huizhou, Guangdong, P.R. China.

2.3 FACTORY

Name : Huizhou Desay SV Automotive Co., Ltd.
Address : No.103,Hechang 5th Road West, Zhongkai National Hi-tech Industrial Development Zone, Huizhou, Guangdong, P.R. China.

2.4 BASIC DESCRIPTION OF EQUIPMENT UNDER TEST

Equipment: Remote Controller
Model No.: CL595
Adding Model: /
Model Different: /
Trade Name: DESAY SV
Power Supply: DC 3.7V power supplied by Rechargeable Li-ion Battery;
DC 5V power supplied by Charging base.
Battery Specification: Model: 544744
Nominal Capacity: 3.7V,1630mAh,6.031Wh
Frequency Range: 2402MHz ~ 2480MHz
Modulation type: GFSK, Pi/4-DQPSK, 8DPSK
Conducted Antenna Power: GFSK: 0.0459mW/MHz
Pi/4-DQPSK: 0.0434mW/MHz
8DPSK: 0.0420mW/MHz
Rated Power: GFSK: 0.046mW/MHz
Pi/4-DQPSK: 0.044mW/MHz
8DPSK: 0.042mW/MHz
Antenna Specification: Metal Antenna with -4.4dBi (max)
Sample submitting way: ☒ Provided by customer ☐ Sampling
Temperature Range: -20℃~+60℃

Hardware Version: HW003

Software Version: i3E218

Sample No: E202501107526-0004

Note: 1.The EUT antenna gain is provided by the applicant. This report is made solely on the basis of such data and/or information. We accept no responsibility for the authenticity and completeness of the above data and information and the validity of the results and/or conclusions.

2.5 TEST OPERATION MODE

Mode No.	Description of the modes
1	Bluetooth fixed frequency transmitting
2	Bluetooth receiving
3	Bluetooth normal mode

2.6 FREQUENCY BAND AND THE TEST FREQUENCY

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

* is the test frequency

2.7 LOCAL SUPPORTIVE

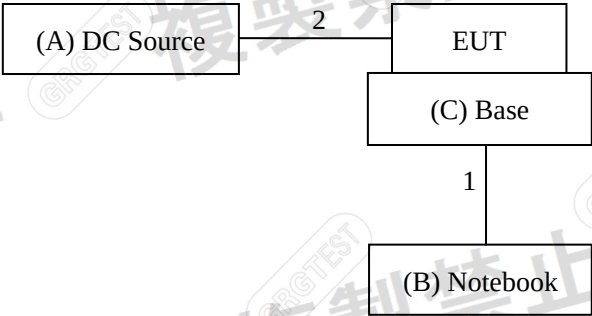
No.	Name of Equipment	Manufacturer	Model	Serial Number	Note
A	DC Source	Keysight	E36231A	MY59001135	/
B	Notebook	DELL	Latitude3300	2C6CFW2	/
C	Base	/	/	/	/

No.	Cable Type	Qty.	Shielded Type	Ferrite Core(Qty.)	Length
1	USB cable	1	No	0	1.2m
2	DC cable	1	No	0	1.0m

Test software:

Software version	Test level
QRCT	7

2.8 TEST SETUP



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3. LABORATORY AND ACCREDITATIONS

3.1 LABORATORY

The tests & measurements refer to this report were performed by Shenzhen EMC Laboratory of GRG METROLOGY & TEST GROUP CO., LTD.

Add.: No.1301 Guangang Road Xinlan Community, Guanlan Street, Longhua District
Shenzhen, 518110, People's Republic of China.

P.C.: 518110

Tel : 0755-61180008

Fax: 0755-61180008

3.2 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in ETSI EN TR 100 028-1 (i.15) and ETSI EN 100 028-2 (i 8):

Measurement	Uncertainty
RF frequency	6.0×10^{-6}
RF power conducted	0.78 dB
Occupied channel bandwidth	0.40 dB
Unwanted emission, conducted	0.68 dB
Humidity	6.0 %
Temperature	2.0°C

This uncertainty represents an expanded uncertainty factor of $k=2$.

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4. LIST OF USED TEST EQUIPMENT AT GRGT

Name of Equipment	Manufacturer	Model	Serial Number	Calibration Agency	Calibration Due
Spectrum Analyzer	R&S	FSW43	102072	GRGTEST	2025-06-14
Automatic power measuring unit	TONSCEND	JS0806-2	21B8060365	GRGTEST	2025-11-15
Multimeter	SATA	03055	ST202210050621	GRGTEST	2025-10-11
BT/WIFI SYSTEM	TONSCEND	JS1120-3	/	/	/

Note:

- 1) 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).
- 2) The calibration interval of the above test instruments is 12 months.
- 3) GRGTEST full name is GRG METROLOGY & TEST GROUP CO., LTD.
- 4) The address of the Calibration Agency GRGTEST is No.1301 Guanguang Road Xinlan Community, Guanlan Street, Longhua District Shenzhen, 518110, People's Republic of China.

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5. TEST METHODOLOGY& CONDITIONS

DC input (V)	DC output in modulation circuit (V)	voltage variation
3.70	3.257	Reference
3.33	3.237	-0.61%
4.07	3.274	+0.52%

Apply the input DC voltage to the EUT and vary the DC input voltage with +10% and -10%, then check how much the "output voltage" varies at one measuring points within the radio section:

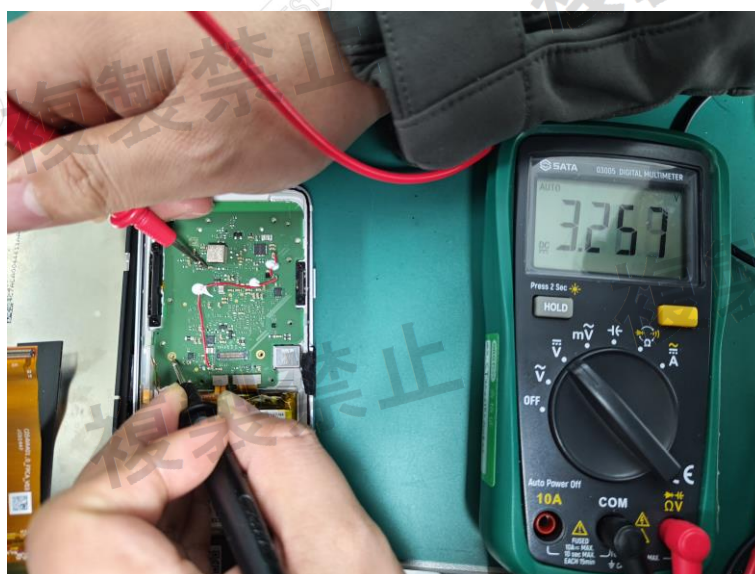
1) Measure the output voltage in the RF circuit.

a). If the voltage variation at RF circuit appears to be more than 1%, then it is mandatory to perform further testing at three voltage levels (normal voltage, low voltage and high voltage).

b). If the voltage variation at RF circuit appears to be less than 1%, then you only have to conduct further testing at normal voltage.

Note: low voltage is normal voltage -10%, high voltage is normal voltage +10%.

According to the test result, the voltage variation at RF circuit appears to be less than 1%, so only need to test at normal voltage.



6. RADIO TECHNICAL REQUIREMENT SPECIFICATION

6.1 FREQUENCY ERROR

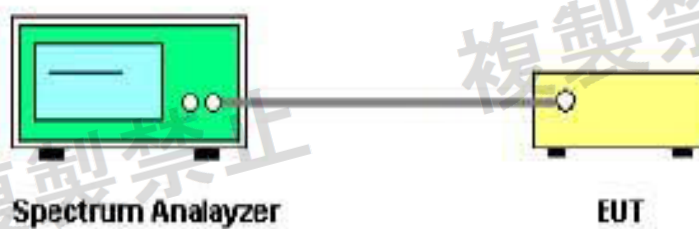
6.1.1 LIMIT

Item	Limits
Frequency Error	$\pm 50\text{ppm}$

6.1.2 TEST PROCEDURES

- Frequency accuracy of SA shall be less than 10% of limits tolerance (5ppm)
- Setting of SA is following as: RBW:10 kHz / VBW:10 kHz / SPAN: 1MHz / ATT: 40dB / Ref: 30dBm
- Center Frequency: The center frequency of testing for EUT
- Sweep time: Auto
- Sweep mode: Continuous sweep
- Detect mode: Positive peak
- EUT have transmitted absence of modulation signal and fixed channelize. f is using the mark cursor to mark the peak frequency value, 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 $\pm 50\text{ppm}$

6.1.3 TEST SETUP



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6.1.4 TEST RESULTS

Test Date (yy-mm-dd): 2025-02-10

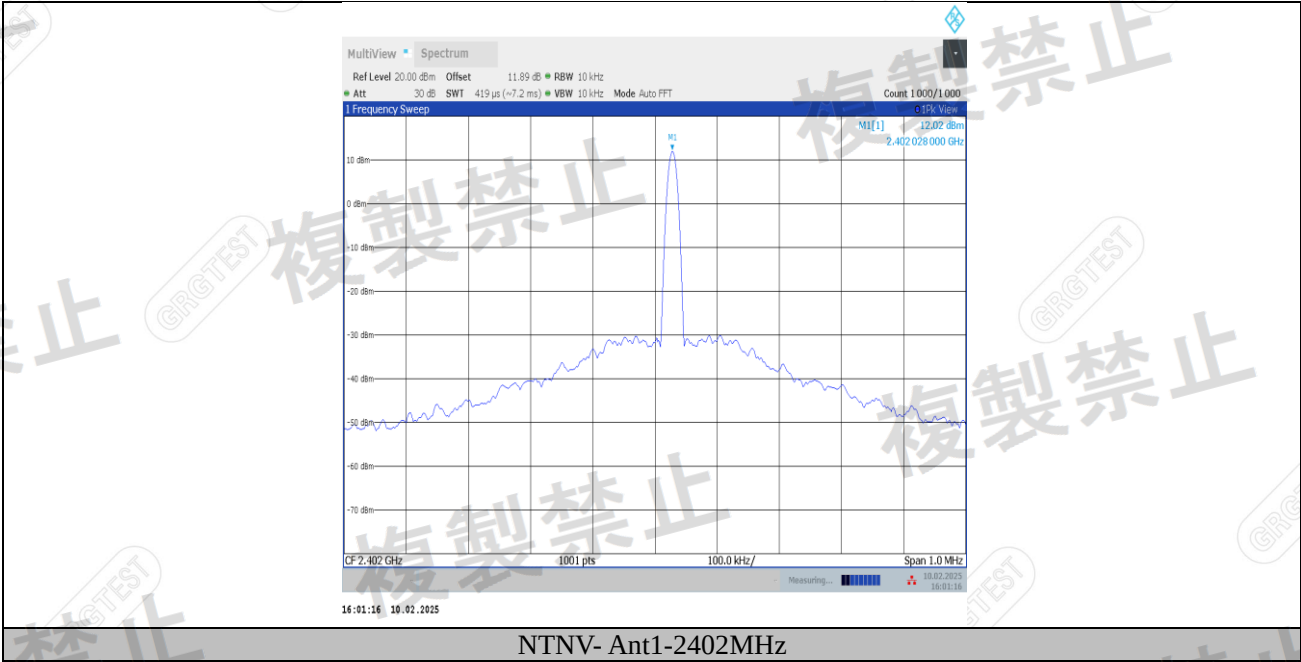
Test environment: Normal condition: Temp: 23.5℃, Humid: 48%, Atmospheric Pressure: 101.0kpa

