

TEST REPORT

Report number : KR25-SRT0011

Issue date : 2025-07-18

Applicant : AmiSquare Co.,Ltd.
115-5 Yeongmun-ro, Pogok-eup, Cheoin-gu, Yongin-si,
Gyeonggi-do, 17040, Korea
TEL : +82-31-248-7601

Equipment under test (EUT) : Beam Projector

Model name : UHD-I33ADB-WOBAT

Date of test : 2025-05-30 ~ 2025-06-27

Test place : Eurofins KCTL Co., Ltd.
65 Sinwon-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do,
Korea

Test results : PASS

The results in this report are applicable only to the equipment tested.

This report shall not be re-produced except in full without the written approval of **Eurofins KCTL Co., Ltd.**

Tested by;


Hosung Lee

Approved by;


Kwonse Kim

1. Summary of Test

1. Purpose of test

Ordinance on Technical Standards Conformity Certification of Specified Radio Equipment
5GHz Band low power data communication System

2. Standards

Certification Ordinance Article 2 Clause 1 Item19-3

1) Test Methods

Ministry of Internal Affairs and Communications Notification Article 88 Appendix 45

2) Deviation from standards

None

3. List of applied test to the EUT

Article 88 Appendix 45	Classification of EUT	Condition	Result
3	Frequency Tolerance	Conducted	PASS
4	Occupied Bandwidth	Conducted	PASS
6	RF Output Power Tolerance	Conducted	PASS
5	Unwanted (Spurious) Emission Strength	Conducted	PASS
7	Adjacent Channel Leakage Power	Conducted	PASS
	Out-Band Leakage Power	Conducted	PASS
8	Secondary Emitted Radio Wave Strength	Conducted	PASS
9	Interference Prevention Function	Conducted	PASS
10	Burst Length of Transmitted Signals	Conducted	PASS
11	Transmit Power Control	Conducted	PASS
12	Carrier Sensing Function	Conducted	PASS
13,14	Dynamic Frequency Selection	Conducted	N/A

1) Test set up

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2) Modification to the EUT by laboratory

None

1. Test Information

1. Applicant

AmiSquare Co.,Ltd.

115-5 Yeongmun-ro, Pogok-eup, Cheoin-gu, Yongin-si, Gyeonggi-do, 17040, Republic of Korea

2. Equipment under test

Beam Projector

3. Model number

UHD-I33ADB-WOBAT

4. Serial number

G51031600121

5. Size

(W) 95 x (D) 104 x (H) 140

6. Terminal limitation

10°C to 40°C

7. RF Specification Frequency range

IEEE802.11a/n/ac (BW 20MHz) :

5180 - 5240 MHz(W52), 5260 - 5320 MHz(W53), 5500 - 5720 MHz(W56)

IEEE802.11n/ac (BW 40MHz) :

5190 - 5230 MHz(W52), 5270 - 5310 MHz(W53), 5510 - 5710 MHz(W56)

IEEE802.11ac (BW 80MHz) : 5210 MHz(W52), 5290 MHz(W53), 5530 - 5690 MHz(W56)

8. Number of RF Channels

IEEE802.11a/n/ac (BW 20MHz) : 4 Channels(W52), 4 Channels(W53), 12 Channels(W56)

IEEE802.11n/ac (BW 40MHz) : 2 Channels(W52), 2 Channels(W53), 6 Channels(W56)

IEEE802.11ac (BW 80MHz) : 1 Channel(W52), 1 Channel(W53), 3 Channels(W56)

9. Modulation method

IEEE802.11a/n (BW 20,40MHz) : OFDM (BPSK, QPSK, 16QAM, 64QAM)

IEEE802.11ac (BW 20,40,80): OFDM,

OFDMA(BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM)

10. Data rate

IEEE802.11a : 6, 9, 12, 18, 24, 36, 48, 54Mbps

IEEE802.11n(HT20,40 LGI) : 6.5, 13, 19.5, 26, 39, 52, 58.5, 65Mbps

IEEE802.11n(HT20,40 SGI) : 7.2, 14.4, 21.7, 28.9, 43.3, 57.8, 65, 72.2Mbps

IEEE802.11ac(VHT20,40,80,160 LGI) : 6.5, 13, 19.5, 26, 39, 52, 58.5, 65, 78Mbps

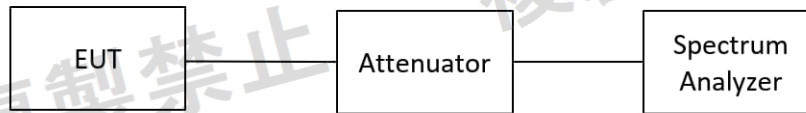
IEEE802.11ac(VHT20,40,80,160 SGI) : 7.2, 14.4, 21.7, 28.9, 43.3, 57.8, 65, 72.2, 86.7Mbps

11. Variation of the family model(s)

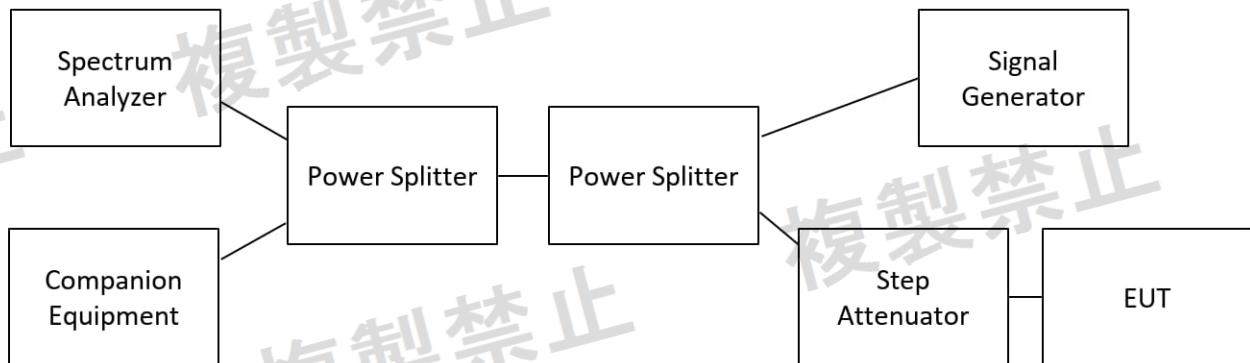
None

2. Configuration of equipment

1. Frequency tolerance, RF output power tolerance, Occupied Bandwidth, Unwanted(Spurious) emission strength, Adjacent Channel Leakage Power, Out-Band Leakage Power, Secondary emitted radio wave strength, Burst Length of Transmitted Signals, Transmit Power Control



2. Carrier Sensing Function



4. Measurement equipment list

USE	Equipment	Company	Model No.	Serial No.	Calibrated by	Cal. Method	Cal. Due	Cal. Date
X	Spectrum analyzer	R&S	FSV30	100807	HCT	(c)	2025.07.01	2024.07.01
X	DC Power Supply	AGILENT	E3632A	MY40007371	HCT	(c)	2026.04.23	2025.04.23
X	Signal generator	R & S	SMB100A	176206	HCT	(c)	2026.01.17	2025.01.17
X	Vector Signal generator	R & S	SMBV100A	257566	HCT	(c)	2025.07.01	2024.07.01
X	Attenuator	HUBER+SUHNER	6610_SK-50-1/199_NE	ATT07	HCT	(c)	2026.03.17	2025.03.17
X	Power Splitter	Mini-Circuits	ZFSC-2-10G+	3	HCT	(c)	2025.07.01	2024.07.01
X	Power Splitter	Mini-Circuits	ZFSC-2-10G+	4	HCT	(c)	2025.07.01	2024.07.01
X	Step Attenuator	AGILENT	8495D	MY42144296	HCT	(c)	2026.01.20	2025.01.20
X	Step Attenuator	AGILENT	8495D	MY42144296	HCT	(c)	2026.01.20	2025.01.20
X	Midd 4 Way Power Divider	KRYTAR	7005265	143244	HCT	(c)	2026.04.28	2025.04.28

Note1: "X" used equipment.

Note2: The validity of measurement equipment is one year from the first day of the following month of the calibration date.

Note3:
Cal.Method ... a) : Calibration conducted by the National Institute of Information and Communications Technology~ NICT~ or a designated calibration agency under Article 102-18 paragraph (1)~ TELECOM Engineering Center, Intertek Japan K.K., Keysight Technologies, Inc~.

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

c) : Calibration conducted in foreign countries, which shall be equivalent to the calibration conducted by the NICT or a designated calibration agency under Article 102-18 paragraph (1)~ TELECOM Engineering Center, Intertek Japan K.K., Keysight Technologies, Inc~.

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

5. Uncertainty

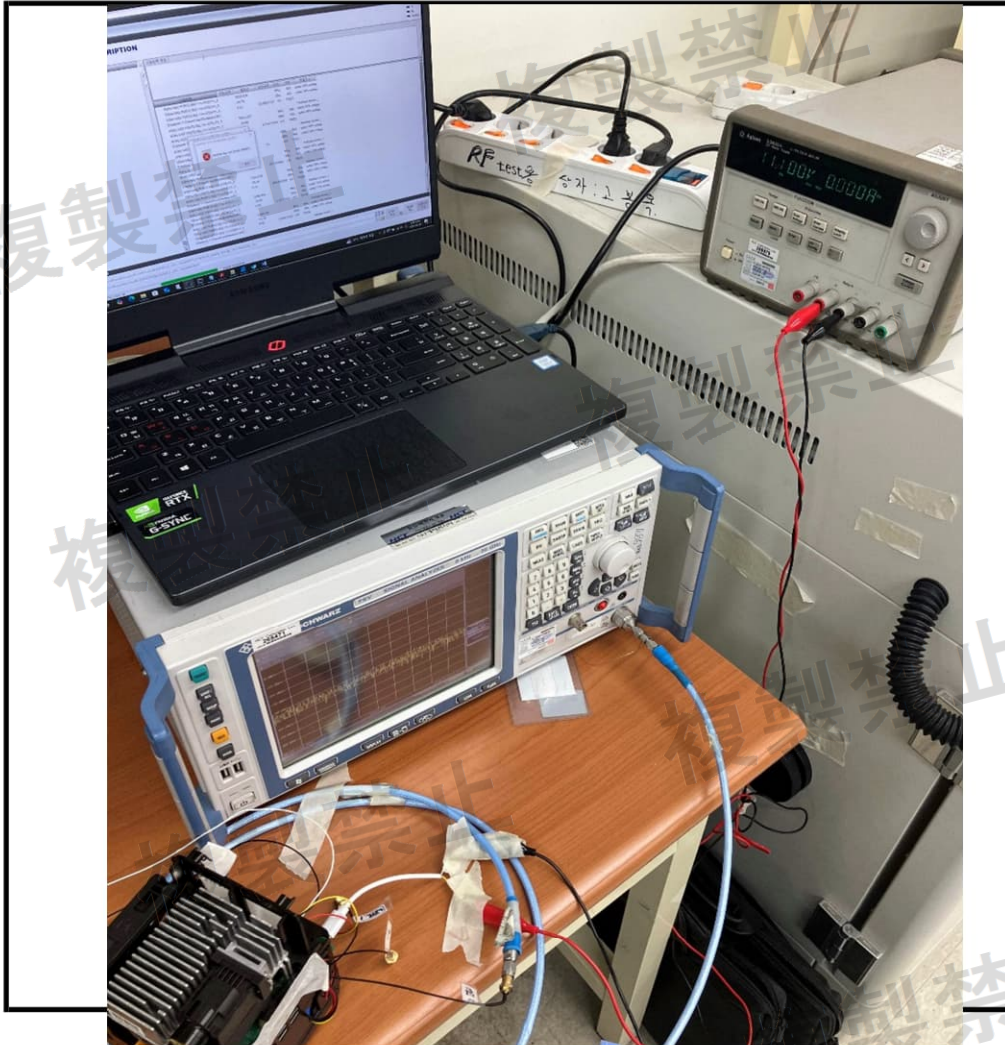
About uncertainty of measured value

Parameter	Uncertainty
Total RF power conducted	$\pm 0.9\text{dB}$
Spurious emissions conducted	$\pm 2.0\text{dB}$
Temperature	$\pm 1.0^\circ\text{C}$
Humidity	$\pm 3.8\%$

Judge	Measured value and standard limit value	
PASS	<div> <div>Standard limit value</div> <div> <div>Case1</div> <div> +Uncertainty -Uncertainty </div> <div>Measured value</div> </div> <p>Even if it takes uncertainty into consideration, a standard limit value is fulfilled.</p> </div>	
	<div> <div>Case2</div> </div> <p>Although measured value is in a standard limit value, a limit value won't be fulfilled if uncertainty is taken into consideration.</p>	
FAIL	<div> <div>Case3</div> </div> <p>Although measured value exceeds a standard limit value, a limit value will be fulfilled if uncertainty is taken into consideration.</p>	
	<div> <div>Case4</div> </div> <p>Even if it takes uncertainty into consideration, a standard limit value isn't fulfilled.</p>	

6. Photographs

Conducted Measurement Photo



3. Test results (Rated voltage)

S/N : G51031600121

Environment of test room	Date of test	2025-06-05
	Temperature	23 °C
	Humidity	51 %

Peak Antenna Gain	2.00	dBi
Declaration Output Power	5.80	mW/MHz
	7.63	dBm/MHz
E.I.R.P	9.19	mW/MHz
	9.63	dBm/MHz
Input Power Voltage	11.10	VDC

Test category		IEEE802.11a / MIMO(2TX)	
Tested Circuit Insertion Loss		0.00	dB
Transmission Time	ON TIME (1sec or less)	2.02	ms
	OFF TIME (0.1sec or more)	0.50	ms
	Ratio	0.80	%

Using TDF and offset function in Spectrum Analyzer.

Measurement of plots are included Loss value.

(Att : 10dB + Cable loss + EUT cable: 1dB offset)

Test category : 5GHz Band Low-Power Data Communication System (802.11a W52/MIMO(2TX))

Note: The year displayed as 2003 on the Test Chart (spectrum measurement screen) is due to a display error. This issue is limited to the display only and does not affect the measurement results. The actual test period was from May 30, 2025 to June 27, 2025.

Measurement Channel	Ch.	36	40	48		
Measurement Frequency	MHz	5180	5200	5240	Result	Limit
Frequency Measurements(Tx1)	MHz	5179.900	5199.900	5239.898	----	----
Frequency Tolerance(Tx1)	ppm	-19.31	-19.23	-19.56	PASS	$\pm 20 \times 10^{-6}$ (20ppm)
Frequency Measurements(Tx2)	MHz	5179.900	5199.904	5239.896	----	----
Frequency Tolerance(Tx2)	ppm	-19.31	-18.38	-19.80	PASS	$\pm 20 \times 10^{-6}$ (20ppm)
Occupied Bandwidth(Tx1)	MHz	17.68	19.10	16.48	PASS	20MHz or below
Occupied Bandwidth(Tx2)	MHz	17.18	18.68	16.48	PASS	20MHz or below
Occupied Bandwidth(Combiner)	MHz	17.58	17.08	16.35	PASS	20MHz or below
RF Output Power(Tx1)	mW/MHz	3.08	2.59	0.74	PASS	10mW/MHz or below
RF Output Power(Tx2)	mW/MHz	2.41	3.11	0.74	PASS	10mW/MHz or below
RF Output Power (Tx1+2)	mW/MHz	5.49	5.71	1.48	PASS	10mW/MHz or below
RF Output Power Tolerance (Tx1+2)	%	-5.40	-1.61	-74.43	PASS	+20% to -80%

Measurement Channel		Ch.	36	40	48	Result	Limit
Measurement Frequency		MHz	5180	5200	5240		
Unwanted (Spurious) Emission Strength (Tx1)	30MHz to 5142MHz	uW/MHz	0.86	0.40	0.36	PASS	2.5uW/MHz or below
		MHz	5139.40	4776.90	5119.00	----	----
	5266.7MHz to 26GHz	uW/MHz	1.10	1.04	0.89	PASS	2.5uW/MHz or below
		MHz	18056.70	18139.70	23918.70	----	----
Unwanted (Spurious) Emission Strength (Tx2)	30MHz to 5142MHz	uW/MHz	0.72	0.44	0.41	PASS	2.5uW/MHz or below
		MHz	5139.40	4092.50	5006.70	----	----
	5266.7MHz to 26GHz	uW/MHz	1.10	0.83	0.89	PASS	2.5uW/MHz or below
		MHz	18077.70	18056.70	18097.70	----	----
Unwanted (Spurious) Emission Strength (Tx1+2)	30MHz to 5142MHz	uW/MHz	1.58	0.84	0.78	PASS	2.5uW/MHz or below
		----	----	----	----	----	----
	5266.7MHz to 26GHz	uW/MHz	2.20	1.87	1.78	PASS	2.5uW/MHz or below
		----	----	----	----	----	----
Adjacent Channel Leakage Power (Tx1)	cf	dB	14.01	13.98	9.12	----	----
	cf -20MHz	dB	-29.79	-27.51	-40.63	PASS	-25dBc or below
	cf +20MHz	dB	-28.60	-26.59	-39.49	PASS	-25dBc or below
	cf -40MHz	dB	-46.93	-46.08	-47.36	PASS	-40dBc or below
	cf +40MHz	dB	-46.97	-46.36	-47.49	PASS	-40dBc or below
Adjacent Channel Leakage Power (Tx2)	cf	dB	15.19	15.24	8.85	----	----
	cf -20MHz	dB	-32.12	-28.85	-44.13	PASS	-25dBc or below
	cf +20MHz	dB	-29.81	-26.58	-42.98	PASS	-25dBc or below
	cf -40MHz	dB	-47.64	-46.51	-47.08	PASS	-40dBc or below
	cf +40MHz	dB	-46.89	-45.60	-47.16	PASS	-40dBc or below
Adjacent Channel Leakage Power (Combiner)	cf	dB	14.49	12.38	7.13	----	----
	cf -20MHz	dB	-30.38	-30.84	-44.23	PASS	-25dBc or below
	cf +20MHz	dB	-29.28	-30.95	-43.36	PASS	-25dBc or below
	cf -40MHz	dB	-46.72	-46.87	-46.61	PASS	-40dBc or below
	cf +40MHz	dB	-46.77	-47.20	-47.03	PASS	-40dBc or below

Measurement Channel		Ch.	36	40	48		
Measurement Frequency		MHz	5180	5200	5240	Result	Limit
Out-Band Leakage Power (Tx1)	5142 to 5150MHz	uW/MHz	6.56	0.68	0.46	PASS	15uW/MHz or below
		MHz	5148.75	5149.53	5142.57	----	----
	5250 to 5250.2MHz	uW/MHz	0.38	0.92	17.78	PASS	$10^{-1-(8/3)(f-9.75)}$ mW/MHz or below
		MHz	5250.10	5250.06	5250.01	----	----
	Limit	uW/MHz	1137.63	1499.68	2026.13	----	----
	5250.2 to 5251MHz	uW/MHz	0.37	0.77	16.67	PASS	$10^{-1-(f-9)}$ mW/MHz or below
		MHz	5250.65	5250.41	5250.23	----	----
	Limit	uW/MHz	223.87	392.64	594.29	----	----
	5251 to 5260MHz	uW/MHz	0.48	0.63	16.56	PASS	$10^{-1-(8/90)(f-11)}$ mW/MHz or below
		MHz	5251.09	5255.89	5252.46	----	----
5260 to 5266.7MHz	uW/MHz	0.56	0.52	1.80	PASS	$10^{-1.8-(6/50)(f-20)}$ mW/MHz or below	
	MHz	5265.44	5263.34	5260.34	----	----	
	Limit	uW/MHz	3.53	6.30	14.44	----	----
Out-Band Leakage Power (Tx2)	5142 to 5150MHz	uW/MHz	3.88	0.58	0.54	PASS	15uW/MHz or below
		MHz	5149.45	5148.99	5147.42	----	----
	5250 to 5250.2MHz	uW/MHz	0.42	0.85	15.42	PASS	$10^{-1-(8/3)(f-9.75)}$ mW/MHz or below
		MHz	5250.20	5250.07	5250.02	----	----
	Limit	uW/MHz	630.96	1427.80	1882.20	----	----
	5250.2 to 5251MHz	uW/MHz	0.41	0.77	10.16	PASS	$10^{-1-(f-9)}$ mW/MHz or below
		MHz	5250.34	5250.45	5250.72	----	----
	Limit	uW/MHz	456.04	354.81	191.43	----	----
	5251 to 5260MHz	uW/MHz	0.49	0.73	10.33	PASS	$10^{-1-(8/90)(f-11)}$ mW/MHz or below
		MHz	5255.68	5253.97	5251.10	----	----
Limit	uW/MHz	38.37	54.43	97.91	----	----	
5260 to 5266.7MHz	uW/MHz	0.51	0.48	1.18	PASS	$10^{-1.8-(6/50)(f-20)}$ mW/MHz or below	
	MHz	5265.25	5262.86	5260.08	----	----	
	Limit	uW/MHz	3.71	7.20	15.49	----	----
Out-Band Leakage Power (Tx1+2)	5142 to 5150MHz	uW/MHz	10.44	1.26	1.00	PASS	15uW/MHz or below
		----	----	----	----	----	----
	5250 to 5250.2MHz	uW/MHz	0.79	1.77	33.20	PASS	$10^{-1-(8/3)(f-9.75)}$ mW/MHz or below
		MHz	5250.20	5250.07	5250.02	----	----
	Limit	uW/MHz	630.96	1427.80	1882.20	----	----
	5250 to 5251MHz	uW/MHz	0.77	1.54	26.83	PASS	$10^{-1-(f-9)}$ mW/MHz or below
		MHz	5250.65	5250.45	5250.72	----	----
	Limit	uW/MHz	223.87	354.81	191.43	----	----
	5251 to 5260MHz	uW/MHz	0.97	1.36	26.89	PASS	$10^{-1-(8/90)(f-11)}$ mW/MHz or below
		MHz	5255.68	5255.89	5252.46	----	----
Limit	uW/MHz	38.37	36.78	74.15	----	----	
5260 to 5266.7MHz	uW/MHz	1.08	1.00	2.98	PASS	$10^{-1.8-(6/50)(f-20)}$ mW/MHz or below	
	MHz	5265.44	5263.34	5260.34	----	----	
	Limit	uW/MHz	3.53	6.30	14.44	----	----
Out-Band Leakage Power (Combiner)	5142 to 5150MHz	uW/MHz	5.55	0.58	0.52	PASS	15uW/MHz or below
		MHz	5148.89	5147.23	5145.41	----	----
	5250 to 5250.2MHz	uW/MHz	0.25	0.42	8.81	PASS	$10^{-1-(8/3)(f-9.75)}$ mW/MHz or below
		MHz	5250.04	5250.10	5250.01	----	----
	Limit	uW/MHz	1685.26	1194.90	2076.51	----	----
	5250.2 to 5251MHz	uW/MHz	0.34	0.42	9.12	PASS	$10^{-1-(f-9)}$ mW/MHz or below
		MHz	5250.77	5250.38	5250.99	----	----
	Limit	uW/MHz	168.66	416.87	101.62	----	----
	5251 to 5260MHz	uW/MHz	0.48	0.53	9.06	PASS	$10^{-1-(8/90)(f-11)}$ mW/MHz or below
		MHz	5252.07	5259.73	5251.18	----	----
Limit	uW/MHz	80.41	16.76	96.48	----	----	
5260 to 5266.7MHz	uW/MHz	0.50	0.48	0.93	PASS	$10^{-1.8-(6/50)(f-20)}$ mW/MHz or below	
	MHz	5265.67	5265.21	5260.99	----	----	
	Limit	uW/MHz	3.31	3.76	12.07	----	----

Measurement Channel		Ch.	36	40	48		
Measurement Frequency		MHz	5180	5200	5240	Result	Limit
Secondary Emitted Radio Wave Strength (Rx1)	30MHz to 1000MHz	nW	0.70	0.46	0.21	PASS	4nW or below
		MHz	133.20	129.33	833.81	----	----
	1GHz to 26GHz	nW	2.40	1.98	1.21	PASS	20nW or below
		MHz	6907.00	6932.00	6982.00	----	----
Secondary Emitted Radio Wave Strength (Rx2)	30MHz to 1000MHz	nW	0.27	0.25	0.27	PASS	4nW or below
		MHz	833.81	833.81	833.81	----	----
	1GHz to 26GHz	nW	2.00	1.17	1.17	PASS	20nW or below
		MHz	1737.00	6932.00	18095.00	----	----
Secondary Emitted Radio Wave Strength (Rx1+2)	30MHz to 1000MHz	nW	0.97	0.71	0.48	PASS	4nW or below
		----	----	----	----	----	----
	1GHz to 26GHz	nW	4.40	3.15	2.37	PASS	20nW or below
		----	----	----	----	----	----
Burst Length of Transmitted Signals		----	Good	Good	Good	PASS	8ms or below
Carrier Sensing Function		----	Good	Good	Good	PASS	100mV/m
Interference Prevention Function		----	Good			PASS	

3. Test results (-10% voltage)

S/N : G51031600121

Environment of test room	Date of test	2025-06-05
	Temperature	23 °C
	Humidity	51 %

Peak Antenna Gain	2.00	dBi
Declaration Output Power	5.80	mW/MHz
	7.63	dBm/MHz
E.I.R.P	9.19	mW/MHz
	9.63	dBm/MHz
Input Power Voltage	9.99	VDC

Test category		IEEE802.11a / MIMO(2TX)	
Tested Circuit Insertion Loss		0.00	dB
Transmission Time	ON TIME (1sec or less)	2.02	ms
	OFF TIME (0.1sec or more)	0.50	ms
	Ratio	0.80	%

Using TDF and offset function in Spectrum Analyzer.

Measurement of plots are included Loss value.

(Att : 10dB + Cable loss + EUT cable: 1dB offset)

Test category : 5GHz Band Low-Power Data Communication System (802.11a W52/MIMO(2TX))

Note: The year displayed as 2003 on the Test Chart (spectrum measurement screen) is due to a display error. This issue is limited to the display only and does not affect the measurement results. The actual test period was from May 30, 2025 to June 27, 2025.

Measurement Channel	Ch.	36	40	48		
Measurement Frequency	MHz	5180	5200	5240	Result	Limit
Frequency Measurements(Tx1)	MHz	5179.908	5199.904	5239.896	----	----
Frequency Tolerance(Tx1)	ppm	-17.86	-18.51	-19.91	PASS	$\pm 20 \times 10^{-6}$ (20ppm)
Frequency Measurements(Tx2)	MHz	5179.898	5199.898	5239.896	----	----
Frequency Tolerance(Tx2)	ppm	-19.67	-19.59	-19.91	PASS	$\pm 20 \times 10^{-6}$ (20ppm)
Occupied Bandwidth(Tx1)	MHz	17.78	19.10	16.48	PASS	20MHz or below
Occupied Bandwidth(Tx2)	MHz	17.28	18.98	16.48	PASS	20MHz or below
Occupied Bandwidth(Combiner)	MHz	17.58	16.98	16.50	PASS	20MHz or below
RF Output Power(Tx1)	mW/MHz	2.83	2.54	0.75	PASS	10mW/MHz or below
RF Output Power(Tx2)	mW/MHz	2.18	3.03	0.77	PASS	10mW/MHz or below
RF Output Power (Tx1+2)	mW/MHz	5.01	5.58	1.52	PASS	10mW/MHz or below
RF Output Power Tolerance (Tx1+2)	%	-13.65	-3.87	-73.81	PASS	+20% to -80%

Measurement Channel		Ch.	36	40	48	Result	Limit
Measurement Frequency		MHz	5180	5200	5240		
Unwanted (Spurious) Emission Strength (Tx1)	30MHz to 5142MHz	uW/MHz	1.09	0.46	0.53	PASS	2.5uW/MHz or below
		MHz	5139.40	4516.40	5098.60	----	----
	5266.7MHz to 26GHz	uW/MHz	0.84	0.86	1.02	PASS	2.5uW/MHz or below
		MHz	18118.70	18097.70	25927.70	----	----
Unwanted (Spurious) Emission Strength (Tx2)	30MHz to 5142MHz	uW/MHz	0.65	0.45	0.42	PASS	2.5uW/MHz or below
		MHz	5139.40	4746.20	5032.20	----	----
	5266.7MHz to 26GHz	uW/MHz	1.09	1.01	0.98	PASS	2.5uW/MHz or below
		MHz	18139.70	18160.70	18097.70	----	----
Unwanted (Spurious) Emission Strength (Tx1+2)	30MHz to 5142MHz	uW/MHz	1.74	0.91	0.95	PASS	2.5uW/MHz or below
		----	----	----	----	----	----
	5266.7MHz to 26GHz	uW/MHz	1.93	1.86	2.00	PASS	2.5uW/MHz or below
		----	----	----	----	----	----
Adjacent Channel Leakage Power (Tx1)	cf	dB	13.84	13.90	9.01	----	----
	cf -20MHz	dB	-29.58	-27.12	-40.62	PASS	-25dBc or below
	cf +20MHz	dB	-28.82	-26.81	-39.54	PASS	-25dBc or below
	cf -40MHz	dB	-47.14	-45.49	-47.57	PASS	-40dBc or below
	cf +40MHz	dB	-46.96	-45.68	-47.80	PASS	-40dBc or below
Adjacent Channel Leakage Power (Tx2)	cf	dB	15.03	15.09	9.33	----	----
	cf -20MHz	dB	-32.24	-28.43	-44.54	PASS	-25dBc or below
	cf +20MHz	dB	-29.73	-26.96	-43.79	PASS	-25dBc or below
	cf -40MHz	dB	-47.38	-46.34	-48.09	PASS	-40dBc or below
	cf +40MHz	dB	-46.79	-45.97	-48.09	PASS	-40dBc or below
Adjacent Channel Leakage Power (Combiner)	cf	dB	14.50	12.56	7.44	----	----
	cf -20MHz	dB	-30.60	-31.44	-44.71	PASS	-25dBc or below
	cf +20MHz	dB	-29.95	-30.73	-43.80	PASS	-25dBc or below
	cf -40MHz	dB	-46.92	-47.21	-47.41	PASS	-40dBc or below
	cf +40MHz	dB	-46.97	-47.34	-47.79	PASS	-40dBc or below

Measurement Channel		Ch.	36	40	48		
Measurement Frequency		MHz	5180	5200	5240	Result	Limit
Out-Band Leakage Power (Tx1)	5142 to 5150MHz	uW/MHz	6.53	0.74	0.48	PASS	15uW/MHz or below
		MHz	5148.96	5148.21	5148.15	----	----
	5250 to 5250.2MHz	uW/MHz	0.35	0.63	14.35	PASS	$10^{-1-(8/3)(f-9.75)}$ mW/MHz or below
		MHz	5250.16	5250.03	5250.12	----	----
	Limit	uW/MHz	821.61	1814.12	1056.82	----	----
	5250.2 to 5251MHz	uW/MHz	0.41	0.73	13.52	PASS	$10^{-1-(f-9)}$ mW/MHz or below
		MHz	5250.36	5250.30	5250.22	----	----
	Limit	uW/MHz	437.52	496.59	609.54	----	----
	5251 to 5260MHz	uW/MHz	0.51	0.67	12.65	PASS	$10^{-1-(8/90)(f-11)}$ mW/MHz or below
		MHz	5252.82	5251.22	5252.32	----	----
5260 to 5266.7MHz	uW/MHz	0.53	0.49	1.58	PASS	$10^{-1.8-(6/50)(f-20)}$ mW/MHz or below	
	MHz	5261.61	5265.94	5260.16	----	----	
	Limit	uW/MHz	10.16	3.07	15.18	----	----
Out-Band Leakage Power (Tx2)	5142 to 5150MHz	uW/MHz	3.39	0.59	0.49	PASS	15uW/MHz or below
		MHz	5149.98	5149.93	5149.58	----	----
	5250 to 5250.2MHz	uW/MHz	0.42	0.83	15.28	PASS	$10^{-1-(8/3)(f-9.75)}$ mW/MHz or below
		MHz	5250.10	5250.01	5250.01	----	----
	Limit	uW/MHz	1202.26	1976.97	2001.40	----	----
	5250.2 to 5251MHz	uW/MHz	0.40	0.85	10.72	PASS	$10^{-1-(f-9)}$ mW/MHz or below
		MHz	5250.57	5250.28	5250.95	----	----
	Limit	uW/MHz	271.64	529.66	111.17	----	----
	5251 to 5260MHz	uW/MHz	0.60	0.75	10.67	PASS	$10^{-1-(8/90)(f-11)}$ mW/MHz or below
		MHz	5255.31	5251.45	5251.07	----	----
Limit	uW/MHz	41.38	91.29	98.64	----	----	
5260 to 5266.7MHz	uW/MHz	0.57	0.52	1.18	PASS	$10^{-1.8-(6/50)(f-20)}$ mW/MHz or below	
	MHz	5261.84	5266.20	5260.10	----	----	
	Limit	uW/MHz	9.54	2.86	15.40	----	----
Out-Band Leakage Power (Tx1+2)	5142 to 5150MHz	uW/MHz	9.92	1.33	0.97	PASS	15uW/MHz or below
		----	----	----	----	----	----
	5250 to 5250.2MHz	uW/MHz	0.77	1.46	29.63	PASS	$10^{-1-(8/3)(f-9.75)}$ mW/MHz or below
		MHz	5250.16	5250.03	5250.12	----	----
	Limit	uW/MHz	821.61	1814.12	1056.82	----	----
	5250 to 5251MHz	uW/MHz	0.81	1.58	24.24	PASS	$10^{-1-(f-9)}$ mW/MHz or below
		MHz	5250.57	5250.30	5250.95	----	----
	Limit	uW/MHz	271.64	496.59	111.17	----	----
	5251 to 5260MHz	uW/MHz	1.10	1.43	23.31	PASS	$10^{-1-(8/90)(f-11)}$ mW/MHz or below
		MHz	5255.31	5251.45	5252.32	----	----
Limit	uW/MHz	41.38	91.29	76.37	----	----	
5260 to 5266.7MHz	uW/MHz	1.10	1.01	2.76	PASS	$10^{-1.8-(6/50)(f-20)}$ mW/MHz or below	
	MHz	5261.84	5266.20	5260.16	----	----	
	Limit	uW/MHz	9.54	2.86	15.18	----	----
Out-Band Leakage Power (Combiner)	5142 to 5150MHz	uW/MHz	5.82	0.58	0.47	PASS	15uW/MHz or below
		MHz	5148.90	5149.51	5143.83	----	----
	5250 to 5250.2MHz	uW/MHz	0.25	0.44	9.46	PASS	$10^{-1-(8/3)(f-9.75)}$ mW/MHz or below
		MHz	5250.14	5250.03	5250.00	----	----
	Limit	uW/MHz	940.44	1836.54	2128.14	----	----
	5250.2 to 5251MHz	uW/MHz	0.27	0.37	9.82	PASS	$10^{-1-(f-9)}$ mW/MHz or below
		MHz	5250.29	5250.55	5250.96	----	----
	Limit	uW/MHz	508.16	279.90	108.64	----	----
	5251 to 5260MHz	uW/MHz	0.48	0.46	9.16	PASS	$10^{-1-(8/90)(f-11)}$ mW/MHz or below
		MHz	5257.56	5256.46	5251.70	----	----
Limit	uW/MHz	26.12	32.70	86.71	----	----	
5260 to 5266.7MHz	uW/MHz	0.50	0.51	0.97	PASS	$10^{-1.8-(6/50)(f-20)}$ mW/MHz or below	
	MHz	5263.36	5260.12	5261.75	----	----	
	Limit	uW/MHz	6.27	15.32	9.77	----	----

Measurement Channel		Ch.	36	40	48		
Measurement Frequency		MHz	5180	5200	5240	Result	Limit
Secondary Emitted Radio Wave Strength (Rx1)	30MHz to 1000MHz	nW	1.16	0.41	0.21	PASS	4nW or below
		MHz	133.20	133.20	833.81	----	----
	1GHz to 26GHz	nW	2.26	1.87	1.29	PASS	20nW or below
		MHz	6907.00	6932.00	2486.00	----	----
Secondary Emitted Radio Wave Strength (Rx2)	30MHz to 1000MHz	nW	0.25	0.27	0.26	PASS	4nW or below
		MHz	833.81	833.81	833.81	----	----
	1GHz to 26GHz	nW	1.37	1.22	1.18	PASS	20nW or below
		MHz	6907.00	6932.00	6982.00	----	----
Secondary Emitted Radio Wave Strength (Rx1+2)	30MHz to 1000MHz	nW	1.42	0.68	0.46	PASS	4nW or below
		----	----	----	----	----	----
	1GHz to 26GHz	nW	3.63	3.08	2.47	PASS	20nW or below
		----	----	----	----	----	----
Burst Length of Transmitted Signals		----	Good	Good	Good	PASS	8ms or below
Carrier Sensing Function		----	Good	Good	Good	PASS	100mV/m
Interference Prevention Function		----	Good			PASS	

3. Test results (+10% voltage)

S/N : G51031600121

Environment of test room	Date of test	2025-06-05
	Temperature	23 °C
	Humidity	51 %

Peak Antenna Gain	2.00	dBi
Declaration Output Power	5.80	mW/MHz
	7.63	dBm/MHz
E.I.R.P	9.19	mW/MHz
	9.63	dBm/MHz
Input Power Voltage	12.21	VDC

Test category		IEEE802.11a / MIMO(2TX)	
Tested Circuit Insertion Loss		0.00	dB
Transmission Time	ON TIME (1sec or less)	2.02	ms
	OFF TIME (0.1sec or more)	0.50	ms
	Ratio	0.80	%

Using TDF and offset function in Spectrum Analyzer.

Measurement of plots are included Loss value.

(Att : 10dB + Cable loss + EUT cable: 1dB offset)

Test category : 5GHz Band Low-Power Data Communication System (802.11a W52/MIMO(2TX))

Note: The year displayed as 2003 on the Test Chart (spectrum measurement screen) is due to a display error. This issue is limited to the display only and does not affect the measurement results. The actual test period was from May 30, 2025 to June 27, 2025.

Measurement Channel	Ch.	36	40	48		
Measurement Frequency	MHz	5180	5200	5240	Result	Limit
Frequency Measurements(Tx1)	MHz	5179.909	5199.901	5239.896	----	----
Frequency Tolerance(Tx1)	ppm	-17.62	-18.99	-19.80	PASS	$\pm 20 \times 10^{-6}$ (20ppm)
Frequency Measurements(Tx2)	MHz	5179.899	5199.908	5239.897	----	----
Frequency Tolerance(Tx2)	ppm	-19.43	-17.67	-19.69	PASS	$\pm 20 \times 10^{-6}$ (20ppm)
Occupied Bandwidth(Tx1)	MHz	19.08	19.39	16.48	PASS	20MHz or below
Occupied Bandwidth(Tx2)	MHz	17.38	18.98	16.48	PASS	20MHz or below
Occupied Bandwidth(Combiner)	MHz	17.38	16.98	16.35	PASS	20MHz or below
RF Output Power(Tx1)	mW/MHz	2.72	2.34	0.83	PASS	10mW/MHz or below
RF Output Power(Tx2)	mW/MHz	2.75	3.03	0.76	PASS	10mW/MHz or below
RF Output Power (Tx1+2)	mW/MHz	5.46	5.37	1.59	PASS	10mW/MHz or below
RF Output Power Tolerance (Tx1+2)	%	-5.78	-7.48	-72.58	PASS	+20% to -80%

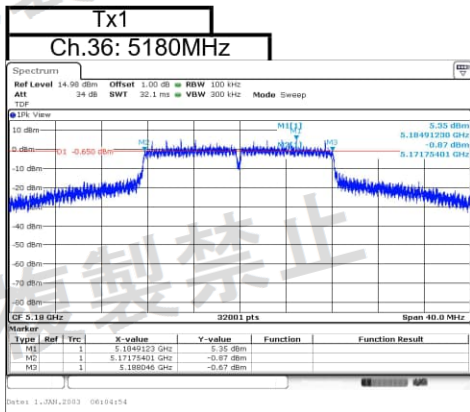
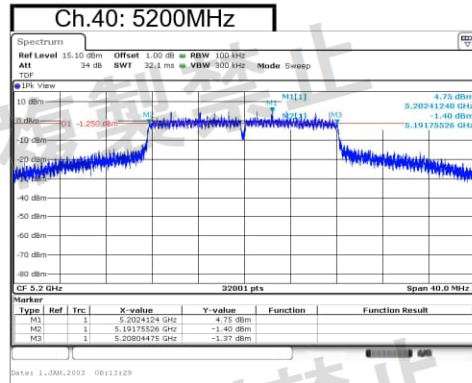
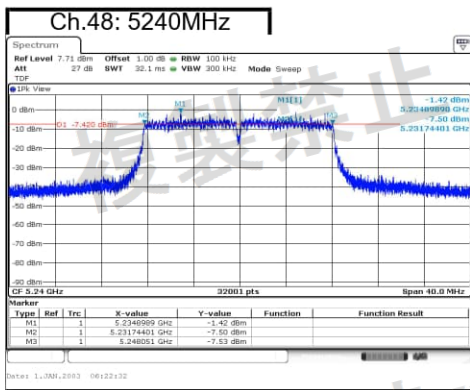
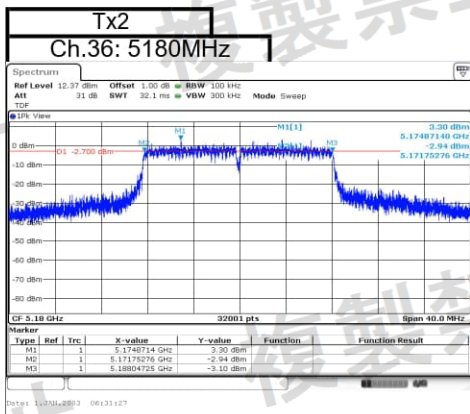
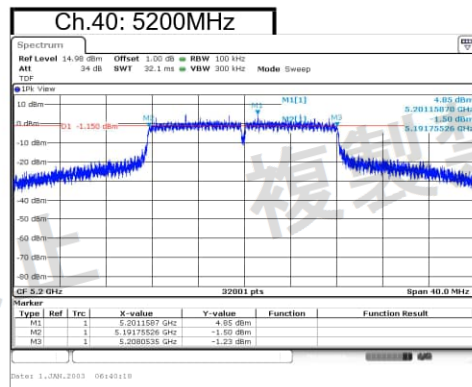
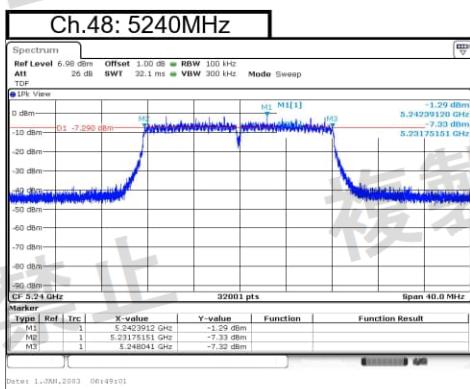
Measurement Channel		Ch.	36	40	48	Result	Limit
Measurement Frequency		MHz	5180	5200	5240		
Unwanted (Spurious) Emission Strength (Tx1)	30MHz to 5142MHz	uW/MHz	1.75	0.42	0.36	PASS	2.5uW/MHz or below
		MHz	5139.40	5139.40	4705.40	----	----
	5266.7MHz to 26GHz	uW/MHz	0.97	0.89	0.91	PASS	2.5uW/MHz or below
		MHz	16627.70	18097.70	18097.70	----	----
Unwanted (Spurious) Emission Strength (Tx2)	30MHz to 5142MHz	uW/MHz	0.58	0.42	0.43	PASS	2.5uW/MHz or below
		MHz	5139.40	4398.90	5083.30	----	----
	5266.7MHz to 26GHz	uW/MHz	0.81	0.84	1.12	PASS	2.5uW/MHz or below
		MHz	23545.70	18160.70	18077.70	----	----
Unwanted (Spurious) Emission Strength (Tx1+2)	30MHz to 5142MHz	uW/MHz	2.33	0.84	0.78	PASS	2.5uW/MHz or below
		----	----	----	----	----	----
	5266.7MHz to 26GHz	uW/MHz	1.77	1.73	2.03	PASS	2.5uW/MHz or below
		----	----	----	----	----	----
Adjacent Channel Leakage Power (Tx1)	cf	dB	14.49	13.54	9.12	----	----
	cf -20MHz	dB	-27.36	-27.11	-40.75	PASS	-25dBc or below
	cf +20MHz	dB	-26.45	-26.75	-39.83	PASS	-25dBc or below
	cf -40MHz	dB	-45.84	-45.79	-47.73	PASS	-40dBc or below
	cf +40MHz	dB	-45.70	-45.98	-47.98	PASS	-40dBc or below
Adjacent Channel Leakage Power (Tx2)	cf	dB	14.93	15.71	9.21	----	----
	cf -20MHz	dB	-31.69	-28.98	-44.84	PASS	-25dBc or below
	cf +20MHz	dB	-29.61	-26.72	-43.36	PASS	-25dBc or below
	cf -40MHz	dB	-47.29	-46.92	-47.97	PASS	-40dBc or below
	cf +40MHz	dB	-46.82	-46.07	-47.97	PASS	-40dBc or below
Adjacent Channel Leakage Power (Combiner)	cf	dB	13.14	13.33	7.44	----	----
	cf -20MHz	dB	-30.31	-31.02	-44.63	PASS	-25dBc or below
	cf +20MHz	dB	-28.83	-30.53	-43.37	PASS	-25dBc or below
	cf -40MHz	dB	-45.75	-46.94	-47.04	PASS	-40dBc or below
	cf +40MHz	dB	-45.65	-47.03	-47.31	PASS	-40dBc or below

Measurement Channel		Ch.	36	40	48	Result	Limit
Measurement Frequency		MHz	5180	5200	5240		
Out-Band Leakage Power (Tx1)	5142 to 5150MHz	uW/MHz	6.79	0.69	0.46	PASS	15uW/MHz or below
		MHz	5149.20	5147.46	5144.83	----	----
	5250 to 5250.2MHz	uW/MHz	0.48	0.73	12.59	PASS	$10^{-1.8-(8/3)(f-9.75)}$ mW/MHz or below
		MHz	5250.04	5250.15	5250.19	----	----
	Limit	uW/MHz	1706.08	884.44	675.05	----	----
	5250.2 to 5251MHz	uW/MHz	0.42	0.71	11.86	PASS	$10^{-(f-9)}$ mW/MHz or below
		MHz	5250.43	5250.37	5250.21	----	----
	Limit	uW/MHz	370.68	424.62	619.44	----	----
	5251 to 5260MHz	uW/MHz	0.52	0.59	11.83	PASS	$10^{-1.8-(8/90)(f-11)}$ mW/MHz or below
		MHz	5257.78	5255.51	5252.15	----	----
Out-Band Leakage Power (Tx2)	5142 to 5150MHz	uW/MHz	3.62	0.81	0.53	PASS	15uW/MHz or below
		MHz	5149.80	5147.96	5146.54	----	----
	5250 to 5250.2MHz	uW/MHz	0.44	0.80	16.07	PASS	$10^{-1.8-(8/3)(f-9.75)}$ mW/MHz or below
		MHz	5250.17	5250.19	5250.04	----	----
	Limit	uW/MHz	758.58	691.83	1716.59	----	----
	5250.2 to 5251MHz	uW/MHz	0.46	0.75	10.96	PASS	$10^{-(f-9)}$ mW/MHz or below
		MHz	5250.31	5250.75	5250.86	----	----
	Limit	uW/MHz	492.04	179.06	137.72	----	----
	5251 to 5260MHz	uW/MHz	0.53	0.73	9.84	PASS	$10^{-1.8-(8/90)(f-11)}$ mW/MHz or below
		MHz	5257.94	5252.02	5251.46	----	----
	Limit	uW/MHz	24.18	81.14	90.96	----	----
Out-Band Leakage Power (Tx1+2)	5142 to 5150MHz	uW/MHz	10.41	1.50	0.99	PASS	15uW/MHz or below
		----	----	----	----	----	----
	5250 to 5250.2MHz	uW/MHz	0.93	1.53	28.66	PASS	$10^{-1.8-(8/3)(f-9.75)}$ mW/MHz or below
		MHz	5250.17	5250.19	5250.19	----	----
	Limit	uW/MHz	758.58	691.83	675.05	----	----
	5250 to 5251MHz	uW/MHz	0.88	1.47	22.82	PASS	$10^{-(f-9)}$ mW/MHz or below
		MHz	5250.43	5250.75	5250.86	----	----
	Limit	uW/MHz	370.68	179.06	137.72	----	----
	5251 to 5260MHz	uW/MHz	1.05	1.32	21.67	PASS	$10^{-1.8-(8/90)(f-11)}$ mW/MHz or below
		MHz	5257.94	5255.51	5252.15	----	----
	Limit	uW/MHz	24.18	39.74	79.09	----	----
Out-Band Leakage Power (Combiner)	5142 to 5150MHz	uW/MHz	1.11	0.98	2.63	PASS	$10^{-1.8-(6/50)(f-20)}$ mW/MHz or below
		MHz	5261.11	5265.99	5260.18	----	----
	Limit	uW/MHz	11.65	3.02	15.09	----	----
	5142 to 5150MHz	uW/MHz	3.39	0.51	0.53	PASS	15uW/MHz or below
		MHz	5149.64	5149.93	5143.77	----	----
	5250 to 5250.2MHz	uW/MHz	0.27	0.44	9.08	PASS	$10^{-1.8-(8/3)(f-9.75)}$ mW/MHz or below
		MHz	5250.10	5250.17	5250.01	----	----
	Limit	uW/MHz	1194.90	744.73	2051.16	----	----
	5250.2 to 5251MHz	uW/MHz	0.28	0.40	9.25	PASS	$10^{-(f-9)}$ mW/MHz or below
		MHz	5250.40	5250.55	5250.83	----	----
	Limit	uW/MHz	397.19	283.14	146.89	----	----
Out-Band Leakage Power (Combiner)	5251 to 5260MHz	uW/MHz	0.48	0.54	10.09	PASS	$10^{-1.8-(8/90)(f-11)}$ mW/MHz or below
		MHz	5253.93	5253.84	5251.18	----	----
	Limit	uW/MHz	54.93	55.95	96.30	----	----
	5260 to 5266.7MHz	uW/MHz	0.99	0.45	0.94	PASS	$10^{-1.8-(6/50)(f-20)}$ mW/MHz or below
		MHz	5266.58	5264.65	5260.02	----	----
	Limit	uW/MHz	2.58	4.39	15.77	----	----

Measurement Channel		Ch.	36	40	48		
Measurement Frequency		MHz	5180	5200	5240	Result	Limit
Secondary Emitted Radio Wave Strength (Rx1)	30MHz to 1000MHz	nW	0.88	0.34	0.23	PASS	4nW or below
		MHz	133.20	129.33	833.81	----	----
	1GHz to 26GHz	nW	2.44	1.81	1.18	PASS	20nW or below
		MHz	6907.00	6932.00	6982.00	----	----
Secondary Emitted Radio Wave Strength (Rx2)	30MHz to 1000MHz	nW	0.27	0.26	0.26	PASS	4nW or below
		MHz	833.81	833.81	833.81	----	----
	1GHz to 26GHz	nW	1.30	1.29	1.15	PASS	20nW or below
		MHz	6907.00	6932.00	18120.00	----	----
Secondary Emitted Radio Wave Strength (Rx1+2)	30MHz to 1000MHz	nW	1.15	0.60	0.49	PASS	4nW or below
		----	----	----	----	----	----
	1GHz to 26GHz	nW	3.74	3.10	2.32	PASS	20nW or below
		----	----	----	----	----	----
Burst Length of Transmitted Signals		----	Good	Good	Good	PASS	8ms or below
Carrier Sensing Function		----	Good	Good	Good	PASS	100mV/m
Interference Prevention Function		----	Good			PASS	

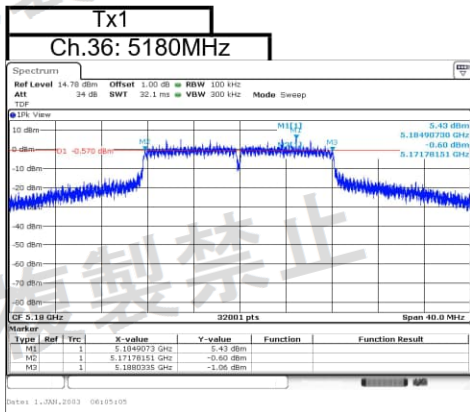
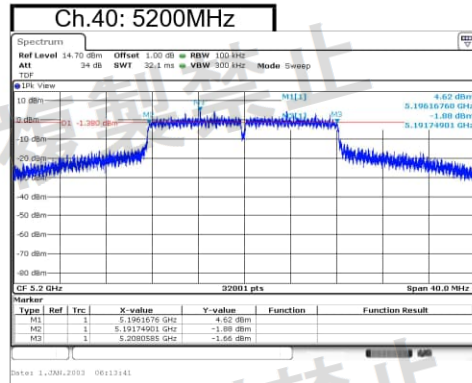
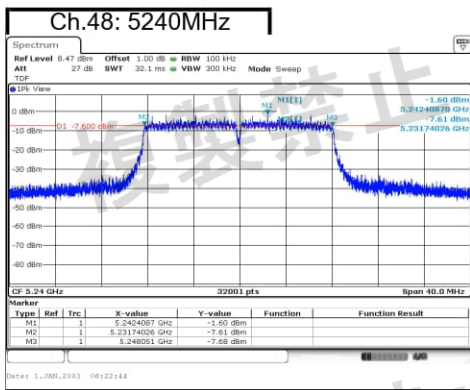
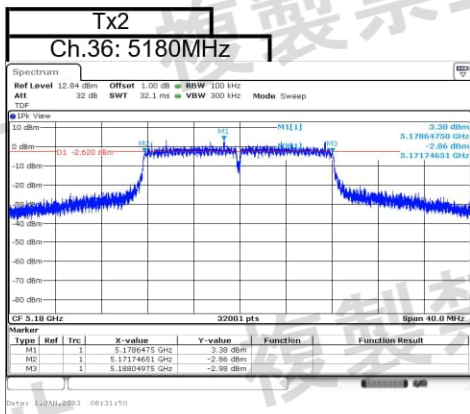
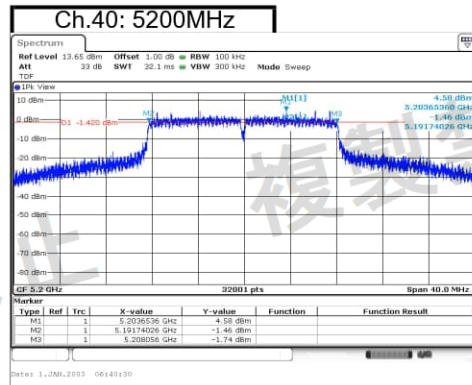
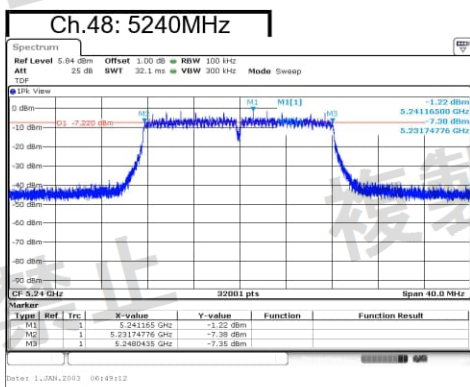
7. Test chart

7.1 Frequency tolerance (Rated voltage)



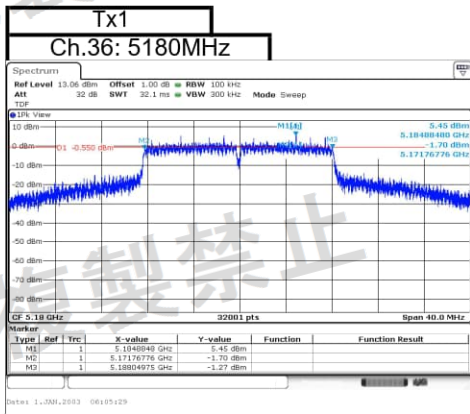
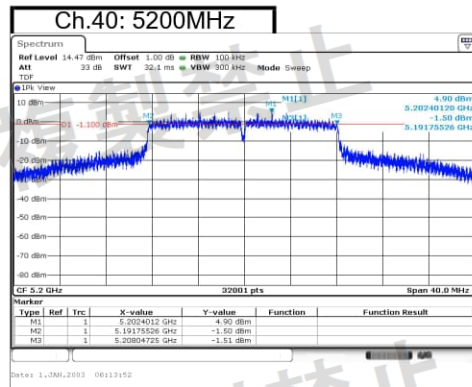
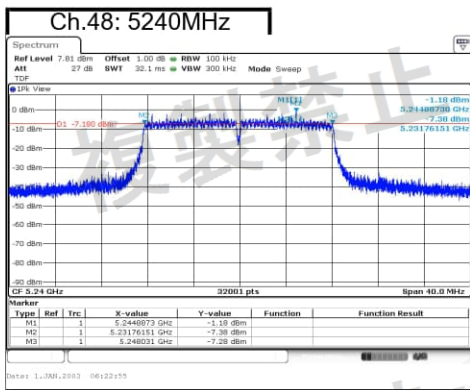
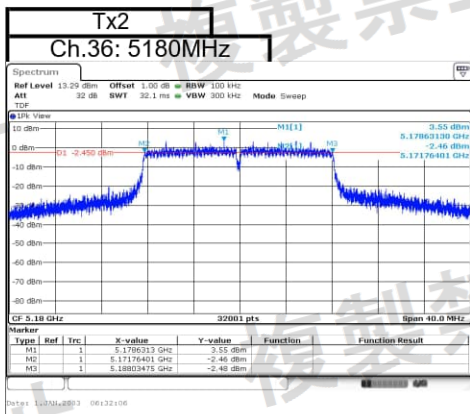
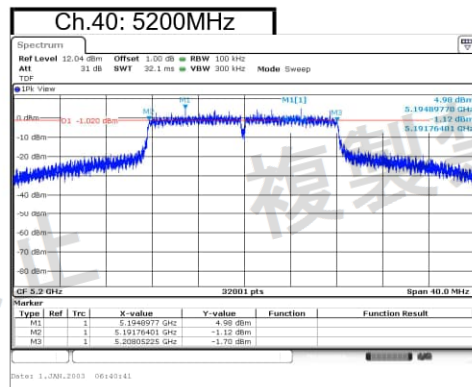
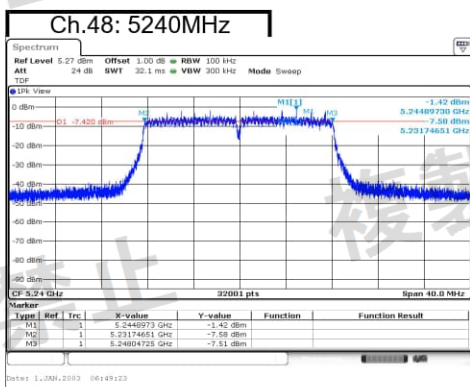
7. Test chart

7.1 Frequency tolerance (-10% voltage)



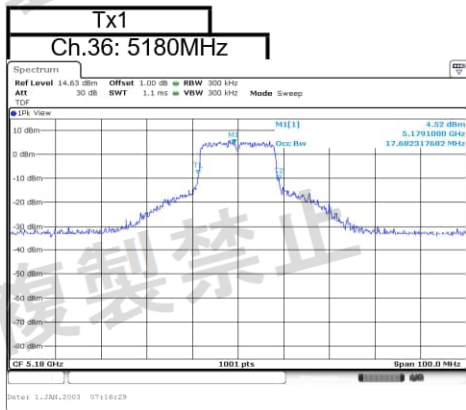
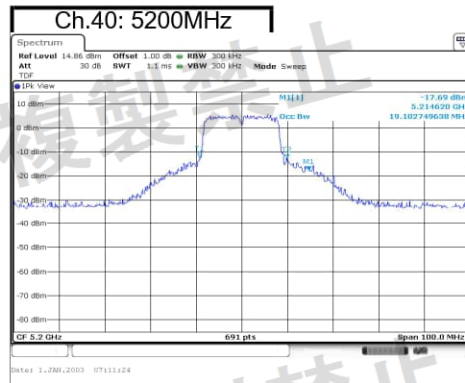
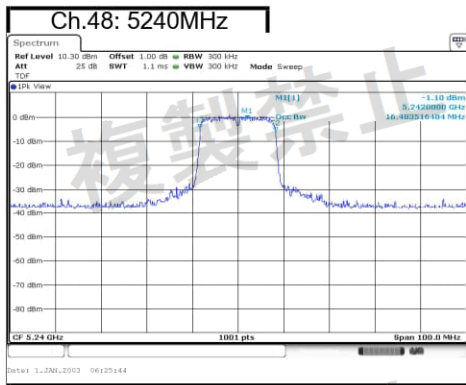
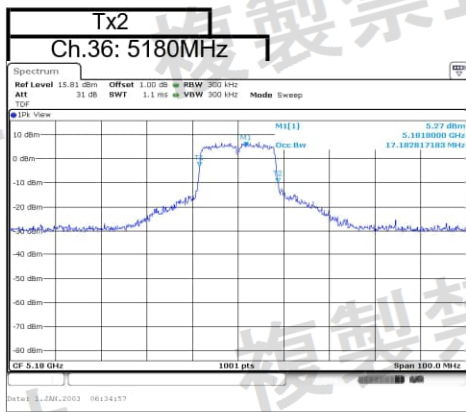
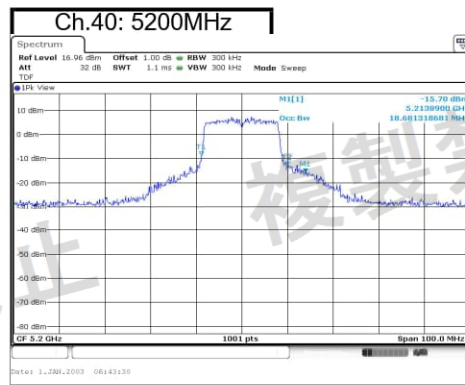
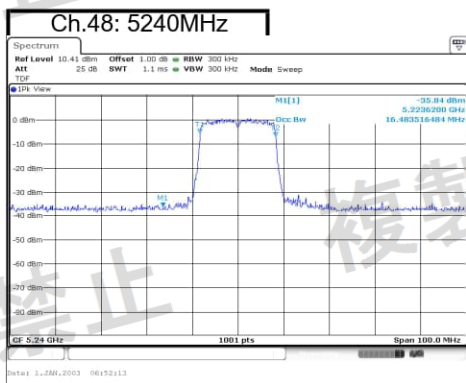
7. Test chart

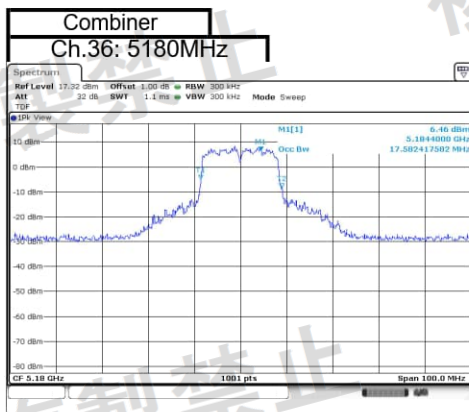
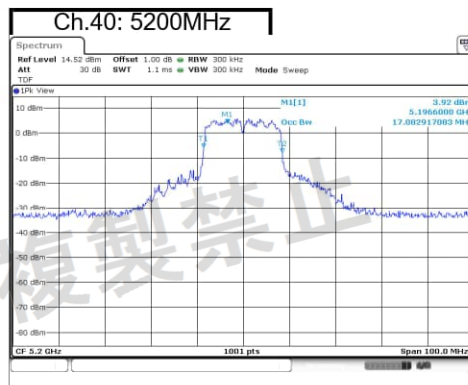
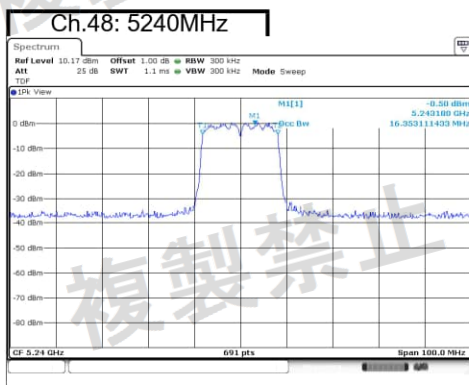
7.1 Frequency tolerance (+10% voltage)



7. Test chart

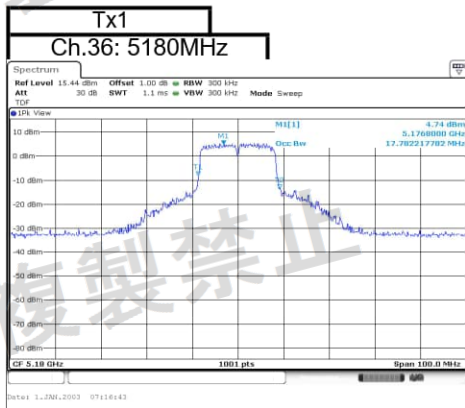
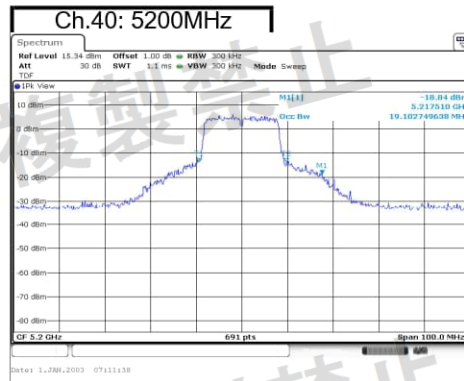
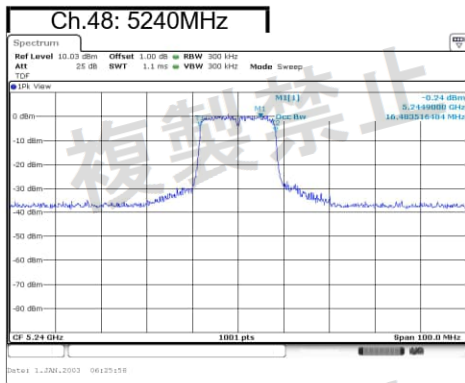
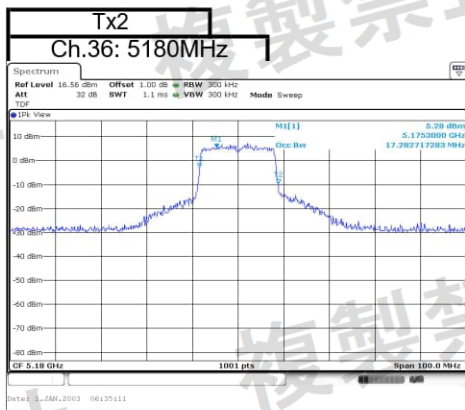
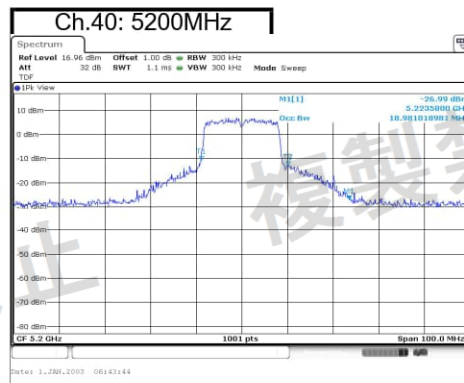
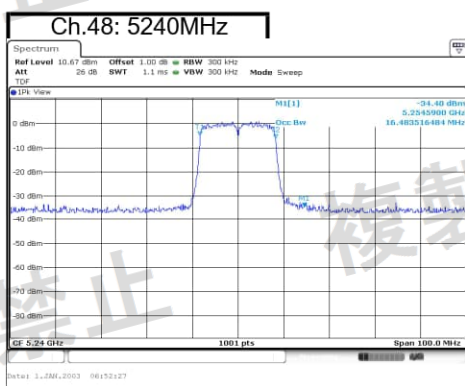
7.2 Occupied bandwidth (Rated voltage)

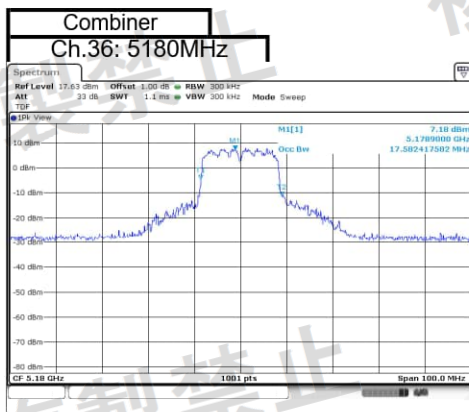
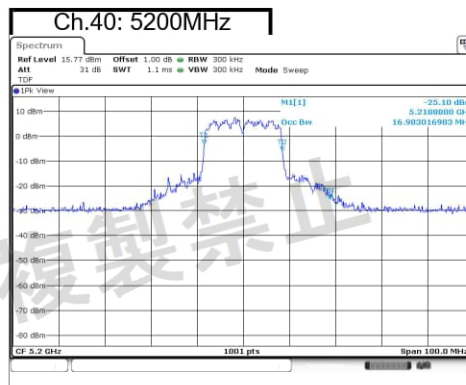
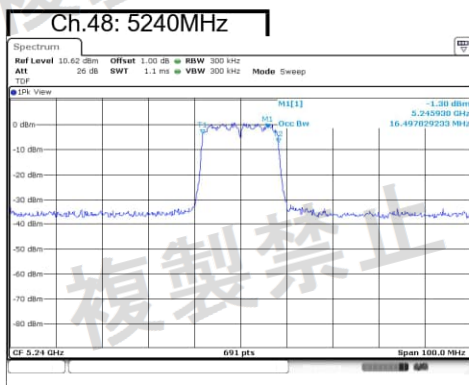




7. Test chart

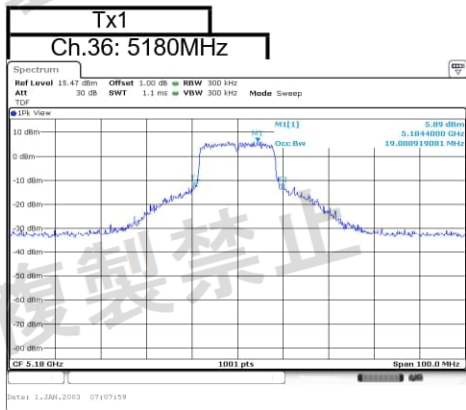
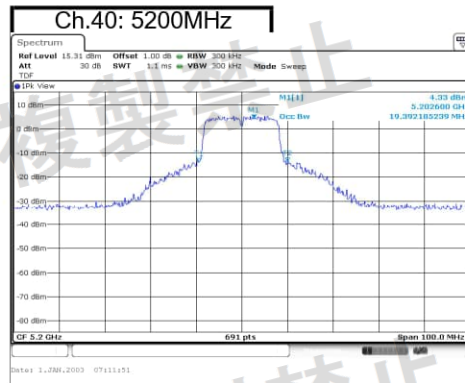
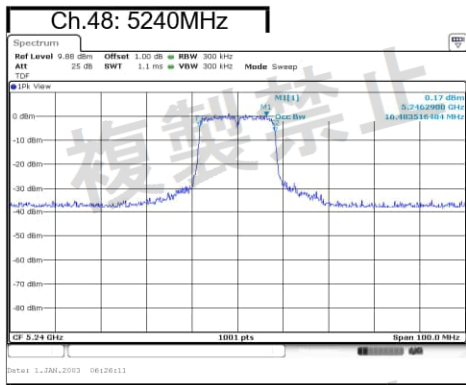
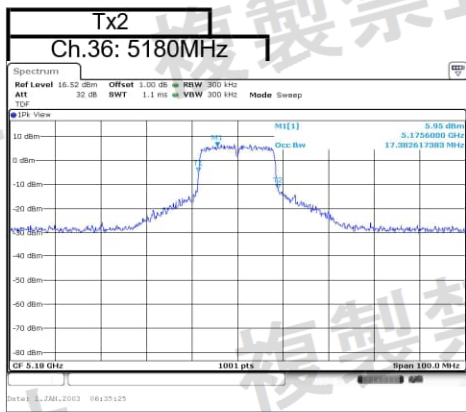
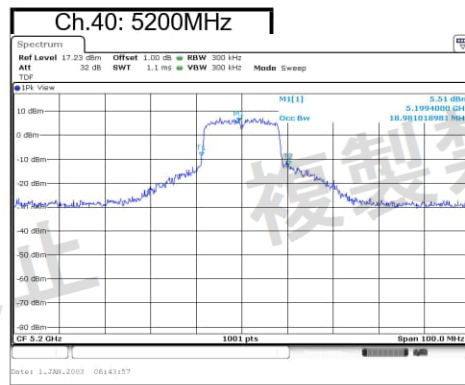
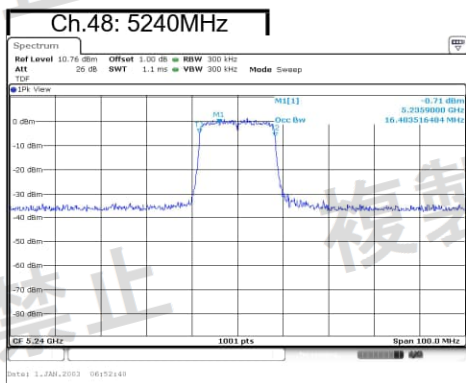
7.2 Occupied bandwidth (-10% voltage)

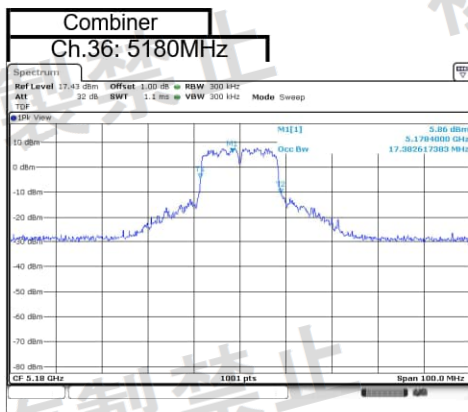
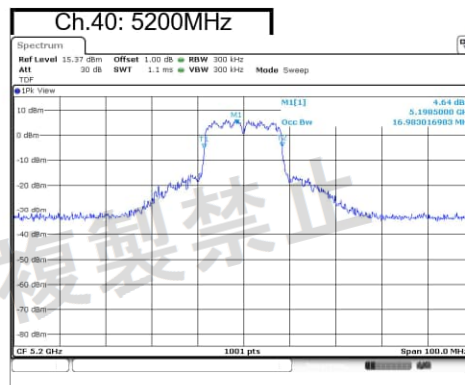
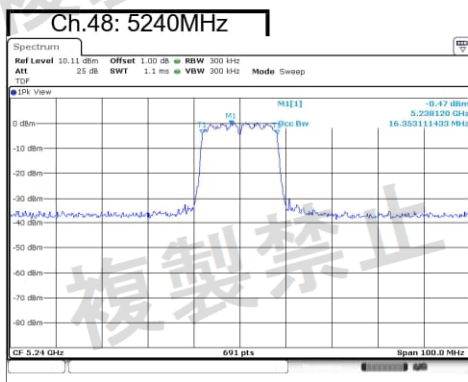




7. Test chart

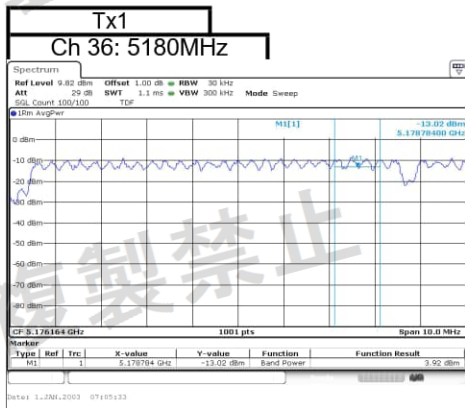
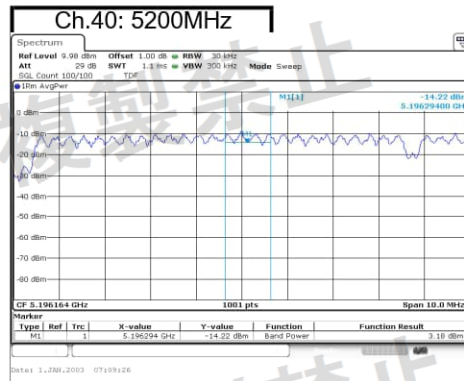
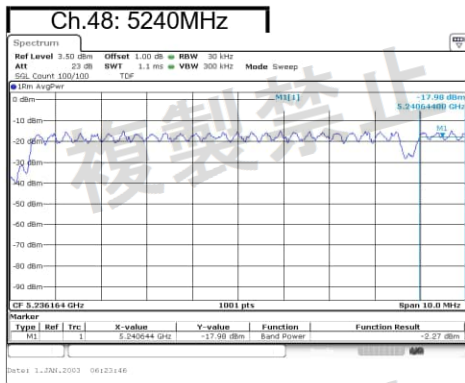
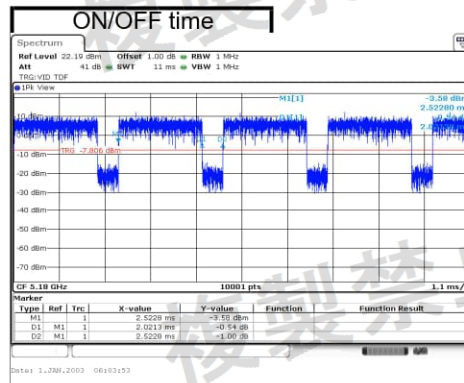
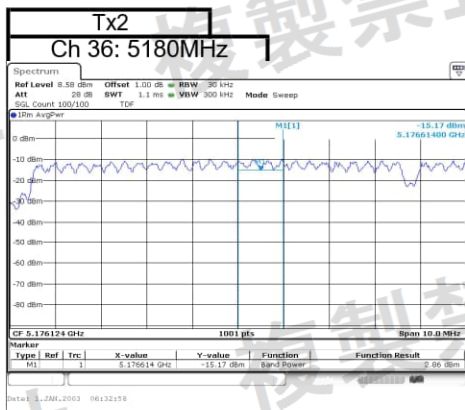
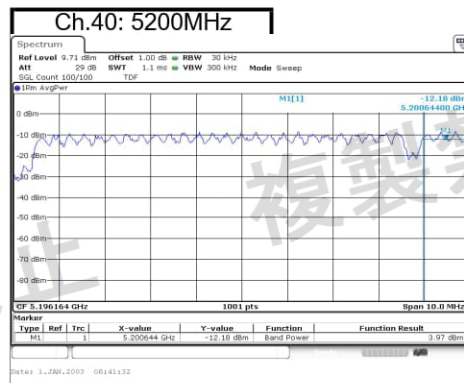
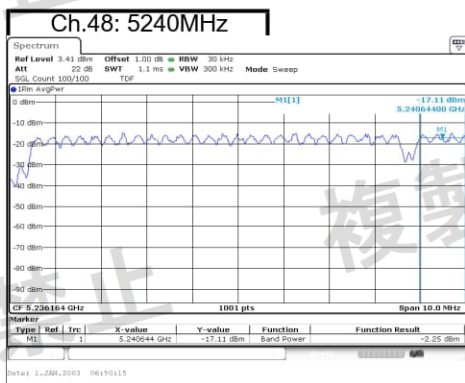
7.2 Occupied bandwidth (+10% voltage)





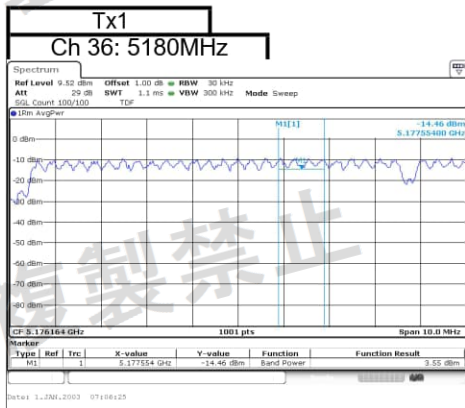
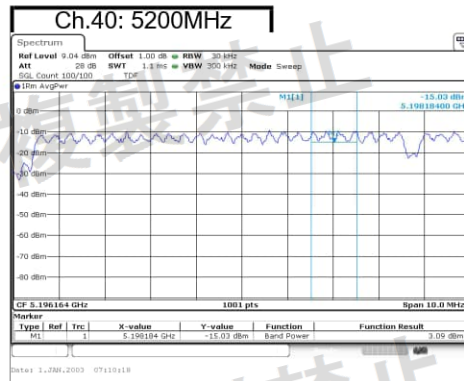
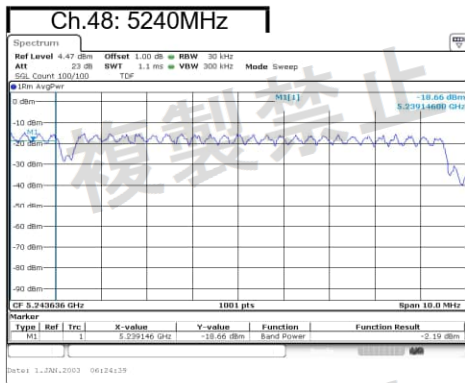
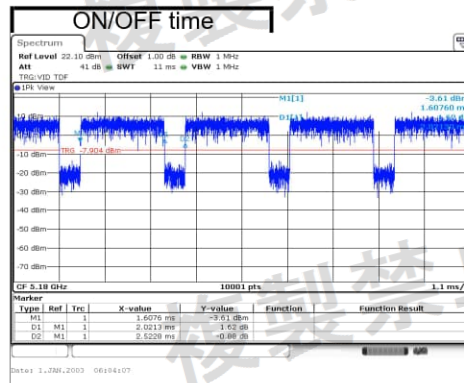
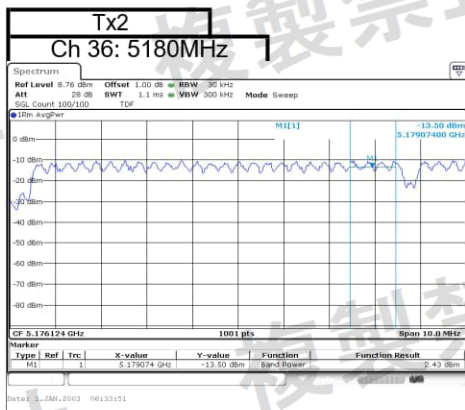
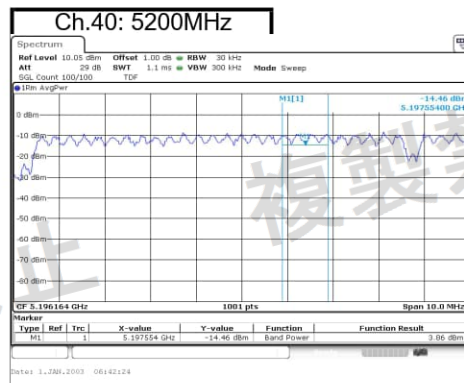
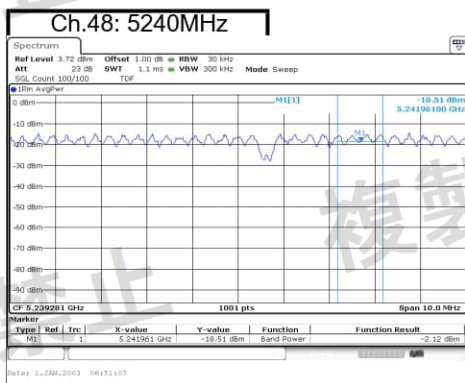
7. Test chart

