

TEST REPORT

CERTIFICATE OF CONFORMITY

Standard: Certification Ordinance Article 2-1-19
Report No.: RJBBDJ-WTW-P24090476
Product: Wireless Gaming Mouse
Brand: TUL
Model No.: ALPHYN AM10
Received Date: 2024/9/24
Test Date: 2024/10/15 ~ 2024/10/21
Issued Date: 2024/11/5
Applicant: TUL Corporation
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Lin Kou Laboratories
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Approved by:

Jeremy Lin

, Date:

2024/11/5

Jeremy Lin / Project Engineer

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Release Control Record

Issue No.	Description	Date Issued
RJBBDJ-WTW-P24090476	Original release.	2024/11/5

1 Certificate

Product: Wireless Gaming Mouse

Brand: TUL

Test Model: ALPHYN AM10

Sample Status: Engineering sample

Applicant: TUL Corporation

Test Date: 2024/10/15 ~ 2024/10/21

Standard: Certification Ordinance Article 2-1-19

Measurement procedure: MIC notice 88 Appendix 43

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's RF characteristics under the conditions specified in this report.

2 Summary of Test Results

Certification Ordinance Article 2-1-19		
Clause	Test Item	Result
OR: Article 5 OR: Annex 1 table 7-8	Frequency Tolerance	Pass
OR: Article 6 Annex 2.30	Occupied Bandwidth	Pass
OR: Article 7. Annex 3.26	Spurious Emissions	Pass
OR: Article 49-20	Antenna Specifications	Pass
OR: Article 24.2	Spurious Emissions of Receiver	Pass
OR: Article 49-20	Housing Requirements	Pass (Refer to Note 1)
OR: Article 49-20	Antenna Power	Pass
OR: Article 49-20	Absolute Gain of Transmitting Antenna	Pass
OR: Article 49-20	Angular Width of Principal Radiation (AWPR)	N/A
OR: Article 49-20	Number of Carriers within 1 MHz Bandwidth in OFDM	N/A
OR: Article 49-20	Dwell Time (FH employed)	N/A
OR: Article 9-4.5 RE: Article 6-2.3 RE: Article 6-2.5	Interference Prevention Function	Pass
OR: Article 49-20	Carrier Sense Capability	N/A

Notes:

1. The relative information refer section 3.1 of this report.
2. OR: Ordinance Regulating Radio Equipment
3. RE: Regulations for Enforcement of the radio law
4. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

2.1 Measurement Uncertainty

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

Parameter	Uncertainty (±)
Occupied Bandwidth	960 Hz
Spurious Emissions	2.7 dB
Output Power Density	1.3 dB
Frequency Tolerance	97.75 Hz

The other instruments specified are routine verified to remain within the calibrated levels, no measurement uncertainty is required to be calculated.

2.2 Supplementary Information

There is not any deviation from the test standards for the test method, and no modifications required for compliance.

3 General Information

3.1 General Description

Product	Wireless Gaming Mouse
Brand	TUL
Test Model	ALPHYN AM10
Test Software Version	Mouse RF Test App
Status of EUT	Engineering sample
Power Supply Rating	3.7Vdc from Battery or 5Vdc from host equipment
Modulation Type	GFSK
Transfer Rate	2 Mbps
Operating Frequency	2.403 GHz ~ 2.48 GHz
Number of Channel	78
Housing Requirements	The EUT used a kind of particular screw, which could not operate by a tool bought in the market. Only means of brute force will be able to opened.

Note:

1. The EUT uses following accessory.

Item	Specification
USB Cable	Shielded 1.8m

2. There are Bluetooth and SRD technology used for the EUT.

3. Bluetooth and SRD technology can not transmit at same time.

4. The above EUT information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or User's Manual.

3.2 Output Power Description of EUT

Operation Mode	Rated Output Power (mW)	Maximum Conducted RF Output Power (mW)	Maximum Radiated RF Output Power (mW)
GFSK	3	2.931	5.164

3.3 Antenna Description of EUT

1. The antenna information is listed as below.

Gain (dBi)	Antenna Type	Connector Type
2.46	Chip	none

* Detail antenna specification please refer to antenna datasheet and/or antenna measurement report.

2. Antenna Pattern:

Please refer to the attached file (Antenna pattern).

3.4 Channel List

78 channels are provided to this EUT:

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
0	2403	20	2423	40	2443	60	2463
1	2404	21	2424	41	2444	61	2464
2	2405	22	2425	42	2445	62	2465
3	2406	23	2426	43	2446	63	2466
4	2407	24	2427	44	2447	64	2467
5	2408	25	2428	45	2448	65	2468
6	2409	26	2429	46	2449	66	2469
7	2410	27	2430	47	2450	67	2470
8	2411	28	2431	48	2451	68	2471
9	2412	29	2432	49	2452	69	2472
10	2413	30	2433	50	2453	70	2473
11	2414	31	2434	51	2454	71	2474
12	2415	32	2435	52	2455	72	2475
13	2416	33	2436	53	2456	73	2476
14	2417	34	2437	54	2457	74	2477
15	2418	35	2438	55	2458	75	2478
16	2419	36	2439	56	2459	76	2479
17	2420	37	2440	57	2460	77	2480
18	2421	38	2441	58	2461		
19	2422	39	2442	59	2462		

3.5 Power Setting

Channel	Power Setting
0	0
38	0
77	0

3.6 Test Mode Applicability and Tested Channel Detail

Test Conditions	Voltage (Vdc)
V_{normal}	3.7
$V_{max.}$	4.07
$V_{min.}$	3.33

Following channel(s) was (were) selected for the final test as listed below:

Test Item	Tested Channel	Modulation	Data Rate Parameter
Frequency Tolerance	0, 38, 77	-	-
Occupied Bandwidth	0, 38, 77	GFSK	2Mb/s
Spurious Emissions	0, 38, 77	GFSK	2Mb/s
Spurious Emissions of Receiver	0, 38, 77	-	-
Antenna Power	0, 38, 77	GFSK	2Mb/s
Interference Prevention Function	Normal Operation		

4 Test Instruments

The calibration interval of the all test instruments are 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

4.1 Frequency Tolerance

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until	Calibration Authority	Calibration Method
Programmable DC Power Supply IDRC	DSP80-180WE	701217	Note 2	Note 2	BV CPS E&E	(d)
PXA Signal Analyzer Keysight	N9030A	MY54490260	2024/7/17	2025/7/16	ETC	(c)
Signal Analyzer R&S	FSV40	101042	2024/9/12	2025/9/11	ETC	(c)
Software	ADT_RF Test Software V6.6.5.4	N/A	N/A	N/A	N/A	N/A

Notes:

- Calibration method:
 - Calibration conducted by the National Institute of Information and Communications Technology (NICT) or a designated calibration agency under Article 102-18 paragraph (1).
 - Calibration conducted pursuant to the provisions of Article 135 or Article 144 of the Measurement Law (Law No. 51 of 1992) Japan Calibration Service System.
 - 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).
 - Calibration conducted by using other equipment that listed above from a) to c).
- The power supply no evaluation calibrated, which used the RMS clamp meter to verify before each testing.
- The test was performed in LK - Oven
- Tested Date: 2024/10/15

4.2 Occupied Bandwidth

Refer to section 4.1 to get the tested date and information of the instruments.

4.3 Spurious Emissions

Refer to section 4.1 to get the tested date and information of the instruments.

4.4 Spurious Emissions of Receiver

Refer to section 4.1 to get the tested date and information of the instruments.

4.5 Antenna Power

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until	Calibration Authority	Calibration Method
Programmable DC Power Supply IDRC	DSP80-180WE	701217	Note 2	Note 2	BV CPS E&E	(d)
Pulse Power Sensor Anritsu	MA2411B	0738404	2024/5/13	2025/5/12	ETC	(c)
RF Power Meter Anritsu	ML2495A	0842014	2024/5/13	2025/5/12	ETC	(c)
USB Wideband Power Sensor Keysight	U2021XA	U2021XA_001	2024/6/7	2025/6/6	ETC	(c)

Notes:

- Calibration method:
 - Calibration conducted by the National Institute of Information and Communications Technology (NICT) or a designated calibration agency under Article 102-18 paragraph (1).
 - Calibration conducted pursuant to the provisions of Article 135 or Article 144 of the Measurement Law (Law No. 51 of 1992) Japan Calibration Service System.
 - 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).
 - Calibration conducted by using other equipment that listed above from a) to c).
- The power supply no evaluation calibrated, which used the RMS clamp meter to verify before each testing.
- The test was performed in LK - Oven
- Tested Date: 2024/10/15

4.6 Interference Prevention Function

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until	Calibration Authority	Calibration Method
Wireless Connectivity Tester R&S	CMW270	102033	2024/9/25	2025/9/24	ETC	(c)

Notes:

- Calibration method:
 - Calibration conducted by the National Institute of Information and Communications Technology (NICT) or a designated calibration agency under Article 102-18 paragraph (1).
 - Calibration conducted pursuant to the provisions of Article 135 or Article 144 of the Measurement Law (Law No. 51 of 1992) Japan Calibration Service System.
 - 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).
 - Calibration conducted by using other equipment that listed above from a) to c).
- The test was performed in LK - Oven
- Tested Date: 2024/10/21

5 Limits of Test Items

5.1 Frequency Tolerance

Tolerance of frequency shall be +/- 50ppm.

5.2 Occupied Bandwidth

Modulation Method	Limit
DSSS	<26 MHz
OFDM	<26 MHz
	26 – 40 MHz
FHSS	<83.5 MHz
Other Digital	<26 MHz

5.3 Spurious Emissions

Frequencies	Limit
Operating frequency 2400 to 2483.5 MHz	
30.0 MHz to 1000.0 MHz	$\leq 0.25 \text{ uW}/100 \text{ kHz}$
1000.0 MHz to 2387 MHz	$\leq 2.5 \text{ uW}/\text{MHz}$
2387.0 MHz to 2400.0 MHz	$\leq 25 \text{ uW}/\text{MHz}$
2483.5 MHz to 2496.5 MHz	$\leq 25 \text{ uW}/\text{MHz}$
2496.5 MHz to 12500.0 MHz	$\leq 2.5 \text{ uW}/\text{MHz}$

5.4 Spurious Emissions of Receiver

Frequencies	Limit
Below 1 GHz	$\leq 4 \text{ nW}$
Above 1 GHz	$\leq 20 \text{ nW}$

5.5 Antenna Power

Modulation System	Frequency Band Used	Antenna Power (Max.)	E.I.R.P. Limit (Note 3)
DSSS	2400 – 2483.5 MHz	10 mW/MHz	12.14 dBm/MHz ~ 22.14 dBm/MHz (16.368 mW/MHz ~ 163.68 mW/MHz)
OFDM (Note 1)	2400 – 2483.5 MHz	10 mW/MHz	12.14 dBm/MHz ~ 22.14 dBm/MHz (16.368 mW/MHz ~ 163.68 mW/MHz)
OFDM (Note 2)	2400 – 2483.5 MHz	5 mW/MHz	9.13 dBm/MHz ~ 19.13 dBm/MHz (8.184 mW/MHz ~ 81.84 mW/MHz)
FHSS	2400 – 2483.5 MHz	3 mW/MHz	6.91 dBm/MHz ~ 16.91 dBm/MHz (4.91 mW/MHz ~ 49.10 mW/MHz)
Other Digital	2400 – 2483.5 MHz	10 mW	12.14 dBm ~ 22.14 dBm (16.368 mW ~ 163.68 mW)

Notes:

- Occupied bandwidth is less than 26 MHz.
- Occupied bandwidth is more than 26 MHz and less than 40 MHz.
- E.I.R.P. limit is variable by the HPBA, the HPBA (half-power beam width) of the antenna shall be $360 / A$ degrees or less, where $A = E.I.R.P. / (2.14 \text{ dBi} + \text{"Antenna Power (limit)"})$.
- Tolerance of antenna power shall be +20% (upper value).
- When an E.I.R.P. is less than 2.14 dBi + antenna power limit. The shortage can be compensated for by the antenna power. (Application to transmitting devices using "Other method" is Limited to "GFSK")

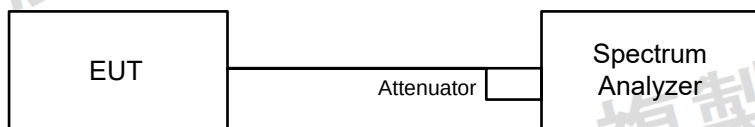
5.6 Interference Prevention Function

When conducting wireless communications that transmit data or other information: A function that automatically sends or receives an identification code.

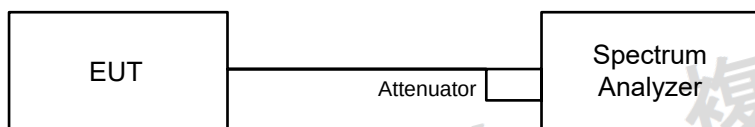
When performing radiolocation work: A function that allows you to distinguish between reflected waves of radio waves transmitted by your own station and radio waves transmitted by other radio stations by identifying the modulation method and other characteristics of received radio waves. (However, if it also has the function of transmitting signals for data transmission, both functions shall be included.)