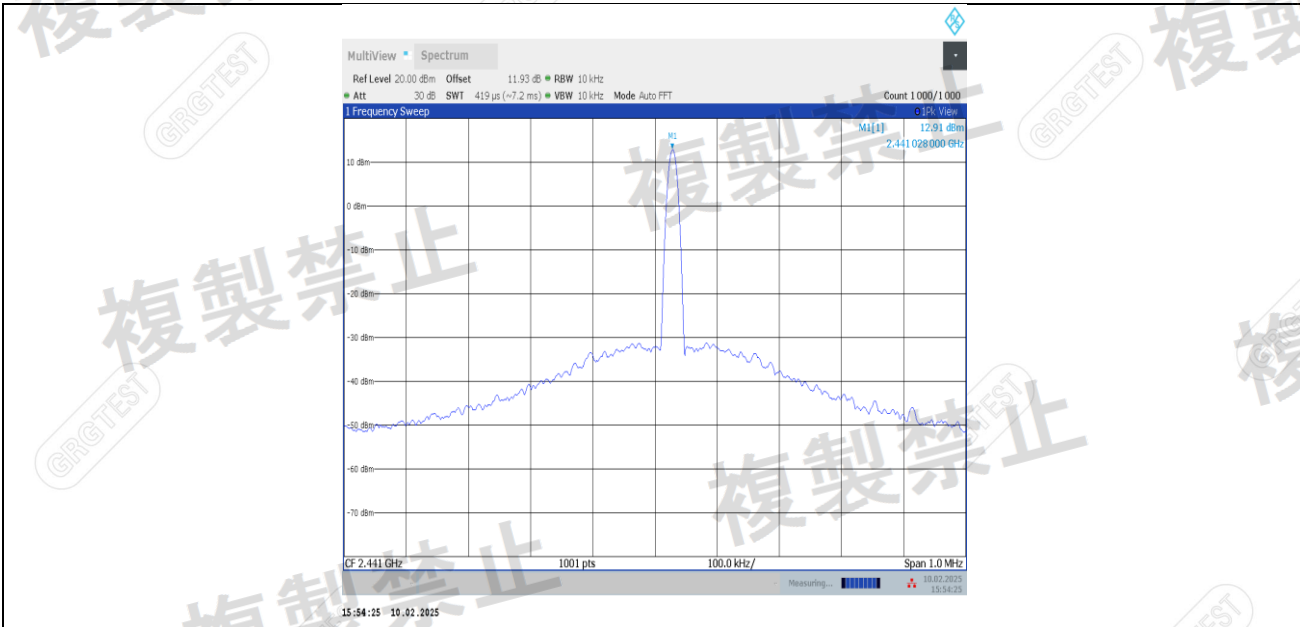
Test by: Qin Tingting

Test voltage: Normal voltage: 3.7V

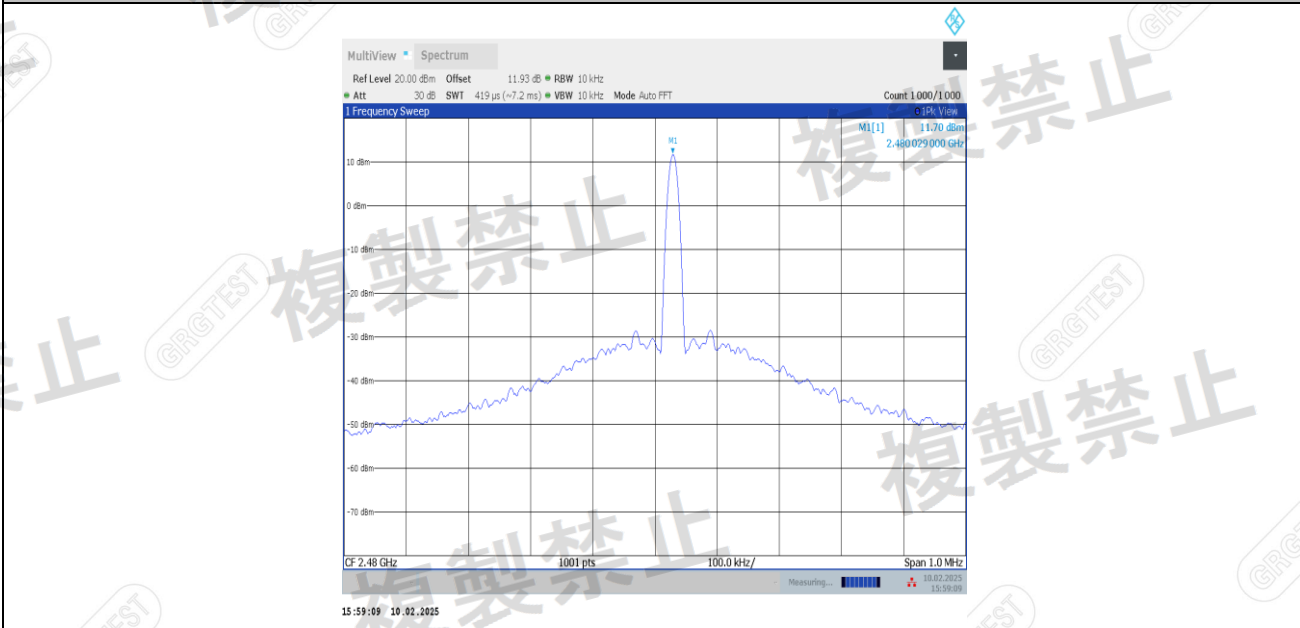
Test Condition	Frequency (MHz)	Reading (MHz)	Deviation (MHz)	Tolerance (ppm)	Limit (ppm)
NTNV	2402	2402.028	+0.028	+11.65695	±50 ppm
	2441	2441.028	+0.028	+11.47071	
	2480	2480.029	+0.029	+11.69355	

Test Plots





NTNV -Ant1-2441MHz



NTNV -Ant1-2480MHz

6.2 OCCUPIED BANDWIDTH, SPREADING BANDWIDTH AND SPREADING RATE

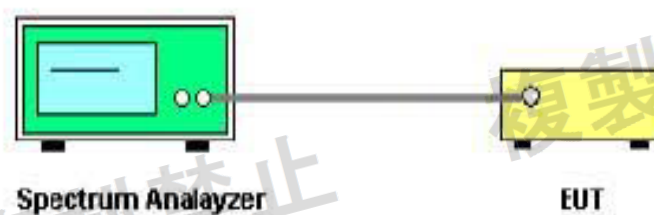
6.2.1 LIMIT

Item	Limits
Occupied Bandwidth	$\leq 83.5\text{MHz}$
Spreading Bandwidth	Report only
Spreading Rate	Report only

6.2.2 TEST PROCEDURES

- Setting of SA is following as: RBW:1MHz / VBW: 1MHz / center frequency: 2.44175GHz / Span : 167MHz
- EUT continuous maximum power of hopping mode.
SA set to 99% of occupied bandwidth to measure occupied bandwidth. The limit is 83.5MHz.
- SA set to 90% of occupied bandwidth to measure spread spectrum bandwidth and should be greater than 500kHz.

6.2.3 TEST SETUP



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6.2.4 TEST RESULTS

Test Date (yy-mm-dd): 2025-02-10

Test environment: Normal condition: Temp: 23.5℃, Humid: 48%,
Atmospheric Pressure: 101.0kpa

Test by: Qin Tingting

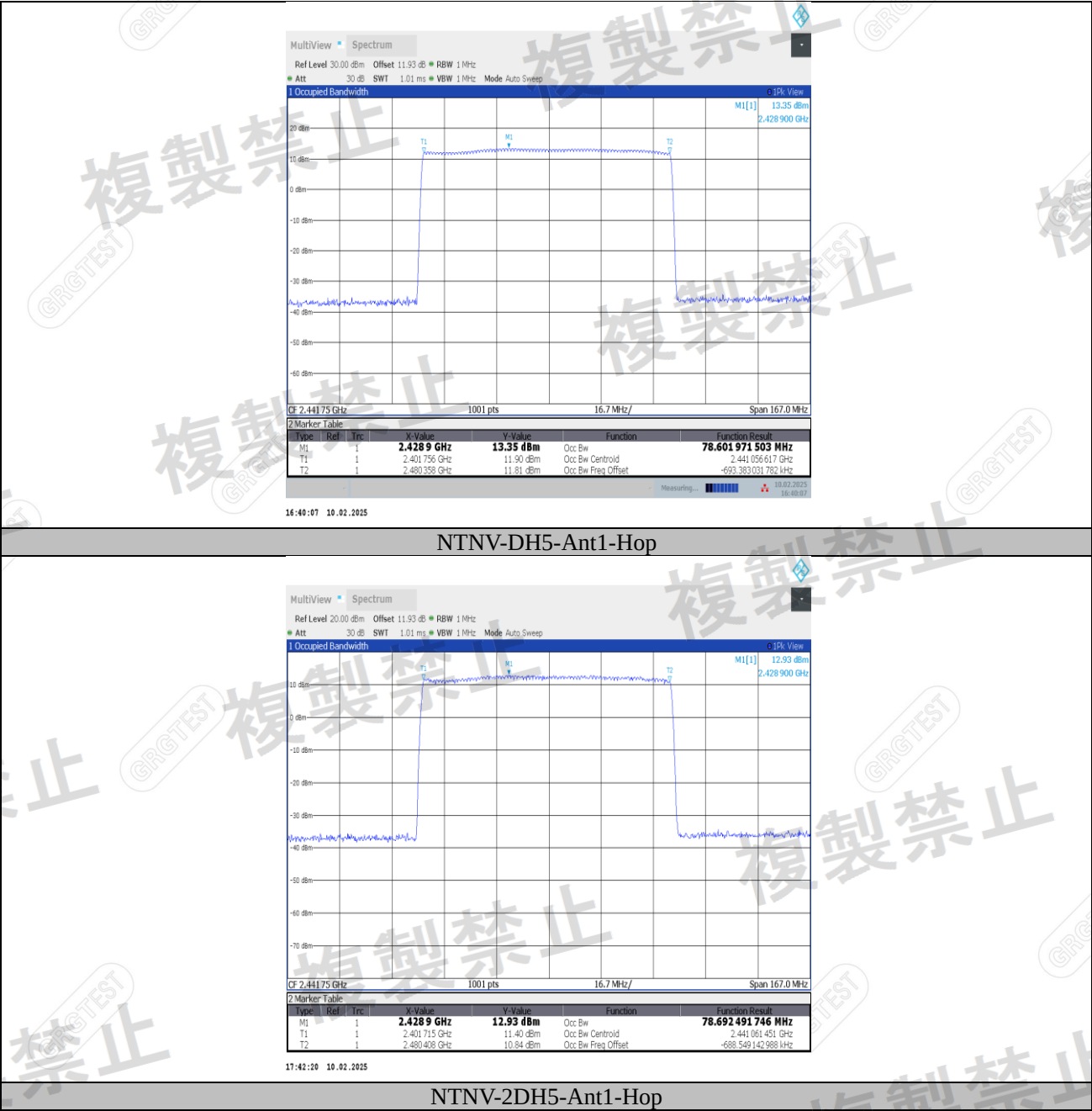
Test voltage: Normal voltage: 3.7V

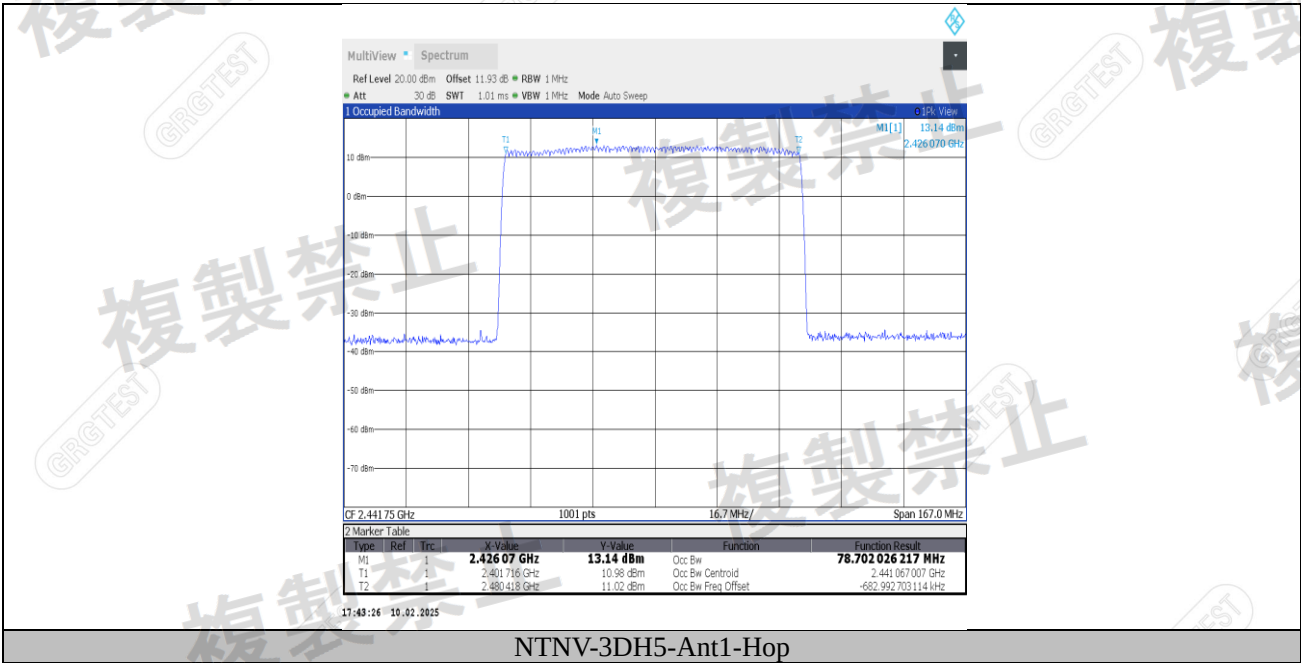
Test Condition	Modulation	Occupied Bandwidth (MHz)	Spreading Bandwidth (MHz)	Spreading Rate	Occupied Bandwidth Limit (MHz)	Spreading Bandwidth Limit (MHz)	Spreading Rate Limit	Result
NTNV	GFSK	78.602	70.229	70.229	≦83.5	Report only	Report only	Pass
NTNV	Pi/4-DQPSK	78.692	70.330	70.330	≦83.5	Report only	Report only	Pass
NTNV	8DPSK	78.702	70.230	70.230	≦83.5	Report only	Report only	Pass

Note: 1.SpreadingRate = Spreading Bandwidth / modulation rate of EUT.
2.Modulation rate:(1M/s for GFSK, Pi/4-DQPSK and 8DPSK).

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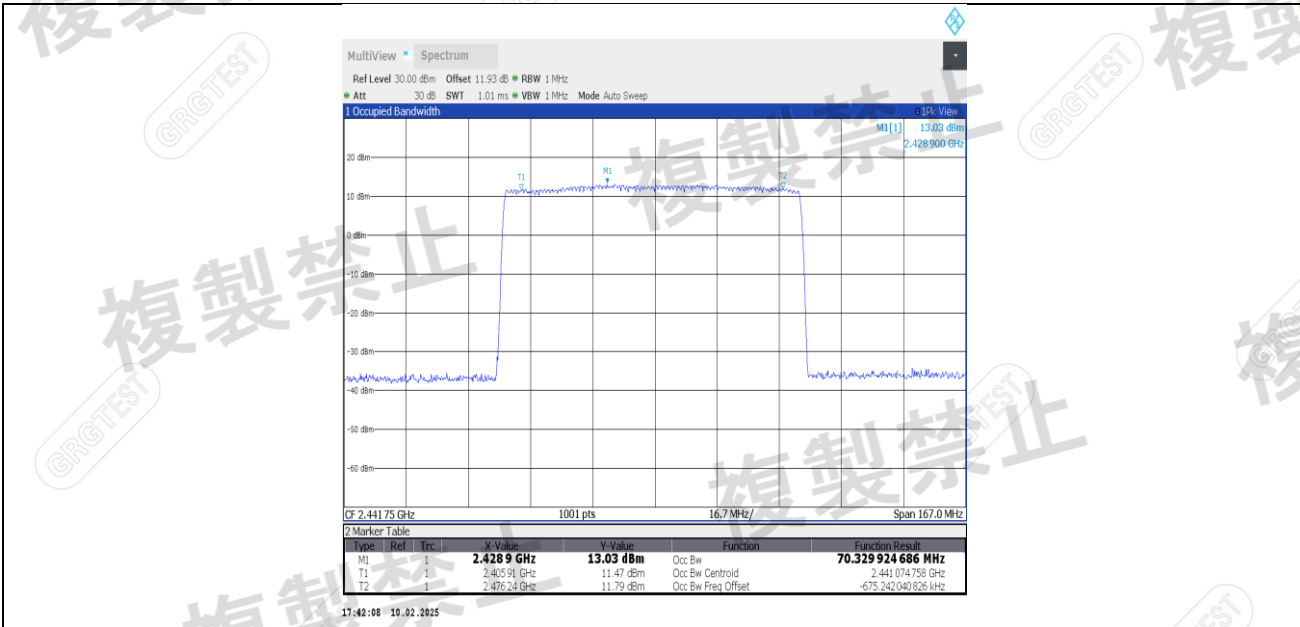
Test Plots
Occupied Bandwidth