7.3 RF output power tolerance (Rated voltage)



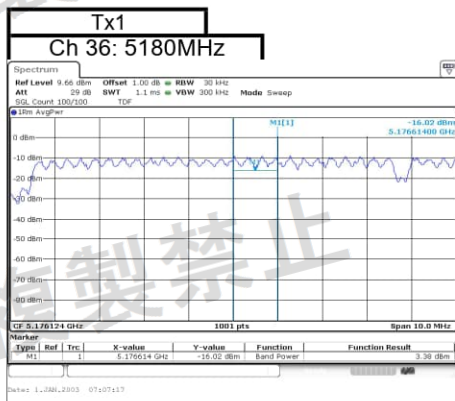
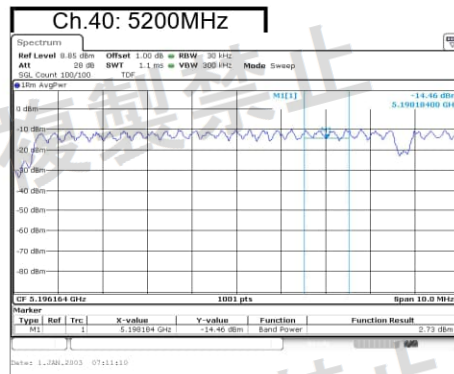
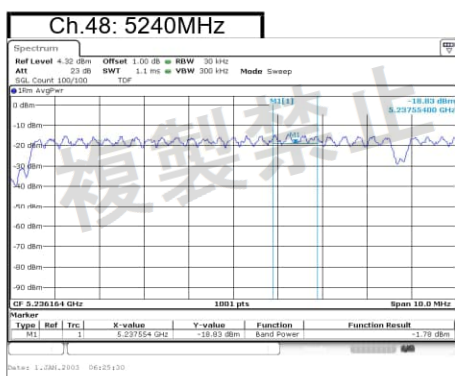
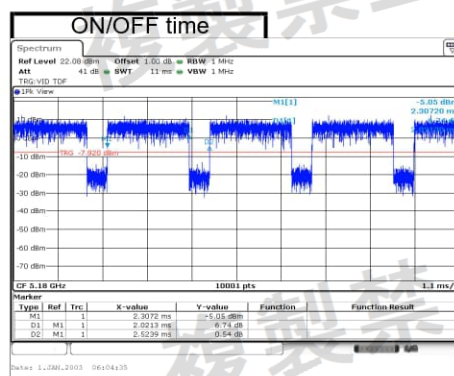
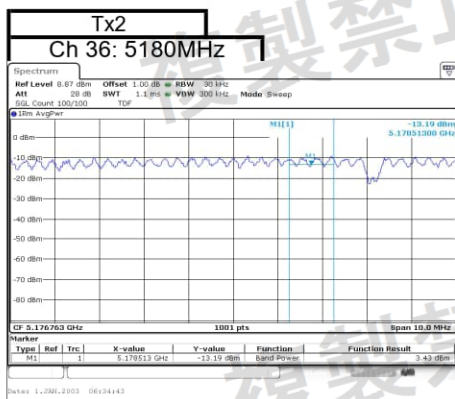
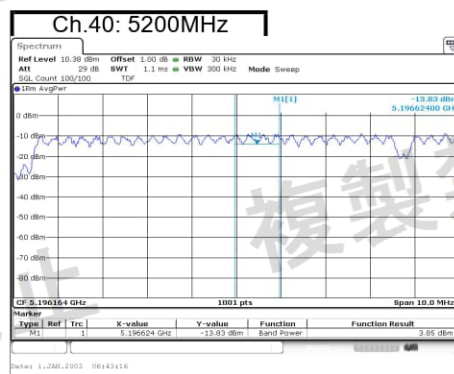
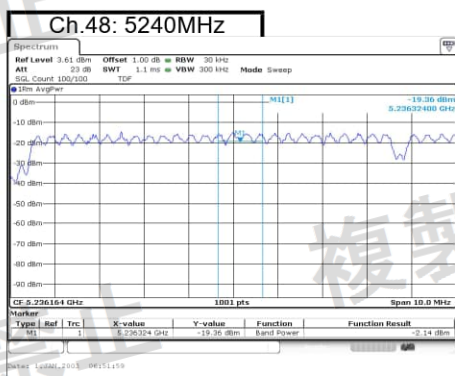
7. Test chart

7.3 RF output power tolerance (-10% voltage)



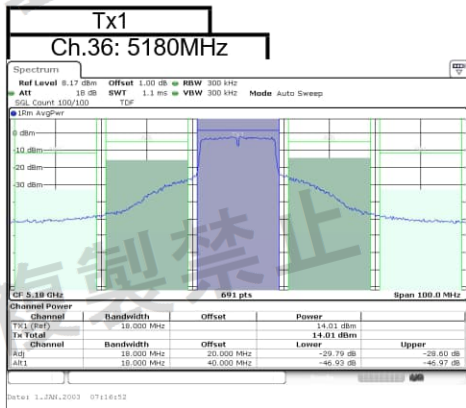
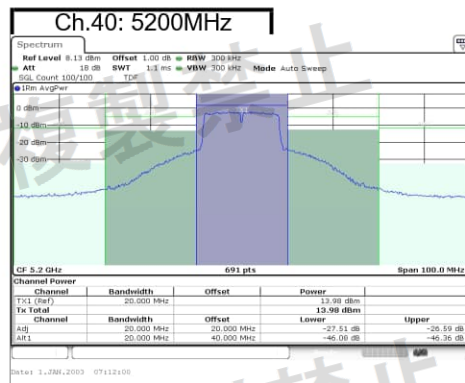
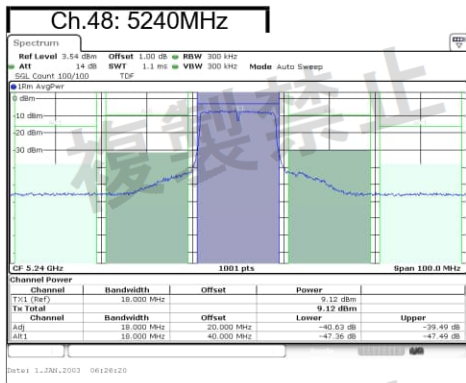
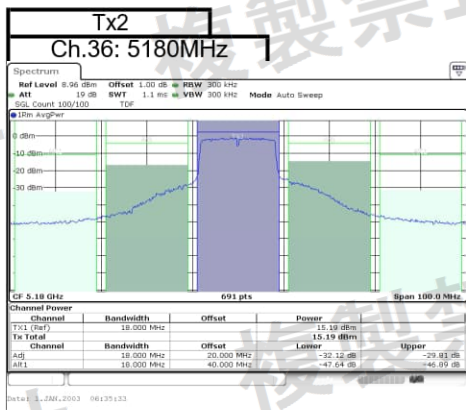
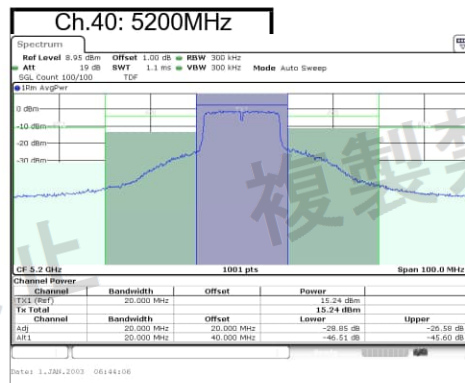
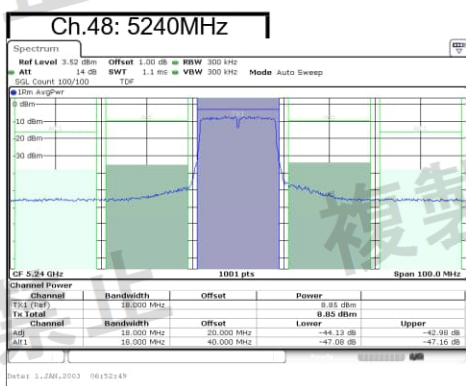
7. Test chart

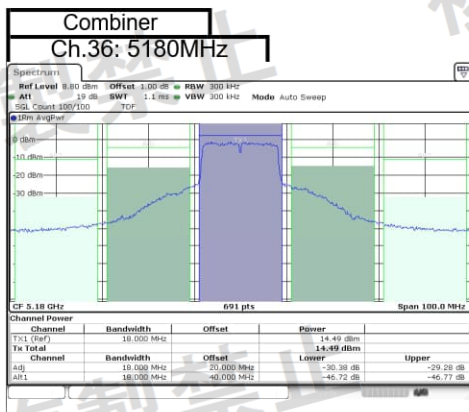
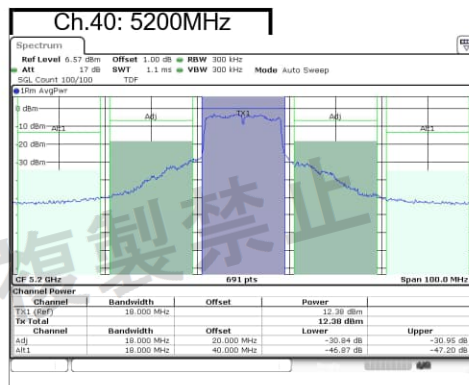
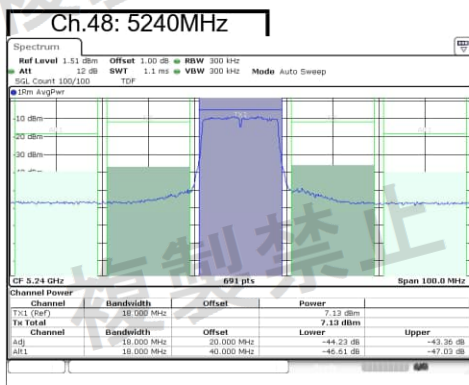
7.3 RF output power tolerance (+10% voltage)



7. Test chart

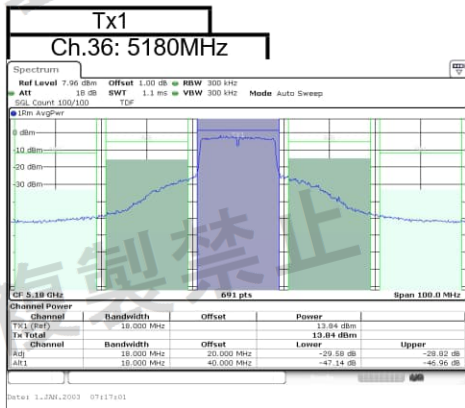
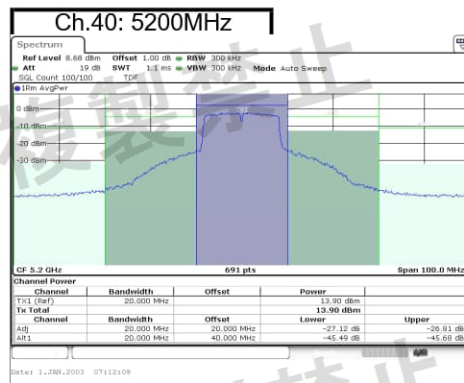
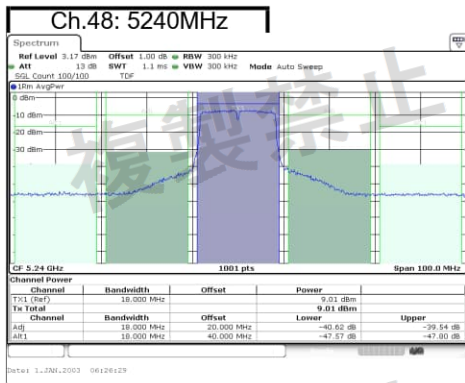
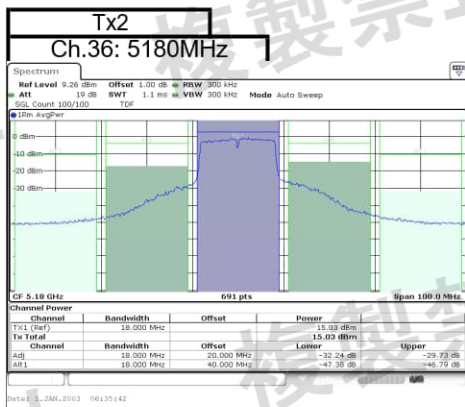
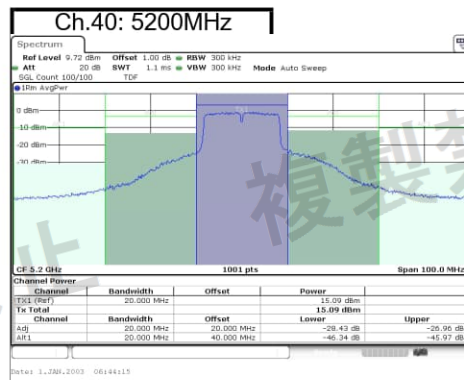
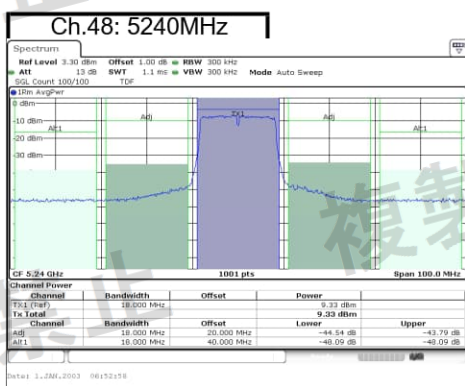
7.4 Adjacent Channel Leakage Power (Rated voltage)

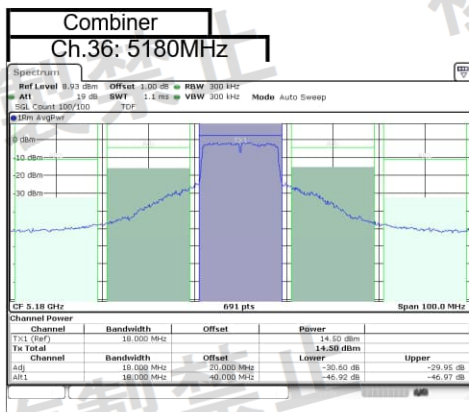
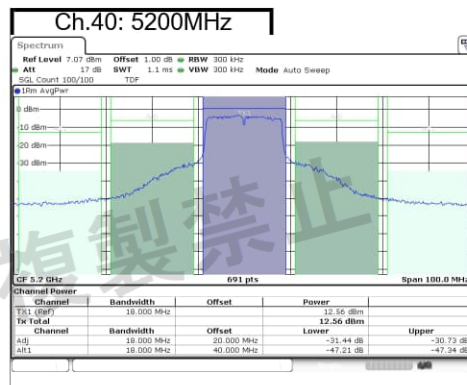
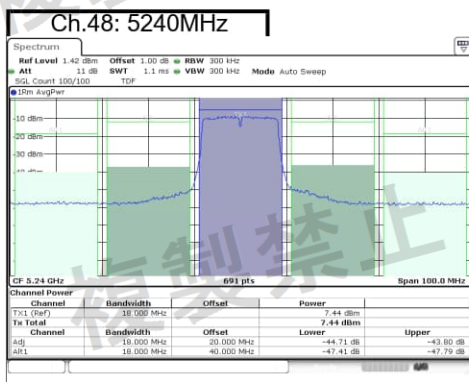




7. Test chart

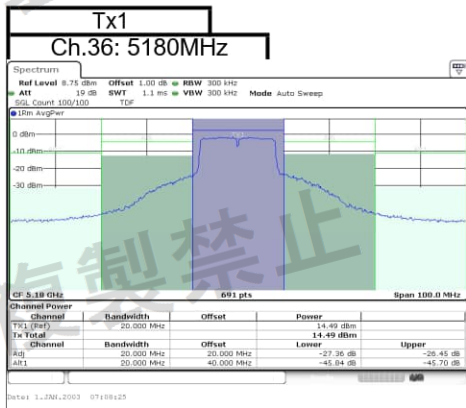
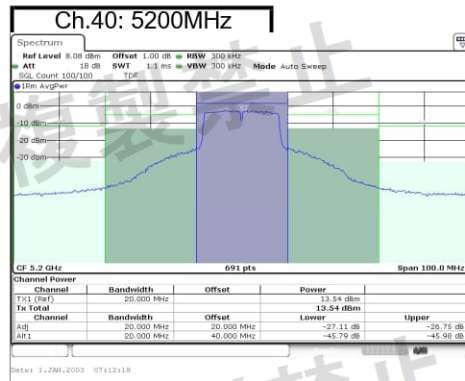
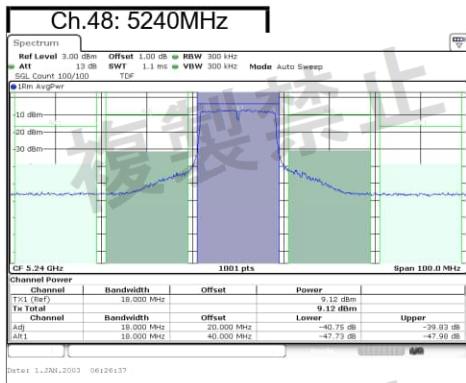
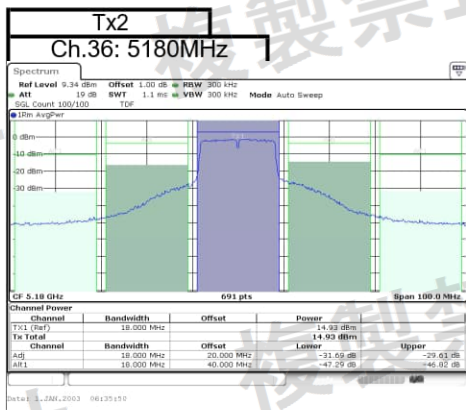
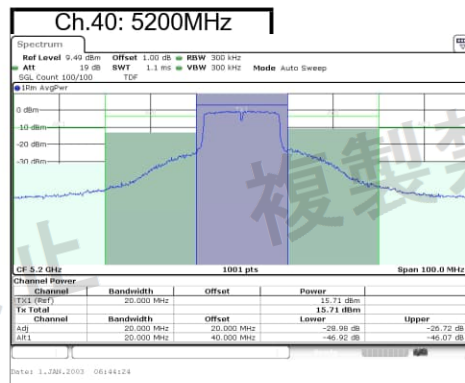
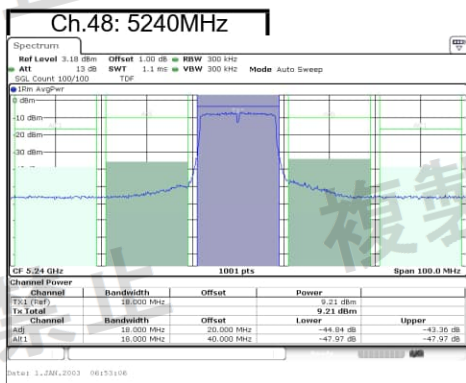
7.4 Adjacent Channel Leakage Power (-10% voltage)

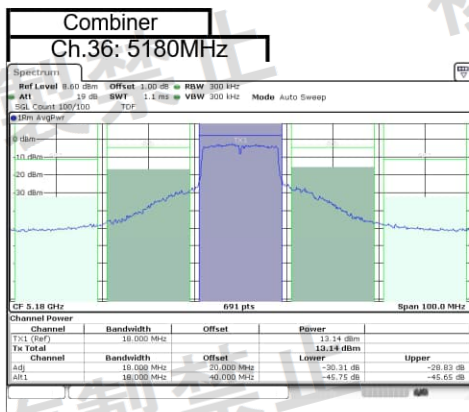
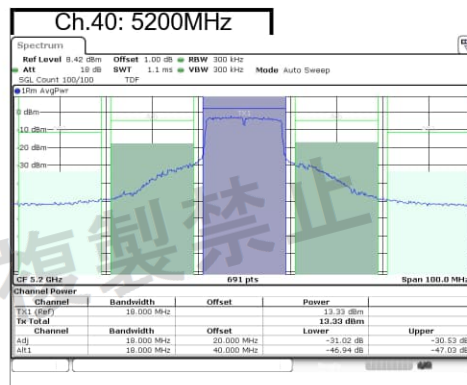
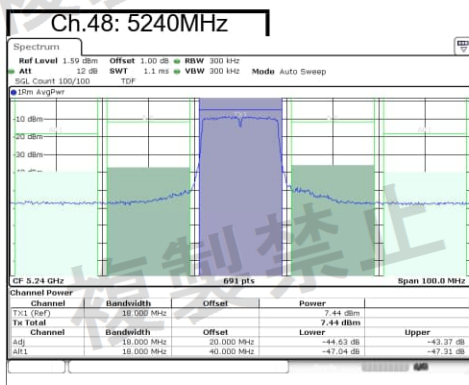




7. Test chart

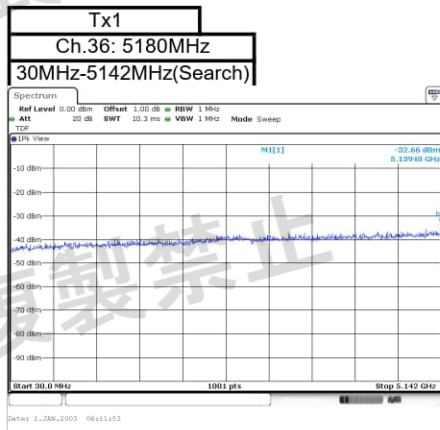
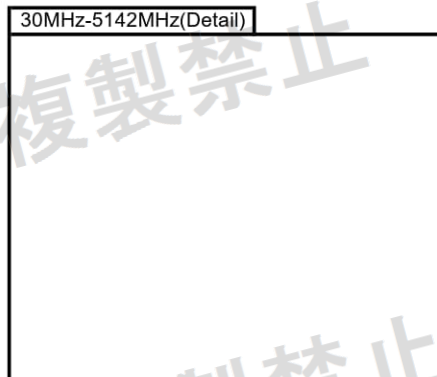
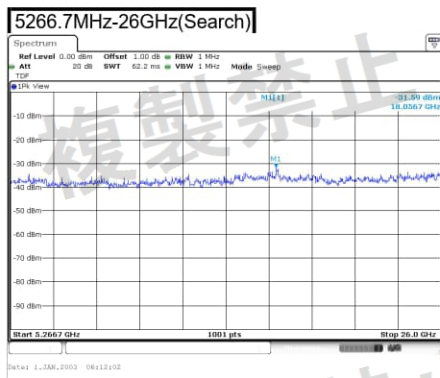
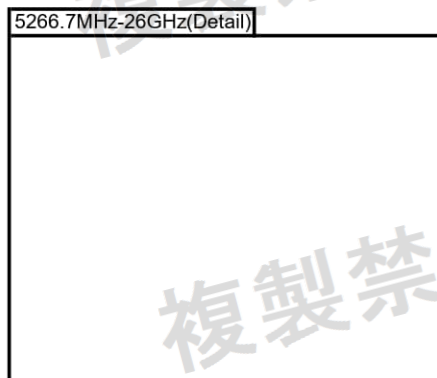
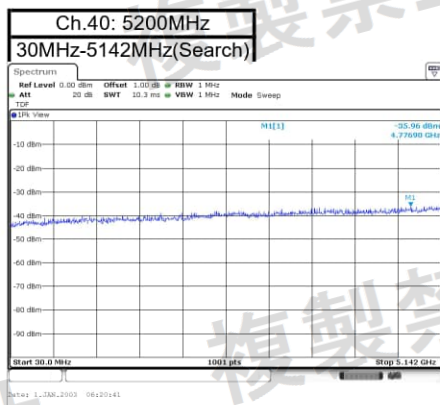
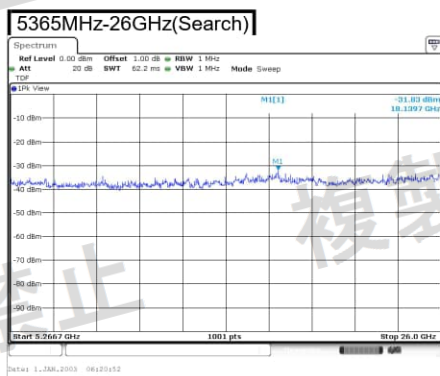
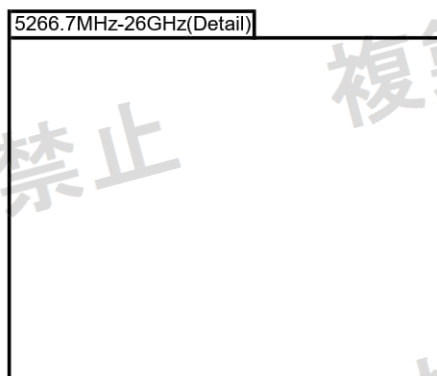
7.4 Adjacent Channel Leakage Power (+10% voltage)

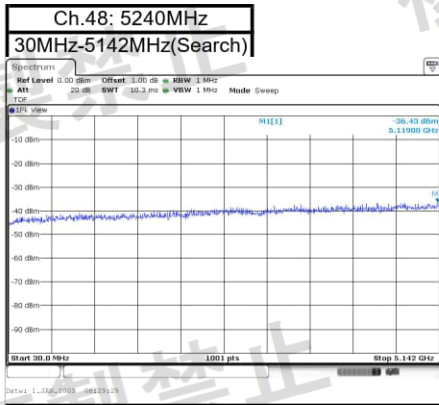
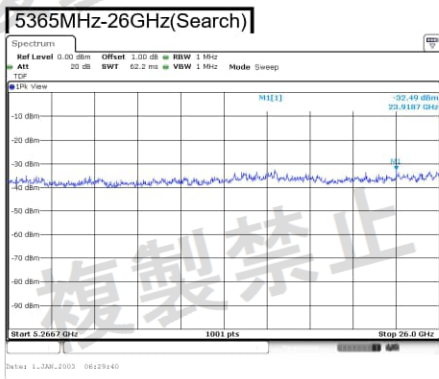
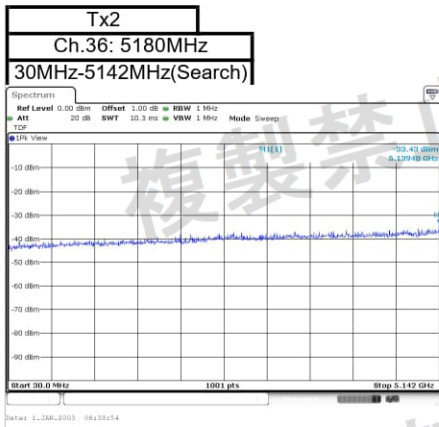
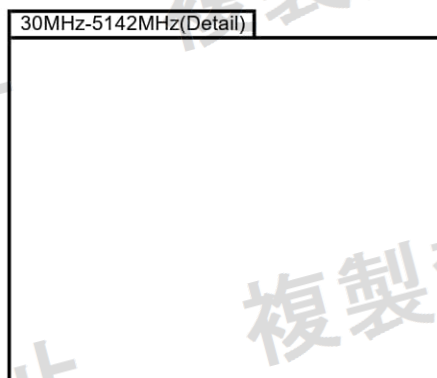
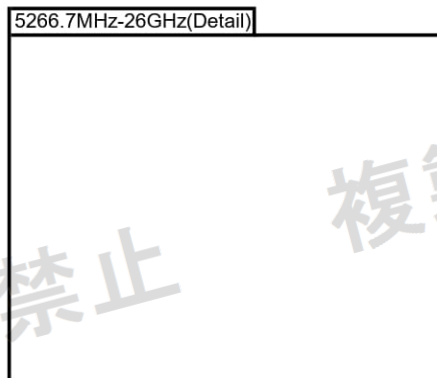


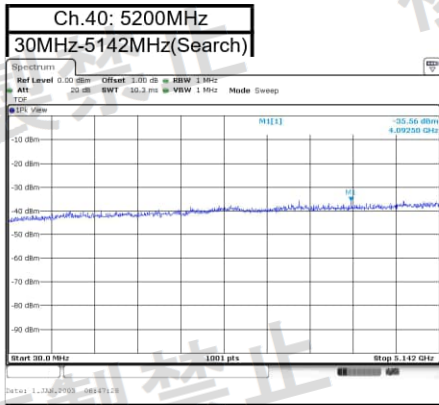
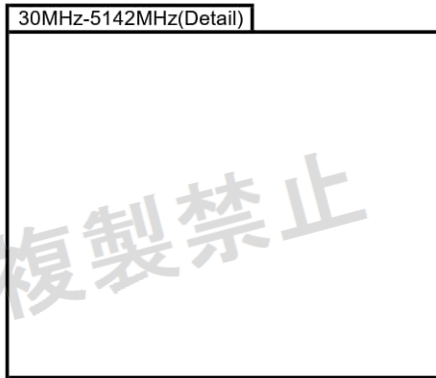
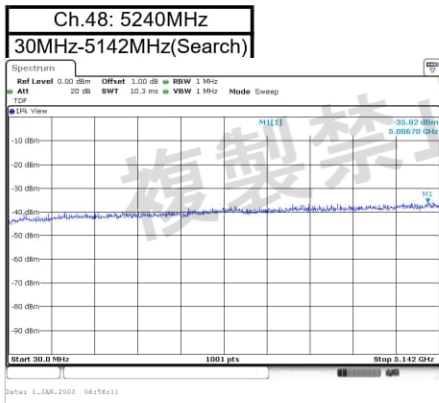
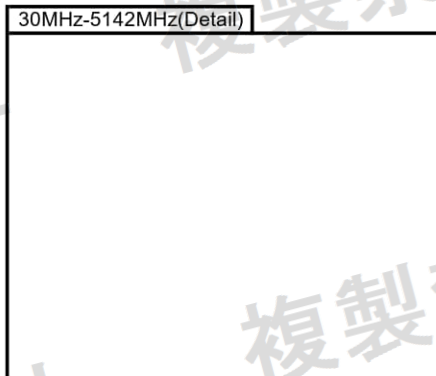
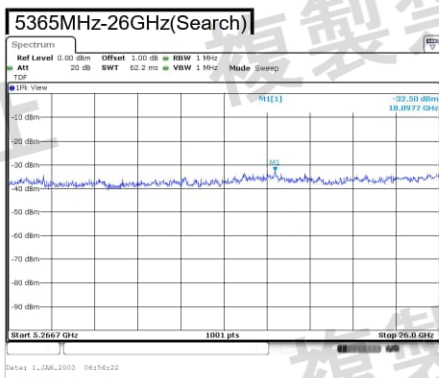
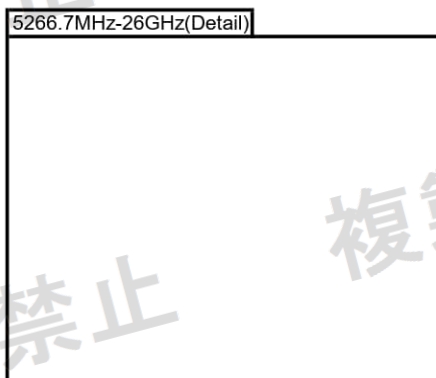


7. Test chart

7.5 Unwanted(Spurious) emission strength (Rated voltage)

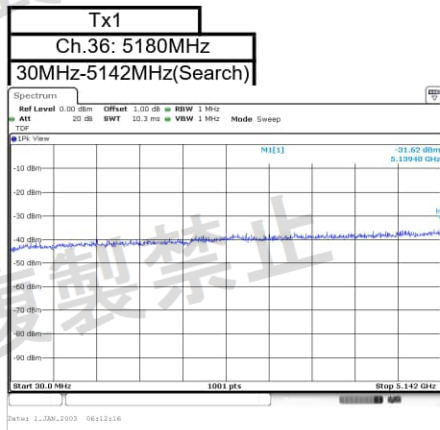
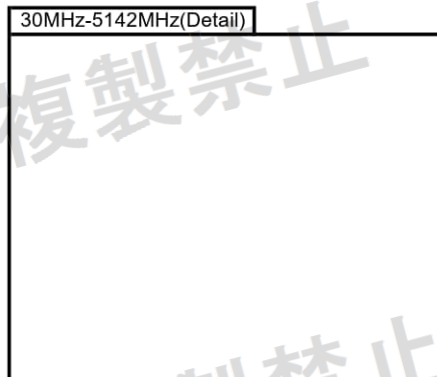
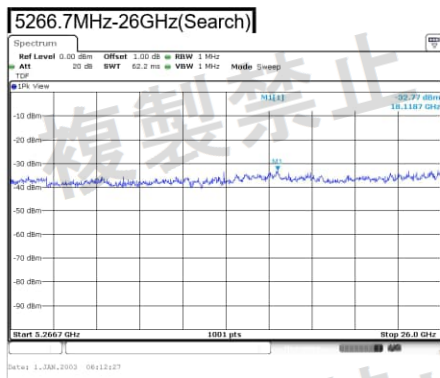
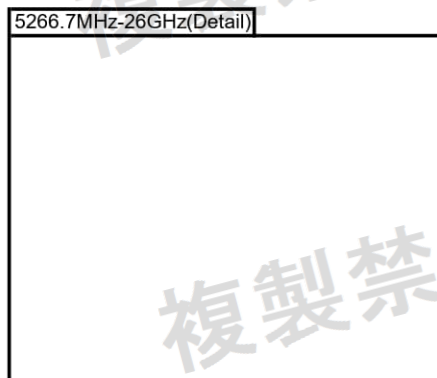
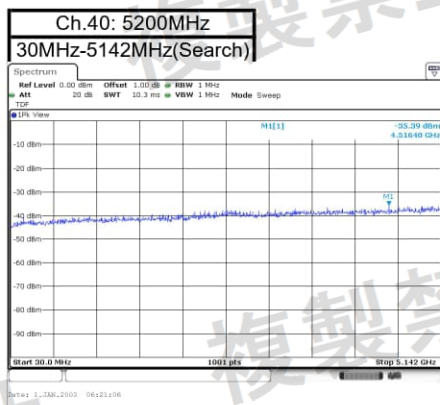
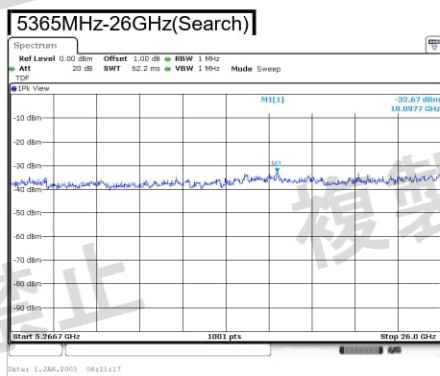
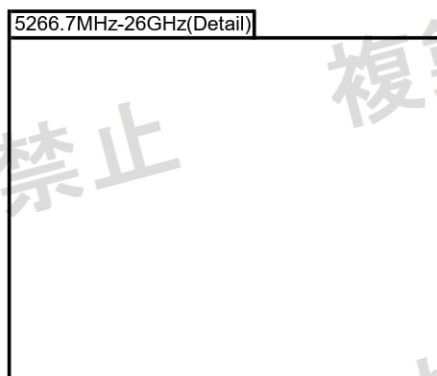


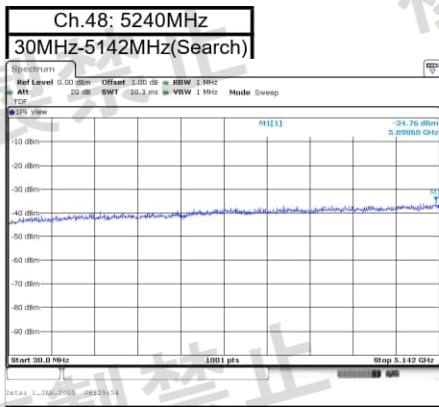
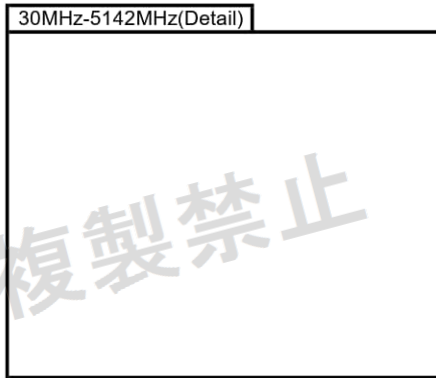
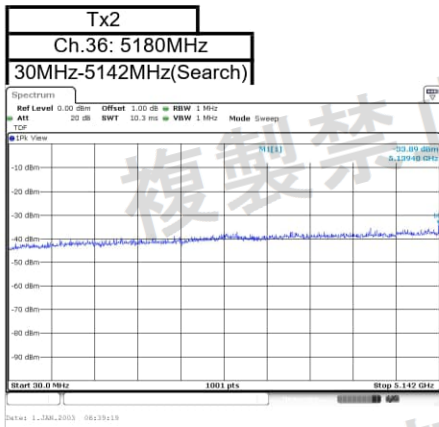
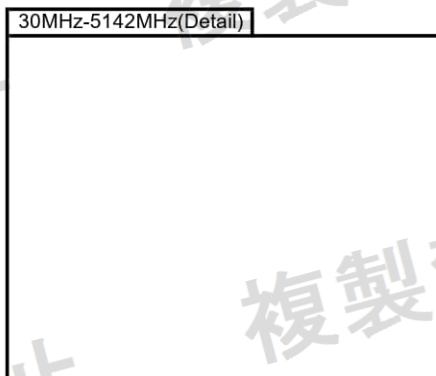
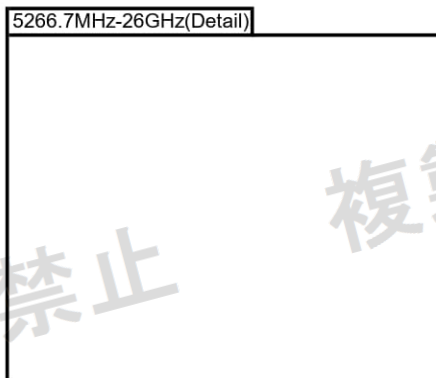


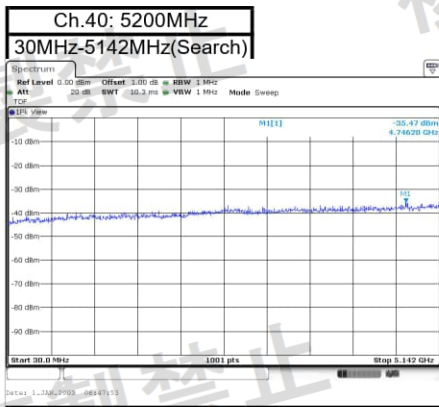
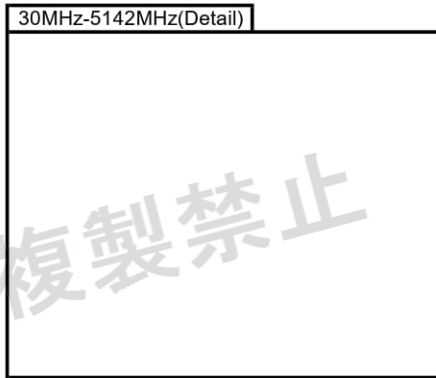
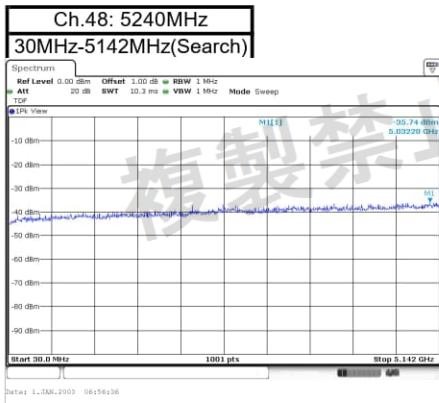
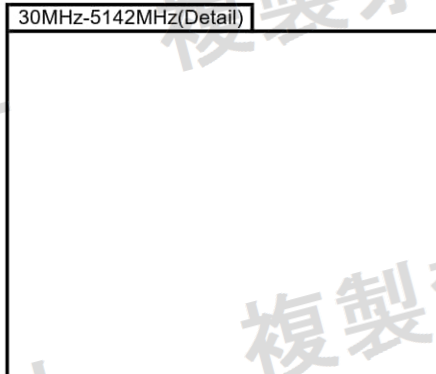
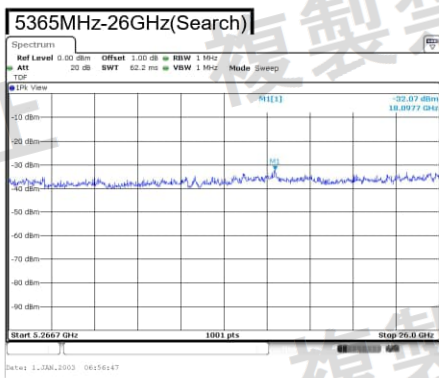
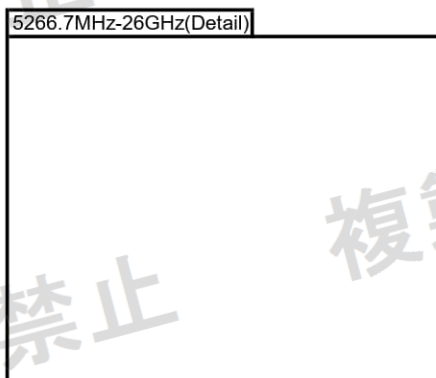


7. Test chart

7.5 Unwanted(Spurious) emission strength (-10% voltage)

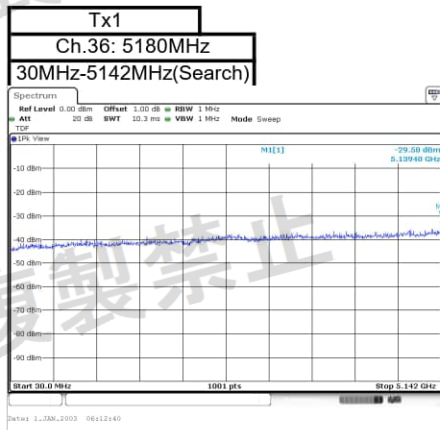
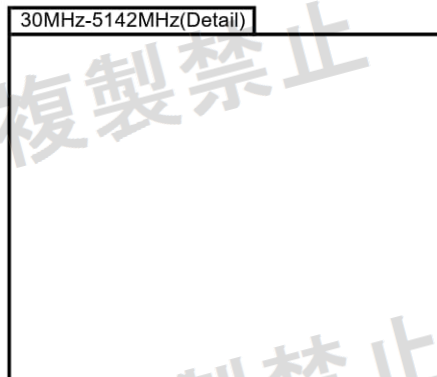
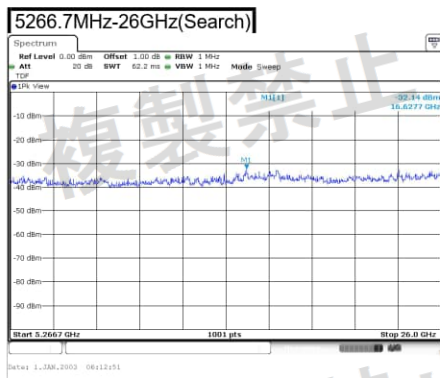
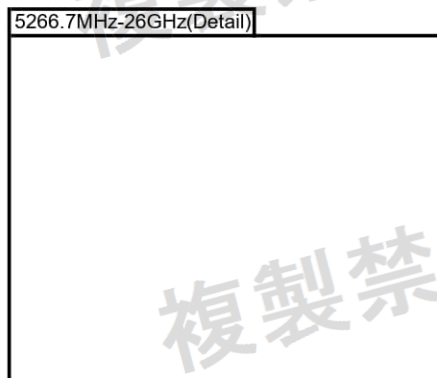
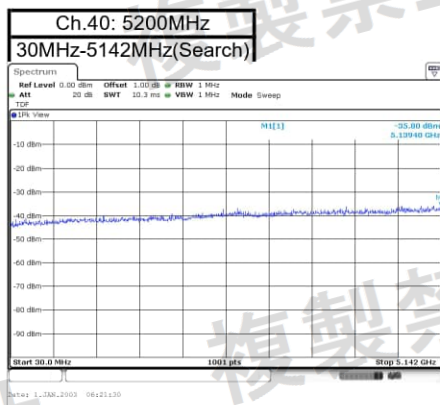
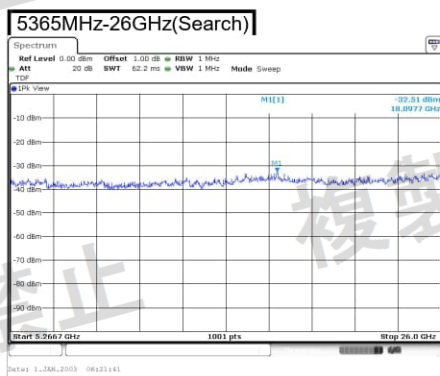
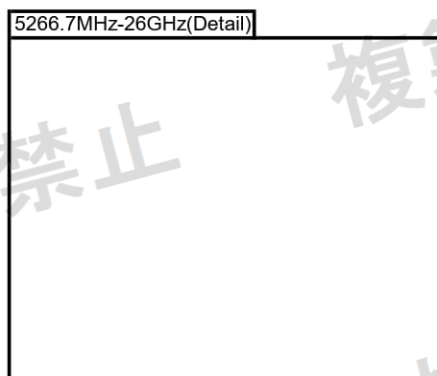


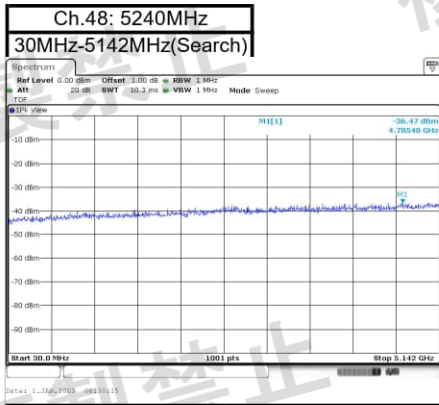
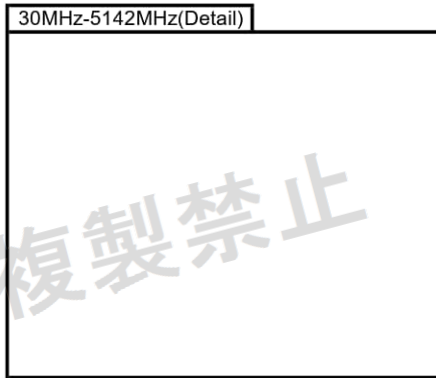
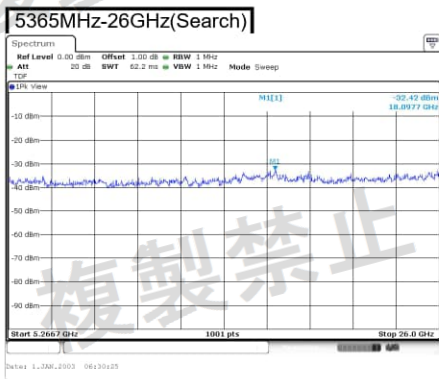
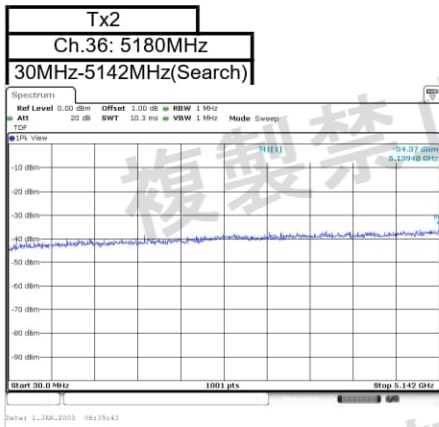
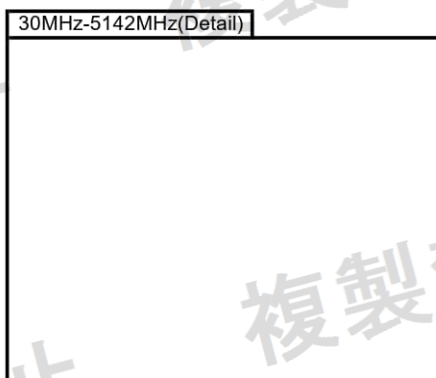
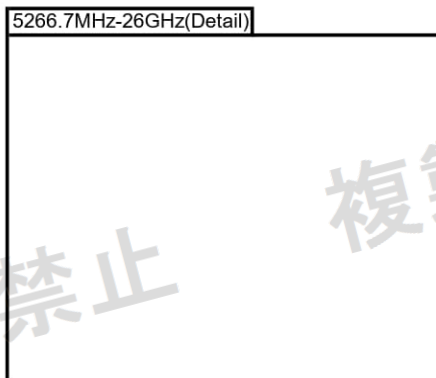


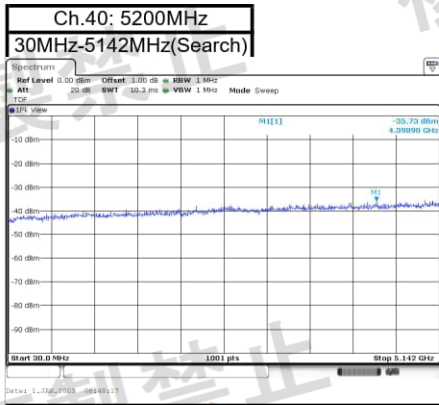
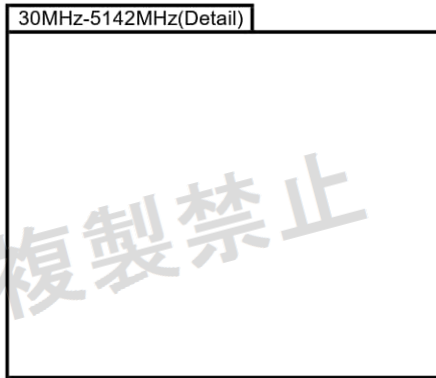
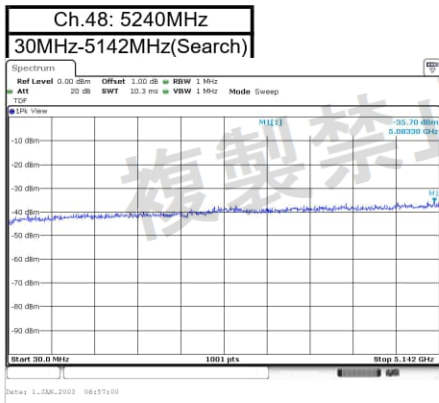
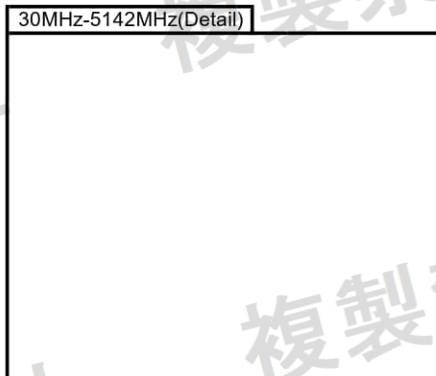
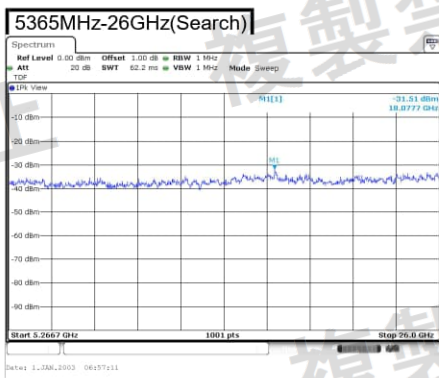
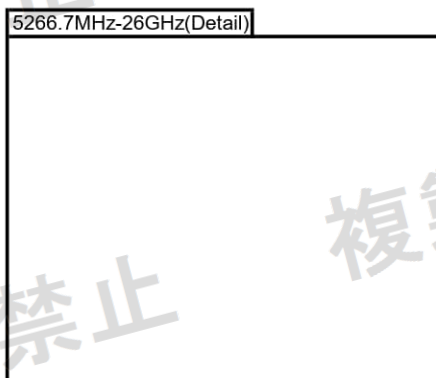


7. Test chart

7.5 Unwanted(Spurious) emission strength (+10% voltage)

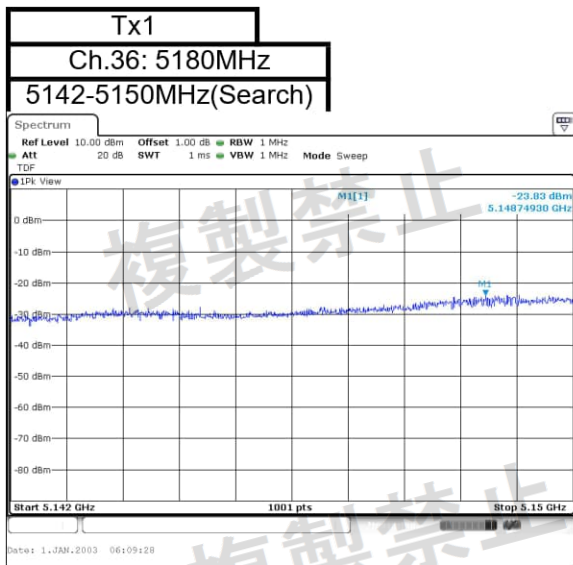
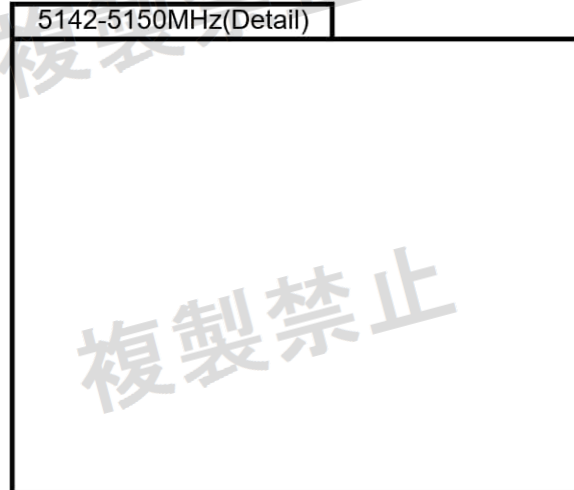
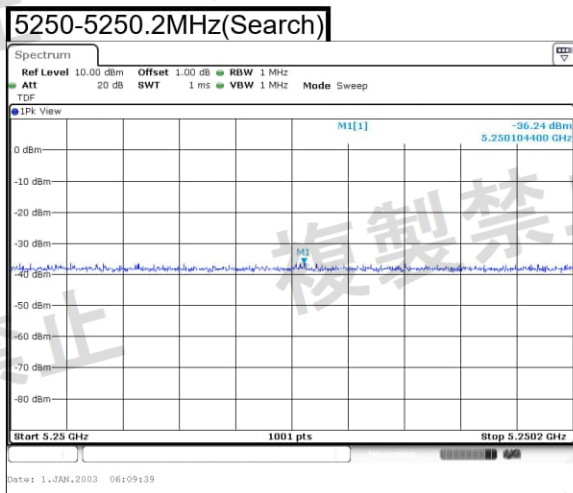
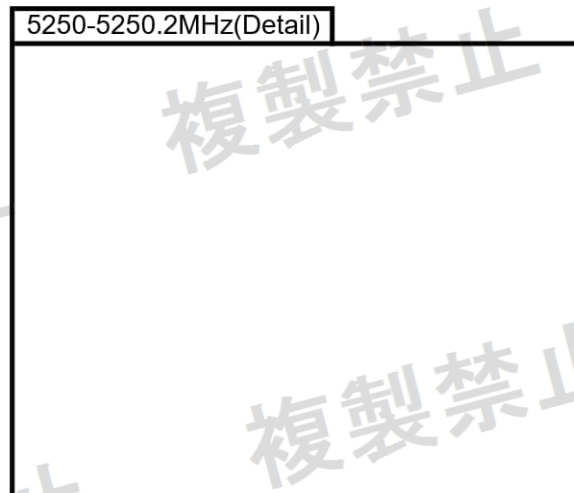
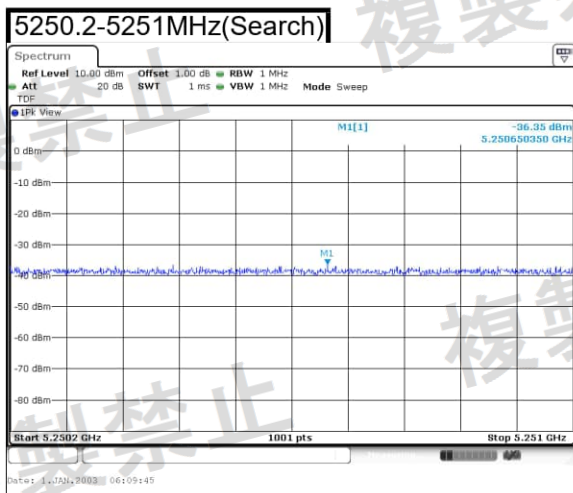
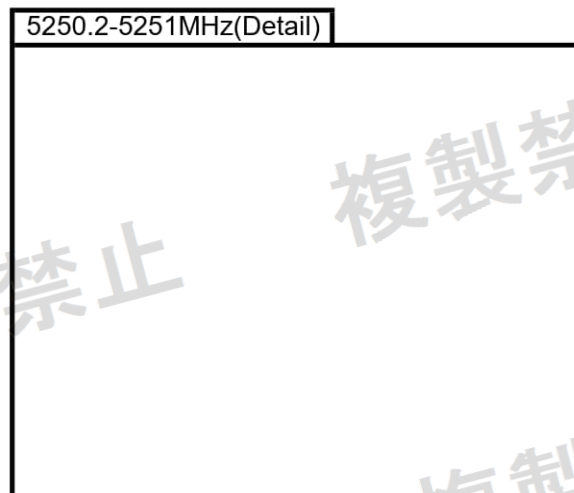


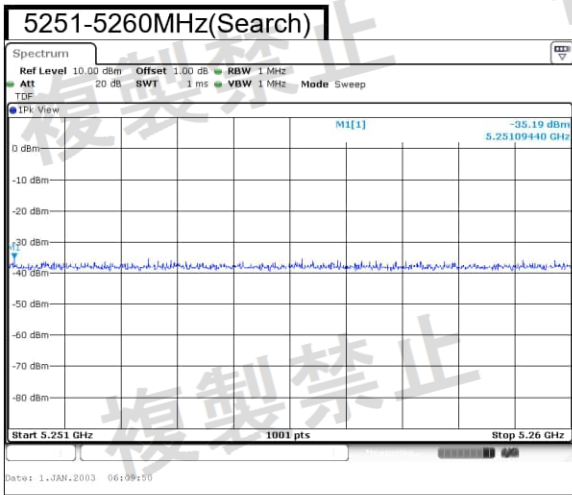
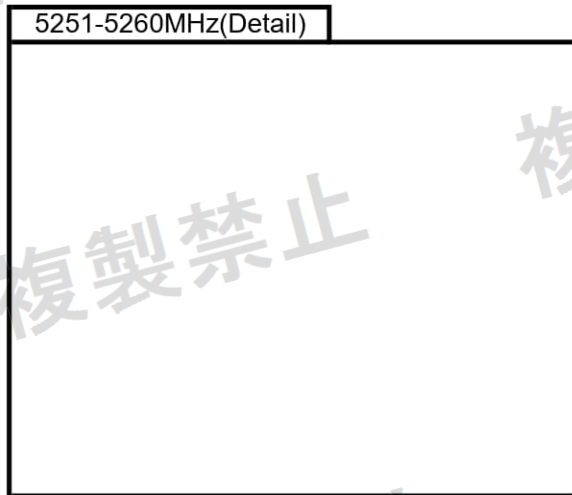
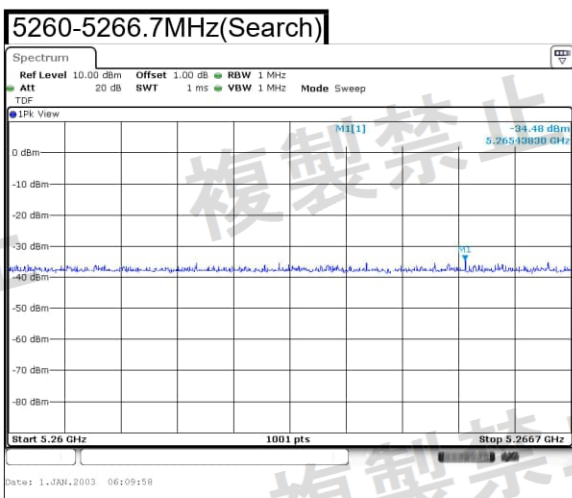


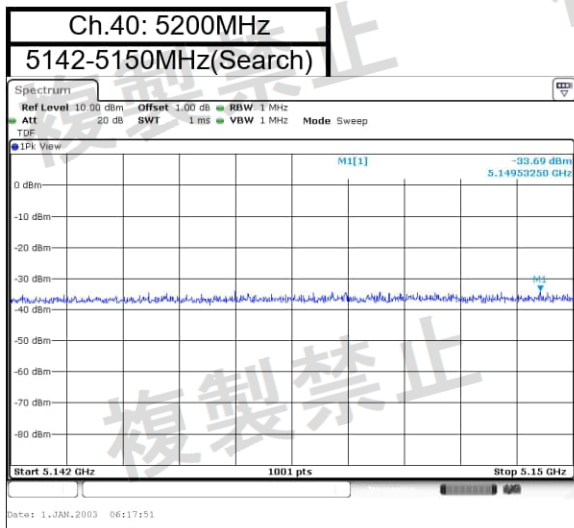
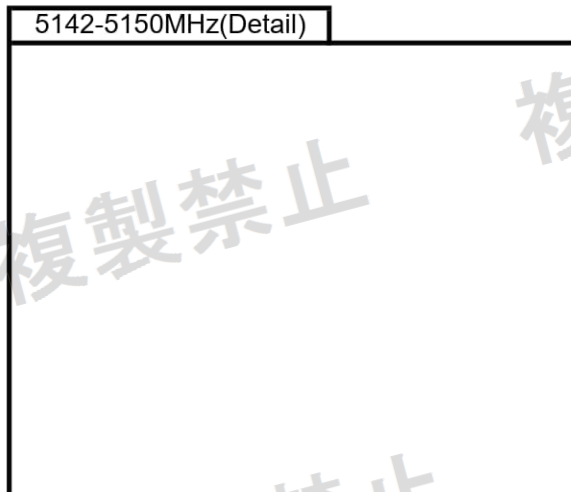
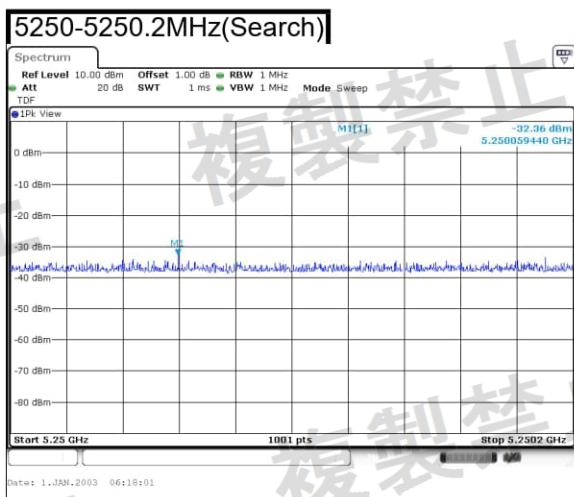
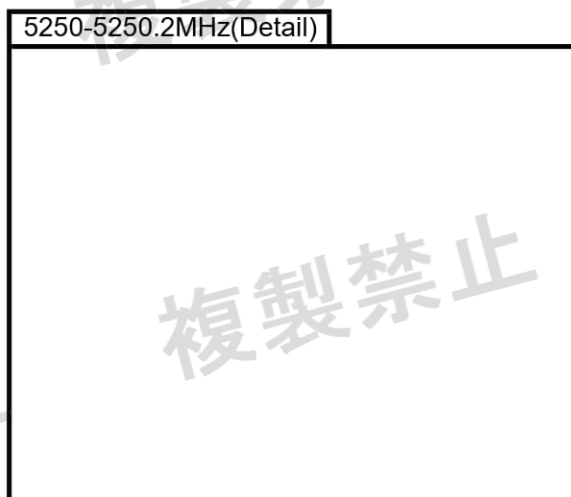
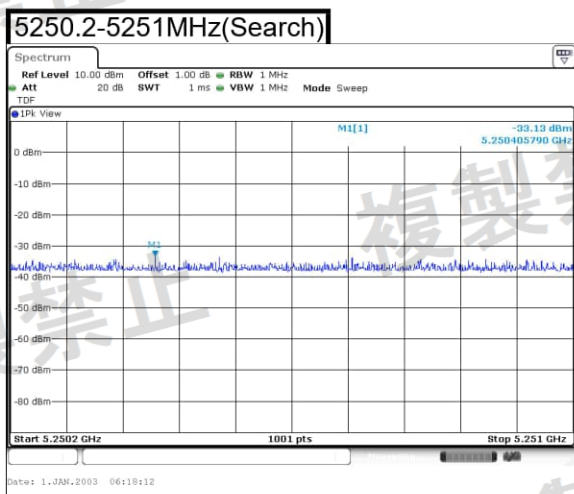
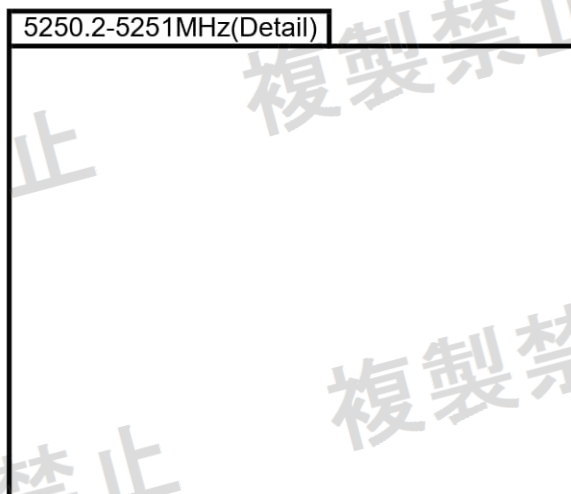


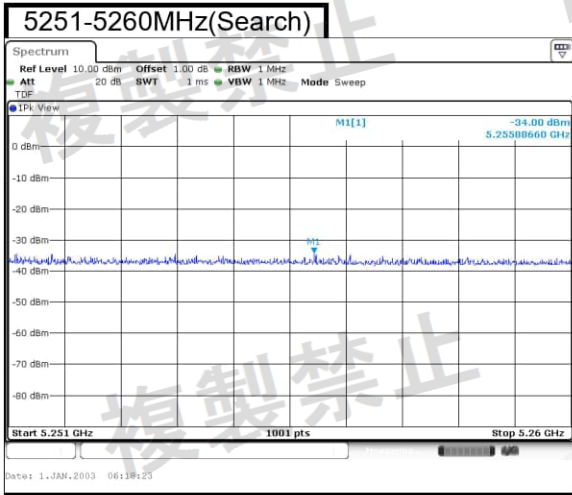
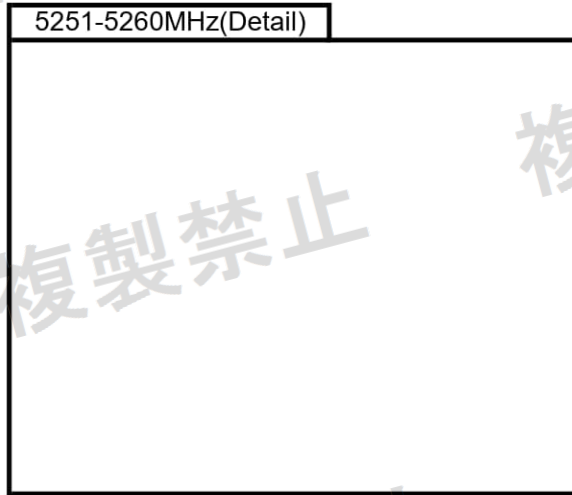
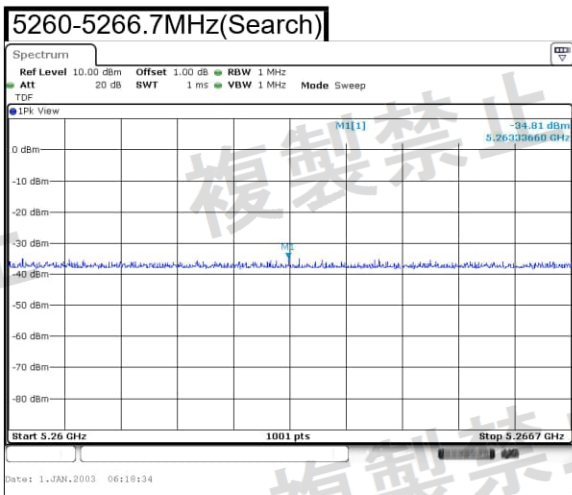
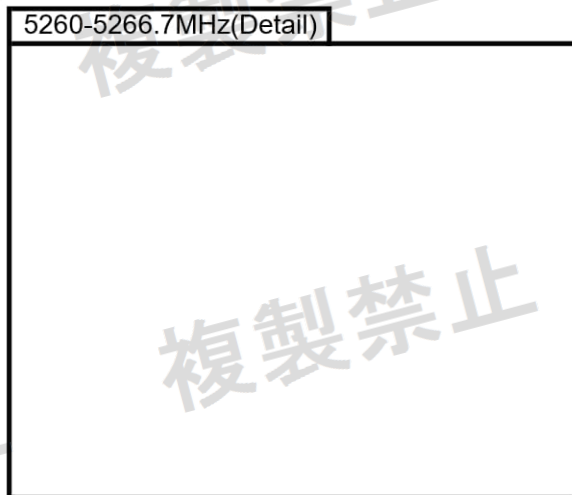
7. Test chart

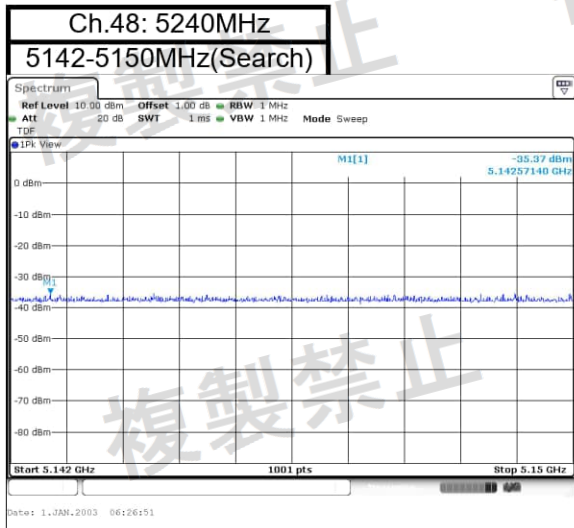
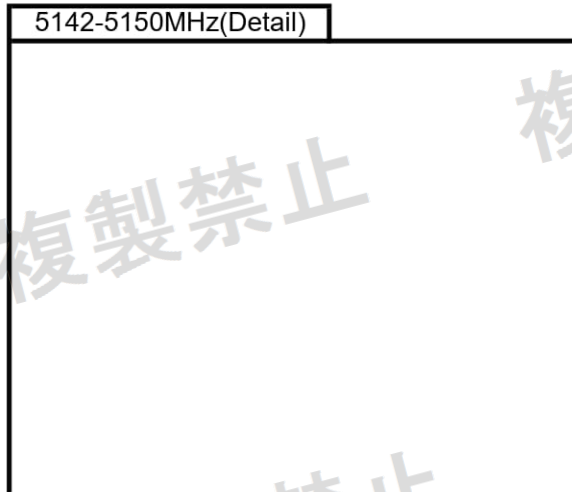
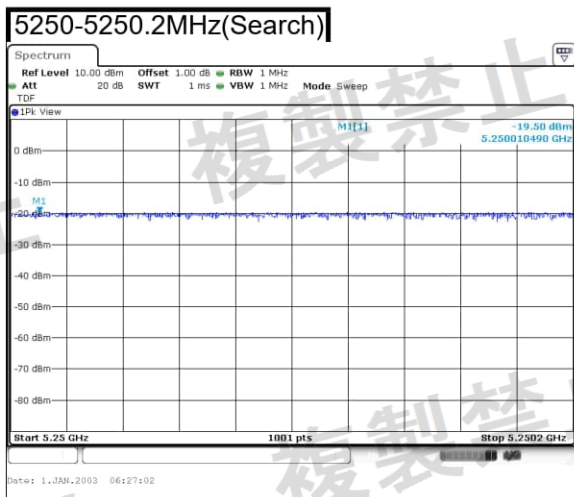
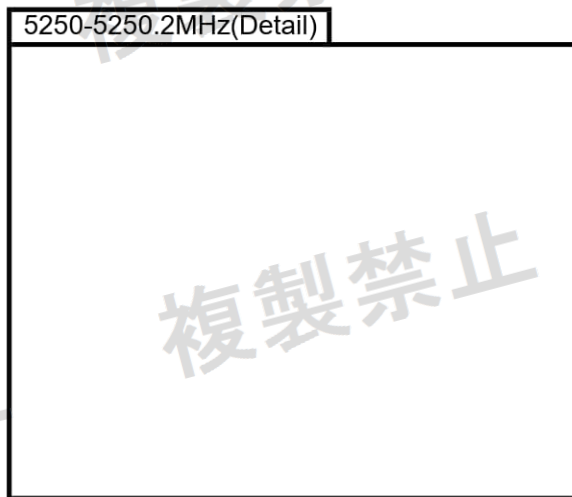
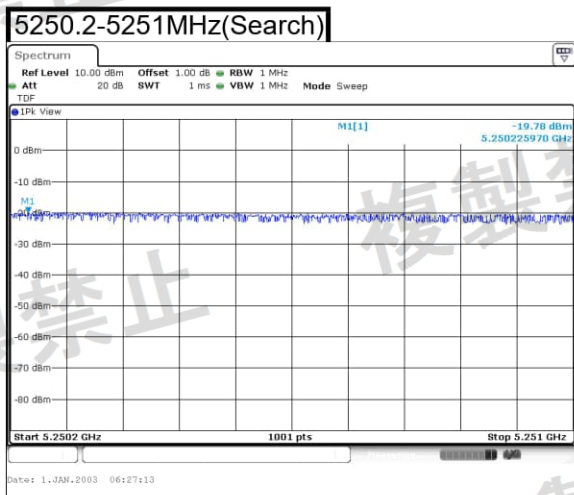
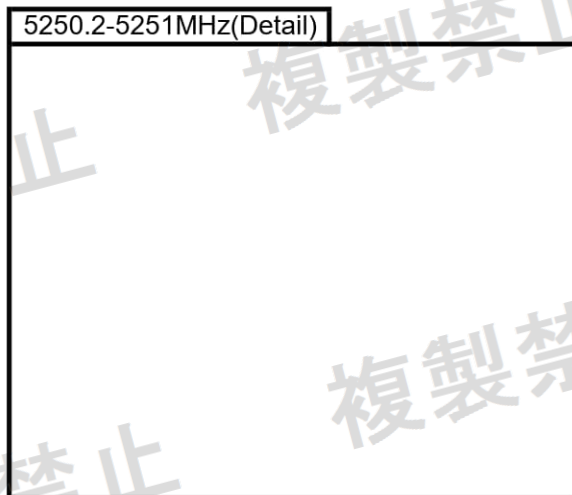
7.6 Out-Band Leakage Power (Rated voltage)



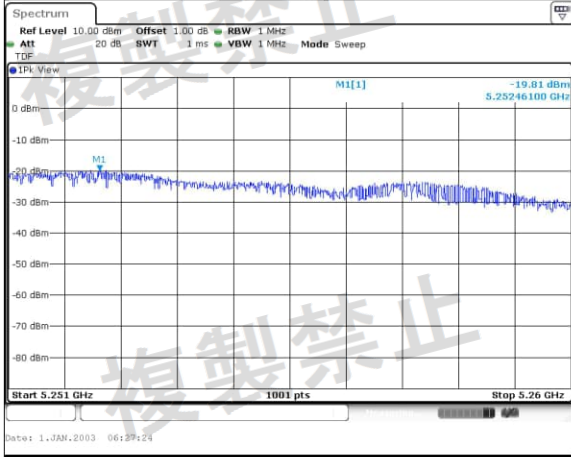






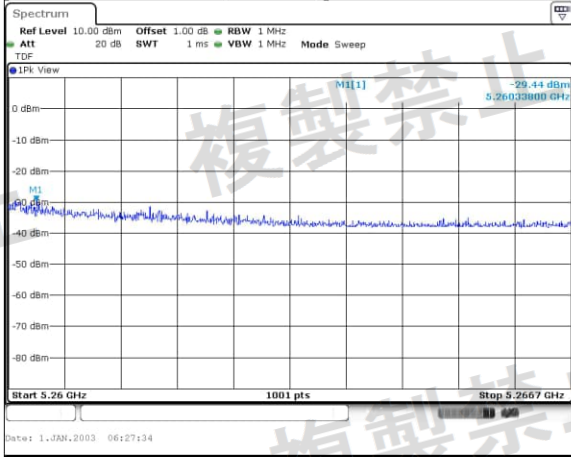


5251-5260MHz(Search)

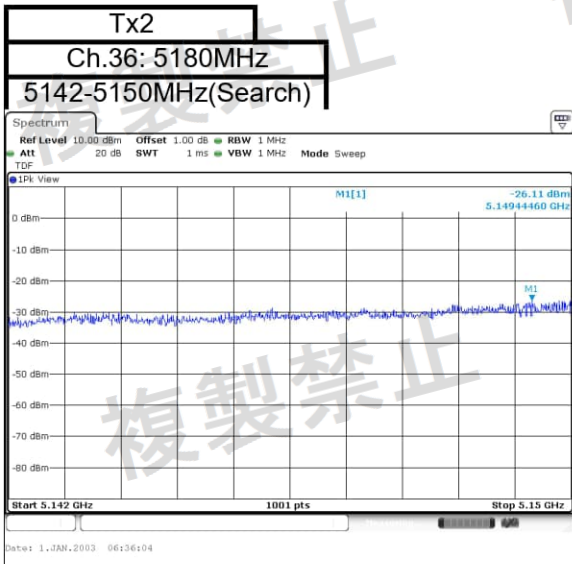
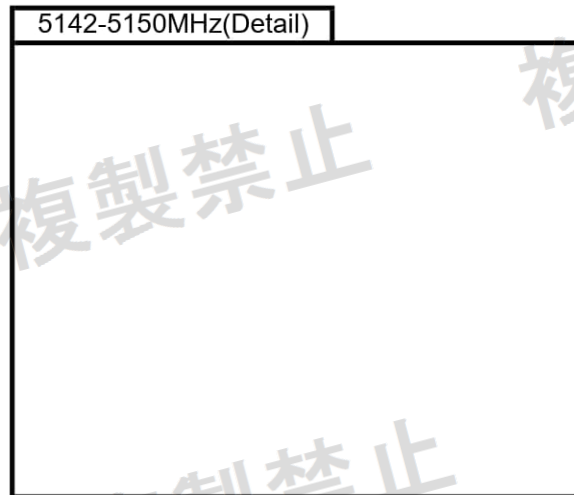
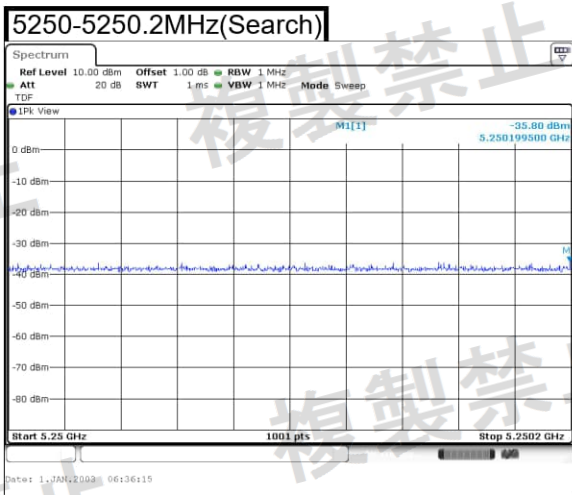
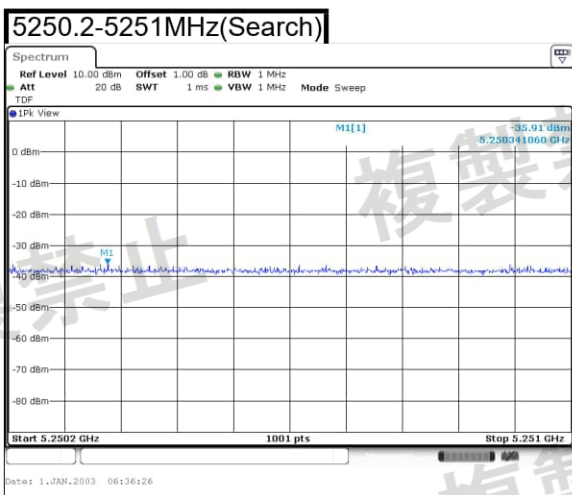
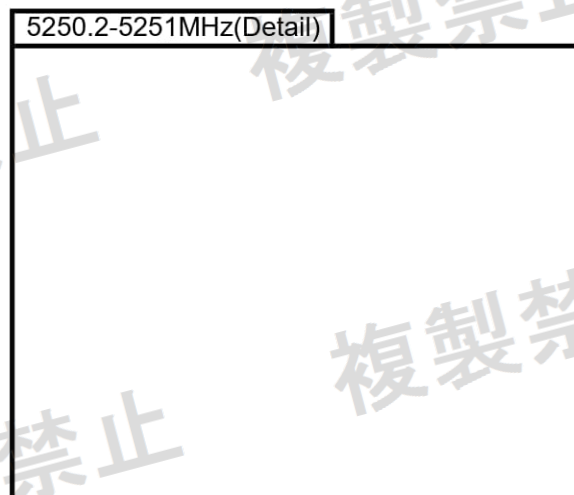