6 Test Arrangements

6.1 Frequency Tolerance



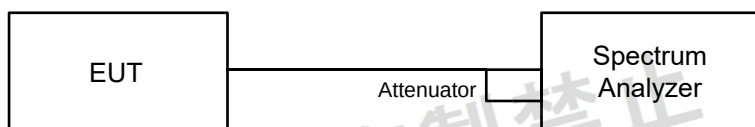
6.2 Occupied Bandwidth



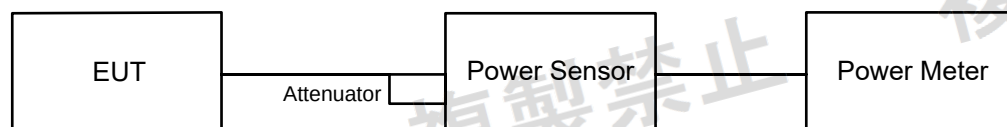
6.3 Spurious Emissions



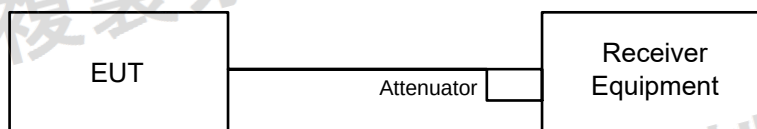
6.4 Spurious Emissions of Receiver



6.5 Antenna Power



6.6 Interference Prevention Function



7 Test Results of Test Item

7.1 Frequency Tolerance

Environmental Conditions:	25°C, 76% RH	Tested By:	Waydi Tuan
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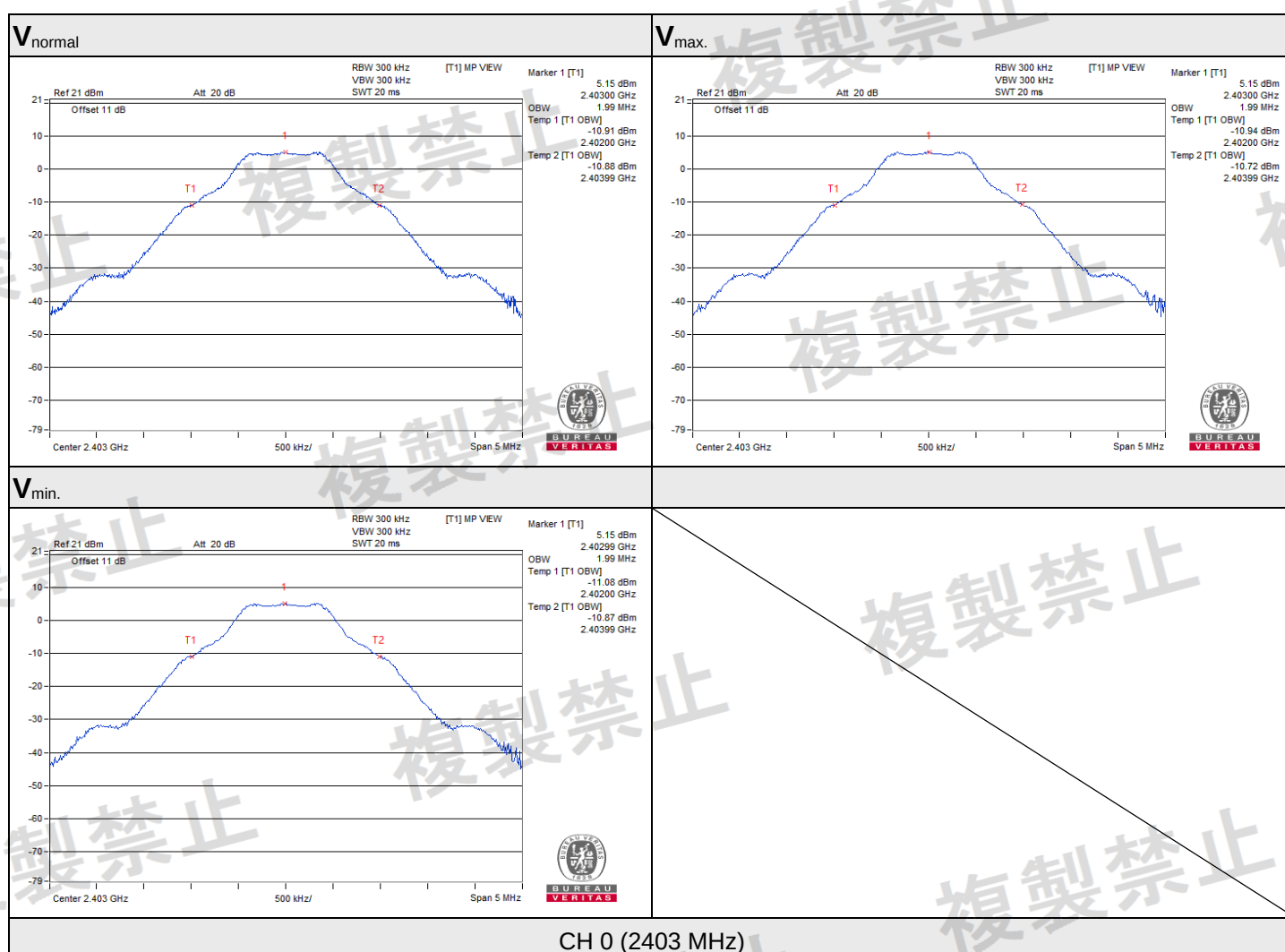
Channel	Frequency (MHz)	V_{normal}		$V_{max.}$		$V_{min.}$	
		Carrier frequency (MHz)	Frequency tolerance (ppm)	Carrier frequency (MHz)	Frequency tolerance (ppm)	Carrier frequency (MHz)	Frequency tolerance (ppm)
0	2403	2402.992040	-3.312	2402.991920	-3.362	2402.991960	-3.345
38	2441	2440.991800	-3.359	2440.991760	-3.375	2440.991720	-3.392
77	2480	2479.991560	-3.403	2479.991520	-3.419	2479.991559	-3.403

7.2 Occupied Bandwidth

Environmental Conditions:	25°C, 76% RH	Tested By:	Waydi Tuan
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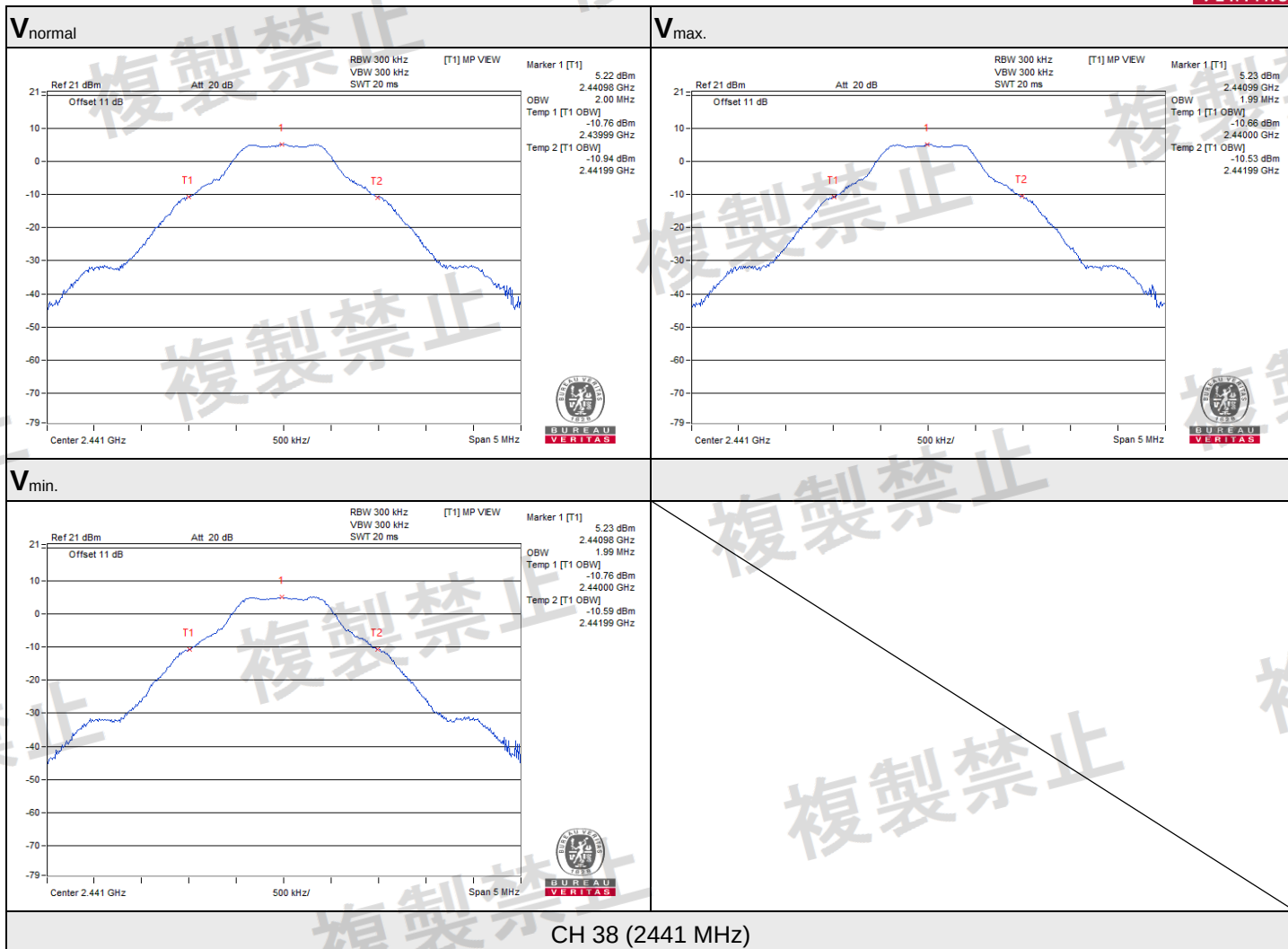
Channel	Frequency (MHz)	V _{normal}	V _{max.}	V _{min.}
		Occupied Bandwidth (MHz)	Occupied Bandwidth (MHz)	Occupied Bandwidth (MHz)
0	2403	1.99	1.99	1.99
38	2441	2.00	1.99	1.99
77	2480	2.00	2.01	2.00

NOTE: For the test plots please refer to the below pages.