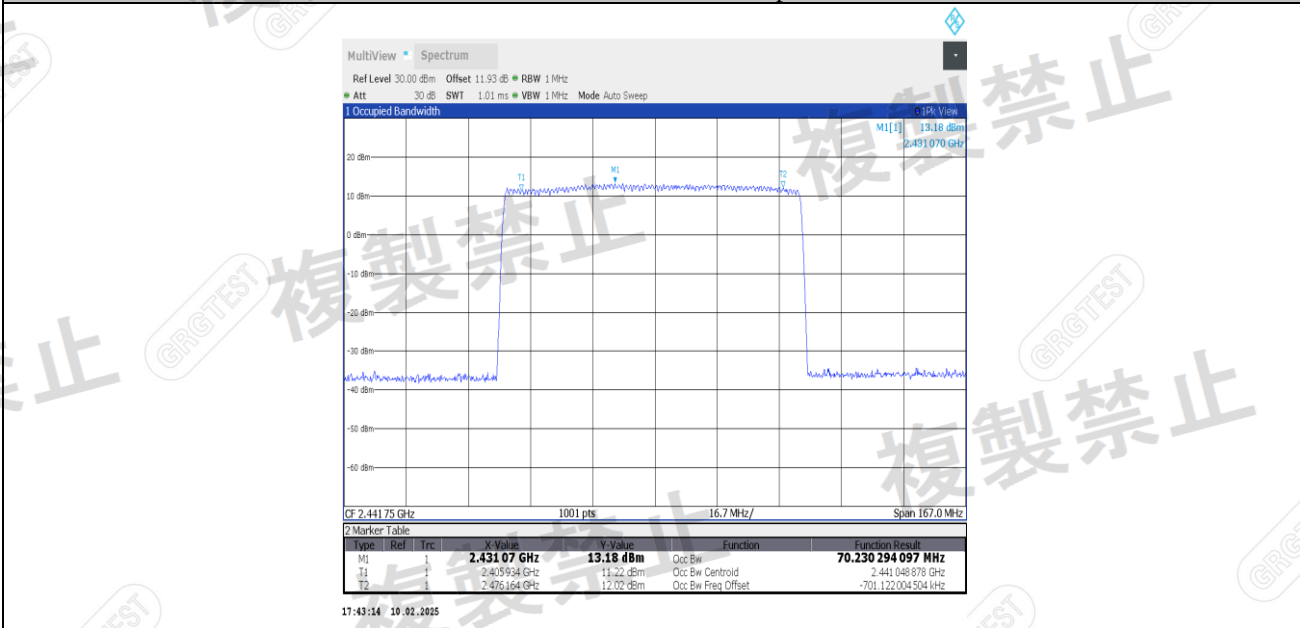


Spreading Bandwidth





NTNV-2DH5-Ant1-Hop



NTNV-3DH5-Ant1-Hop

6.3 ANTENNA POWER AND ANTENNA POWER TOLERANCE

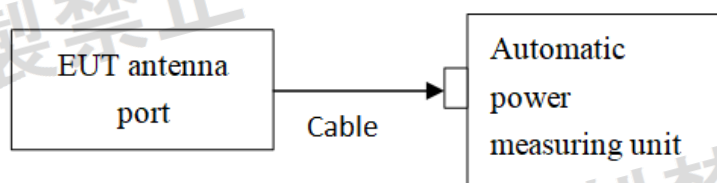
6.3.1 LIMIT

Item	Limits
Antenna Power Density	$\leq 3\text{mW/MHz}$ (FHSS 2427 - 2470.75MHz)
Antenna Power Error	+20% (Base on manufacturer declare antenna power density)

6.3.2 TEST PROCEDURES

- EUT turn to test frequency channel and maximum power of hopping mode.
- Reading the output power from the automatic power measuring unit as P_{EUT} .
- Antenna Power = $P_{\text{EUT}}/90\%$ Bandwidth.

6.3.3 TEST SETUP



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6.3.4 TEST RESULTS

Test Date (yy-mm-dd): 2025-02-10

Test environment: Normal condition: Temp: 23.5℃, Humid: 48%,
Atmospheric Pressure: 101.0kpa

Test by: Qin Tingting

Test voltage: Normal voltage: 3.7V

Test Condition	Modulation	P _{EUT} (mW)	90%Bandwidth (MHz)	Antenna Power (mW/MHz)	Limit
NTNV	GFSK	3.22	70.229	0.0459	≦ 3mW/MHz

Modulation	Test Condition	Antenna Power (mW/MHz)	Rated Power (mW/MHz)	Tolerance (%)	Limit
NTNV	GFSK	0.0459	0.046	-0.22	+20%

Test Condition	Modulation	P _{EUT} (mW)	90%Bandwidth (MHz)	Antenna Power (mW/MHz)	Limit
NTNV	Pi/4-DQPSK	3.05	70.330	0.0434	≦ 3mW/MHz

Modulation	Test Condition	Antenna Power (mW/MHz)	Rated Power (mW/MHz)	Tolerance (%)	Limit
NTNV	Pi/4-DQPSK	0.0434	0.044	-1.36	+20%

Test Condition	Modulation	P _{EUT} (mW)	90%Bandwidth (MHz)	Antenna Power (mW/MHz)	Limit
NTNV	8DPSK	2.95	70.230	0.0420	≦ 3mW/MHz

Modulation	Test Condition	Antenna Power (mW/MHz)	Rated Power (mW/MHz)	Tolerance (%)	Limit
NTNV	8DPSK	0.0420	0.042	0	+20%

Note: Tolerance(%)=(Antenna Power(mW/MHz)-Rated Power(mW/MHz))/Rated Power(mW/MHz)) x 100%

6.4 LIMITATION OF COLLATERAL EMISSION OF RECEIVER MEASUREMENT

6.4.1 LIMIT

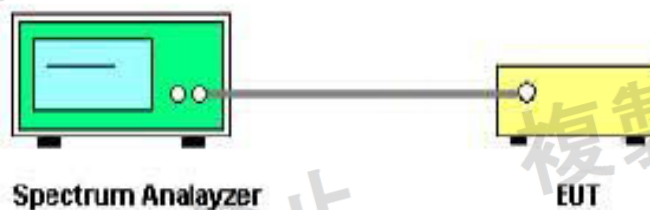
Item	Limits
RX Spurious Emission	$\leq 4 \text{ nW}$ (-54 dBm) ($f < 1\text{GHz}$) $\leq 20 \text{ nW}$ (-47 dBm) ($1\text{GHz} \leq f$)

6.4.2 TEST PROCEDURES

Spectrum Analyzer	Setting
Attenuation	Auto
RBW	100kHz: $30\text{MHz} \leq f < 1000\text{MHz}$ 1MHz: $1000\text{MHz} \leq f < 5\text{th Harmonics}$
VBW	100kHz: $30\text{MHz} \leq f < 1000\text{MHz}$ 1MHz: $1000\text{MHz} \leq f < 5\text{th Harmonics}$
Detector	Positive Peak
Trace	Max Hold
Sweep Time	Auto

- EUT has the continuous reception mode and working on hopping channels.
- Start frequency 30MHz and Stop frequency 1000MHz. Search to mark peak reading value + cable loss shall be less than 4nW
- Start frequency 1000MHz and Stop frequency 5th Harmonics. Search to mark peak reading value + cable loss shall be less than 20nW
- Max. frequency point of power level of lower emissions is to be indicated in each paragraph.

6.4.3 TEST SETUP



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6.4.4 TEST RESULTS

Test Date (yy-mm-dd): 2025-02-10

Test environment: Normal condition: Temp: 23.5℃, Humid: 48%, Atmospheric Pressure: 101.0kpa

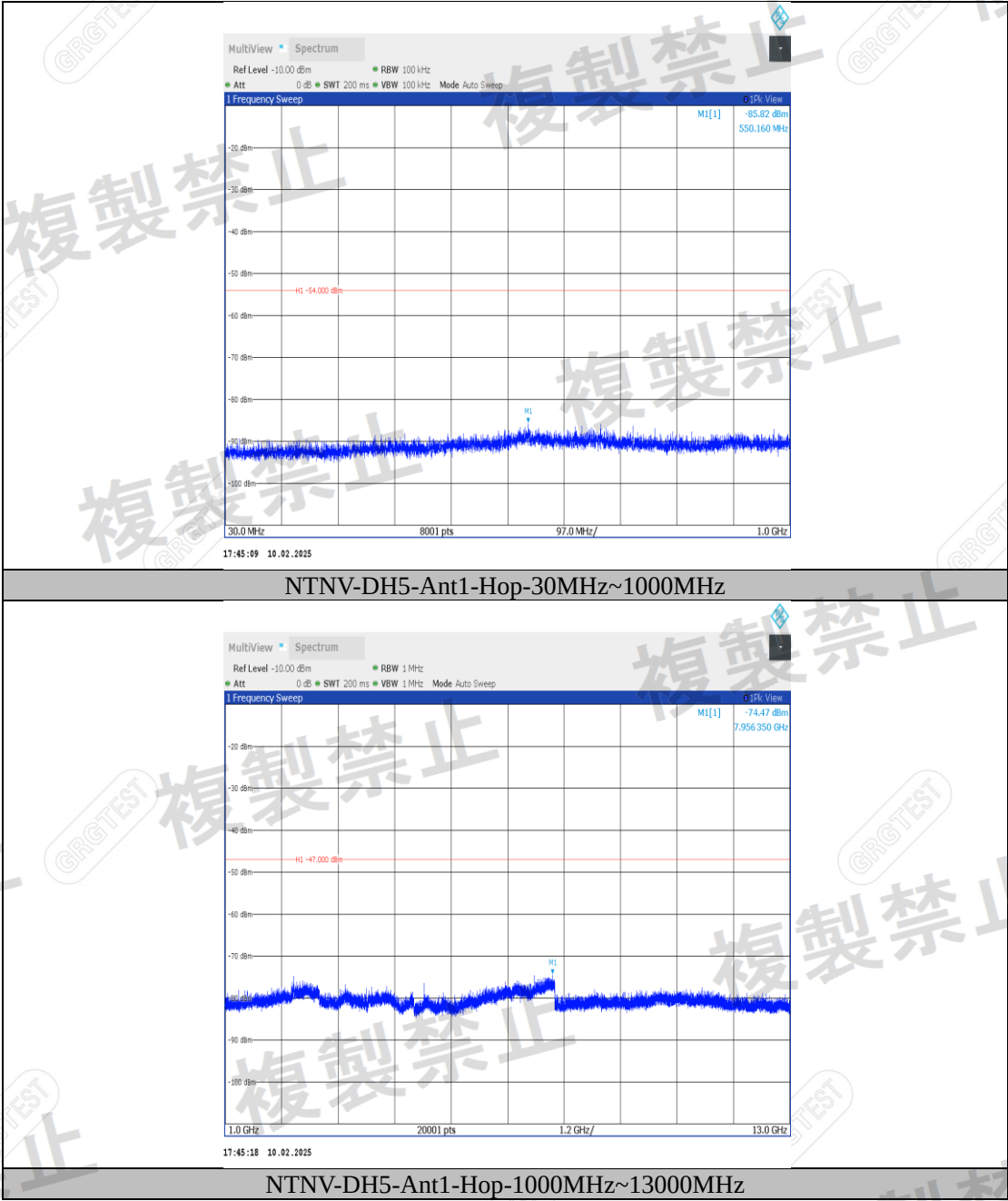
Test by: Qin Tingting

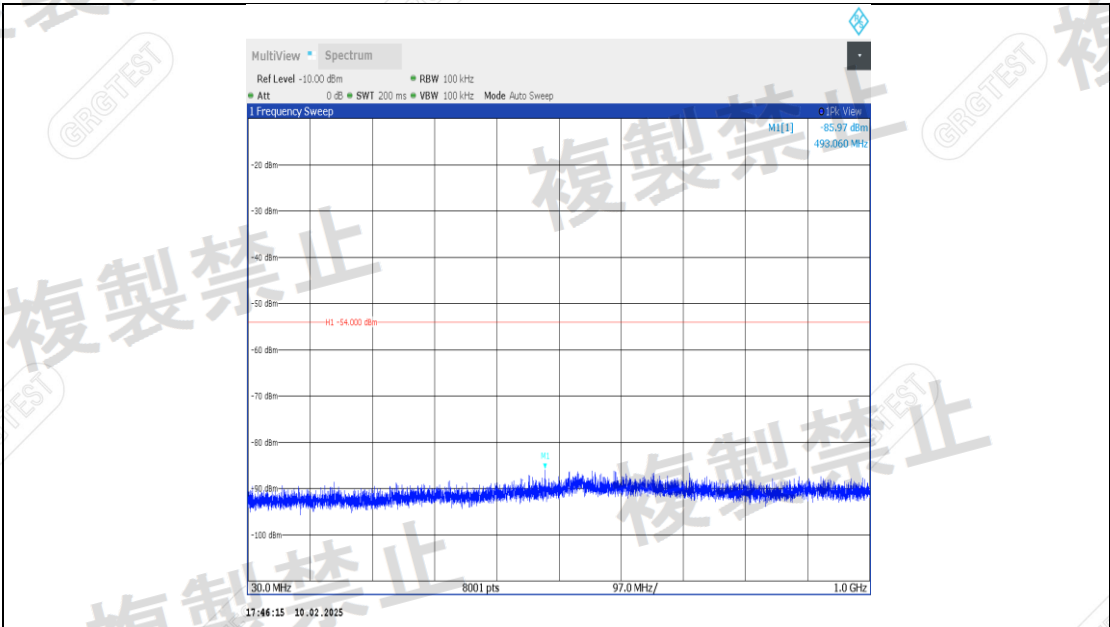
Test voltage: Normal voltage: 3.7V

Modulation	Antenna	Test Freq [MHz]	Test Condition	Freq.Range [MHz]	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [nW]	Limit [nW]	Verdict
GFSK	Ant1	Hop	NTNV	30~1000	550.16	-85.82	≤-54	0.00262	≤4	PASS
			NTNV	1000~12500	7956.35	-74.47	≤-47	0.03573	≤20	PASS
Pi/4-DQPSK	Ant1	Hop	NTNV	30~1000	493.06	-85.97	≤-54	0.00253	≤4	PASS
			NTNV	1000~12500	7888.56	-74.50	≤-47	0.03548	≤20	PASS
8DPSK	Ant1	Hop	NTNV	30~1000	545.43	-84.32	≤-54	0.00370	≤4	PASS
			NTNV	1000~12500	2453.43	-73.54	≤-47	0.04426	≤20	PASS