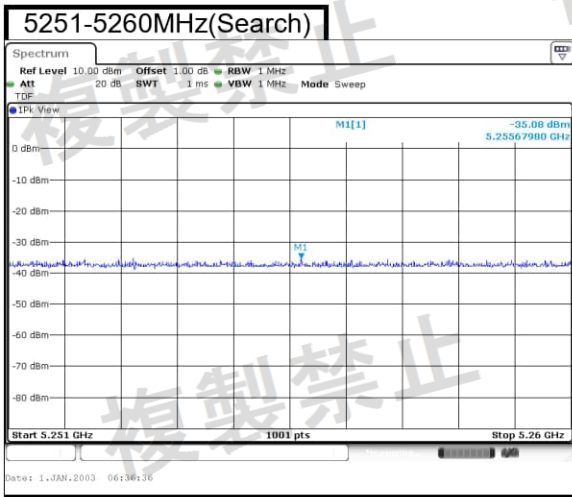
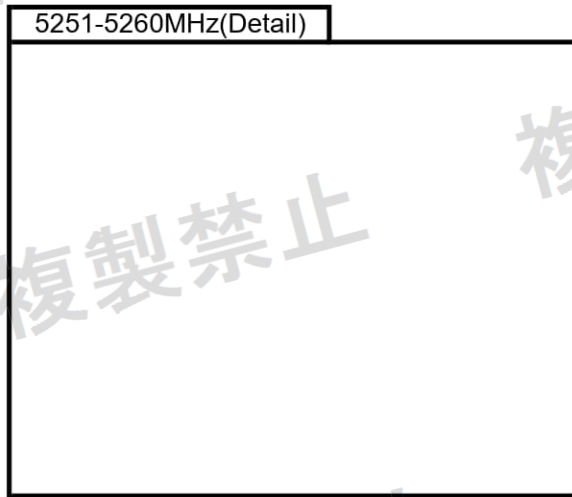
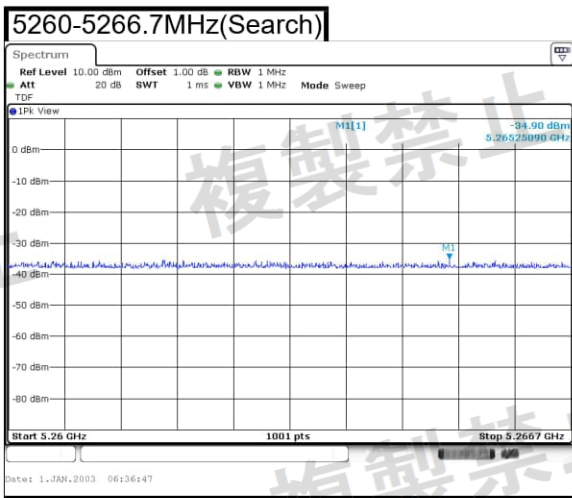
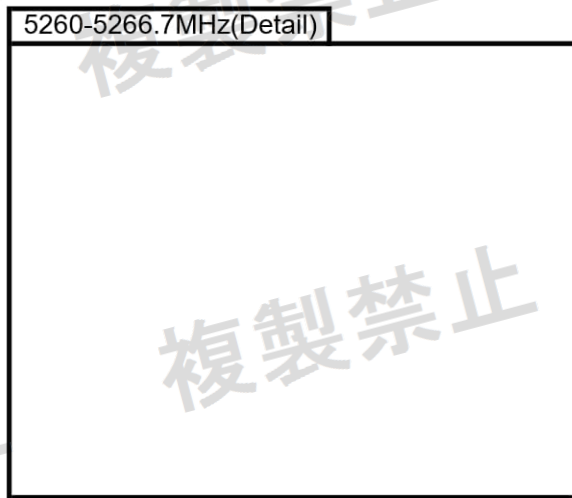
5251-5260MHz(Detail)

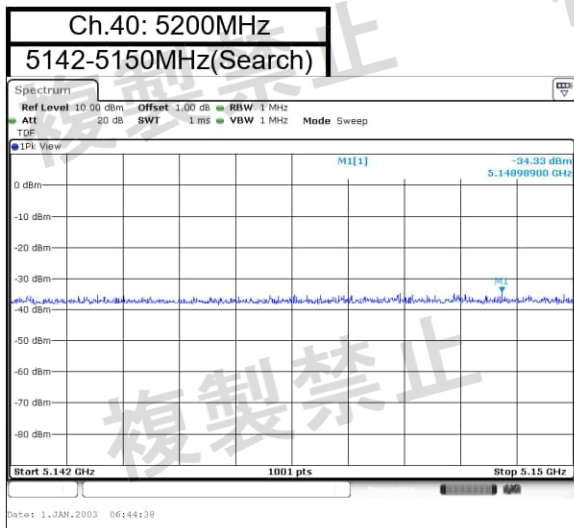
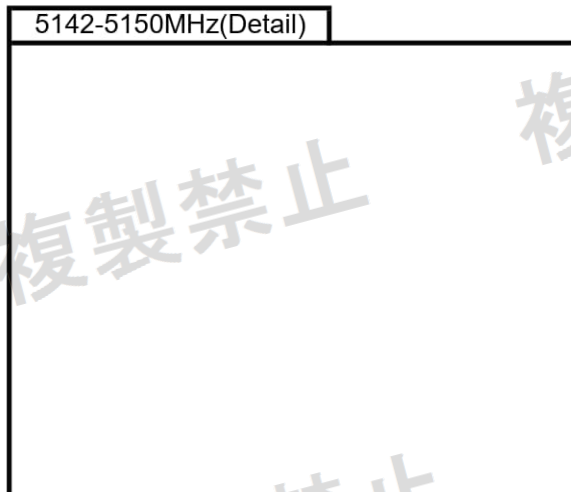
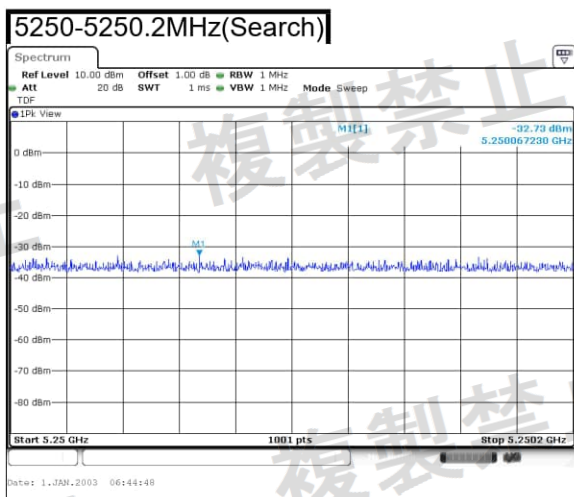
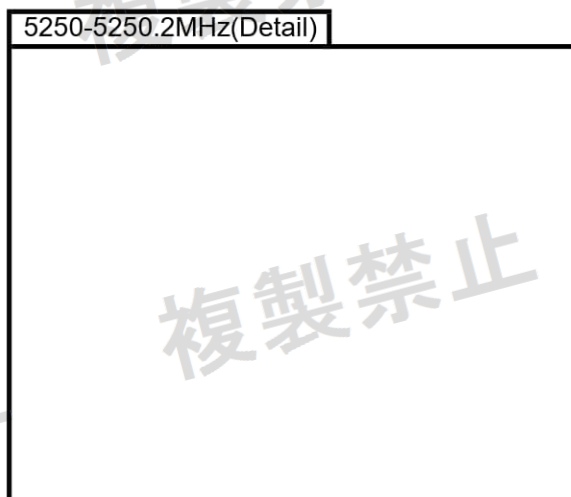
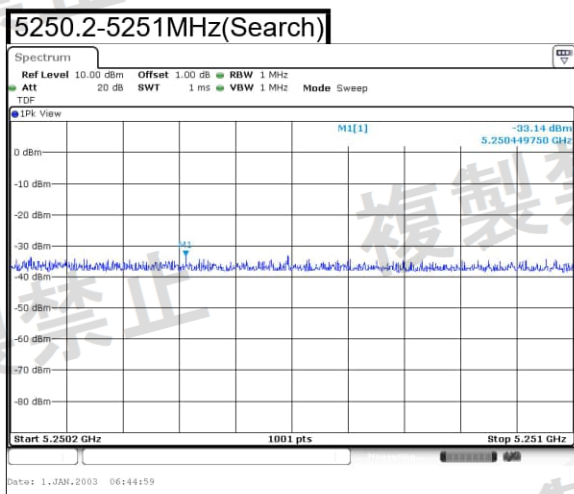
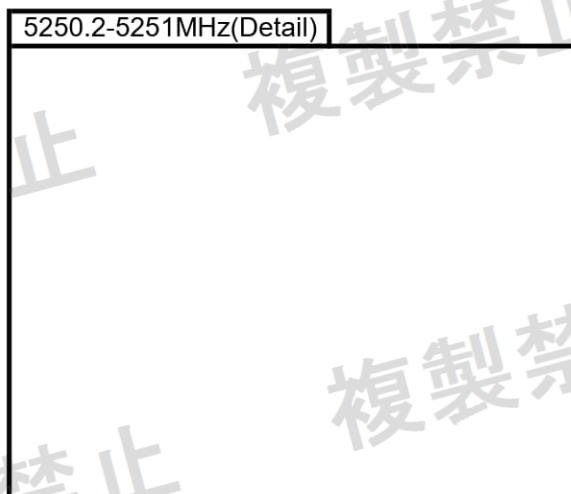
5260-5266.7MHz(Search)

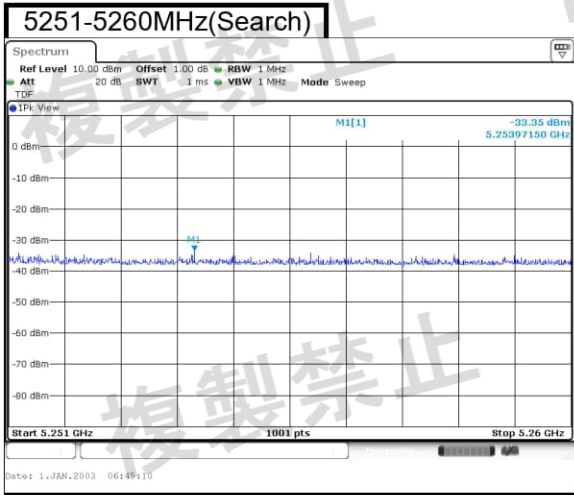
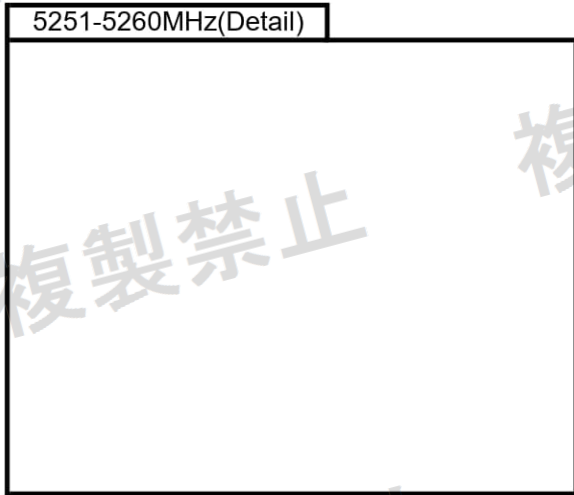
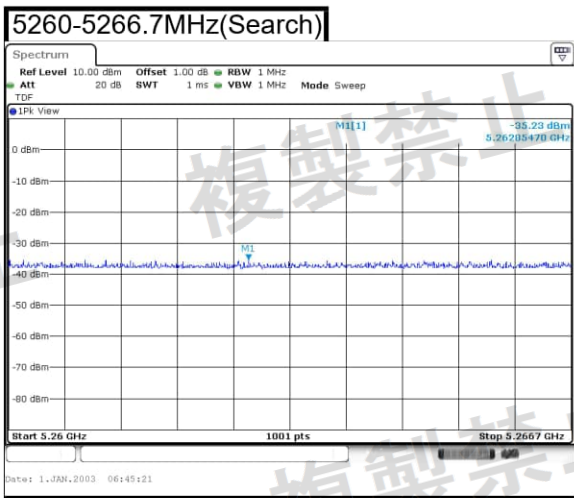
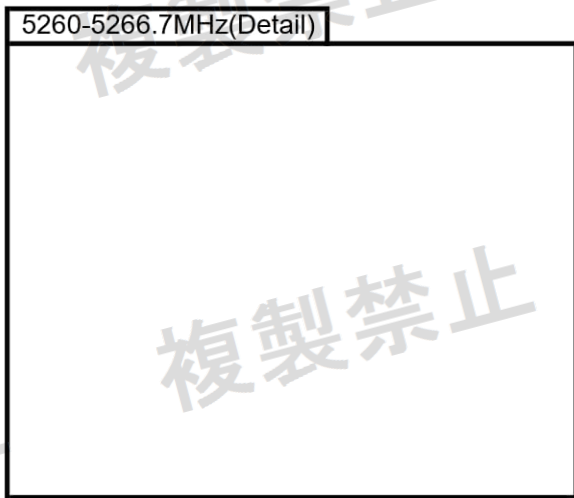


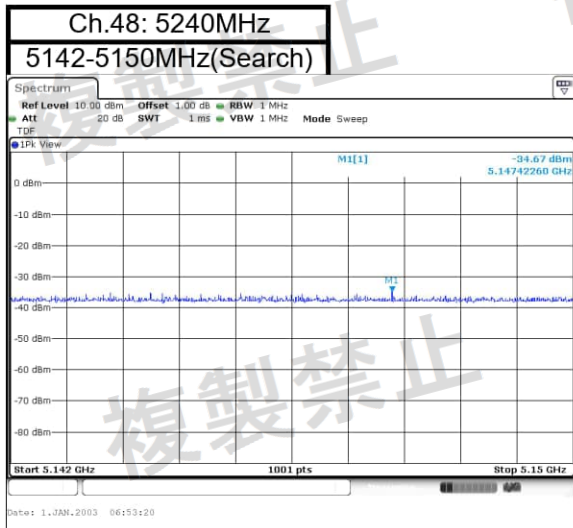
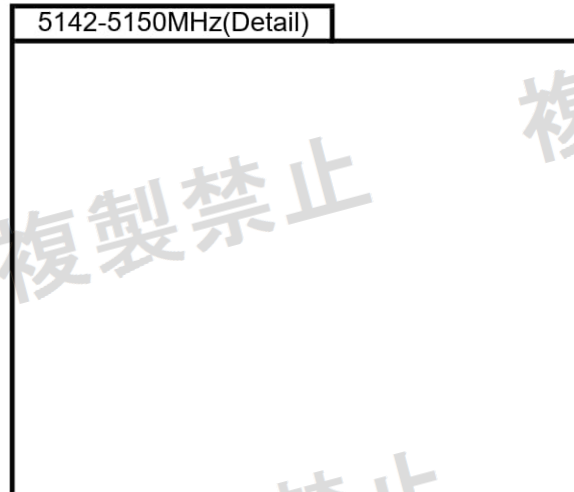
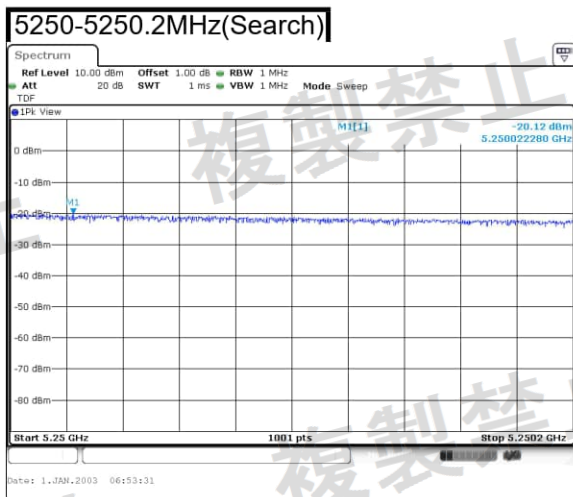
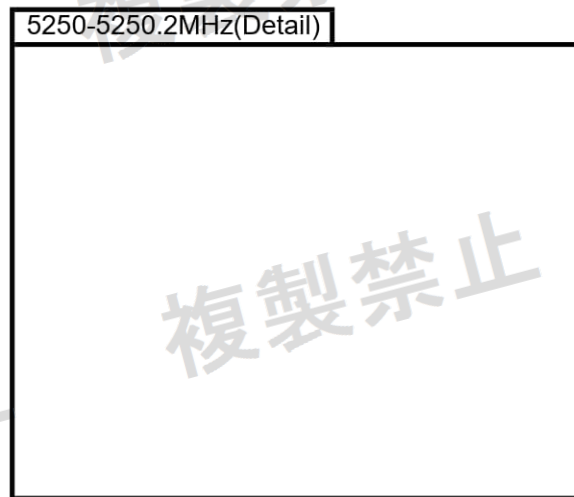
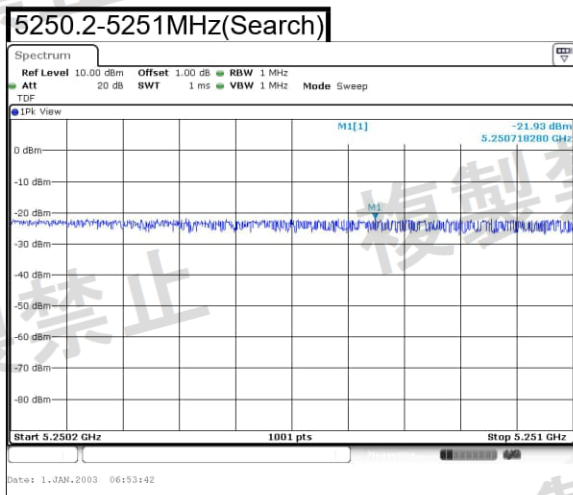
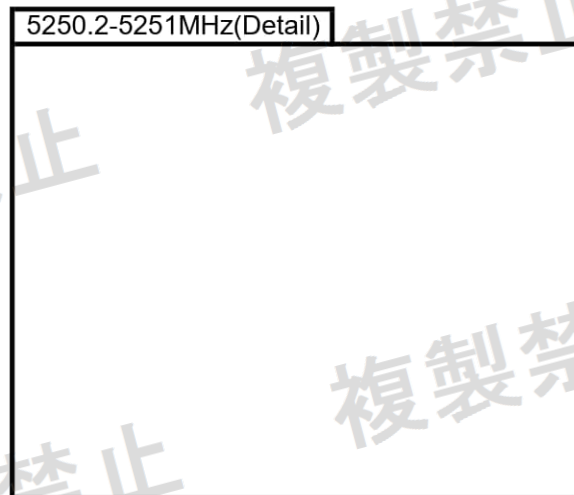
5260-5266.7MHz(Detail)

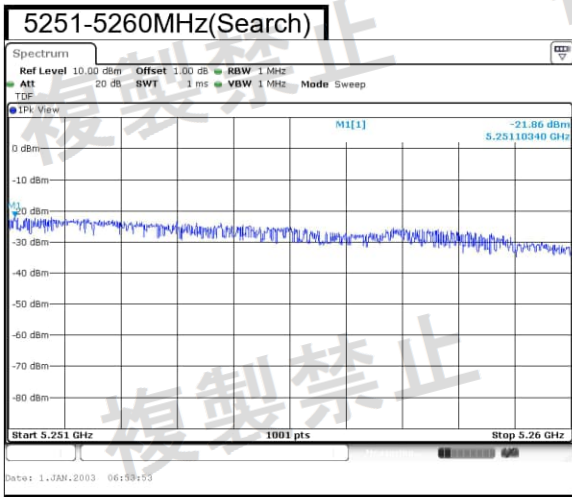
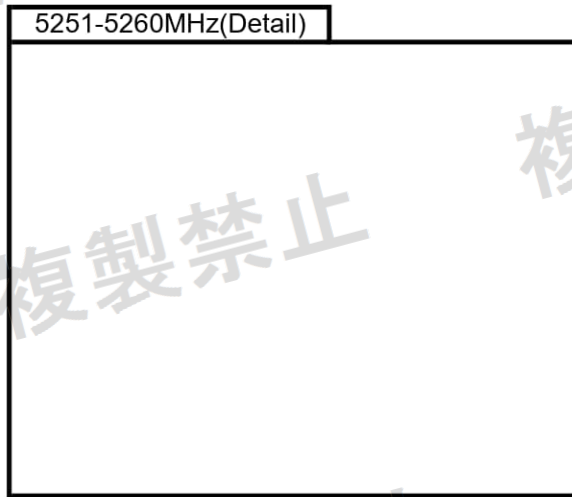
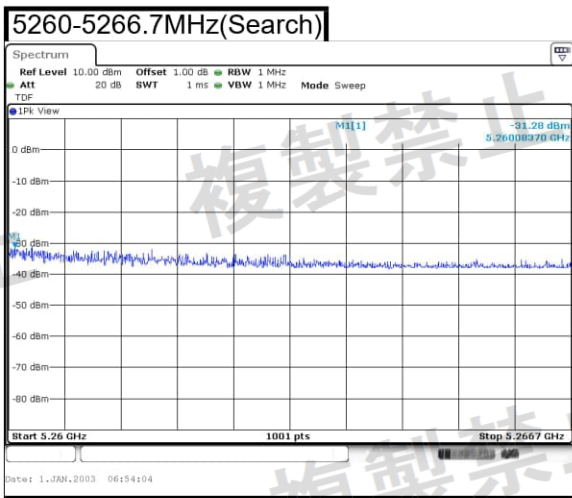
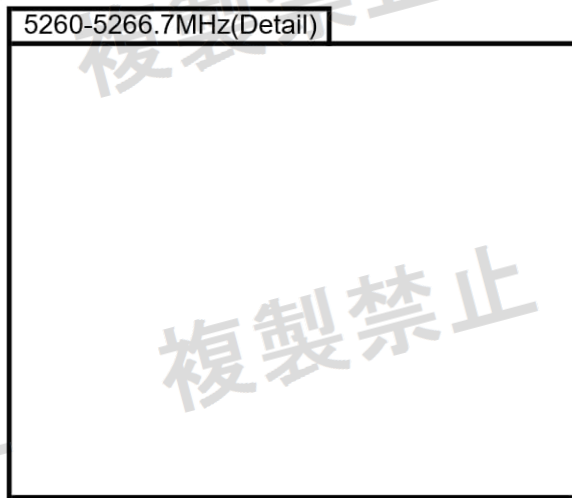


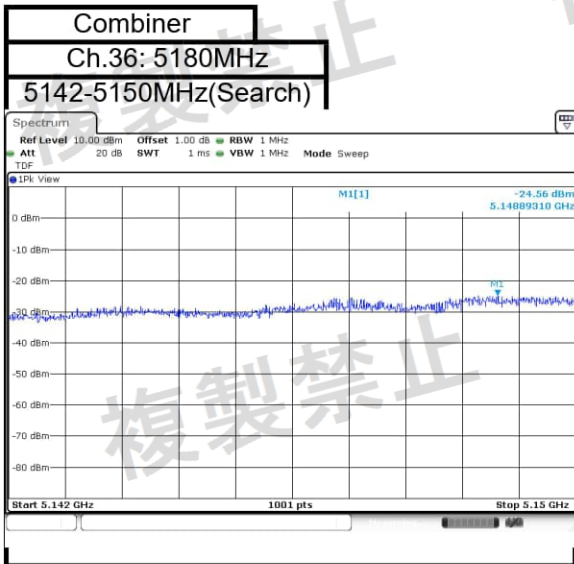
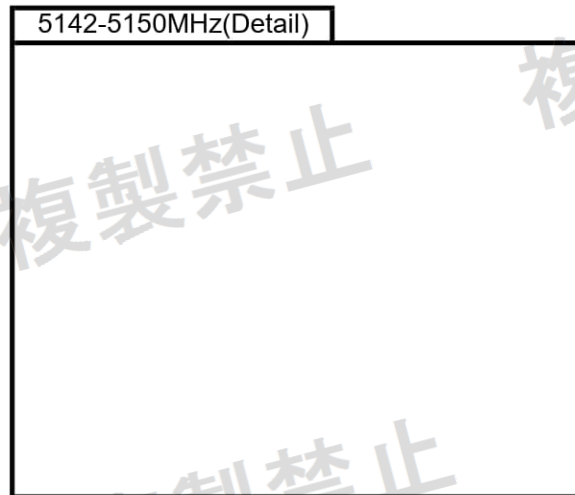
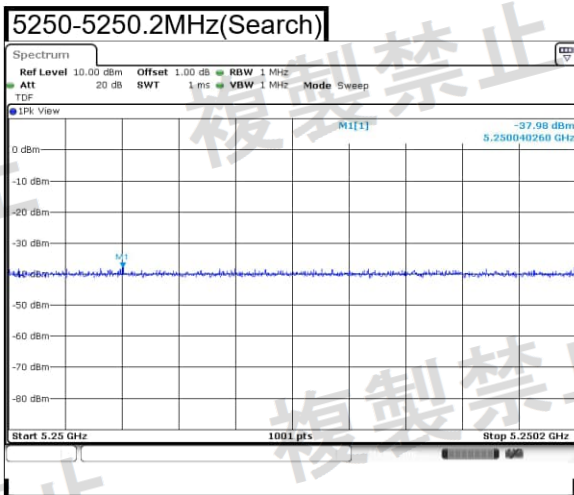
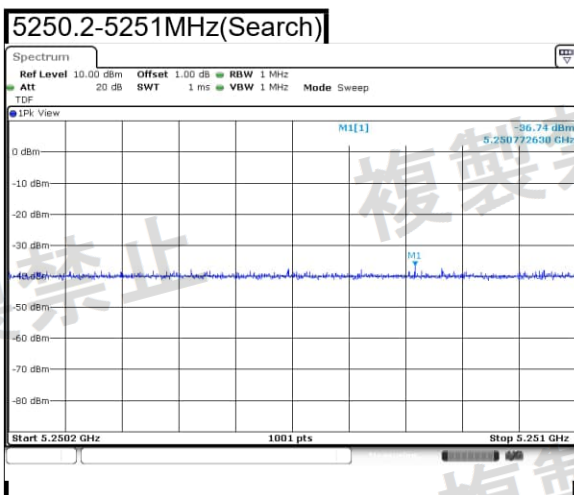
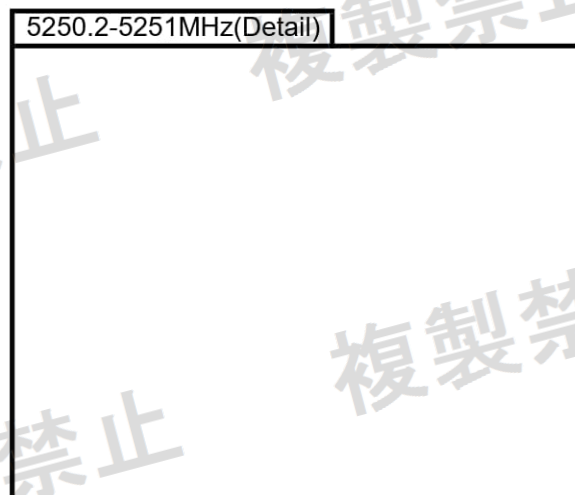


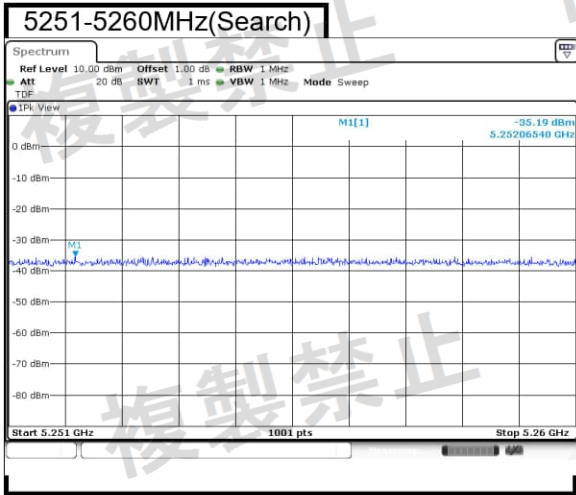
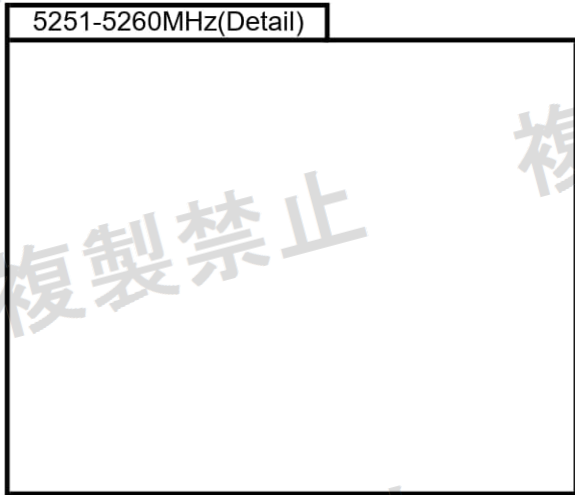
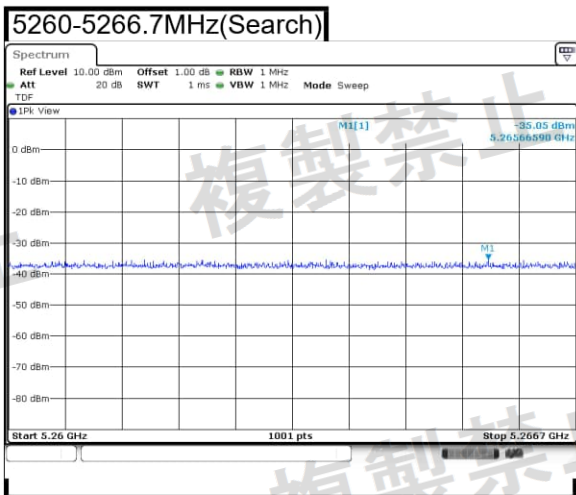
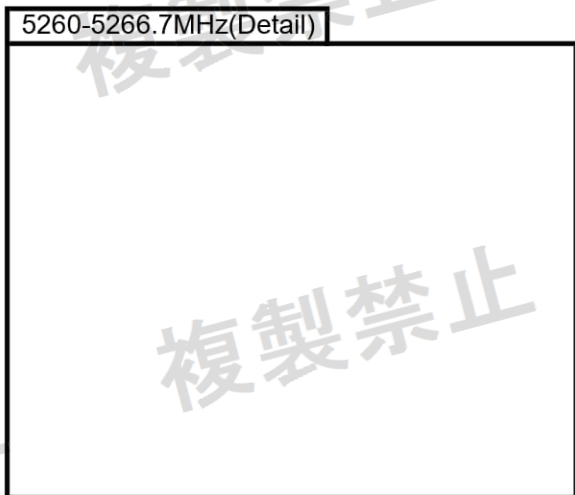


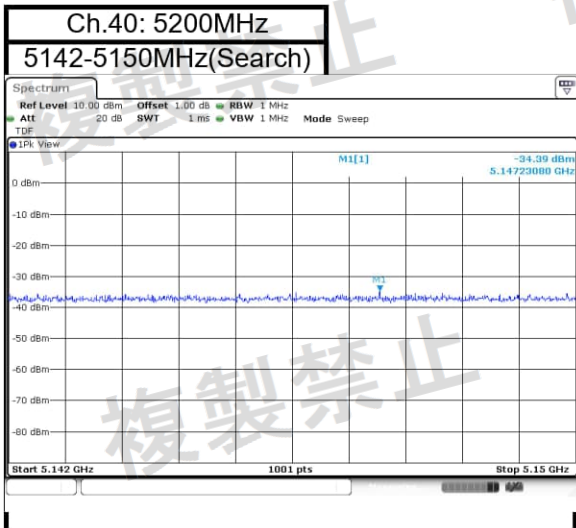
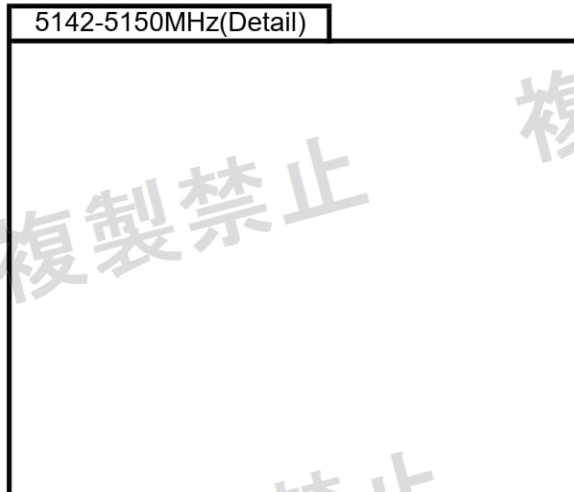
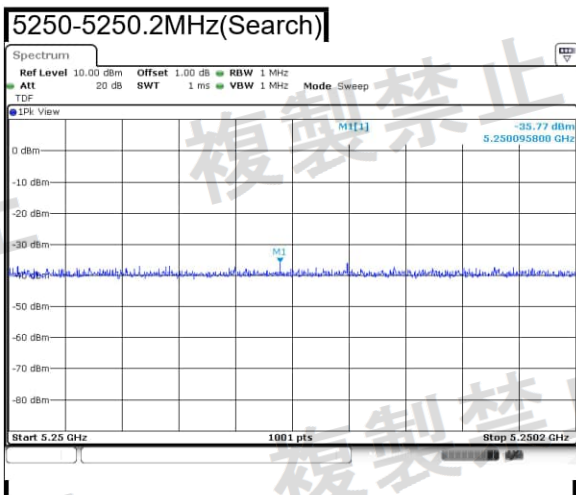
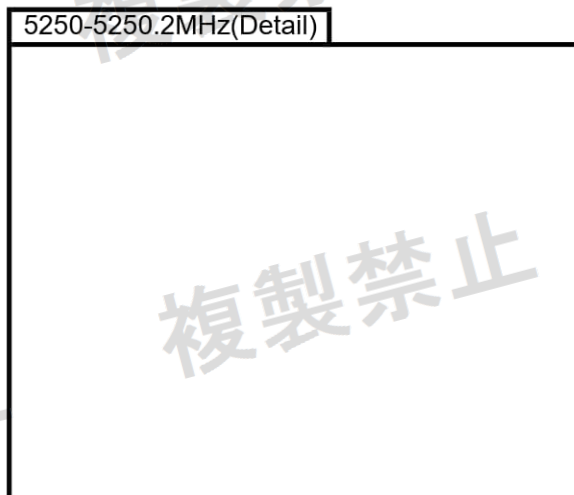
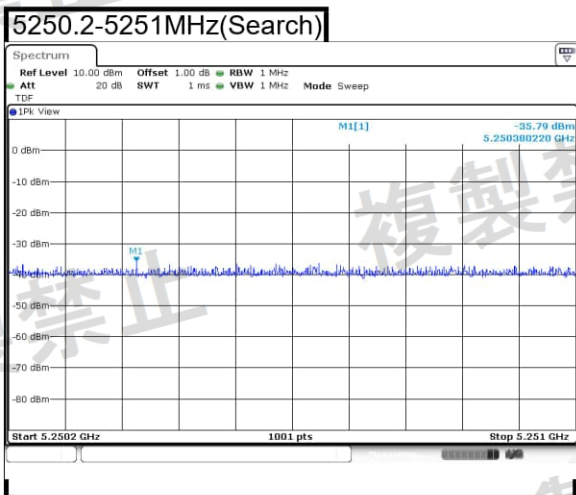
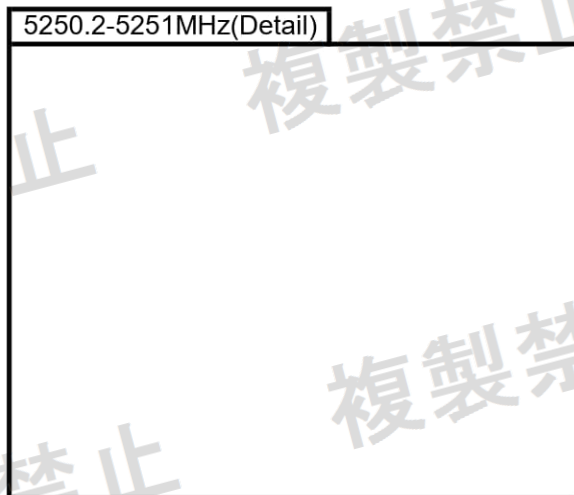


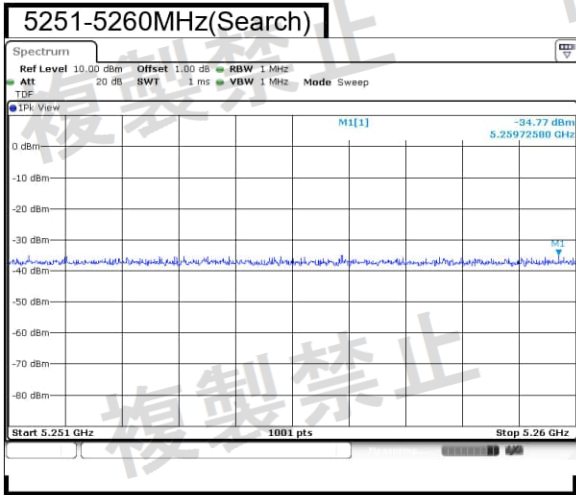
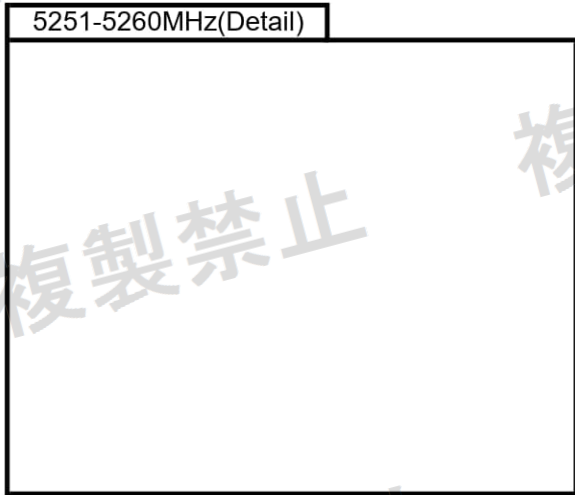
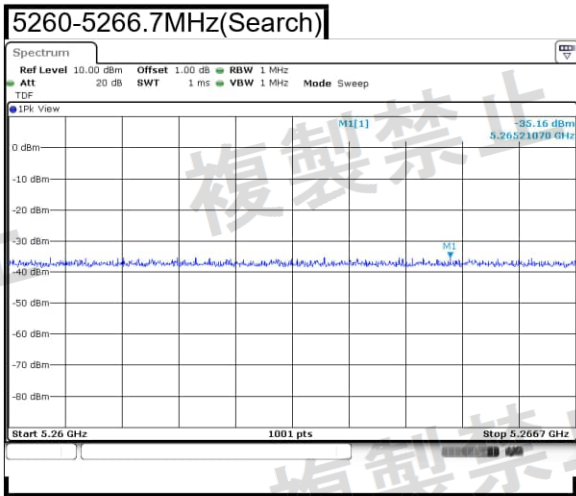
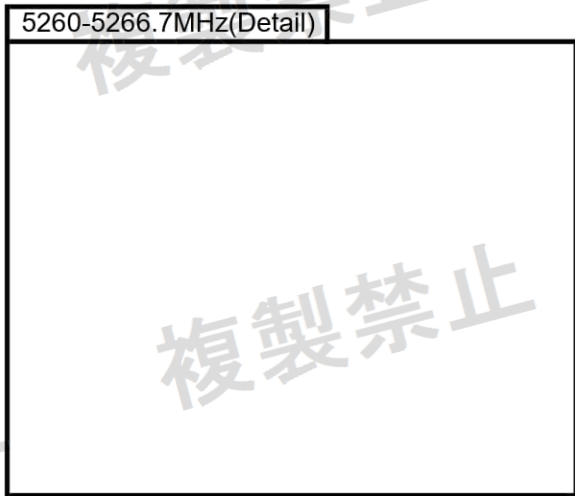


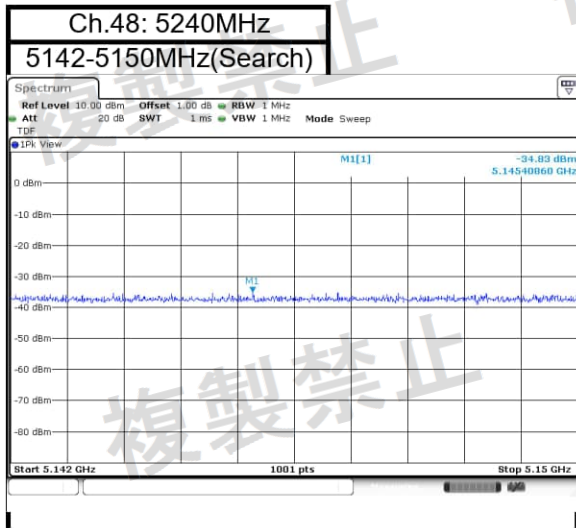
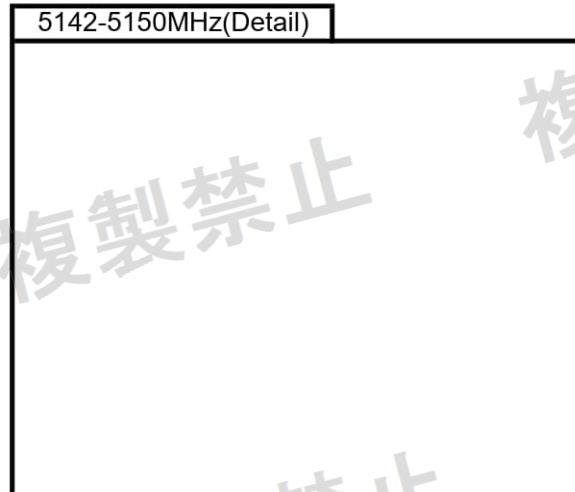
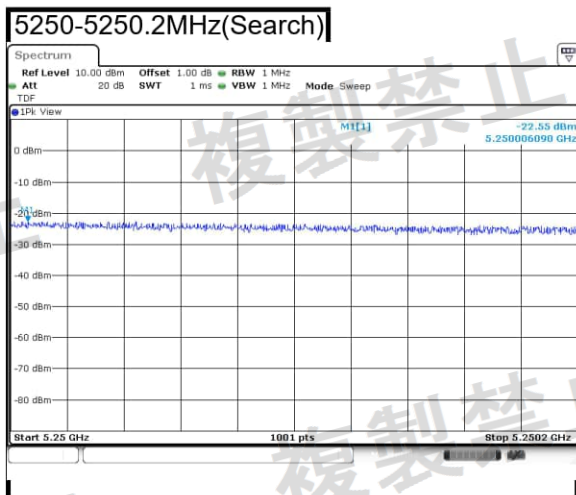
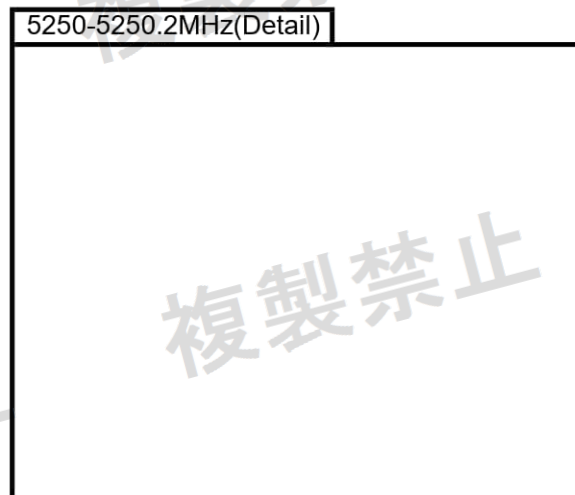
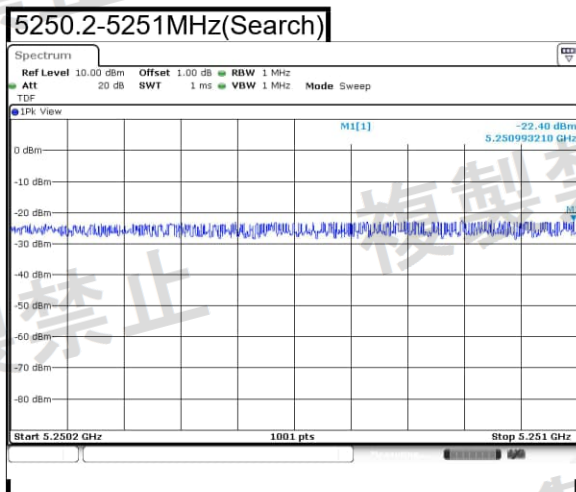
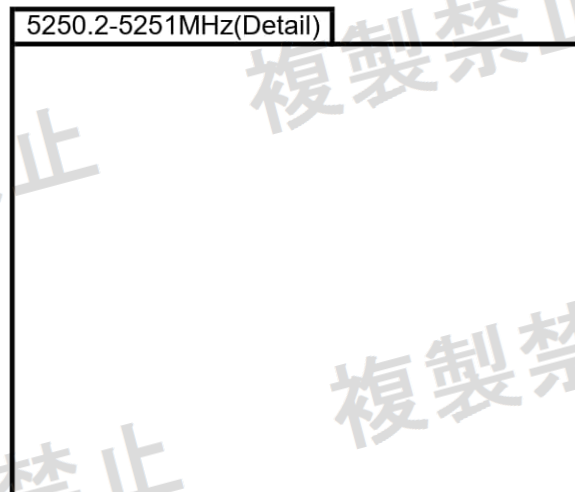


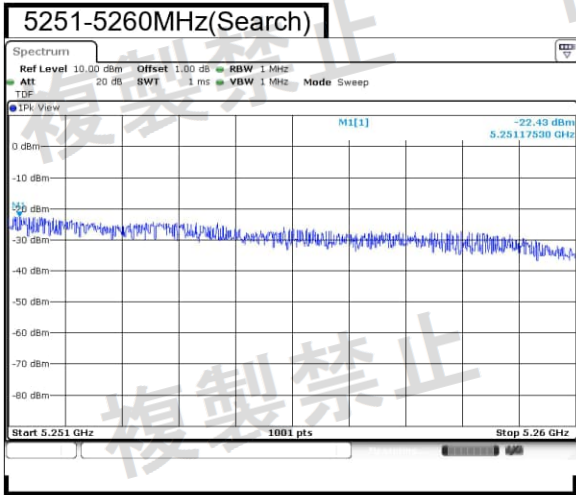
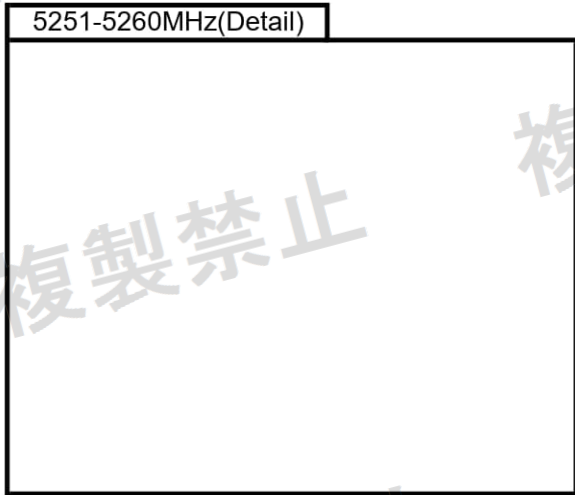
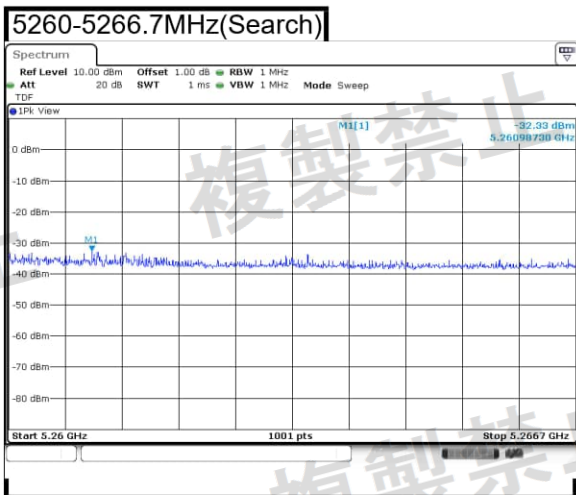
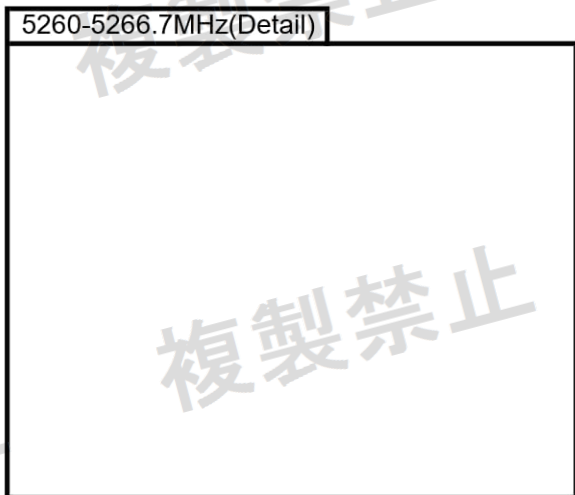






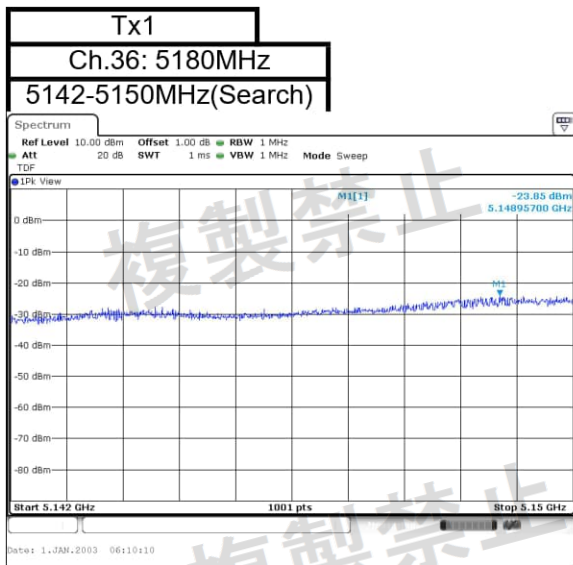
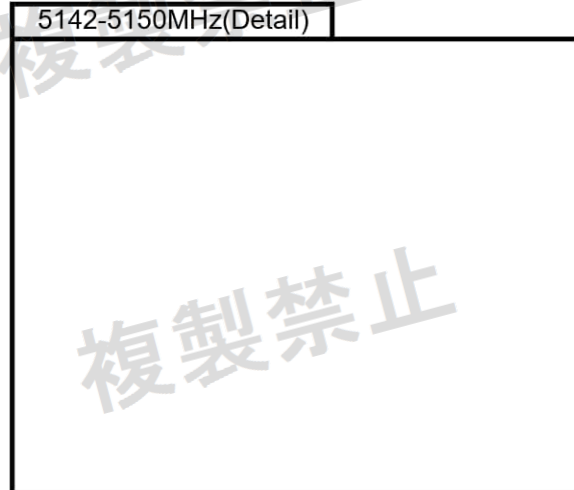
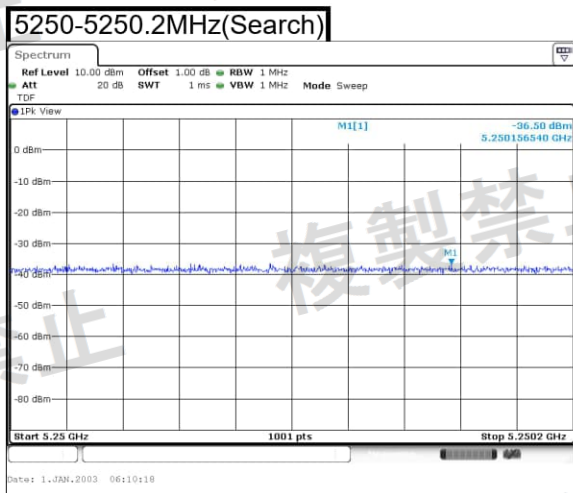
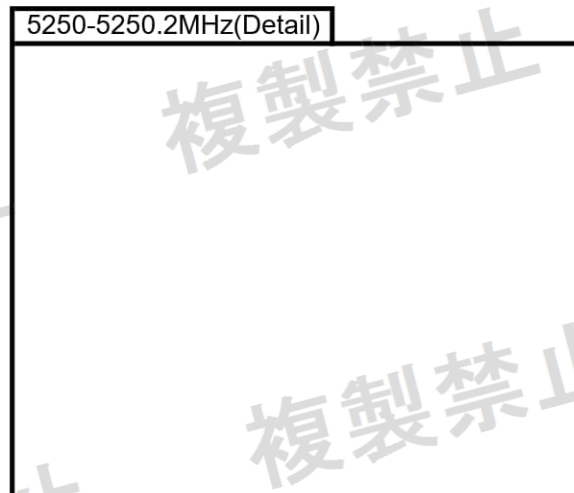
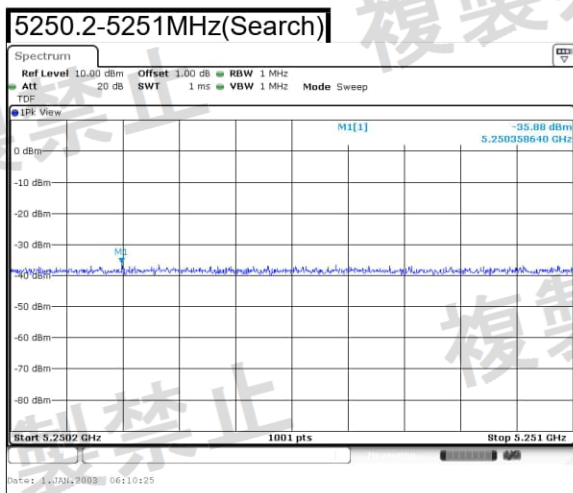
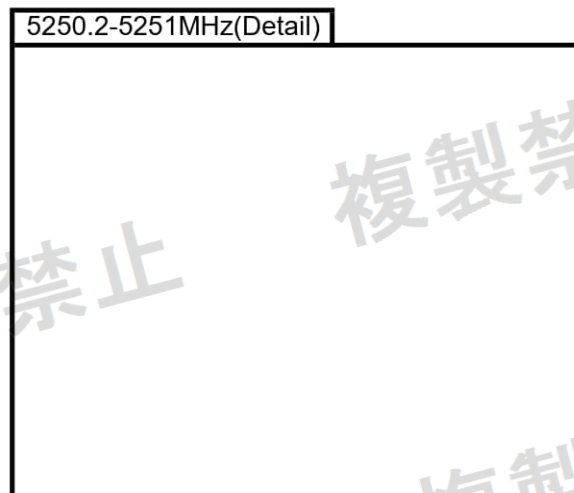


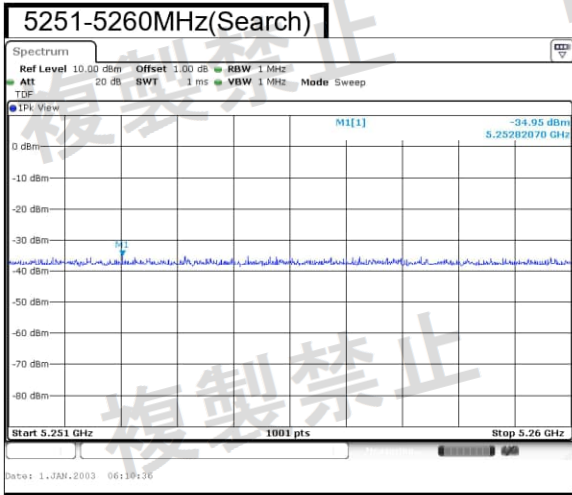
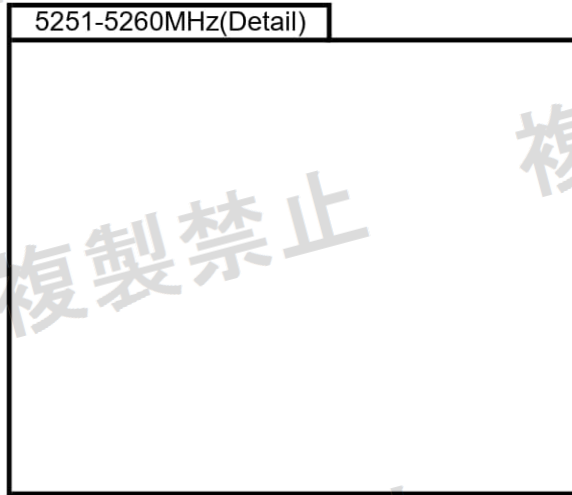
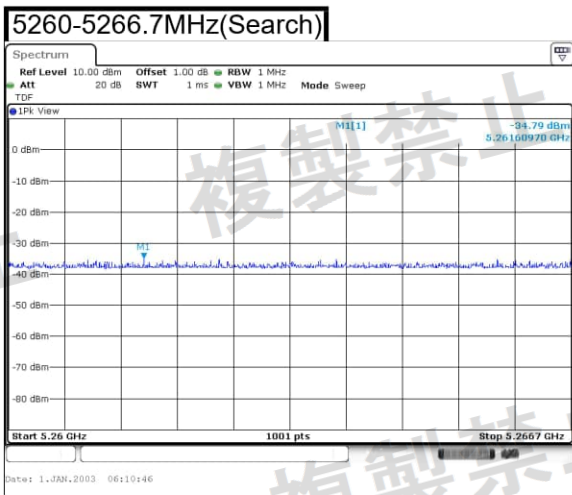
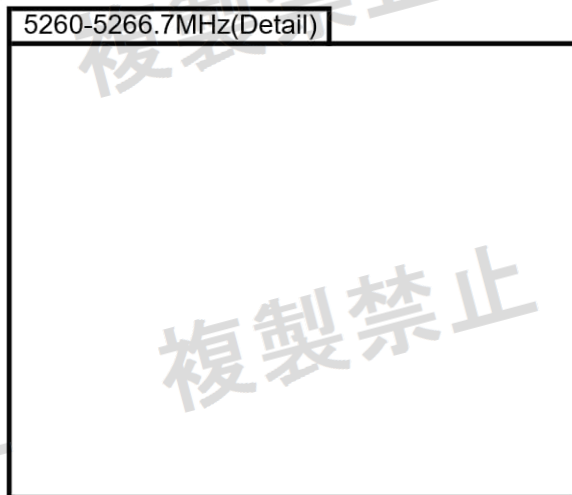


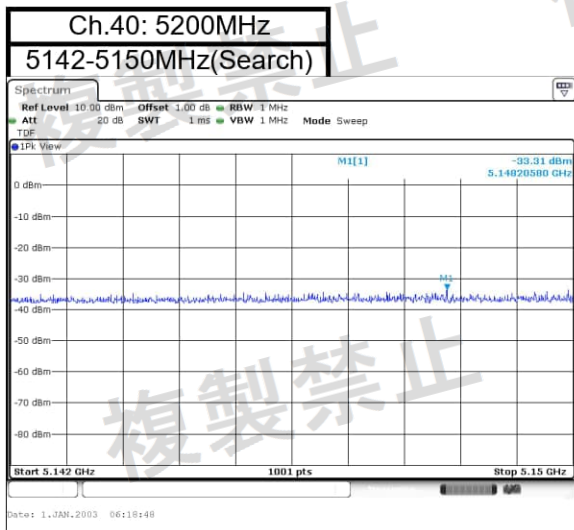
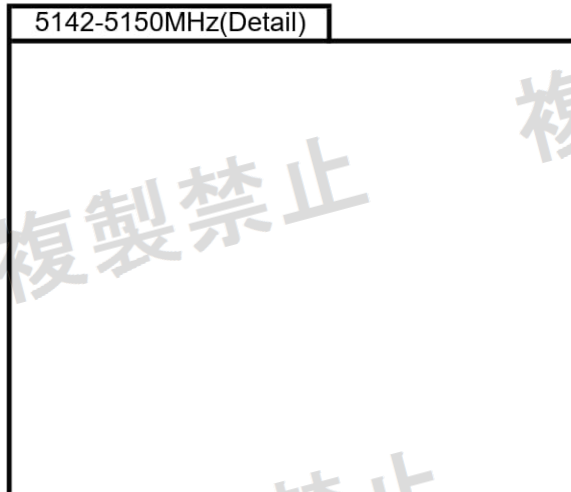
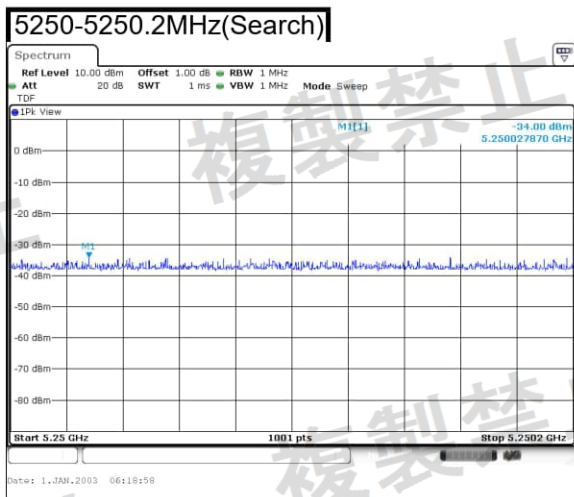
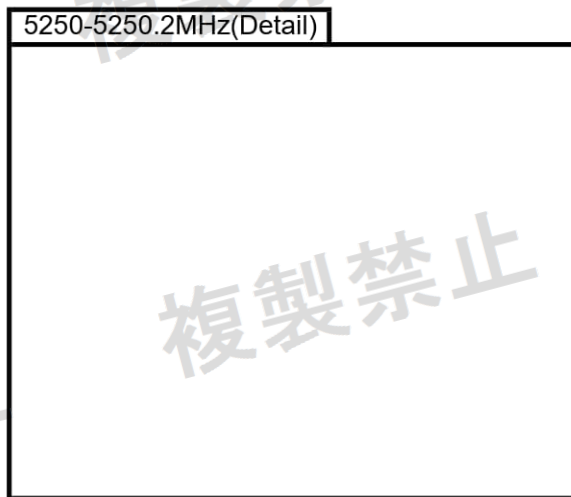
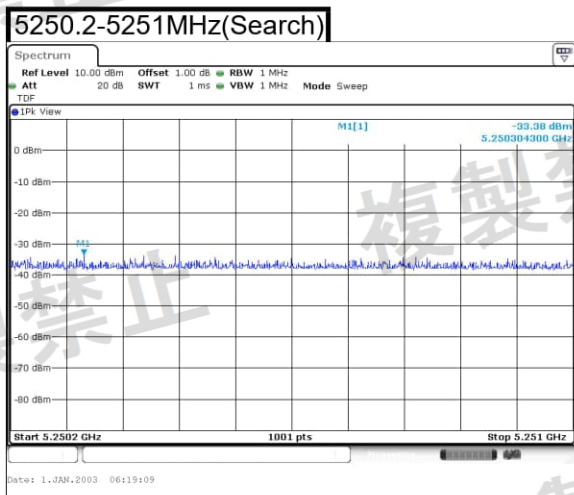
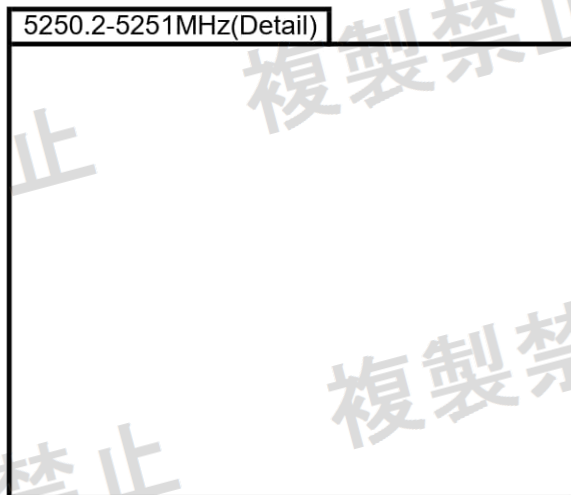


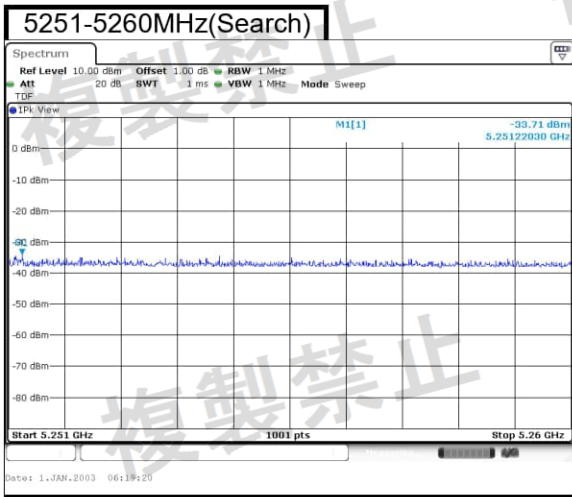
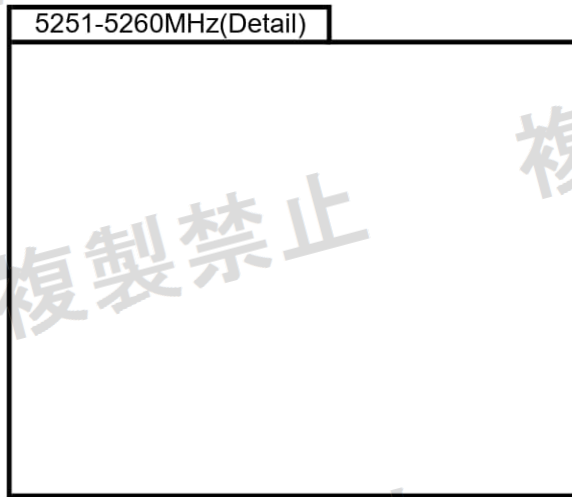
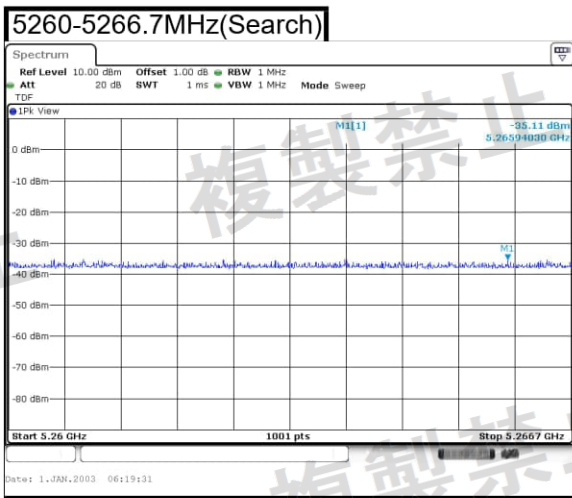
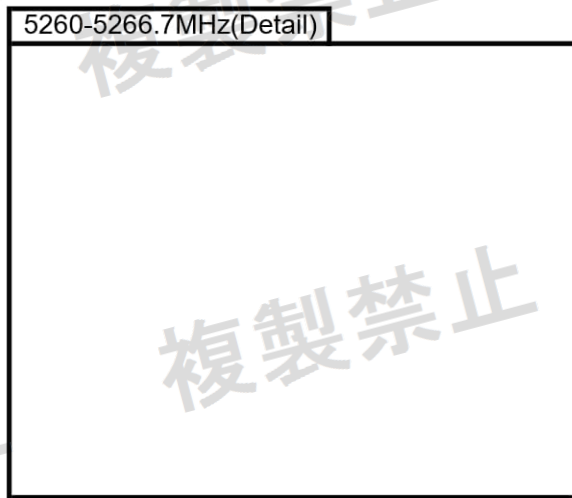
7. Test chart

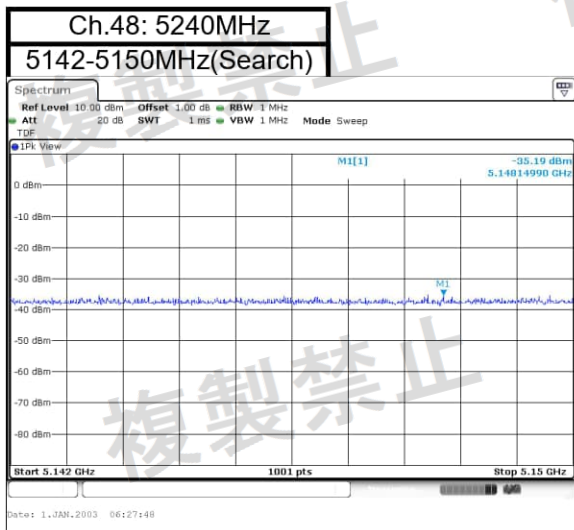
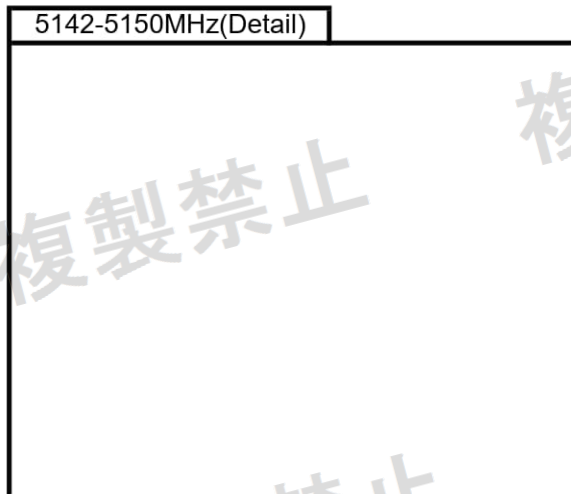
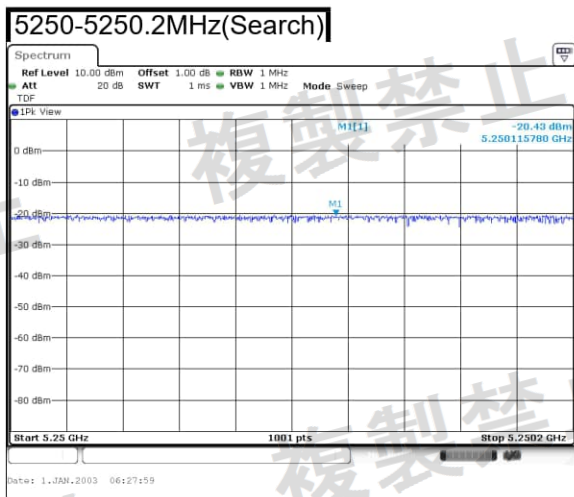
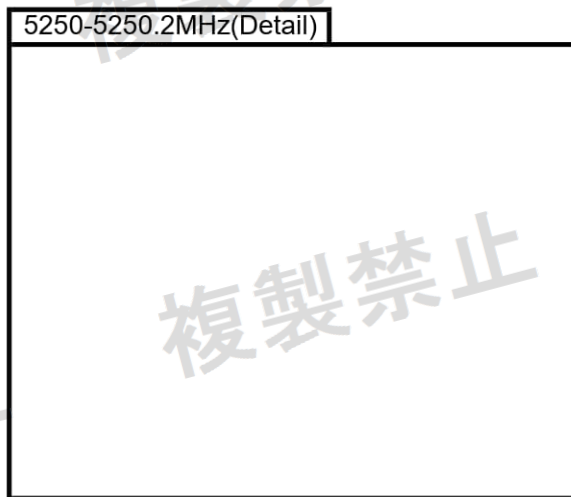
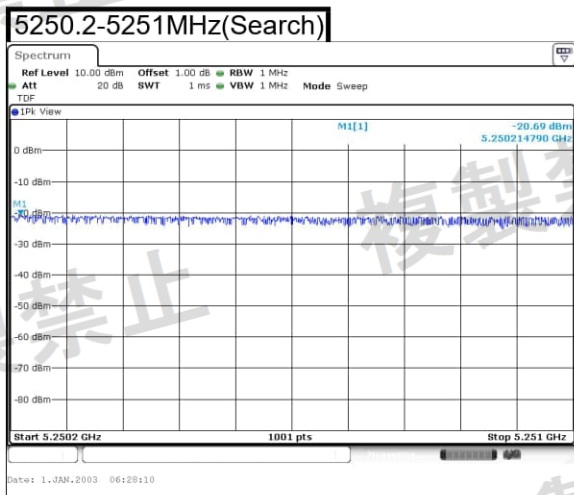
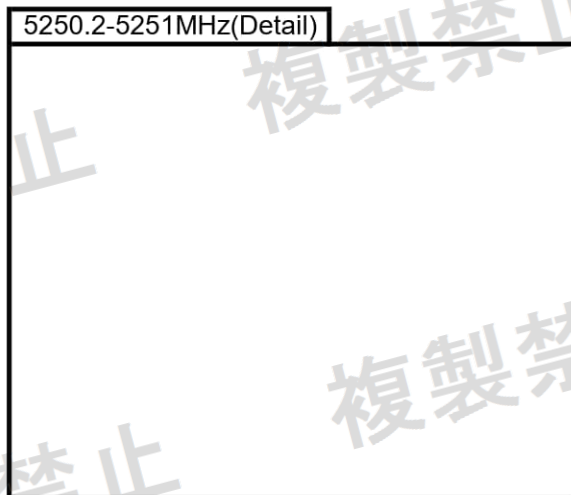
7.6 Out-Band Leakage Power (-10% voltage)

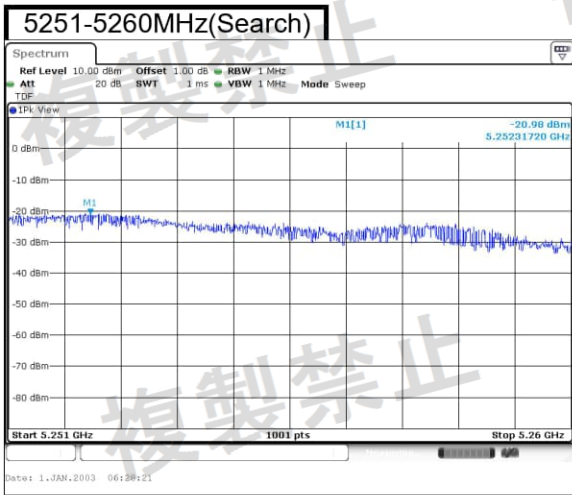
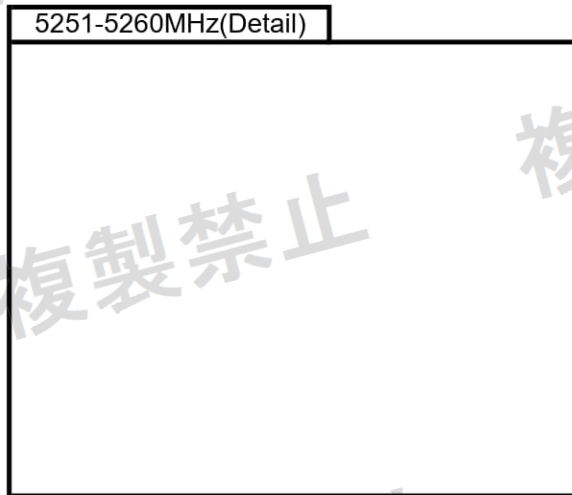
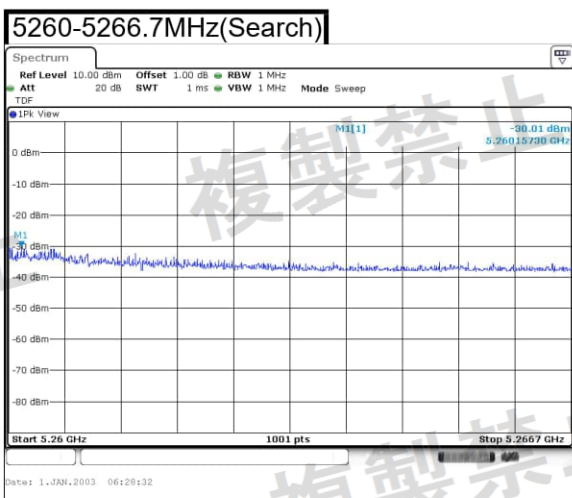


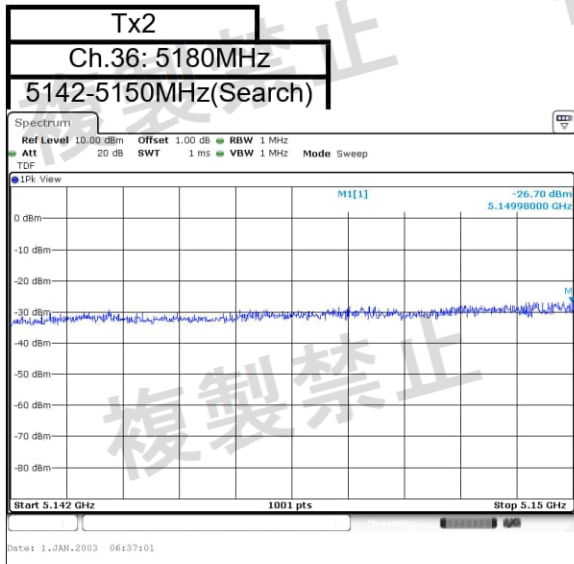
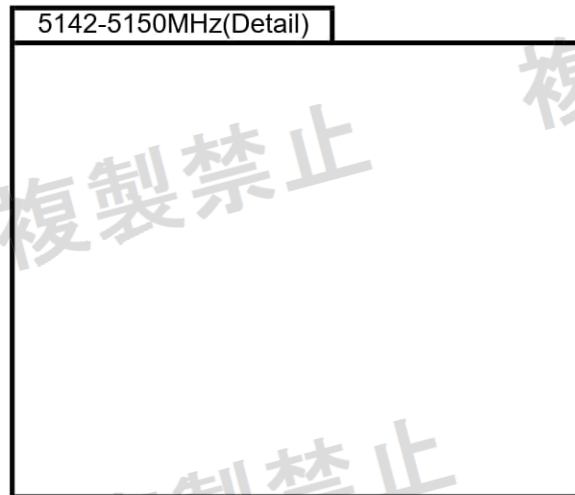
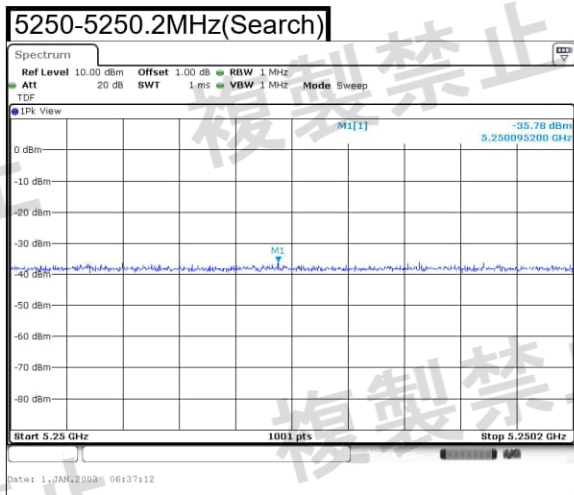
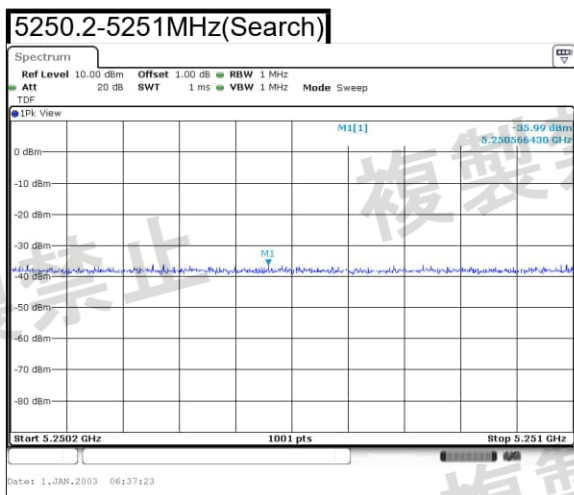
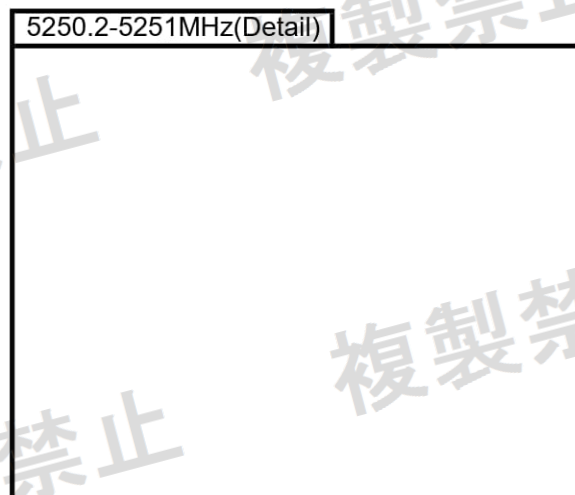


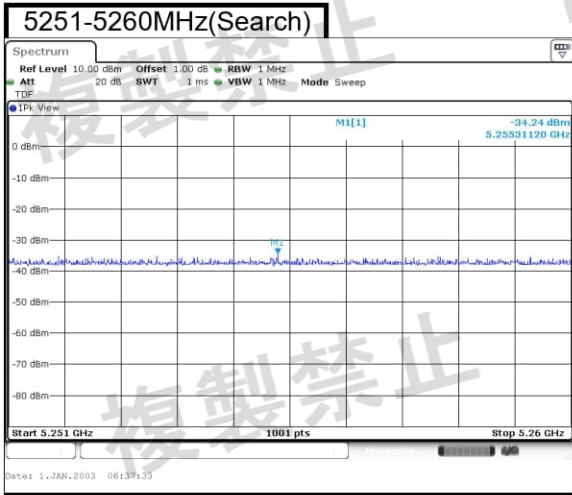
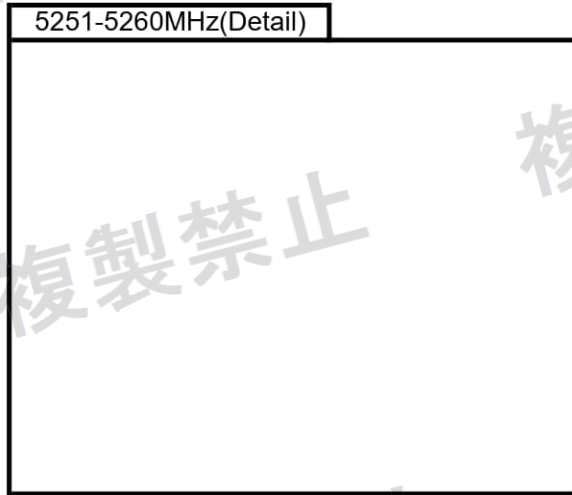
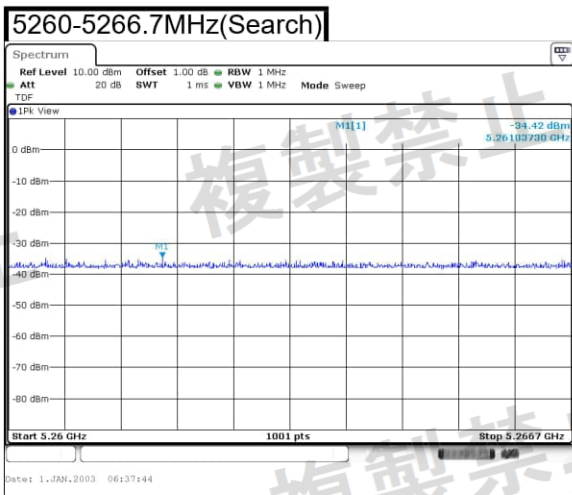
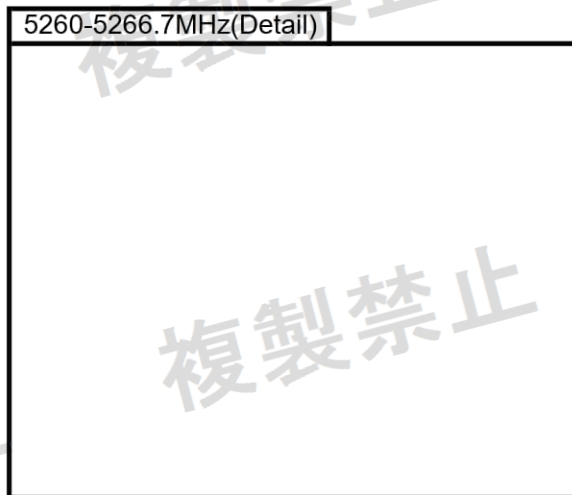