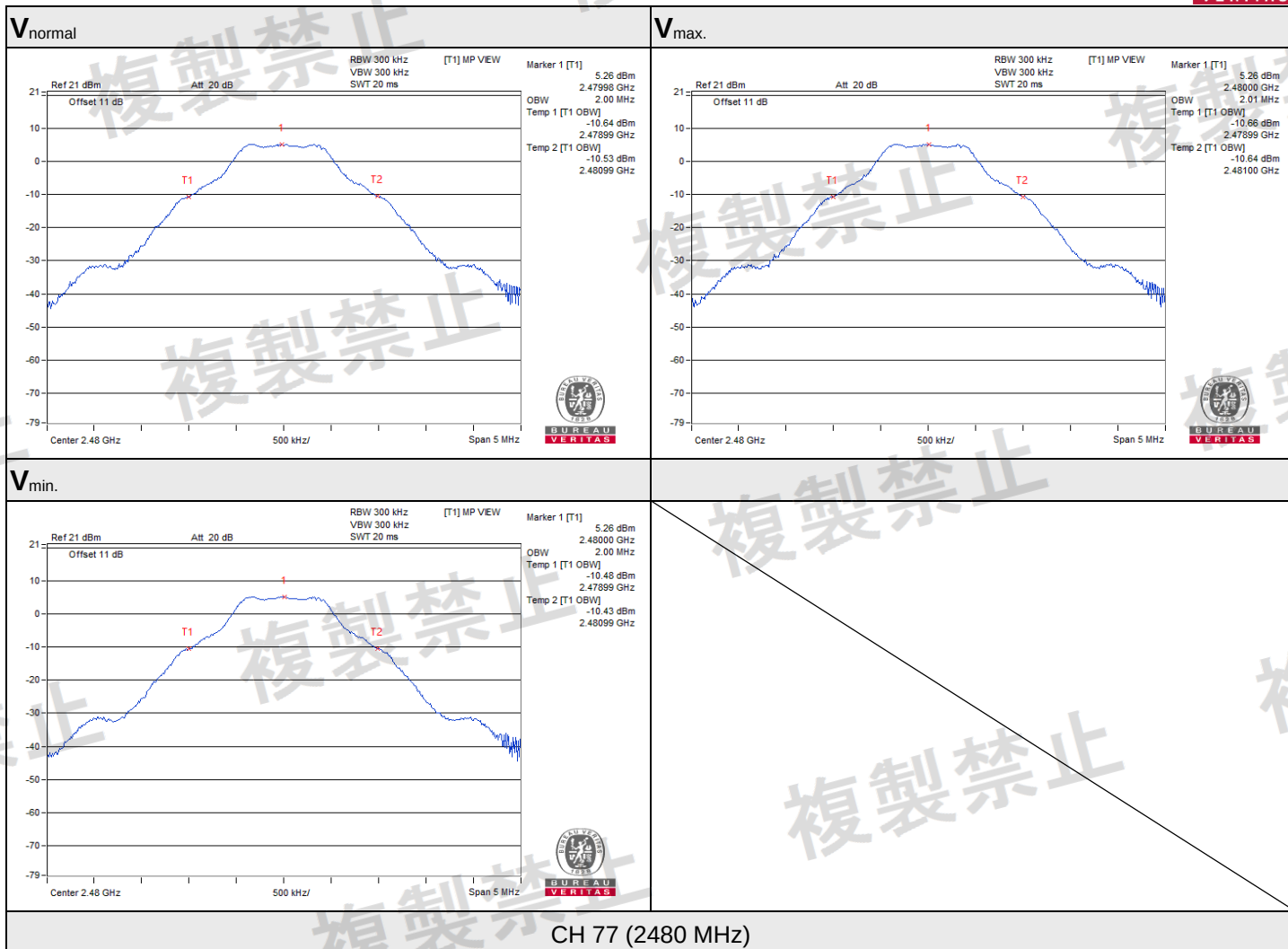


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7.3 Spurious Emissions

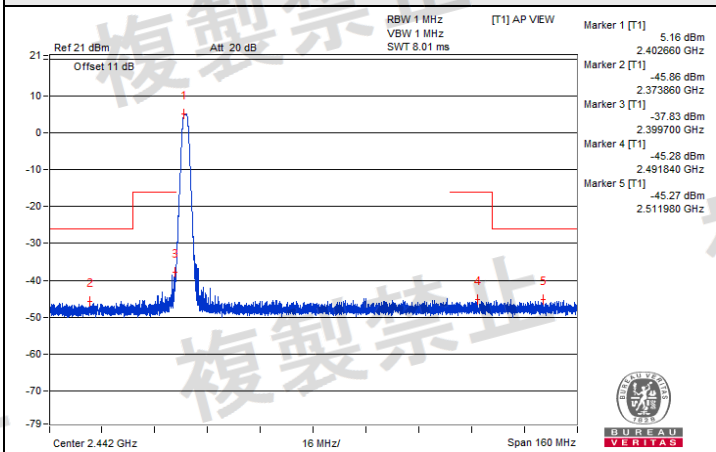
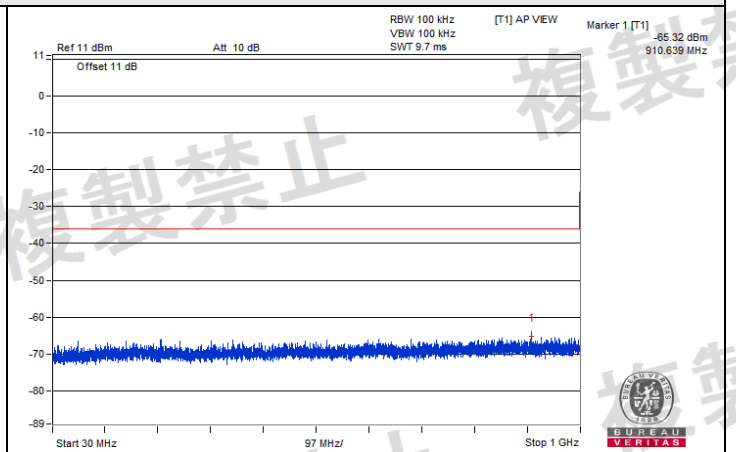
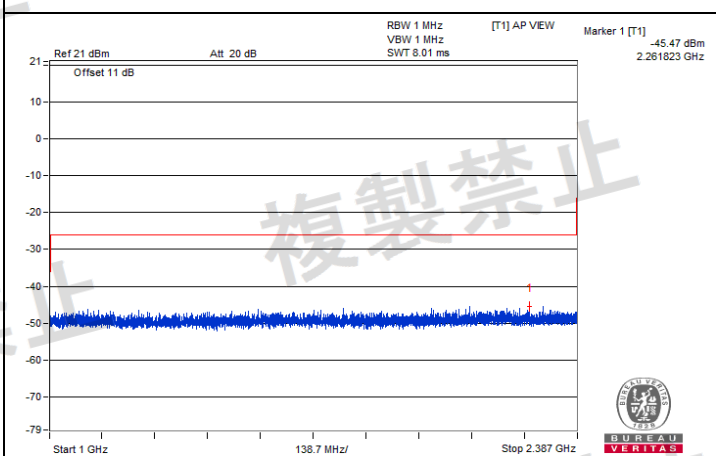
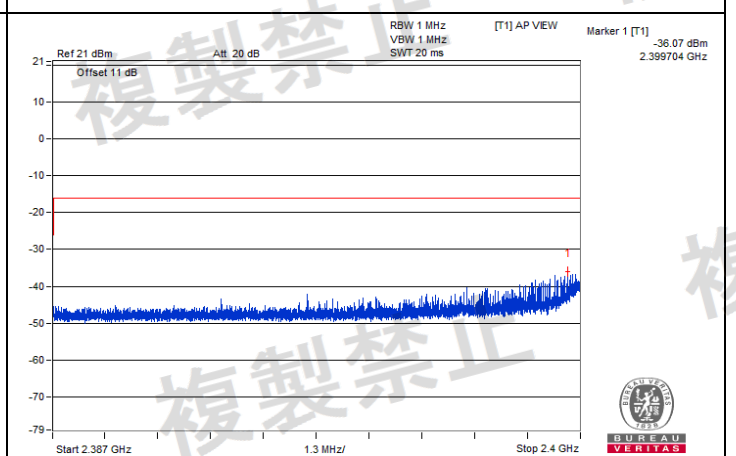
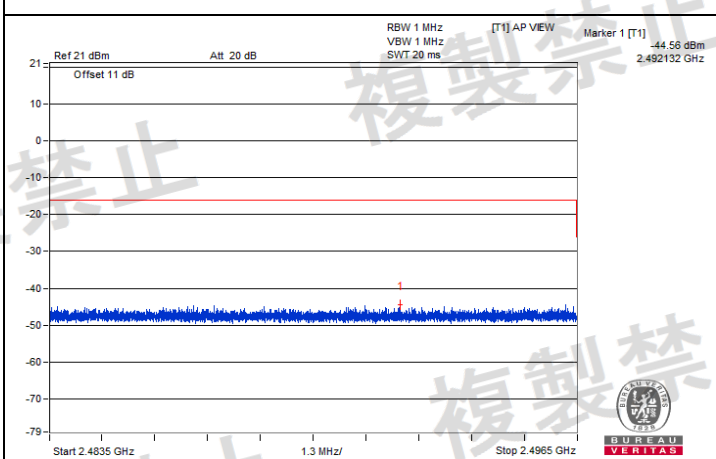
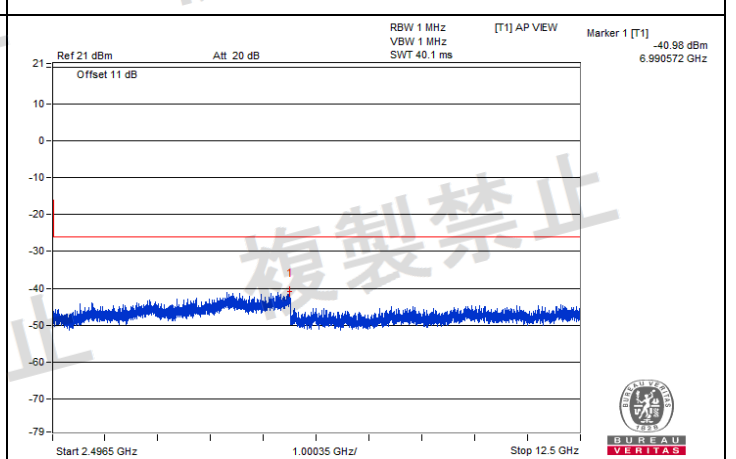
Environmental Conditions:	25°C, 76% RH	Tested By:	Waydi Tuan
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TEST CHANNEL		CH 0 (2403 MHz)			
TEST CONDITION	FREQUENCY RANGE(MHz)	FREQUENCY (MHz)	MEASUREMENT VALUE	LIMIT	RESULT
V_{normal}	30.0 to 1000.0	910.639	0.000294 uW/100kHz	0.25 uW/100kHz	PASS
	1000.0 to 2387.0	2261.823	0.028379 uW/MHz	2.5 uW/MHz	PASS
	2387.0 to 2400.0	2399.704	0.247172 uW/MHz	25 uW/MHz	PASS
	2483.5.0 to 2496.5.0	2492.132	0.034995 uW/MHz	25 uW/MHz	PASS
	2496.5.0 to 12500.0	6990.572	0.079799 uW/MHz	2.5 uW/MHz	PASS
V_{max.}	30.0 to 1000.0	933.798	0.000316 uW/100kHz	0.25 uW/100kHz	PASS
	1000.0 to 2387.0	2011.990	0.028576 uW/MHz	2.5 uW/MHz	PASS
	2387.0 to 2400.0	2400.000	0.254683 uW/MHz	25 uW/MHz	PASS
	2483.5.0 to 2496.5.0	2494.228	0.033806 uW/MHz	25 uW/MHz	PASS
	2496.5.0 to 12500.0	5821.413	0.070795 uW/MHz	2.5 uW/MHz	PASS
V_{min.}	30.0 to 1000.0	909.790	0.00031 uW/100kHz	0.25 uW/100kHz	PASS
	1000.0 to 2387.0	2275.000	0.028774 uW/MHz	2.5 uW/MHz	PASS
	2387.0 to 2400.0	2399.890	0.243781 uW/MHz	25 uW/MHz	PASS
	2483.5.0 to 2496.5.0	2489.264	0.038019 uW/MHz	25 uW/MHz	PASS
	2496.5.0 to 12500.0	6747.988	0.088512 uW/MHz	2.5 uW/MHz	PASS
TEST CHANNEL		CH 38 (2441 MHz)			
V_{normal}	30.0 to 1000.0	999.151	0.000317 uW/100kHz	0.25 uW/100kHz	PASS
	1000.0 to 2387.0	2109.080	0.026792 uW/MHz	2.5 uW/MHz	PASS
	2387.0 to 2400.0	2387.109	0.03281 uW/MHz	25 uW/MHz	PASS
	2483.5.0 to 2496.5.0	2487.514	0.037931 uW/MHz	25 uW/MHz	PASS
	2496.5.0 to 12500.0	6995.574	0.085901 uW/MHz	2.5 uW/MHz	PASS
V_{max.}	30.0 to 1000.0	746.830	0.000348 uW/100kHz	0.25 uW/100kHz	PASS
	1000.0 to 2387.0	1735.803	0.027416 uW/MHz	2.5 uW/MHz	PASS
	2387.0 to 2400.0	2392.567	0.037325 uW/MHz	25 uW/MHz	PASS
	2483.5.0 to 2496.5.0	2489.480	0.036644 uW/MHz	25 uW/MHz	PASS
	2496.5.0 to 12500.0	5810.159	0.099541 uW/MHz	2.5 uW/MHz	PASS
V_{min.}	30.0 to 1000.0	814.851	0.000287 uW/100kHz	0.25 uW/100kHz	PASS
	1000.0 to 2387.0	2247.260	0.027606 uW/MHz	2.5 uW/MHz	PASS
	2387.0 to 2400.0	2398.796	0.036141 uW/MHz	25 uW/MHz	PASS
	2483.5.0 to 2496.5.0	2496.247	0.033884 uW/MHz	25 uW/MHz	PASS
	2496.5.0 to 12500.0	6946.807	0.089125 uW/MHz	2.5 uW/MHz	PASS

TEST CHANNEL		CH 77 (2480 MHz)			
TEST CONDITION	FREQUENCY RANGE(MHz)	FREQUENCY (MHz)	MEASUREMENT VALUE	LIMIT	RESULT
V_{normal}	30.0 to 1000.0	998.060	0.000321 uW/100kHz	0.25 uW/100kHz	PASS
	1000.0 to 2387.0	2151.037	0.026303 uW/MHz	2.5 uW/MHz	PASS
	2387.0 to 2400.0	2394.823	0.037325 uW/MHz	25 uW/MHz	PASS
	2483.5.0 to 2496.5.0	2483.607	0.514044 uW/MHz	25 uW/MHz	PASS
	2496.5.0 to 12500.0	6964.313	0.082035 uW/MHz	2.5 uW/MHz	PASS
V_{max.}	30.0 to 1000.0	911.972	0.000292 uW/100kHz	0.25 uW/100kHz	PASS
	1000.0 to 2387.0	2160.226	0.026607 uW/MHz	2.5 uW/MHz	PASS
	2387.0 to 2400.0	2389.691	0.036898 uW/MHz	25 uW/MHz	PASS
	2483.5.0 to 2496.5.0	2483.702	0.486407 uW/MHz	25 uW/MHz	PASS
	2496.5.0 to 12500.0	6923.049	0.086696 uW/MHz	2.5 uW/MHz	PASS
V_{min.}	30.0 to 1000.0	665.835	0.000313 uW/100kHz	0.25 uW/100kHz	PASS
	1000.0 to 2387.0	1599.011	0.027164 uW/MHz	2.5 uW/MHz	PASS
	2387.0 to 2400.0	2387.374	0.034754 uW/MHz	25 uW/MHz	PASS
	2483.5.0 to 2496.5.0	2483.510	0.526017 uW/MHz	25 uW/MHz	PASS
	2496.5.0 to 12500.0	6908.043	0.077268 uW/MHz	2.5 uW/MHz	PASS

NOTE: 1. The spectrum plots are attached on the following pages.