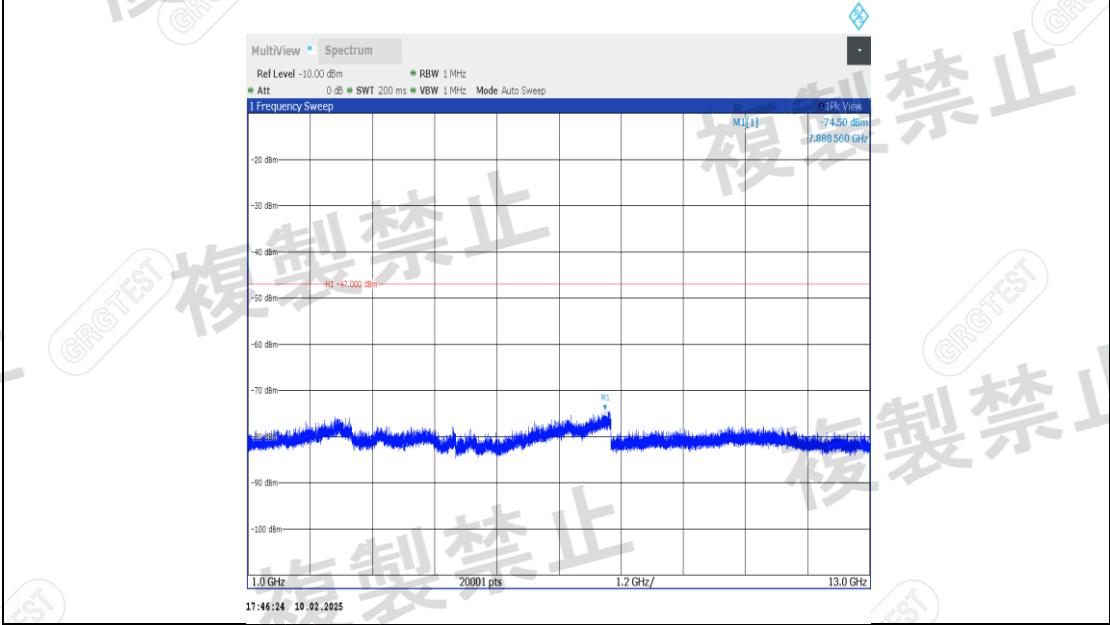
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Test Plots

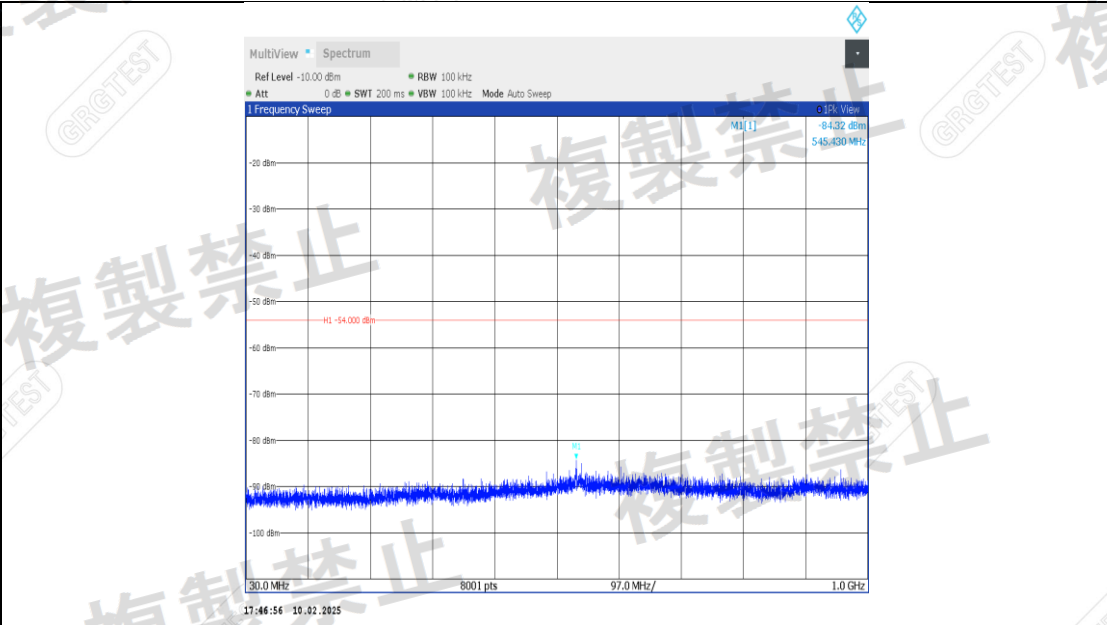




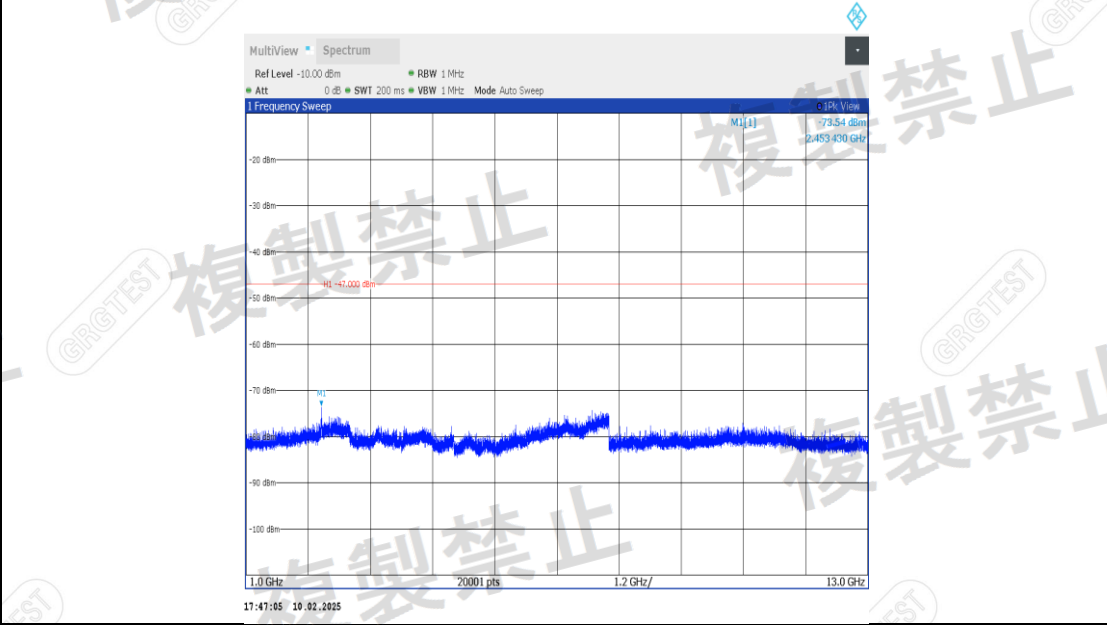
NTNV-2DH5-Ant1-Hop-30MHz~1000MHz



NTNV-2DH5-Ant1-Hop-1000MHz~13000MHz



NTNV-3DH5-Ant1-Hop-30MHz~1000MHz



NTNV-3DH5-Ant1-Hop-1000MHz~13000MHz

6.5 UNWANTED EMISSION INTENSITY MEASUREMENT

6.5.1 LIMIT

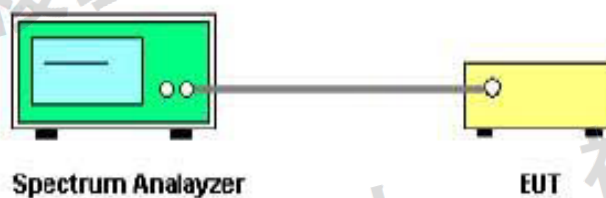
Item	Limits
TX Spurious Emission	$\leq 2.5 \mu\text{W}/\text{MHz}$ ($30\text{MHz} \leq f < 1000\text{MHz}$)
	$\leq 2.5 \mu\text{W}/\text{MHz}$ ($1000\text{MHz} \leq f < 2387\text{MHz}$; $2496.5\text{MHz} < f$)
	$\leq 25 \mu\text{W}/\text{MHz}$ ($2387\text{MHz} \leq f < 2400\text{MHz}$) and ($2483.5\text{MHz} < f \leq 2496.5\text{MHz}$)

6.5.2 TEST PROCEDURES

Spectrum Analyzer	Setting
Attenuation	Auto
RBW	100kHz: $30\text{MHz} \leq f < 1000\text{MHz}$ 1MHz: $1000\text{MHz} \leq f < 5\text{th Harmonics}$
VBW	100kHz: $30\text{MHz} \leq f < 1000\text{MHz}$ 1MHz: $1000\text{MHz} \leq f < 5\text{th Harmonics}$
Detector	Positive Peak
Trace	Max Hold
Sweep Time	Auto

- EUT has working on hopping channels.
- Setting of SA is following as 30MHz and stop frequency 1000MHz Then to mark peak reading value + cable loss shall be less than $0.25\mu\text{W}$.
- Setting of SA is following as 1000MHz and stop frequency 2387MHz Then to mark peak reading value + cable loss shall be less than $2.5\mu\text{W}$.
- SA adjusted to start frequency 2387MHz and stop frequency 2400MHz. Then to mark peak reading value + cable loss shall be less than $25\mu\text{W}$.
- SA adjusted to start frequency 2483.5MHz and stop frequency 2496.5MHz Then to mark peak reading value + cable loss shall be less than $25\mu\text{W}$.
- SA adjusted to start frequency 2496.5MHz and stop frequency 12500MHz Then to mark peak reading value + cable loss shall be less than $2.5\mu\text{W}$.

6.5.3 TEST SETUP



6.5.4 TEST RESULTS

Test Date (yy-mm-dd): 2025-02-10

Test environment: Normal condition: Temp: 23.5℃, Humid: 48%,
Atmospheric Pressure: 101.0kpa

Test by: Qin Tingting

Test voltage: Normal voltage: 3.7V

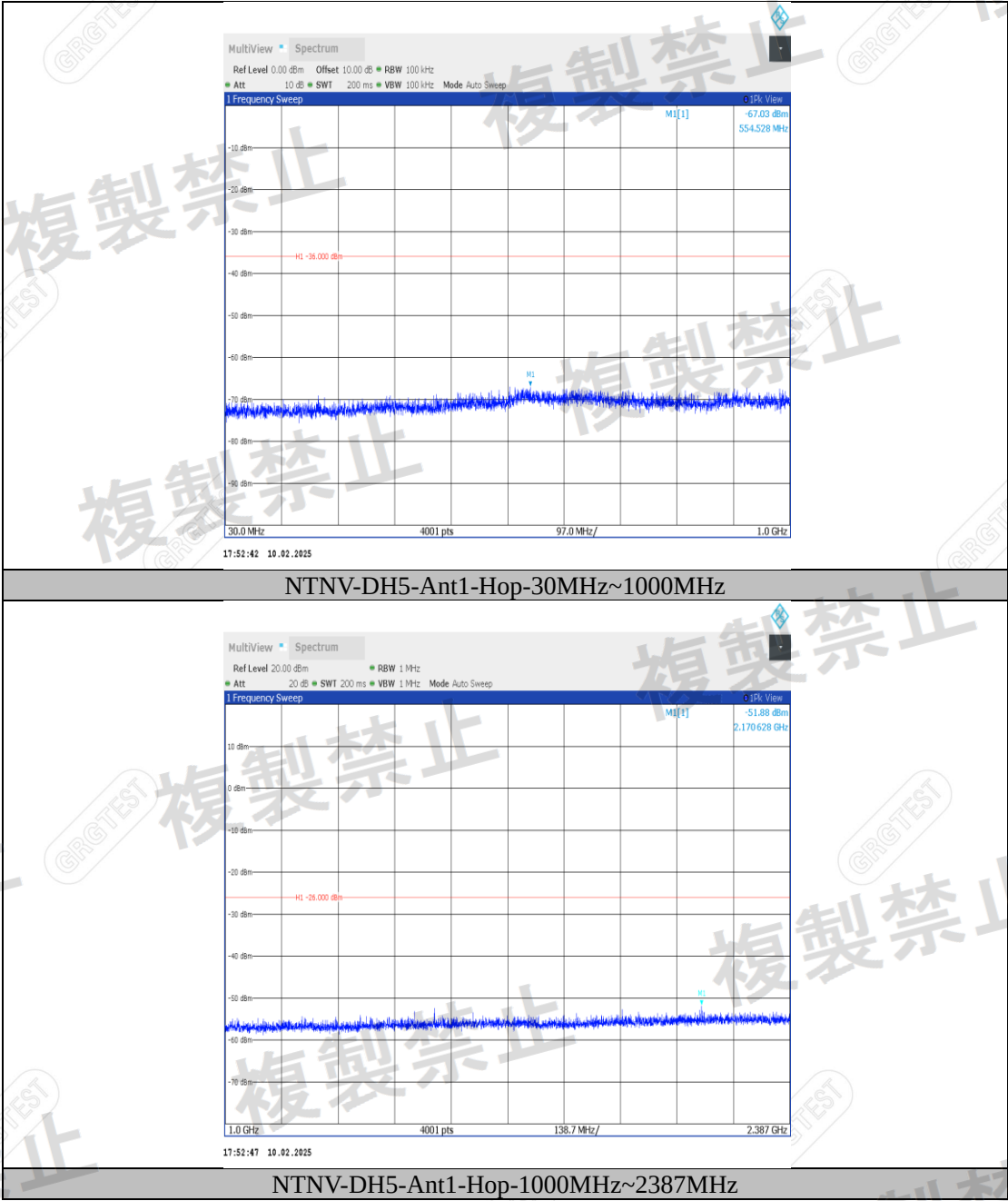
Test Mode	Antenna	Test Freq [MHz]	Test Condition	Freq.Range [MHz]	Max Freq [MHz]	Result [dBm/100kHz]	Result [dBm/MHz]	Result [μW/MHz]	Limit [μW/MHz]	Verdict
GFSK	Ant1	Hop	NTNV	30~1000	554.53	-67.03	-57.03	0.00198	≤2.5	PASS
	Ant1	Hop	NTNV	1000~2387	2170.63	/	-51.88	0.00649	≤2.5	PASS
	Ant1	Hop	NTNV	2387~2400	2399.54	/	-39.27	0.11830	≤25	PASS
	Ant1	Hop	NTNV	2483.5~2496.5	2495.66	/	-42.68	0.05395	≤25	PASS
	Ant1	Hop	NTNV	2496.5~12500	4880.27	/	-44.23	0.03776	≤2.5	PASS
Pi/4-DQ PSK	Ant1	Hop	NTNV	30~1000	571.50	-65.64	-55.64	0.00273	≤2.5	PASS
	Ant1	Hop	NTNV	1000~2387	2196.98	/	-52.78	0.00527	≤2.5	PASS
	Ant1	Hop	NTNV	2387~2400	2399.70	/	-38.95	0.12735	≤25	PASS
	Ant1	Hop	NTNV	2483.5~2496.5	2486.80	/	-43.09	0.04909	≤25	PASS
	Ant1	Hop	NTNV	2496.5~12500	4885.52	/	-46.75	0.02113	≤2.5	PASS
8DPSK	Ant1	Hop	NTNV	30~1000	532.95	-66.30	-56.30	0.00234	≤2.5	PASS
	Ant1	Hop	NTNV	1000~2387	2266.68	/	-52.71	0.00536	≤2.5	PASS
	Ant1	Hop	NTNV	2387~2400	2399.11	/	-42.62	0.05470	≤25	PASS
	Ant1	Hop	NTNV	2483.5~2496.5	2491.57	/	-42.85	0.05188	≤25	PASS
	Ant1	Hop	NTNV	2496.5~12500	4903.90	/	-45.55	0.02786	≤2.5	PASS