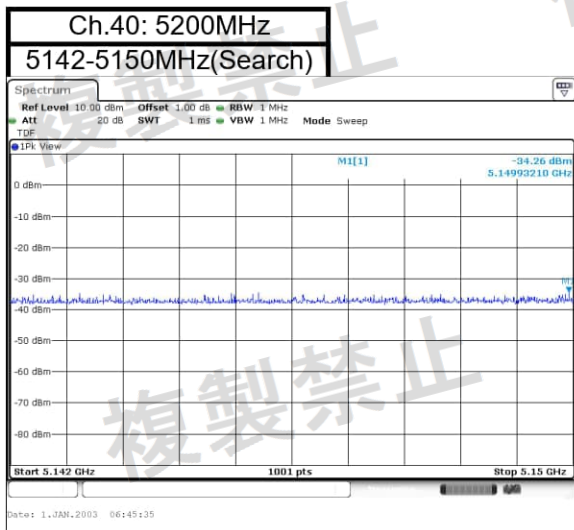
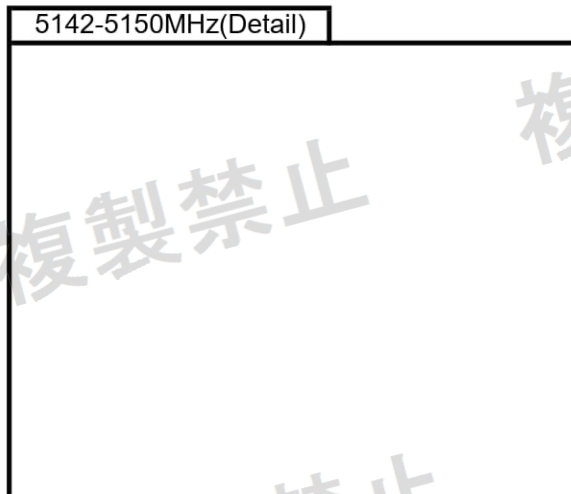
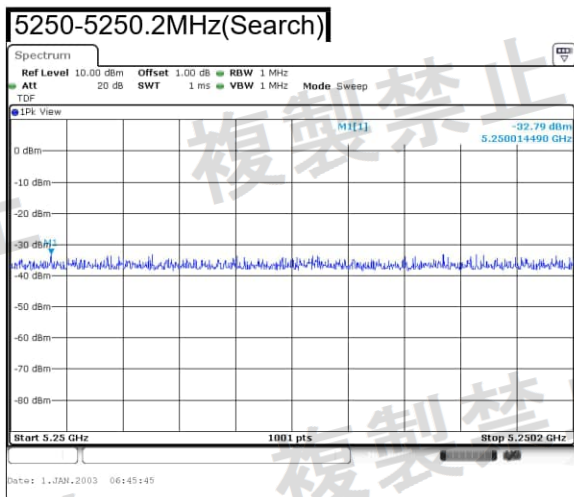
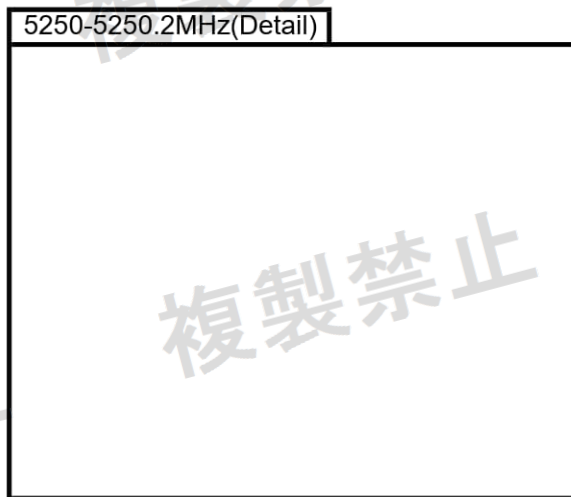
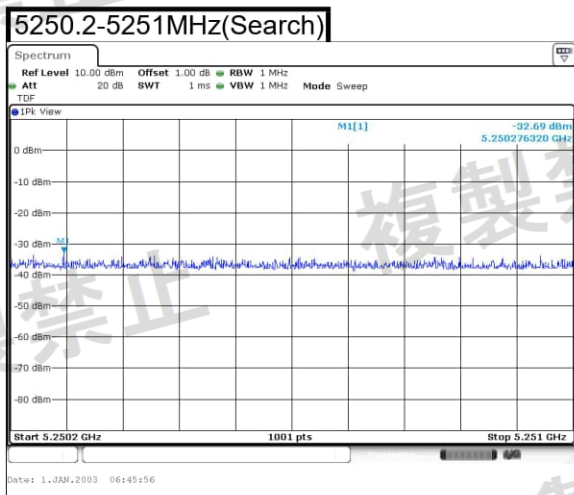
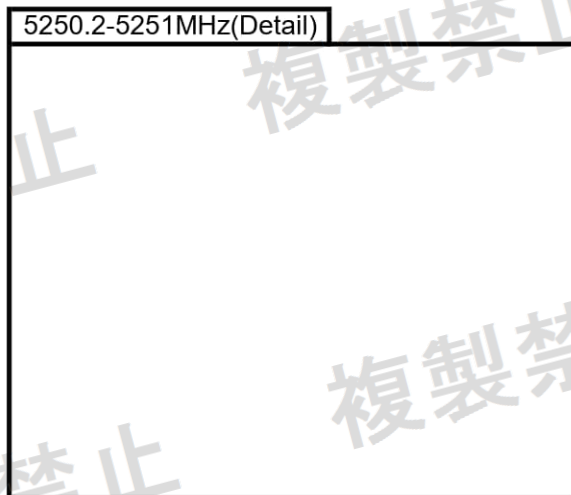


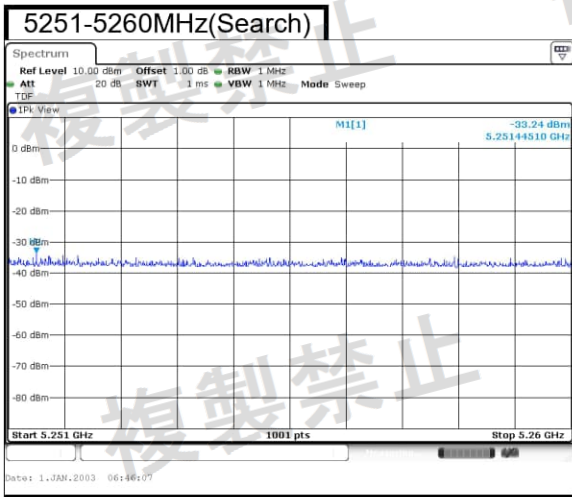
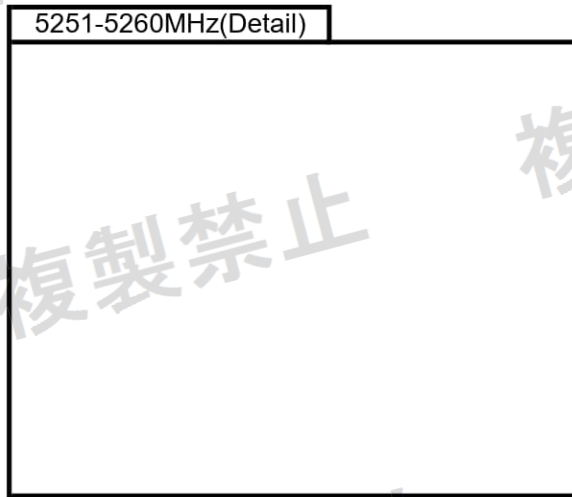
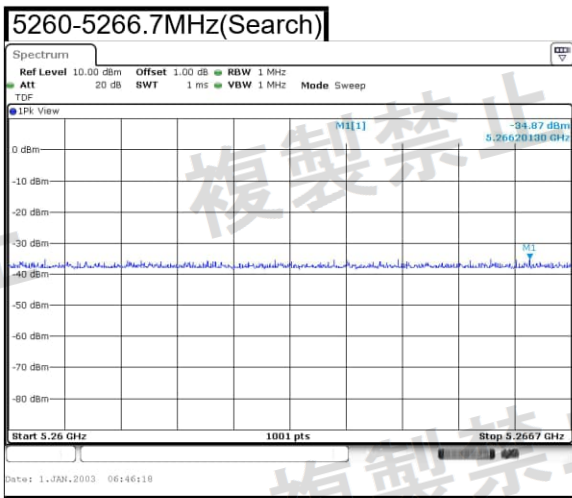
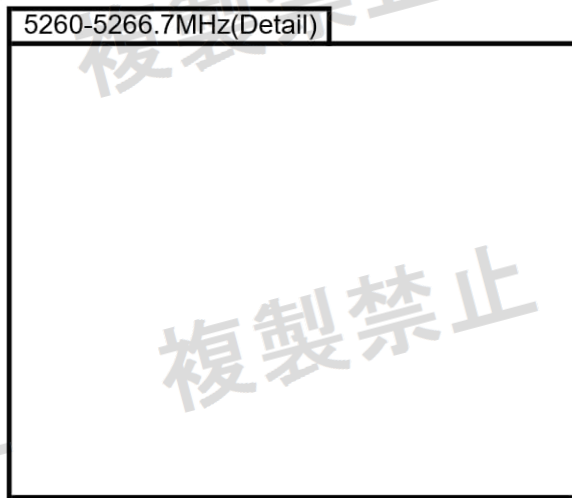


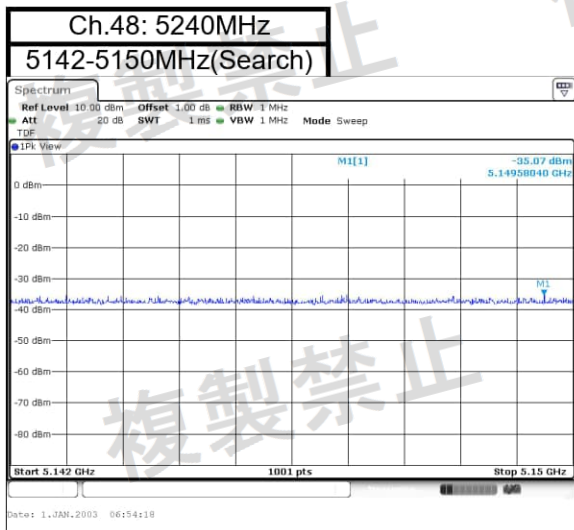
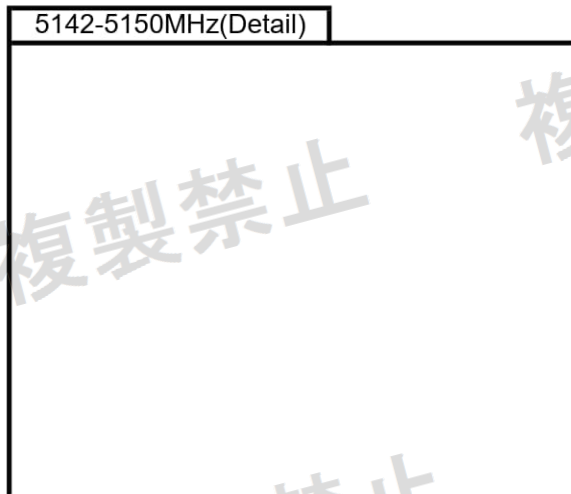
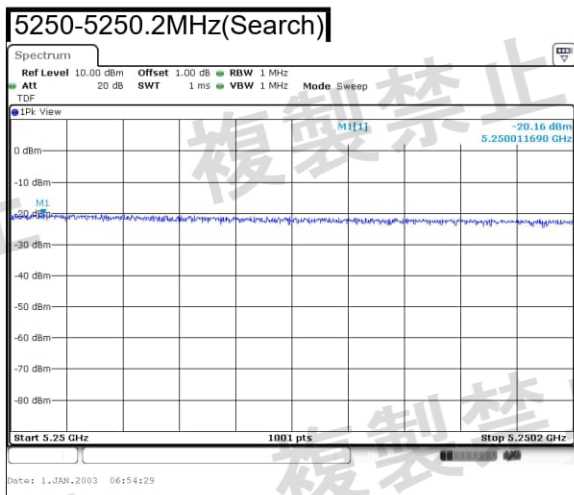
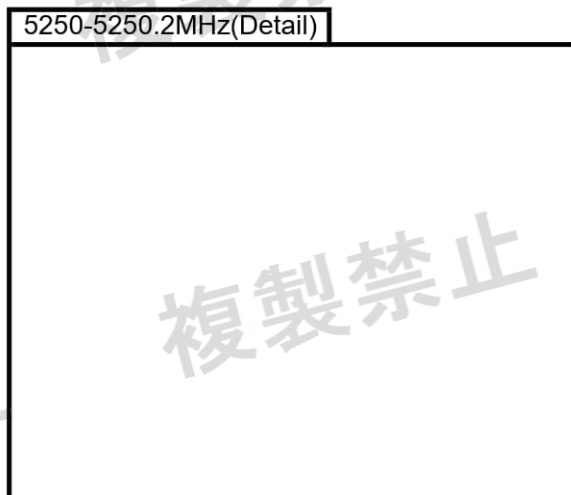
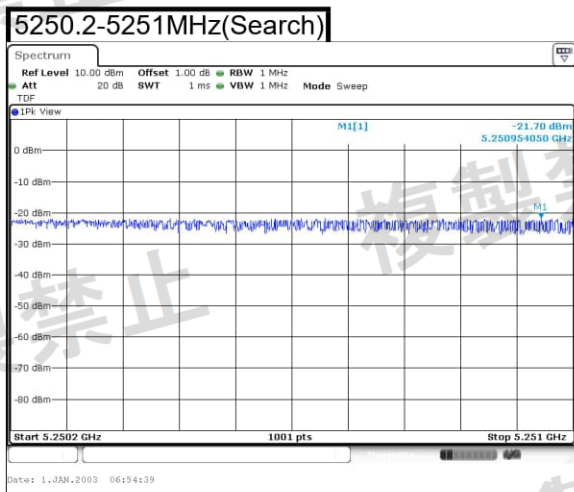
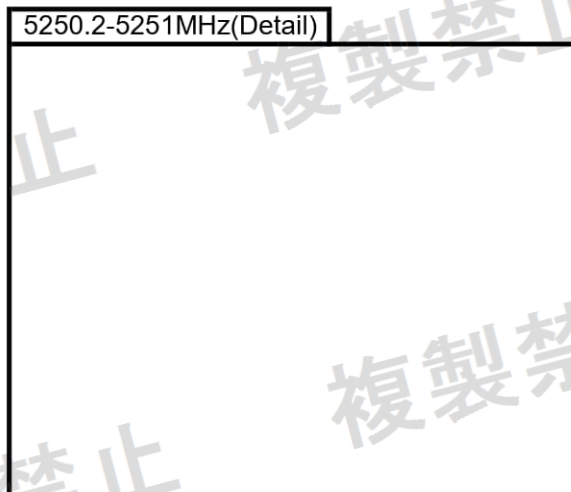


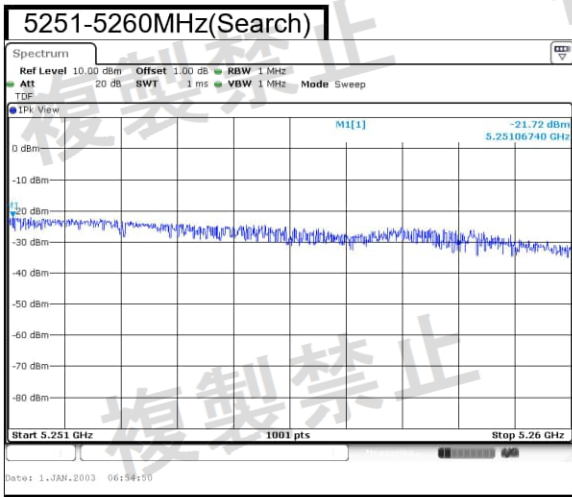
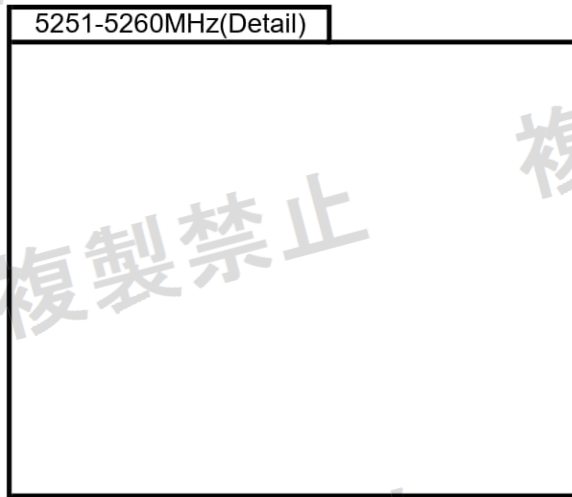
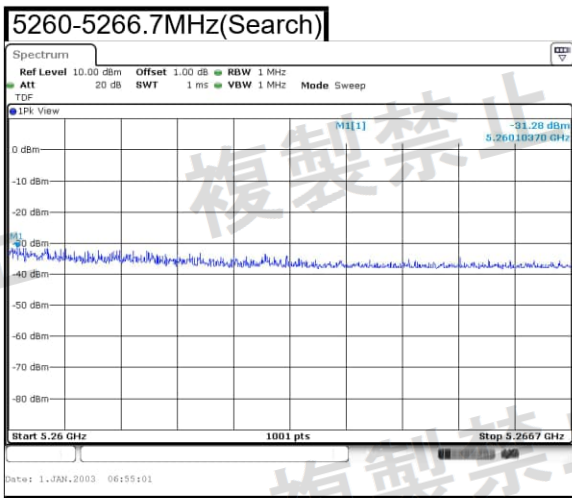
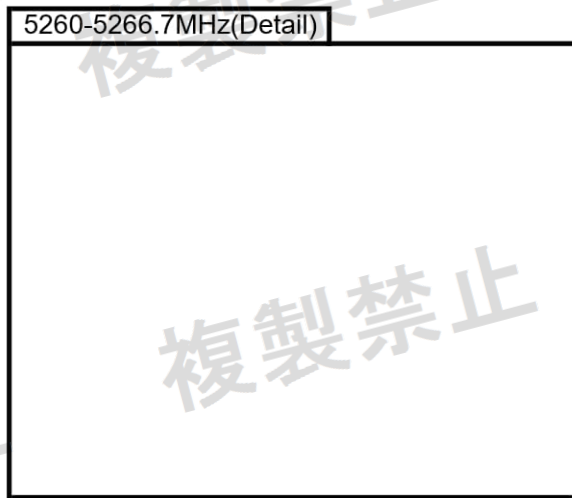


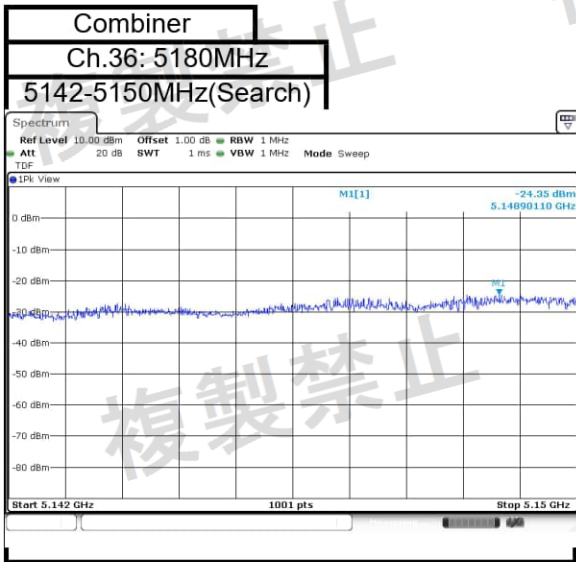
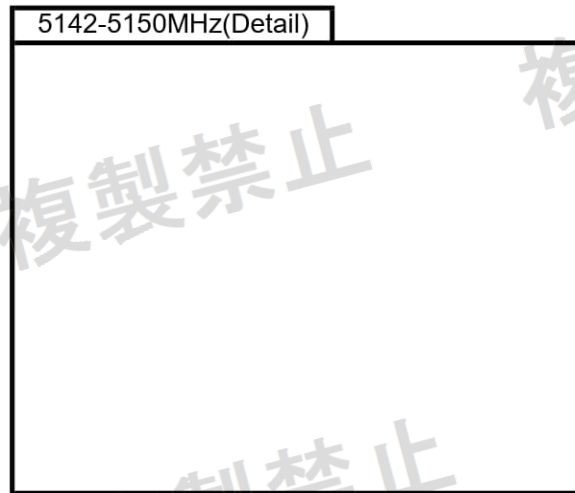
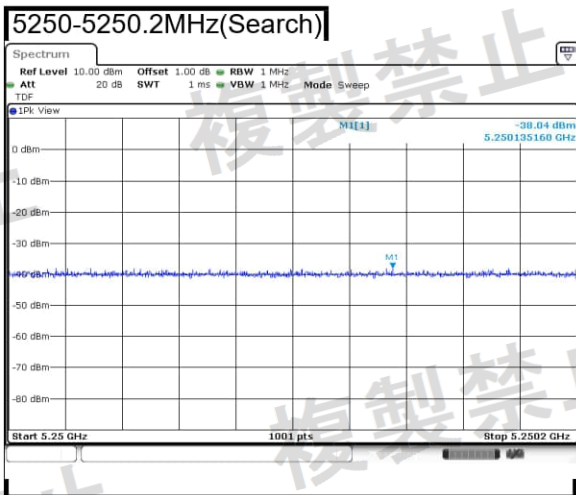
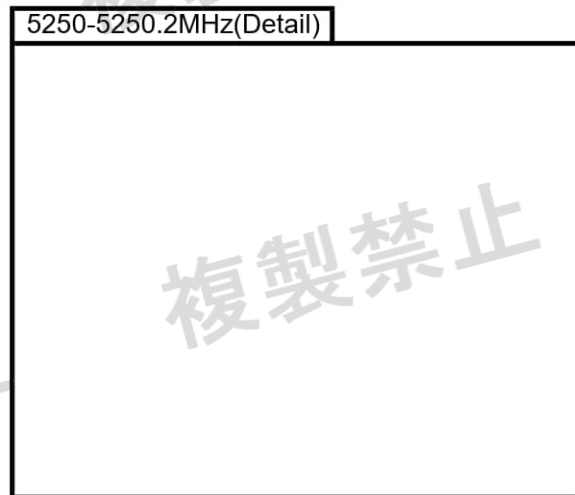
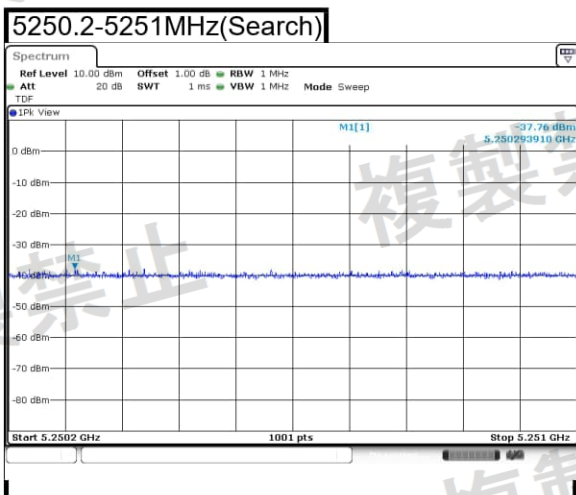
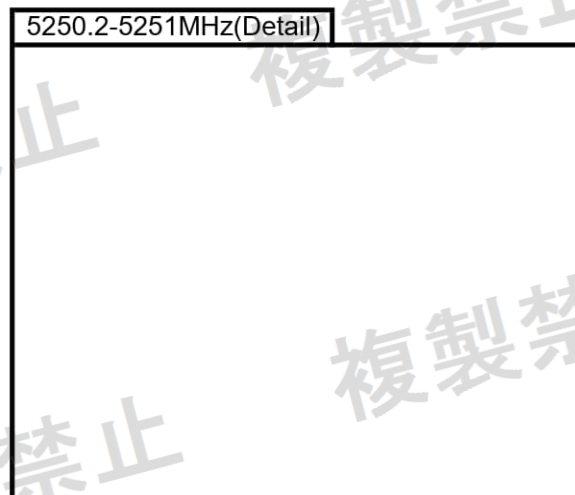


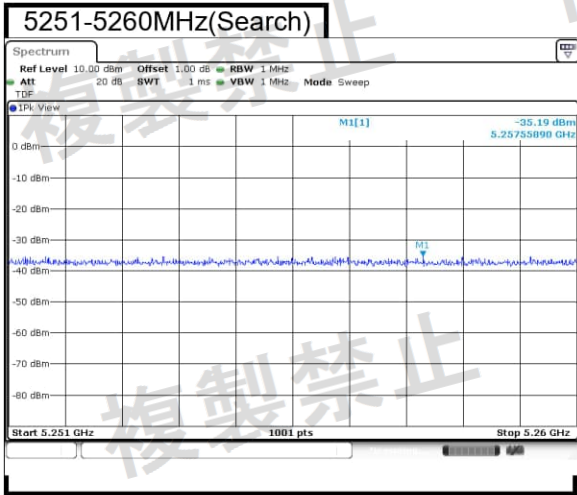
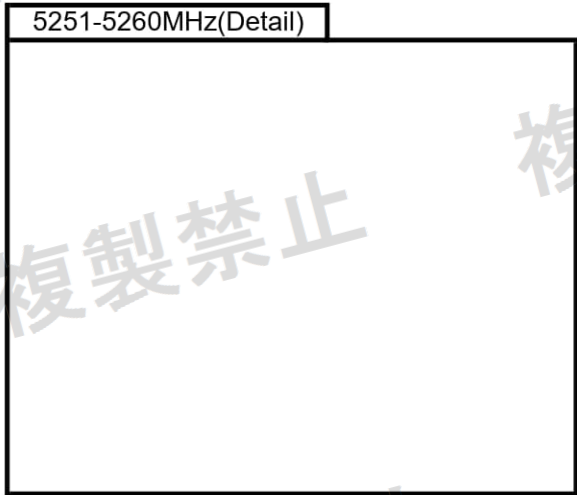
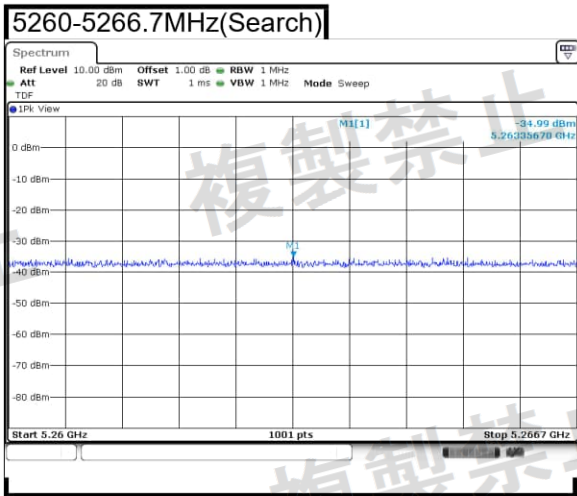
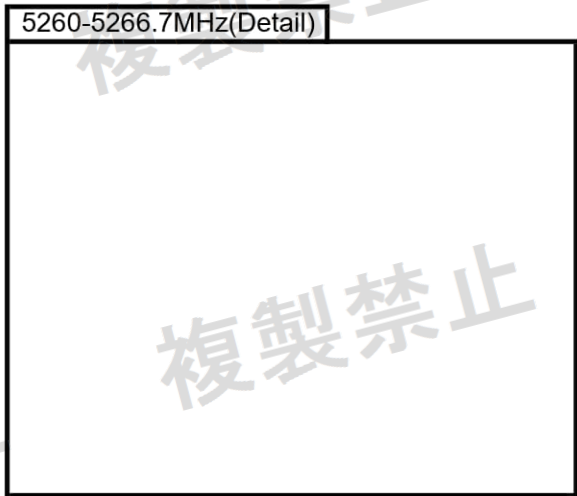


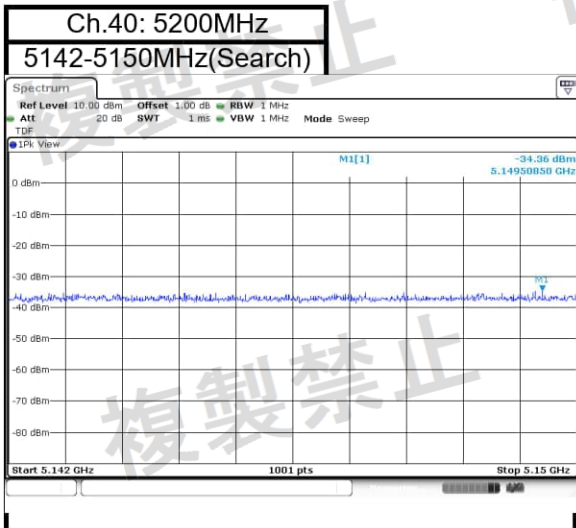
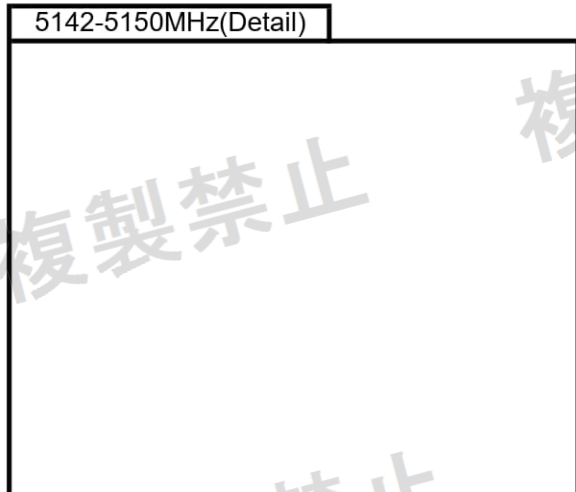
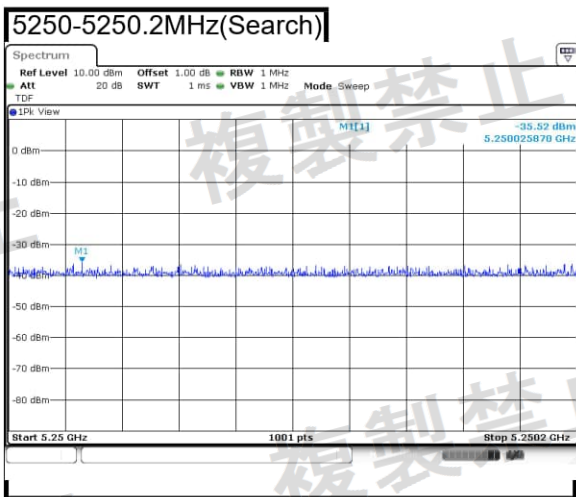
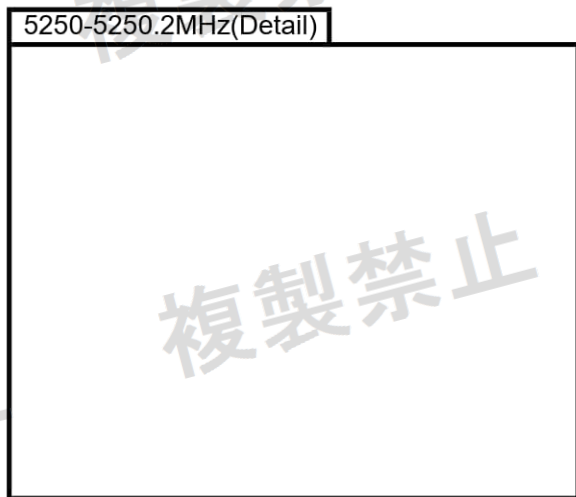
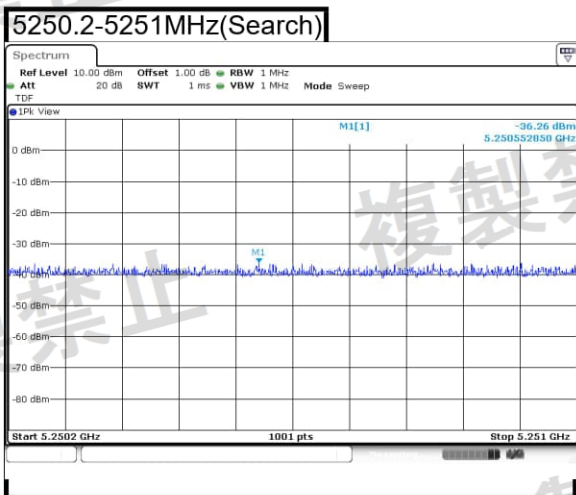
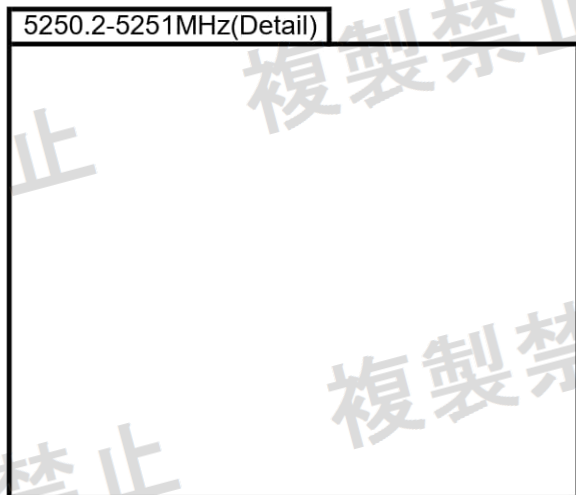


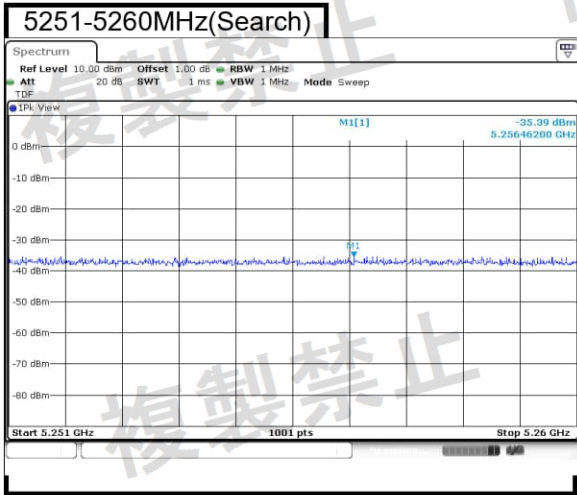
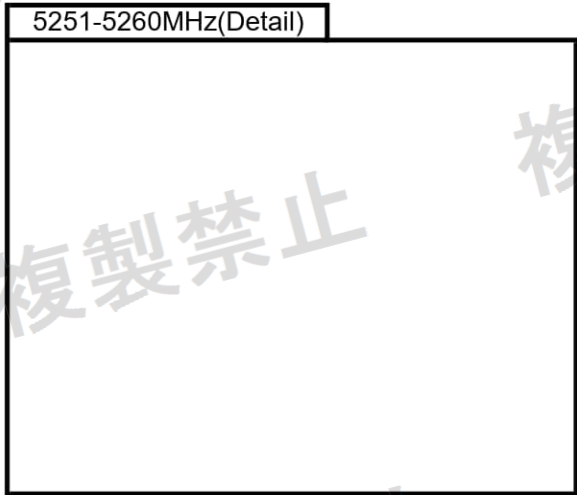
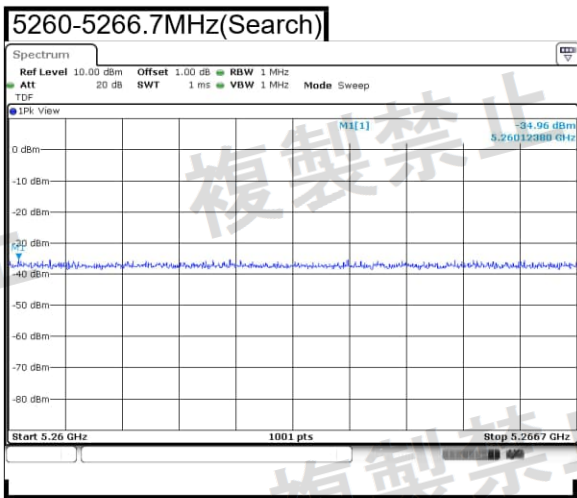
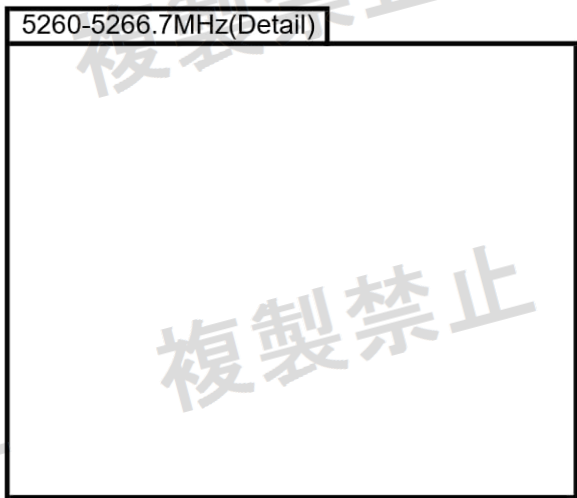


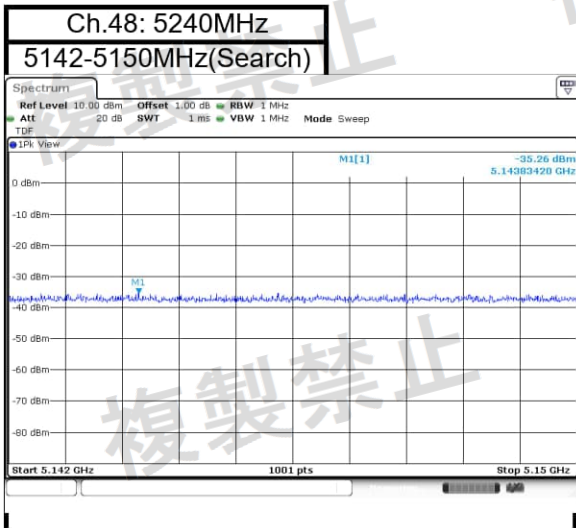
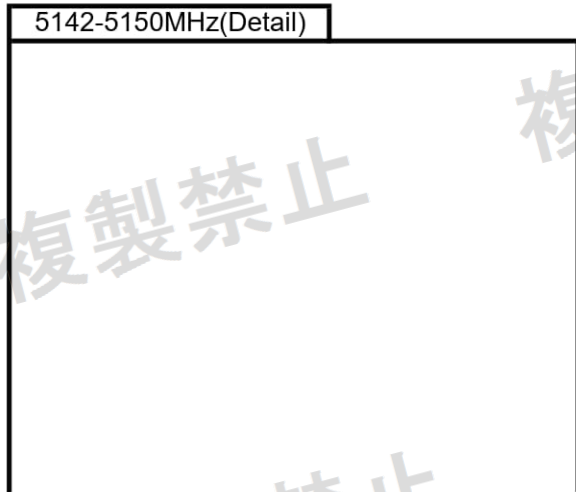
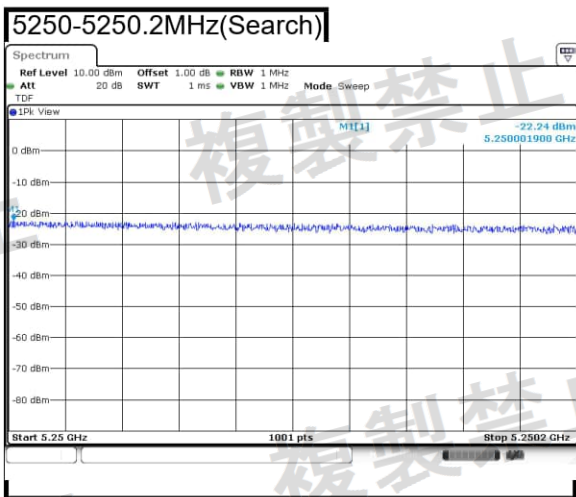
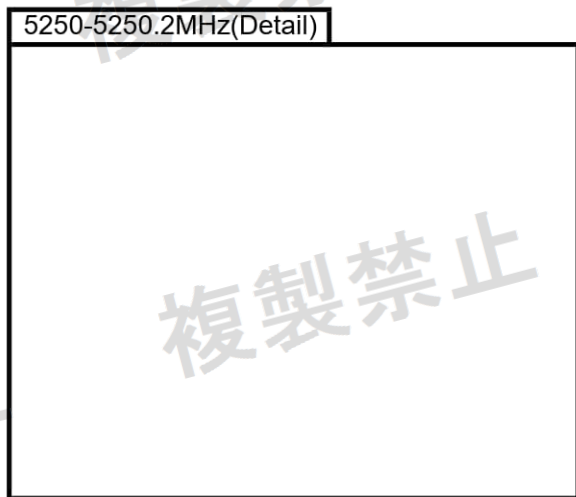
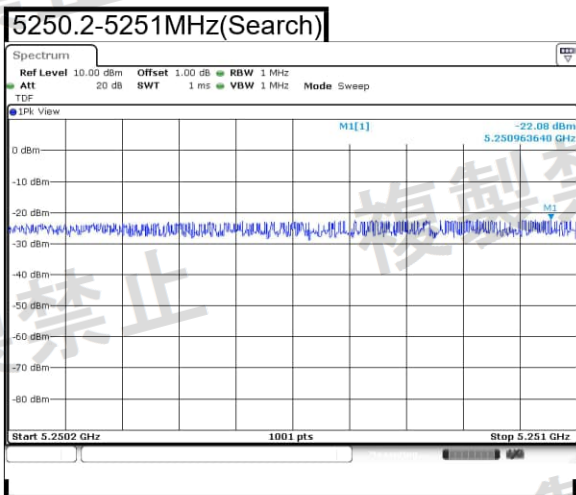
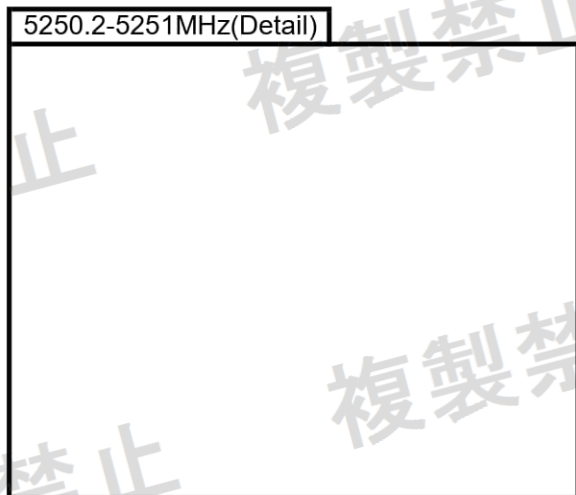


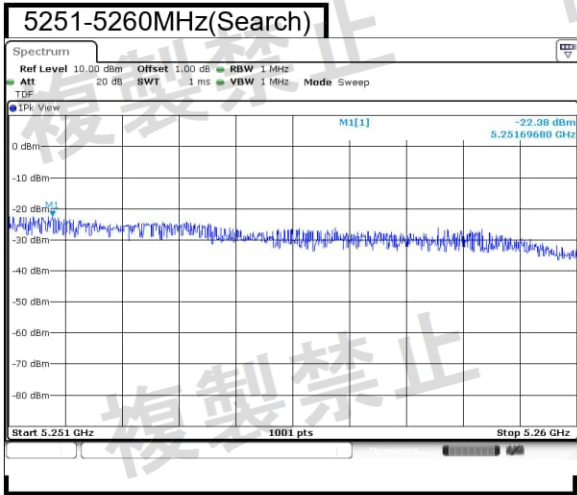
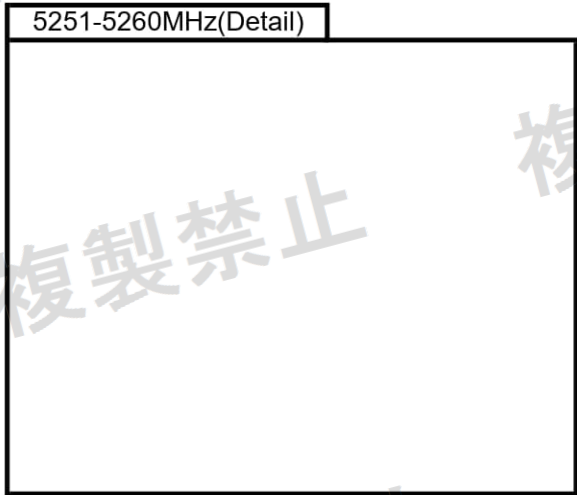
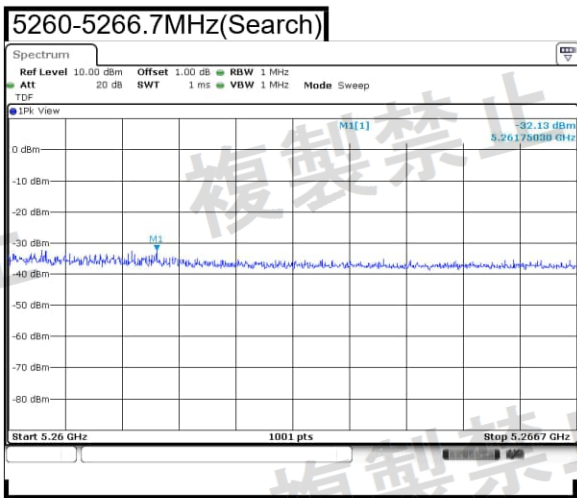
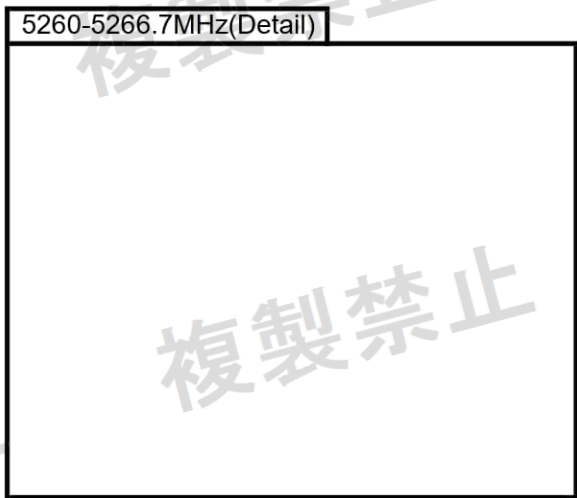






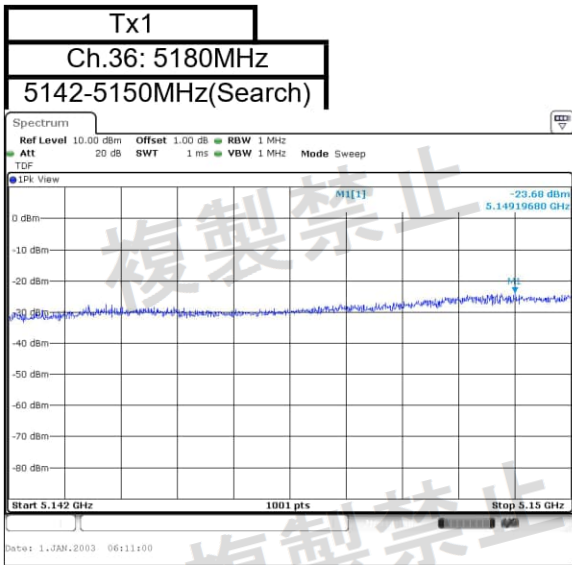
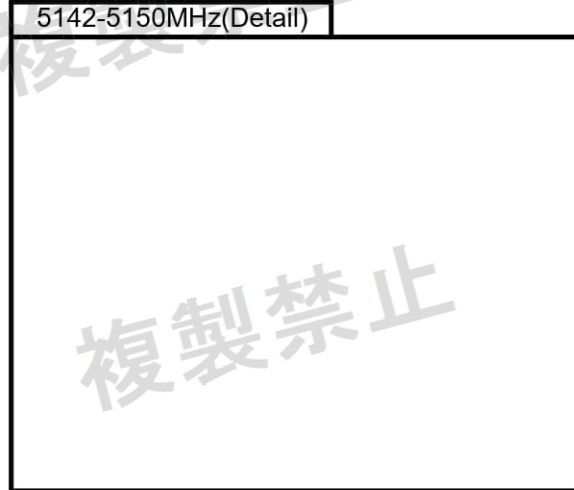
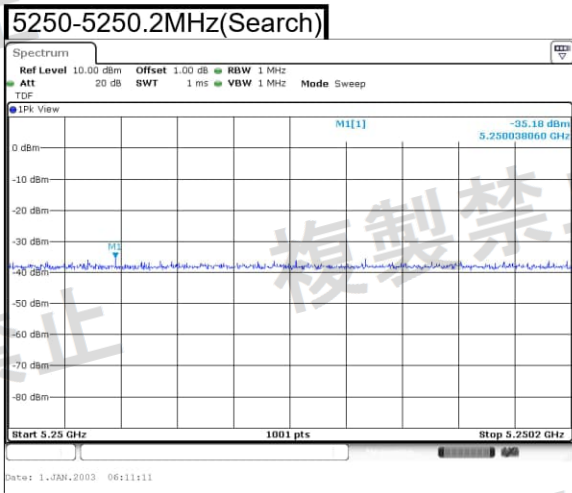
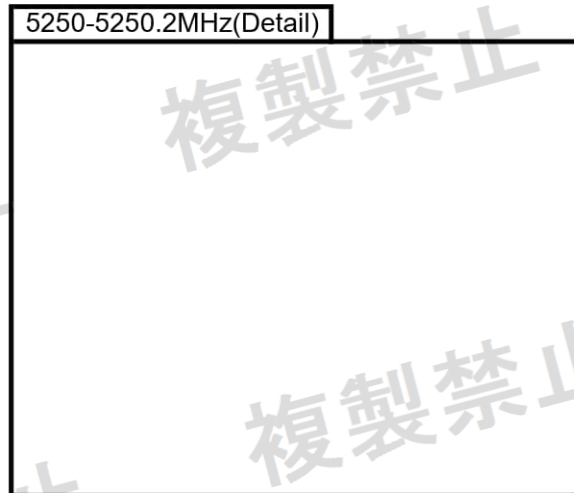
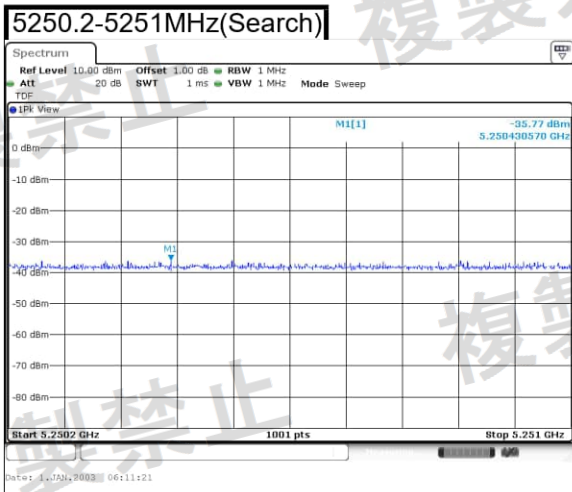
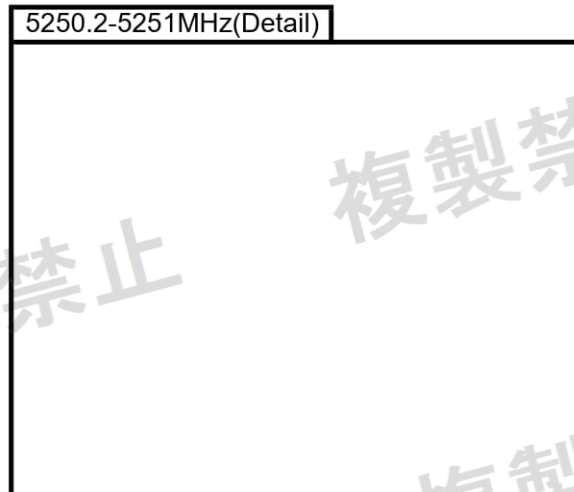


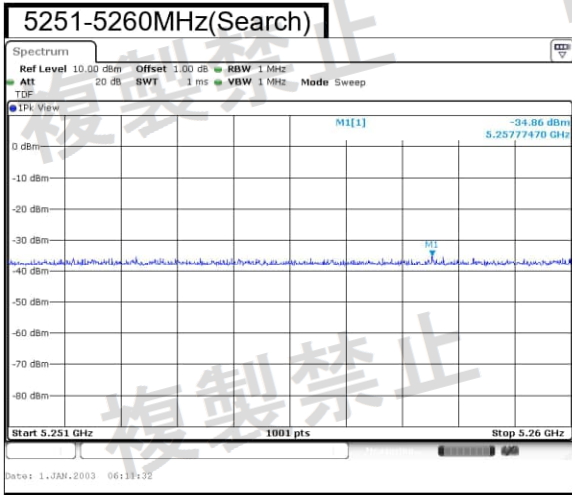
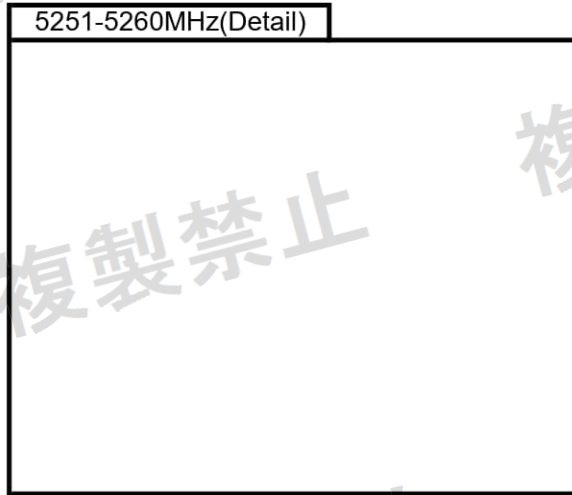
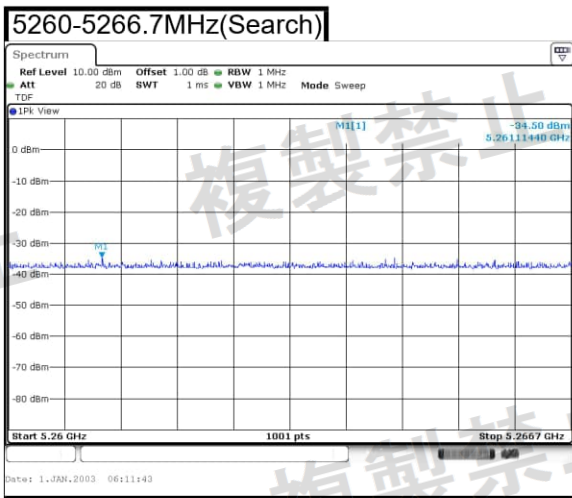
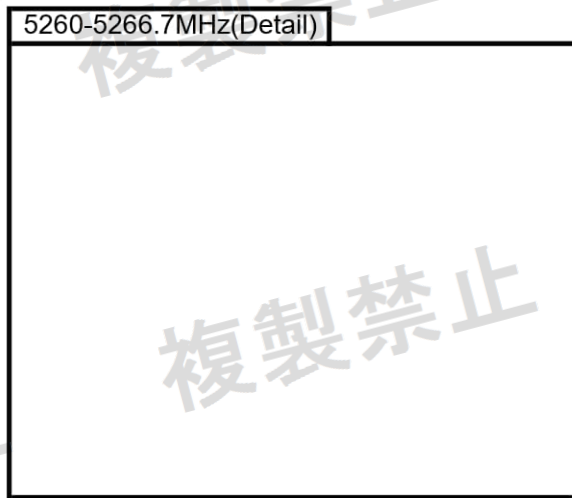


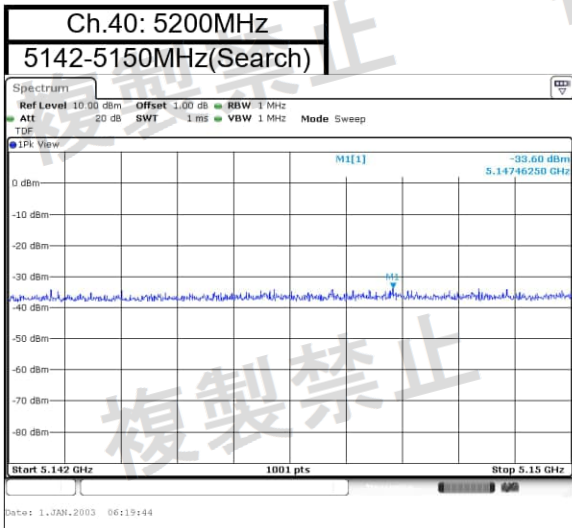
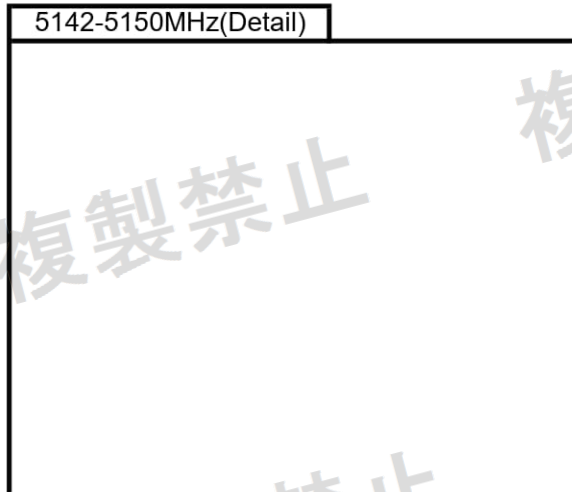
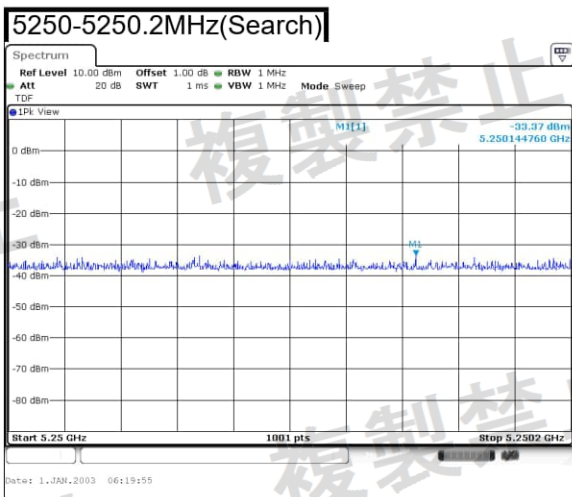
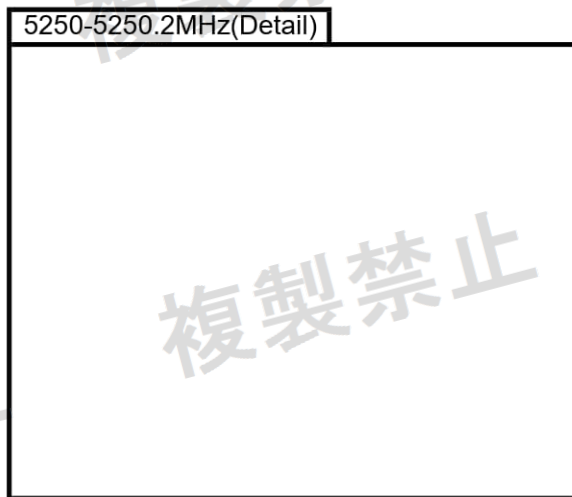
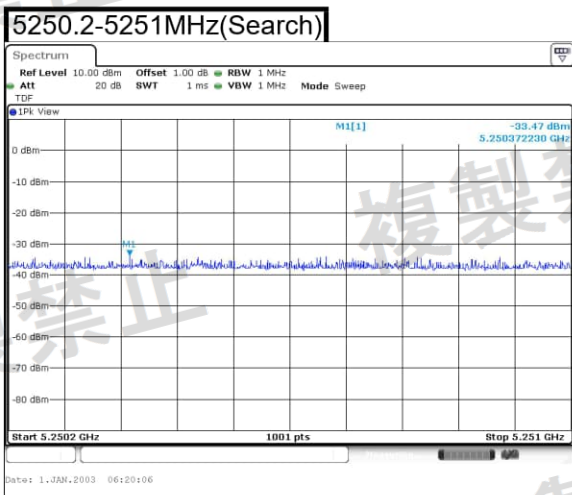
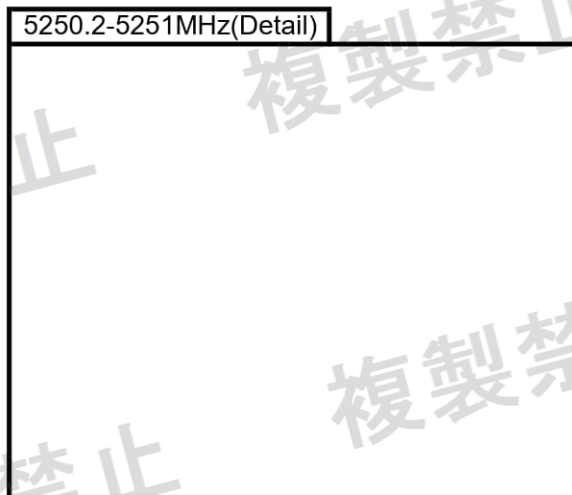


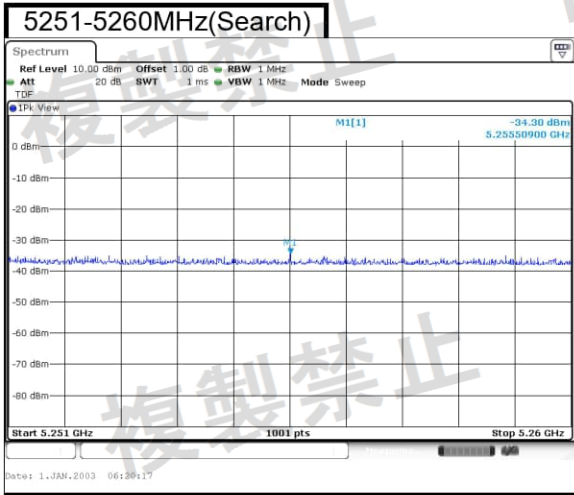
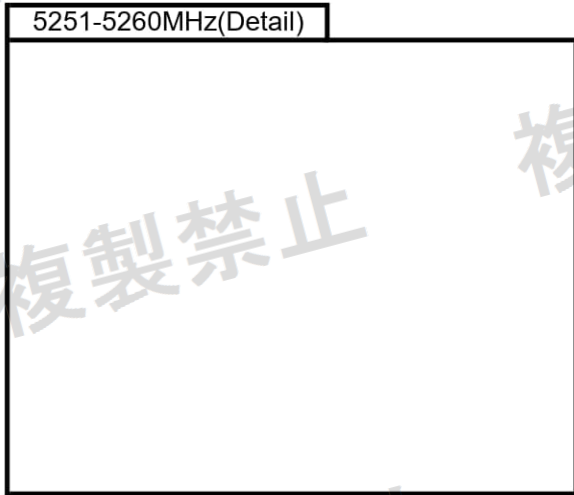
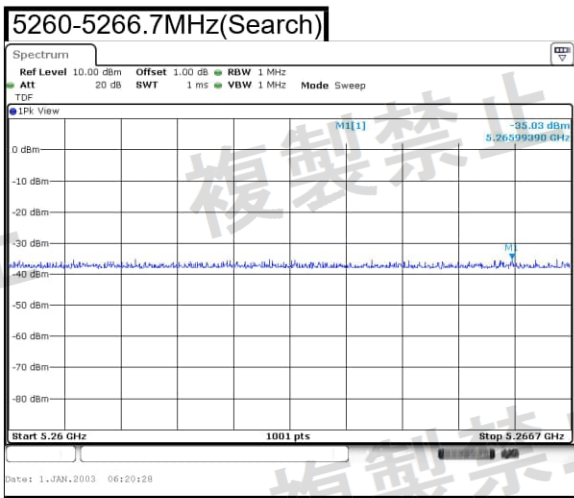
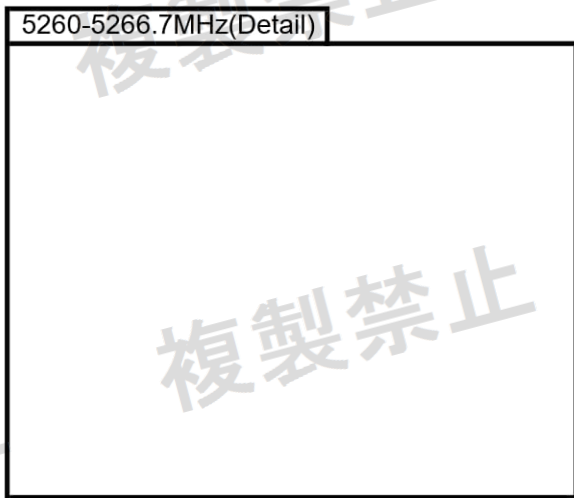
7. Test chart

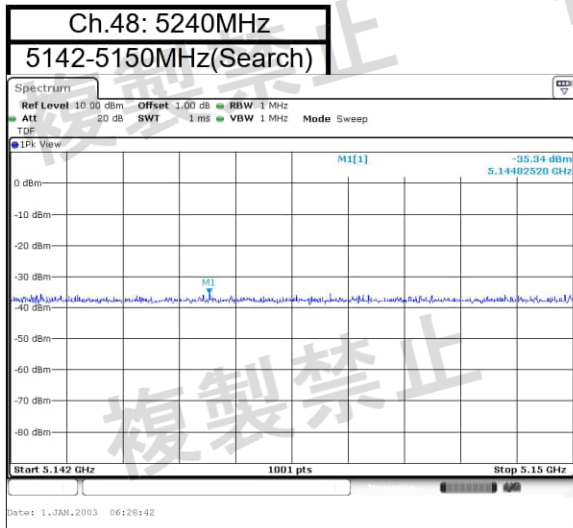
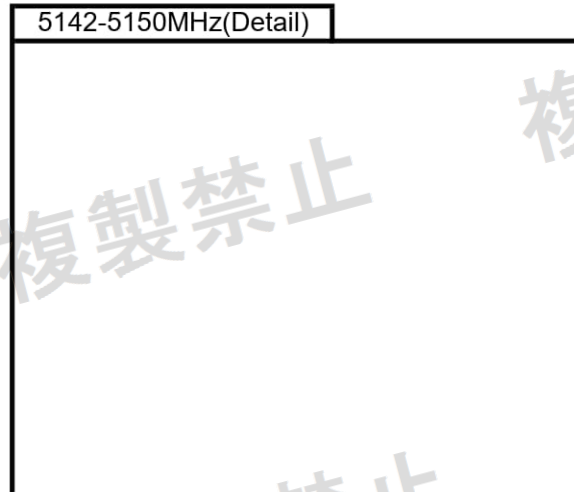
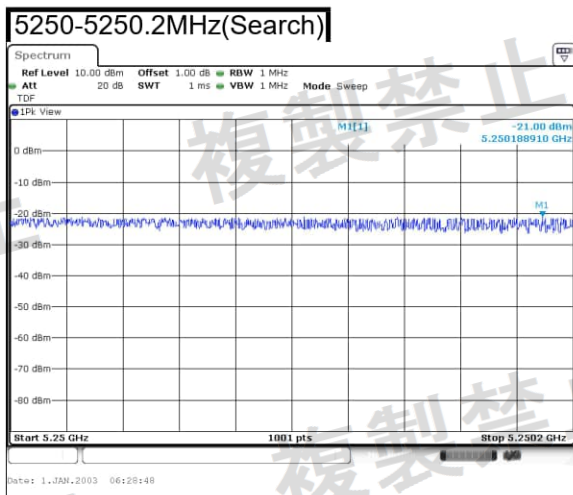
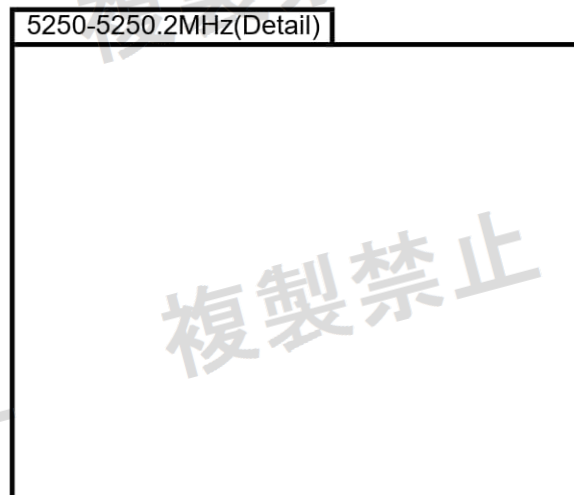
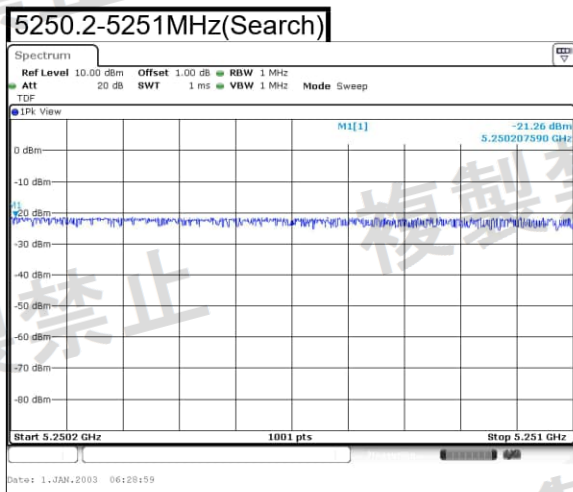
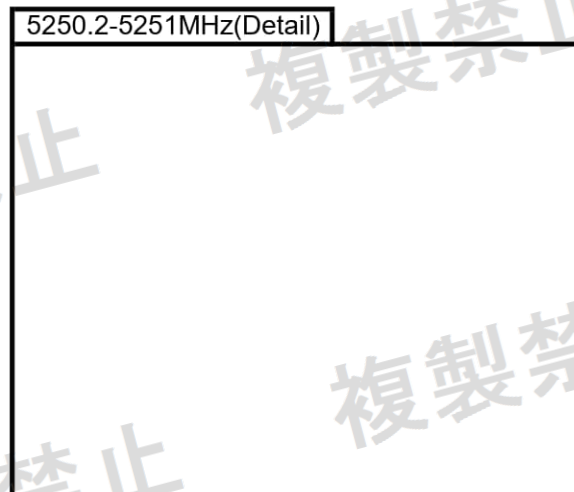
7.6 Out-Band Leakage Power (+10% voltage)

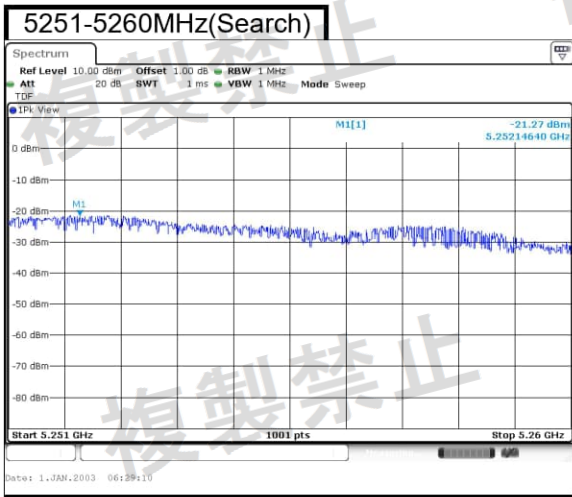
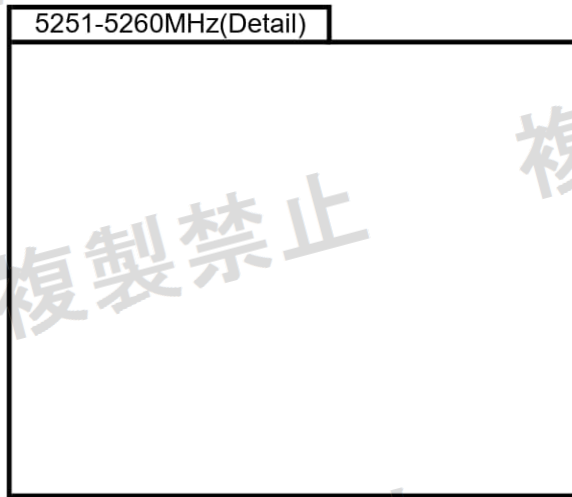
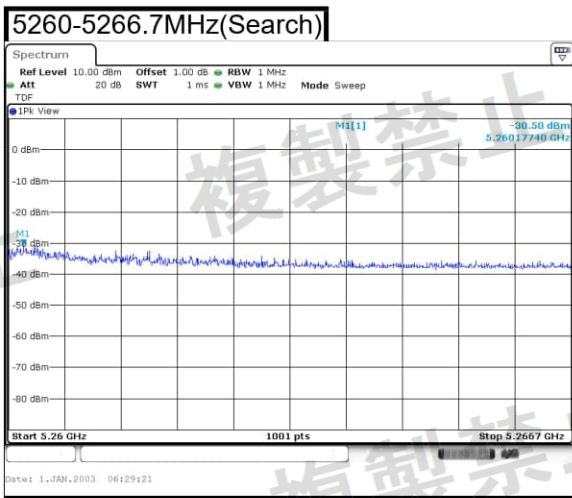
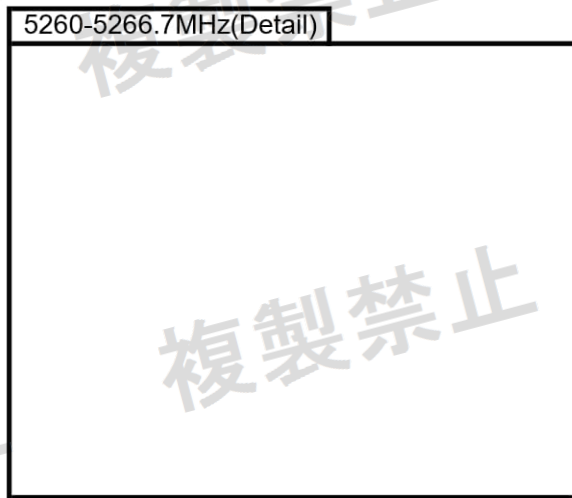


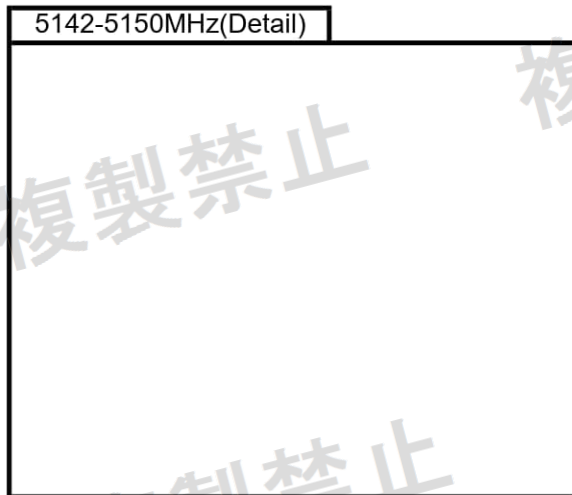
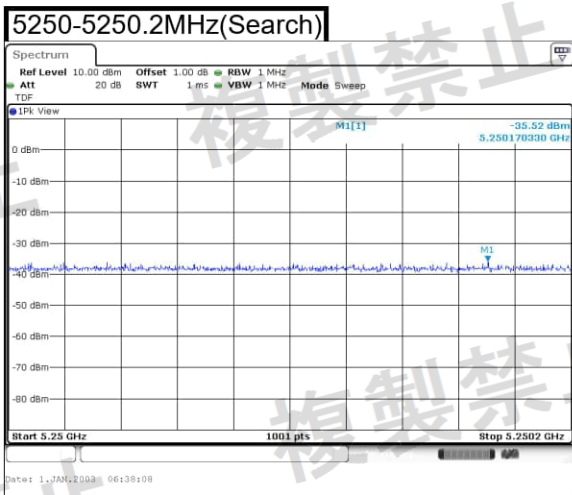
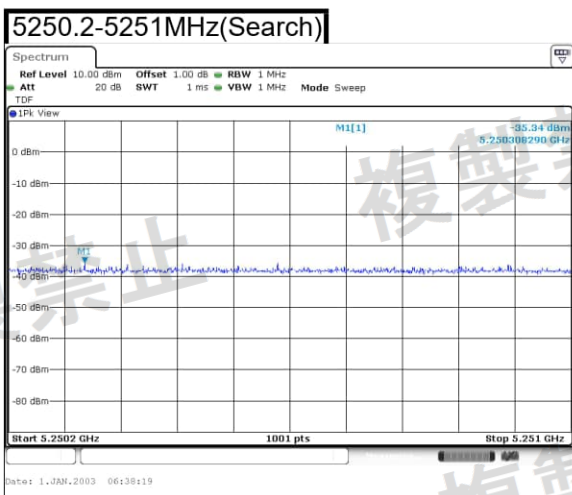
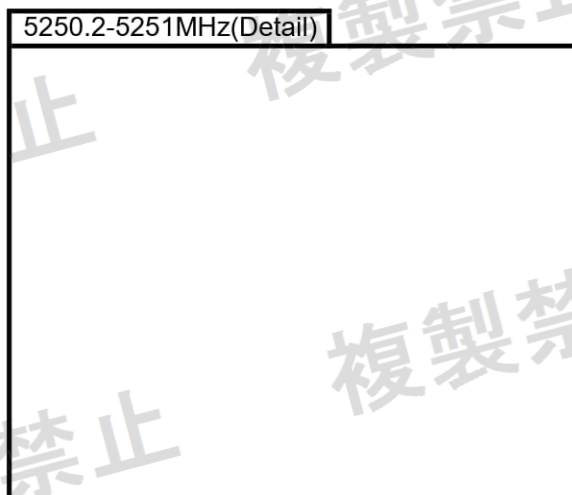


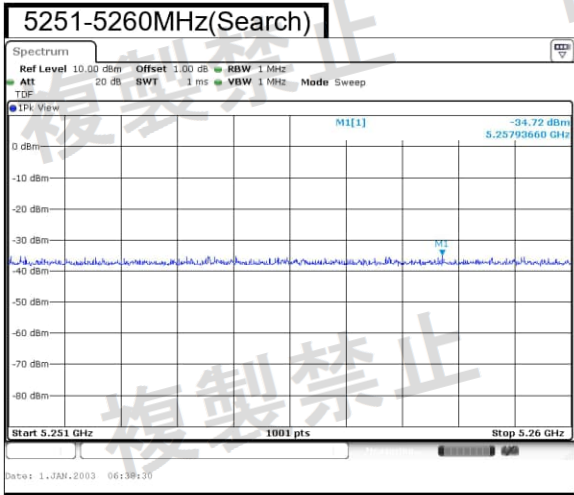
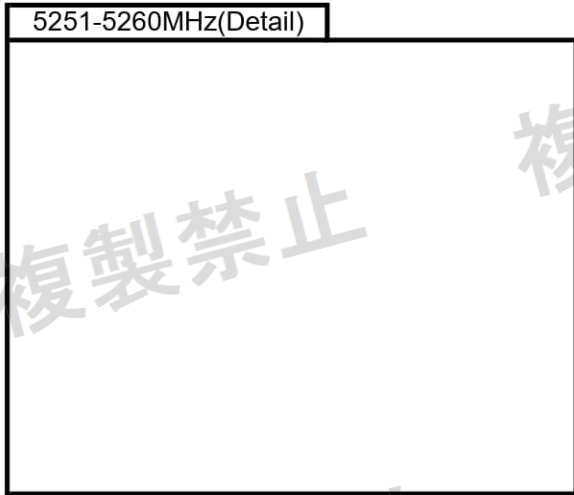
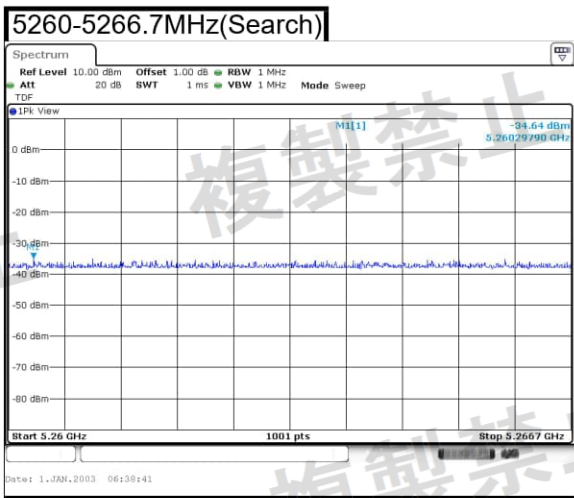
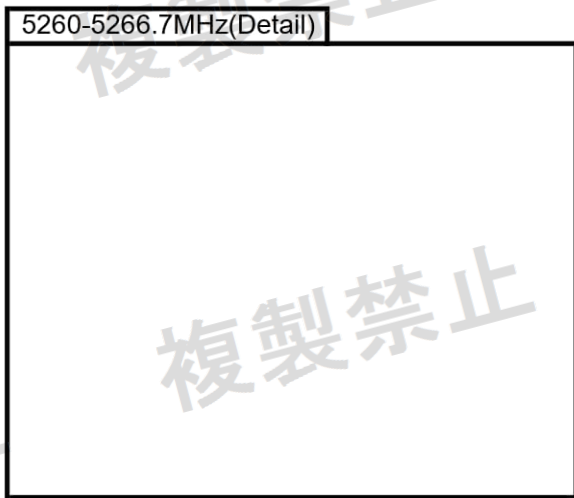