Vnormal

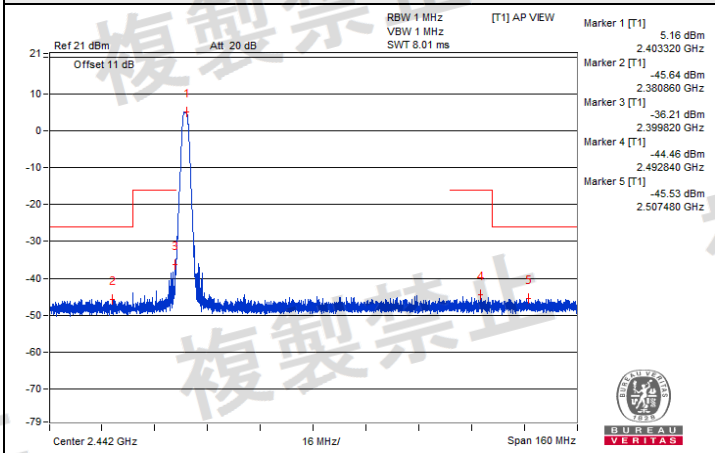
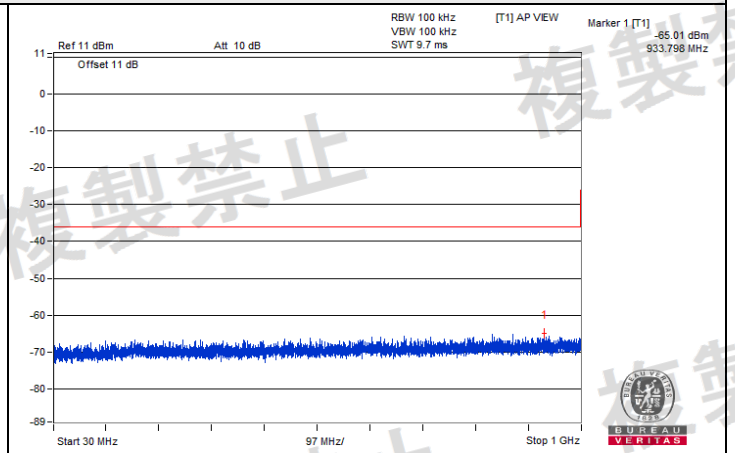
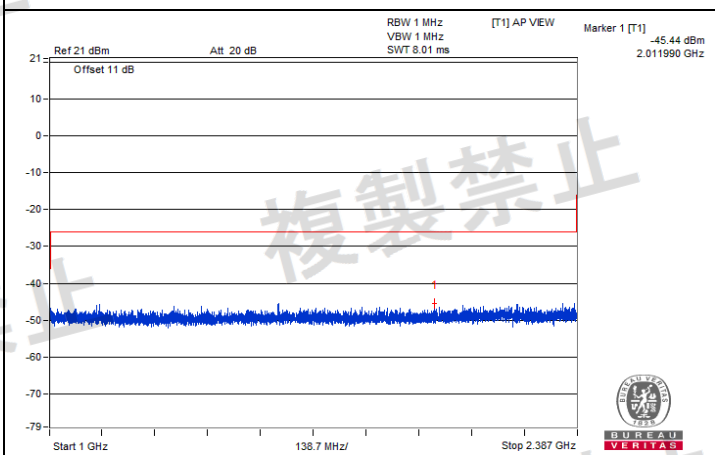
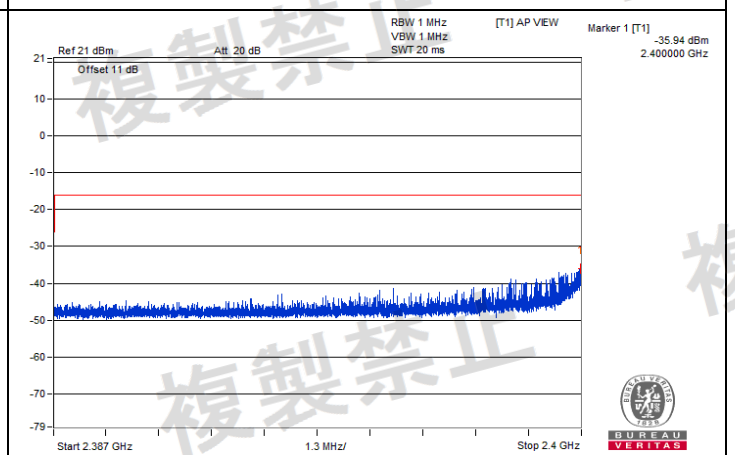
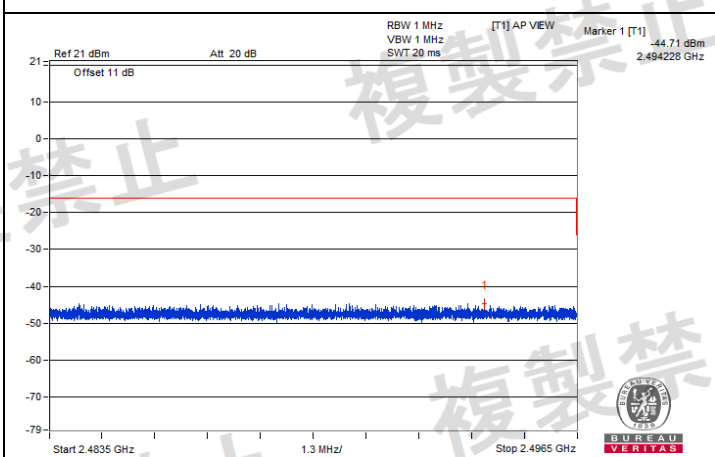
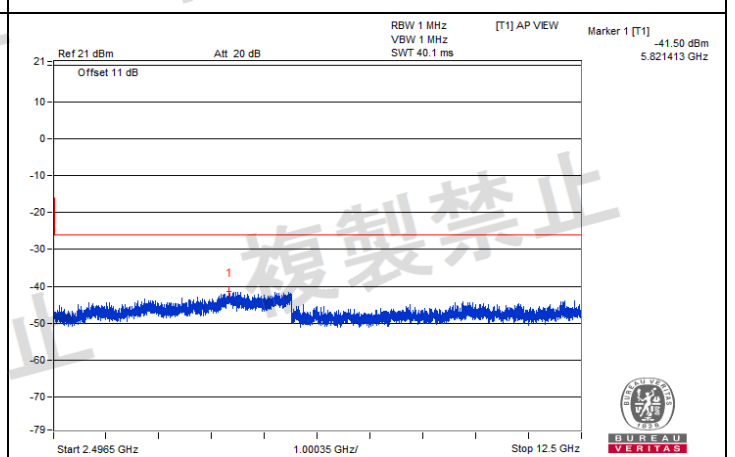


CH 0 (2403 MHz)



BUREAU
VERITAS

Vmax.

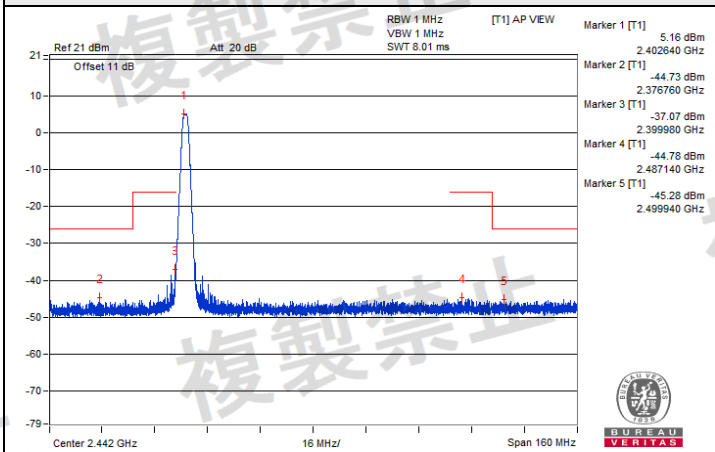
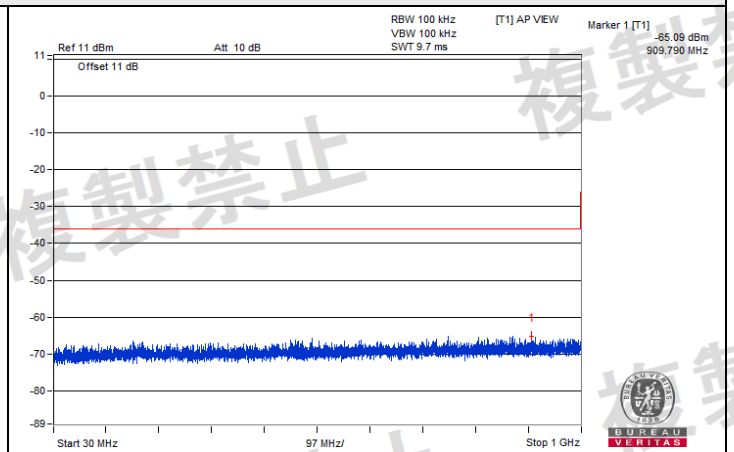
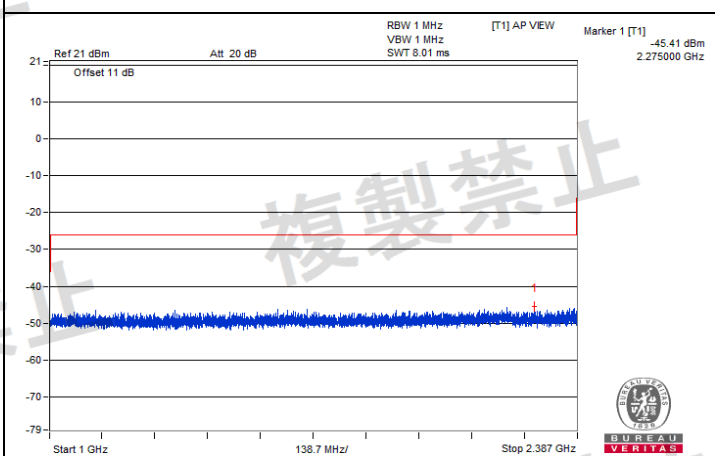
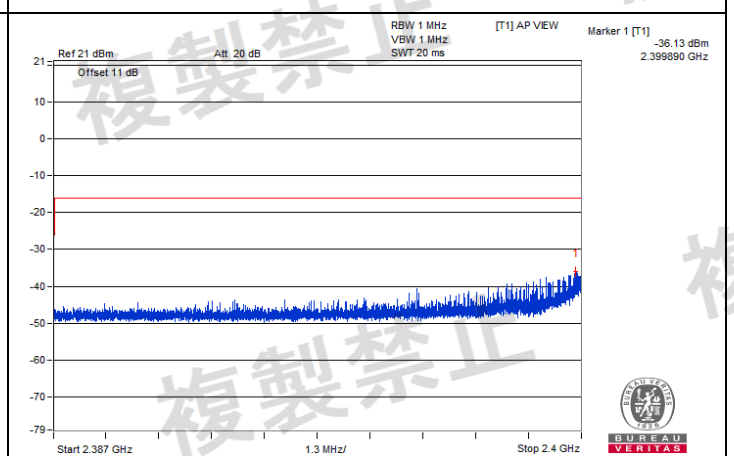
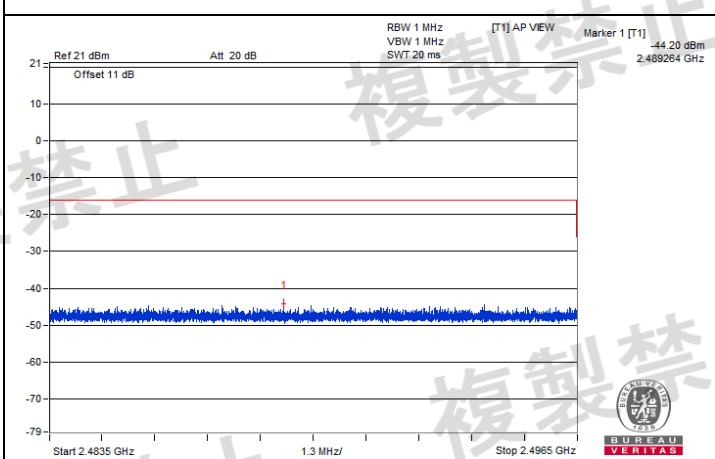
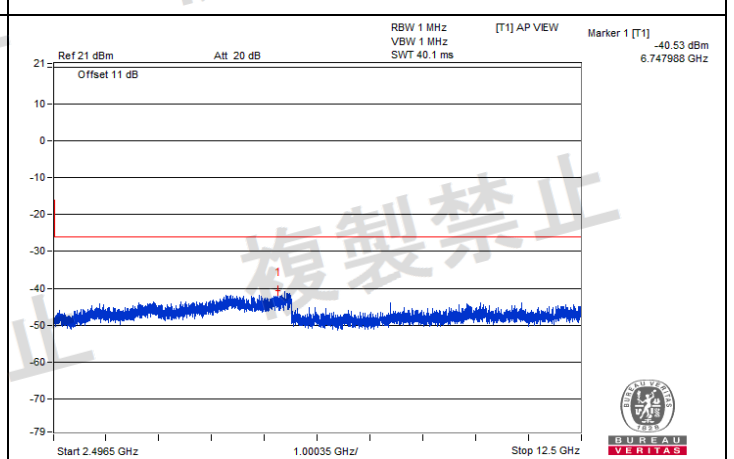


CH 0 (2403 MHz)