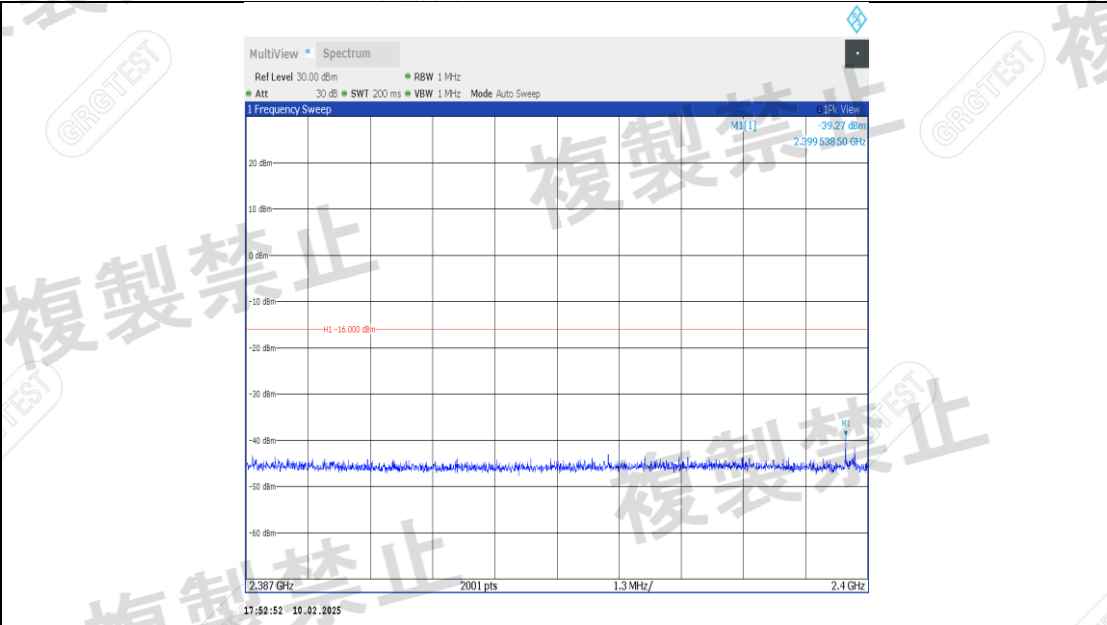
Note: 1) dBm/MHz=dBm/100kHz-10log(100kHz/1000kHz)= dBm/100kHz+10

2) μW/MHz=10^(dBm/MHz/10)*1000

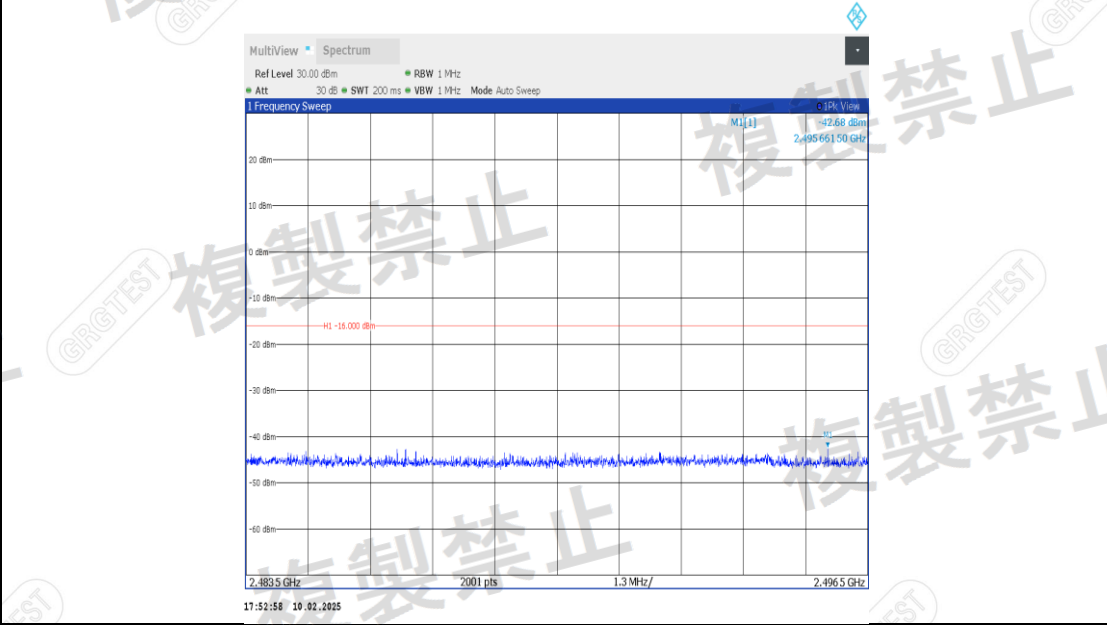
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Test Plots