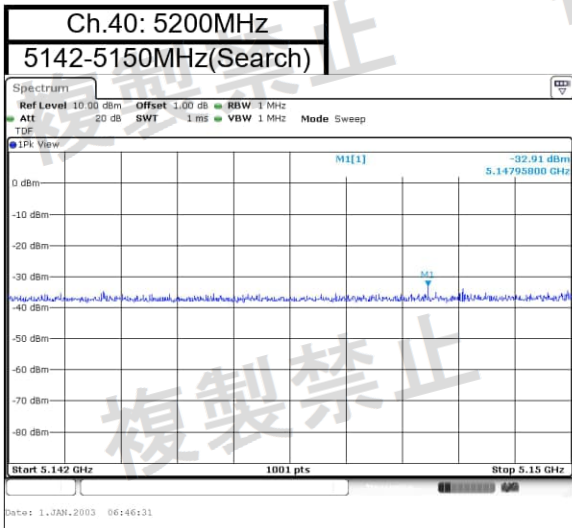
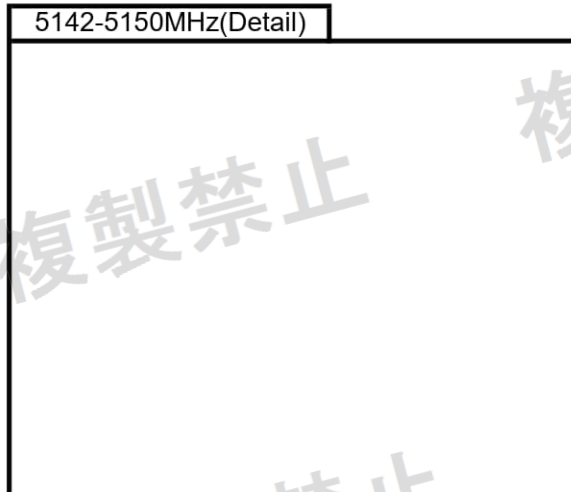
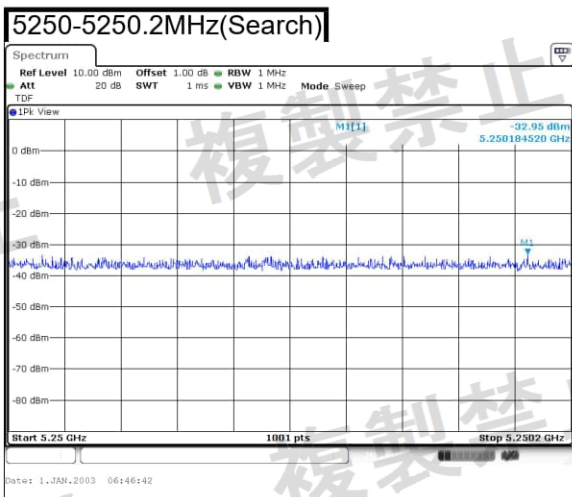
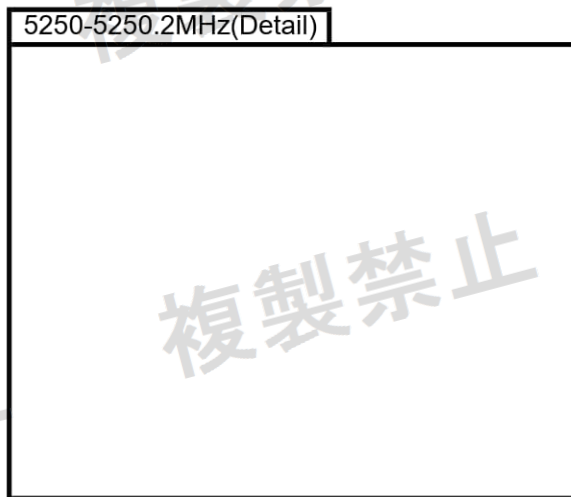
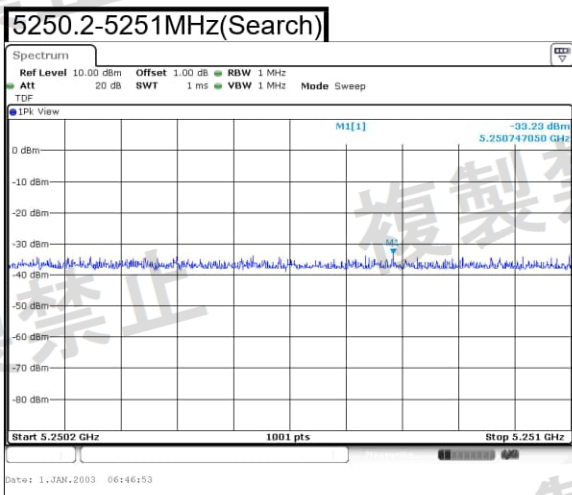
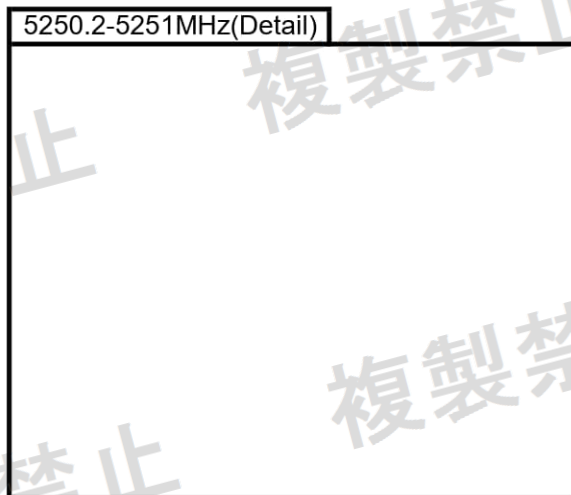


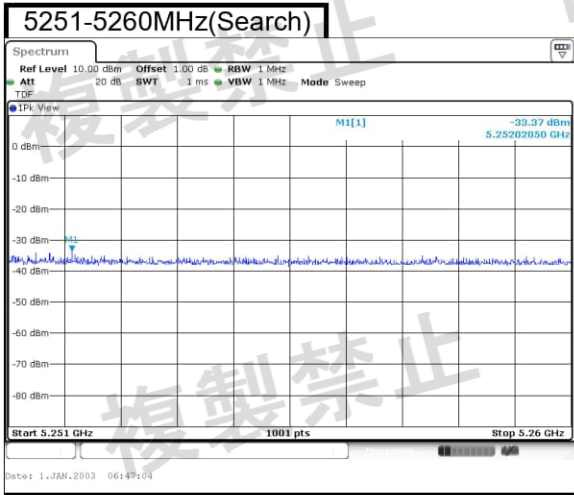
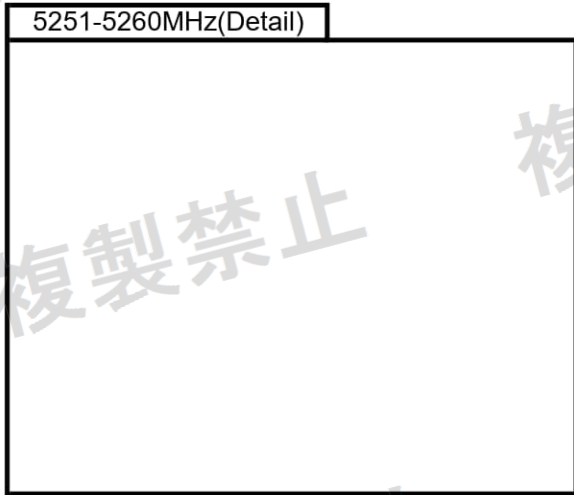
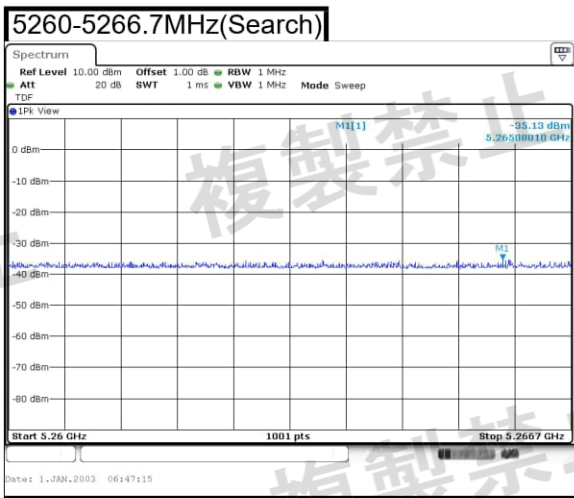
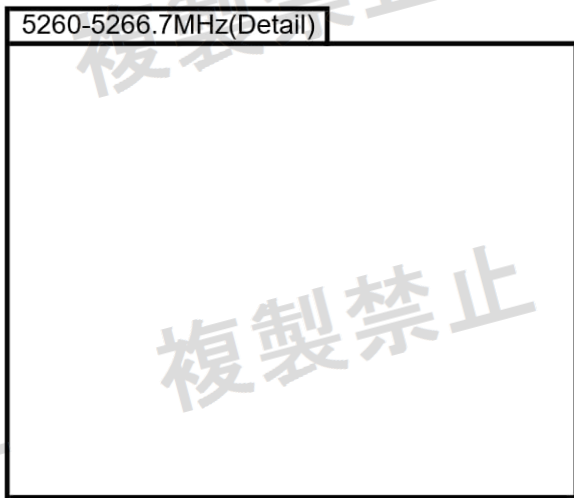


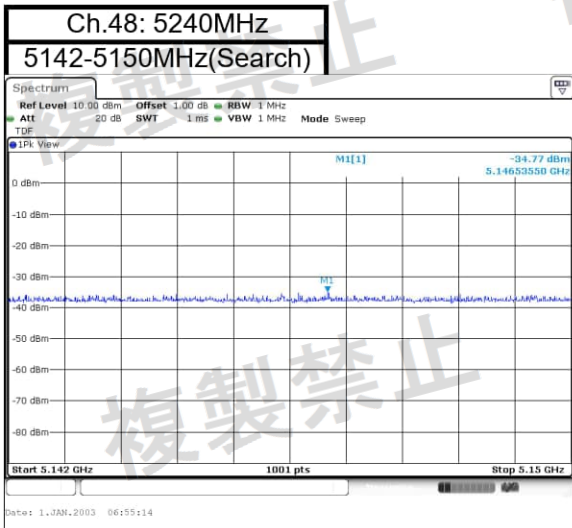
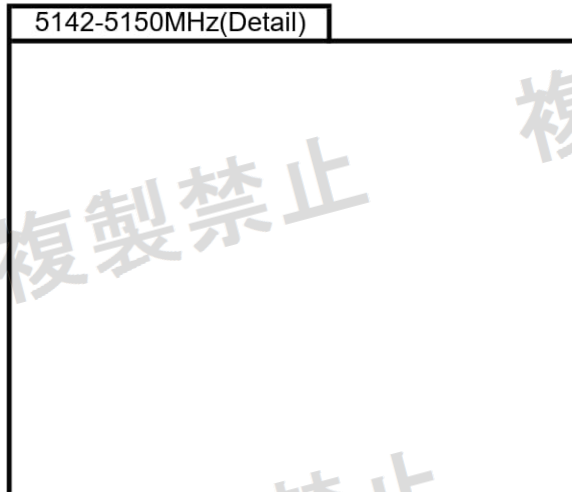
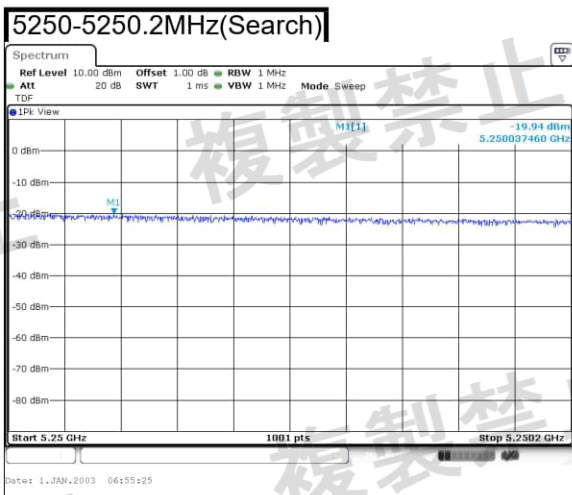
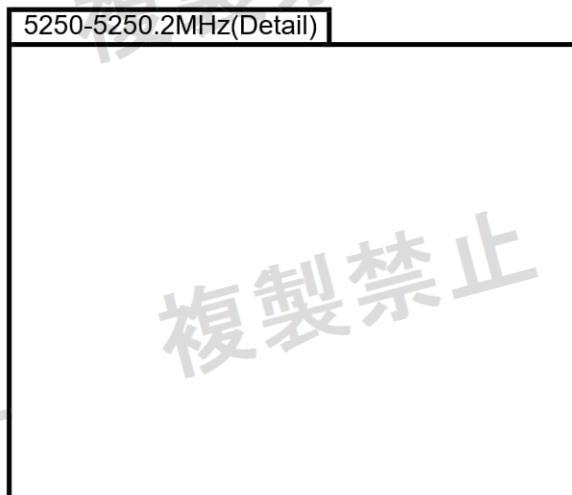
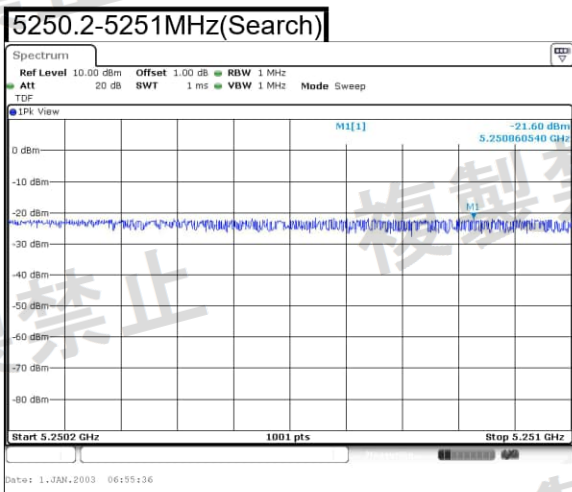
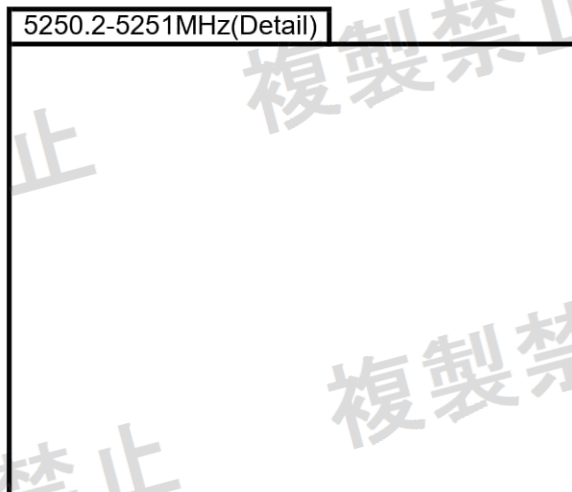


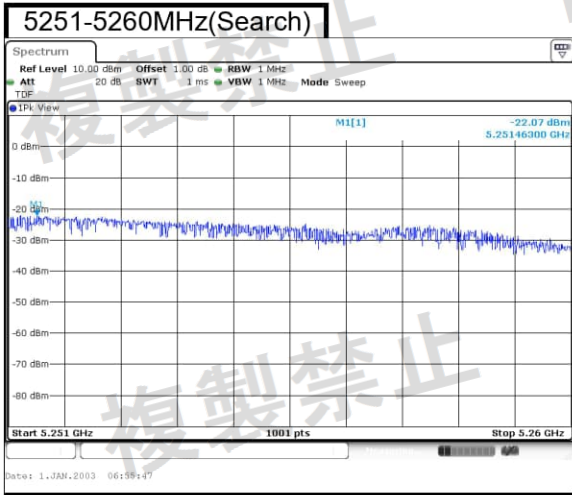
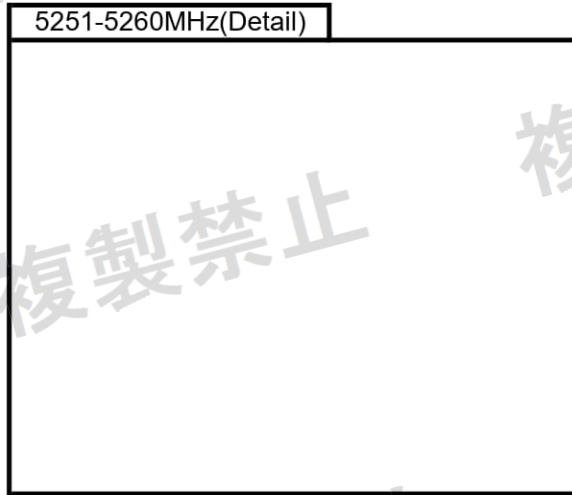
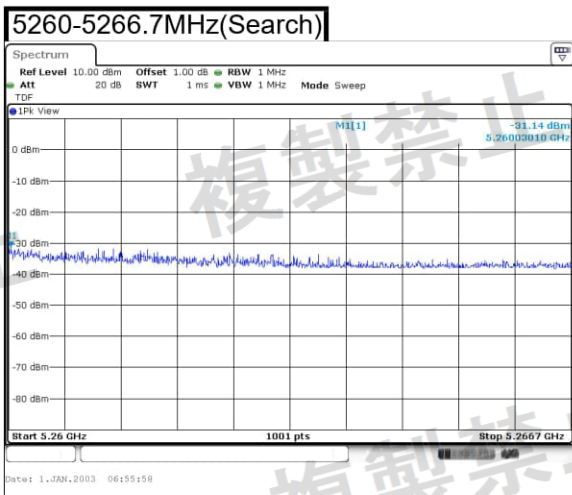
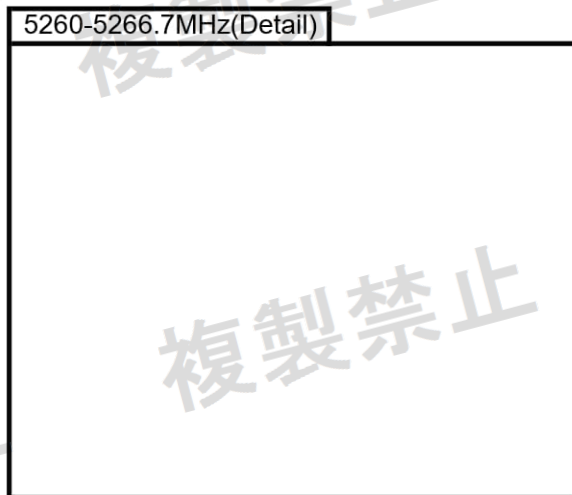


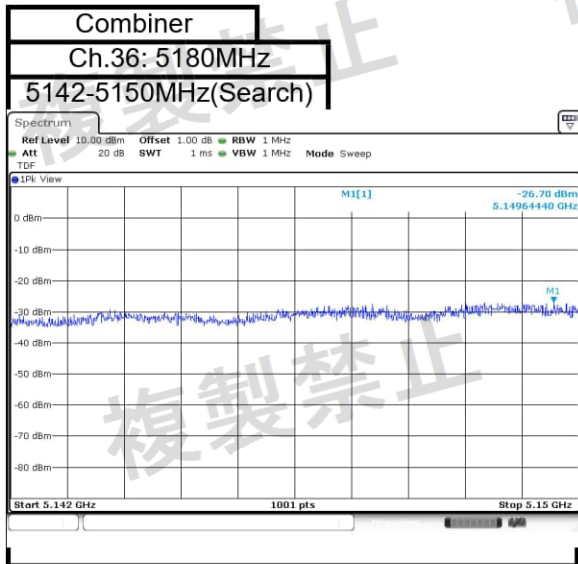
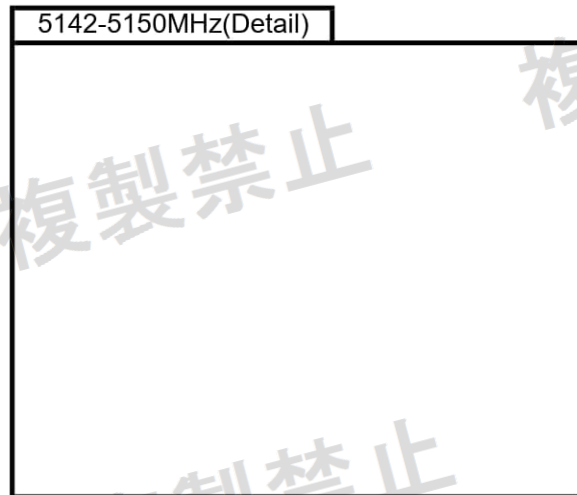
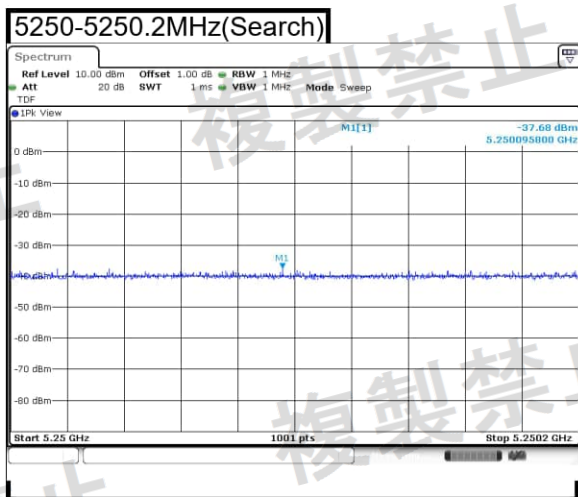
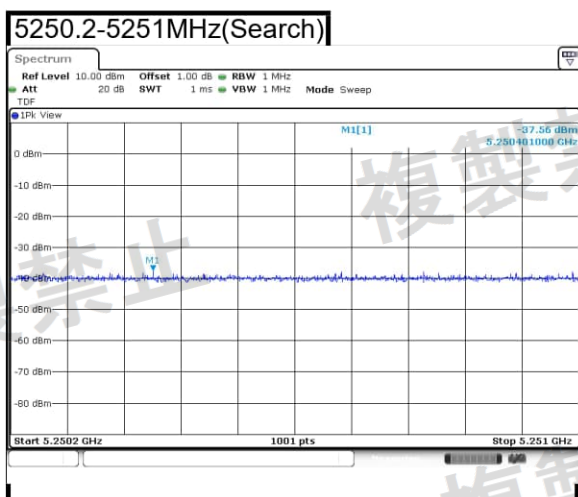
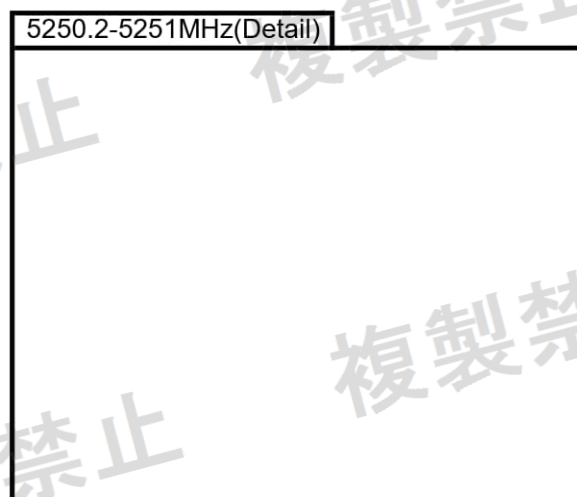


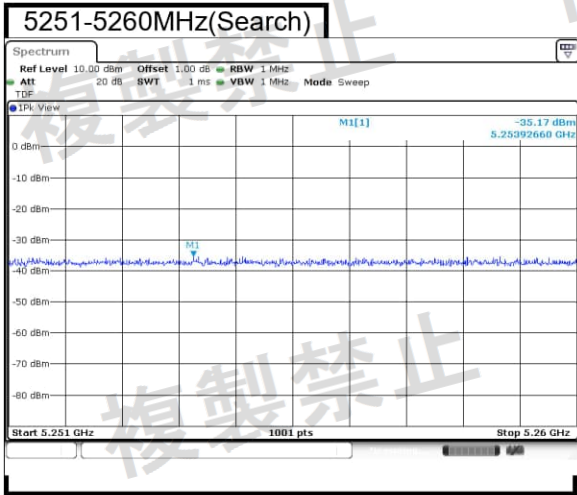
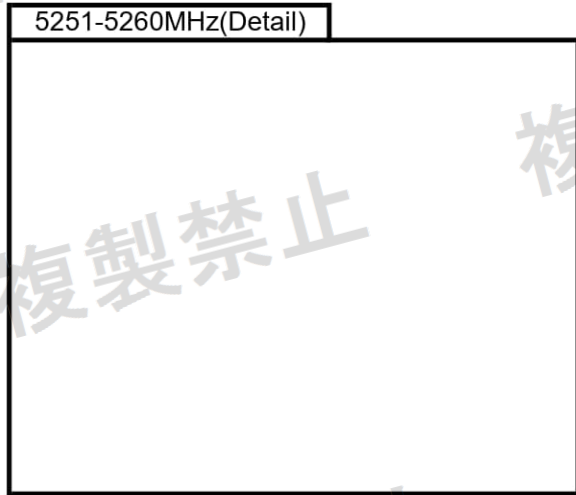
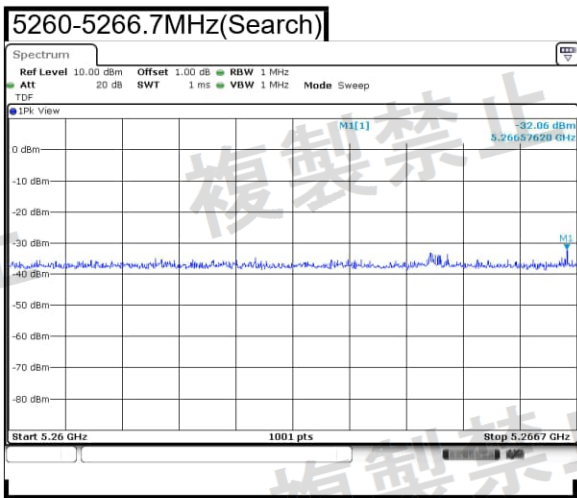
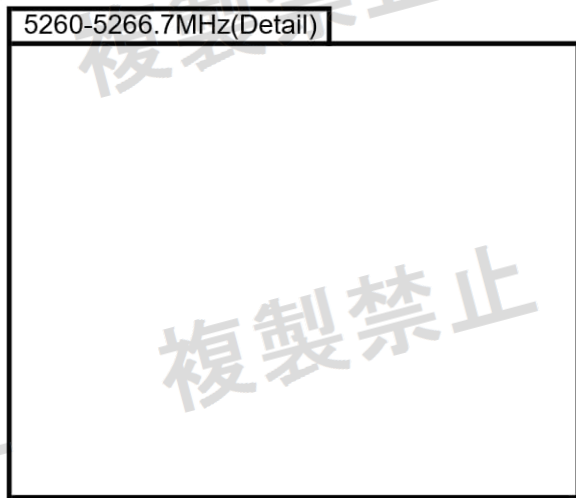


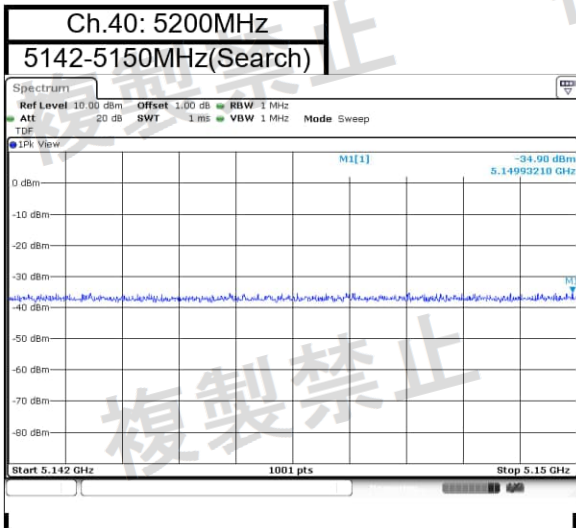
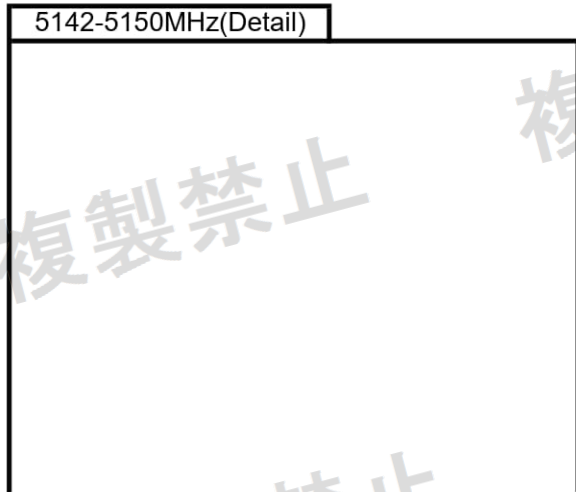
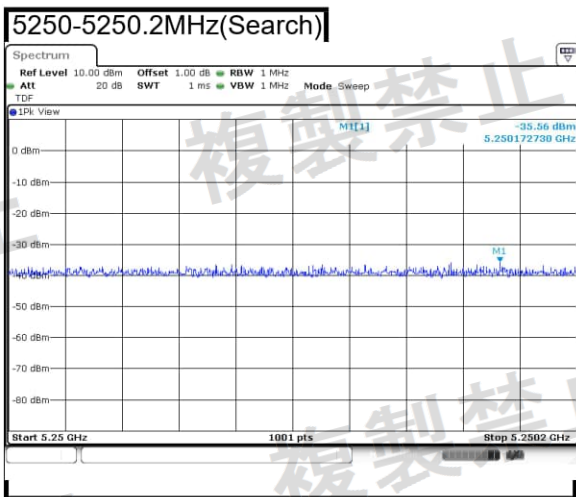
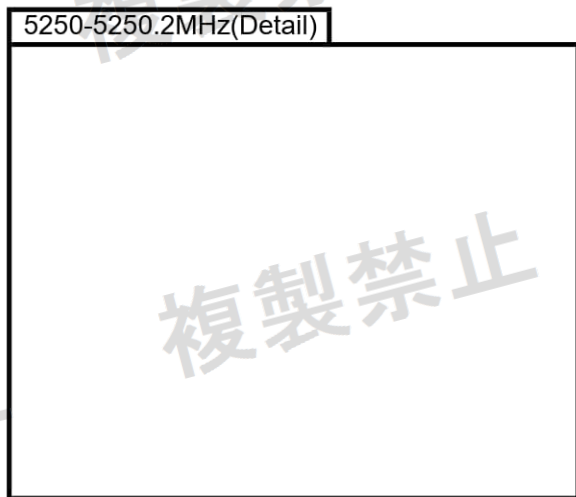
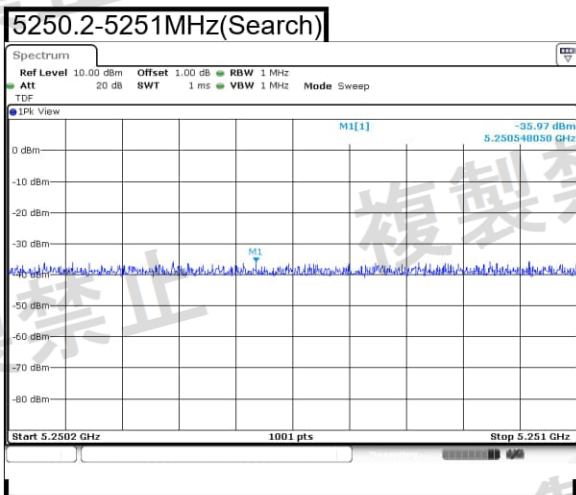
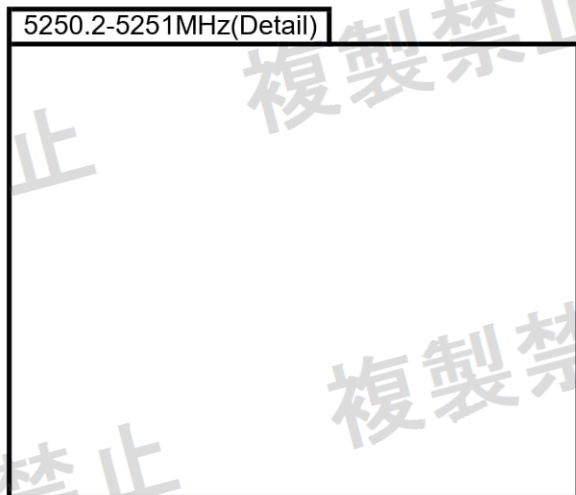


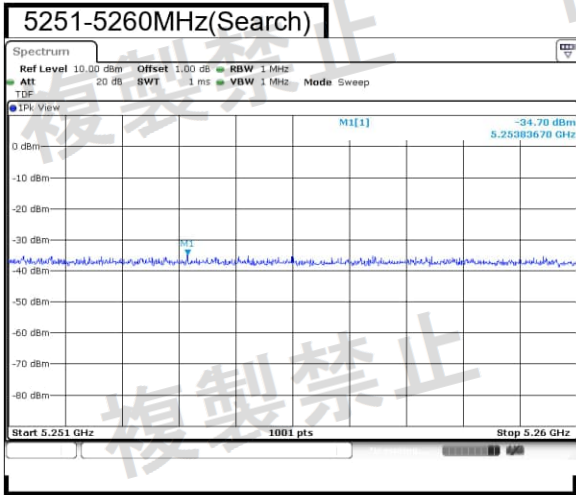
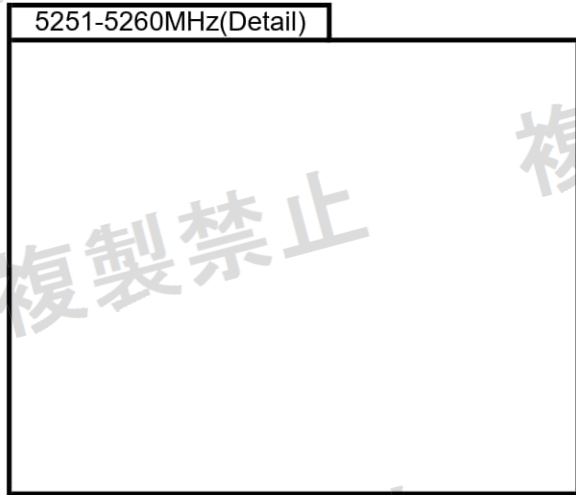
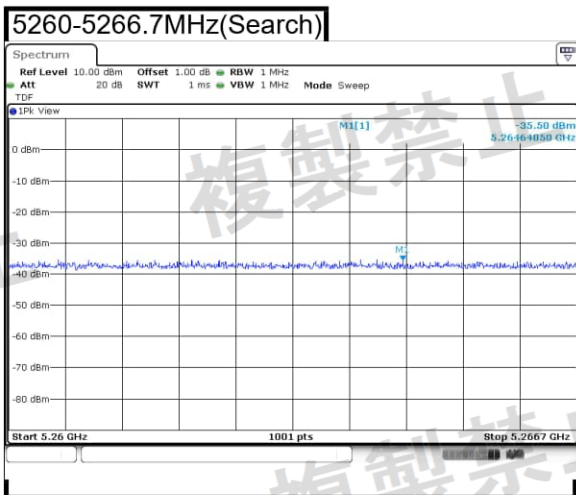
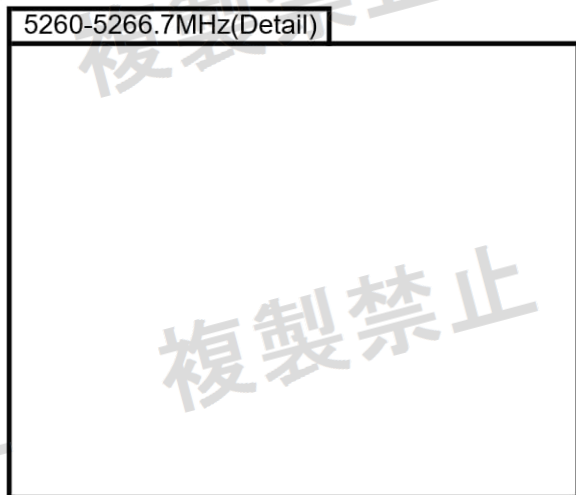


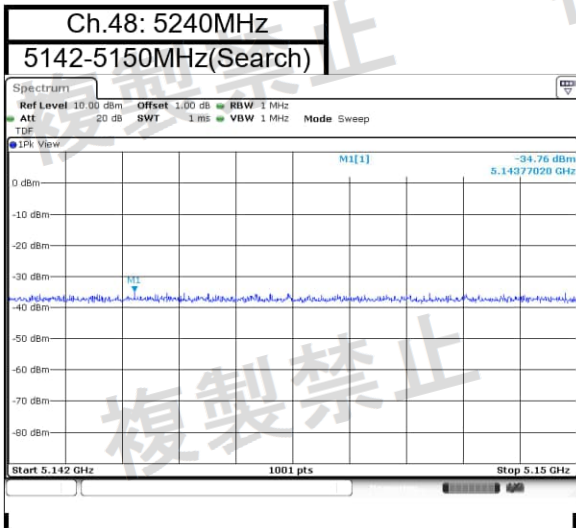
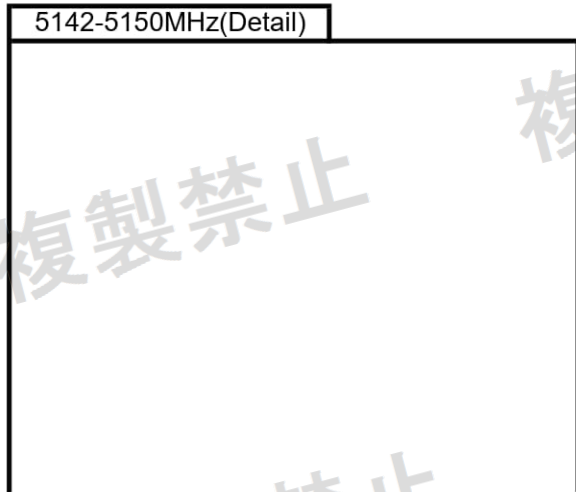
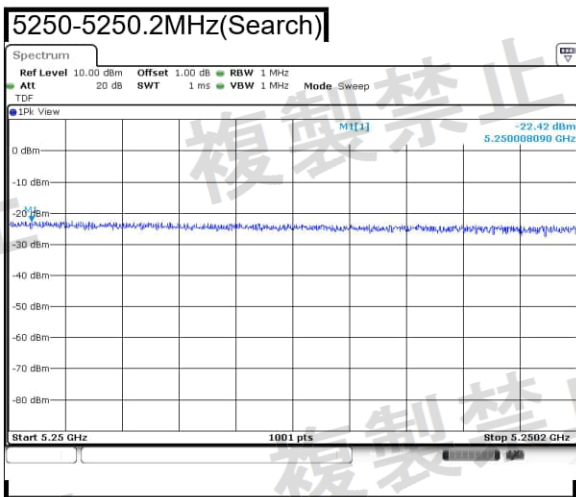
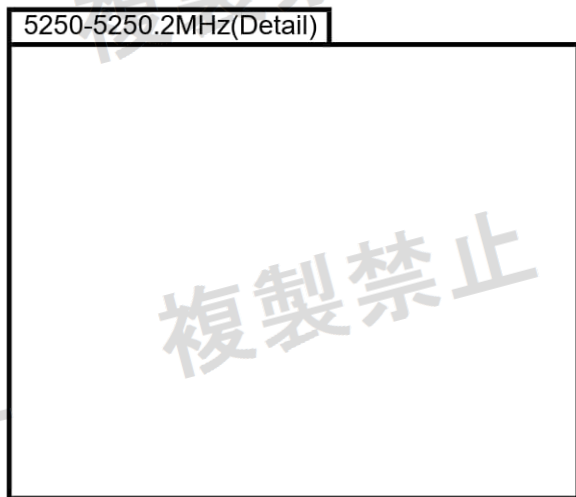
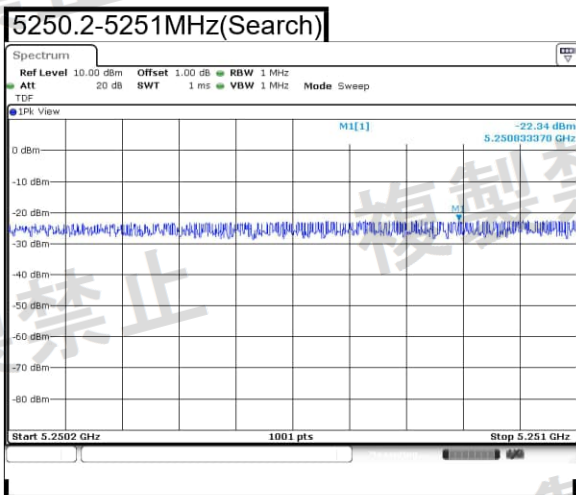
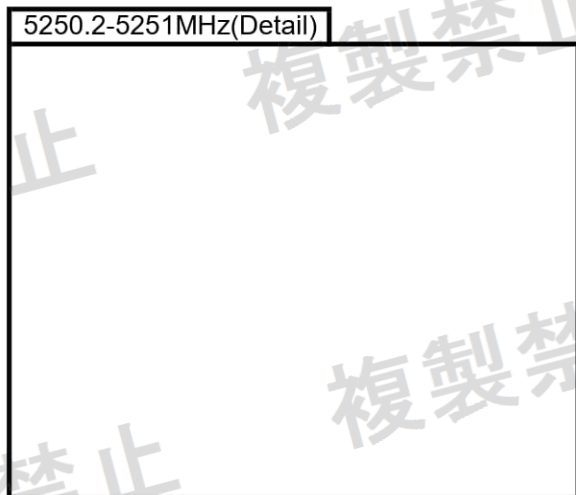


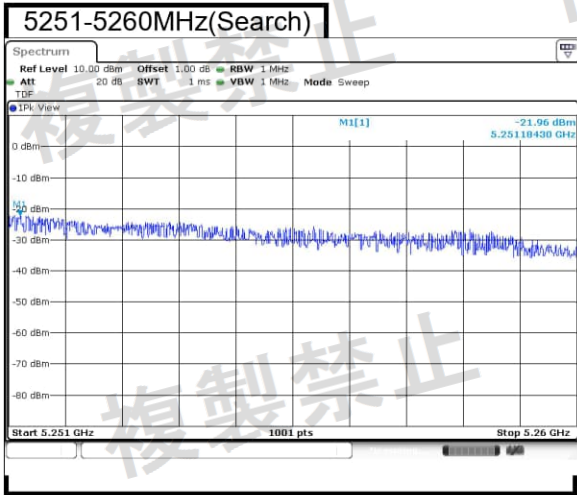
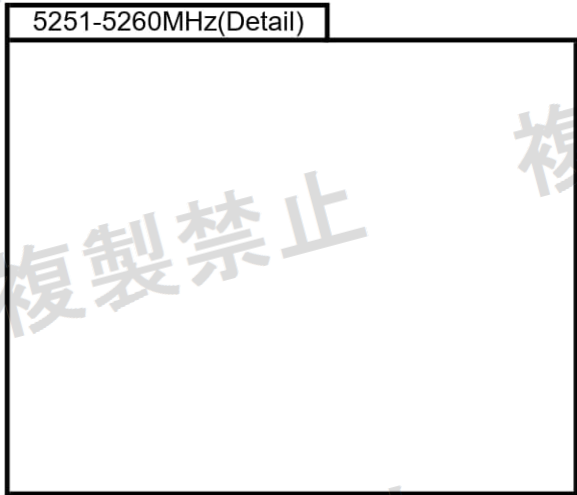
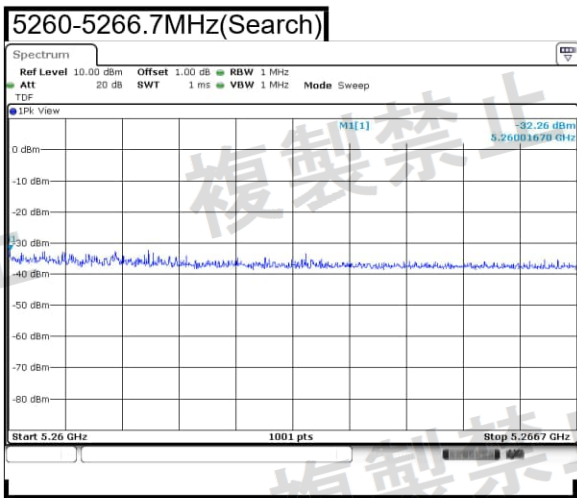
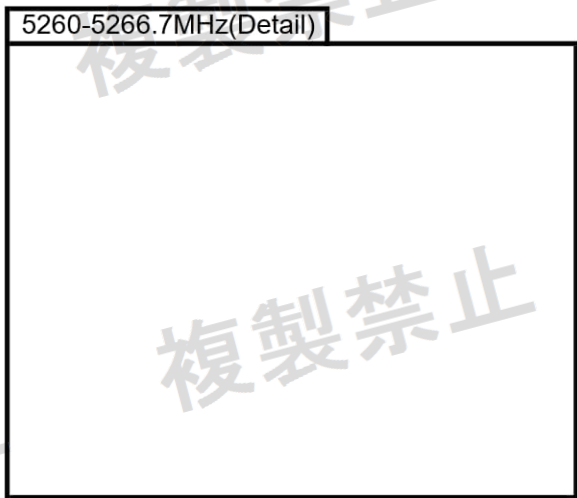






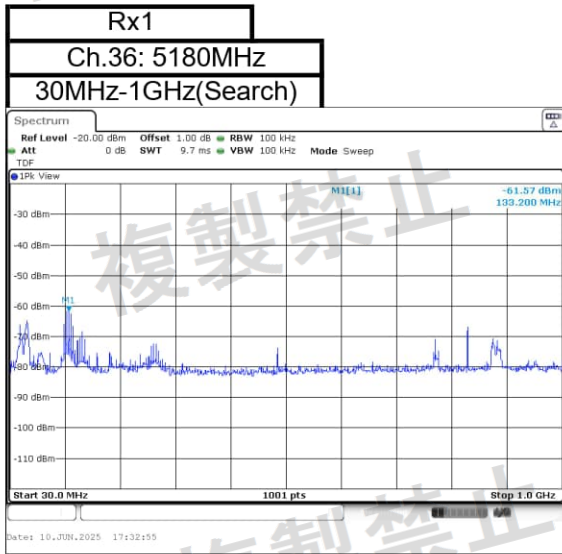
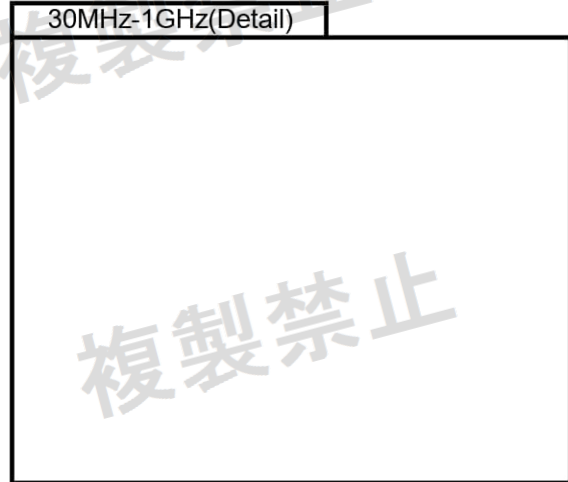
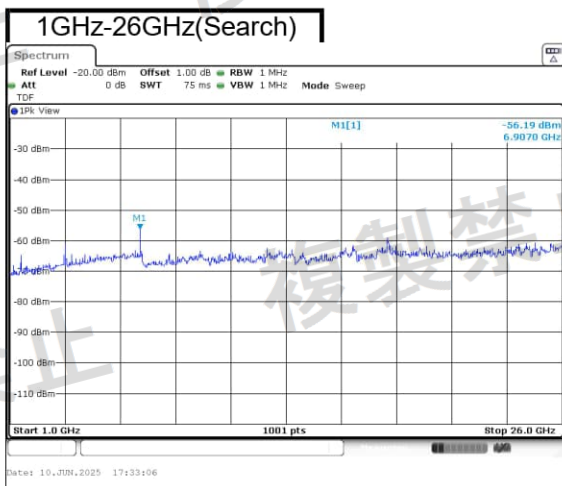
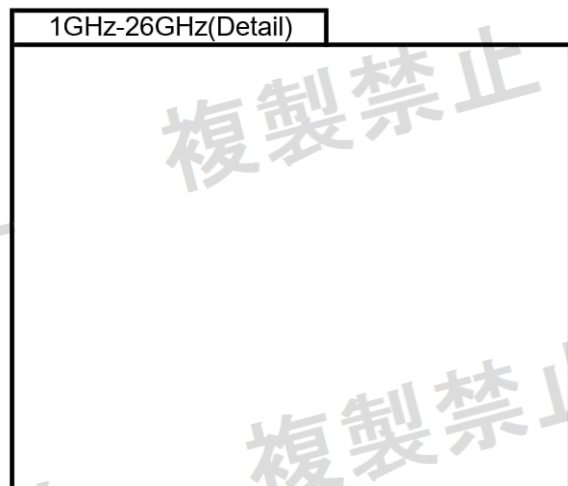
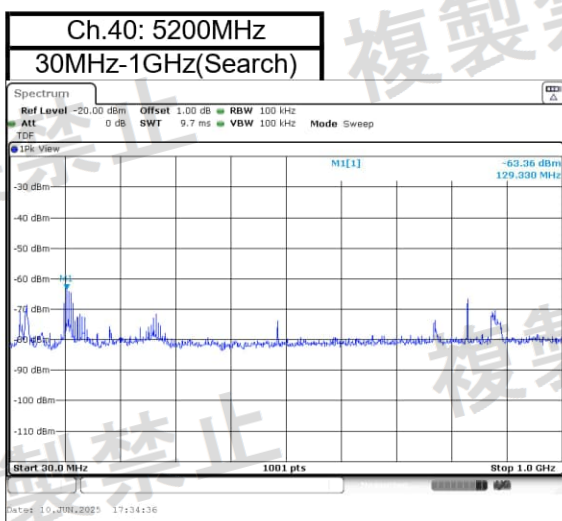
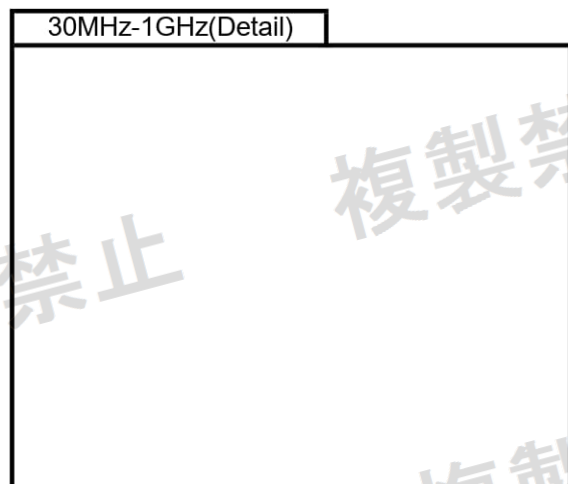


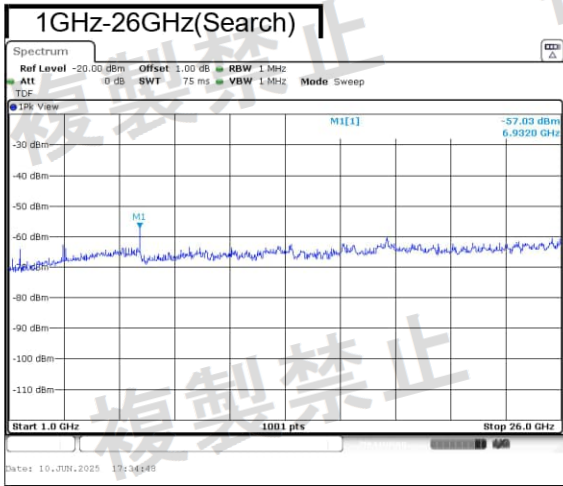
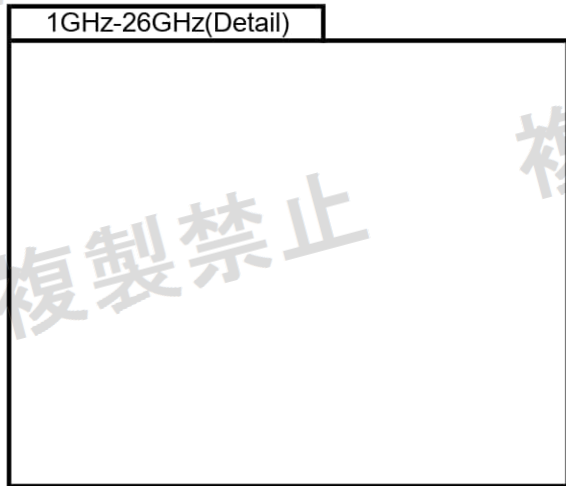
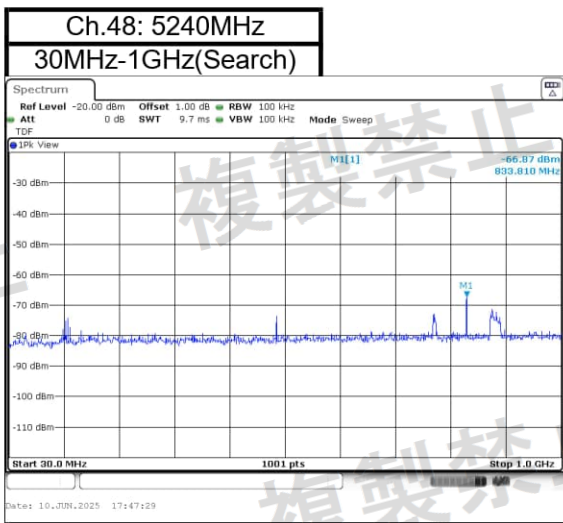
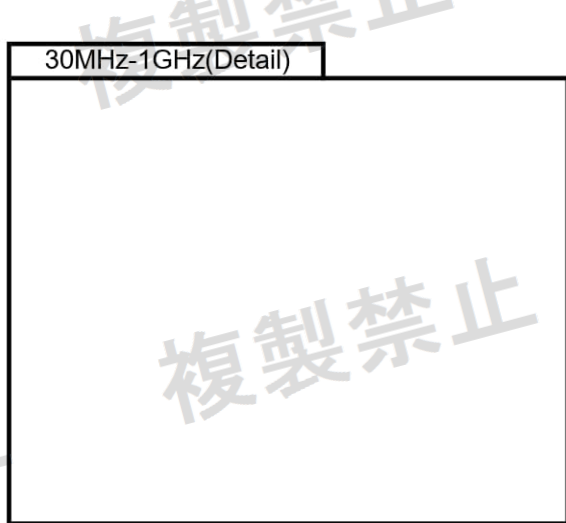
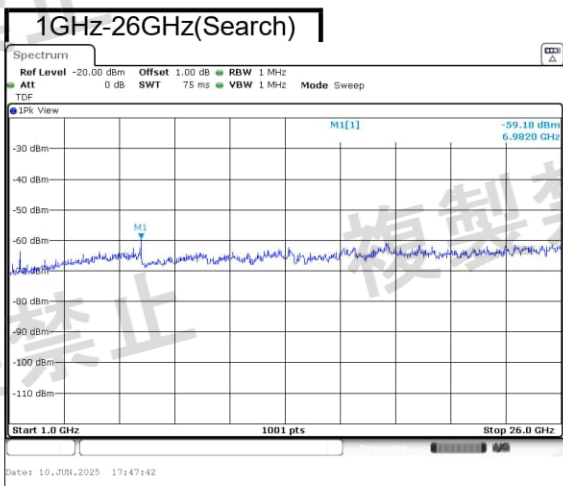
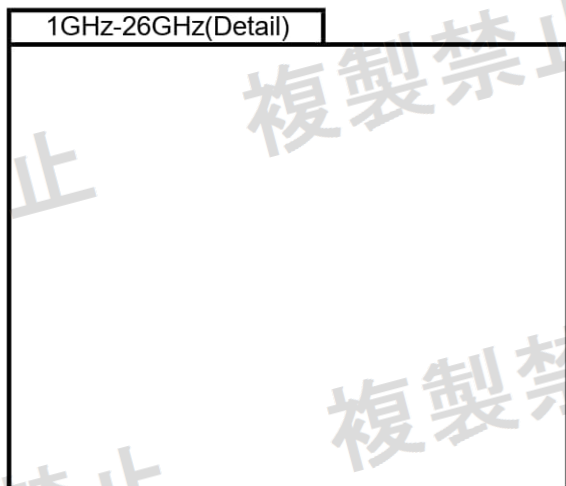


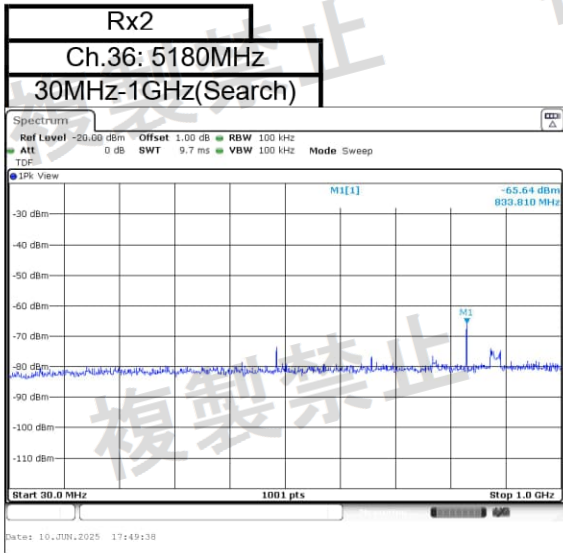
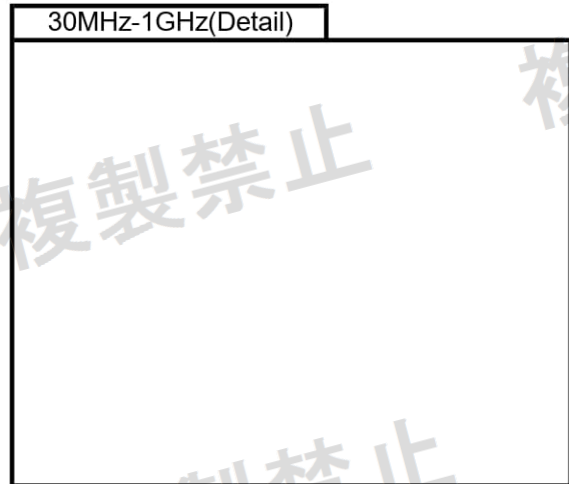
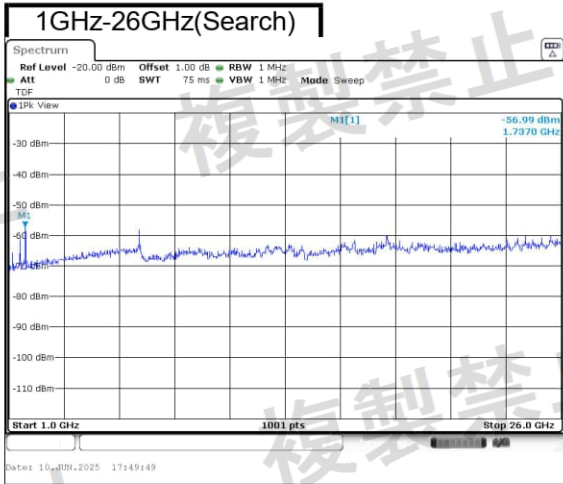
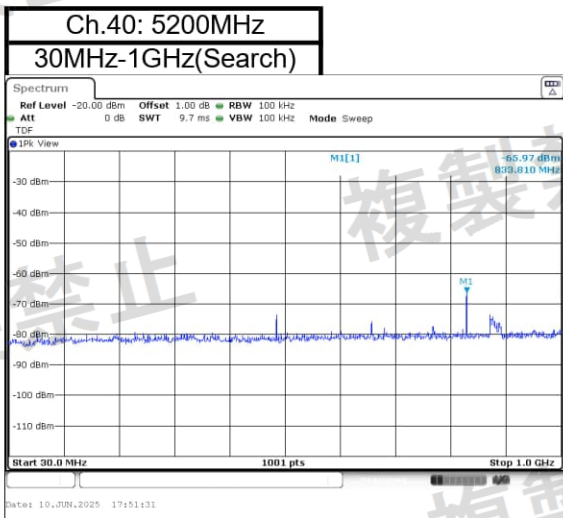
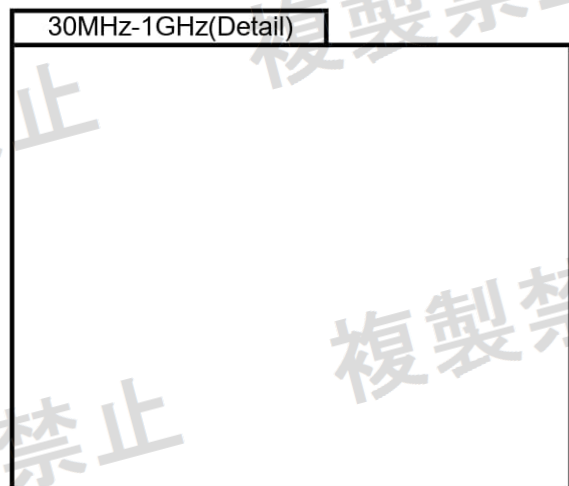


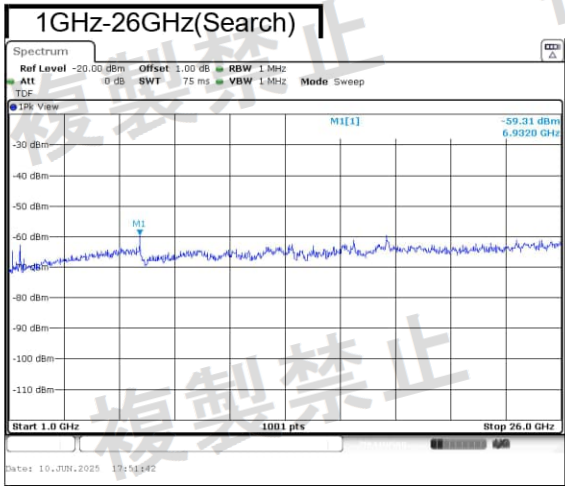
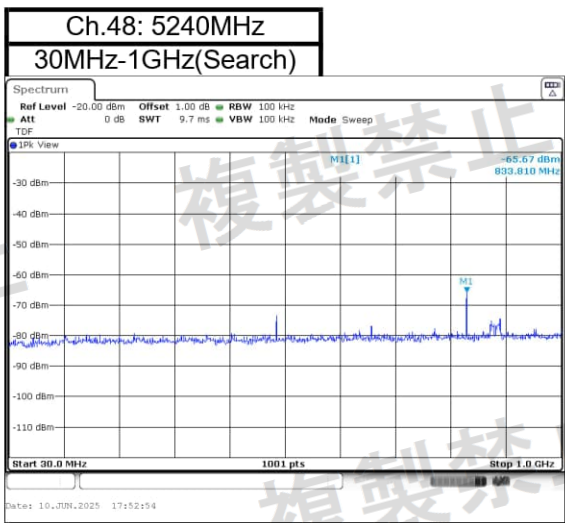
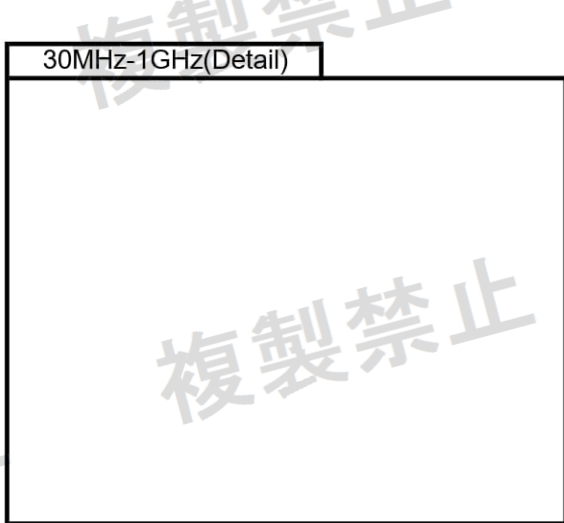
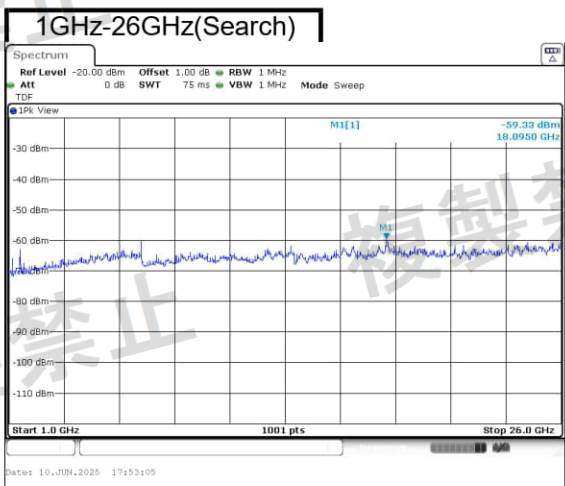
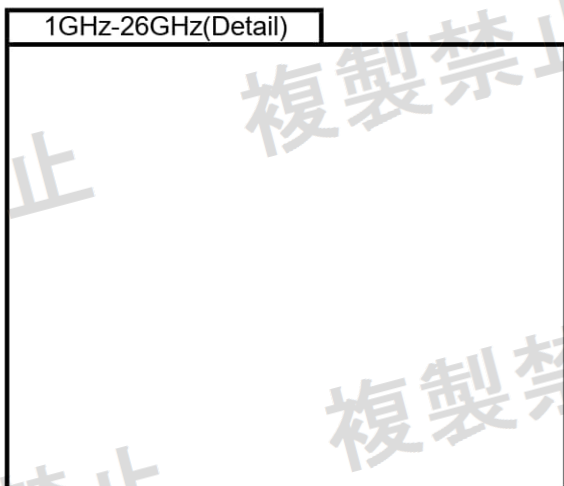
7. Test chart

7.7 Secondary emitted radio wave strength (Rated voltage)



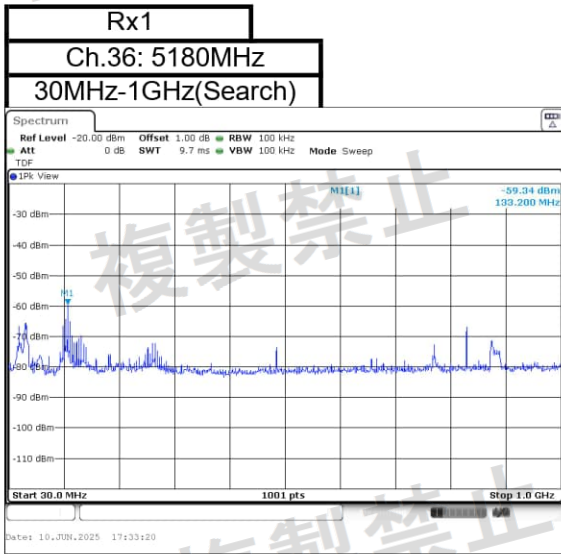
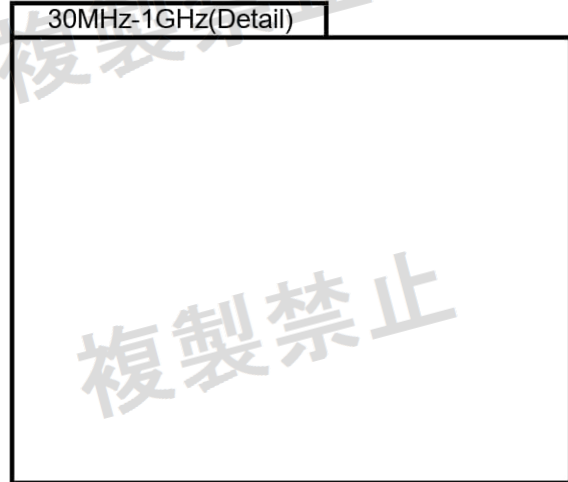
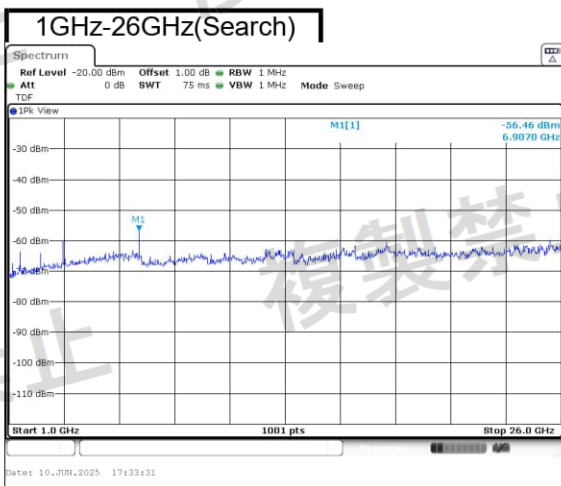
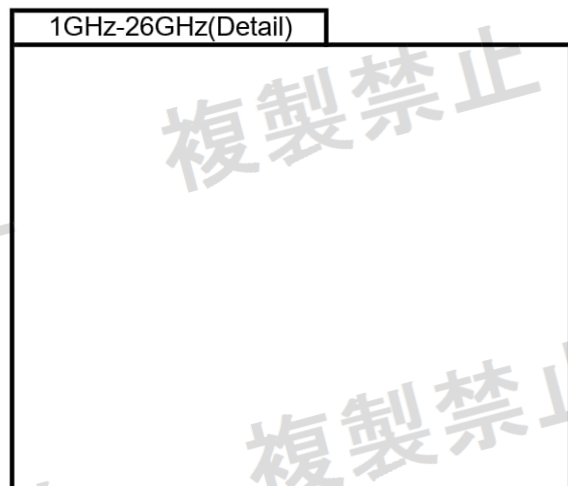
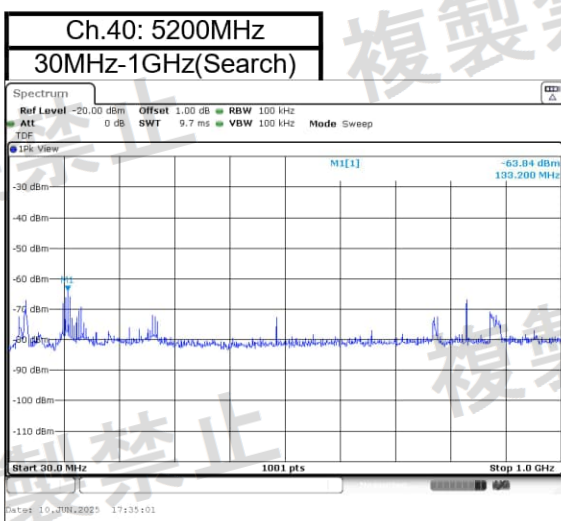
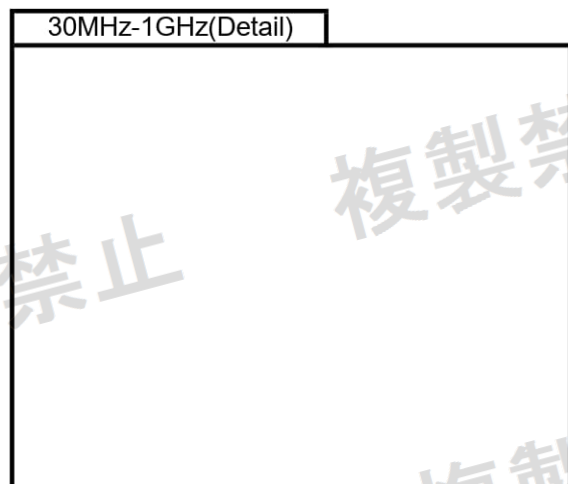


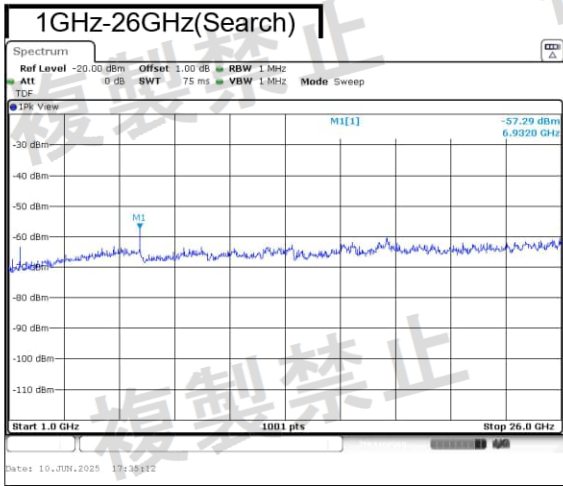
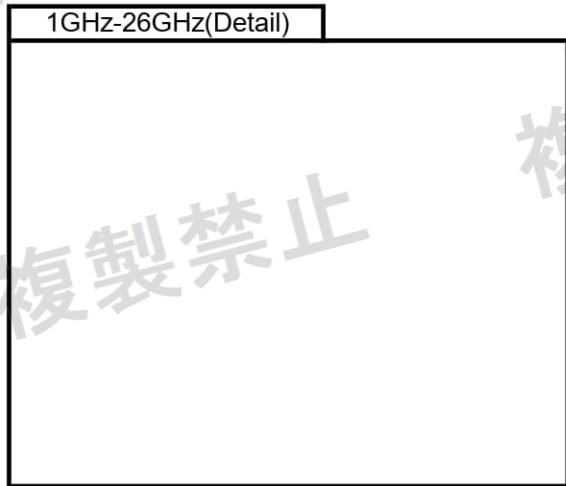
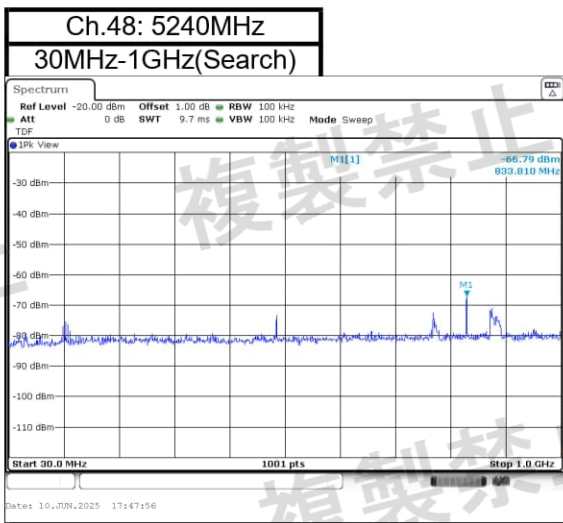
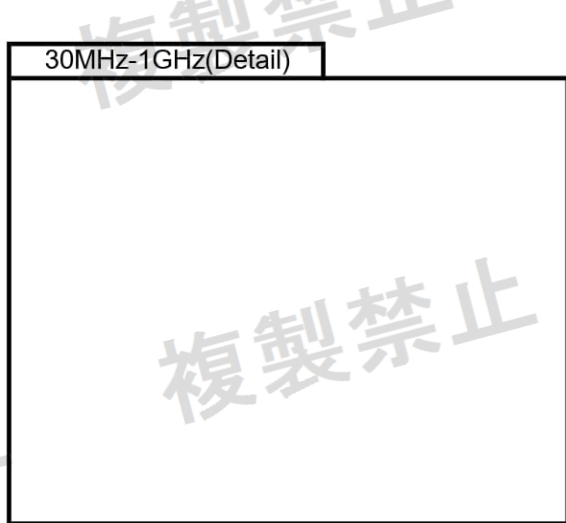
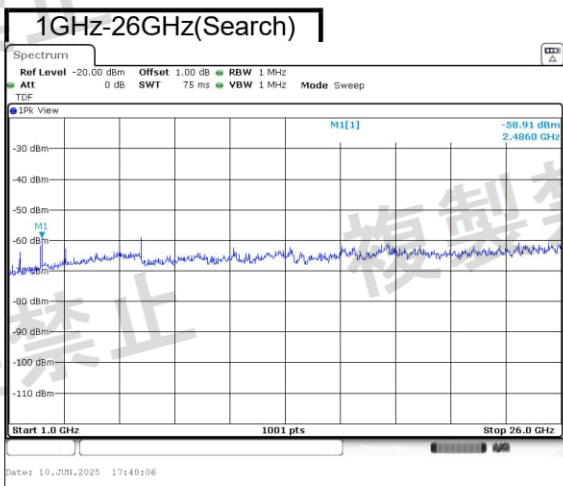
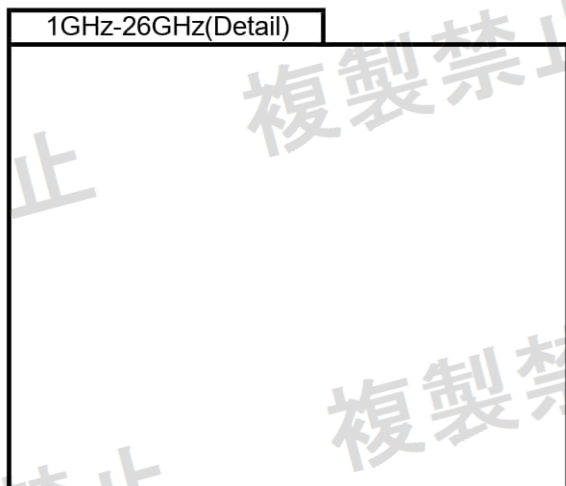


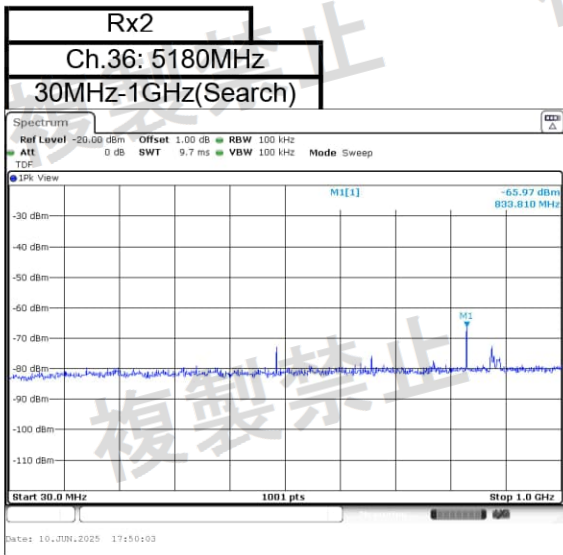
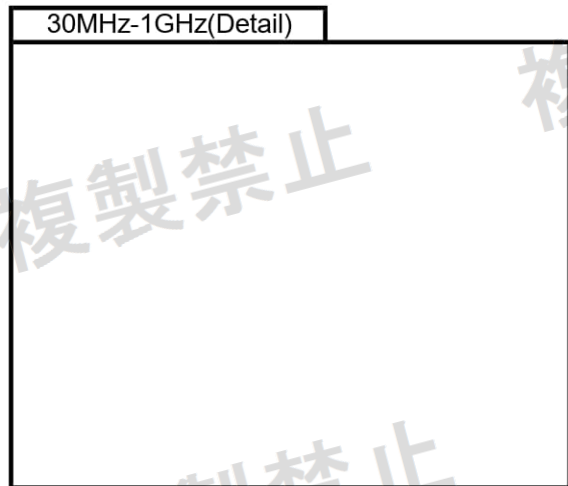
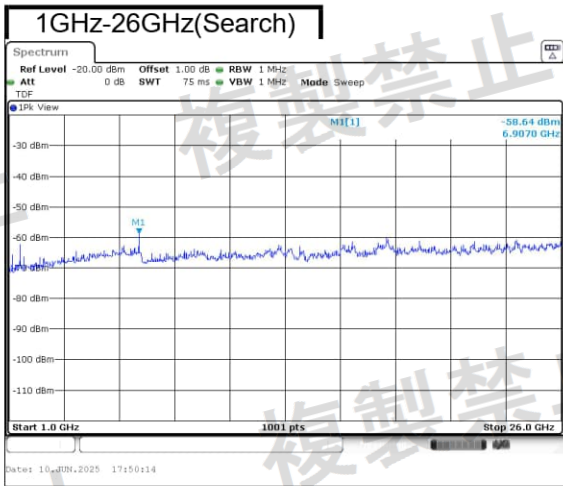
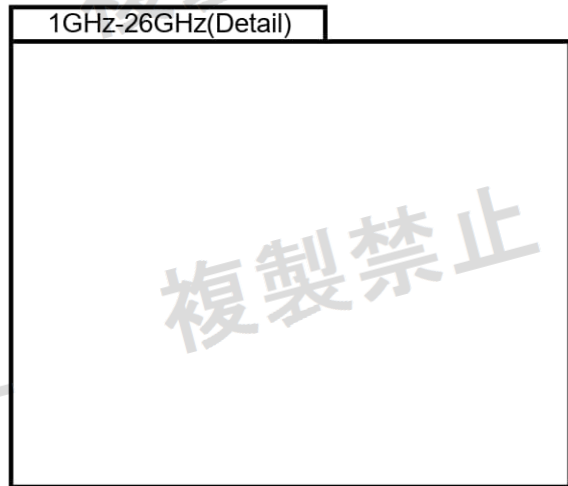
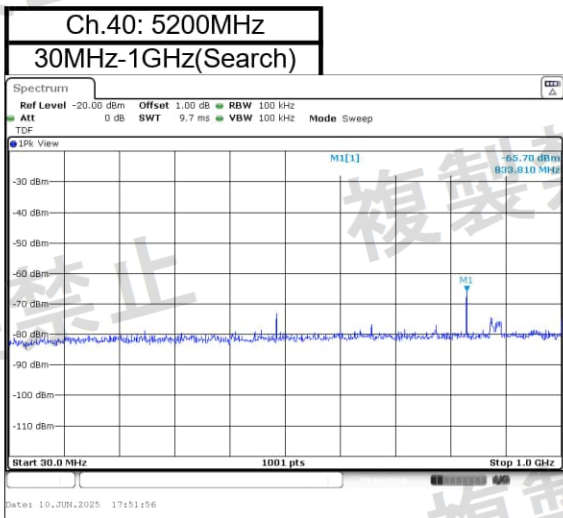
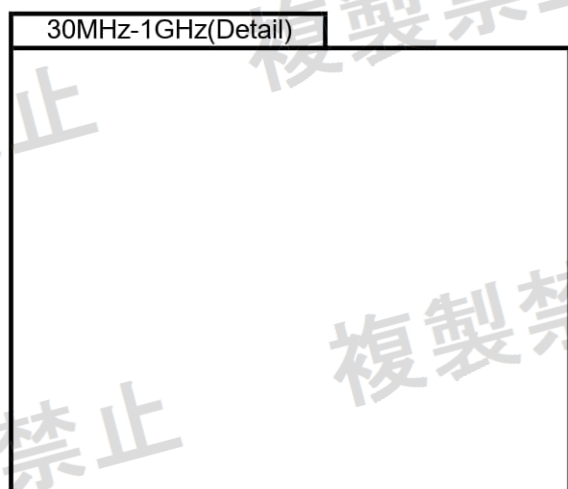