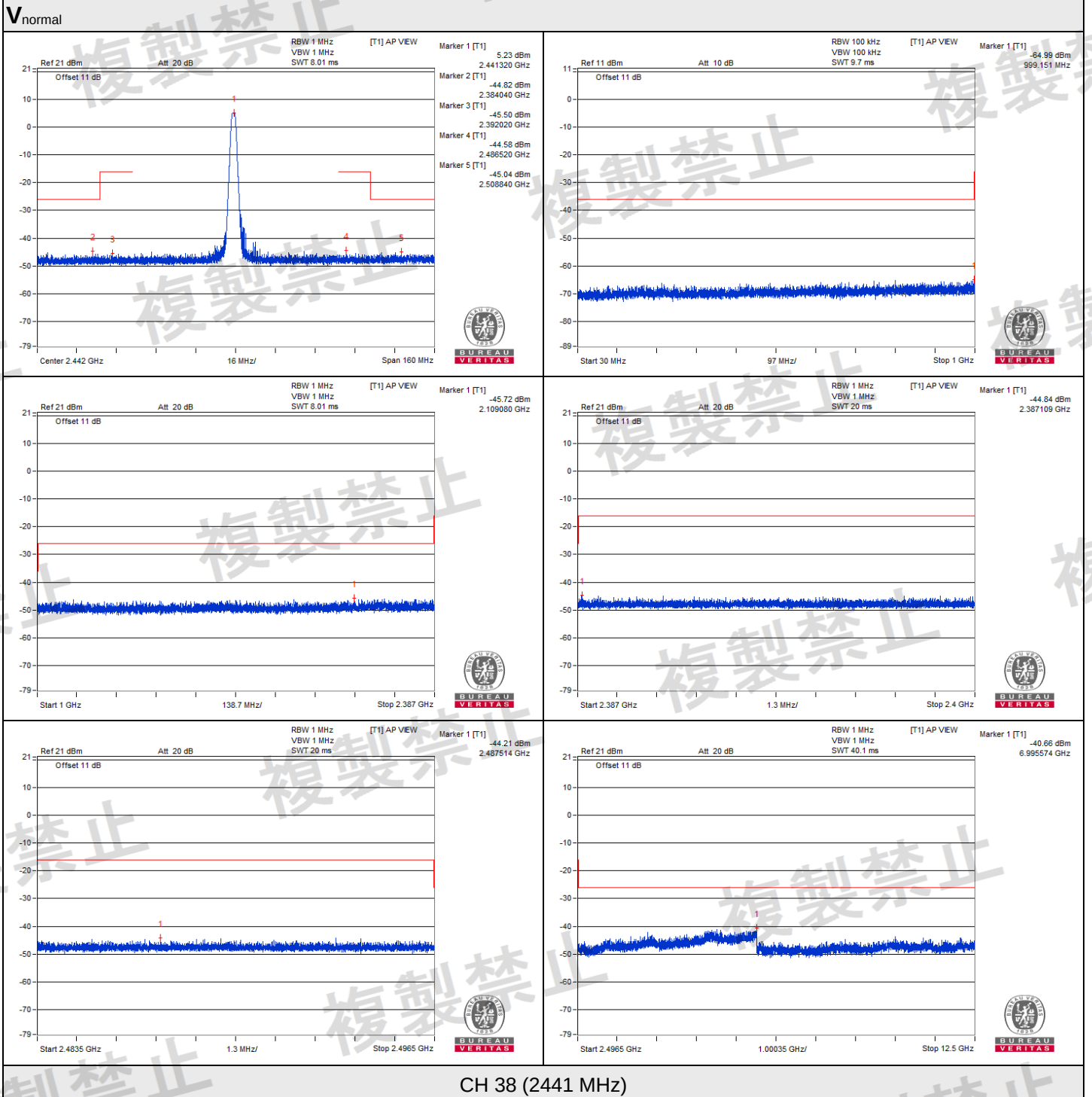


BUREAU
VERITAS

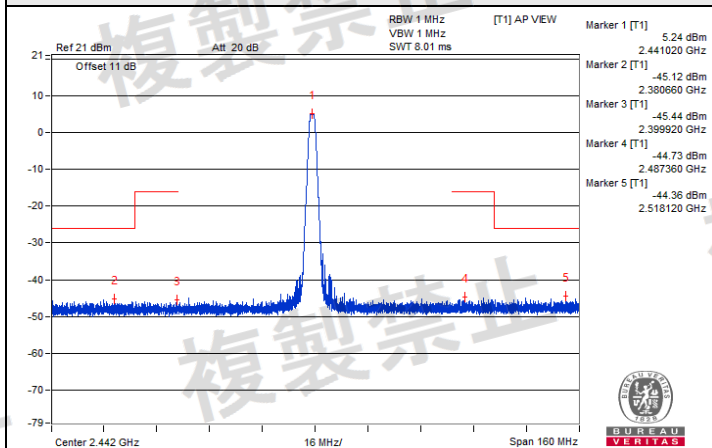
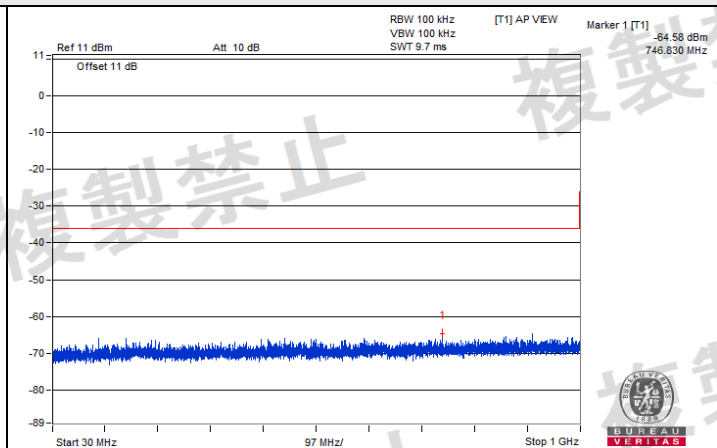
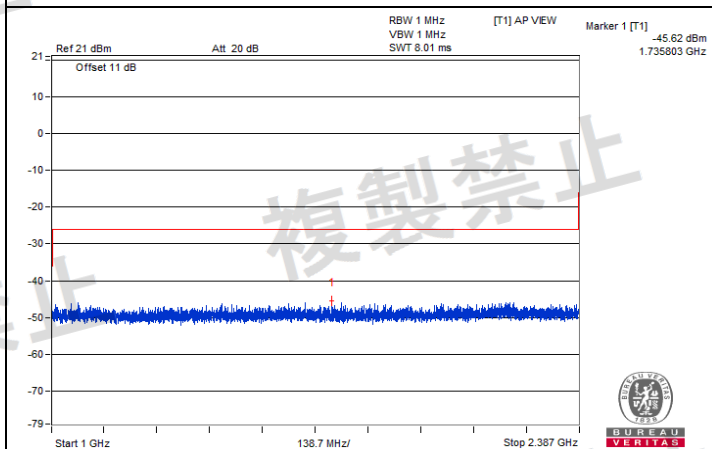
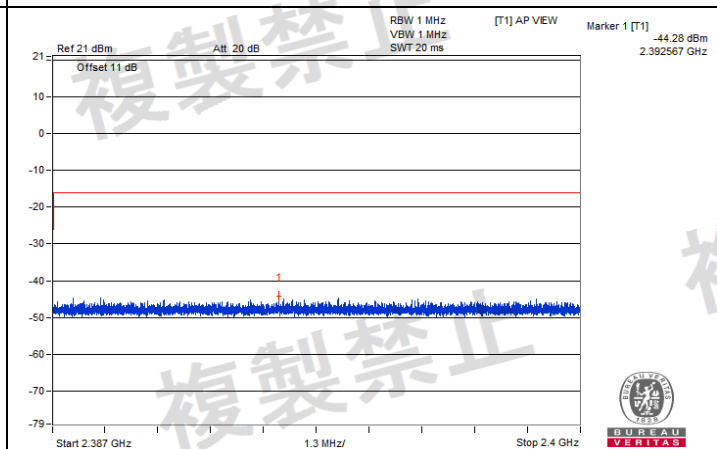
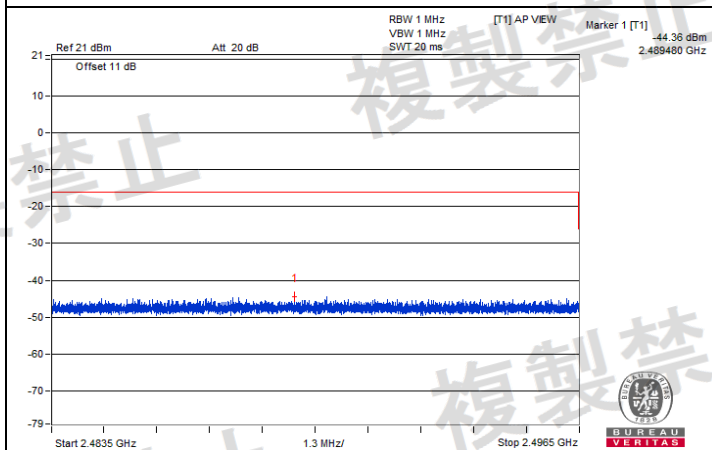
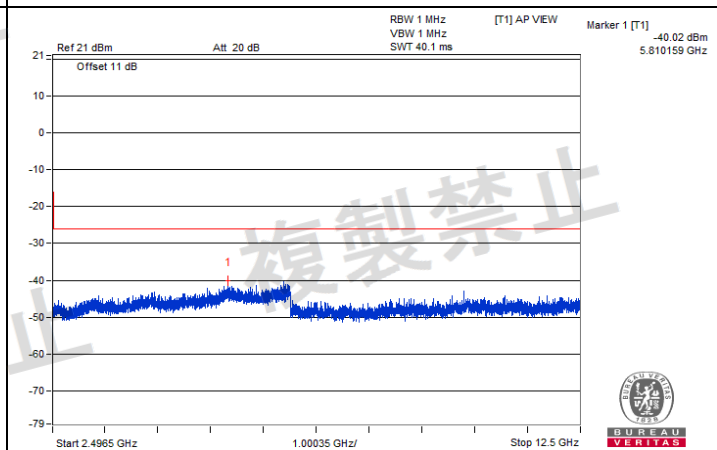
V_{min}.



CH 0 (2403 MHz)

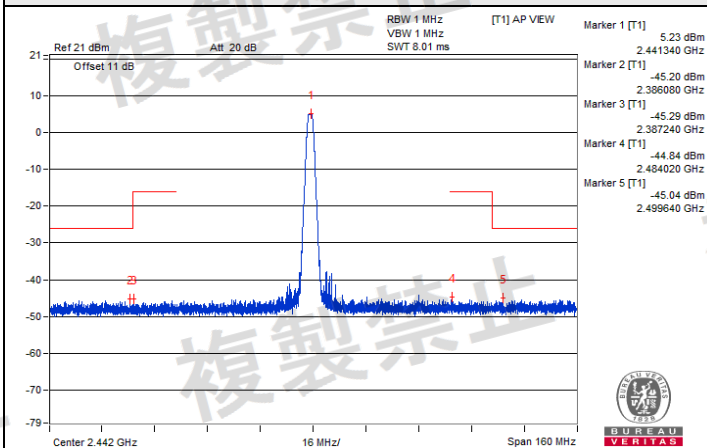
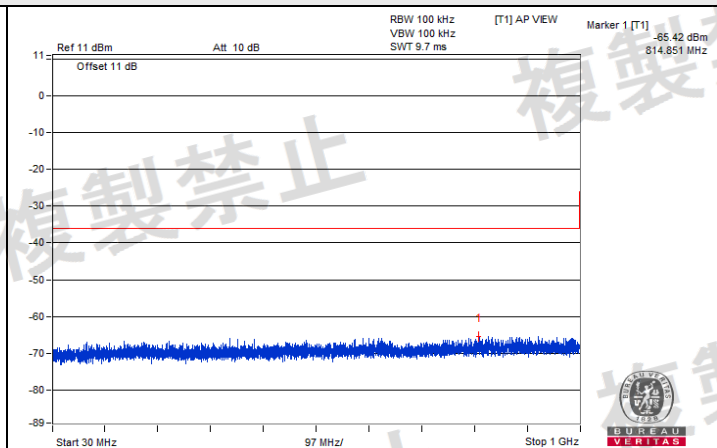
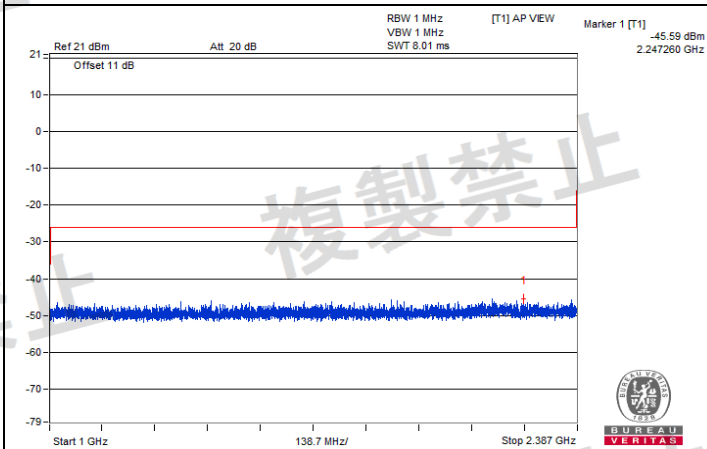
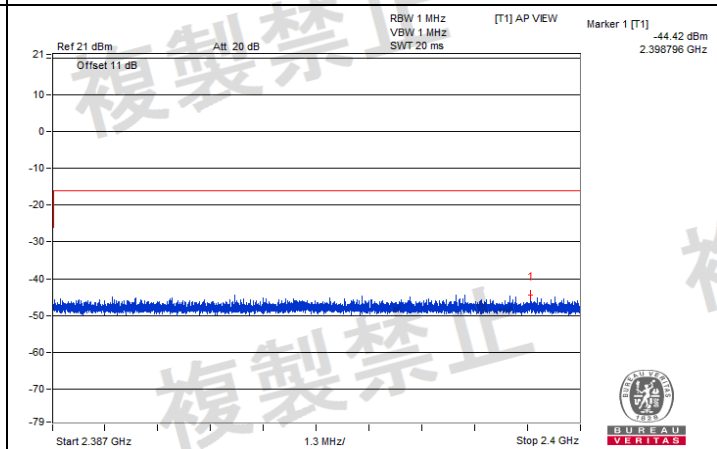
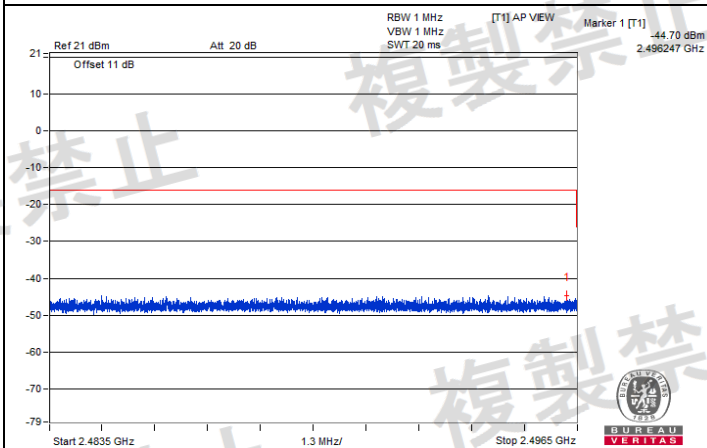
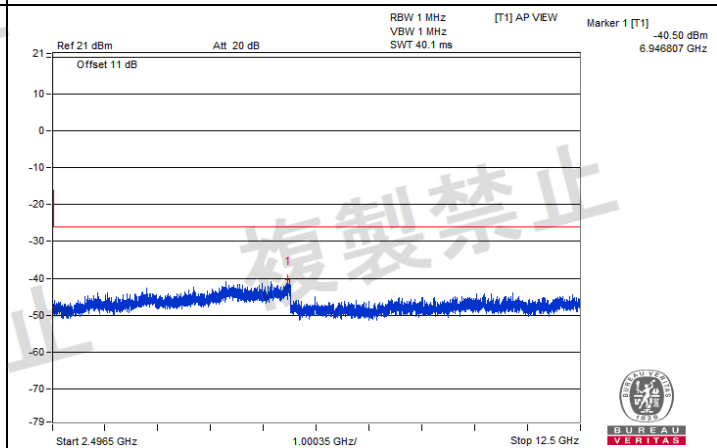


Vmax.