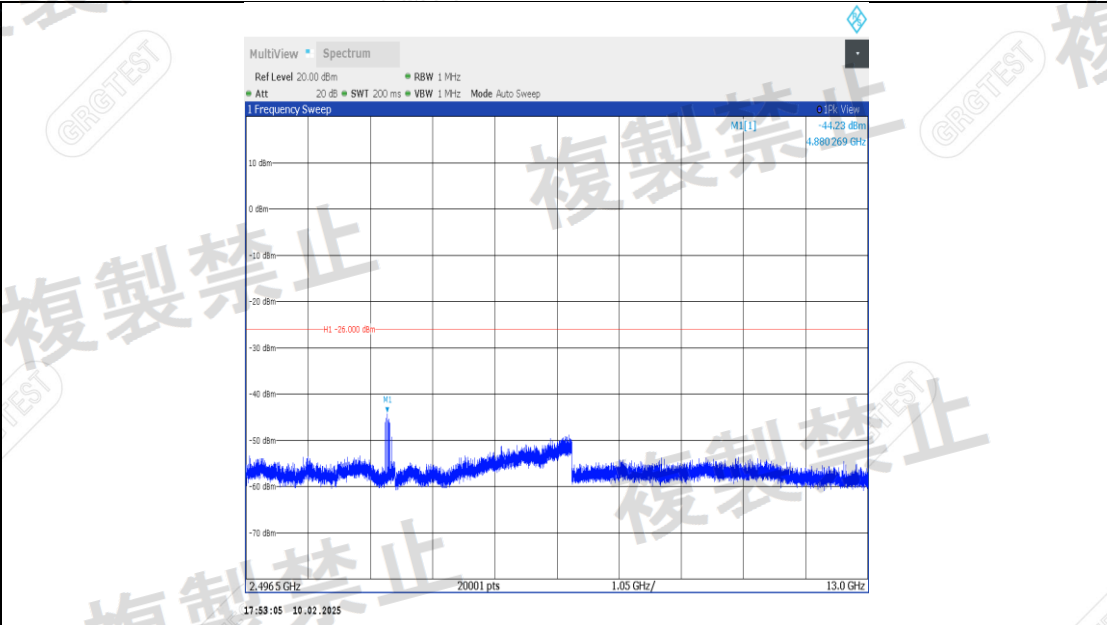




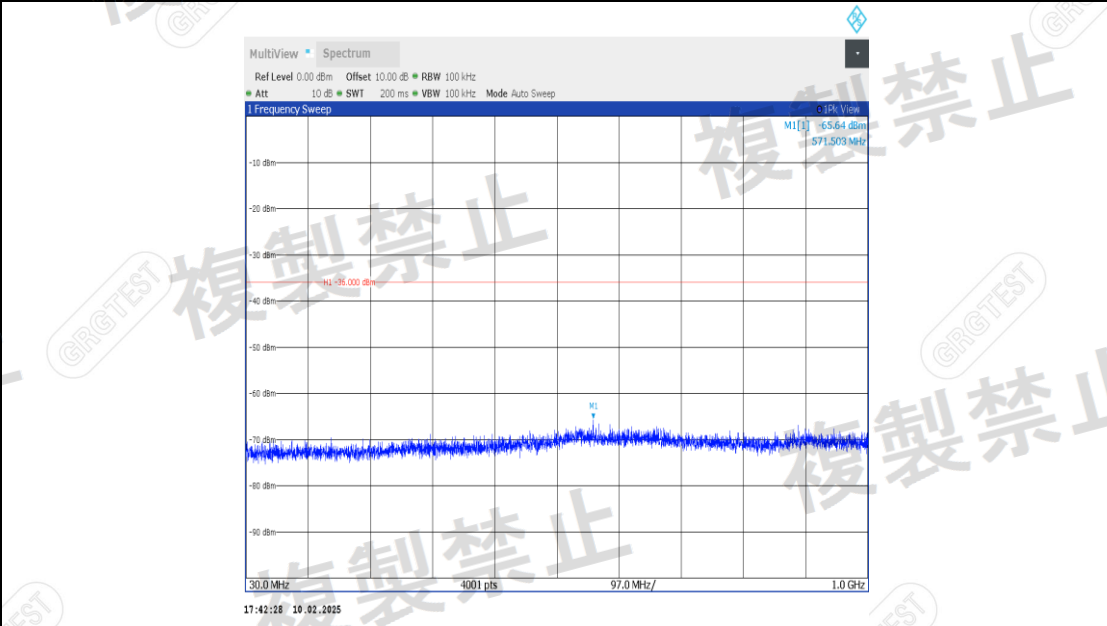
NTNV-DH5-Ant1-Hop-2387MHz~2400MHz



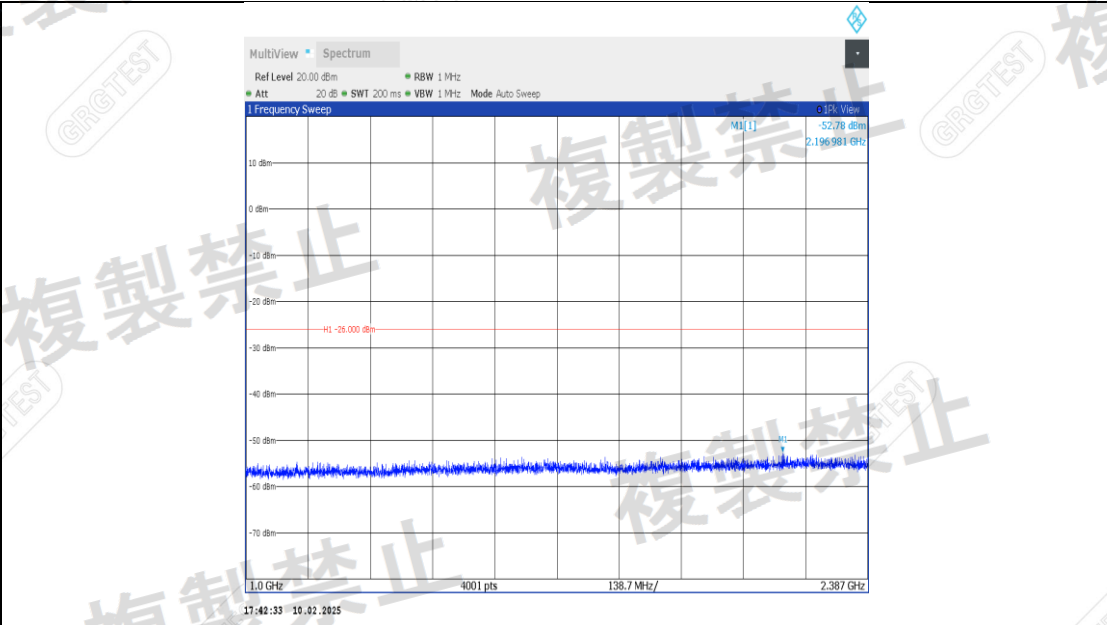
NTNV-DH5-Ant1-Hop-2483.5MHz~2496.5MHz



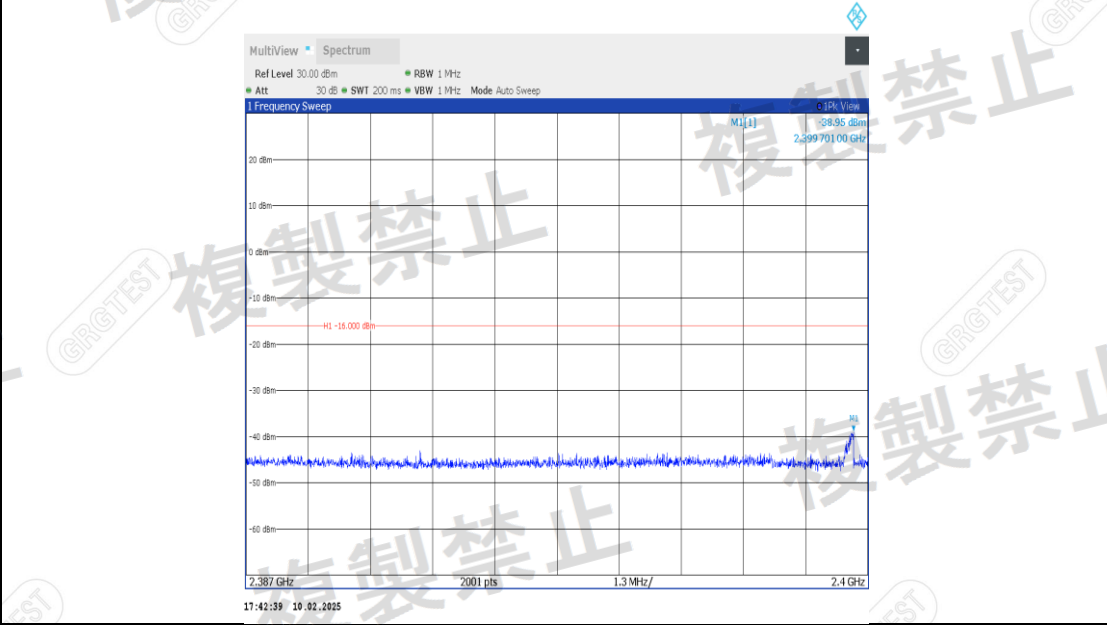
NTNV-DH5-Ant1-Hop-2496.5MHz~13000MHz



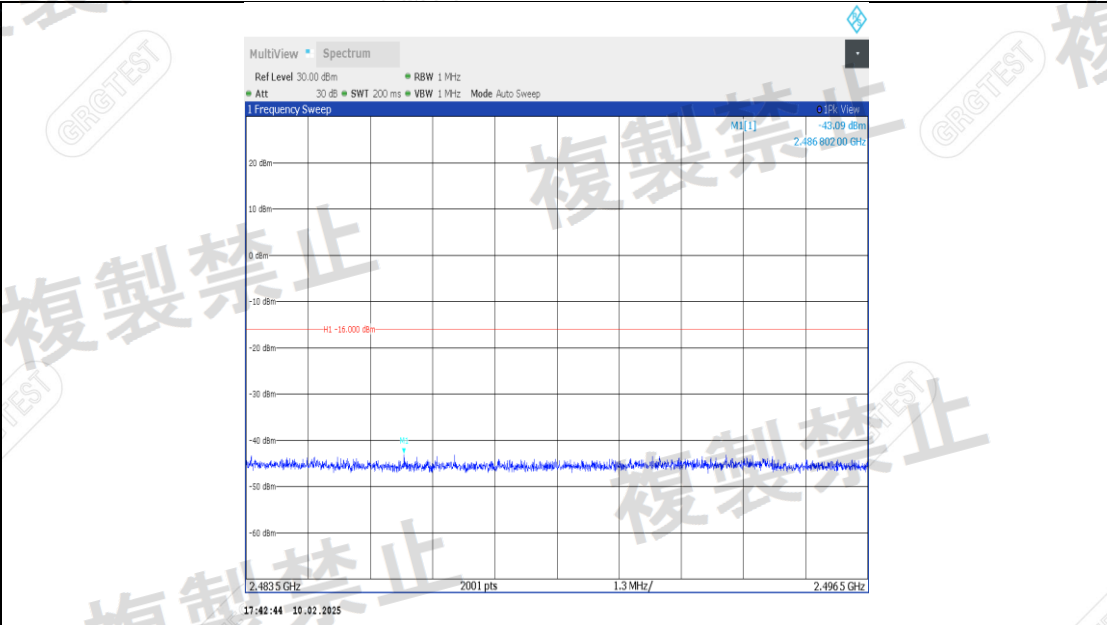
NTNV-2DH5-Ant1-Hop-30MHz~1000MHz



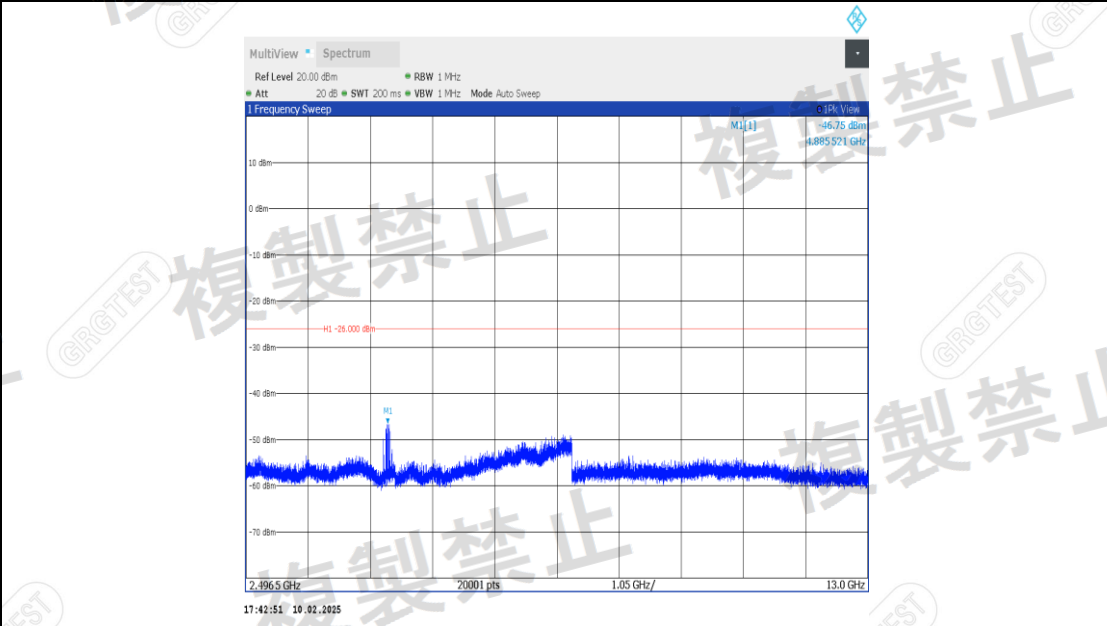
NTNV-2DH5-Ant1-Hop-1000MHz~2387MHz



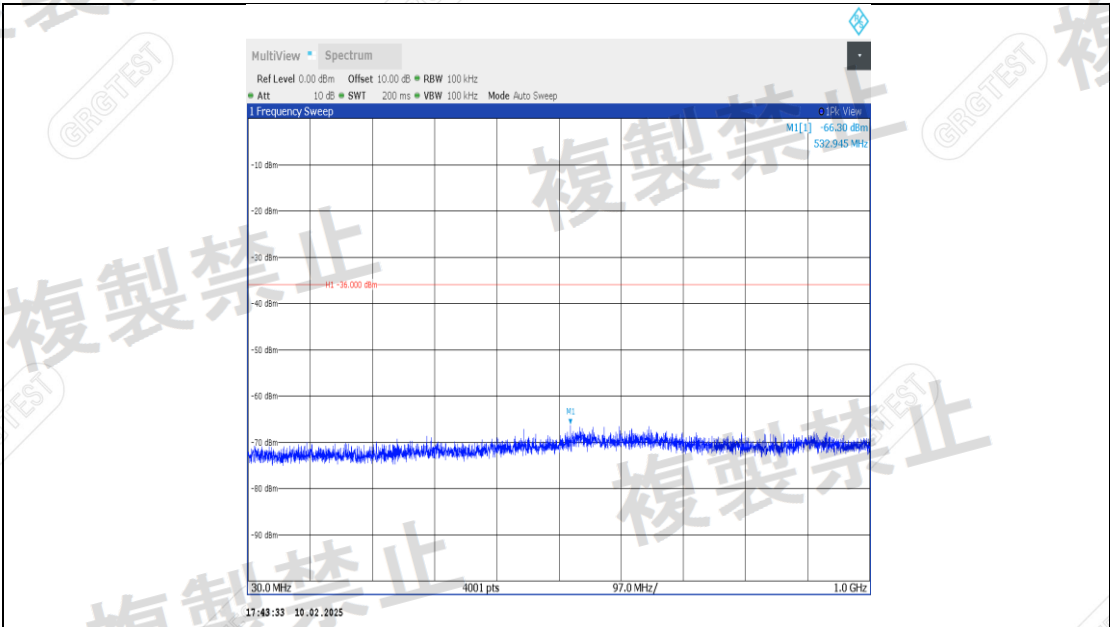
NTNV-2DH5-Ant1-Hop-2387MHz~2400MHz



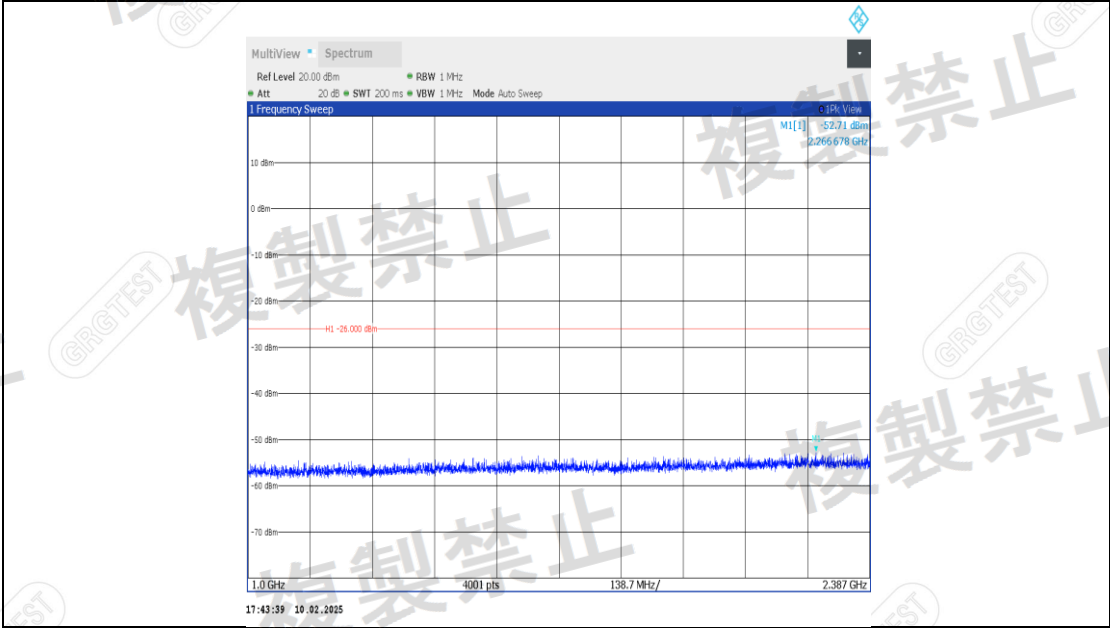
NTNV-2DH5-Ant1-Hop-2483.5MHz~2496.5MHz



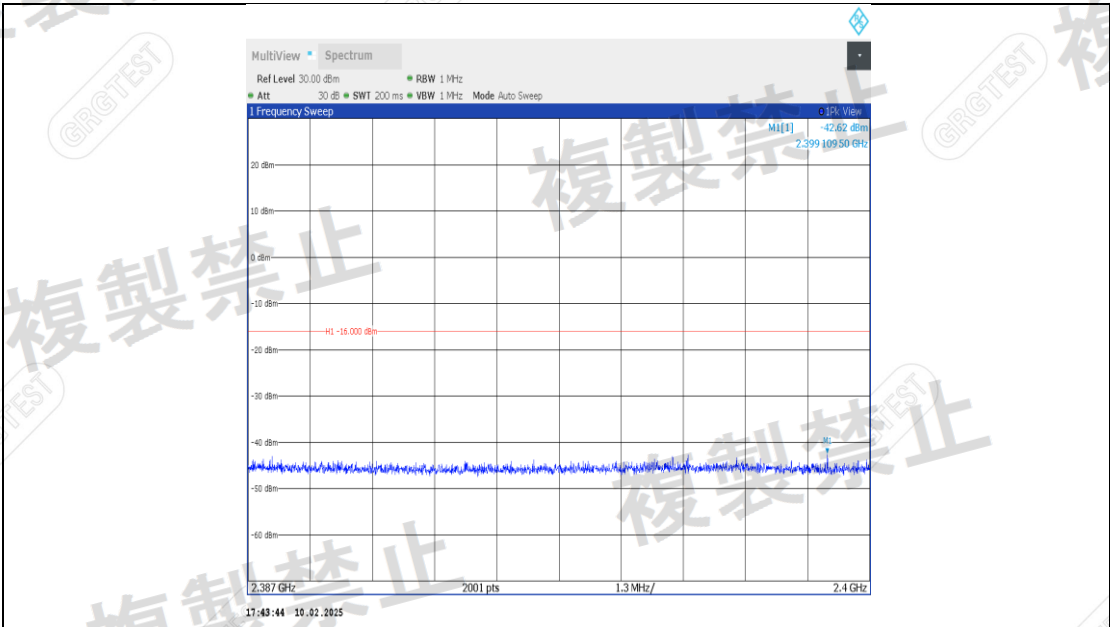
NTNV-2DH5-Ant1-Hop-2496.5MHz~13000MHz



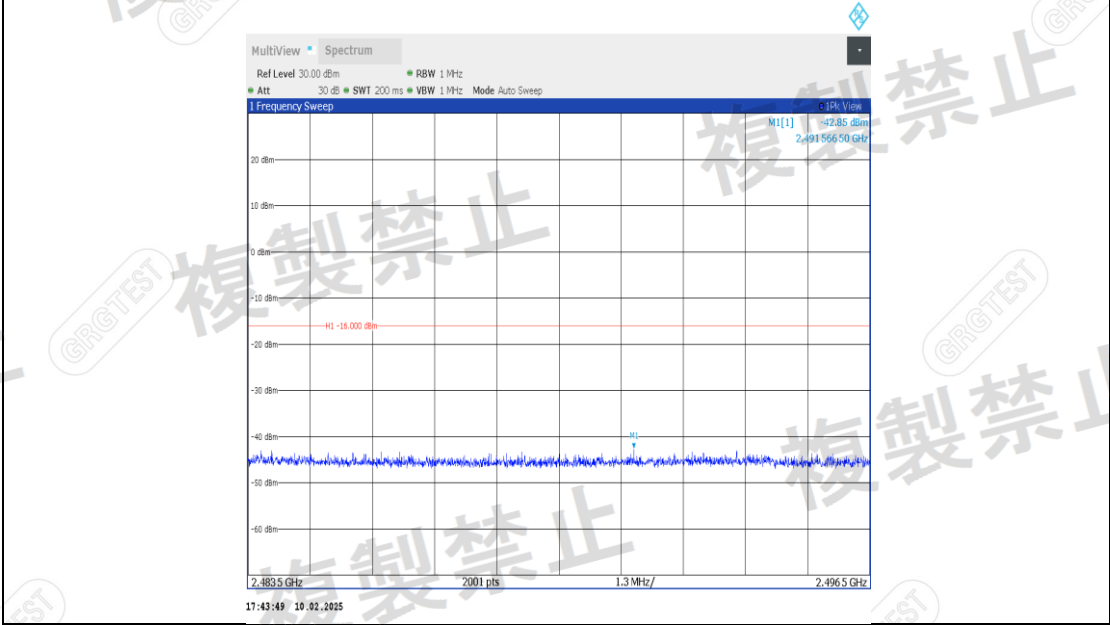
NTVN-3DH5-Ant1-Hop-30MHz~1000MHz



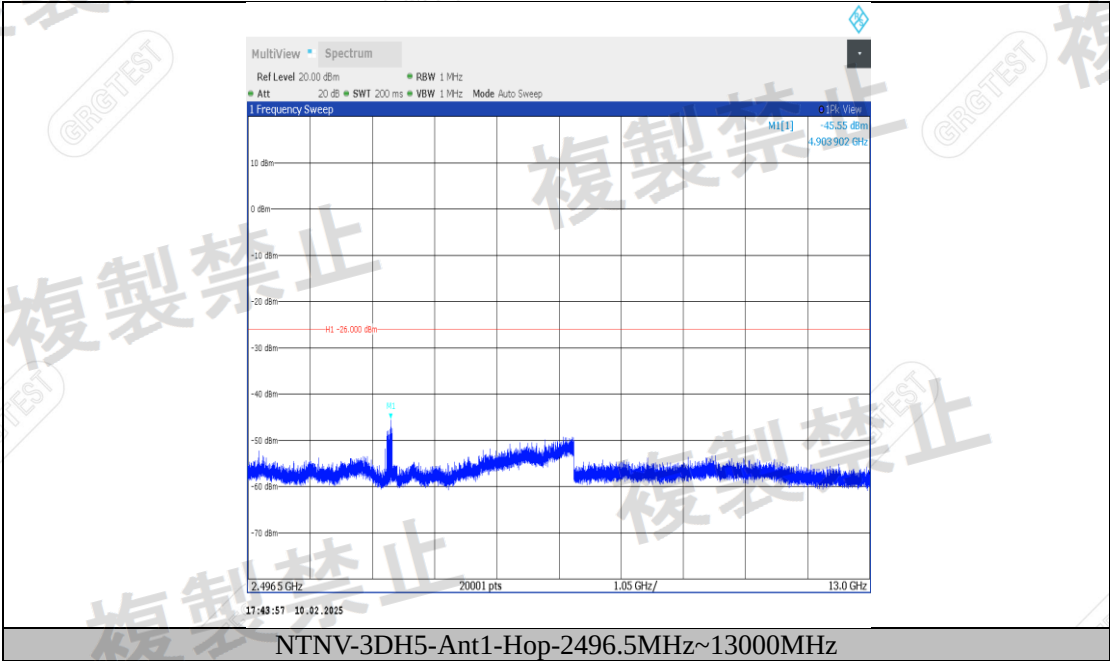
NTVN-3DH5-Ant1-Hop-1000MHz~2387MHz



NTNV-3DH5-Ant1-Hop-2387MHz~2400MHz



NTNV-3DH5-Ant1-Hop-2483.5MHz~2496.5MHz



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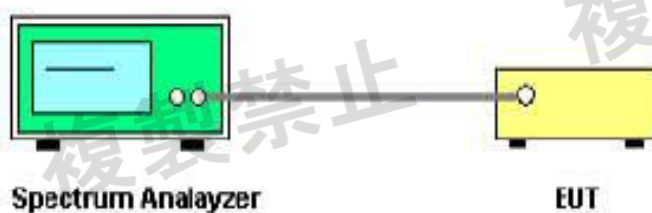
6.6 DWELL TIME**6.6.1 LIMIT**

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

6.6.2 TEST PROCEDURES

Spectrum Analyzer	Setting
Attenuation	Auto
RBW	1MHz
VBW	1MHz
Span	0MHz
Detector	Positive Peak
Trace	Max Hold
Sweep Time	Auto