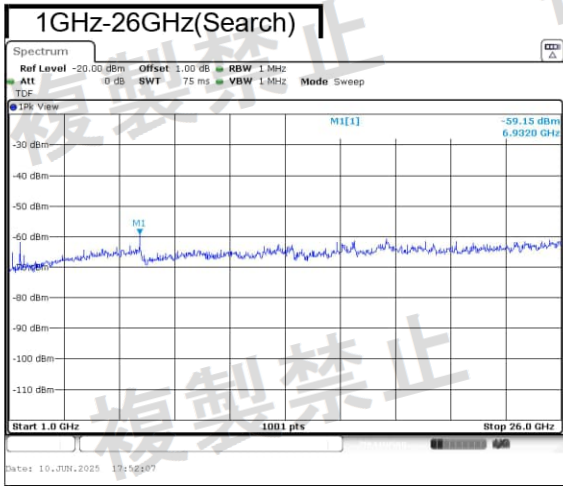
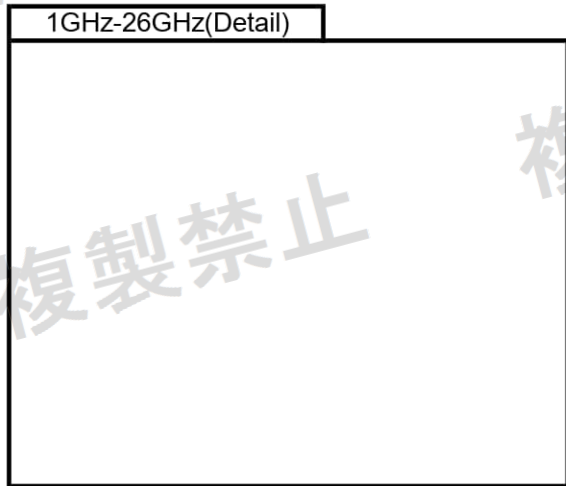
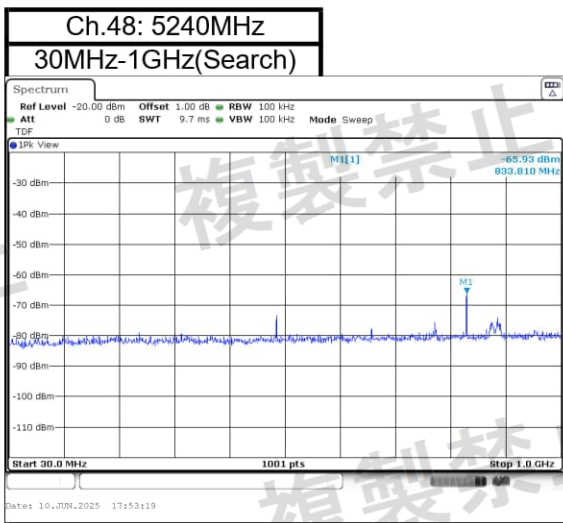
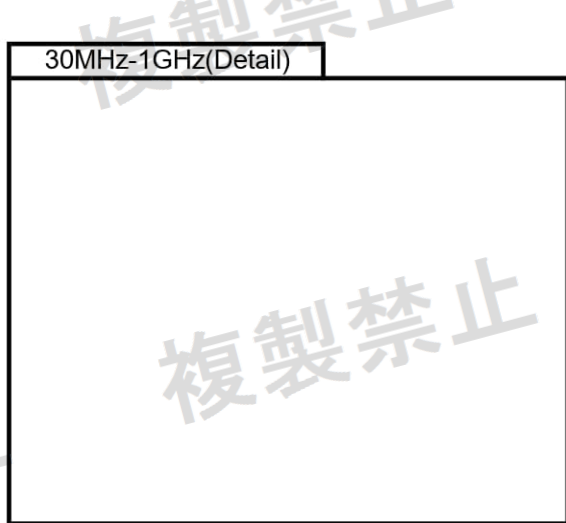
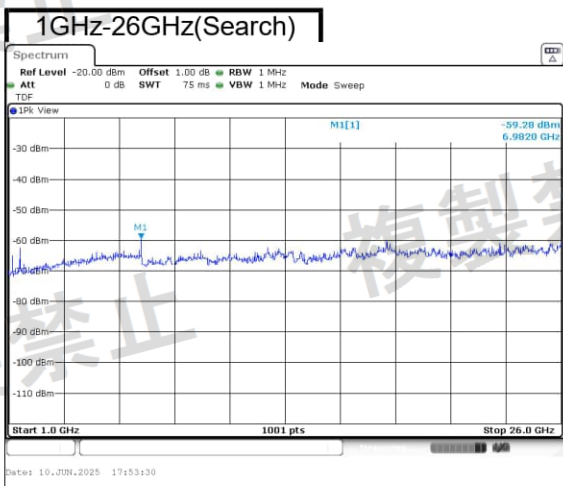
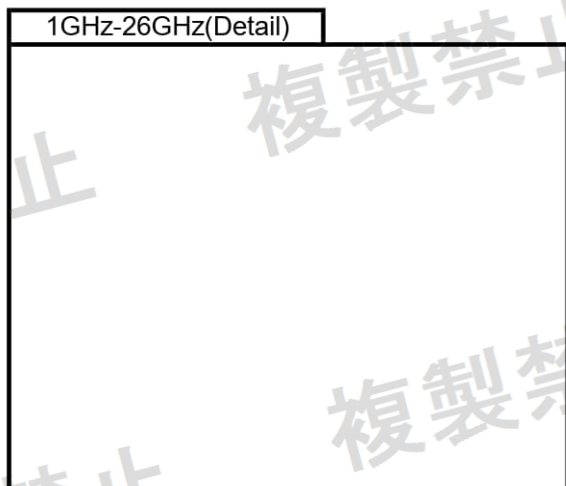
7. Test chart

7.7 Secondary emitted radio wave strength (-10% voltage)



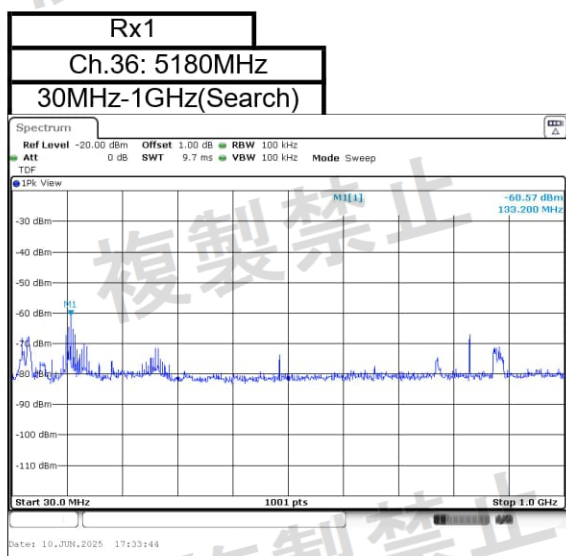
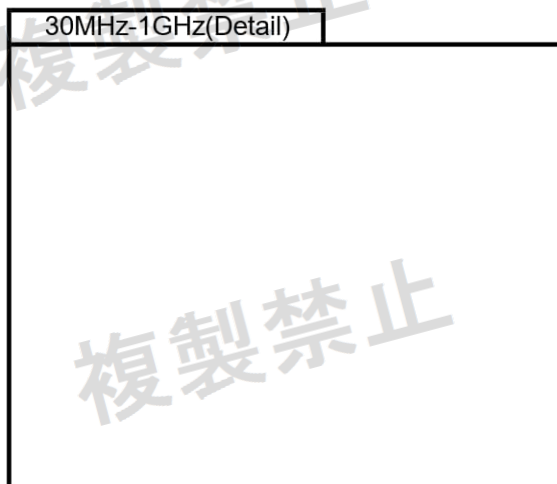
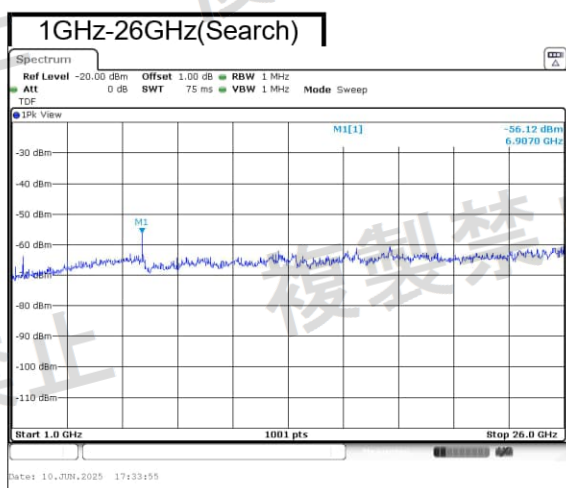
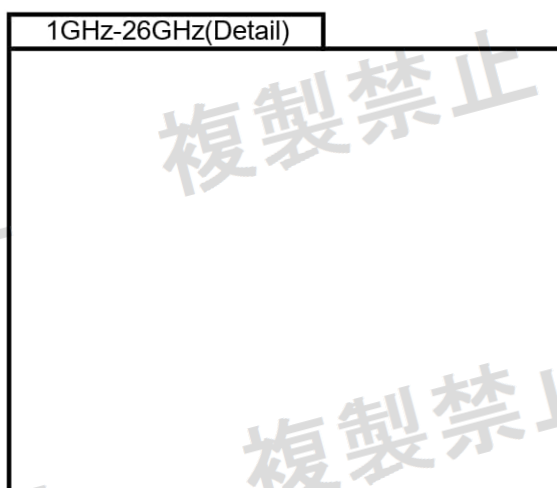
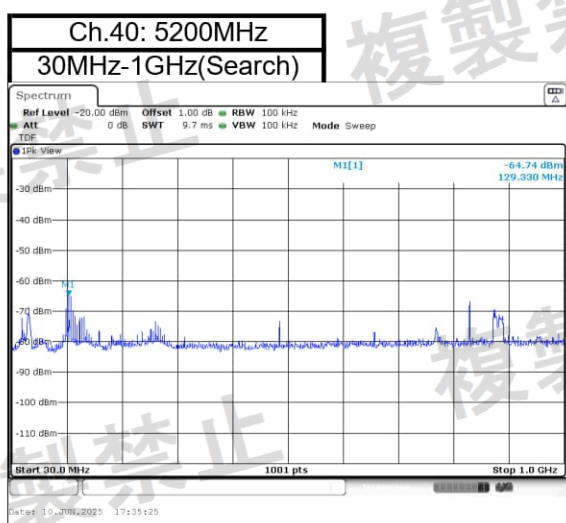
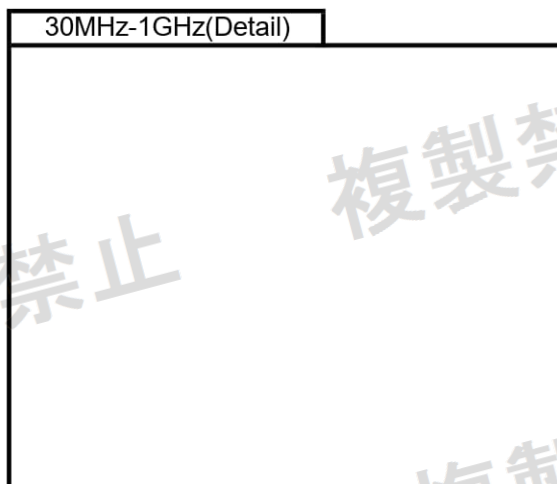


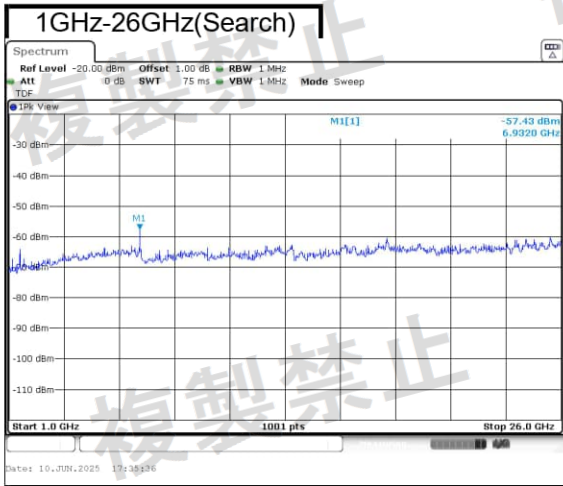
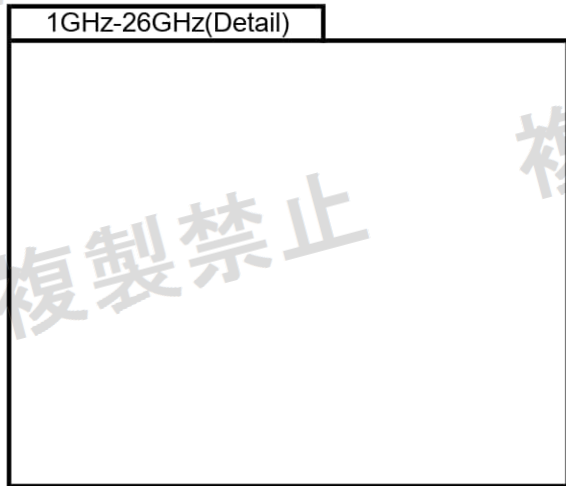
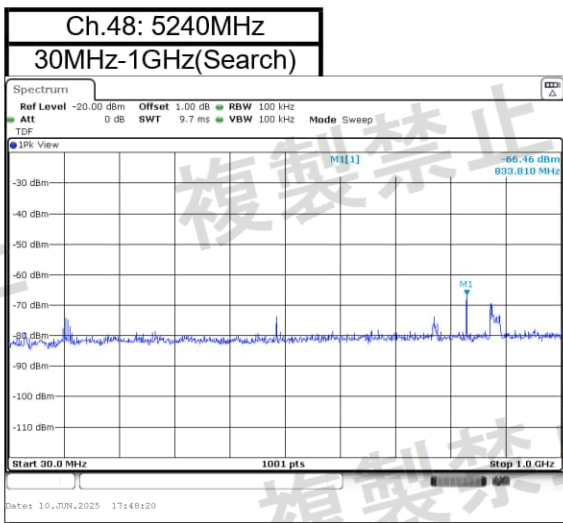
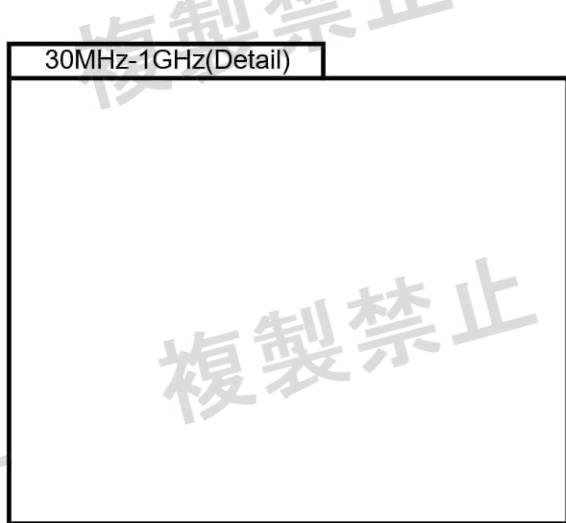
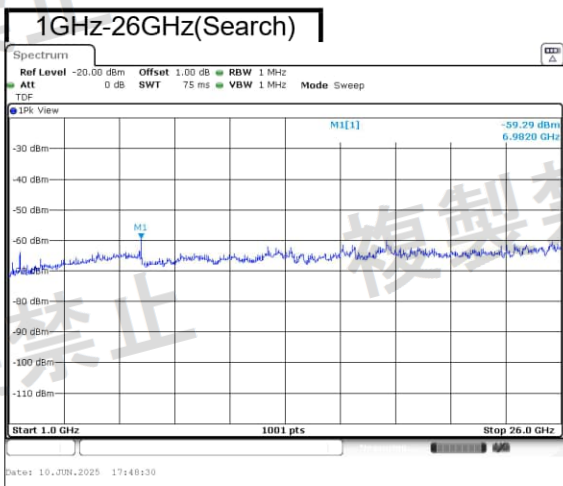
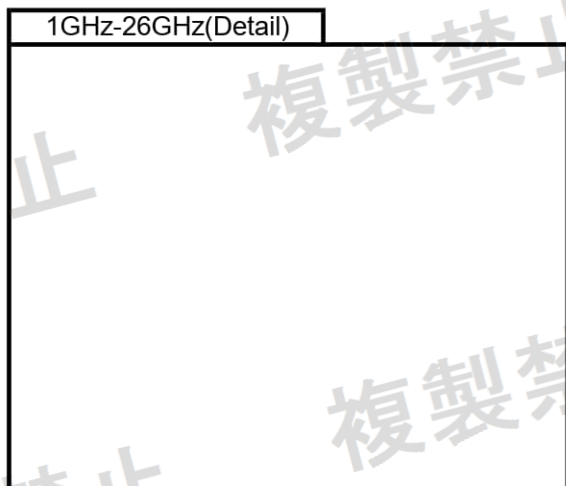


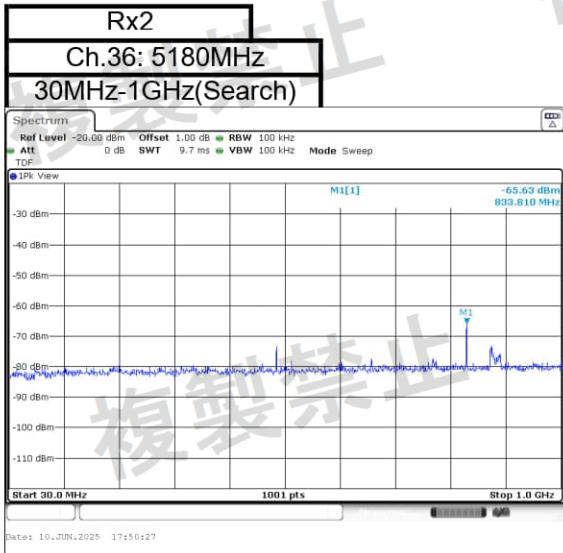
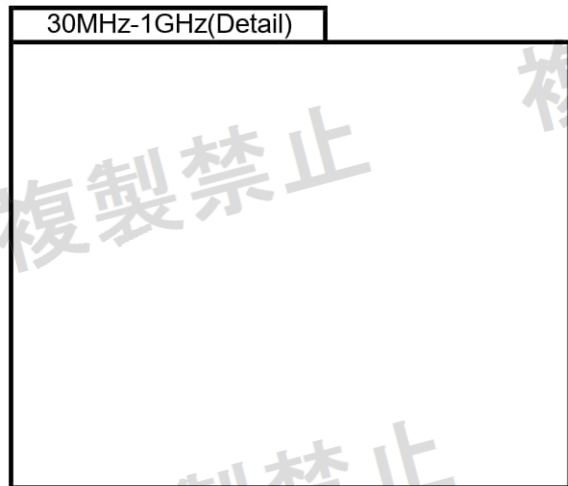
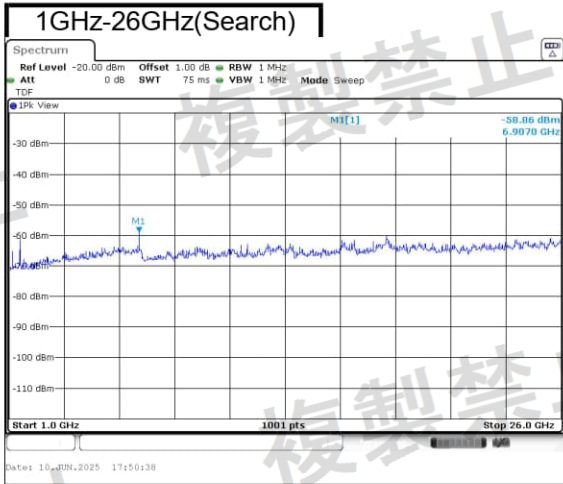
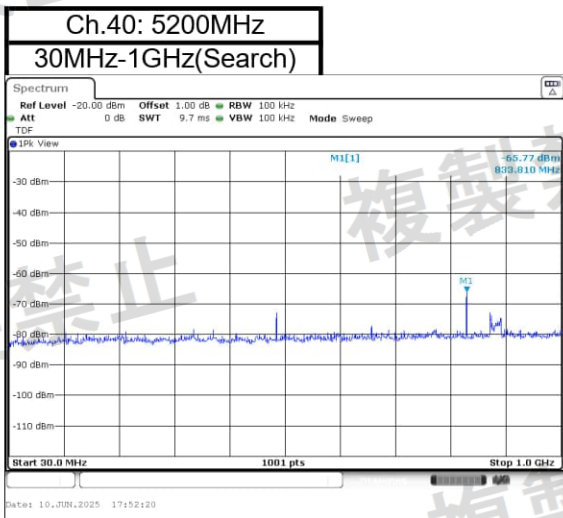
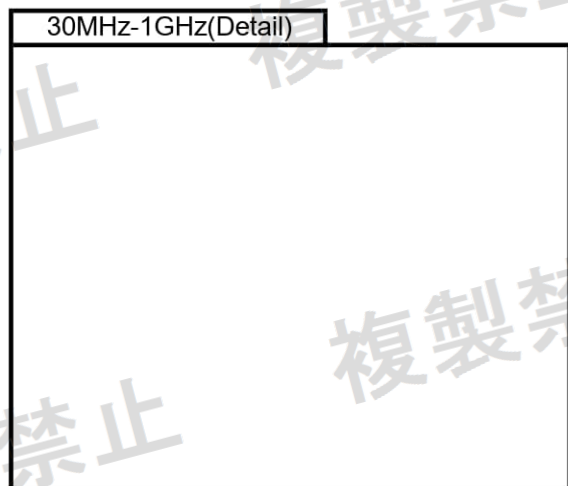


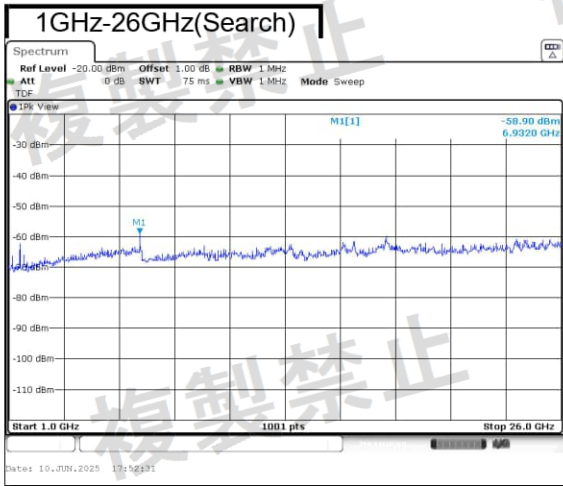
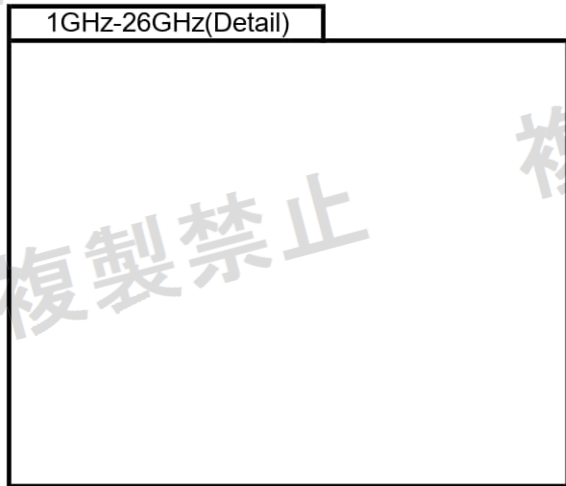
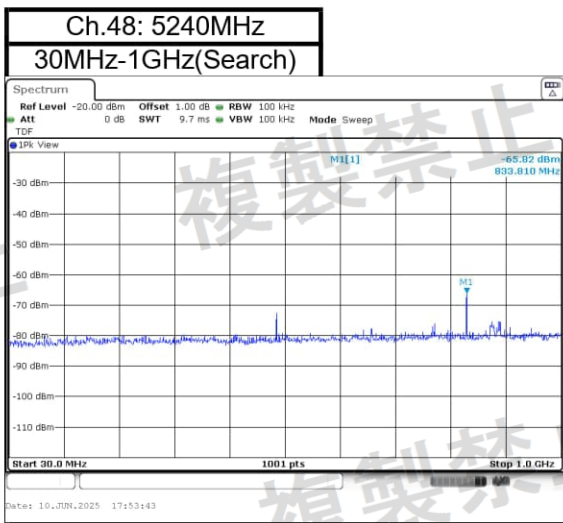
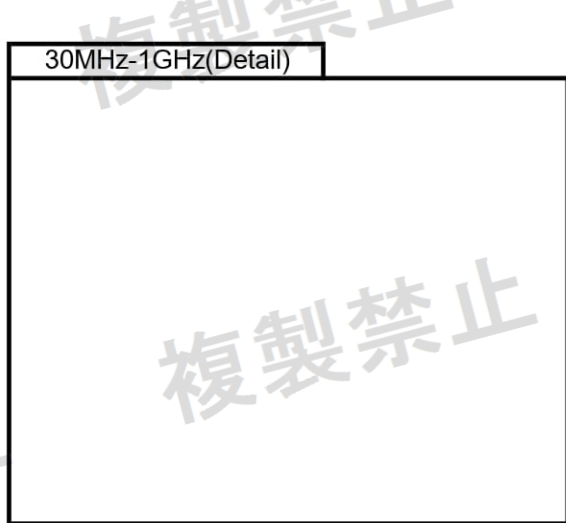
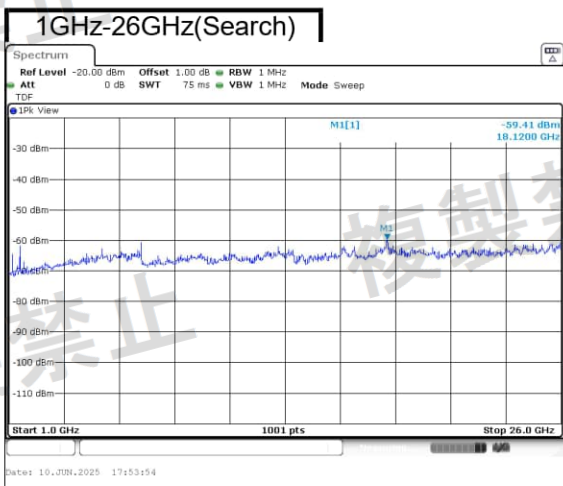
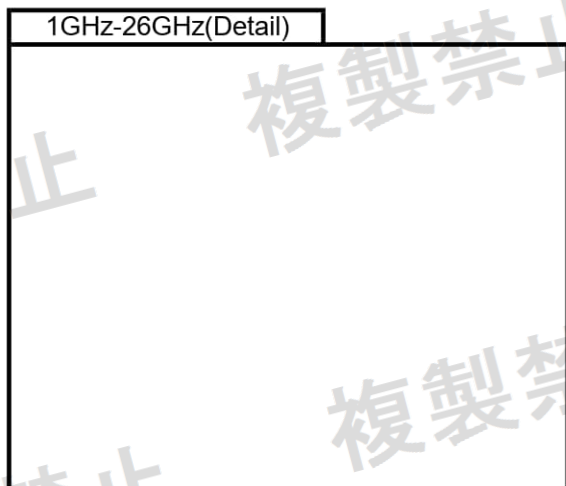
7. Test chart

7.7 Secondary emitted radio wave strength (+10% voltage)



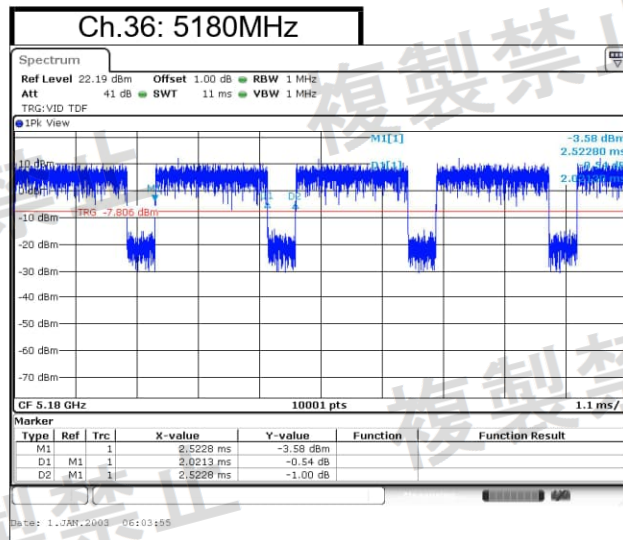






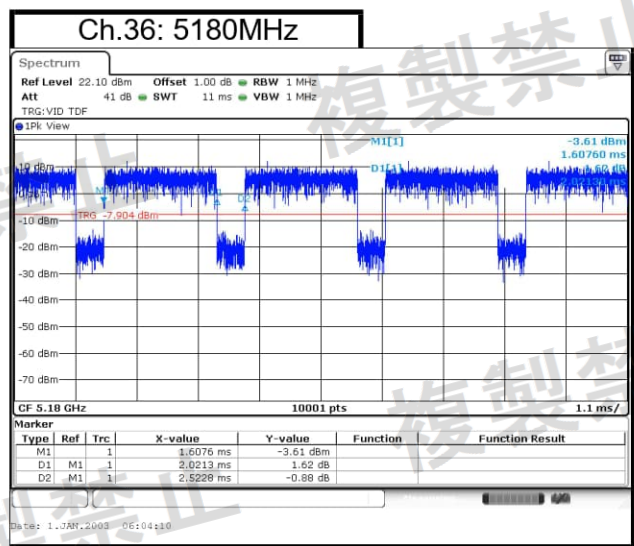
7. Test chart

7.8 Burst Length of Transmitted Signals (Rated voltage)



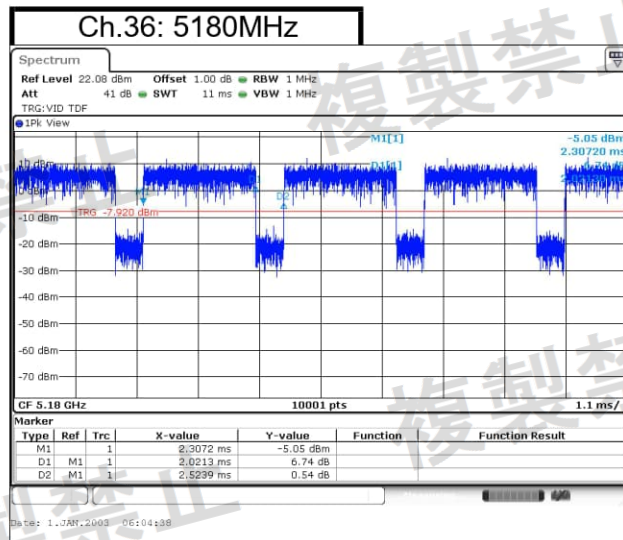
7. Test chart

7.8 Burst Length of Transmitted Signals (-10% voltage)



7. Test chart

7.8 Burst Length of Transmitted Signals (+10% voltage)



3. Test results (Rated voltage)

S/N : G51031600121

Environment of test room	Date of test	2025-06-05
	Temperature	23 °C
	Humidity	52 %

Peak Antenna Gain	2.00	dBi
Declaration Output Power	5.80	mW/MHz
	7.63	dBm/MHz
E.I.R.P	9.19	mW/MHz
	9.63	dBm/MHz
Input Power Voltage	11.10	VDC

Test category		IEEE802.11n20 / MIMO(2TX)	
Tested Circuit Insertion Loss		0.00	dB
Transmission Time	ON TIME (1sec or less)	0.97	ms
	OFF TIME (0.1sec or more)	0.50	ms
	Ratio	0.66	%

Using TDF and offset function in Spectrum Analyzer.

Measurement of plots are included Loss value.

(Att : 10dB + Cable loss + EUT cable: 1dB offset)

Test category : 5GHz Band Low-Power Data Communication System (802.11n20 W52/MIMO(2TX))

Note: The year displayed as 2003 on the Test Chart (spectrum measurement screen) is due to a display error. This issue is limited to the display only and does not affect the measurement results. The actual test period was from May 30, 2025 to June 27, 2025.

Measurement Channel	Ch.	36	40	48		
Measurement Frequency	MHz	5180	5200	5240	Result	Limit
Frequency Measurements(Tx1)	MHz	5179.966	5199.907	5239.905	----	----
Frequency Tolerance(Tx1)	ppm	-6.52	-17.91	-18.13	PASS	$\pm 20 \times 10^{-6}$ (20ppm)
Frequency Measurements(Tx2)	MHz	5179.901	5199.916	5239.896	----	----
Frequency Tolerance(Tx2)	ppm	-19.18	-16.22	-19.80	PASS	$\pm 20 \times 10^{-6}$ (20ppm)
Occupied Bandwidth(Tx1)	MHz	18.18	19.28	17.68	PASS	20MHz or below
Occupied Bandwidth(Tx2)	MHz	18.98	19.25	17.68	PASS	20MHz or below
Occupied Bandwidth(Combiner)	MHz	17.88	18.38	17.66	PASS	20MHz or below
RF Output Power(Tx1)	mW/MHz	2.22	2.29	0.46	PASS	10mW/MHz or below
RF Output Power(Tx2)	mW/MHz	3.27	3.11	0.74	PASS	10mW/MHz or below
RF Output Power (Tx1+2)	mW/MHz	5.49	5.40	1.19	PASS	10mW/MHz or below
RF Output Power Tolerance (Tx1+2)	%	-5.33	-6.86	-79.45	PASS	+20% to -80%

Measurement Channel		Ch.	36	40	48	Result	Limit
Measurement Frequency		MHz	5180	5200	5240		
Unwanted (Spurious) Emission Strength (Tx1)	30MHz to 5142MHz	uW/MHz	0.60	0.44	0.44	PASS	2.5uW/MHz or below
		MHz	5139.40	4327.50	4398.90	----	----
	5266.7MHz to 26GHz	uW/MHz	0.92	0.94	1.16	PASS	2.5uW/MHz or below
		MHz	25140.70	18056.70	18077.70	----	----
Unwanted (Spurious) Emission Strength (Tx2)	30MHz to 5142MHz	uW/MHz	1.10	0.42	0.47	PASS	2.5uW/MHz or below
		MHz	5139.40	5032.20	5134.30	----	----
	5266.7MHz to 26GHz	uW/MHz	0.85	0.99	1.00	PASS	2.5uW/MHz or below
		MHz	18097.70	18097.70	18097.70	----	----
Unwanted (Spurious) Emission Strength (Tx1+2)	30MHz to 5142MHz	uW/MHz	1.70	0.87	0.91	PASS	2.5uW/MHz or below
		----	----	----	----	----	----
	5266.7MHz to 26GHz	uW/MHz	1.77	1.93	2.16	PASS	2.5uW/MHz or below
		----	----	----	----	----	----
Adjacent Channel Leakage Power (Tx1)	cf	dB	12.55	12.83	6.37	----	----
	cf -20MHz	dB	-29.92	-27.86	-43.44	PASS	-25dBc or below
	cf +20MHz	dB	-28.06	-26.43	-42.64	PASS	-25dBc or below
	cf -40MHz	dB	-45.65	-45.13	-46.13	PASS	-40dBc or below
	cf +40MHz	dB	-44.72	-44.50	-46.33	PASS	-40dBc or below
Adjacent Channel Leakage Power (Tx2)	cf	dB	13.70	12.95	9.17	----	----
	cf -20MHz	dB	-27.26	-26.61	-40.45	PASS	-25dBc or below
	cf +20MHz	dB	-26.55	-25.64	-38.67	PASS	-25dBc or below
	cf -40MHz	dB	-46.23	-45.13	-47.96	PASS	-40dBc or below
	cf +40MHz	dB	-46.09	-45.35	-47.97	PASS	-40dBc or below
Adjacent Channel Leakage Power (Combiner)	cf	dB	13.23	13.59	7.71	----	----
	cf -20MHz	dB	-30.99	-27.57	-44.27	PASS	-25dBc or below
	cf +20MHz	dB	-30.13	-26.69	-42.97	PASS	-25dBc or below
	cf -40MHz	dB	-46.47	-45.35	-47.32	PASS	-40dBc or below
	cf +40MHz	dB	-46.54	-45.32	-47.59	PASS	-40dBc or below

Measurement Channel		Ch.	36	40	48		
Measurement Frequency		MHz	5180	5200	5240	Result	Limit
Out-Band Leakage Power (Tx1)	5142 to 5150MHz	uW/MHz	3.60	1.00	0.50	PASS	15uW/MHz or below
		MHz	5149.92	5149.98	5146.41	----	----
	5250 to 5250.2MHz	uW/MHz	0.42	0.83	35.97	PASS	$10^{-1-(8/3)(f-9.75)}$ mW/MHz or below
		MHz	5250.07	5250.19	5250.00	----	----
	5251 to 5260MHz	uW/MHz	0.55	0.76	6.52	PASS	$10^{-1-(8/90)(f-11)}$ mW/MHz or below
		MHz	5253.36	5252.44	5254.14	----	----
	Limit	uW/MHz	61.69	74.43	52.57	----	----
	5260 to 5266.7MHz	uW/MHz	0.53	0.55	2.47	PASS	$10^{-1.8-(6/50)(f-20)}$ mW/MHz or below
		MHz	5266.32	5266.06	5260.73	----	----
	Limit	uW/MHz	2.76	2.97	12.97	----	----
Out-Band Leakage Power (Tx2)	5142 to 5150MHz	uW/MHz	3.03	0.86	0.51	PASS	15uW/MHz or below
		MHz	5149.98	5149.33	5145.61	----	----
	5250 to 5250.2MHz	uW/MHz	0.39	0.59	47.64	PASS	$10^{-1-(8/3)(f-9.75)}$ mW/MHz or below
		MHz	5250.04	5250.07	5250.00	----	----
	Limit	uW/MHz	1695.64	1445.44	2102.16	----	----
	5250.2 to 5251MHz	uW/MHz	0.41	0.61	25.47	PASS	$10^{-1-(f-9)}$ mW/MHz or below
		MHz	5250.70	5250.37	5250.20	----	----
	Limit	uW/MHz	201.37	426.58	626.61	----	----
	5251 to 5260MHz	uW/MHz	0.50	0.71	18.32	PASS	$10^{-1-(8/90)(f-11)}$ mW/MHz or below
		MHz	5253.20	5251.51	5251.93	----	----
	Limit	uW/MHz	63.77	90.12	82.65	----	----
	5260 to 5266.7MHz	uW/MHz	0.52	0.49	2.56	PASS	$10^{-1.8-(6/50)(f-20)}$ mW/MHz or below
		MHz	5265.43	5263.87	5260.57	----	----
	Limit	uW/MHz	3.53	5.45	13.53	----	----
Out-Band Leakage Power (Tx1+2)	5142 to 5150MHz	uW/MHz	6.63	1.86	1.01	PASS	15uW/MHz or below
		----	----	----	----	----	----
	5250 to 5250.2MHz	uW/MHz	0.81	1.42	83.62	PASS	$10^{-1-(8/3)(f-9.75)}$ mW/MHz or below
		MHz	5250.07	5250.19	5250.00	----	----
	Limit	uW/MHz	1427.80	666.81	2102.16	----	----
	5250 to 5251MHz	uW/MHz	0.87	1.50	42.53	PASS	$10^{-1-(f-9)}$ mW/MHz or below
		MHz	5250.92	5250.43	5250.20	----	----
	Limit	uW/MHz	121.06	370.68	626.61	----	----
	5251 to 5260MHz	uW/MHz	1.04	1.48	24.84	PASS	$10^{-1-(8/90)(f-11)}$ mW/MHz or below
		MHz	5253.36	5252.44	5254.14	----	----
	Limit	uW/MHz	61.69	74.43	52.57	----	----
	5260 to 5266.7MHz	uW/MHz	1.05	1.04	5.02	PASS	$10^{-1.8-(6/50)(f-20)}$ mW/MHz or below
MHz		5266.32	5266.06	5260.73	----	----	
Limit	uW/MHz	2.76	2.97	12.97	----	----	
Out-Band Leakage Power (Combiner)	5142 to 5150MHz	uW/MHz	2.72	0.56	0.60	PASS	15uW/MHz or below
		MHz	5149.96	5148.80	5146.41	----	----
	5250 to 5250.2MHz	uW/MHz	0.28	0.46	35.73	PASS	$10^{-1-(8/3)(f-9.75)}$ mW/MHz or below
		MHz	5250.12	5250.15	5250.00	----	----
	Limit	uW/MHz	1043.92	873.64	2141.25	----	----
	5250.2 to 5251MHz	uW/MHz	0.28	0.38	16.98	PASS	$10^{-1-(f-9)}$ mW/MHz or below
		MHz	5250.43	5250.21	5250.20	----	----
	Limit	uW/MHz	375.84	612.35	629.51	----	----
	5251 to 5260MHz	uW/MHz	0.50	0.56	4.69	PASS	$10^{-1-(8/90)(f-11)}$ mW/MHz or below
		MHz	5254.46	5251.96	5252.05	----	----
	Limit	uW/MHz	49.28	82.19	80.69	----	----
	5260 to 5266.7MHz	uW/MHz	0.67	0.57	0.97	PASS	$10^{-1.8-(6/50)(f-20)}$ mW/MHz or below
		MHz	5263.62	5261.24	5261.20	----	----
	Limit	uW/MHz	5.82	11.27	11.37	----	----

Measurement Channel		Ch.	36	40	48		
Measurement Frequency		MHz	5180	5200	5240	Result	Limit
Secondary Emitted Radio Wave Strength (Rx1)	30MHz to 1000MHz	nW	0.21	0.20	0.20	PASS	4nW or below
		MHz	833.81	833.81	833.81	----	----
	1GHz to 26GHz	nW	2.53	1.56	1.41	PASS	20nW or below
		MHz	6907.00	6932.00	6982.00	----	----
Secondary Emitted Radio Wave Strength (Rx2)	30MHz to 1000MHz	nW	0.30	0.30	0.30	PASS	4nW or below
		MHz	833.81	833.81	833.81	----	----
	1GHz to 26GHz	nW	1.17	1.32	1.12	PASS	20nW or below
		MHz	6907.00	6932.00	18120.00	----	----
Secondary Emitted Radio Wave Strength (Rx1+2)	30MHz to 1000MHz	nW	0.51	0.50	0.50	PASS	4nW or below
		----	----	----	----	----	----
	1GHz to 26GHz	nW	3.70	2.88	2.53	PASS	20nW or below
		----	----	----	----	----	----
Burst Length of Transmitted Signals		----	Good	Good	Good	PASS	8ms or below
Carrier Sensing Function		----	Good	Good	Good	PASS	100mV/m
Interference Prevention Function		----	Good			PASS	

3. Test results (-10% voltage)

S/N : G51031600121

Environment of test room	Date of test	2025-06-05
	Temperature	23 °C
	Humidity	52 %

Peak Antenna Gain	2.00	dBi
Declaration Output Power	5.80	mW/MHz
	7.63	dBm/MHz
E.I.R.P	9.19	mW/MHz
	9.63	dBm/MHz
Input Power Voltage	9.99	VDC

Test category		IEEE802.11n20 / MIMO(2TX)	
Tested Circuit Insertion Loss		0.00	dB
Transmission Time	ON TIME (1sec or less)	0.97	ms
	OFF TIME (0.1sec or more)	0.50	ms
	Ratio	0.66	%

Using TDF and offset function in Spectrum Analyzer.

Measurement of plots are included Loss value.

(Att : 10dB + Cable loss + EUT cable: 1dB offset)

Test category : 5GHz Band Low-Power Data Communication System (802.11n20 W52/MIMO(2TX))

Note: The year displayed as 2003 on the Test Chart (spectrum measurement screen) is due to a display error. This issue is limited to the display only and does not affect the measurement results. The actual test period was from May 30, 2025 to June 27, 2025.

Measurement Channel	Ch.	36	40	48		
Measurement Frequency	MHz	5180	5200	5240	Result	Limit
Frequency Measurements(Tx1)	MHz	5180.083	5200.084	5239.904	----	----
Frequency Tolerance(Tx1)	ppm	15.93	16.11	-18.37	PASS	$\pm 20 \times 10^{-6}$ (20ppm)
Frequency Measurements(Tx2)	MHz	5179.907	5199.900	5239.901	----	----
Frequency Tolerance(Tx2)	ppm	-17.98	-19.23	-18.97	PASS	$\pm 20 \times 10^{-6}$ (20ppm)
Occupied Bandwidth(Tx1)	MHz	18.18	19.28	17.68	PASS	20MHz or below
Occupied Bandwidth(Tx2)	MHz	19.38	19.97	17.68	PASS	20MHz or below
Occupied Bandwidth(Combiner)	MHz	17.88	18.38	17.66	PASS	20MHz or below
RF Output Power(Tx1)	mW/MHz	2.08	2.10	0.47	PASS	10mW/MHz or below
RF Output Power(Tx2)	mW/MHz	3.16	3.00	0.74	PASS	10mW/MHz or below
RF Output Power (Tx1+2)	mW/MHz	5.24	5.10	1.21	PASS	10mW/MHz or below
RF Output Power Tolerance (Tx1+2)	%	-9.72	-12.11	-79.07	PASS	+20% to -80%

Measurement Channel		Ch.	36	40	48		
Measurement Frequency		MHz	5180	5200	5240	Result	Limit
Unwanted (Spurious) Emission Strength (Tx1)	30MHz to 5142MHz	uW/MHz	0.92	0.47	0.41	PASS	2.5uW/MHz or below
		MHz	5139.40	4741.10	4833.00	----	----
	5266.7MHz to 26GHz	uW/MHz	0.81	0.99	0.91	PASS	2.5uW/MHz or below
		MHz	18097.70	25492.70	25885.70	----	----
Unwanted (Spurious) Emission Strength (Tx2)	30MHz to 5142MHz	uW/MHz	1.13	0.51	0.42	PASS	2.5uW/MHz or below
		MHz	5139.40	4970.90	5083.30	----	----
	5266.7MHz to 26GHz	uW/MHz	1.65	0.85	1.17	PASS	2.5uW/MHz or below
		MHz	18097.70	18056.70	18077.70	----	----
Unwanted (Spurious) Emission Strength (Tx1+2)	30MHz to 5142MHz	uW/MHz	2.06	0.99	0.83	PASS	2.5uW/MHz or below
		----	----	----	----	----	----
	5266.7MHz to 26GHz	uW/MHz	2.46	1.84	2.08	PASS	2.5uW/MHz or below
		----	----	----	----	----	----
Adjacent Channel Leakage Power (Tx1)	cf	dB	12.91	12.35	6.11	----	----
	cf -20MHz	dB	-30.34	-27.62	-44.67	PASS	-25dBc or below
	cf +20MHz	dB	-28.35	-25.95	-43.17	PASS	-25dBc or below
	cf -40MHz	dB	-45.88	-44.61	-49.27	PASS	-40dBc or below
	cf +40MHz	dB	-45.15	-43.96	-49.32	PASS	-40dBc or below
Adjacent Channel Leakage Power (Tx2)	cf	dB	14.13	13.63	8.68	----	----
	cf -20MHz	dB	-28.04	-26.42	-39.73	PASS	-25dBc or below
	cf +20MHz	dB	-26.69	-26.00	-38.85	PASS	-25dBc or below
	cf -40MHz	dB	-46.57	-45.27	-47.34	PASS	-40dBc or below
	cf +40MHz	dB	-46.36	-45.75	-47.63	PASS	-40dBc or below
Adjacent Channel Leakage Power (Combiner)	cf	dB	13.62	13.42	7.65	----	----
	cf -20MHz	dB	-31.40	-27.12	-44.14	PASS	-25dBc or below
	cf +20MHz	dB	-29.57	-27.24	-42.93	PASS	-25dBc or below
	cf -40MHz	dB	-47.52	-45.06	-47.31	PASS	-40dBc or below
	cf +40MHz	dB	-47.45	-45.25	-47.48	PASS	-40dBc or below

Measurement Channel		Ch.	36	40	48		
Measurement Frequency		MHz	5180	5200	5240	Result	Limit
Out-Band Leakage Power (Tx1)	5142 to 5150MHz	uW/MHz	3.45	0.85	0.50	PASS	15uW/MHz or below
		MHz	5149.92	5148.06	5144.83	----	----
	5250 to 5250.2MHz	uW/MHz	0.42	0.96	36.81	PASS	$10^{-1-(8/3)(f-9.75)}$ mW/MHz or below
		MHz	5250.06	5250.01	5250.00	----	----
	5251 to 5260MHz	uW/MHz	0.48	0.67	5.89	PASS	$10^{-1-(8/90)(f-11)}$ mW/MHz or below
		MHz	5258.89	5254.17	5254.29	----	----
	Limit	uW/MHz	19.89	52.28	51.04	----	----
	5260 to 5266.7MHz	uW/MHz	0.60	0.52	2.35	PASS	$10^{-1.8-(6/50)(f-20)}$ mW/MHz or below
		MHz	5260.88	5261.88	5260.79	----	----
	Limit	uW/MHz	12.43	9.43	12.75	----	----
Out-Band Leakage Power (Tx2)	5142 to 5150MHz	uW/MHz	3.52	1.02	0.49	PASS	15uW/MHz or below
		MHz	5150.00	5148.78	5149.28	----	----
	5250 to 5250.2MHz	uW/MHz	0.44	0.62	48.64	PASS	$10^{-1-(8/3)(f-9.75)}$ mW/MHz or below
		MHz	5250.16	5250.14	5250.00	----	----
	Limit	uW/MHz	821.61	917.63	2128.14	----	----
	5250.2 to 5251MHz	uW/MHz	0.46	0.66	25.41	PASS	$10^{-(f-9)}$ mW/MHz or below
		MHz	5250.42	5250.52	5250.20	----	----
	Limit	uW/MHz	379.31	305.49	626.61	----	----
	5251 to 5260MHz	uW/MHz	0.53	0.65	18.37	PASS	$10^{-1-(8/90)(f-11)}$ mW/MHz or below
		MHz	5258.04	5253.26	5251.71	----	----
	Limit	uW/MHz	23.69	62.95	86.55	----	----
	5260 to 5266.7MHz	uW/MHz	0.54	0.54	2.39	PASS	$10^{-1.8-(6/50)(f-20)}$ mW/MHz or below
		MHz	5263.30	5265.85	5260.68	----	----
Out-Band Leakage Power (Tx1+2)	5142 to 5150MHz	uW/MHz	6.97	1.87	0.99	PASS	15uW/MHz or below
		----	----	----	----	----	----
	5250 to 5250.2MHz	uW/MHz	0.86	1.58	85.45	PASS	$10^{-1-(8/3)(f-9.75)}$ mW/MHz or below
		MHz	5250.16	5250.14	5250.00	----	----
	Limit	uW/MHz	821.61	917.63	2115.11	----	----
	5250 to 5251MHz	uW/MHz	0.91	1.44	42.31	PASS	$10^{-1-(f-9)}$ mW/MHz or below
		MHz	5250.92	5250.52	5250.20	----	----
	Limit	uW/MHz	121.62	305.49	626.61	----	----
	5251 to 5260MHz	uW/MHz	1.01	1.32	24.25	PASS	$10^{-1-(8/90)(f-11)}$ mW/MHz or below
		MHz	5258.89	5254.17	5254.29	----	----
	Limit	uW/MHz	19.89	52.28	51.04	----	----
	5260 to 5266.7MHz	uW/MHz	1.14	1.05	4.74	PASS	$10^{-1.8-(6/50)(f-20)}$ mW/MHz or below
		MHz	5263.30	5265.85	5260.79	----	----
Out-Band Leakage Power (Combiner)	5142 to 5150MHz	uW/MHz	2.74	0.64	0.48	PASS	15uW/MHz or below
		MHz	5148.92	5149.89	5143.20	----	----
	5250 to 5250.2MHz	uW/MHz	0.25	0.47	35.16	PASS	$10^{-1-(8/3)(f-9.75)}$ mW/MHz or below
		MHz	5250.07	5250.04	5250.00	----	----
	Limit	uW/MHz	1367.73	1727.16	2115.11	----	----
	5250.2 to 5251MHz	uW/MHz	0.28	0.40	16.98	PASS	$10^{-(f-9)}$ mW/MHz or below
		MHz	5250.61	5250.21	5250.20	----	----
	Limit	uW/MHz	246.04	619.44	628.06	----	----
	5251 to 5260MHz	uW/MHz	0.48	0.58	4.29	PASS	$10^{-1-(8/90)(f-11)}$ mW/MHz or below
		MHz	5255.97	5252.77	5251.53	----	----
	Limit	uW/MHz	36.17	69.65	89.79	----	----
	5260 to 5266.7MHz	uW/MHz	0.48	0.50	1.08	PASS	$10^{-1.8-(6/50)(f-20)}$ mW/MHz or below
		MHz	5260.52	5266.10	5261.59	----	----
	Limit	uW/MHz	13.73	2.94	10.21	----	----

Measurement Channel	Ch.	36	40	48		
Measurement Frequency	MHz	5180	5200	5240	Result	Limit
Secondary Emitted Radio Wave Strength (Rx1)	30MHz to 1000MHz	nW	0.20	0.20	0.20	PASS 4nW or below
		MHz	833.81	833.81	833.81	----
	1GHz to 26GHz	nW	2.16	1.77	1.25	PASS 20nW or below
		MHz	6907.00	6932.00	6982.00	----
Secondary Emitted Radio Wave Strength (Rx2)	30MHz to 1000MHz	nW	0.30	0.31	0.32	PASS 4nW or below
		MHz	833.81	833.81	833.81	----
	1GHz to 26GHz	nW	1.41	1.05	1.01	PASS 20nW or below
		MHz	6907.00	6932.00	18095.00	----
Secondary Emitted Radio Wave Strength (Rx1+2)	30MHz to 1000MHz	nW	0.50	0.51	0.52	PASS 4nW or below
		----	----	----	----	----
	1GHz to 26GHz	nW	3.57	2.82	2.26	PASS 20nW or below
		----	----	----	----	----
Burst Length of Transmitted Signals	----	Good	Good	Good	PASS	8ms or below
Carrier Sensing Function	----	Good	Good	Good	PASS	100mV/m
Interference Prevention Function	----		Good		PASS	

3. Test results (+10% voltage)

S/N : G51031600121

Environment of test room	Date of test	2025-06-05
	Temperature	23 °C
	Humidity	52 %

Peak Antenna Gain	2.00	dBi
Declaration Output Power	5.80	mW/MHz
	7.63	dBm/MHz
E.I.R.P	9.19	mW/MHz
	9.63	dBm/MHz
Input Power Voltage	12.21	VDC

Test category		IEEE802.11n20 / MIMO(2TX)	
Tested Circuit Insertion Loss		0.00	dB
Transmission Time	ON TIME (1sec or less)	0.97	ms
	OFF TIME (0.1sec or more)	0.50	ms
	Ratio	0.66	%

Using TDF and offset function in Spectrum Analyzer.

Measurement of plots are included Loss value.

(Att : 10dB + Cable loss + EUT cable: 1dB offset)

Test category : 5GHz Band Low-Power Data Communication System (802.11n20 W52/MIMO(2TX))

Note: The year displayed as 2003 on the Test Chart (spectrum measurement screen) is due to a display error. This issue is limited to the display only and does not affect the measurement results. The actual test period was from May 30, 2025 to June 27, 2025.

Measurement Channel	Ch.	36	40	48		
Measurement Frequency	MHz	5180	5200	5240	Result	Limit
Frequency Measurements(Tx1)	MHz	5179.900	5199.910	5239.898	----	----
Frequency Tolerance(Tx1)	ppm	-19.31	-17.31	-19.44	PASS	$\pm 20 \times 10^{-6}$ (20ppm)
Frequency Measurements(Tx2)	MHz	5179.913	5199.899	5239.904	----	----
Frequency Tolerance(Tx2)	ppm	-16.77	-19.47	-18.37	PASS	$\pm 20 \times 10^{-6}$ (20ppm)
Occupied Bandwidth(Tx1)	MHz	18.18	18.98	17.68	PASS	20MHz or below
Occupied Bandwidth(Tx2)	MHz	19.38	19.54	17.68	PASS	20MHz or below
Occupied Bandwidth(Combiner)	MHz	17.88	18.38	17.66	PASS	20MHz or below
RF Output Power(Tx1)	mW/MHz	2.05	2.36	0.43	PASS	10mW/MHz or below
RF Output Power(Tx2)	mW/MHz	3.60	3.04	0.90	PASS	10mW/MHz or below
RF Output Power (Tx1+2+3+4)	mW/MHz	5.65	5.41	1.33	PASS	10mW/MHz or below
RF Output Power Tolerance (Tx1+2+3+4)	%	-2.57	-6.76	-77.09	PASS	+20% to -80%

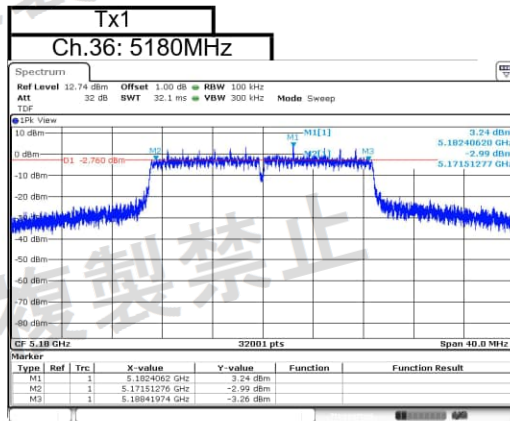
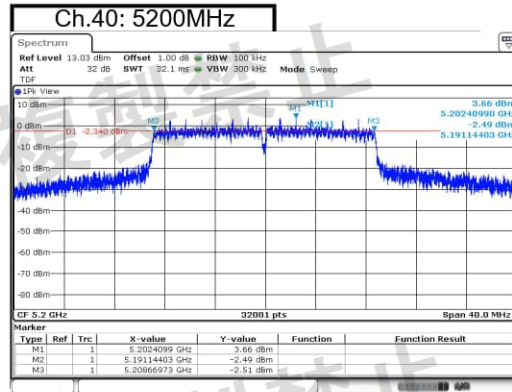
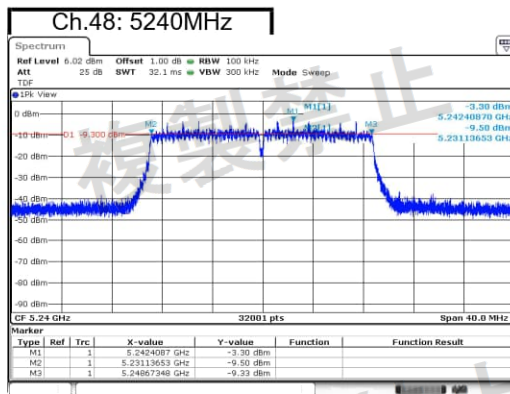
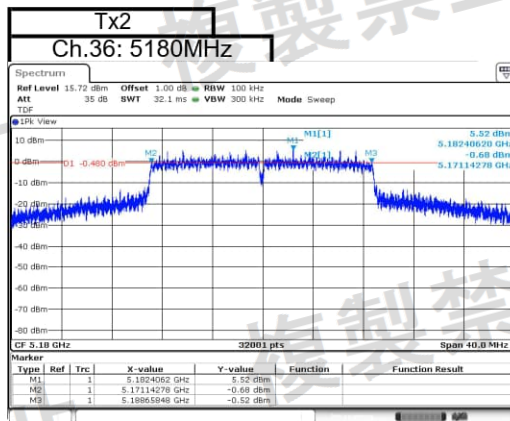
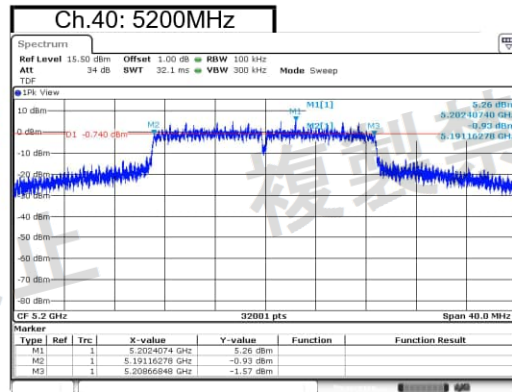
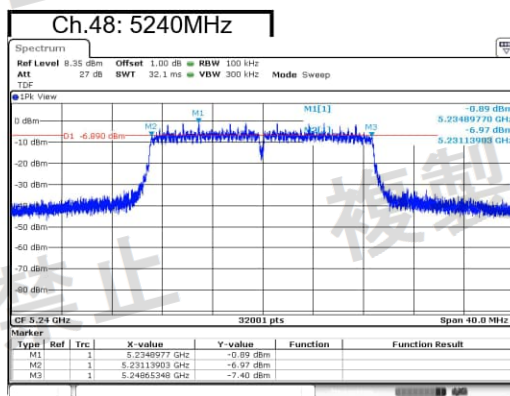
Measurement Channel		Ch.	36	40	48		
Measurement Frequency		MHz	5180	5200	5240	Result	Limit
Unwanted (Spurious) Emission Strength (Tx1)	30MHz to 5142MHz	uW/MHz	0.85	0.42	0.48	PASS	2.5uW/MHz or below
		MHz	5139.40	5027.10	4690.00	----	----
	5266.7MHz to 26GHz	uW/MHz	0.95	1.20	0.76	PASS	2.5uW/MHz or below
		MHz	18077.70	18077.70	18077.70	----	----
Unwanted (Spurious) Emission Strength (Tx2)	30MHz to 5142MHz	uW/MHz	1.20	0.40	0.42	PASS	2.5uW/MHz or below
		MHz	5139.40	4741.10	5113.90	----	----
	5266.7MHz to 26GHz	uW/MHz	0.95	0.93	0.97	PASS	2.5uW/MHz or below
		MHz	19609.70	18035.70	18118.70	----	----
Unwanted (Spurious) Emission Strength (Tx1+2)	30MHz to 5142MHz	uW/MHz	2.04	0.82	0.90	PASS	2.5uW/MHz or below
		----	----	----	----	----	----
	5266.7MHz to 26GHz	uW/MHz	1.90	2.14	1.72	PASS	2.5uW/MHz or below
		----	----	----	----	----	----
Adjacent Channel Leakage Power (Tx1)	cf	dB	12.81	12.00	6.14	----	----
	cf -20MHz	dB	-30.81	-28.20	-44.35	PASS	-25dBc or below
	cf +20MHz	dB	-28.46	-25.83	-43.00	PASS	-25dBc or below
	cf -40MHz	dB	-45.86	-44.45	-49.22	PASS	-40dBc or below
	cf +40MHz	dB	-45.13	-43.32	-49.30	PASS	-40dBc or below
Adjacent Channel Leakage Power (Tx2)	cf	dB	13.55	13.70	8.14	----	----
	cf -20MHz	dB	-28.03	-26.56	-39.75	PASS	-25dBc or below
	cf +20MHz	dB	-27.03	-26.01	-38.14	PASS	-25dBc or below
	cf -40MHz	dB	-45.47	-45.96	-46.80	PASS	-40dBc or below
	cf +40MHz	dB	-45.47	-46.46	-47.01	PASS	-40dBc or below
Adjacent Channel Leakage Power (Combiner)	cf	dB	13.74	13.34	7.94	----	----
	cf -20MHz	dB	-30.91	-27.08	-44.36	PASS	-25dBc or below
	cf +20MHz	dB	-29.53	-26.92	-43.10	PASS	-25dBc or below
	cf -40MHz	dB	-46.96	-45.14	-47.51	PASS	-40dBc or below
	cf +40MHz	dB	-46.97	-45.24	-47.70	PASS	-40dBc or below

Measurement Channel		Ch.	36	40	48	Result	Limit
Measurement Frequency		MHz	5180	5200	5240		
Out-Band Leakage Power (Tx1)	5142 to 5150MHz	uW/MHz	3.54	0.86	0.48	PASS	15uW/MHz or below
		MHz	5149.97	5149.95	5147.69	----	----
	5250 to 5250.2MHz	uW/MHz	0.39	0.84	35.89	PASS	$10^{-1.8/(8/3)(f-9.75)}$ mW/MHz or below
		MHz	5250.15	5250.07	5250.00	----	----
	5251 to 5260MHz	uW/MHz	0.51	0.94	5.81	PASS	$10^{-1.8/(9/0)(f-11)}$ mW/MHz or below
		MHz	5258.47	5253.29	5254.20	----	----
	Limit	uW/MHz	21.69	62.61	51.99	----	----
	5260 to 5266.7MHz	uW/MHz	0.49	0.47	2.53	PASS	$10^{-1.8/(6/50)(f-20)}$ mW/MHz or below
		MHz	5261.30	5265.47	5260.83	----	----
	Limit	uW/MHz	11.08	3.50	12.59	----	----
	5142 to 5150MHz	uW/MHz	3.44	0.82	0.50	PASS	15uW/MHz or below
		MHz	5149.97	5149.32	5149.78	----	----
Out-Band Leakage Power (Tx2)	5250 to 5250.2MHz	uW/MHz	0.42	0.65	48.19	PASS	$10^{-1.8/(8/3)(f-9.75)}$ mW/MHz or below
		MHz	5250.14	5250.14	5250.00	----	----
	Limit	uW/MHz	889.88	934.69	2128.14	----	----
	5250.2 to 5251MHz	uW/MHz	0.44	0.66	26.00	PASS	$10^{-1(f-9)}$ mW/MHz or below
		MHz	5250.31	5250.29	5250.20	----	----
	Limit	uW/MHz	489.78	515.23	625.17	----	----
	5251 to 5260MHz	uW/MHz	0.65	0.64	18.88	PASS	$10^{-1.8/(9/0)(f-11)}$ mW/MHz or below
		MHz	5259.65	5258.34	5251.99	----	----
	Limit	uW/MHz	17.01	22.26	81.59	----	----
	5260 to 5266.7MHz	uW/MHz	0.59	0.51	2.33	PASS	$10^{-1.8/(6/50)(f-20)}$ mW/MHz or below
		MHz	5264.41	5265.76	5260.47	----	----
	Limit	uW/MHz	4.69	3.23	13.91	----	----
Out-Band Leakage Power (Tx1+2)	5142 to 5150MHz	uW/MHz	6.98	1.69	0.98	PASS	15uW/MHz or below
		----	----	----	----	----	----
	5250 to 5250.2MHz	uW/MHz	0.81	1.50	84.09	PASS	$10^{-1.8/(8/3)(f-9.75)}$ mW/MHz or below
		MHz	5250.15	5250.14	5250.00	----	----
	Limit	uW/MHz	879.02	934.69	2128.14	----	----
	5250 to 5251MHz	uW/MHz	0.92	1.50	43.66	PASS	$10^{-1(f-9)}$ mW/MHz or below
		MHz	5250.31	5250.29	5250.20	----	----
	Limit	uW/MHz	488.65	515.23	625.17	----	----
	5251 to 5260MHz	uW/MHz	1.16	1.58	24.69	PASS	$10^{-1.8/(9/0)(f-11)}$ mW/MHz or below
		MHz	5259.65	5258.34	5254.20	----	----
	Limit	uW/MHz	17.01	22.26	51.99	----	----
	5260 to 5266.7MHz	uW/MHz	1.08	0.98	4.86	PASS	$10^{-1.8/(6/50)(f-20)}$ mW/MHz or below
		MHz	5264.41	5265.76	5260.83	----	----
Out-Band Leakage Power (Combiner)	5142 to 5150MHz	uW/MHz	2.84	0.76	0.45	PASS	15uW/MHz or below
		MHz	5149.20	5147.14	5146.42	----	----
	5250 to 5250.2MHz	uW/MHz	0.27	0.75	35.73	PASS	$10^{-1.8/(8/3)(f-9.75)}$ mW/MHz or below
		MHz	5250.02	5250.08	5250.00	----	----
	Limit	uW/MHz	1859.23	1286.27	2141.25	----	----
	5250.2 to 5251MHz	uW/MHz	0.27	0.42	17.10	PASS	$10^{-1(f-9)}$ mW/MHz or below
		MHz	5250.66	5250.89	5250.20	----	----
	Limit	uW/MHz	219.79	128.82	626.61	----	----
	5251 to 5260MHz	uW/MHz	0.50	0.57	4.52	PASS	$10^{-1.8/(9/0)(f-11)}$ mW/MHz or below
		MHz	5255.79	5252.78	5252.15	----	----
	Limit	uW/MHz	37.53	69.52	79.09	----	----
	5260 to 5266.7MHz	uW/MHz	0.47	0.63	1.03	PASS	$10^{-1.8/(6/50)(f-20)}$ mW/MHz or below
		MHz	5260.63	5264.20	5261.26	----	----
	Limit	uW/MHz	13.31	4.97	11.18	----	----

Measurement Channel		Ch.	36	40	48		
Measurement Frequency		MHz	5180	5200	5240	Result	Limit
Secondary Emitted Radio Wave Strength (Rx1)	30MHz to 1000MHz	nW	0.20	0.21	0.21	PASS	4nW or below
		MHz	833.81	833.81	833.81	----	----
	1GHz to 26GHz	nW	2.92	1.96	1.20	PASS	20nW or below
		MHz	6907.00	2486.00	6982.00	----	----
Secondary Emitted Radio Wave Strength (Rx2)	30MHz to 1000MHz	nW	0.30	0.31	0.29	PASS	4nW or below
		MHz	833.81	833.81	833.81	----	----
	1GHz to 26GHz	nW	1.06	1.22	1.02	PASS	20nW or below
		MHz	6907.00	6932.00	18120.00	----	----
Secondary Emitted Radio Wave Strength (Rx1+2)	30MHz to 1000MHz	nW	0.50	0.52	0.50	PASS	4nW or below
		----	----	----	----	----	----
	1GHz to 26GHz	nW	3.97	3.18	2.22	PASS	20nW or below
		----	----	----	----	----	----
Burst Length of Transmitted Signals		----	Good	Good	Good	PASS	8ms or below
Carrier Sensing Function		----	Good	Good	Good	PASS	100mV/m
Interference Prevention Function		----	Good			PASS	

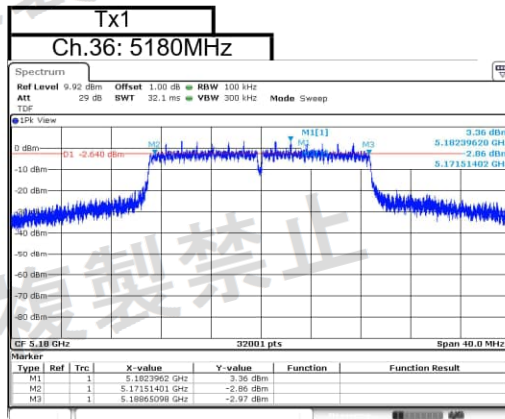
7. Test chart

7.1 Frequency tolerance (Rated voltage)

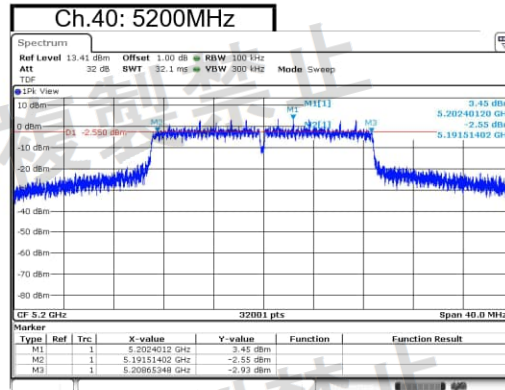


7. Test chart

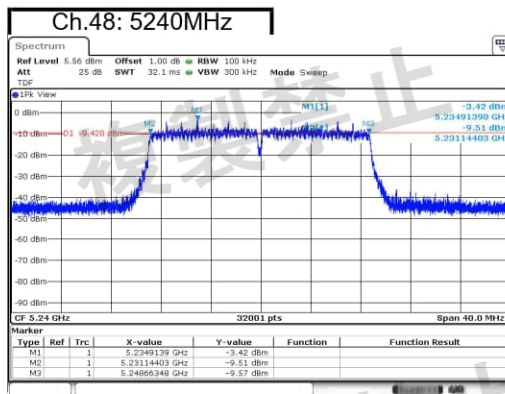
7.1 Frequency tolerance (-10% voltage)



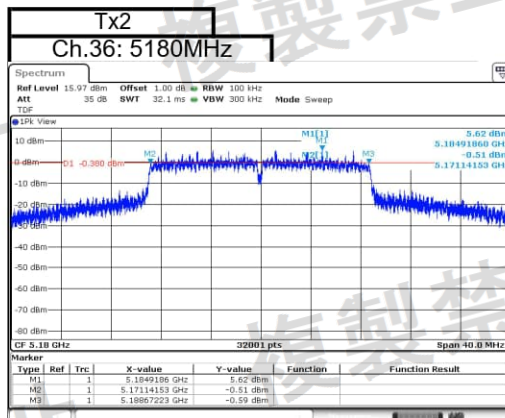
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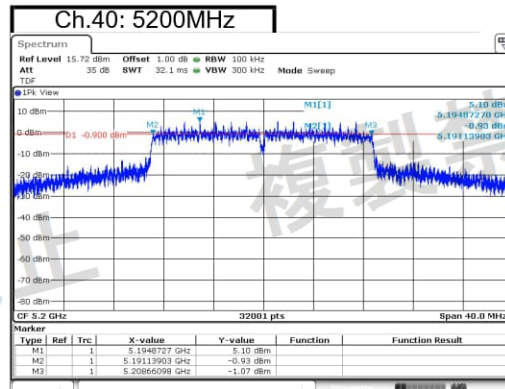
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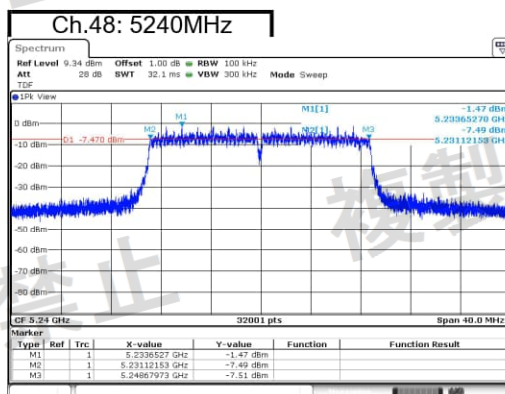
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Date: 1.JAN.2003 07:51:53



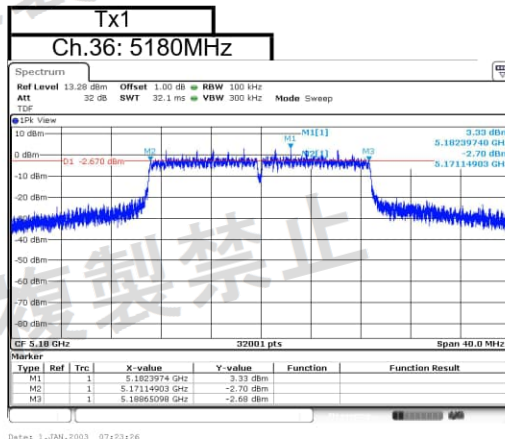
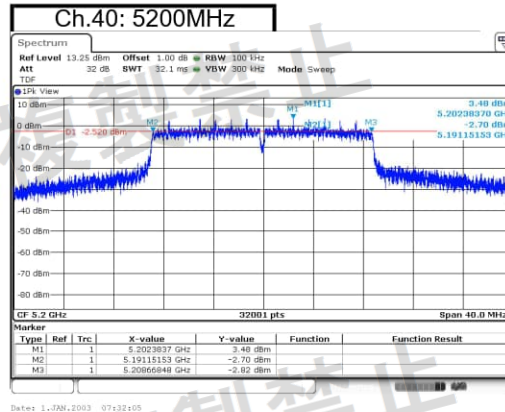
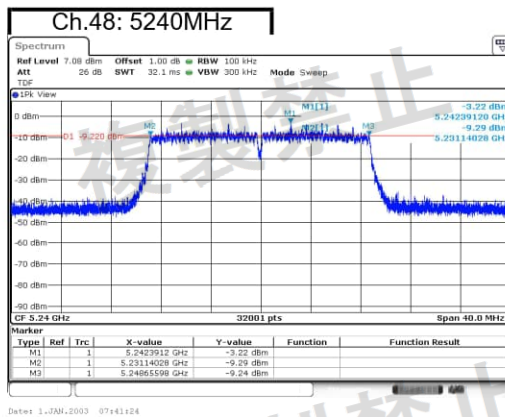
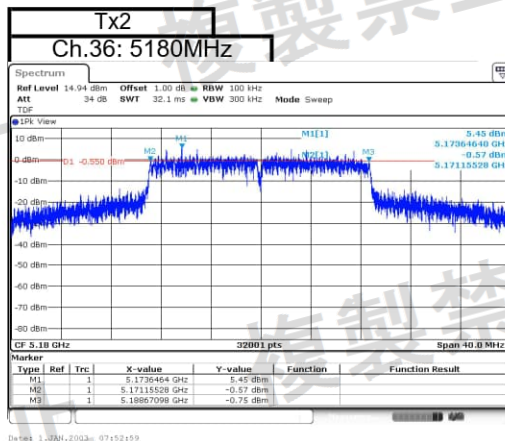
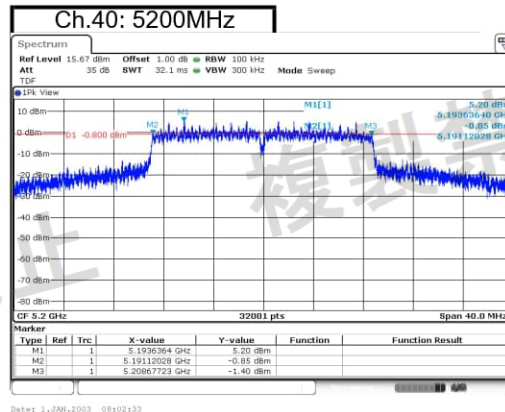
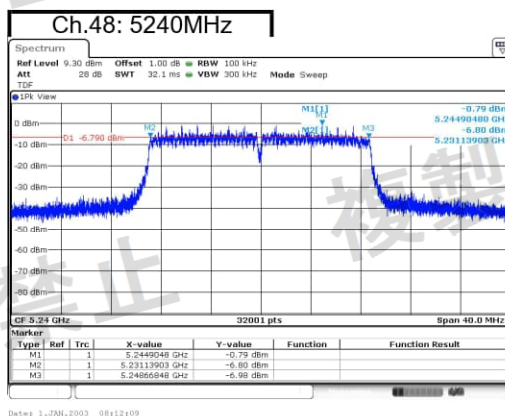
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Date: 1.JAN.2003 08:11:59

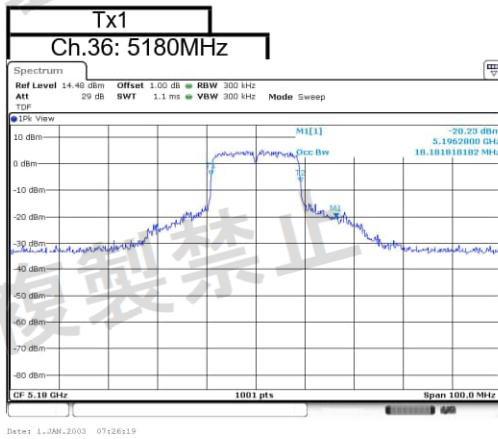
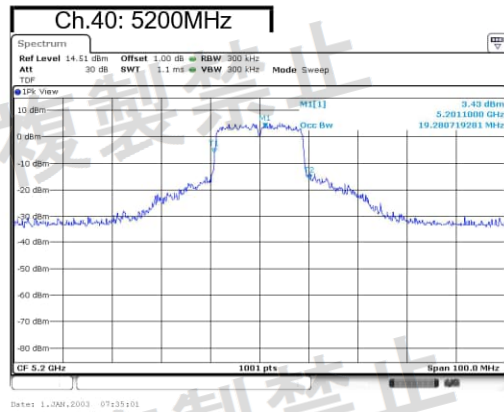
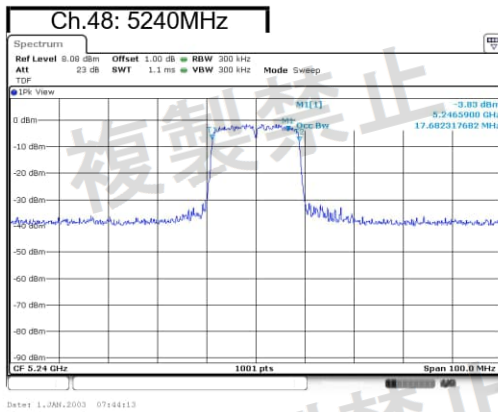
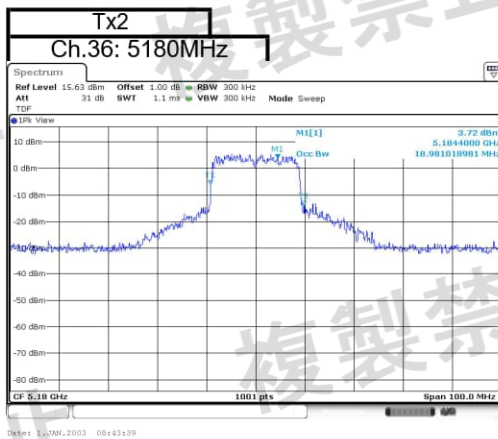
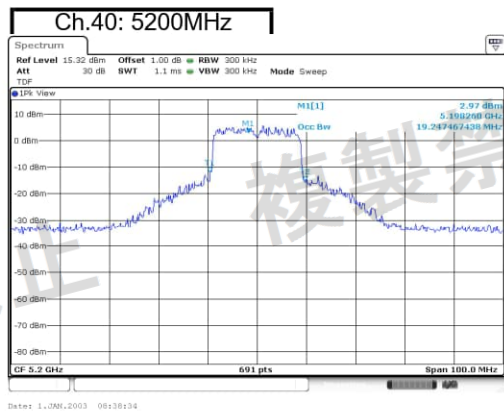
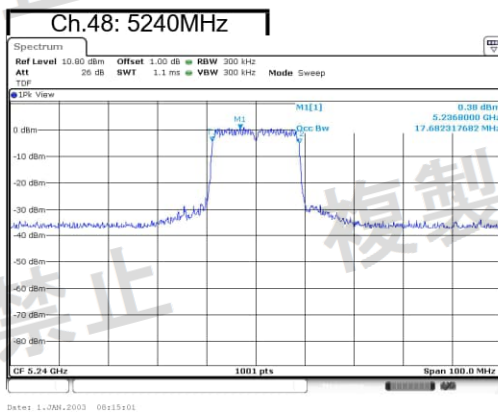
7. Test chart

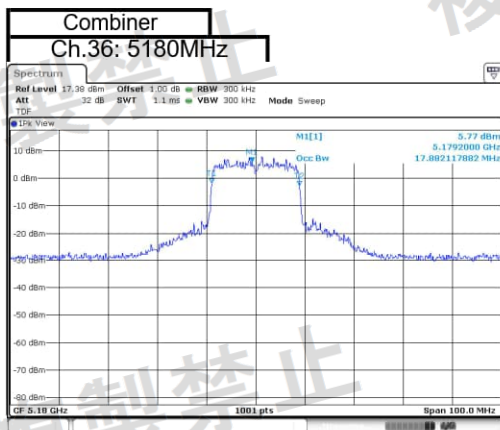
7.1 Frequency tolerance (+10% voltage)



7. Test chart

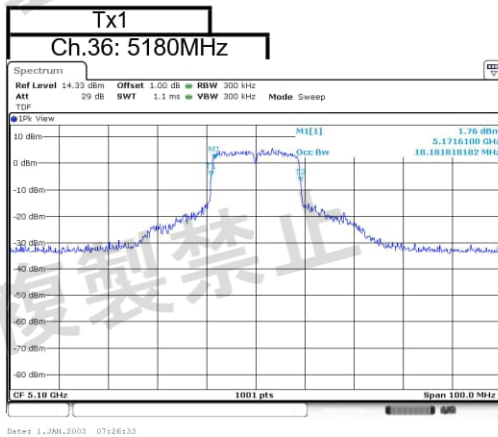
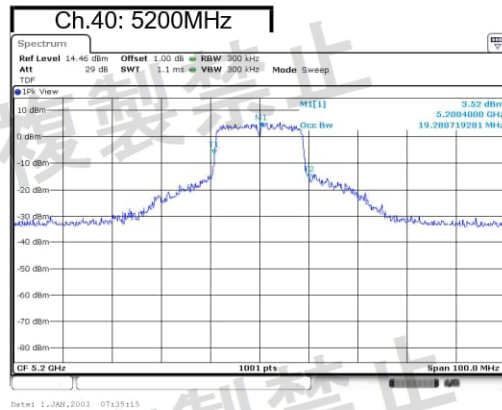
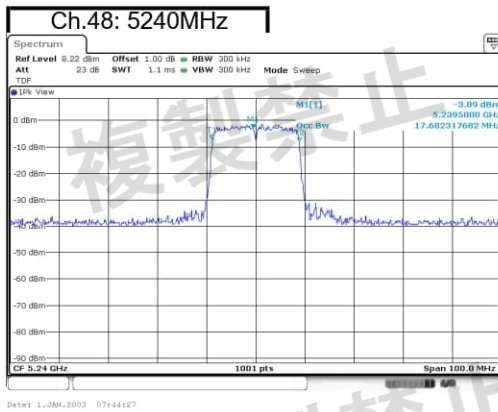
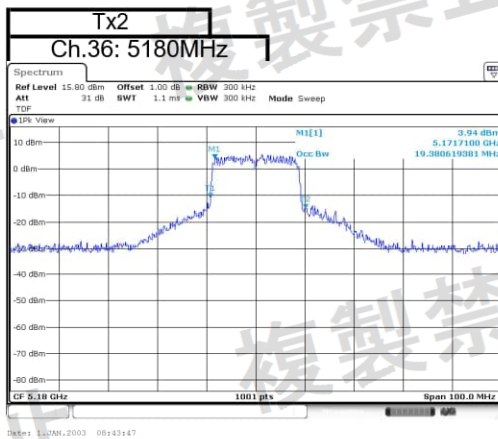
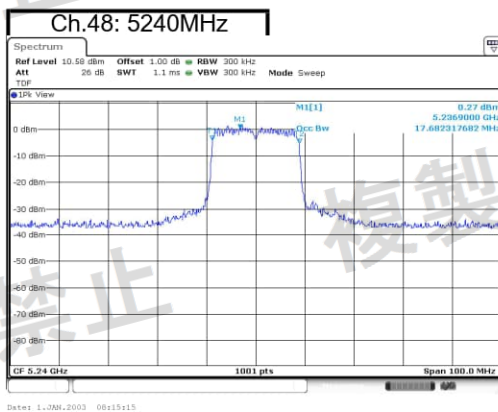
7.2 Occupied bandwidth (Rated voltage)