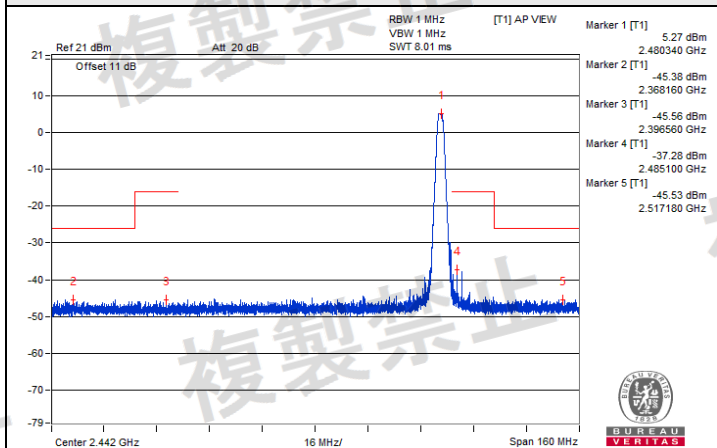
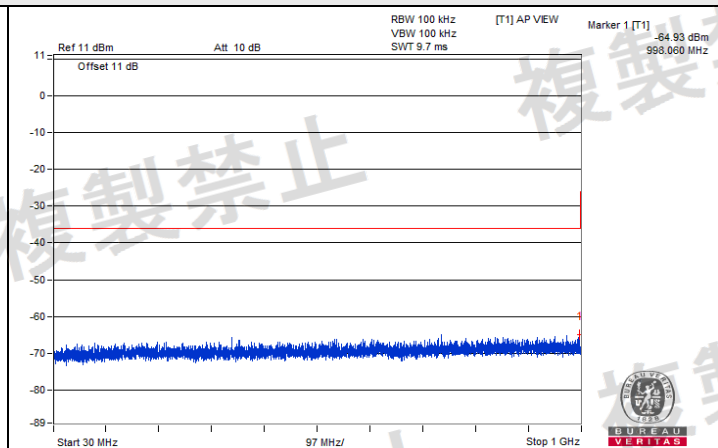
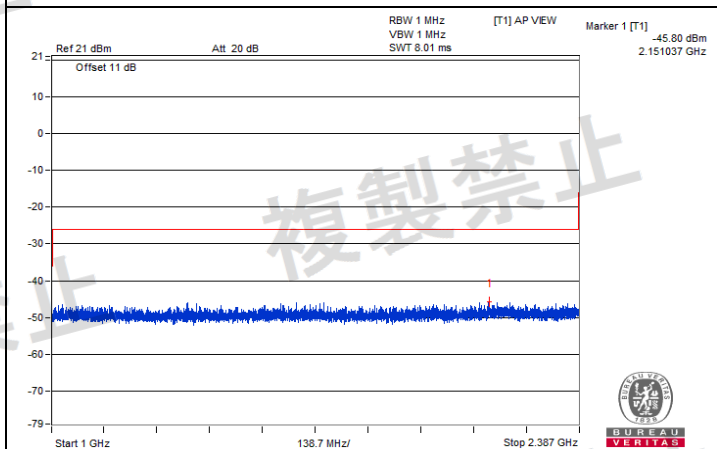
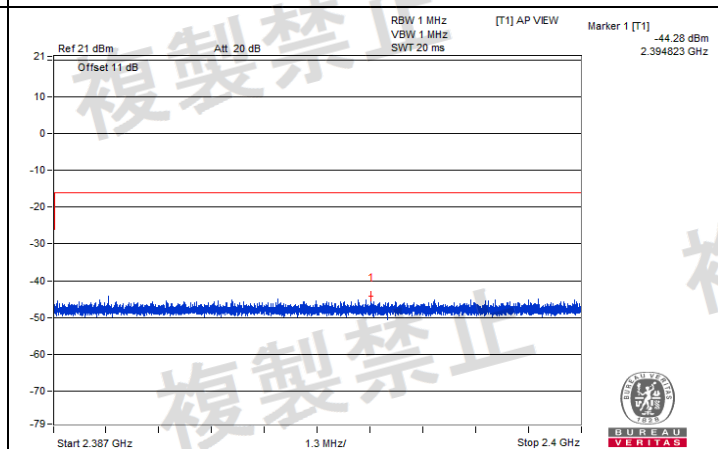
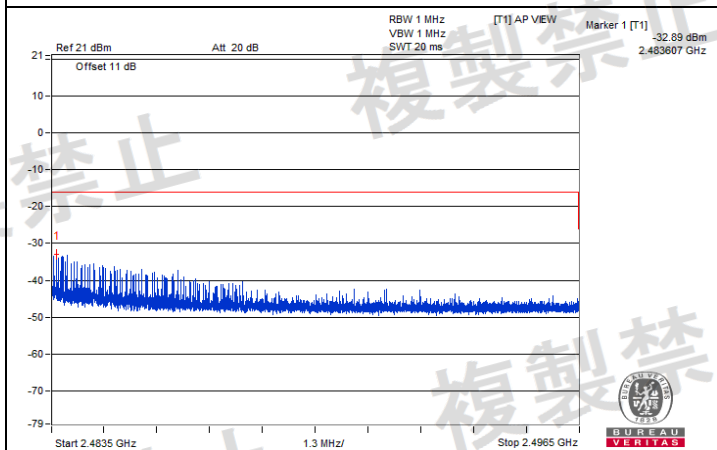
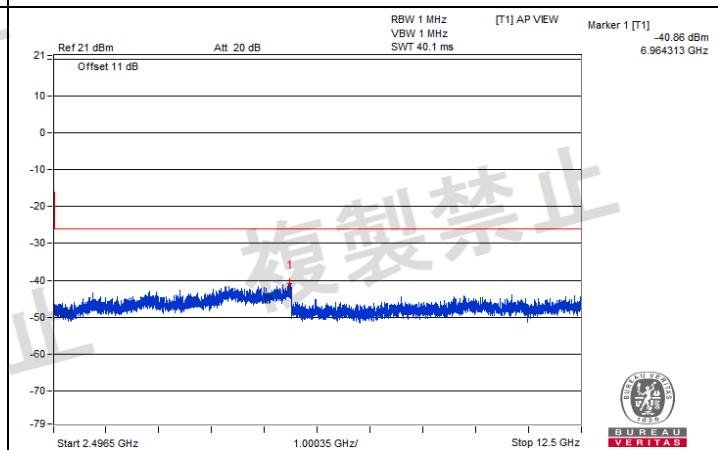
CH 38 (2441 MHz)

V_{min}.



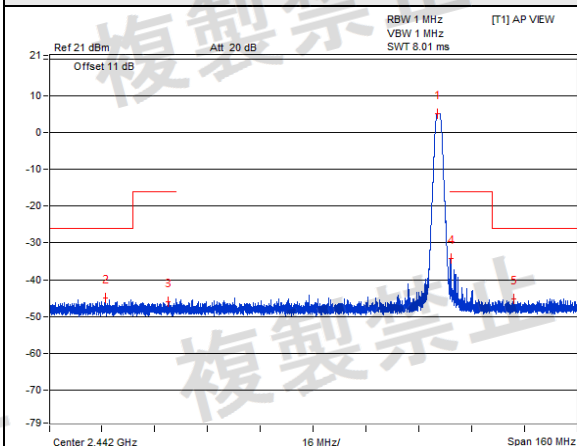
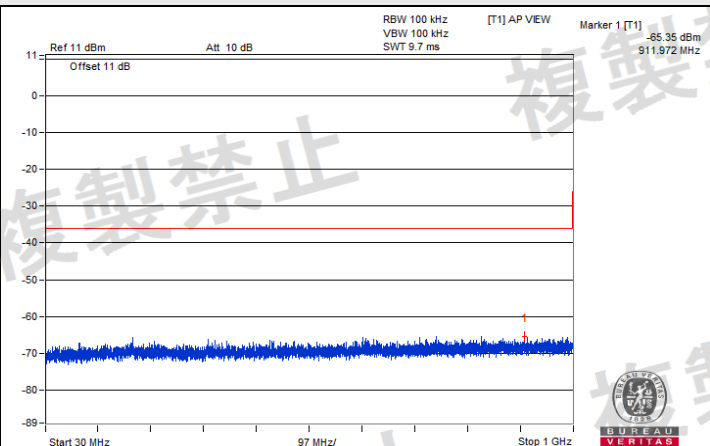
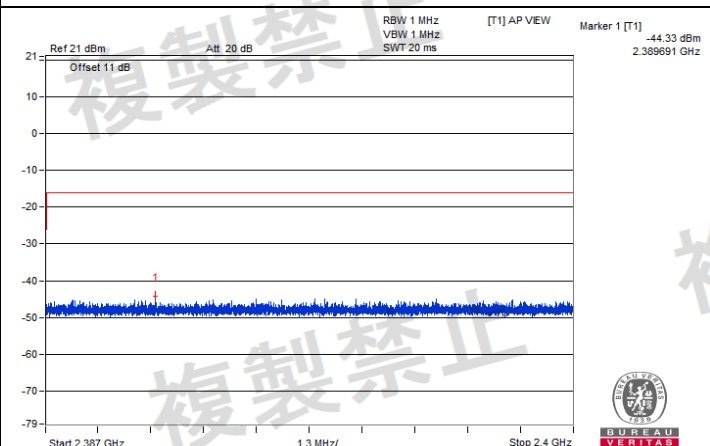
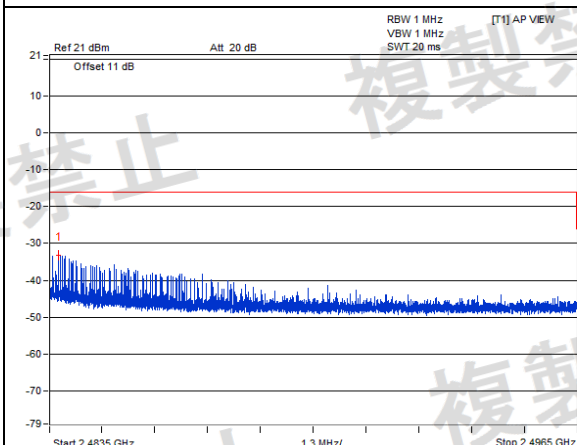
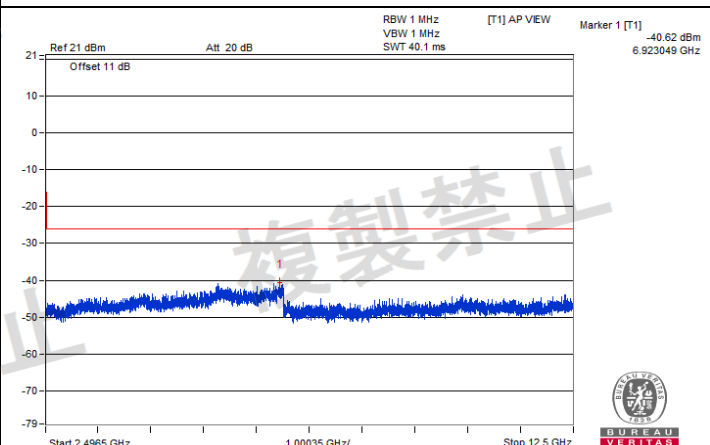
CH 38 (2441 MHz)