- 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 DH5, 2DH5and 3DH5 packet transmitting.
- Set the EUT channel as high, medium and low channels.
- Measure the maximum time duration of one single pulse.
- Dwell time = $0.4 \times (\text{spreading rate}) \times (\text{transmission time of 1 burst}) / [(\text{burst cycle}) \times (\text{No. of hopping channels})]$

6.6.3 TEST SETUP

6.6.4 TEST RESULTS

Test Date (yy-mm-dd): 2025-02-10

Test environment: Normal condition:

Temp: 23.5℃, Humid: 48%,
Atmospheric Pressure: 101.0kpa

Test by: Qin Tingting

Test voltage: Normal voltage: 3.7V

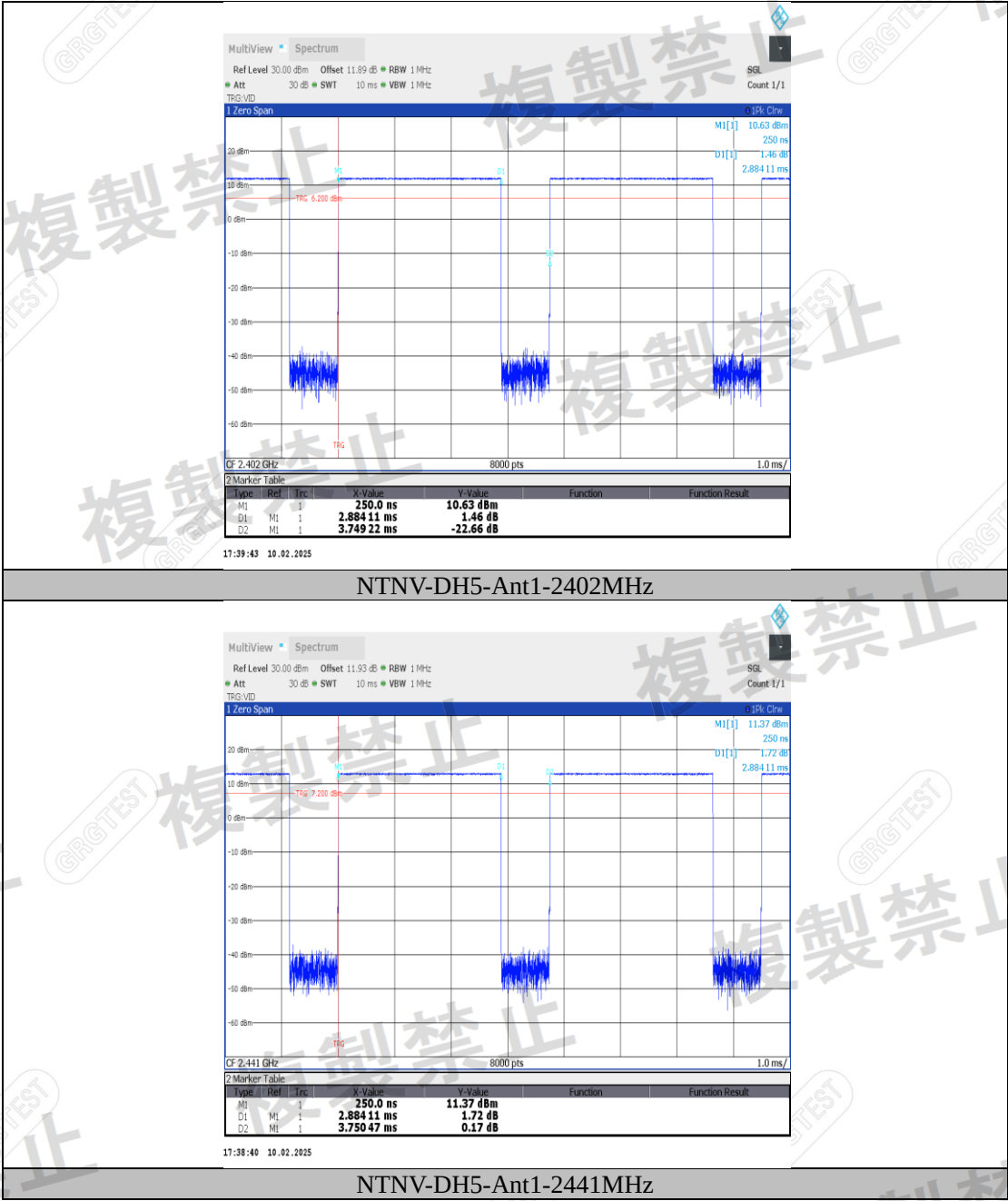
Modulation	Antenna	Test Condition	Frequency (MHz)	Spreading Rate	Duty cycle (%)	Dwell time (second)	Limit (second)	Verdict
GFSK	Ant1	NTNV	2402	70.229	76.80	0.273	<0.4	PASS
		NTNV	2441	70.229	76.80	0.273	<0.4	PASS
		NTNV	2480	70.229	76.80	0.273	<0.4	PASS
Pi/4-DQPSK	Ant1	NTNV	2402	70.330	77.07	0.274	<0.4	PASS
		NTNV	2441	70.330	77.07	0.274	<0.4	PASS
		NTNV	2480	70.330	77.07	0.274	<0.4	PASS
8DPSK	Ant1	NTNV	2402	70.230	77.07	0.274	<0.4	PASS
		NTNV	2441	70.230	77.07	0.274	<0.4	PASS
		NTNV	2480	70.230	77.07	0.274	<0.4	PASS

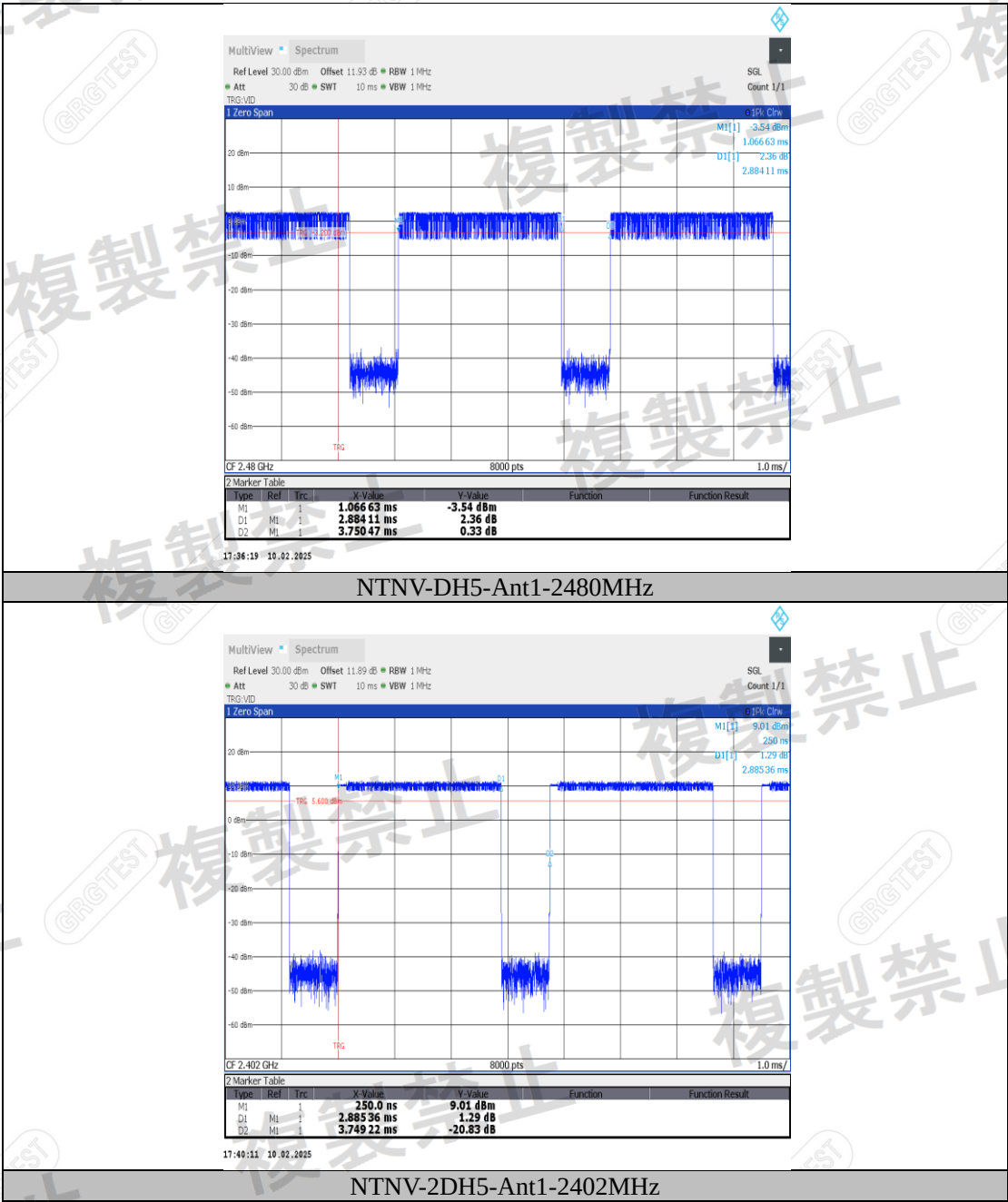
Note: 1). Duty cycle = [on time/total time] x 100%