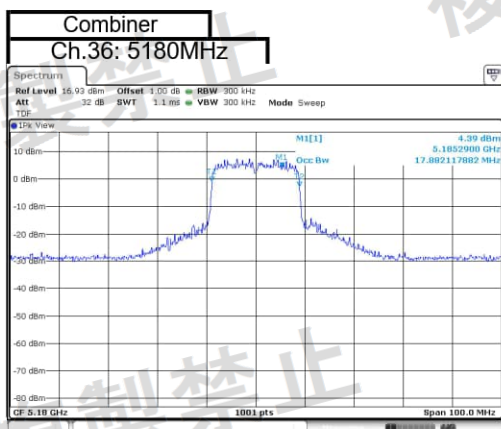
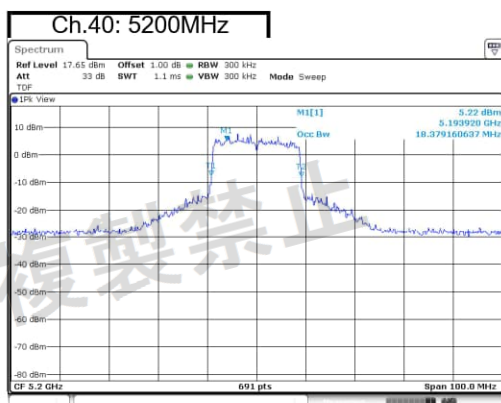
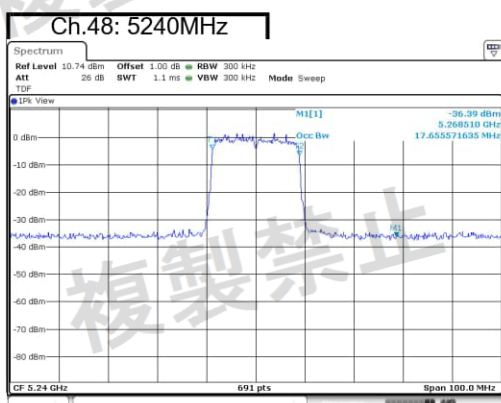




7. Test chart

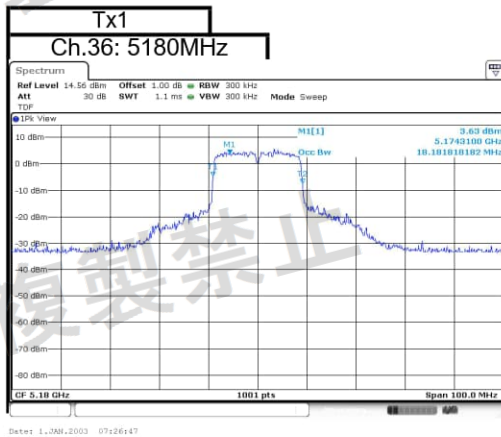
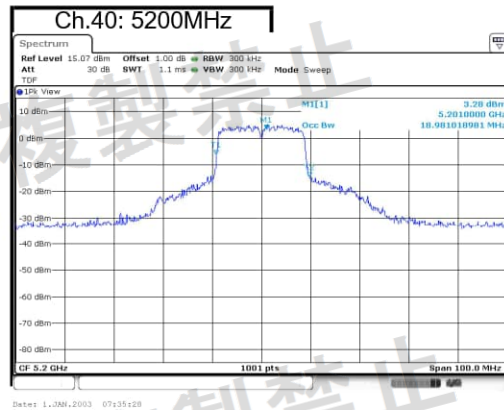
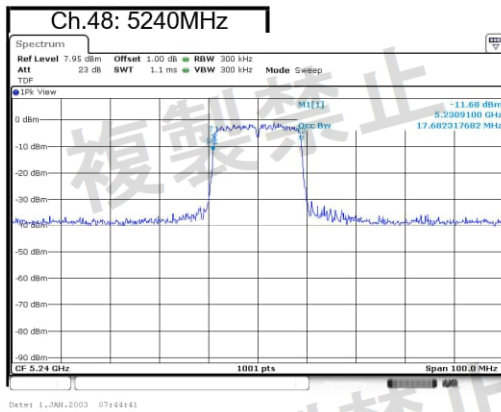
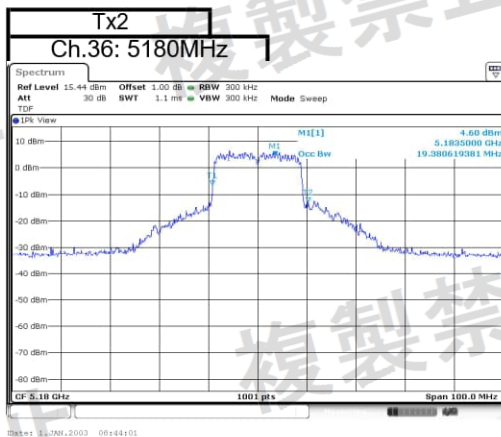
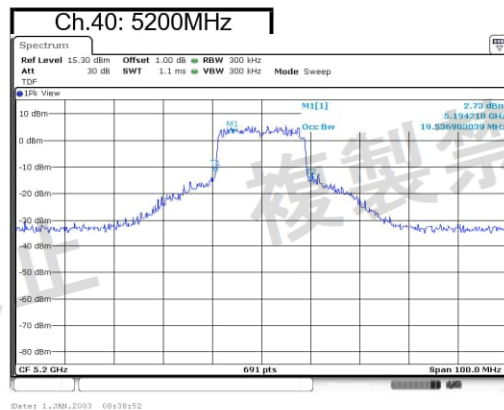
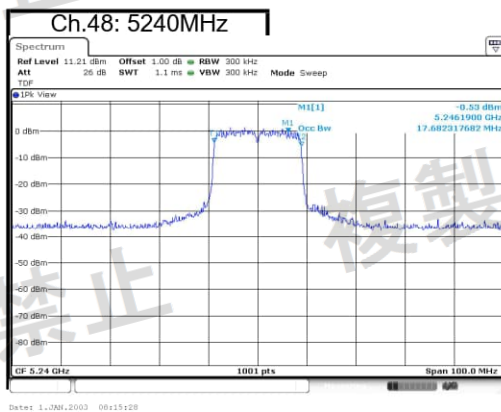
7.2 Occupied bandwidth (-10% voltage)

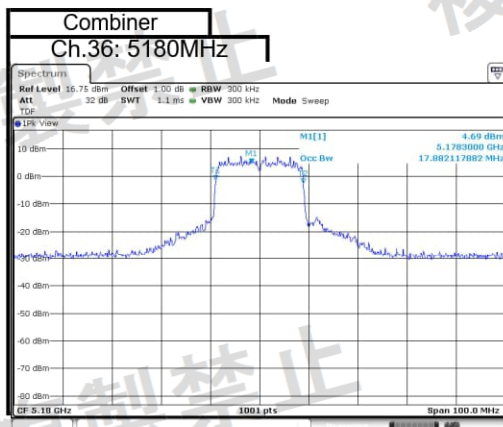
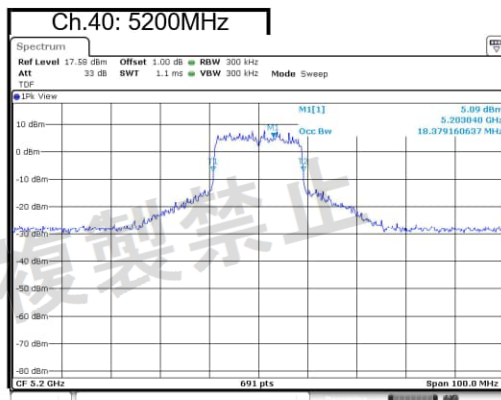
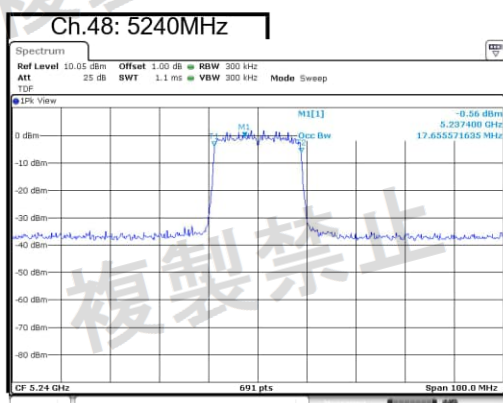




7. Test chart

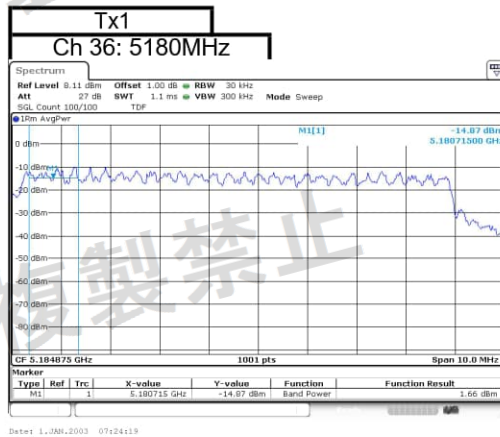
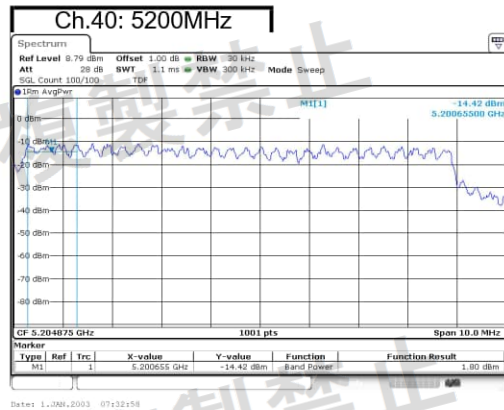
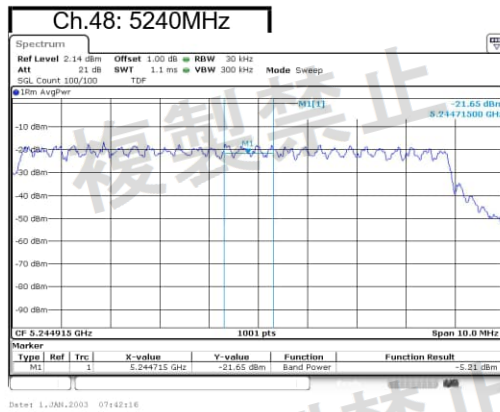
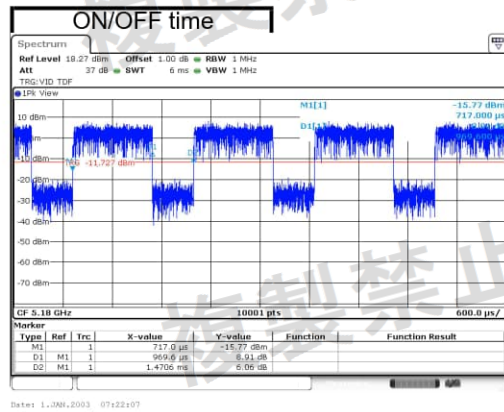
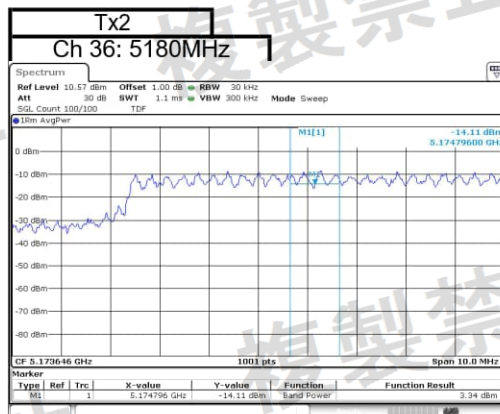
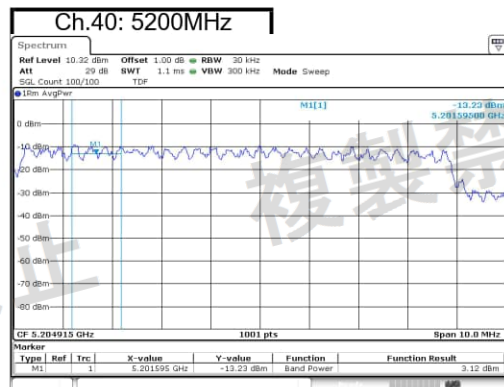
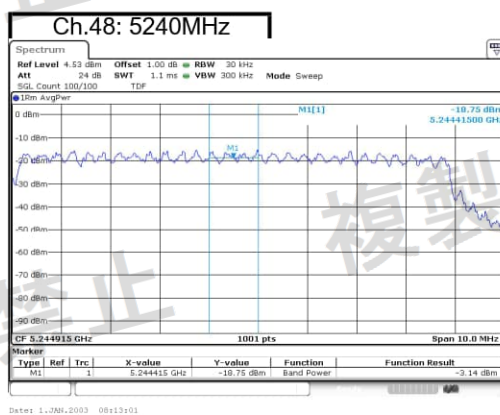
7.2 Occupied bandwidth (+10% voltage)





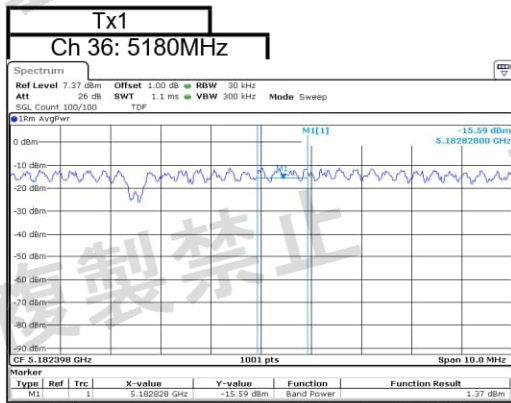
7. Test chart

7.3 RF output power tolerance (Rated voltage)

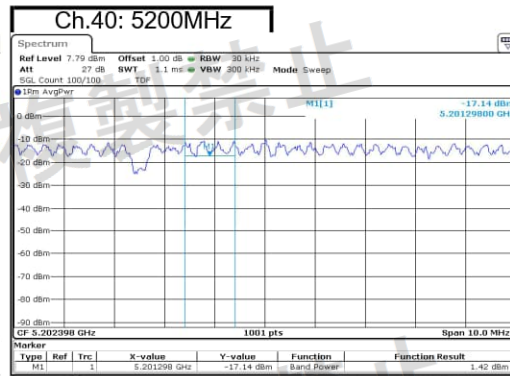


7. Test chart

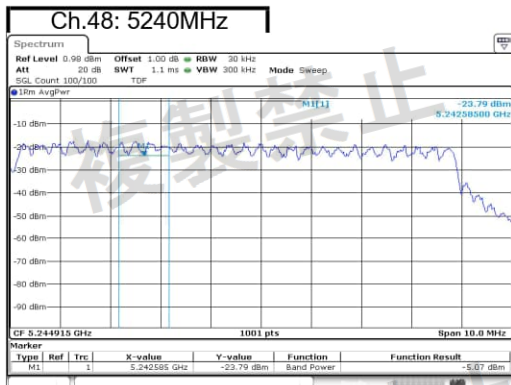
7.3 RF output power tolerance (-10% voltage)



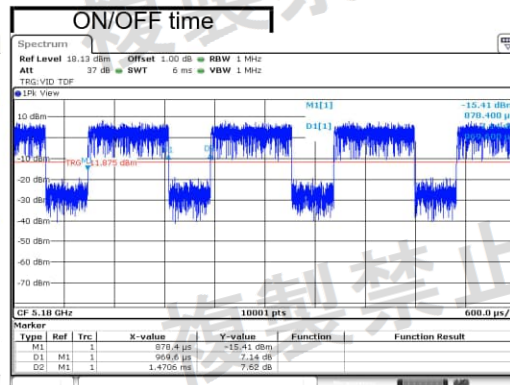
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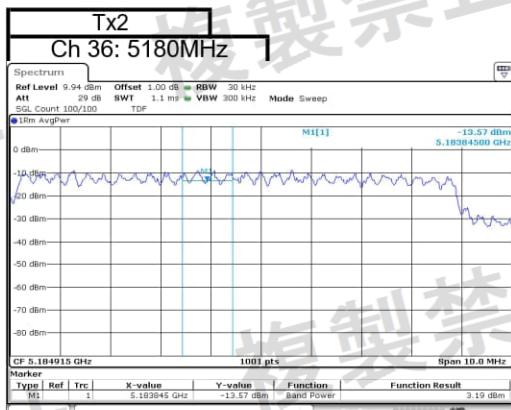
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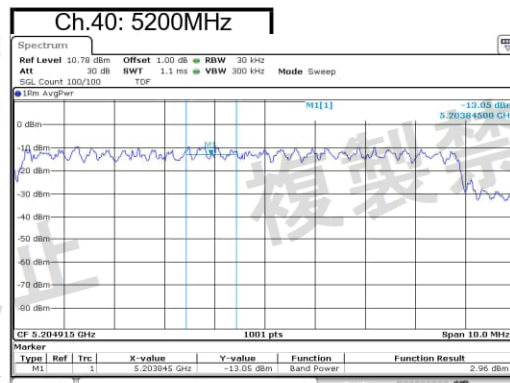
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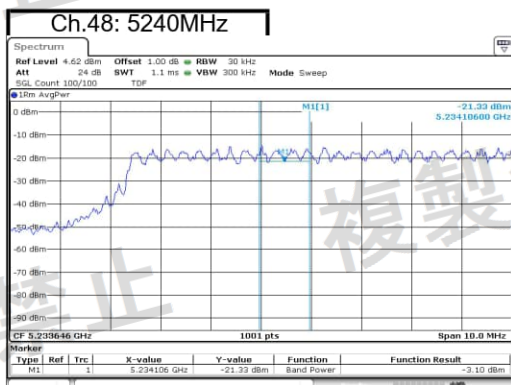
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Date: 1.JAN.2003 07:54:45



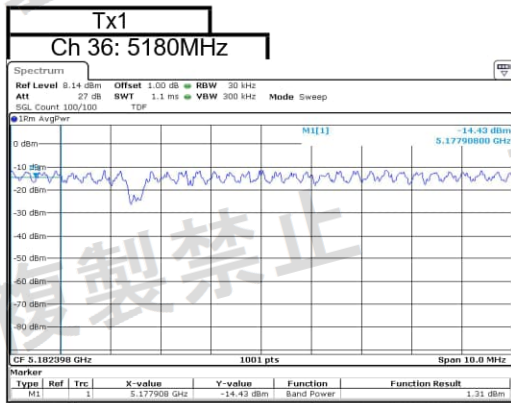
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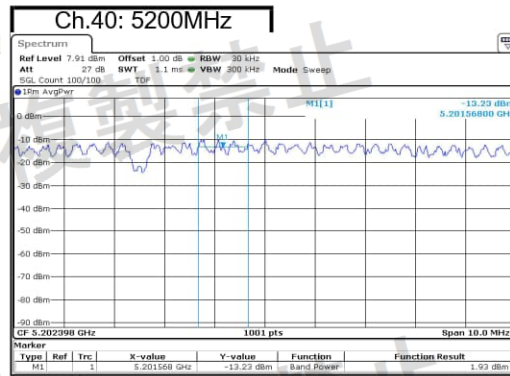
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7. Test chart

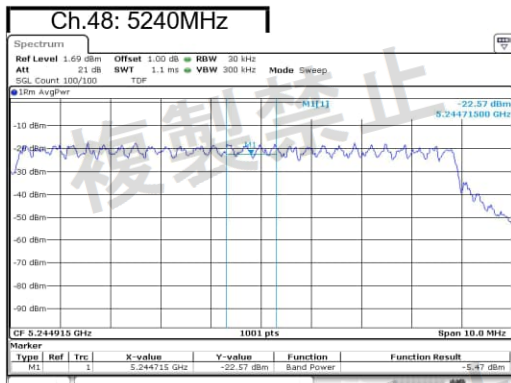
7.3 RF output power tolerance (+10% voltage)



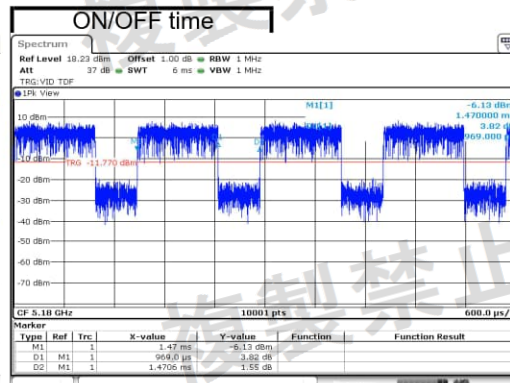
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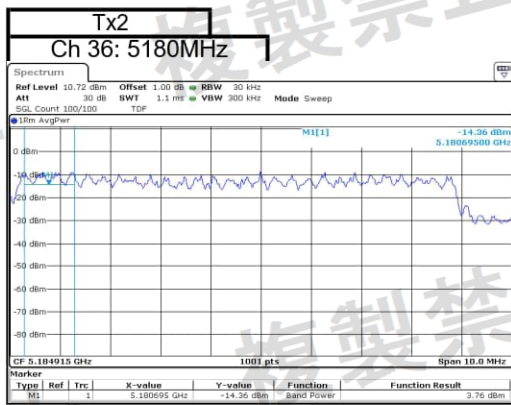
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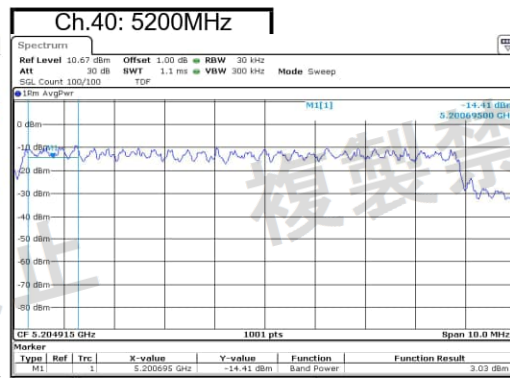
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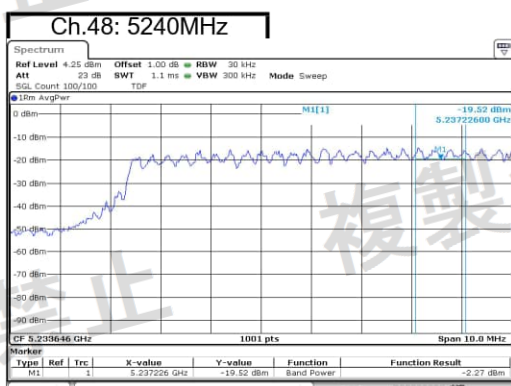
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Date: 1.JAN.2003 07:55:37



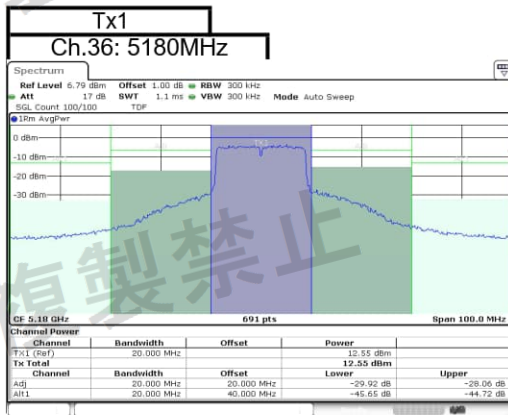
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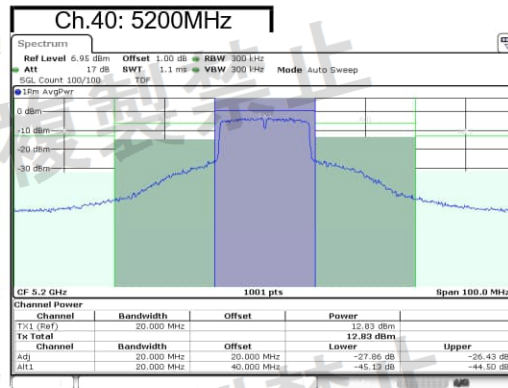
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7. Test chart

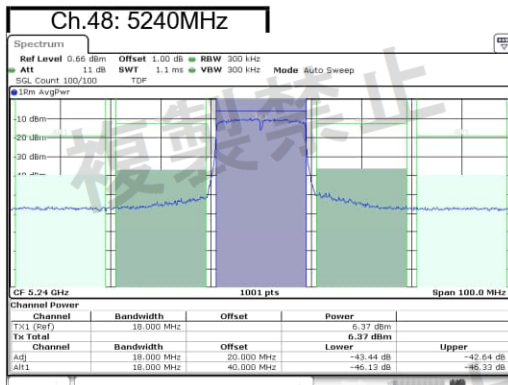
7.4 Adjacent Channel Leakage Power (Rated voltage)



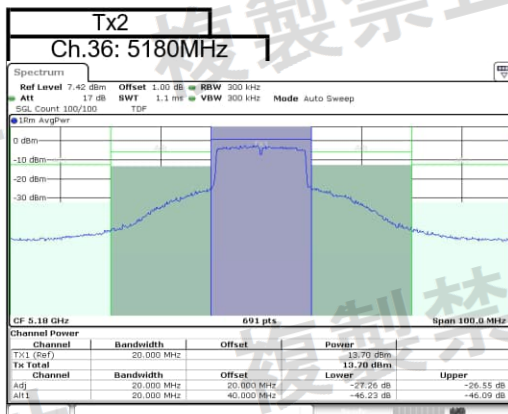
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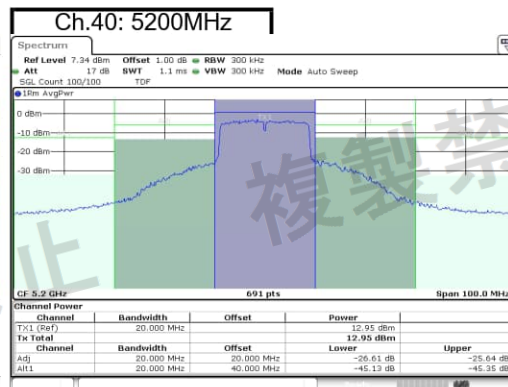
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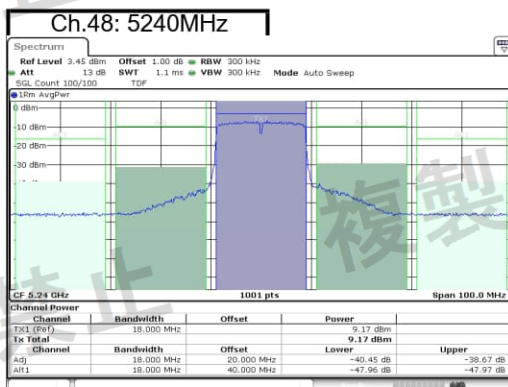
Date: 1.JAN.2003 07:44:49



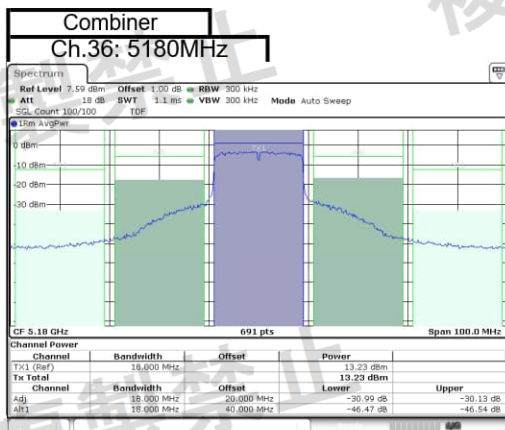
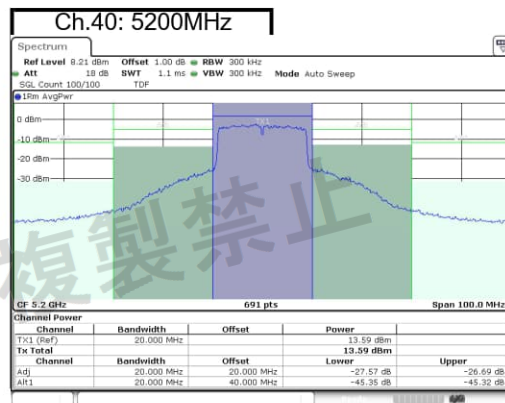
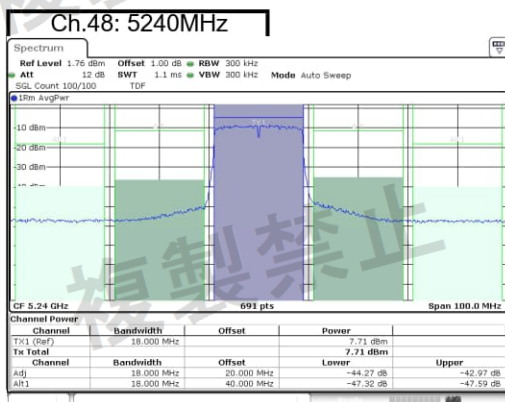
Date: 1.JAN.2003 08:44:09



Date: 1.JAN.2003 08:59:01

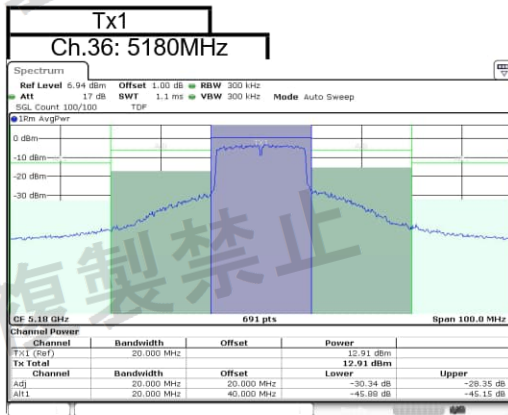
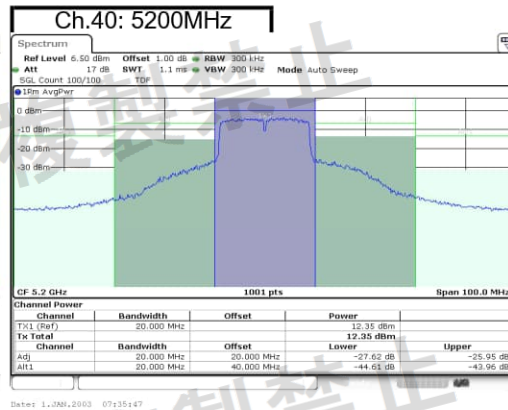
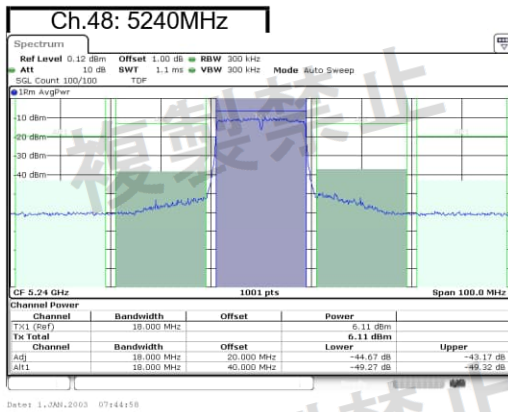
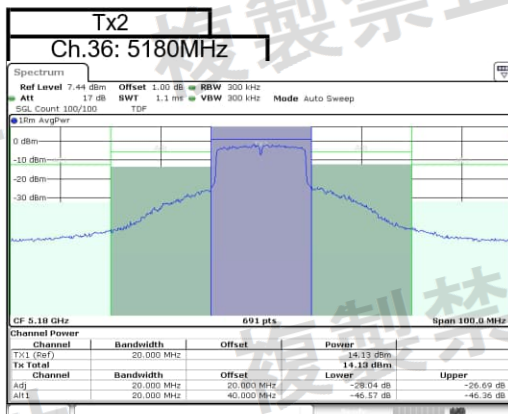
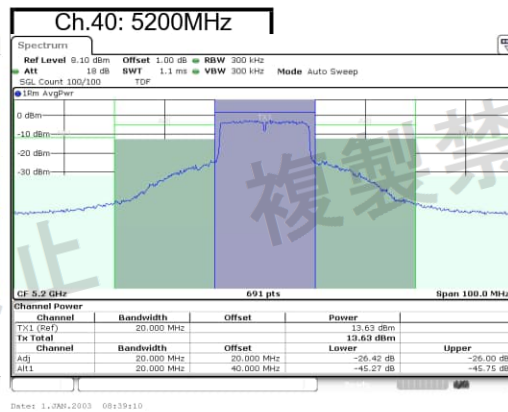
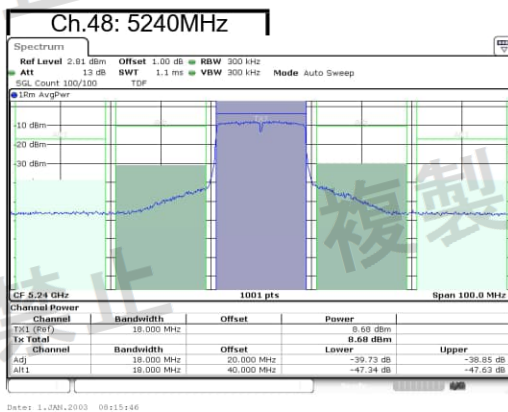


Date: 1.JAN.2003 08:15:37

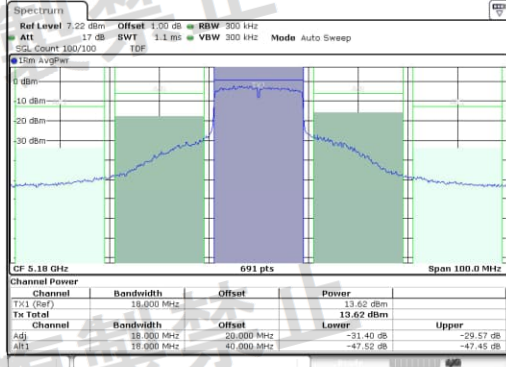


7. Test chart

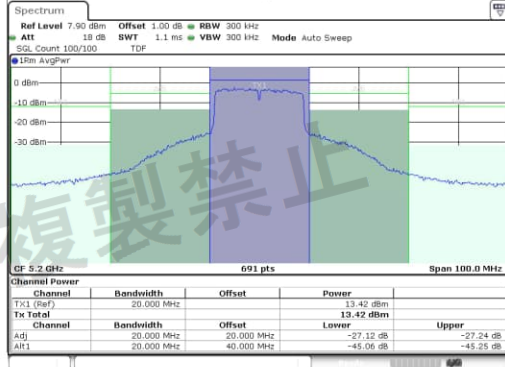
7.4 Adjacent Channel Leakage Power (-10% voltage)



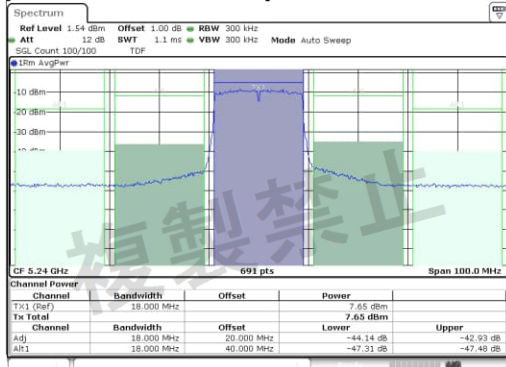
Combiner Ch.36: 5180MHz



Ch.40: 5200MHz

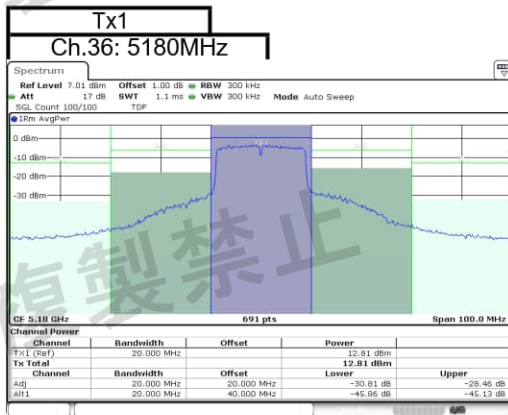
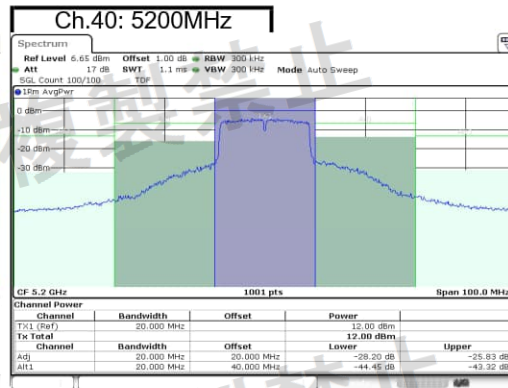
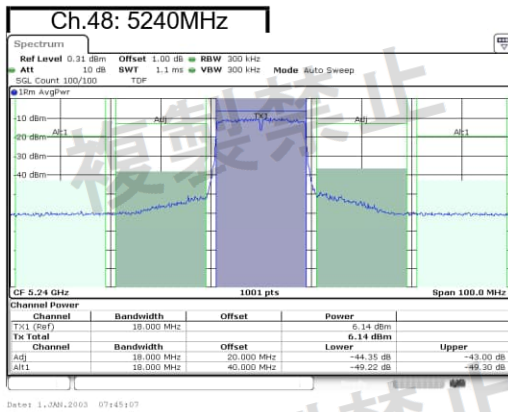
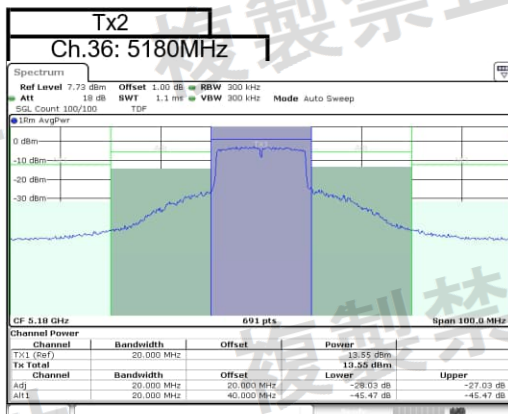
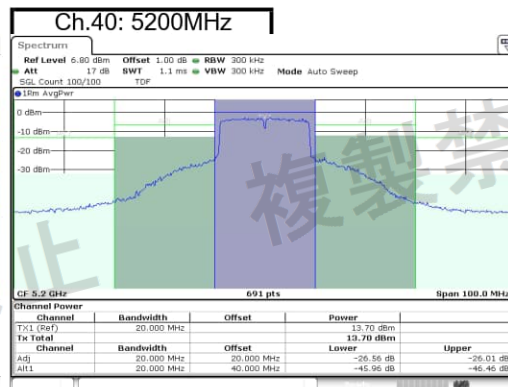
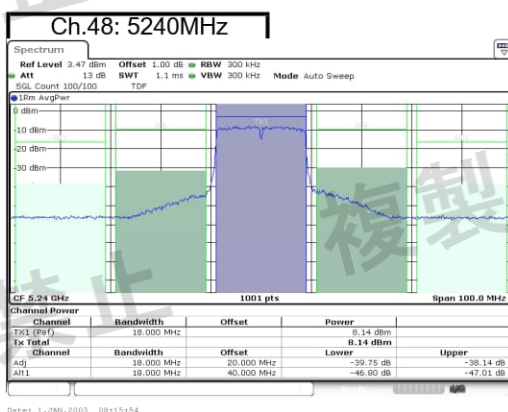


Ch.48: 5240MHz



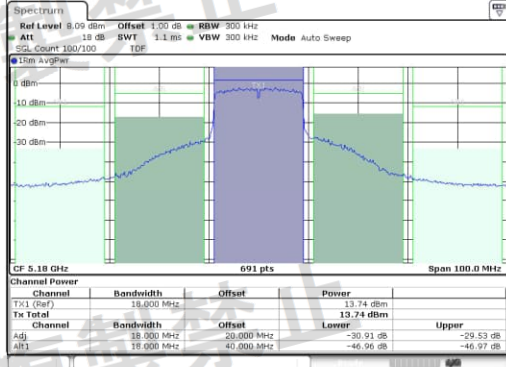
7. Test chart

7.4 Adjacent Channel Leakage Power (+10% voltage)

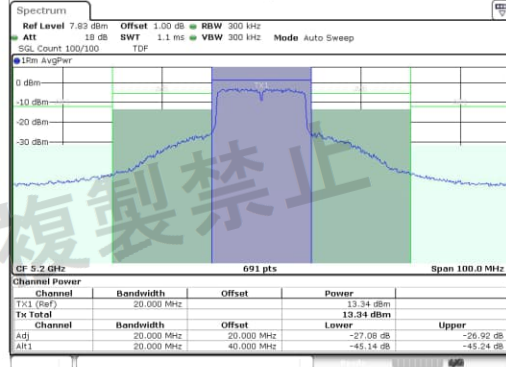


Combiner

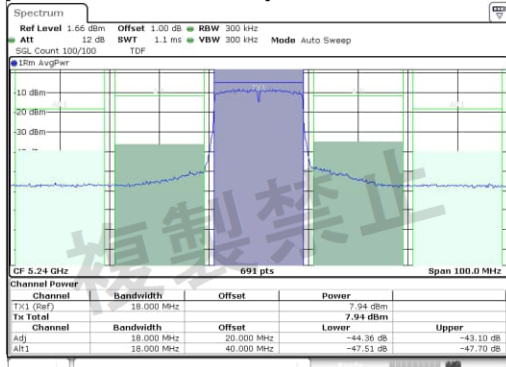
Ch.36: 5180MHz



Ch.40: 5200MHz



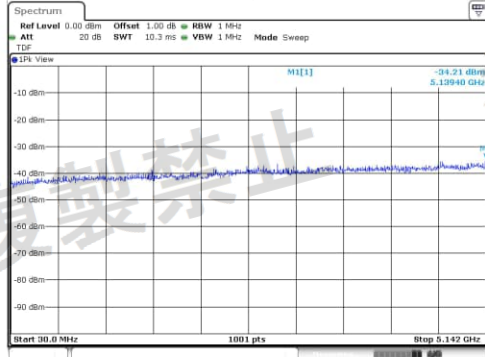
Ch.48: 5240MHz



7. Test chart

7.5 Unwanted(Spurious) emission strength (Rated voltage)

Tx1
Ch.36: 5180MHz
30MHz-5142MHz(Search)

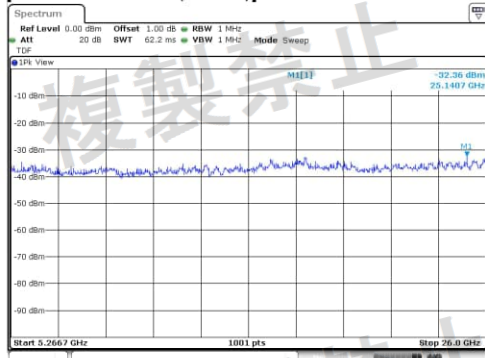


Date: 1-JAN-2003 07:30:17

30MHz-5142MHz(Detail)



5266.7MHz-26GHz(Search)

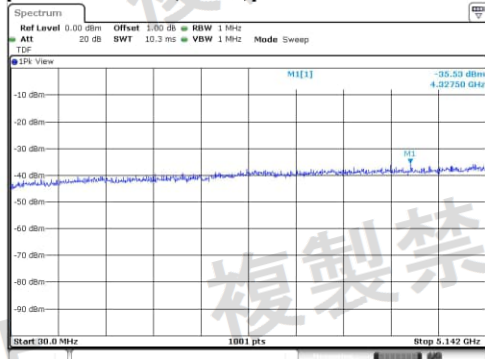


Date: 1-JAN-2003 07:30:28

5266.7MHz-26GHz(Detail)



Ch.40: 5200MHz
30MHz-5142MHz(Search)



Date: 1-JAN-2003 07:30:01

30MHz-5142MHz(Detail)

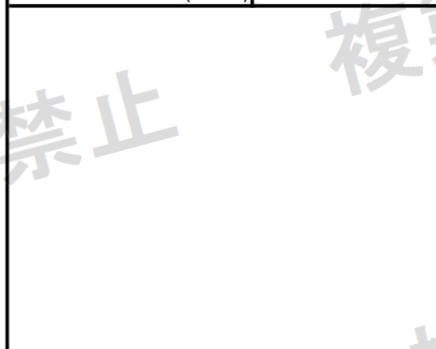


5365MHz-26GHz(Search)

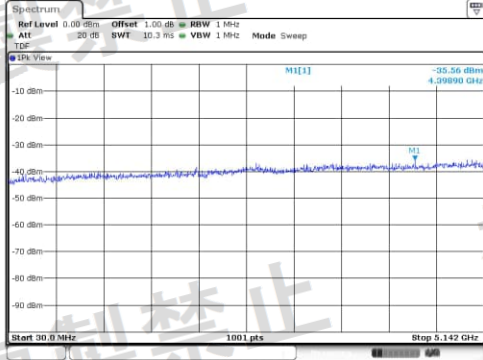


Date: 1-JAN-2003 07:39:11

5266.7MHz-26GHz(Detail)



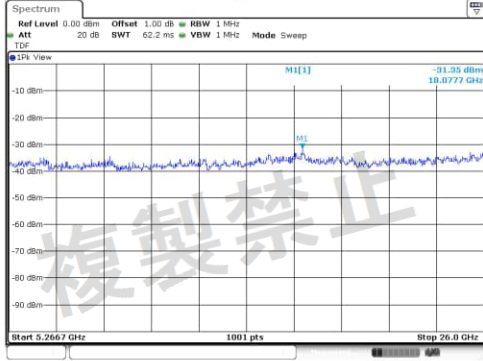
Ch.48: 5240MHz
30MHz-5142MHz(Search)



30MHz-5142MHz(Detail)



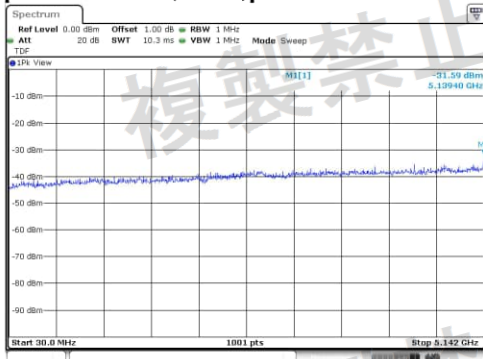
5365MHz-26GHz(Search)



5266.7MHz-26GHz(Detail)



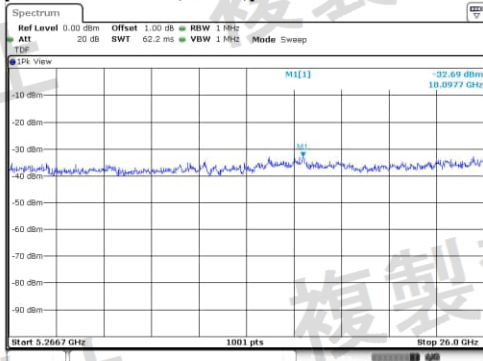
Tx2
Ch.36: 5180MHz
30MHz-5142MHz(Search)



30MHz-5142MHz(Detail)

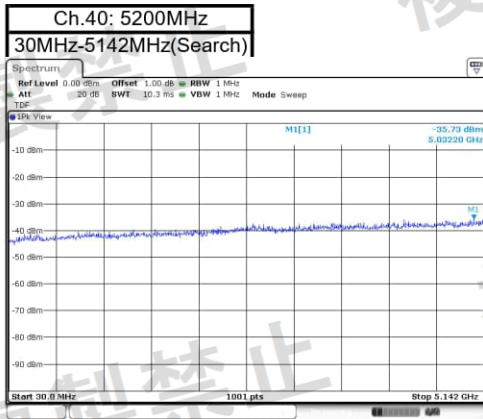
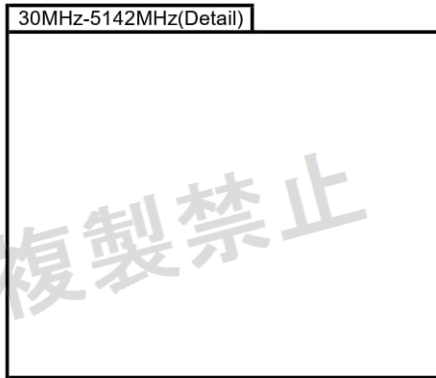
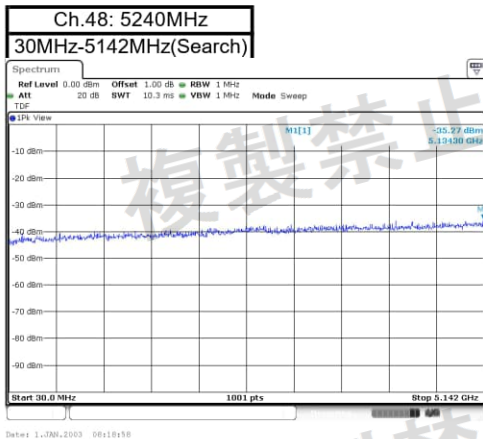
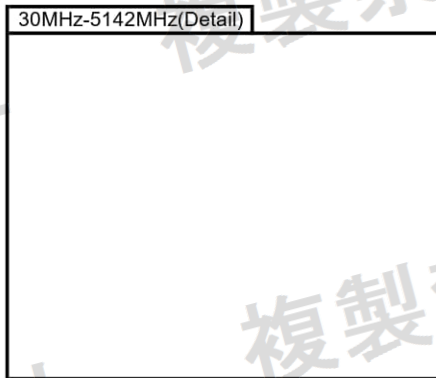
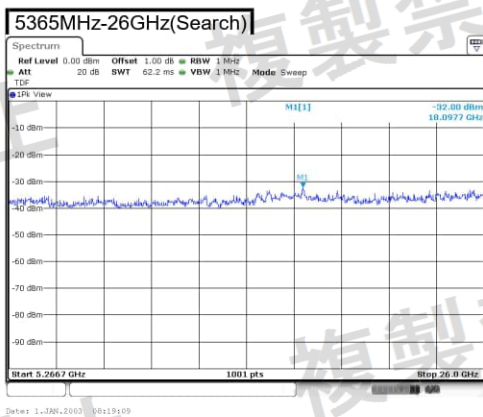
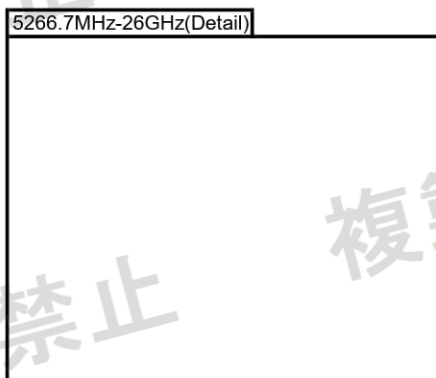


5266.7MHz-26GHz(Search)



5266.7MHz-26GHz(Detail)

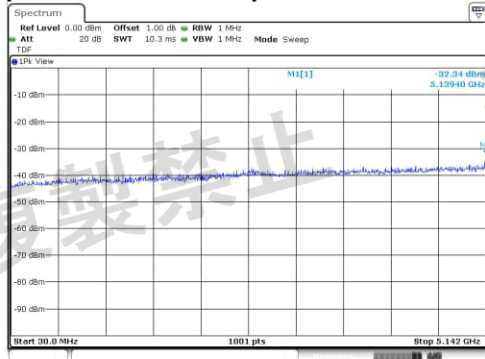




7. Test chart

7.5 Unwanted(Spurious) emission strength (-10% voltage)

Tx1
Ch.36: 5180MHz
30MHz-5142MHz(Search)

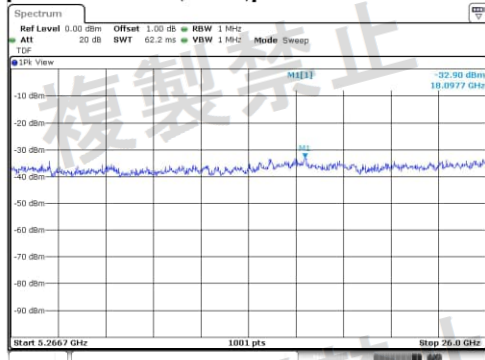


Date: 1-JAN-2003 07:30:42

30MHz-5142MHz(Detail)



5266.7MHz-26GHz(Search)

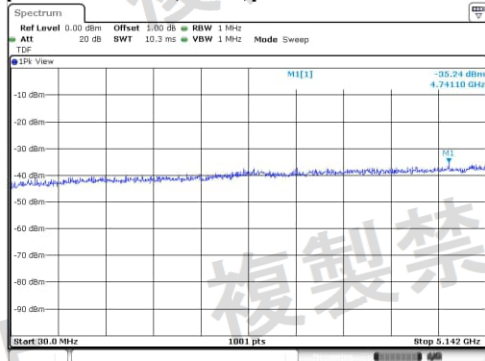


Date: 1-JAN-2003 07:30:52

5266.7MHz-26GHz(Detail)



Ch.40: 5200MHz
30MHz-5142MHz(Search)



Date: 1-JAN-2003 07:30:25

30MHz-5142MHz(Detail)

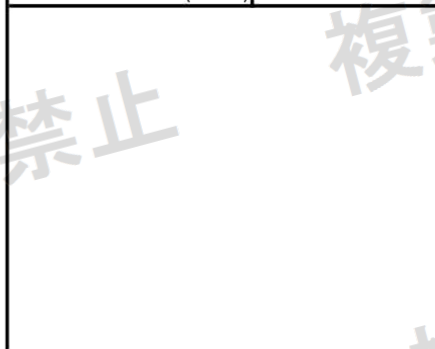


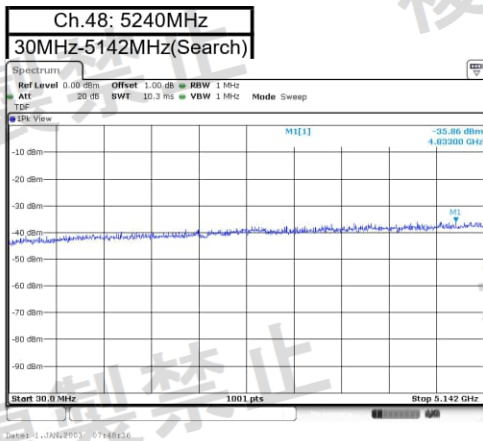
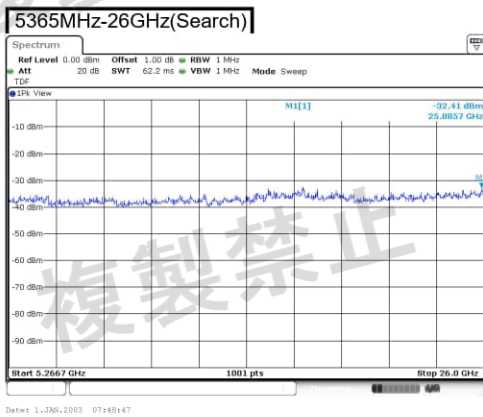
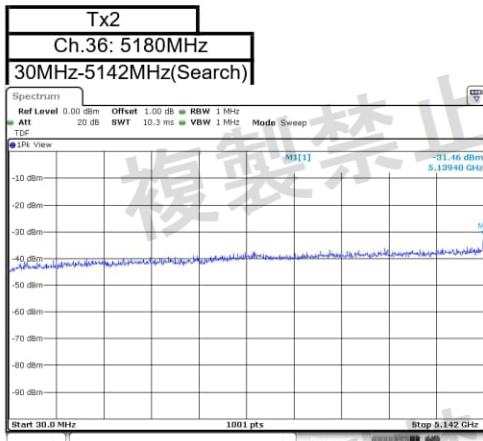
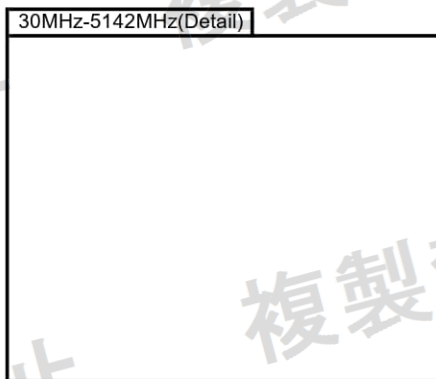
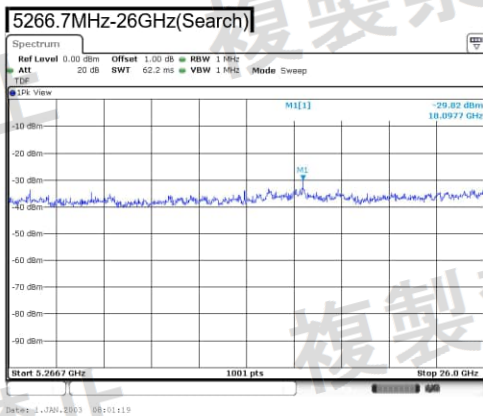
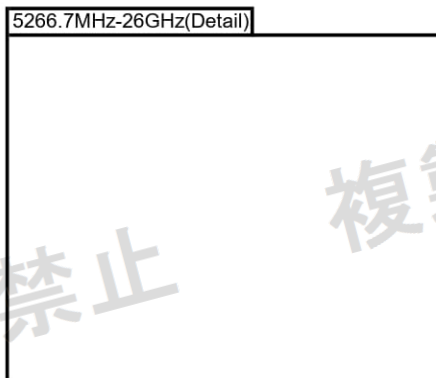
5365MHz-26GHz(Search)



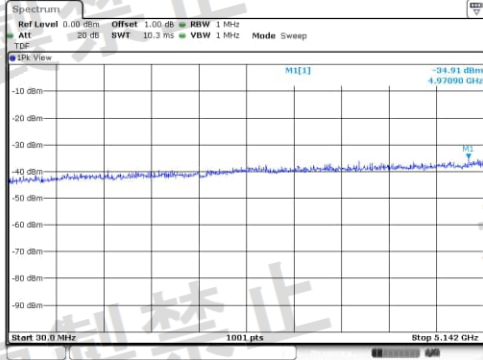
Date: 1-JAN-2003 07:39:26

5266.7MHz-26GHz(Detail)





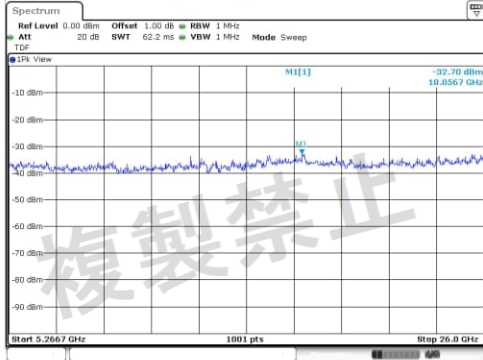
Ch.40: 5200MHz
30MHz-5142MHz(Search)



30MHz-5142MHz(Detail)



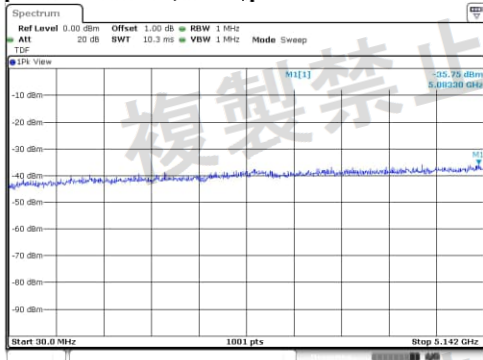
5365MHz-26GHz(Search)



5266.7MHz-26GHz(Detail)



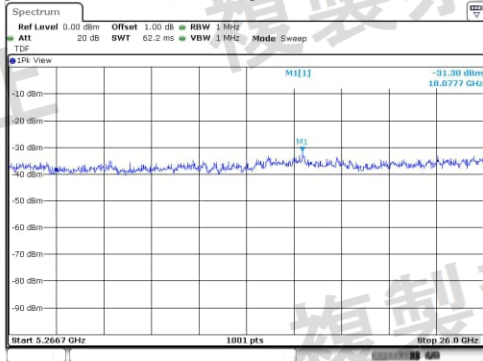
Ch.48: 5240MHz
30MHz-5142MHz(Search)



30MHz-5142MHz(Detail)



5365MHz-26GHz(Search)



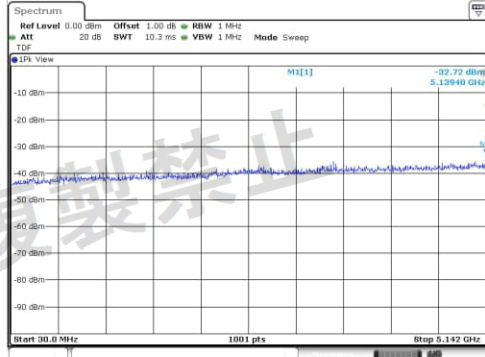
5266.7MHz-26GHz(Detail)



7. Test chart

7.5 Unwanted(Spurious) emission strength (+10% voltage)

Tx1
Ch.36: 5180MHz
30MHz-5142MHz(Search)

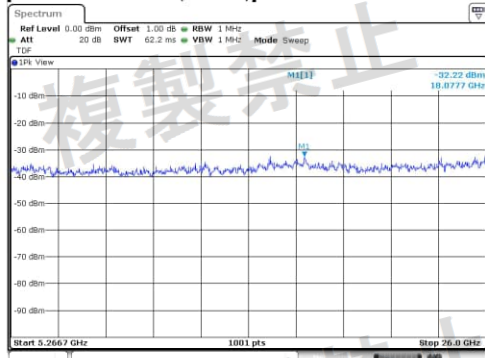


Date: 1-JAN-2003 07:31:06

30MHz-5142MHz(Detail)



5266.7MHz-26GHz(Search)

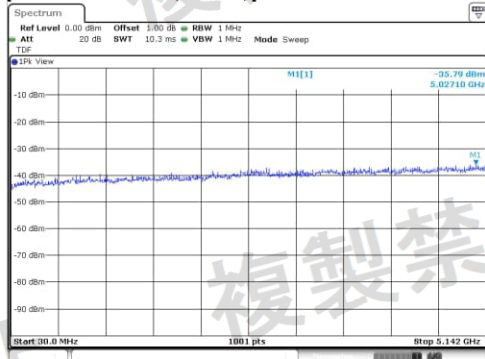


Date: 1-JAN-2003 07:31:17

5266.7MHz-26GHz(Detail)



Ch.40: 5200MHz
30MHz-5142MHz(Search)

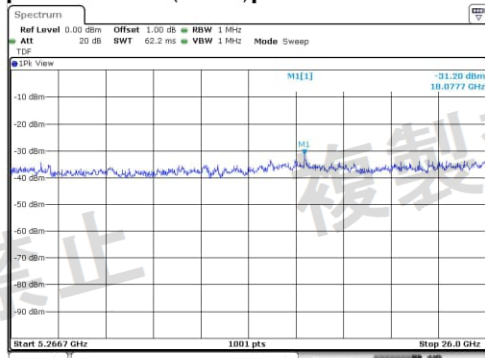


Date: 1-JAN-2003 07:39:50

30MHz-5142MHz(Detail)

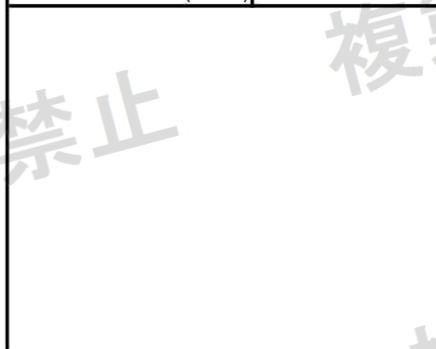


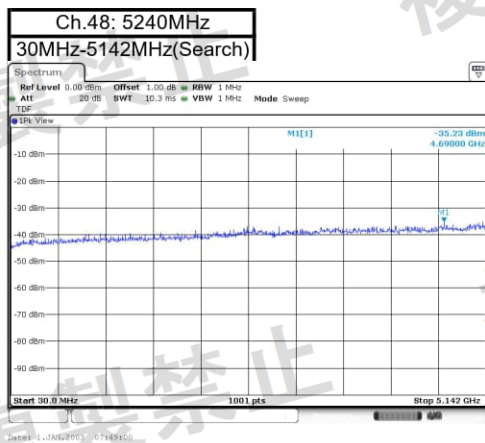
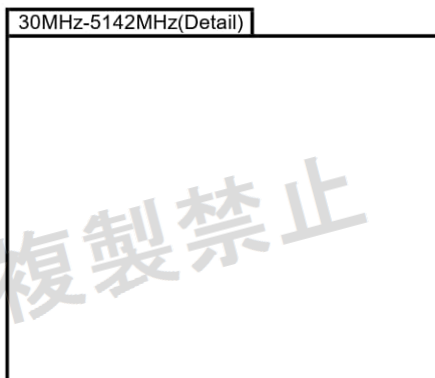
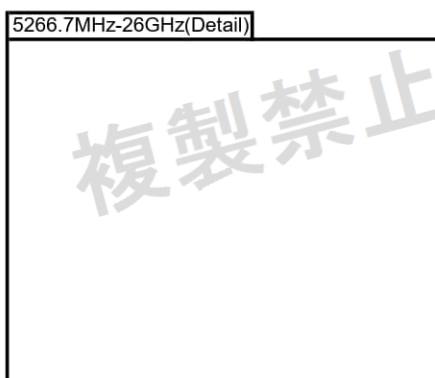
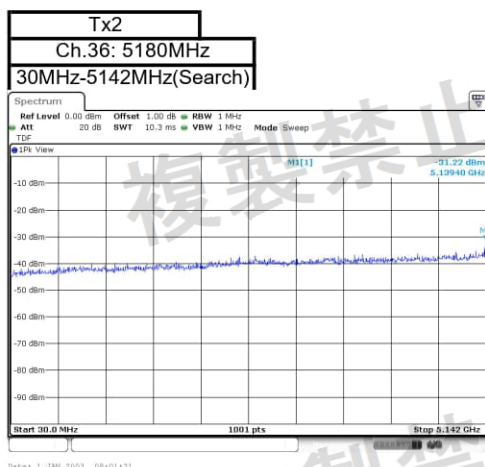
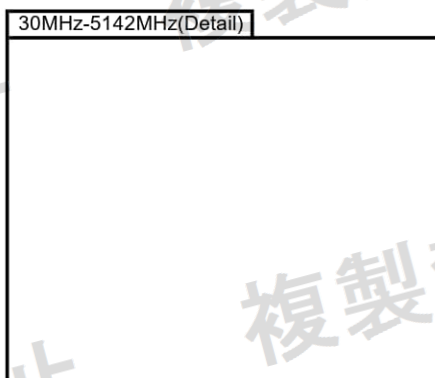
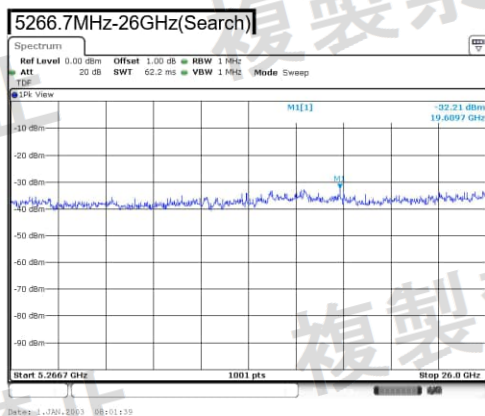
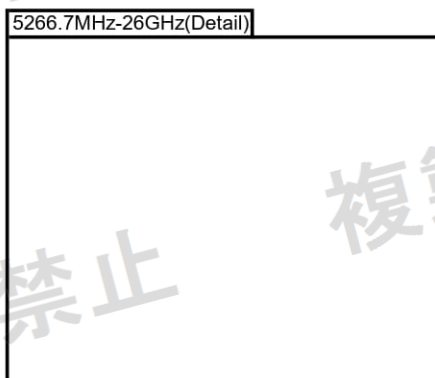
5365MHz-26GHz(Search)

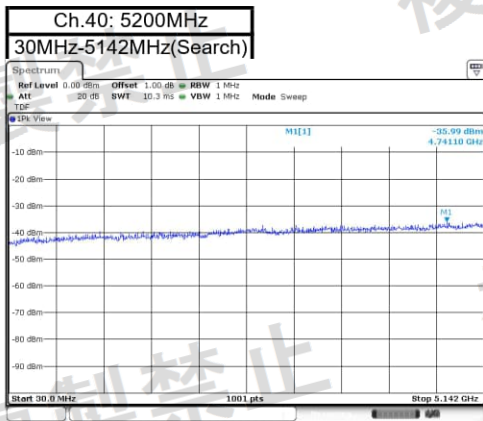
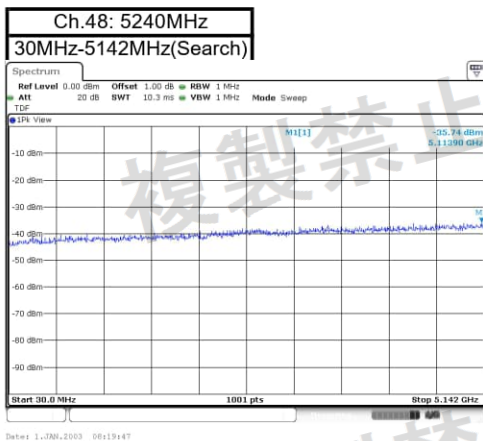
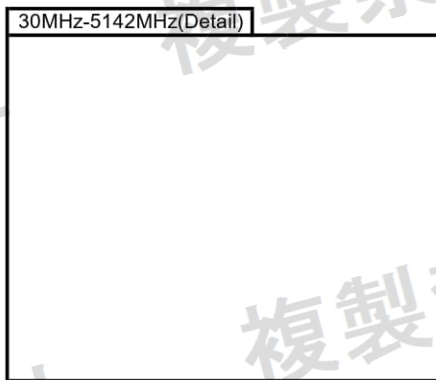
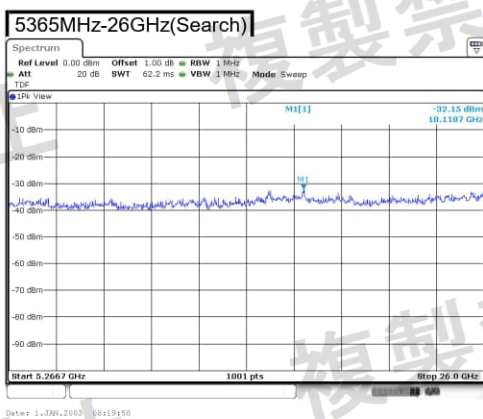
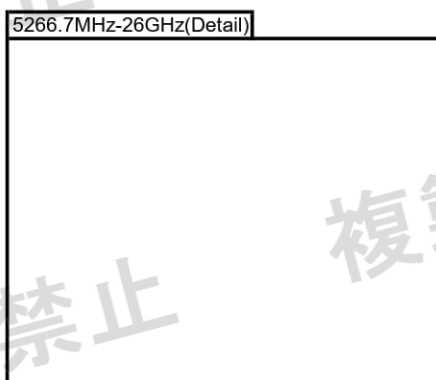


Date: 1-JAN-2003 07:40:00

5266.7MHz-26GHz(Detail)

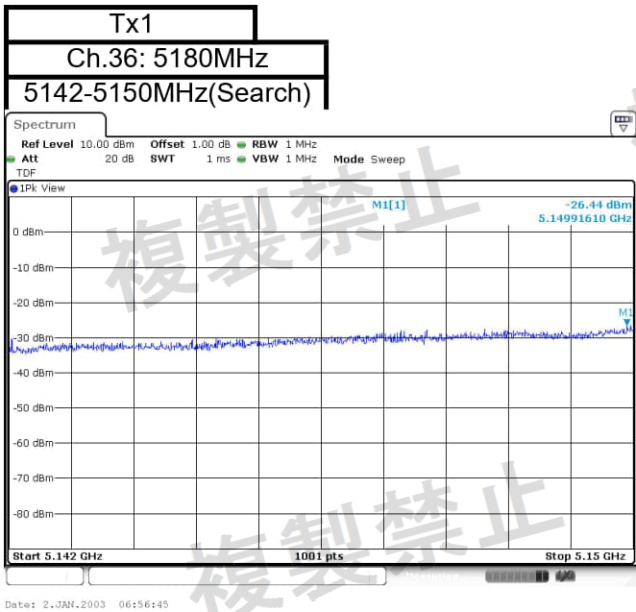
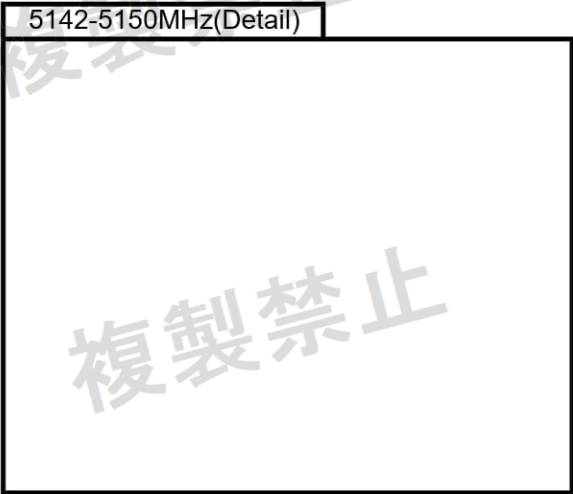
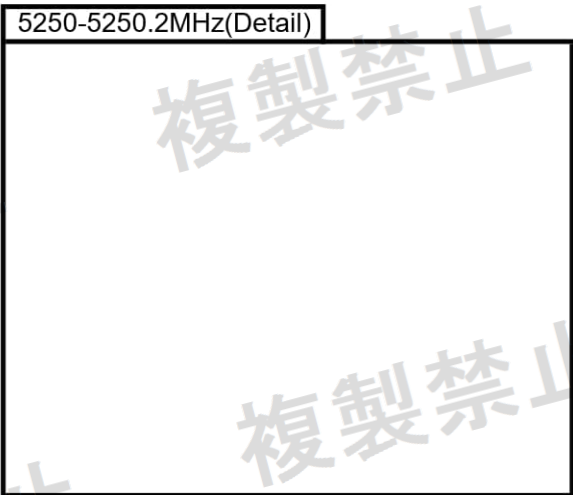
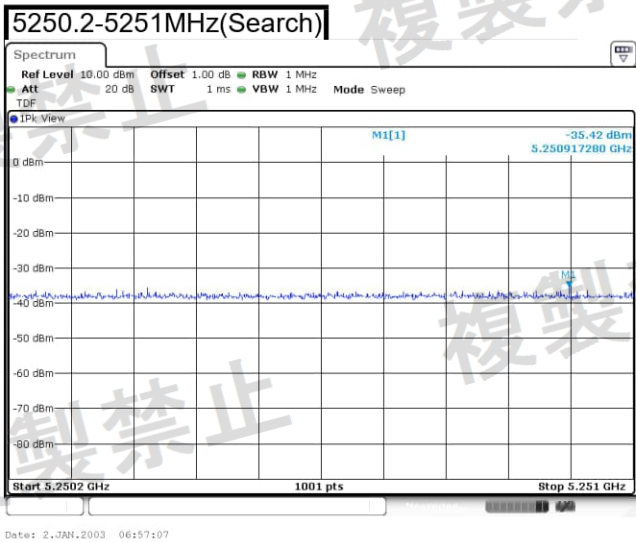
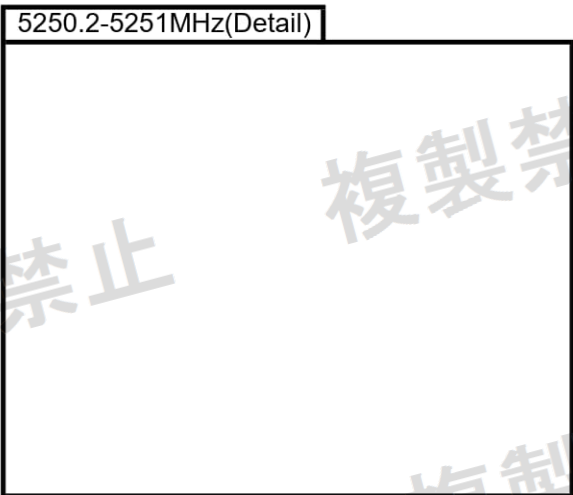


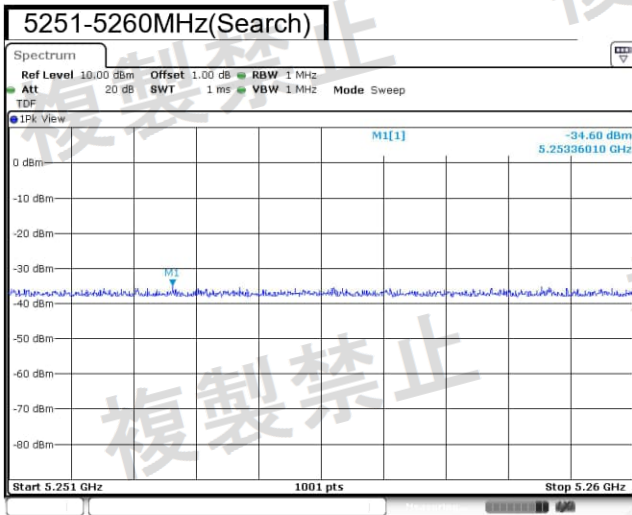




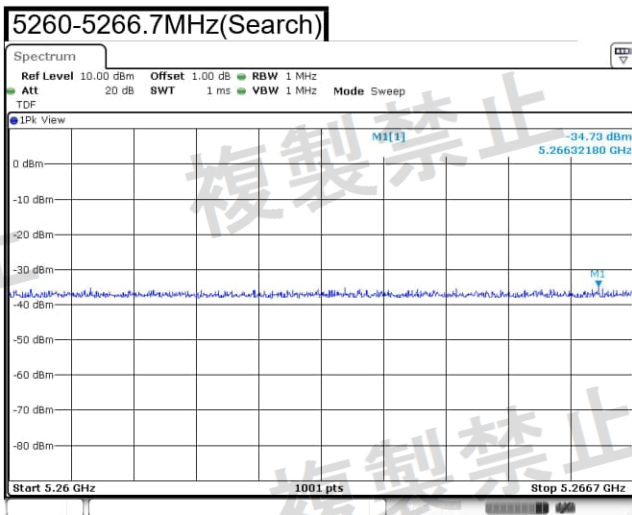
7. Test chart

7.6 Out-Band Leakage Power (Rated voltage)

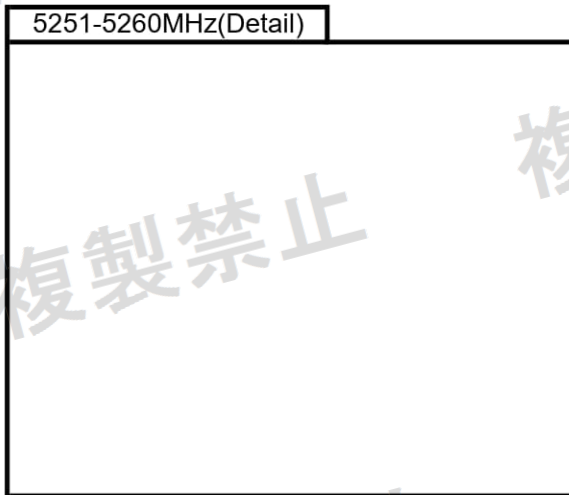


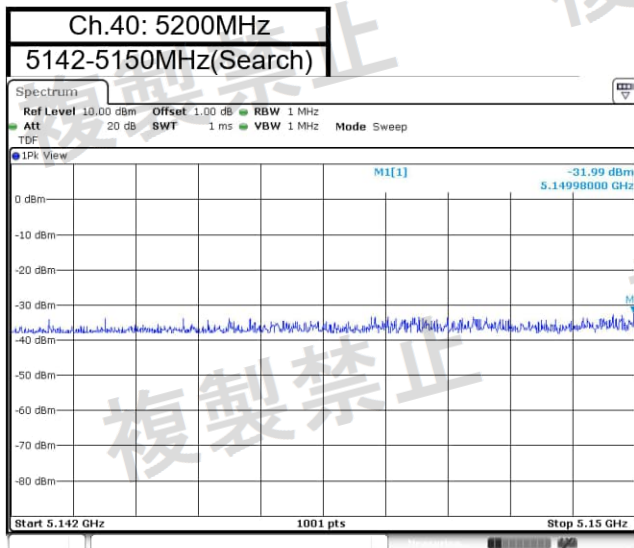


Date: 2.JAN.2003 06:57:18

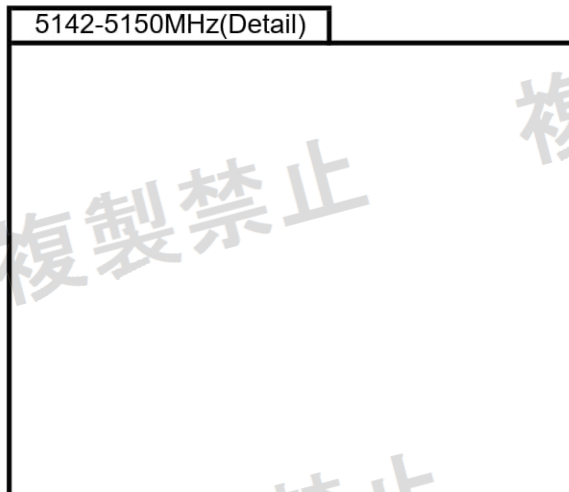
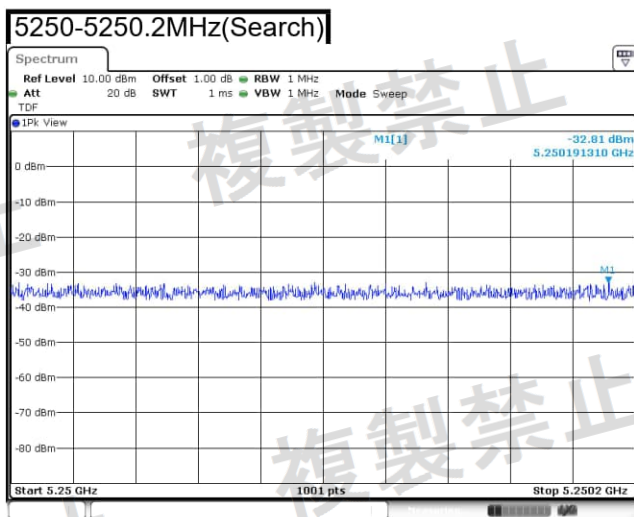