Vnormal



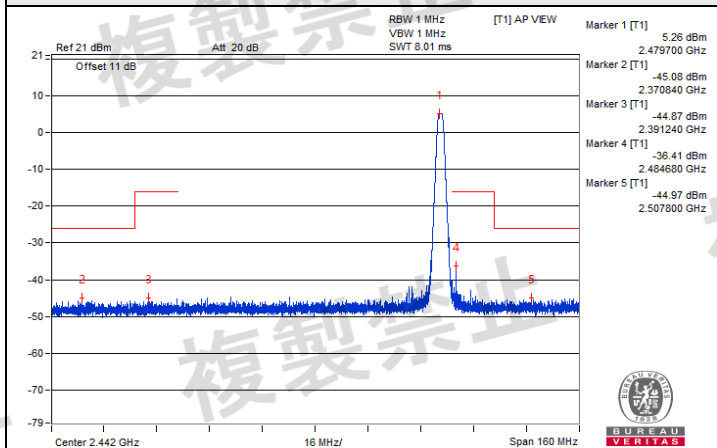
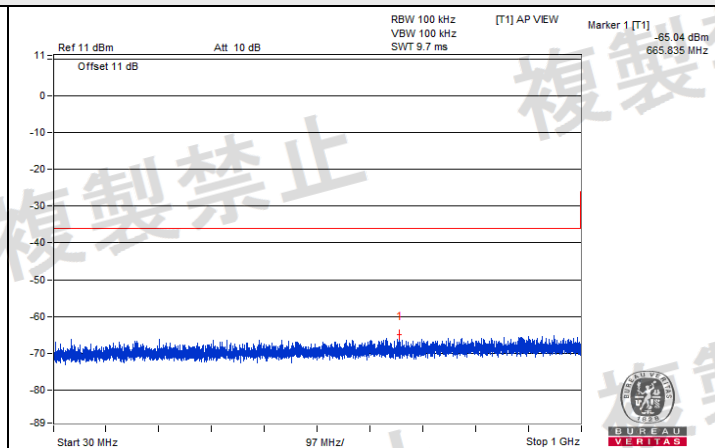
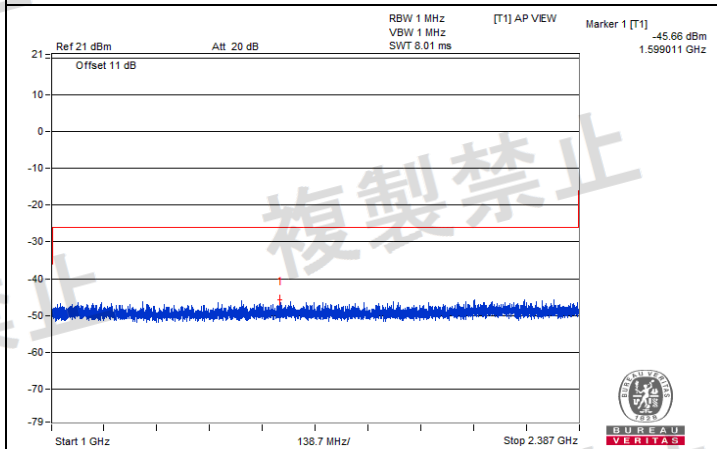
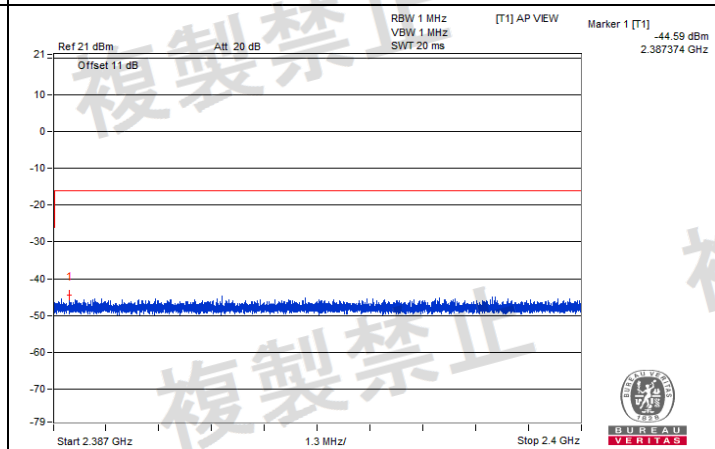
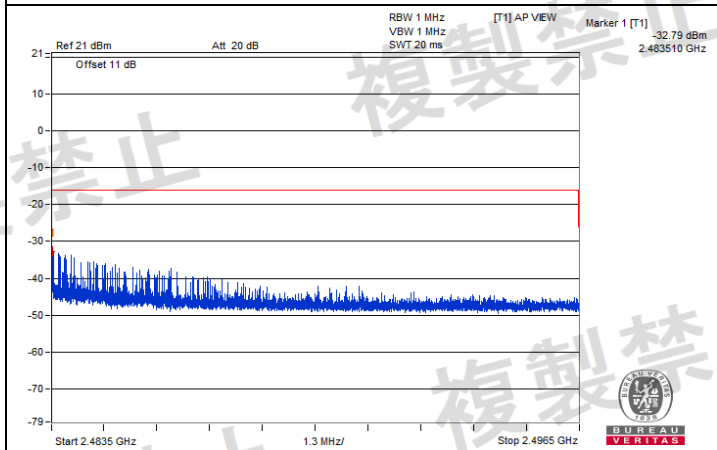
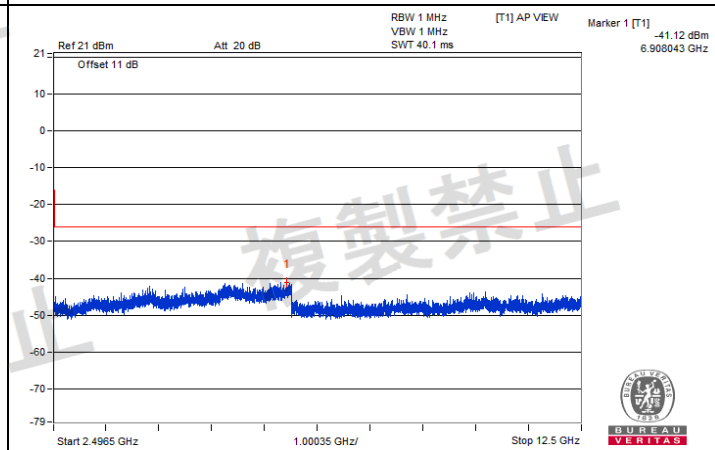
CH 77 (2480 MHz)

Vmax.



CH 77 (2480 MHz)

V_{min}.



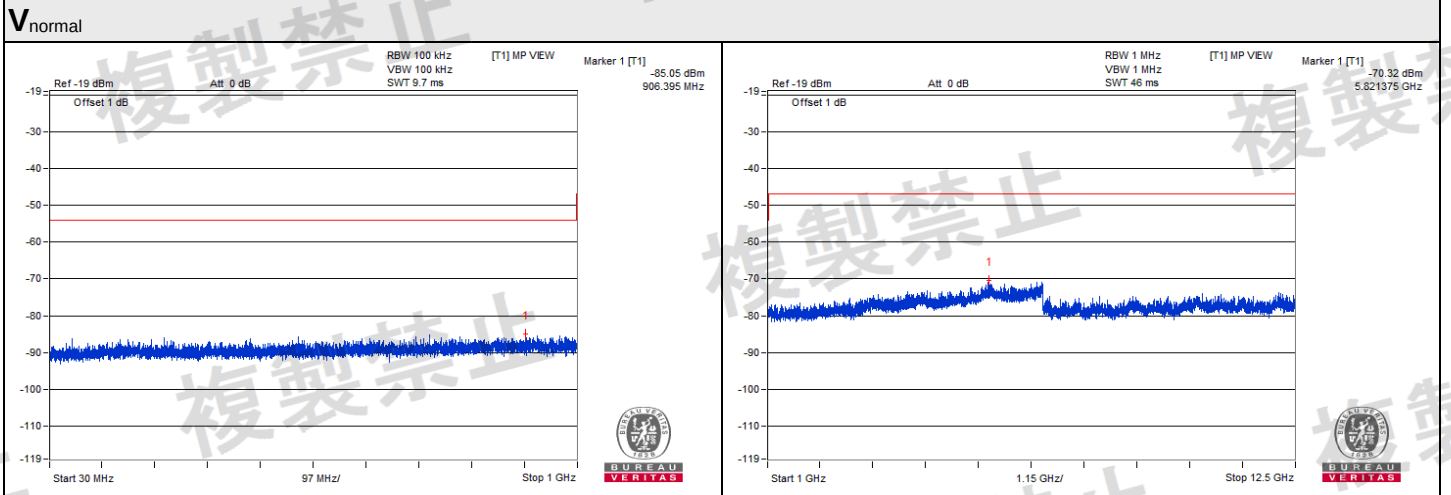
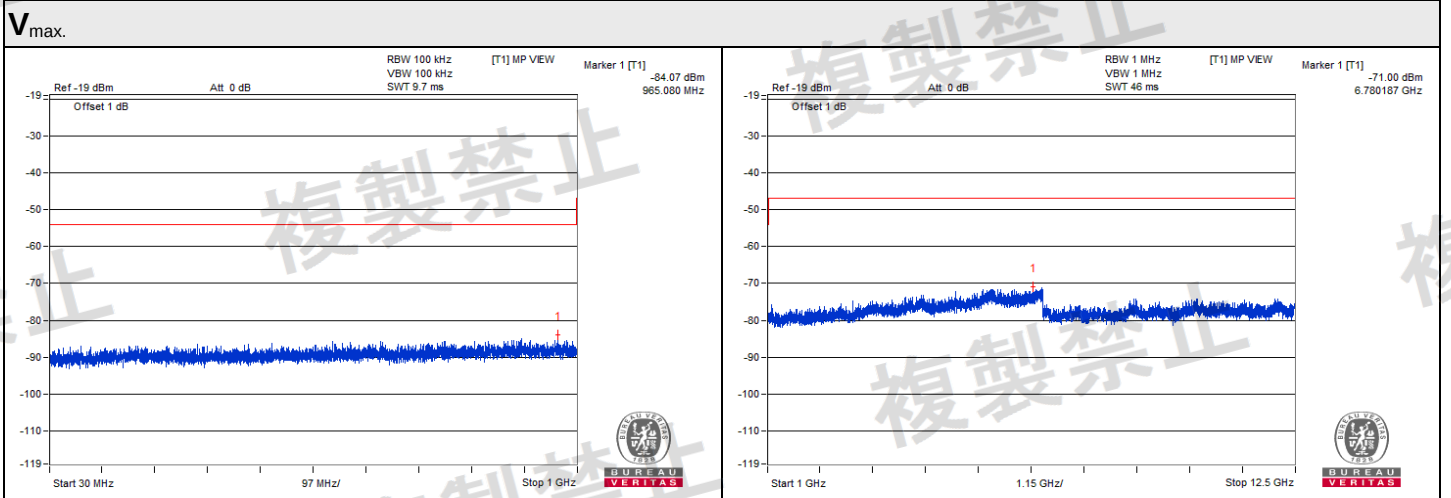
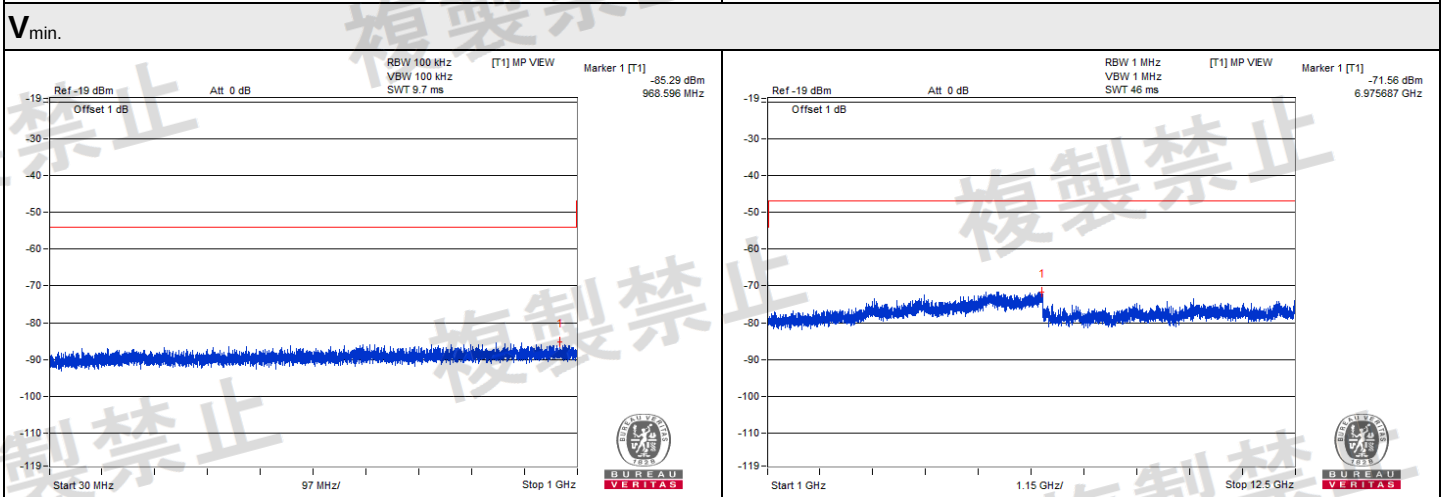
CH 77 (2480 MHz)