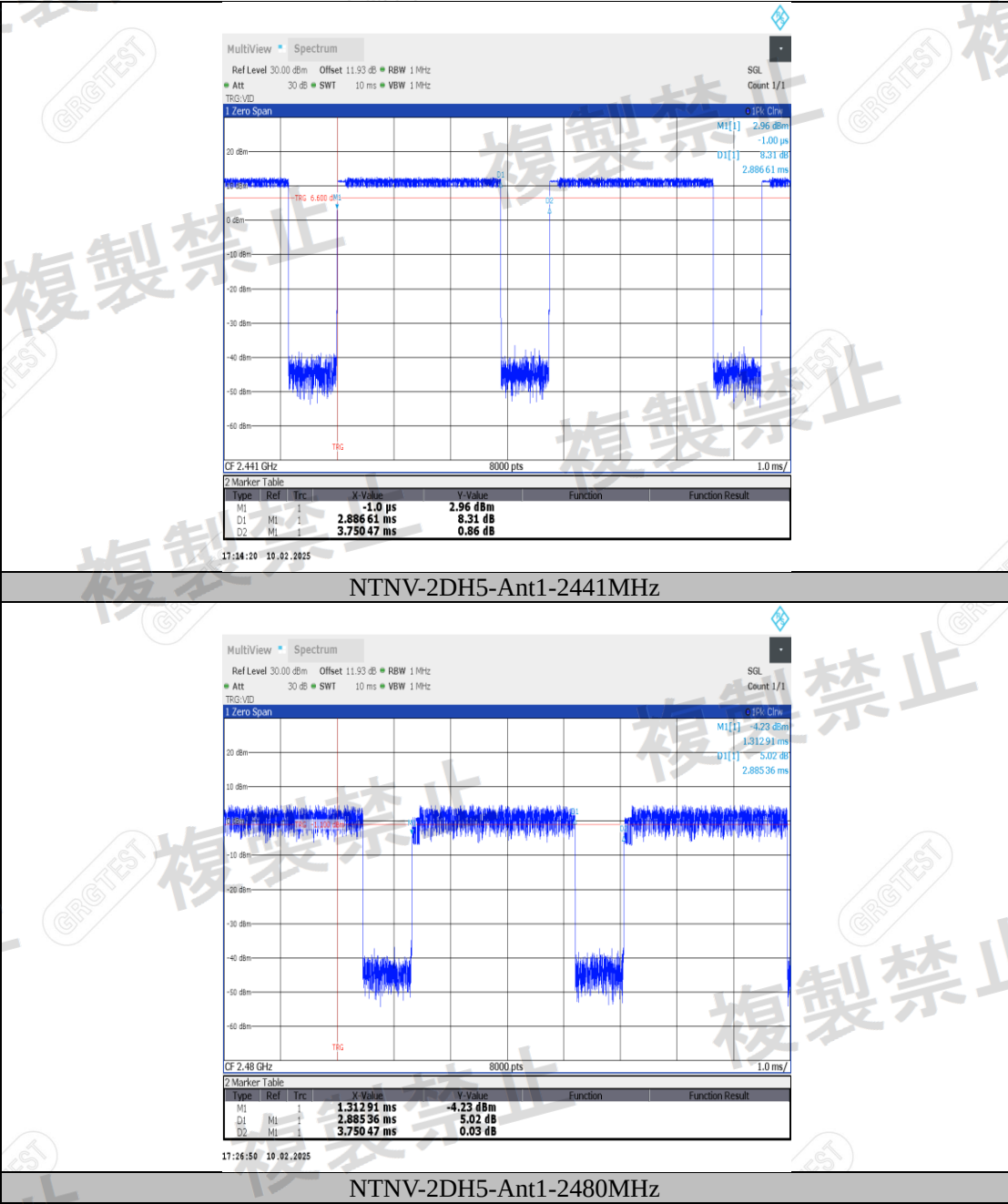
2). Dwell time = [spreading rate/79] x duty cycle x 0.4 seconds

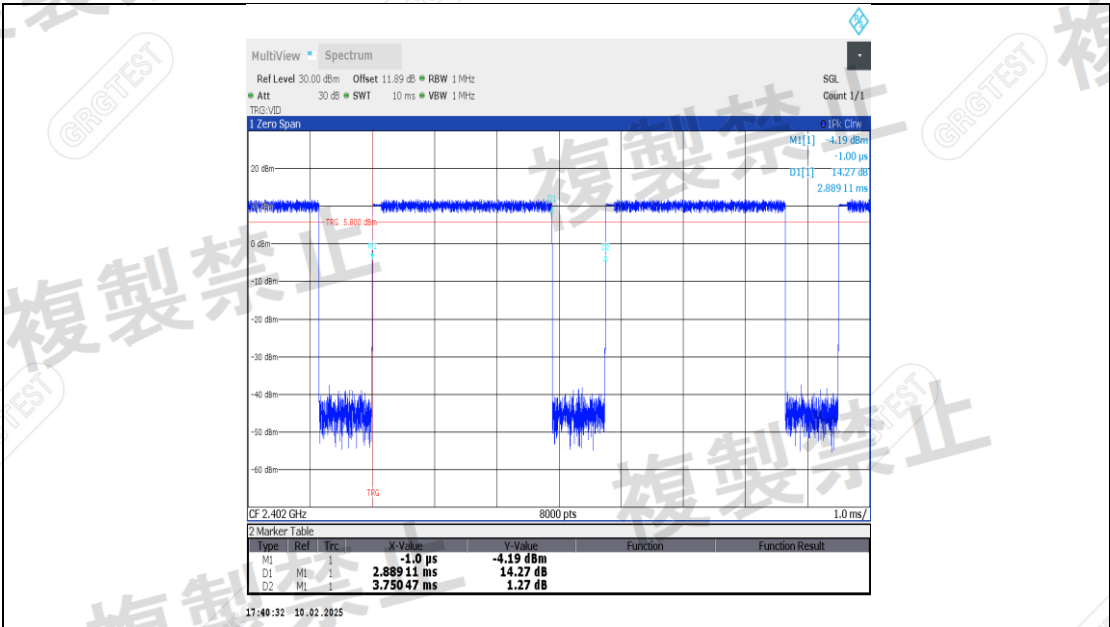
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Test Plots

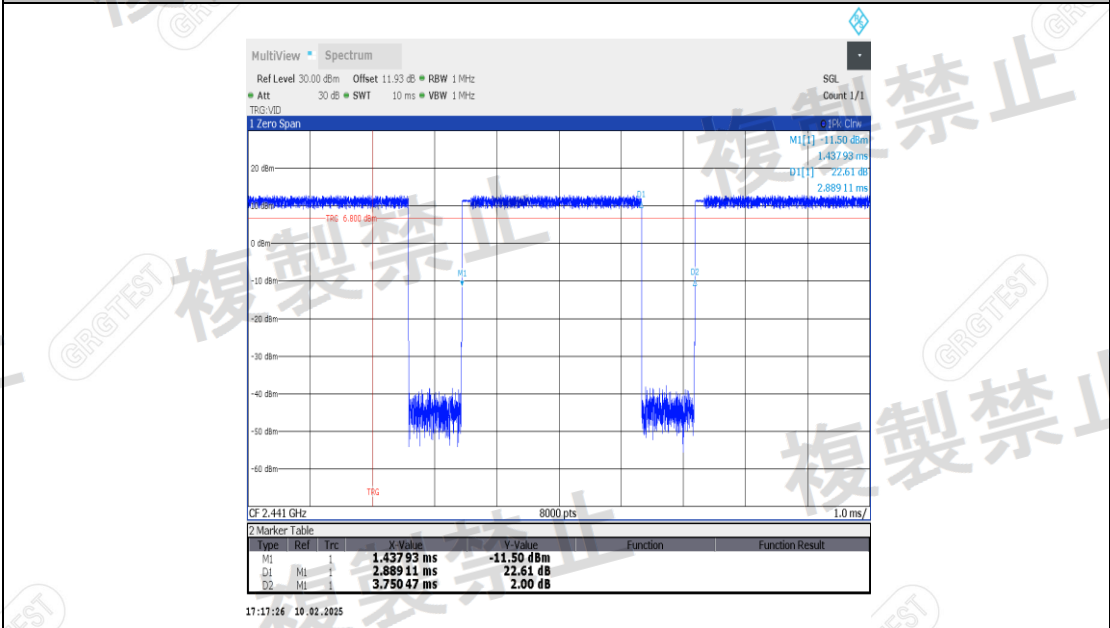




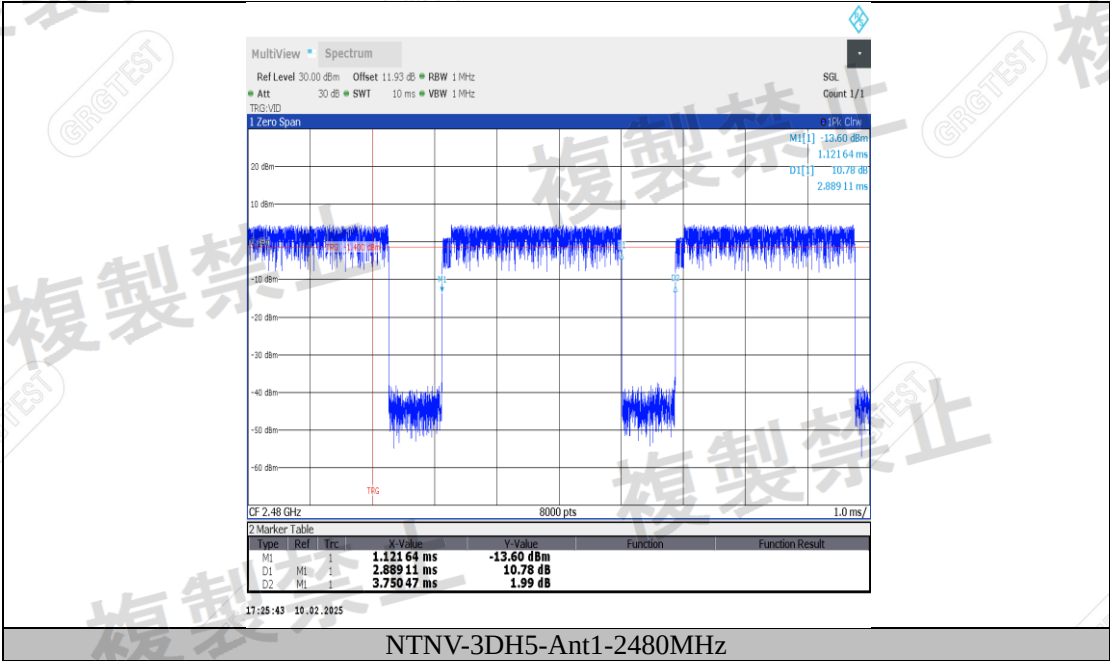




NTNV-3DH5-Ant1-2402MHz



NTNV-3DH5-Ant1-2441MHz



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6.7 RADIO INTERFERENCE PREVENTION CAPABILITY MEASUREMENT

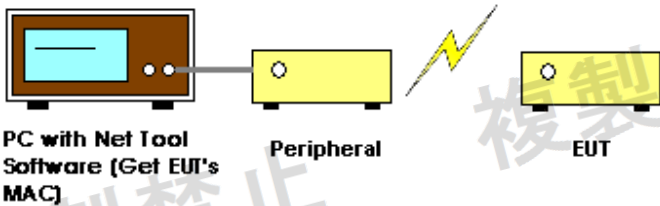
6.7.1 LIMIT

Item	Limits
Identification code	≧ 48 bits

6.7.2 TEST PROCEDURES

- a) In the case that the EUT has the function of automatically transmitting the identification code: Transmit the predetermined identification codes form EUT. Check the transmitted identification codes with the demodulator.
- b) In the case of receiving the identification code: Transmit the predetermined identification codes form the counterpart. Check if communication is normal. Transmit the signals other than predetermined ID codes form the counterpart. Check if the EUT stops the transmission, or if it displays that identification codes are different from the predetermined ones.

6.7.3 TEST SETUP



6.7.4 TEST RESULTS

Test Date (yy-mm-dd): 2025-02-10

Test environment: Normal condition: Temp: 23.5℃, Humid: 48%, Atmospheric Pressure: 101.0kpa

Test by: Qin Tingting

Test voltage: Normal voltage: 3.7V

Test Power	Normal Voltage
Test Mode	Mode 3
Test Result	Good (identification code: 22:22:A1:3B:06:A7)

6.8 CONSTRUCTION PROTECTION CONFIRMATION METHOD

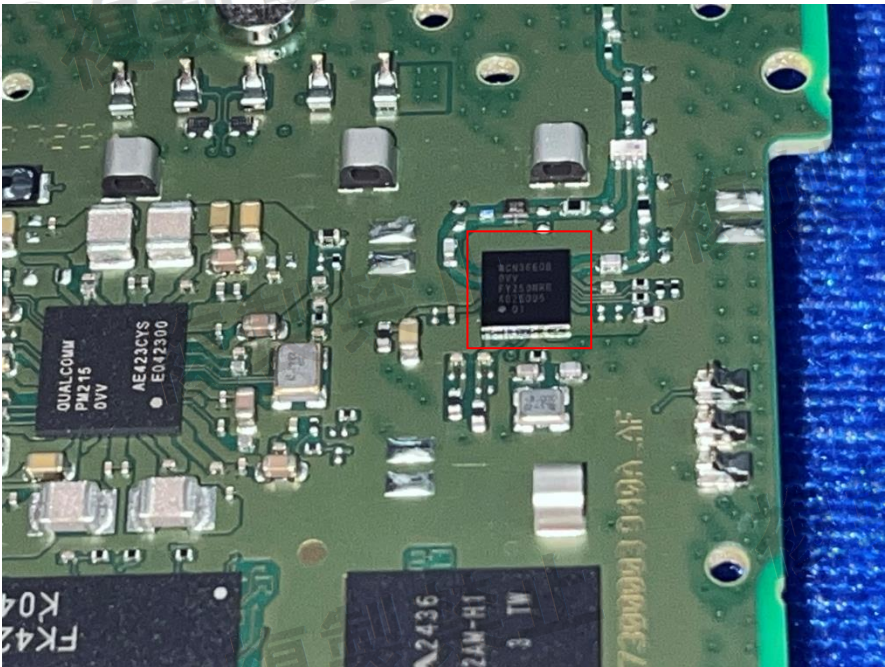
6.8.1 LIMIT

(See Article 49-20, Item1-a of the Ordinance Regulating Radio Equipment)The high-frequency section and modulation section of the radio equipment except forthe antenna system shall not be capable of being opened easily.

6.8.2 CONFIRMATION METHOD

The RF and modulation portions are protected against illegal modification as following method:

Tick the appropriate box	
	1). Sealed with special screws.
	2). Plastic chassis is being welded using ultrasonic waves.
	3). Chassis is glued using a special adhesive.
	4). Metal covers are spot-fused.
	5). Cover is specially interlocked.
	6). RF and Modulation components are covered with shielding case and this shielding case is soldered.
	7). Shield case is welded at RF and modulation parts, and ID-ROM is welded using the BGA Method.
	8). Shield case is welded at RF and modulation parts, and ID-ROM is glued at its lead with a special adhesive
	9). Shield case is welded at RF and modulation parts, and ID-ROM is guled with a non-transparent laminating agent.
☒	10). RF and Modulation parts are mounted on PCB with surface mount technology, and there is no any adjustable part on PCB or adjustable parts are not exposed.



APPENDIX A. PHOTOGRAPH OF THE TEST CONNECTION DIAGRAM

Please refer to the attached document E202501107526-Test photo.

APPENDIX B. PHOTOGRAPH OF THE EUT

Please refer to the attached document E202501107526-EUT Photo.

----- End of Report -----