7.4 Spurious Emissions of Receiver

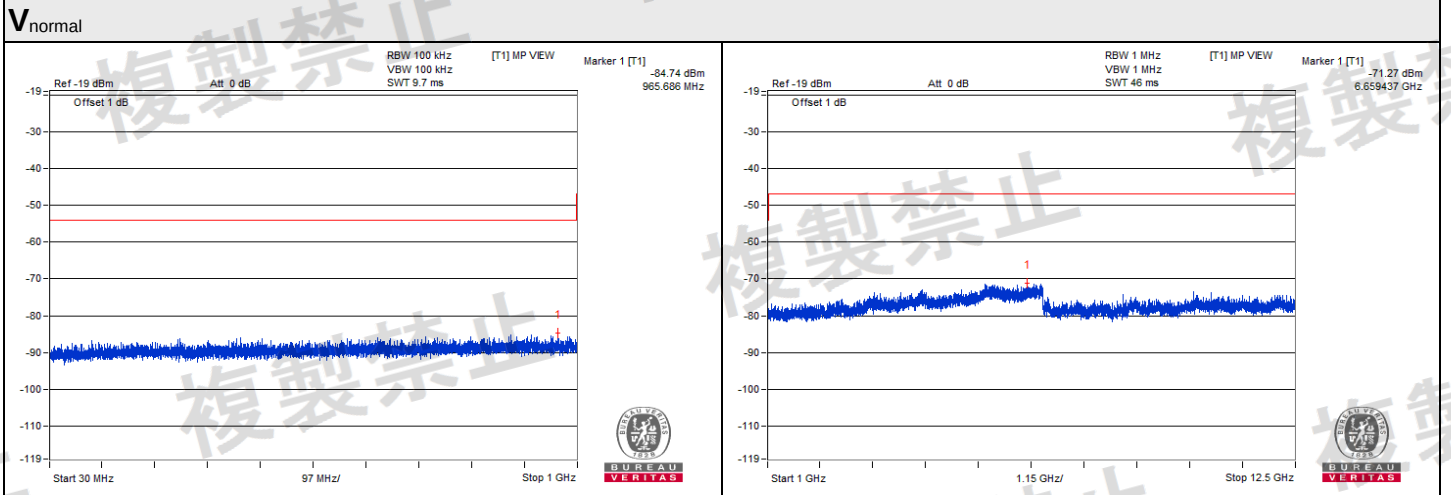
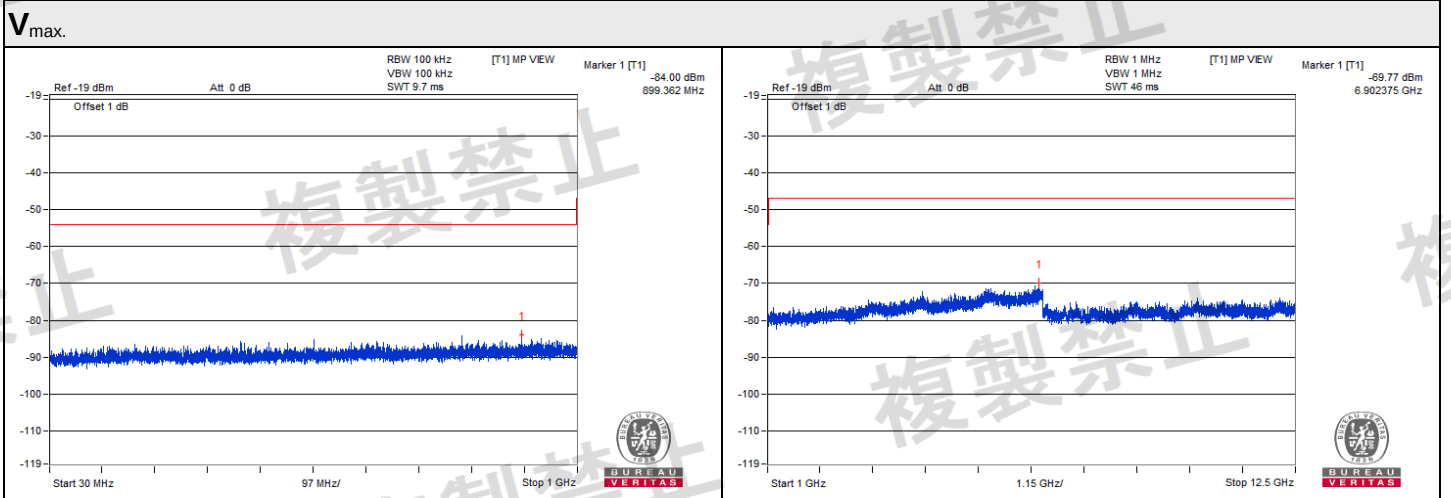
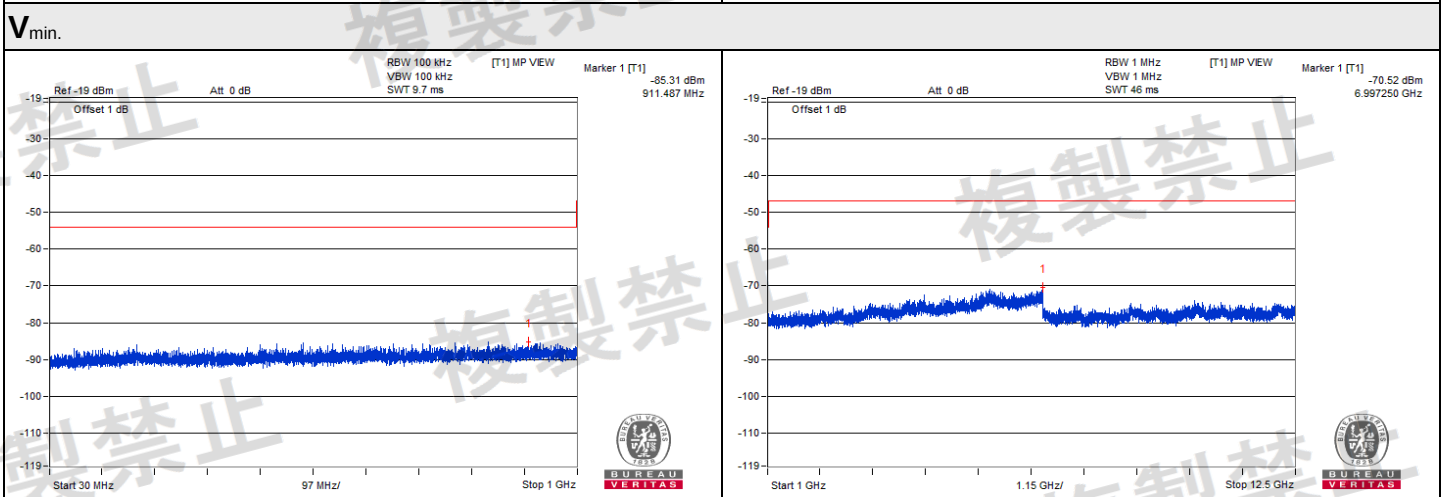
Environmental Conditions:	25°C, 76% RH	Tested By:	Waydi Tuan
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TEST CHANNEL		CH 0 (2403 MHz)			
TEST CONDITION	FREQUENCY RANGE(MHz)	FREQUENCY (MHz)	MEASUREMENT VALUE(nW)	LIMIT (nW)	RESULT
V_{normal}	30.0 to 1000.0	906.395	0.003126	4	PASS
	1000.0 to 12500.0	5821.375	0.092897	20	PASS
V_{max.}	30.0 to 1000.0	965.080	0.003917	4	PASS
	1000.0 to 12500.0	6780.187	0.079433	20	PASS
V_{min.}	30.0 to 1000.0	968.596	0.002958	4	PASS
	1000.0 to 12500.0	6975.687	0.069823	20	PASS
TEST CHANNEL		CH 38 (2441 MHz)			
V_{normal}	30.0 to 1000.0	965.686	0.003357	4	PASS
	1000.0 to 12500.0	6659.437	0.074645	20	PASS
V_{max.}	30.0 to 1000.0	899.362	0.003981	4	PASS
	1000.0 to 12500.0	6902.375	0.105439	20	PASS
V_{min.}	30.0 to 1000.0	911.487	0.002944	4	PASS
	1000.0 to 12500.0	6997.250	0.088716	20	PASS
TEST CHANNEL		CH 77 (2480 MHz)			
V_{normal}	30.0 to 1000.0	832.918	0.003327	4	PASS
	1000.0 to 12500.0	5730.812	0.093541	20	PASS
V_{max.}	30.0 to 1000.0	777.385	0.003206	4	PASS
	1000.0 to 12500.0	6752.875	0.086497	20	PASS
V_{min.}	30.0 to 1000.0	945.316	0.003334	4	PASS
	1000.0 to 12500.0	6706.875	0.08414	20	PASS

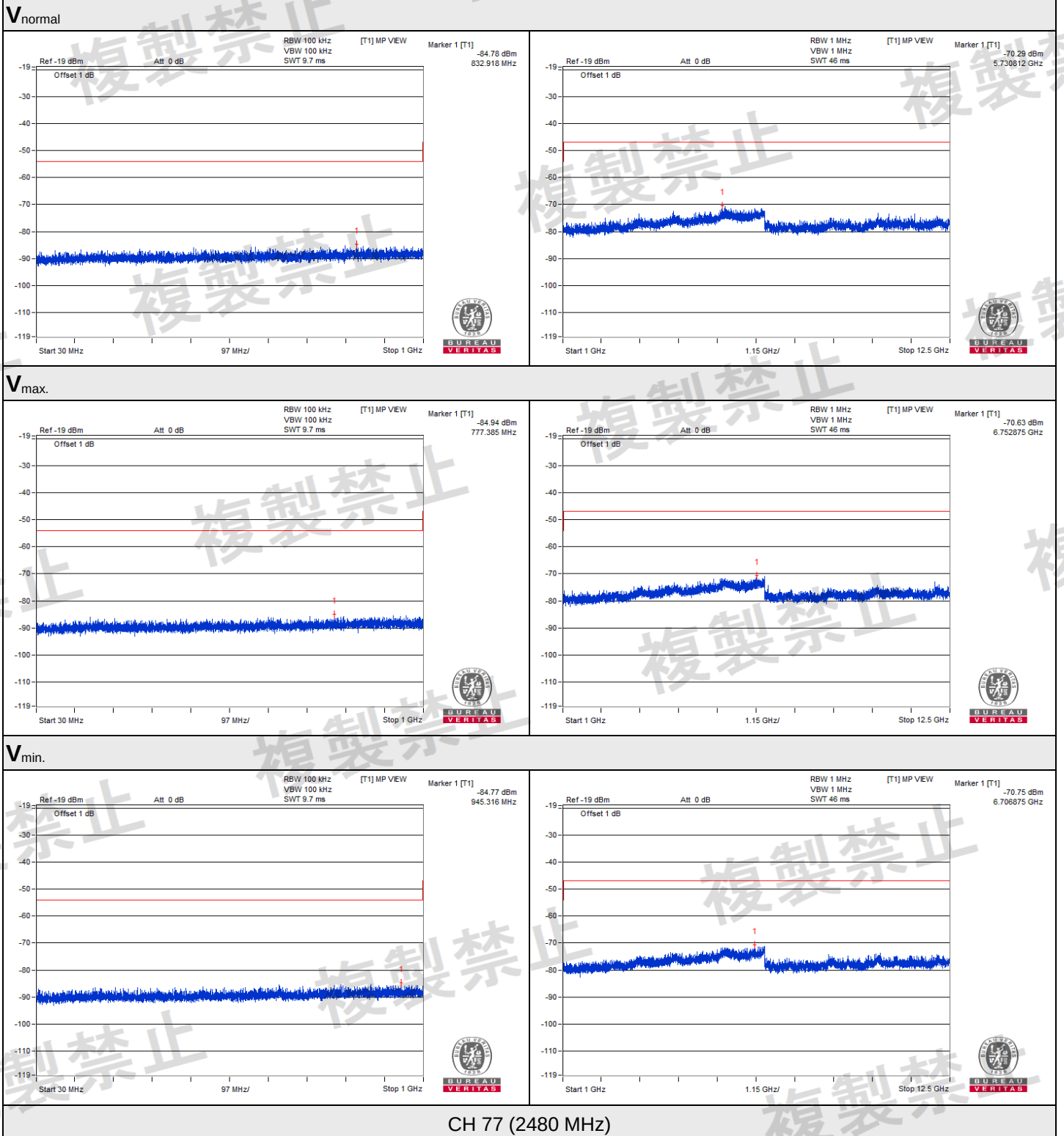
NOTE: 1. The spectrum plots are attached on the following pages.



CH 0 (2403 MHz)



CH 38 (2441 MHz)



7.5 Antenna Power

Environmental Conditions:	25°C, 76% RH	Tested By:	Waydi Tuan
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For GFSK

Voltage (Vdc)	Channel Number	Frequency (MHz)	Conducted RF Output Power (mW)	Radiated RF Output Power (mW)
3.7	0	2403	2.799	4.932
	38	2441	2.858	5.036
	77	2480	2.877	5.069
4.07	0	2403	2.838	5
	38	2441	2.844	5.011
	77	2480	2.838	5
3.33	0	2403	2.673	4.71
	38	2441	2.931	5.164
	77	2480	2.904	5.117
Maximum Limit (mW):			10	-
Rated Power (mW):			3	-
Maximum Tolerance of Antenna Power (mW):			3.6	-
Maximum EIRP Limit (mW):			-	16.368

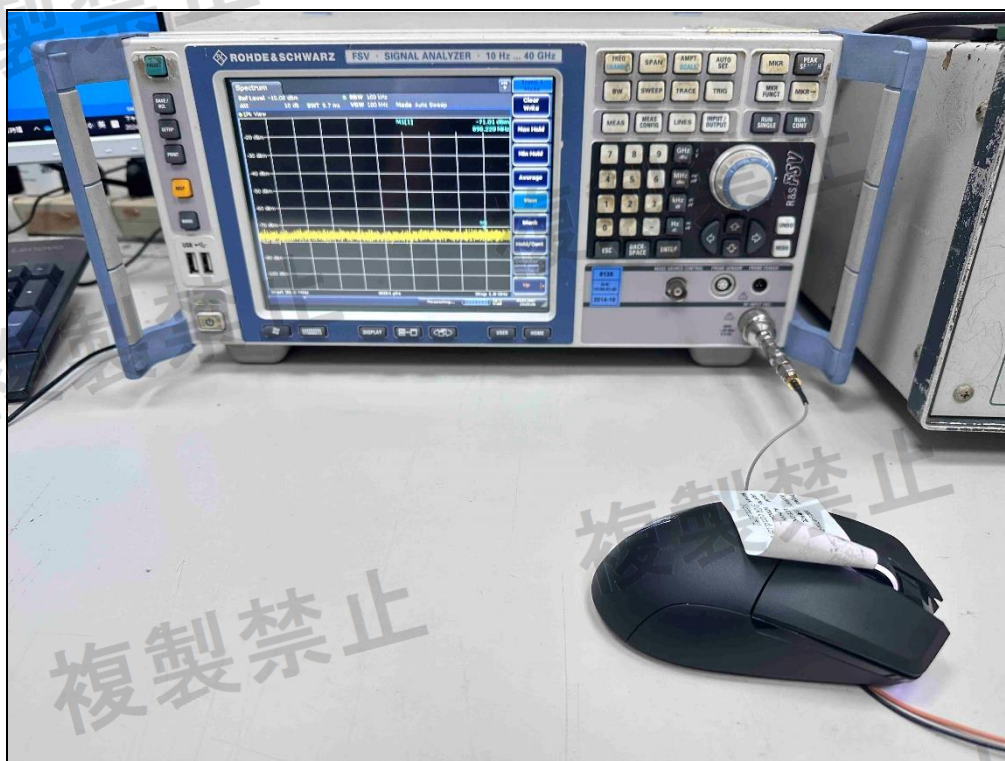
Notes:

1. Antenna gain is 2.46 dBi.
2. The radiated RF output power is a "calculated" value derived from the conducted value.
3. Formula: Radiated RF output power = Conducted RF output power + Antenna gain

7.6 Interference Prevention Function

Environmental Conditions:	25°C, 60% RH	Tested By:	Waydi Tuan
Link Mode		Test Result	
GFSK		Pass	

8 Pictures of Test Arrangements



9 Information of the Testing Laboratories

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are FCC recognized accredited test firms and accredited according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

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Fax: 886-2-26051924

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Email: service.adt@bureauveritas.com

Web Site: <http://ee.bureauveritas.com.tw>

The address and road map of all our labs can be found in our web site also.

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