Date: 2.JAN.2003 06:57:28

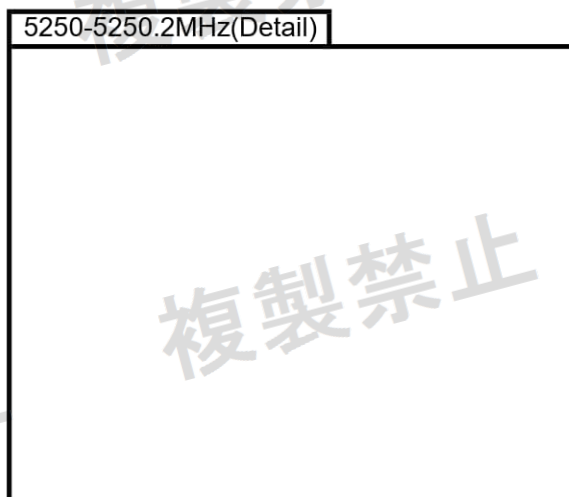
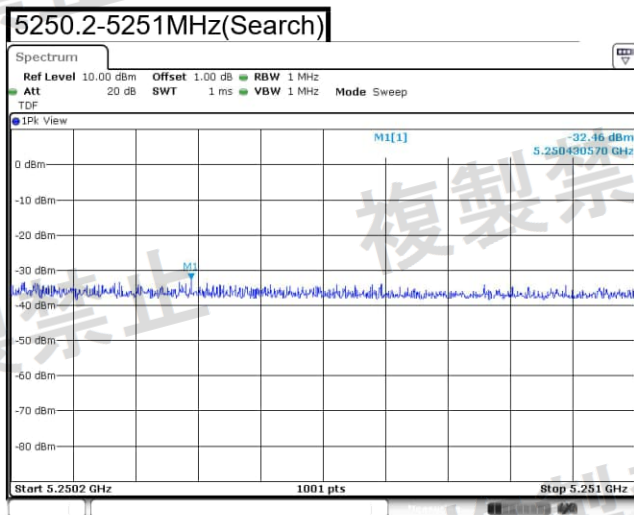




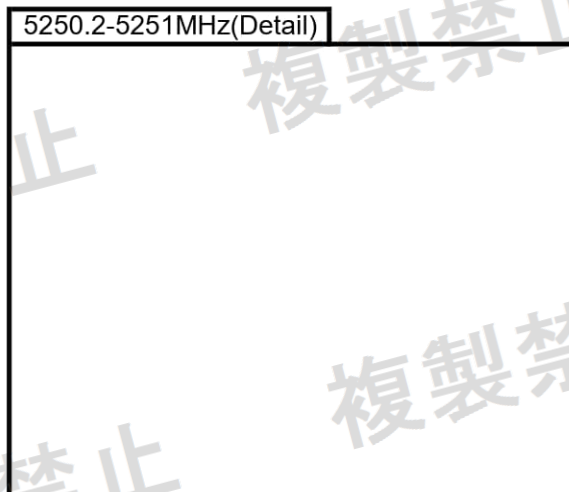
Date: 1.JAN.2003 07:36:10



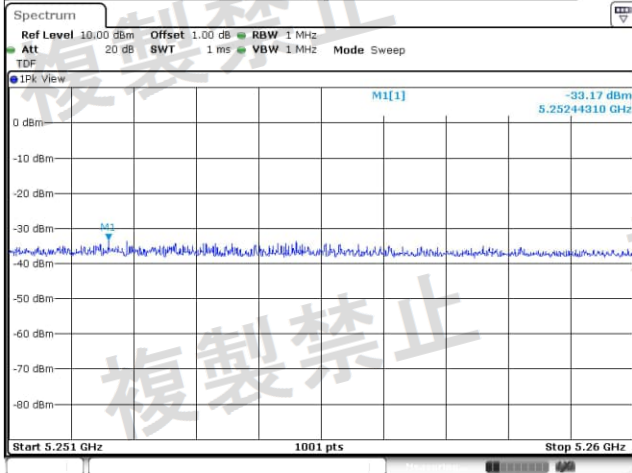
Date: 1.JAN.2003 07:36:20



Date: 1.JAN.2003 07:36:31



5251-5260MHz(Search)

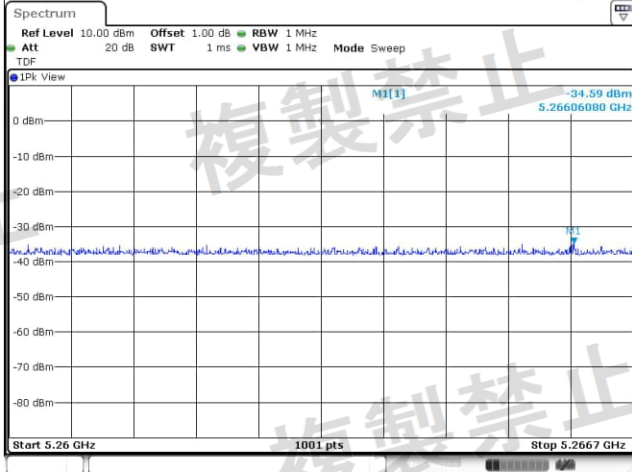


Date: 1.JAN.2003 07:36:42

5251-5260MHz(Detail)



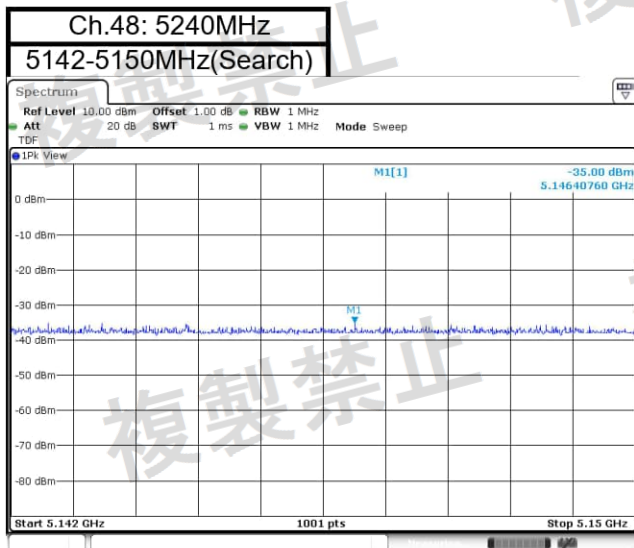
5260-5266.7MHz(Search)



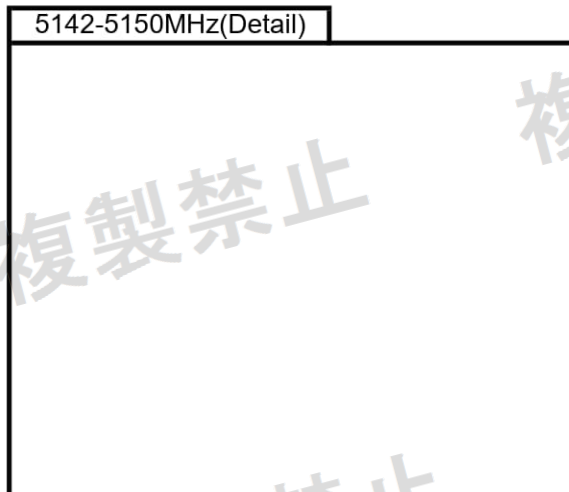
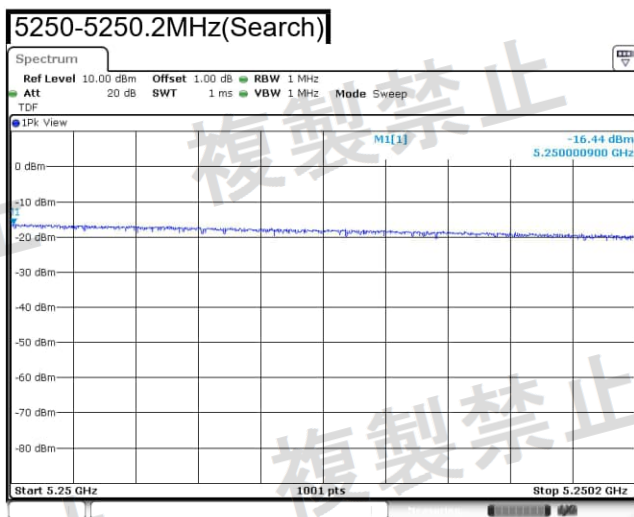
Date: 1.JAN.2003 07:36:53

5260-5266.7MHz(Detail)

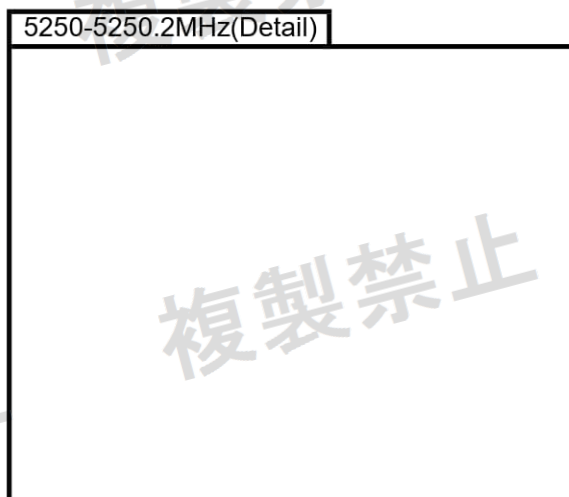
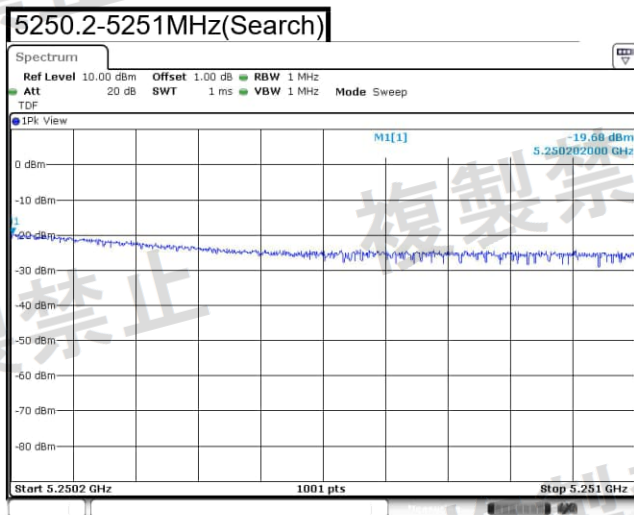




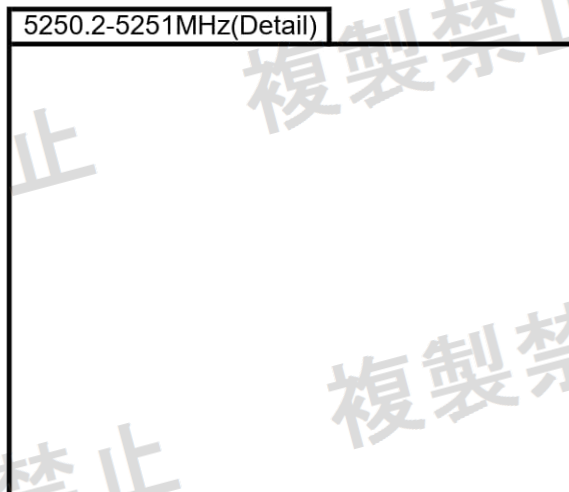
Date: 1.JAN.2003 07:45:21

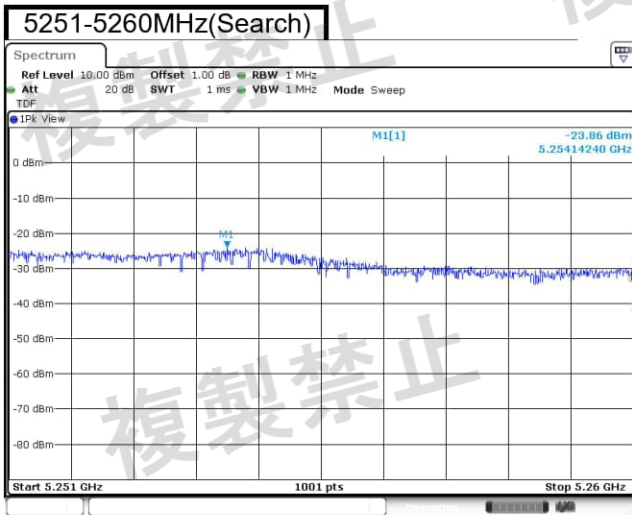


Date: 1.JAN.2003 07:45:31

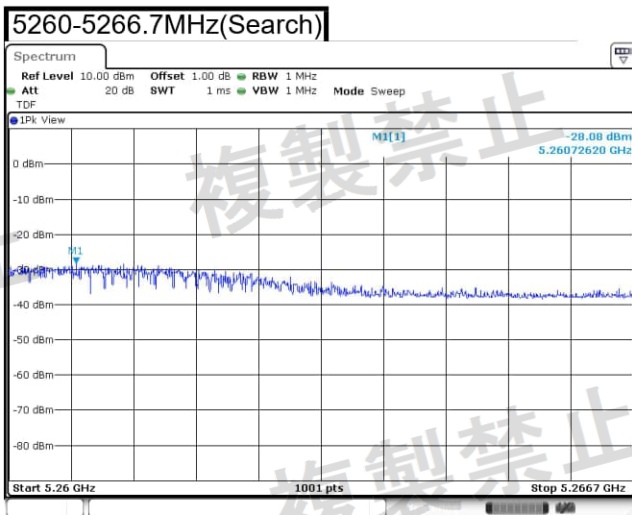


Date: 1.JAN.2003 07:45:42

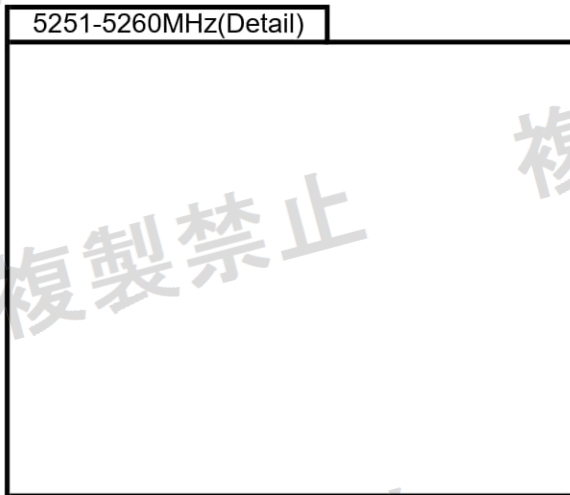
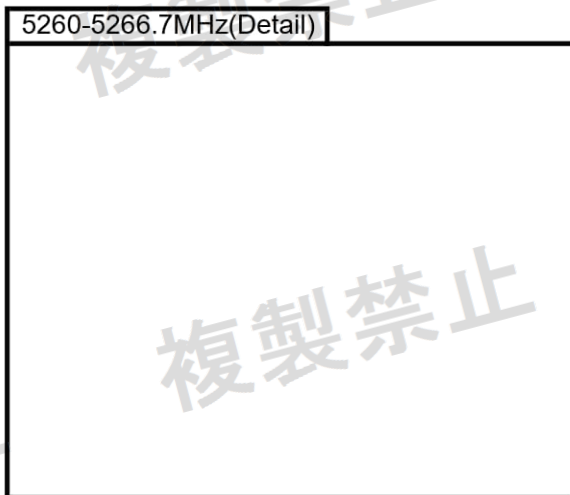


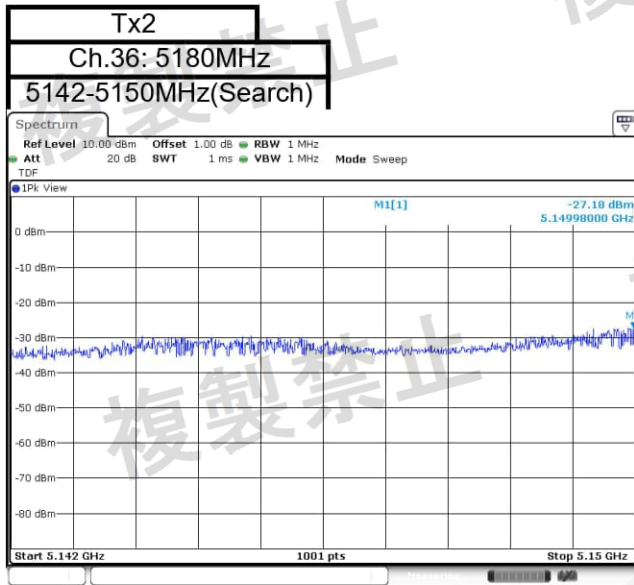


Date: 1.JAN.2003 07:45:53

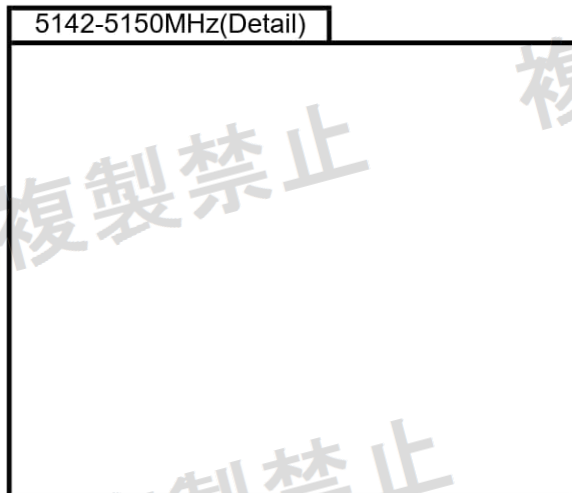
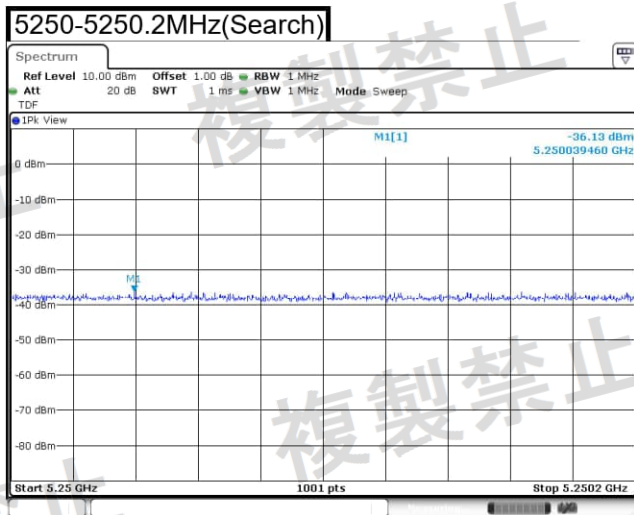


Date: 1.JAN.2003 07:46:04

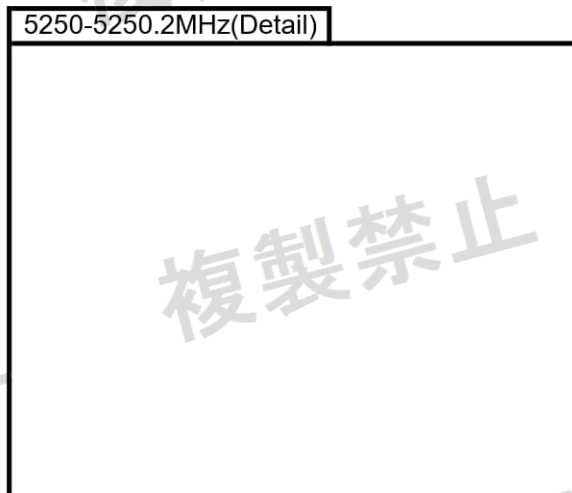
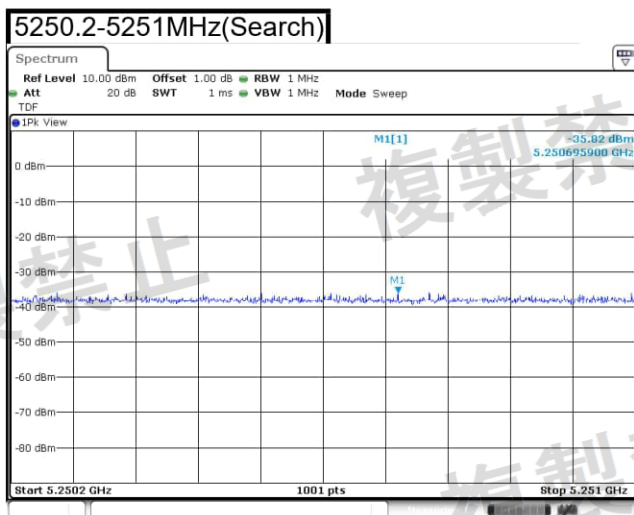




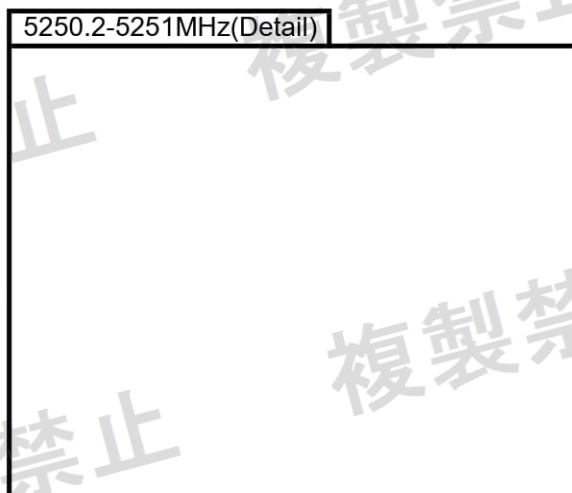
Date: 2.JAN.2003 06:59:29



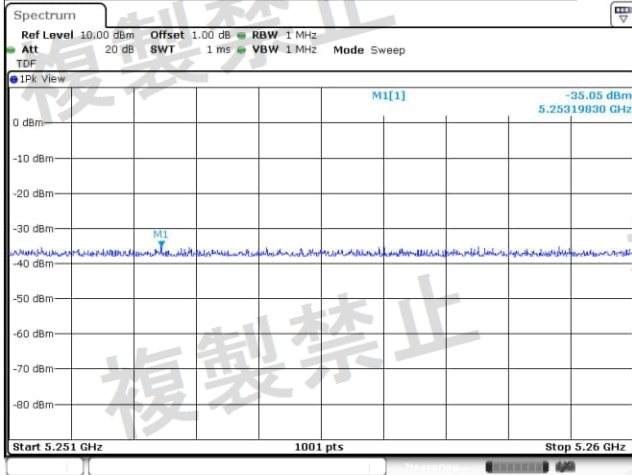
Date: 2.JAN.2003 06:59:40



Date: 2.JAN.2003 06:59:50



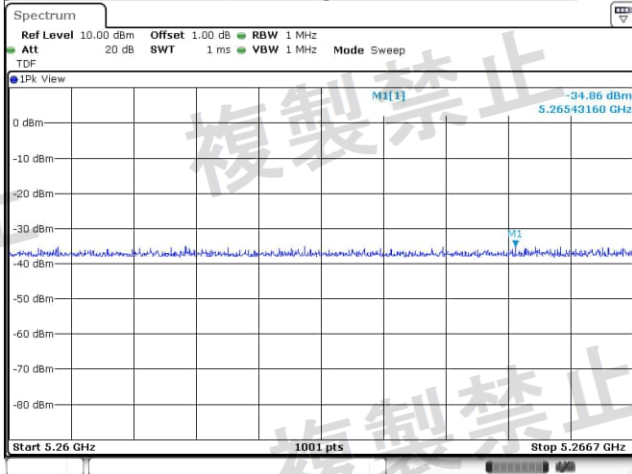
5251-5260MHz(Search)



Date: 2.JAN.2003 07:00:01

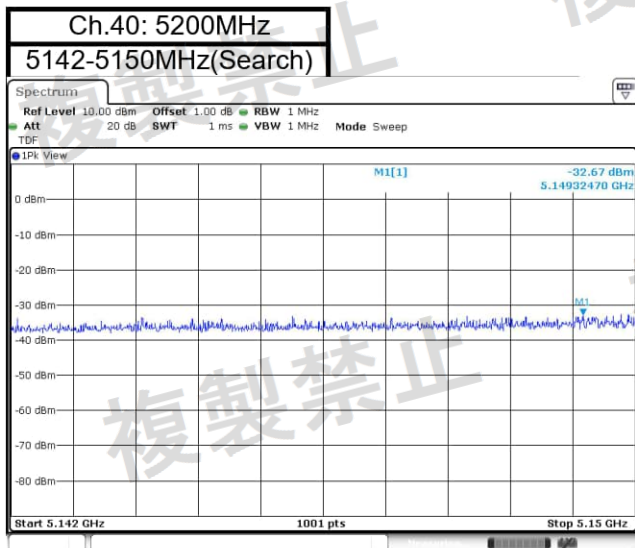
5251-5260MHz(Detail)

5260-5266.7MHz(Search)

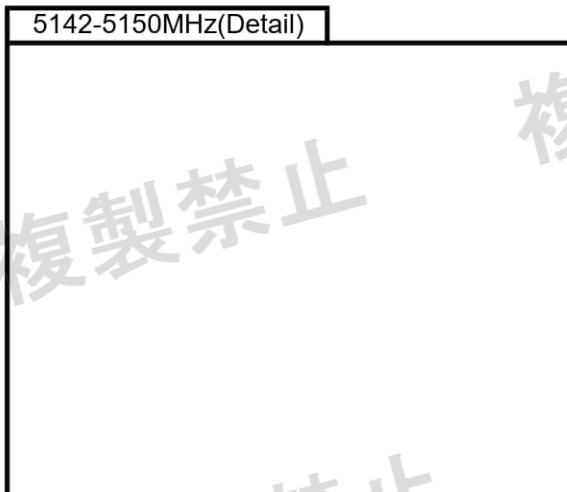
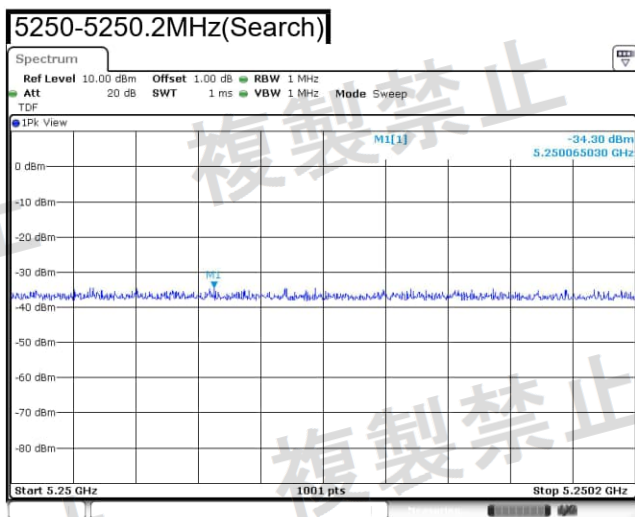


Date: 2.JAN.2003 07:00:12

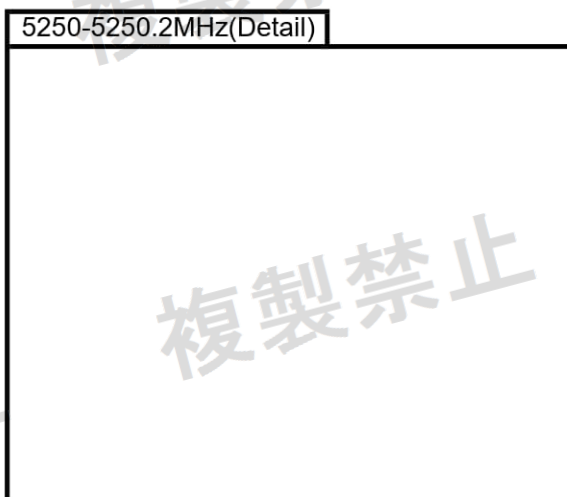
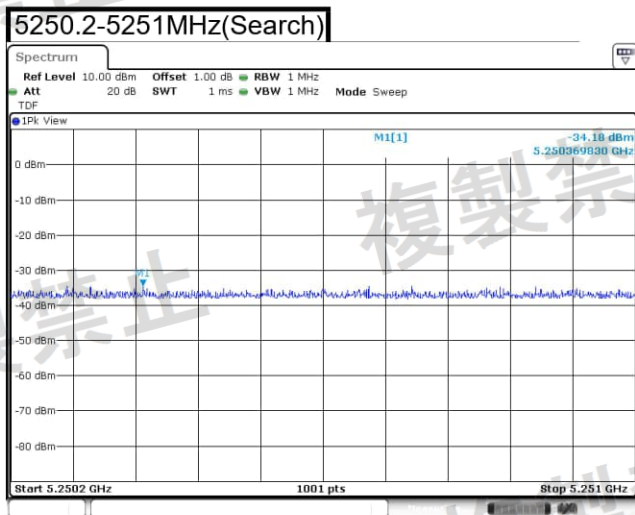
5260-5266.7MHz(Detail)



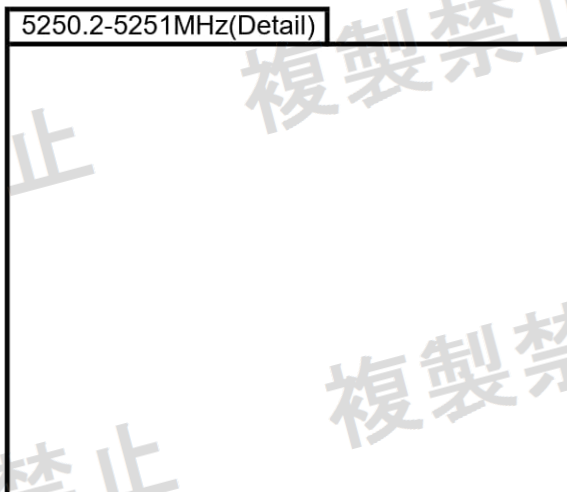
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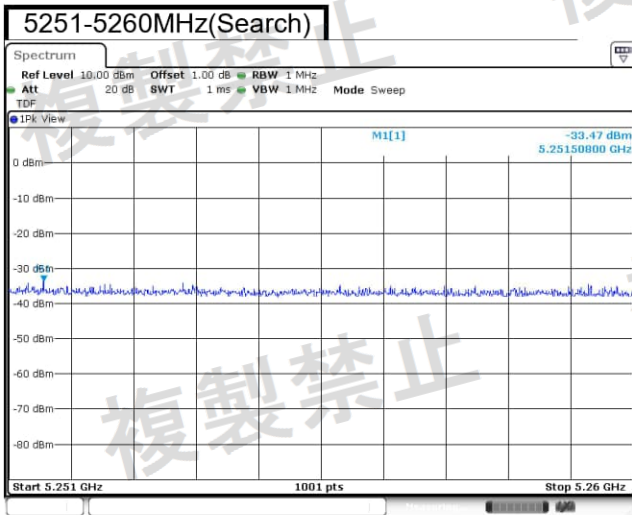


Date: 1.JAN.2003 08:06:45

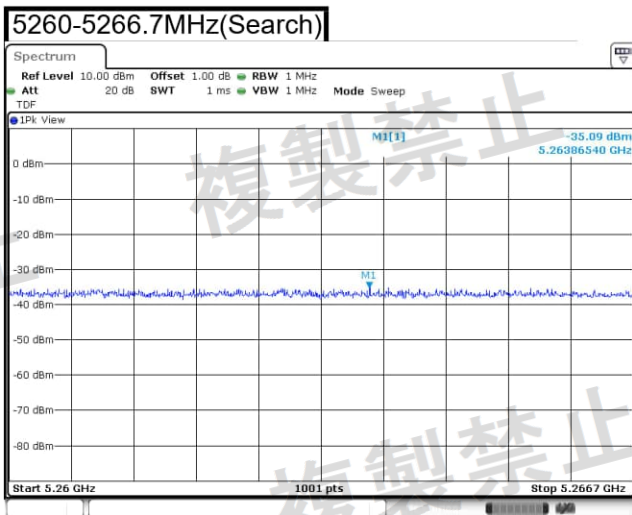
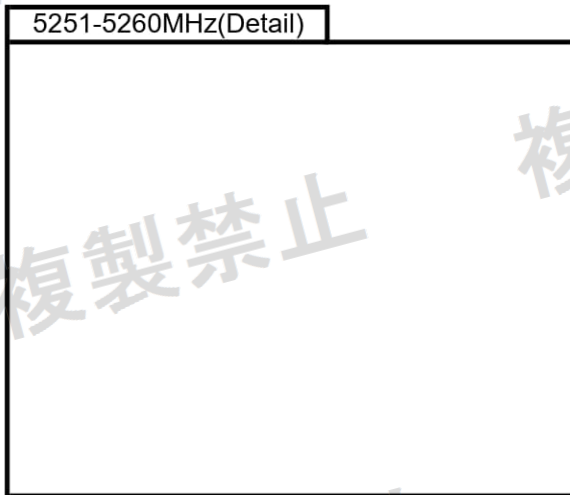
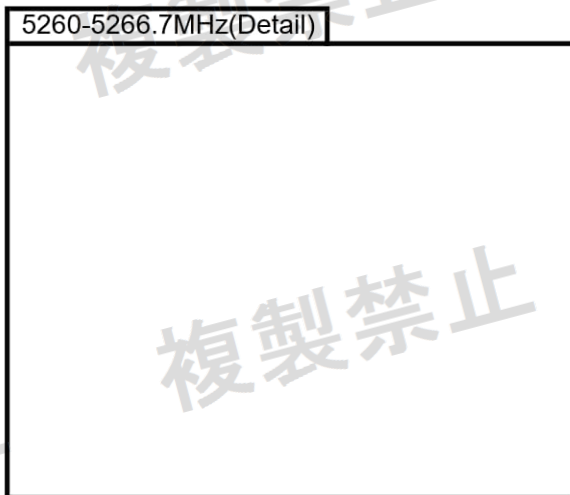


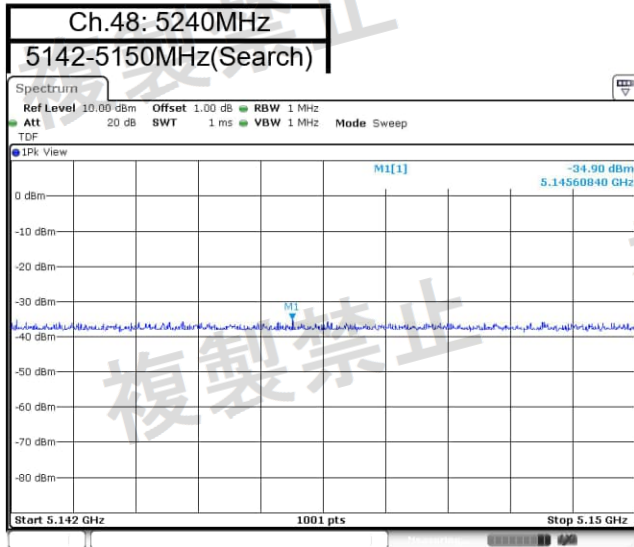
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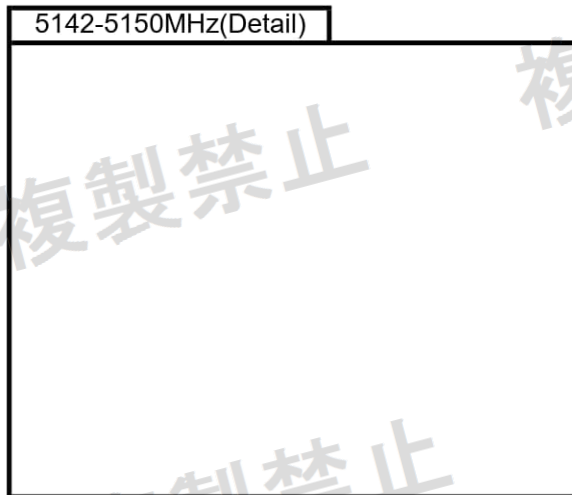
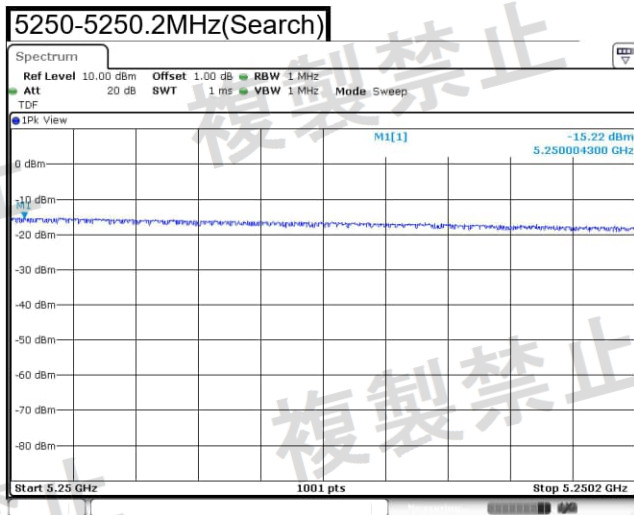


Date: 1 JAN 2003 08:07:06

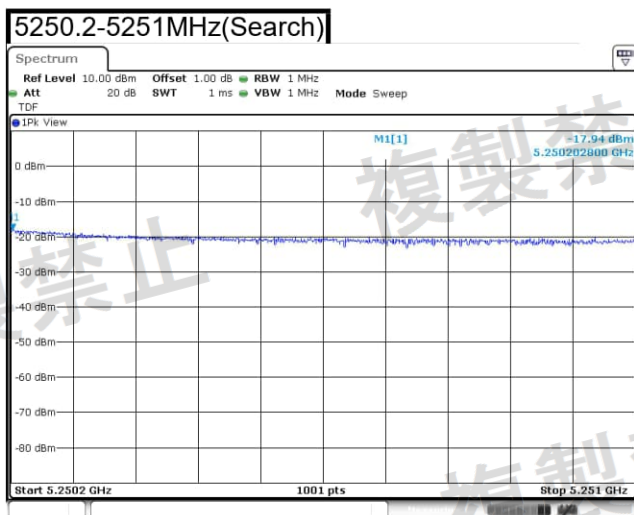




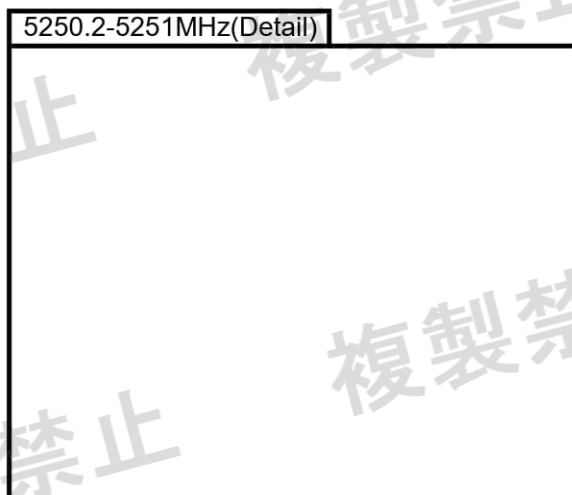
Date: 1.JAN.2003 08:16:08

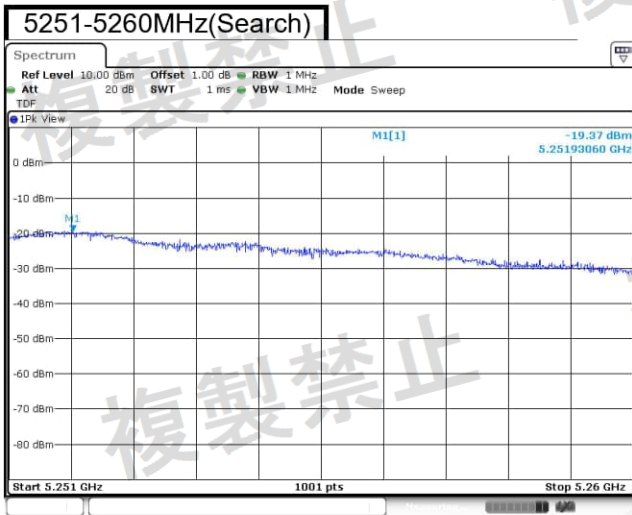
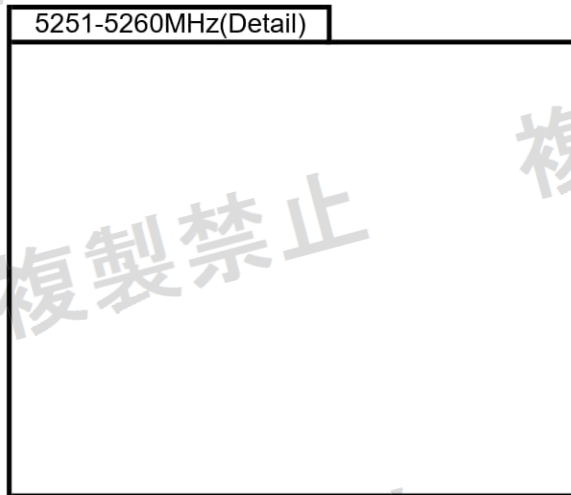
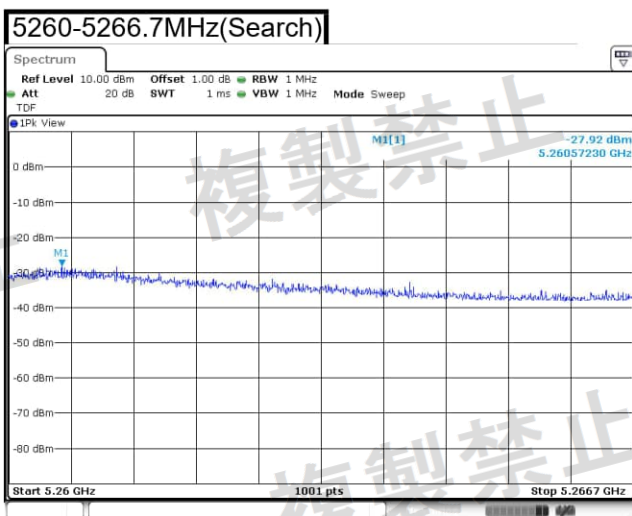


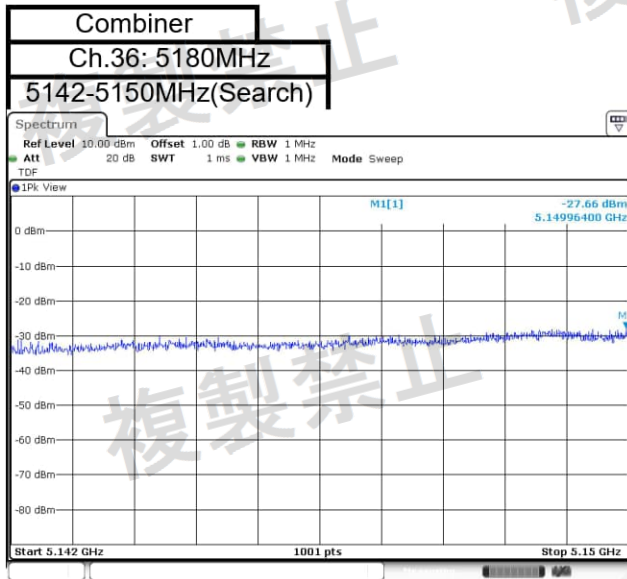
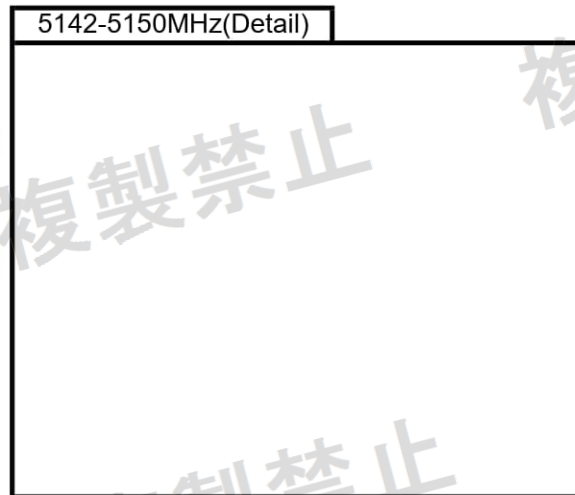
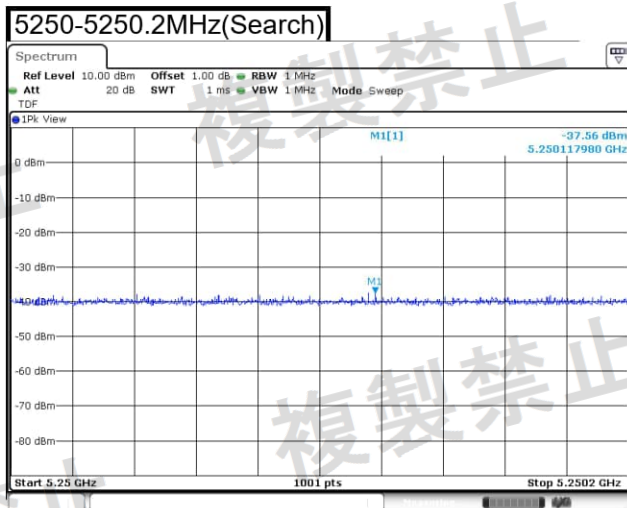
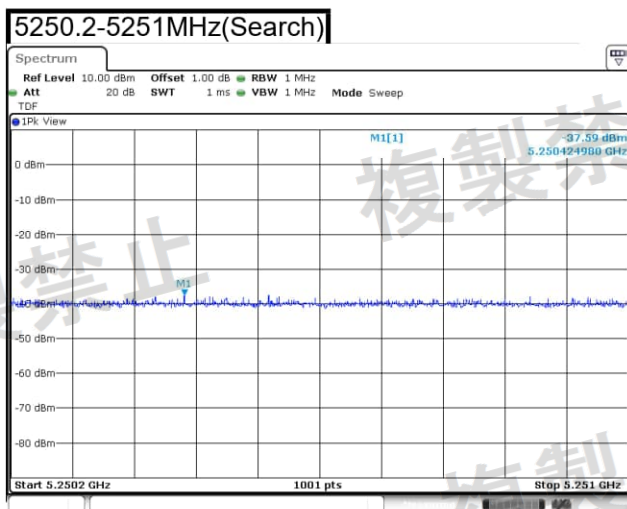
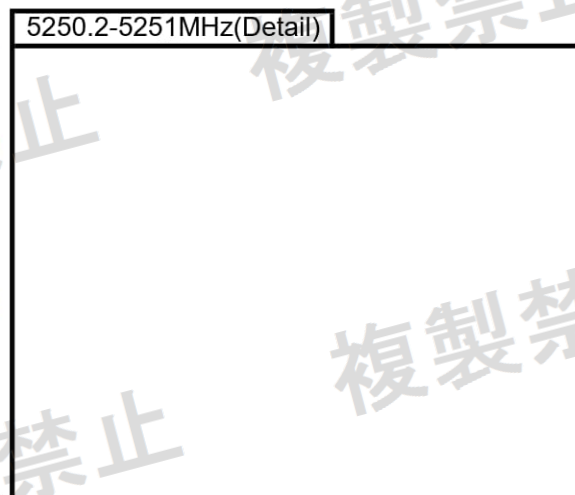
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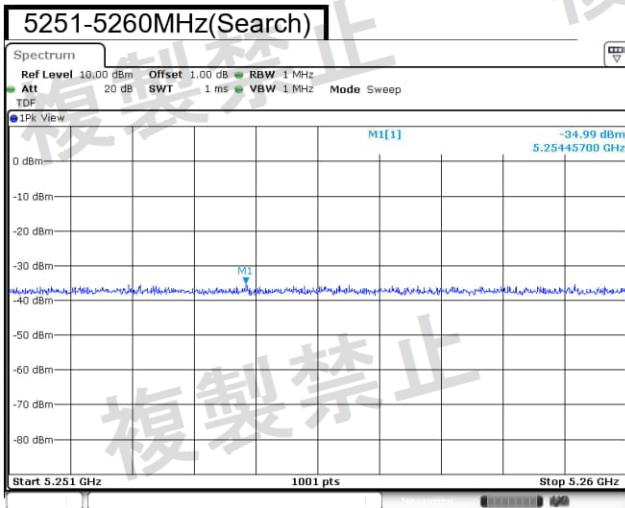
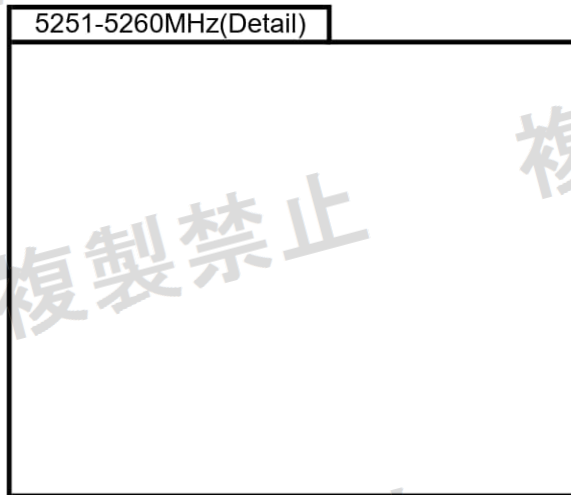
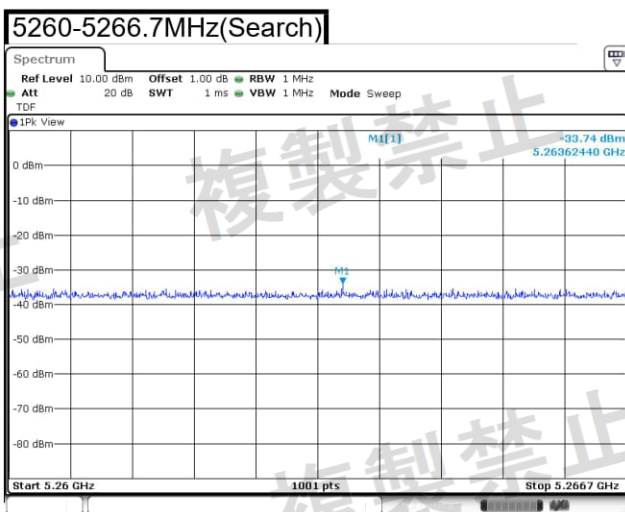


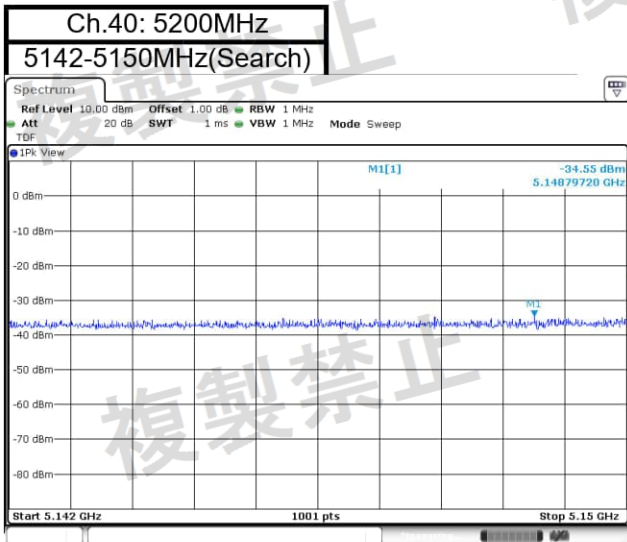
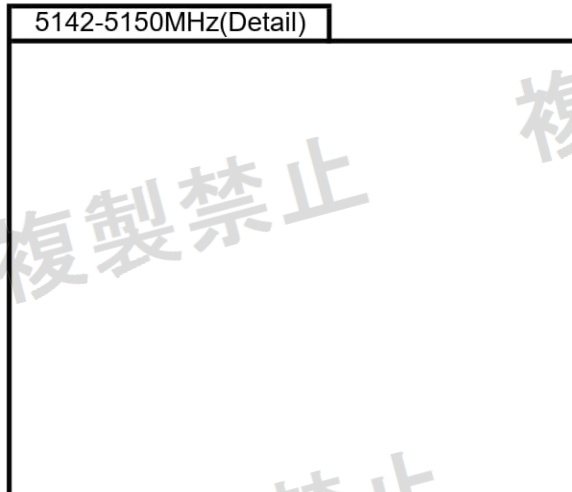
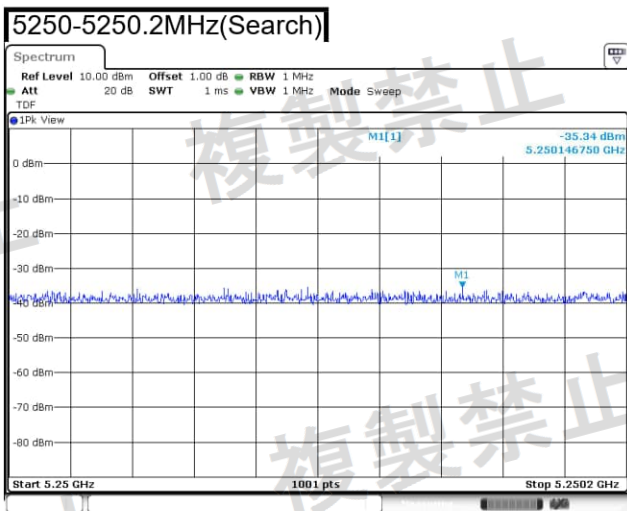
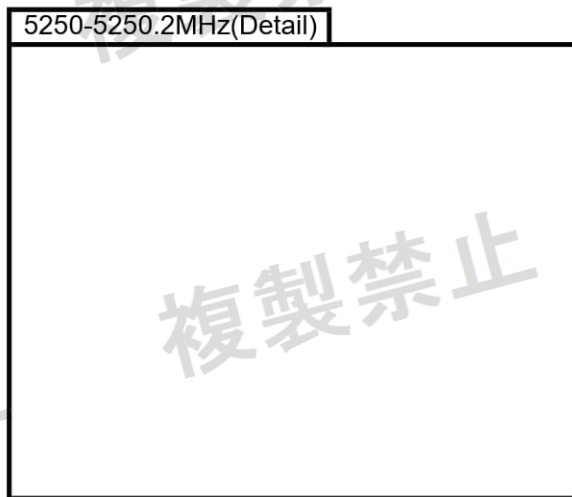
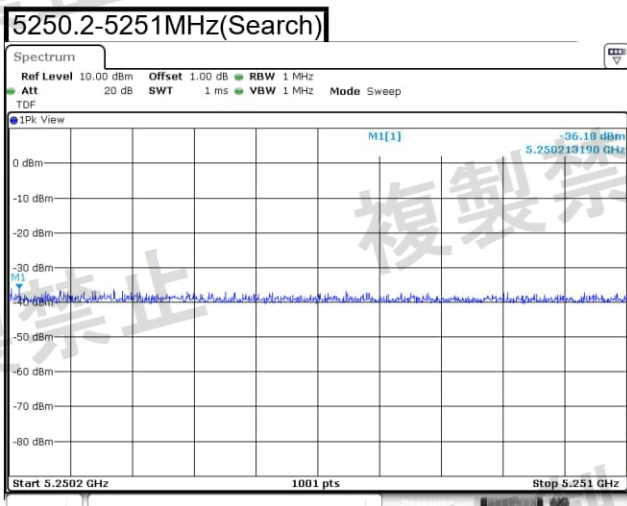
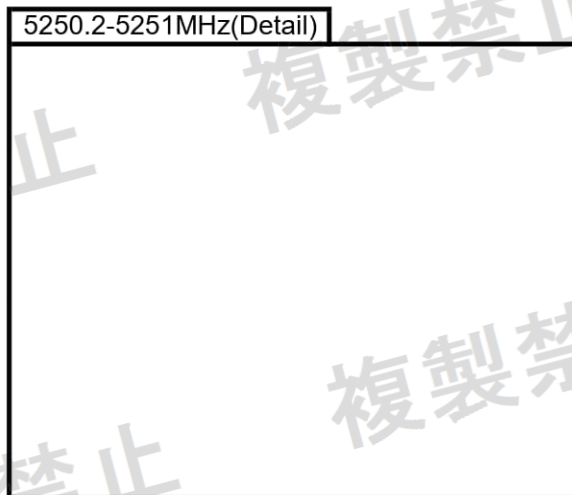
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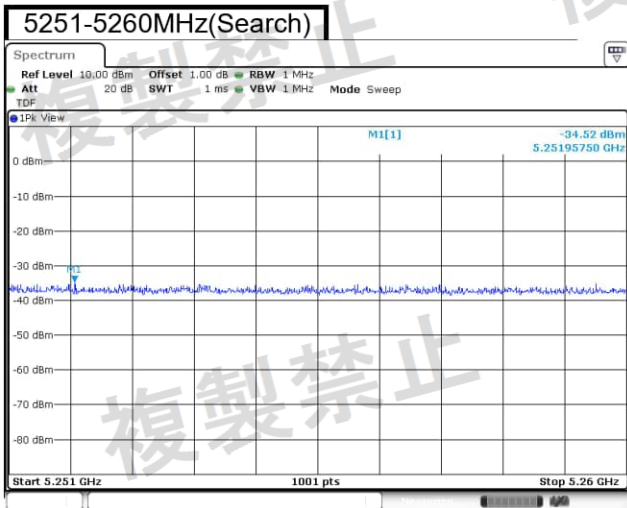
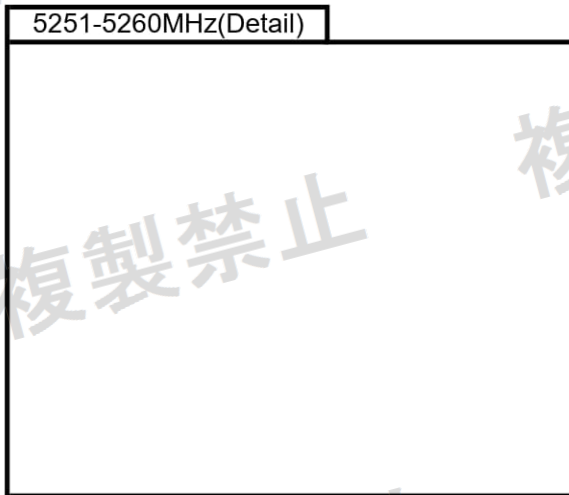
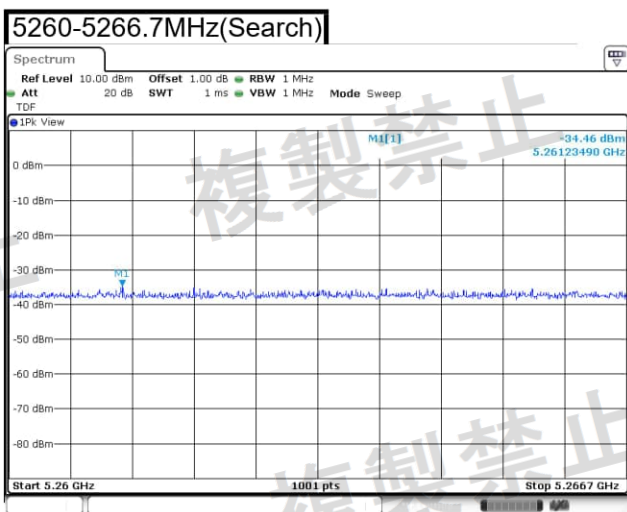


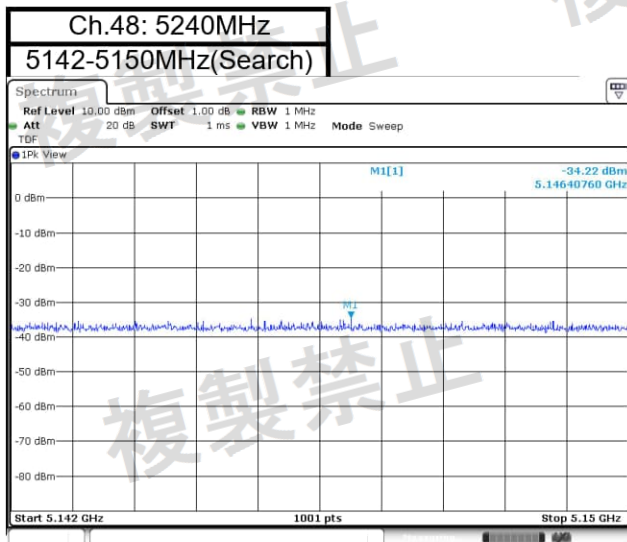
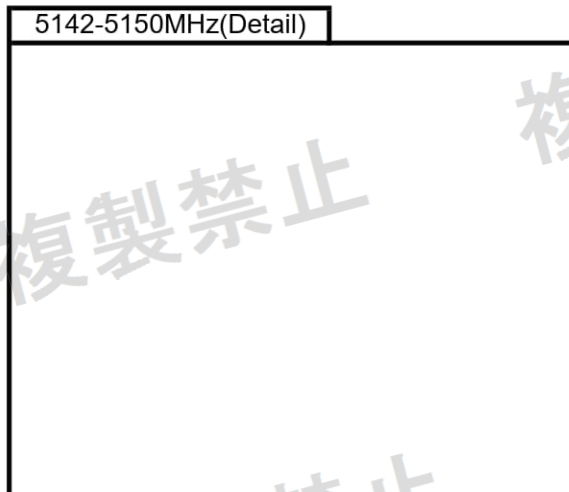
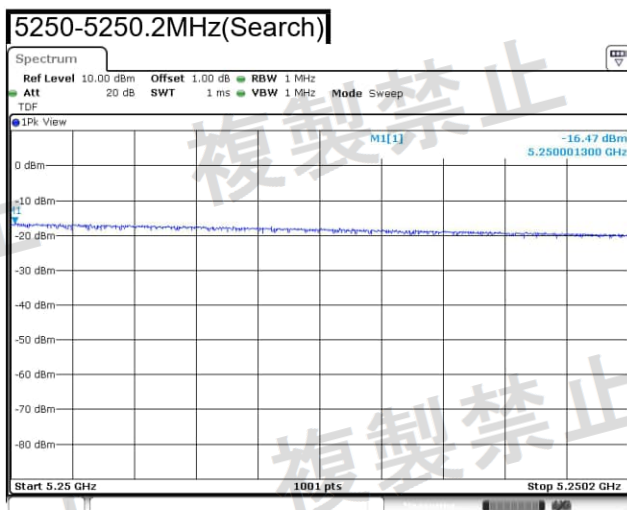
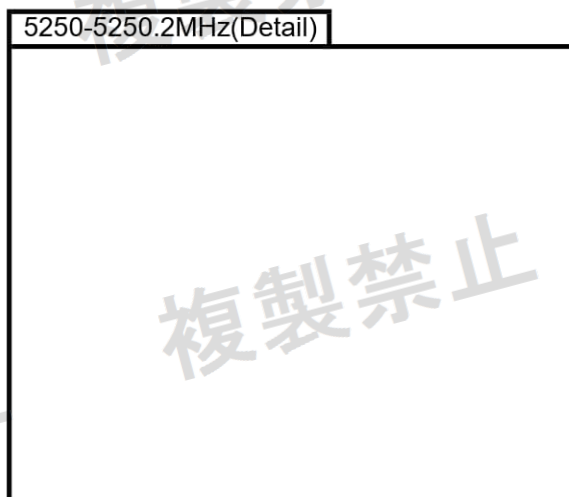
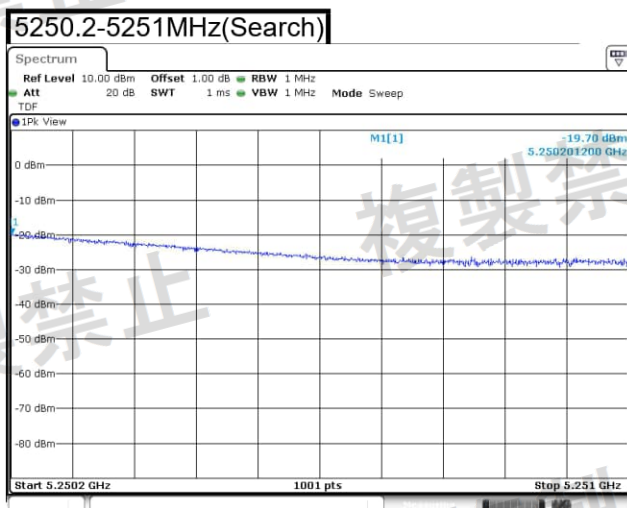
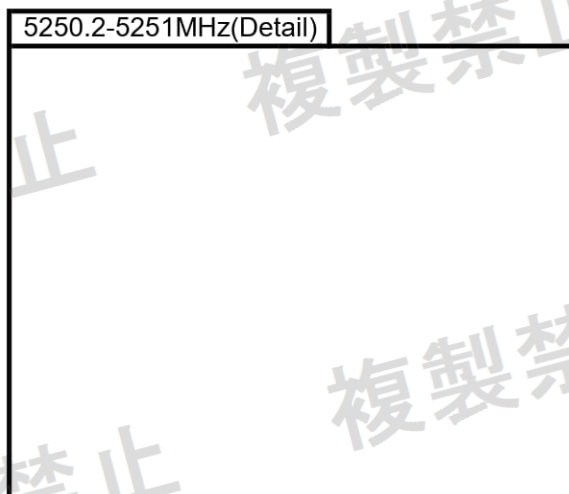


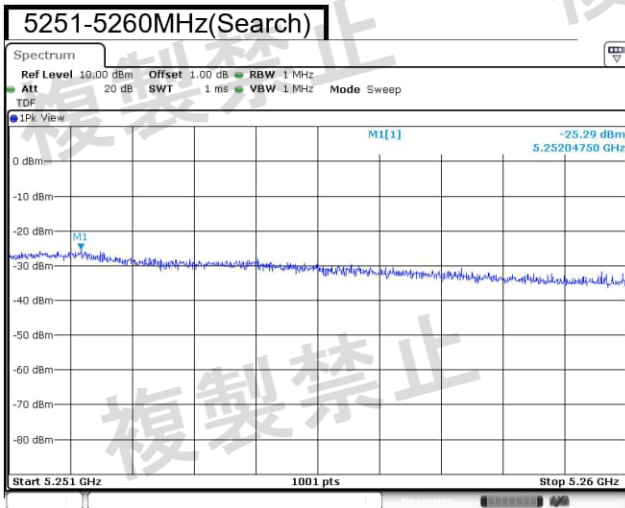
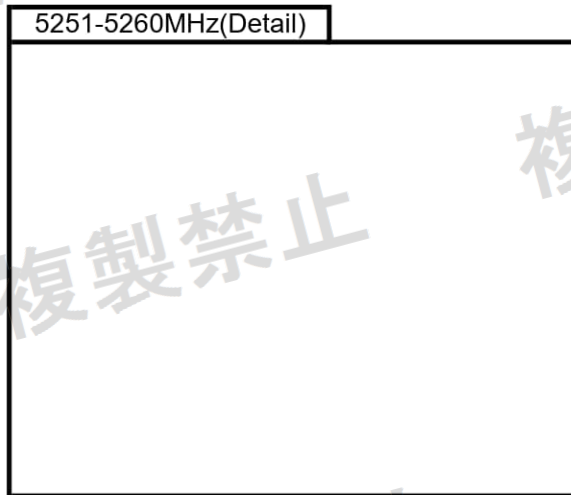
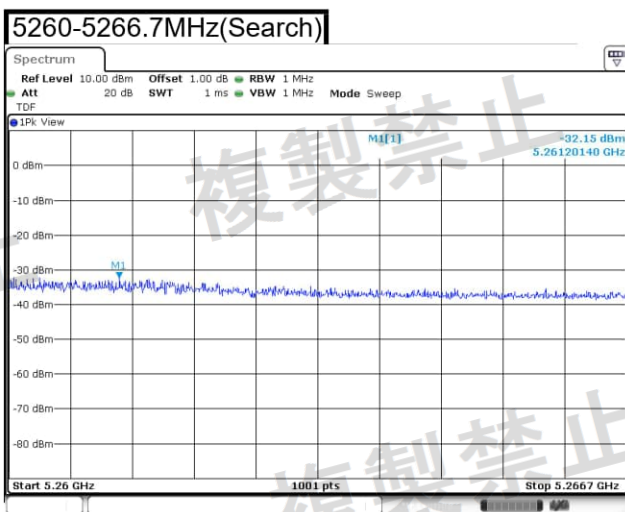






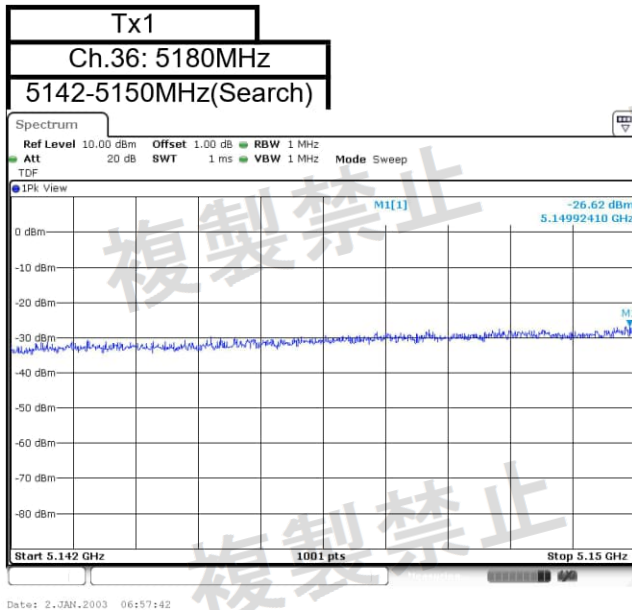
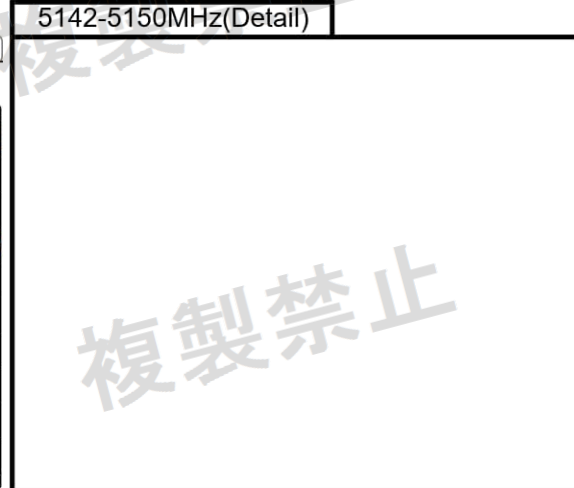
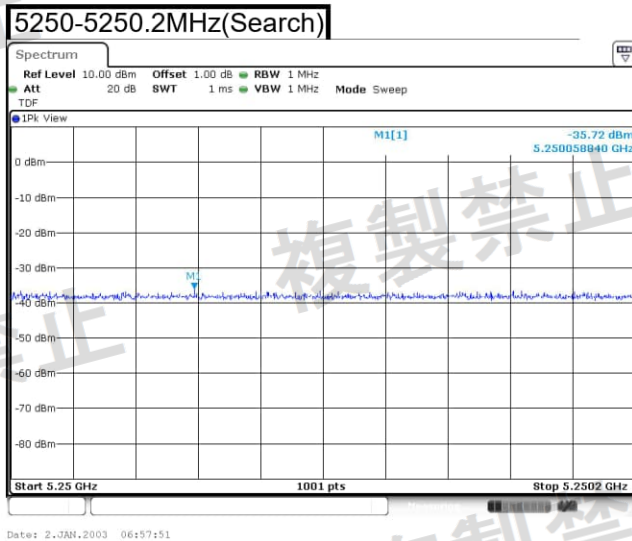
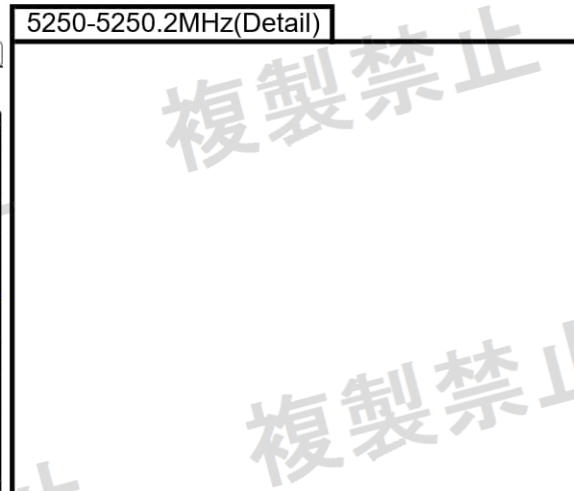
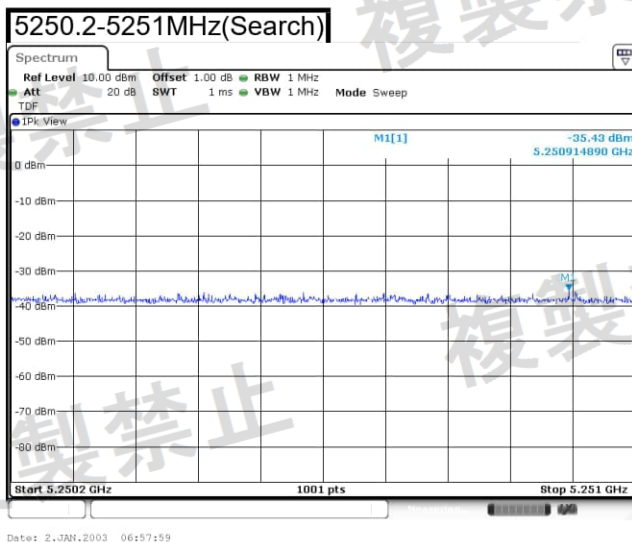
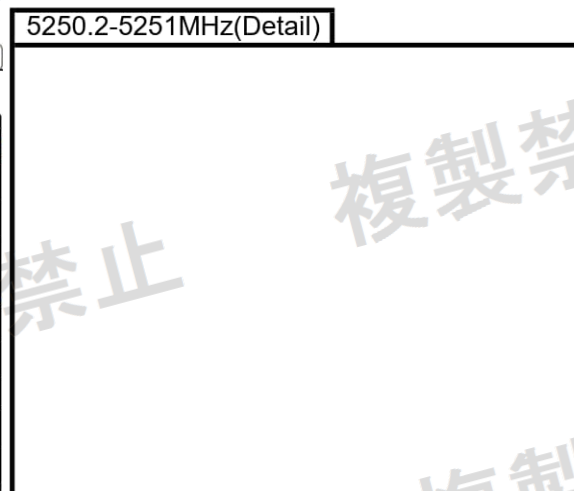




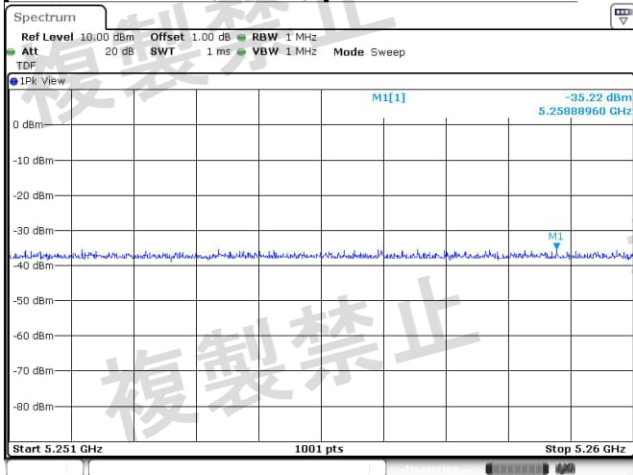


7. Test chart

7.6 Out-Band Leakage Power (-10% voltage)



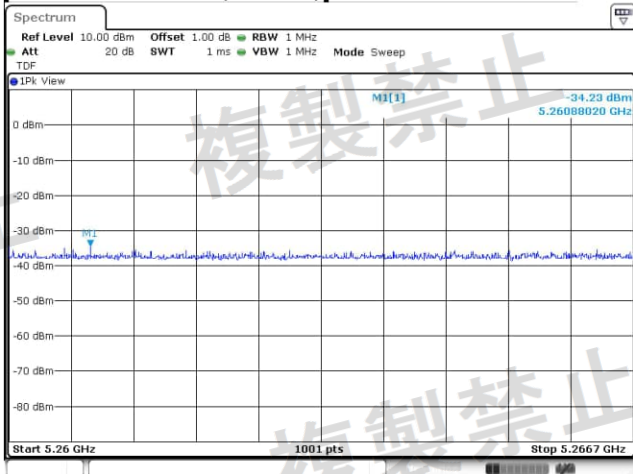
5251-5260MHz(Search)



Date: 2.JAN.2003 06:58:08

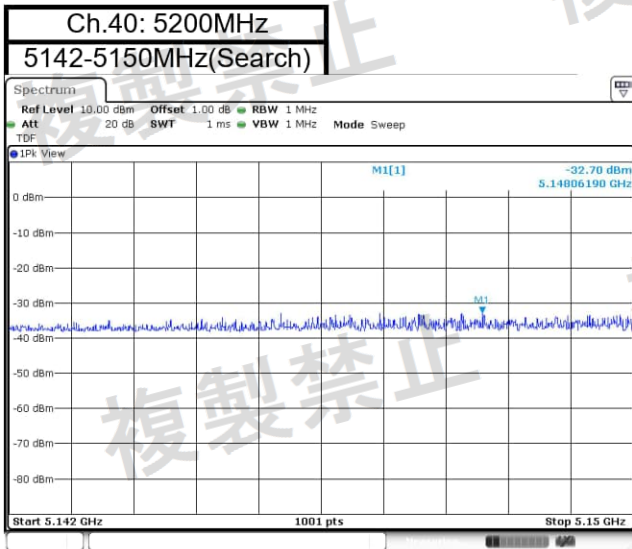
5251-5260MHz(Detail)

5260-5266.7MHz(Search)

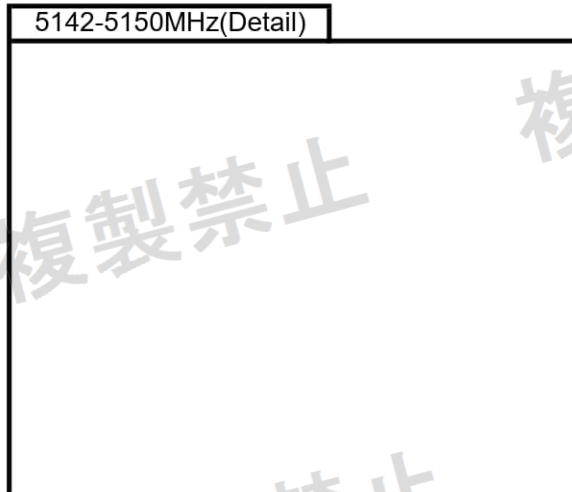
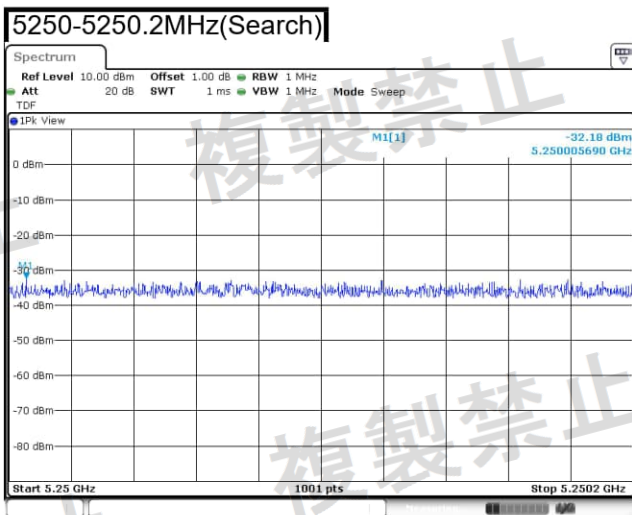


Date: 2.JAN.2003 06:58:16

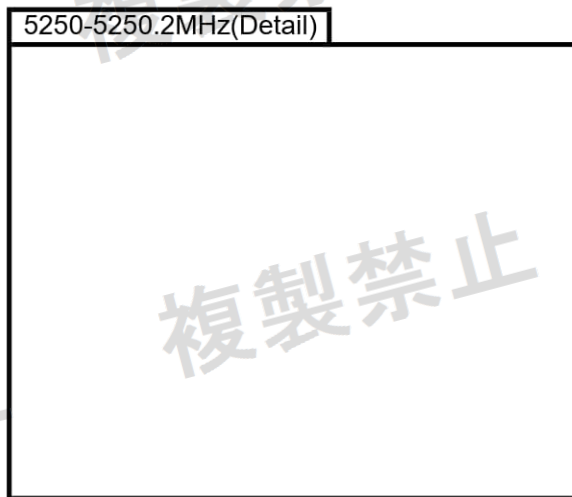
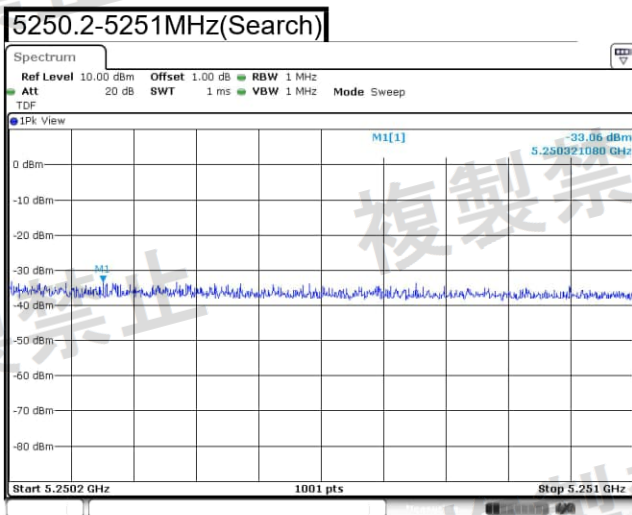
5260-5266.7MHz(Detail)



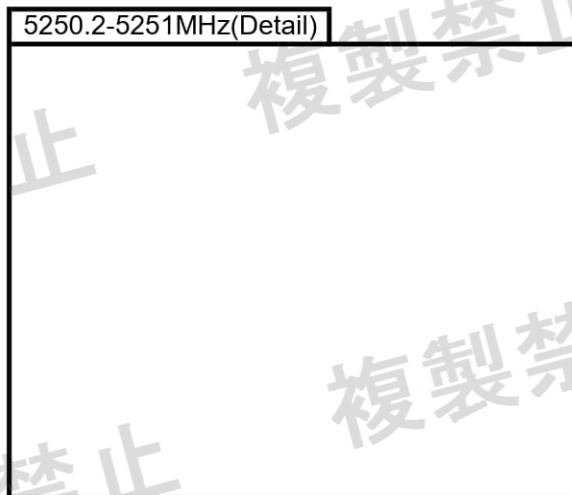
Date: 1.JAN.2003 07:37:07



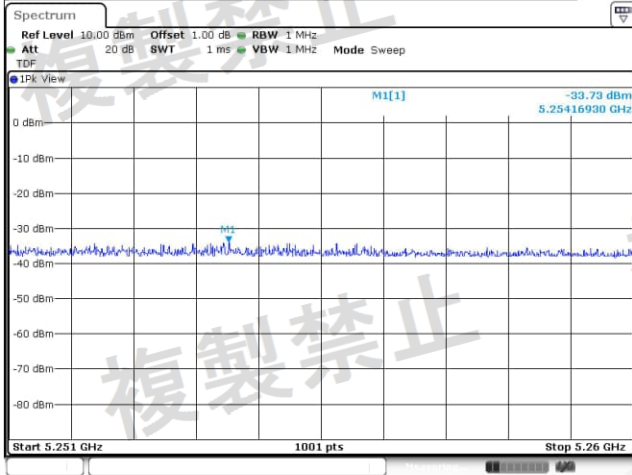
Date: 1.JAN.2003 07:37:18



Date: 1.JAN.2003 07:37:28



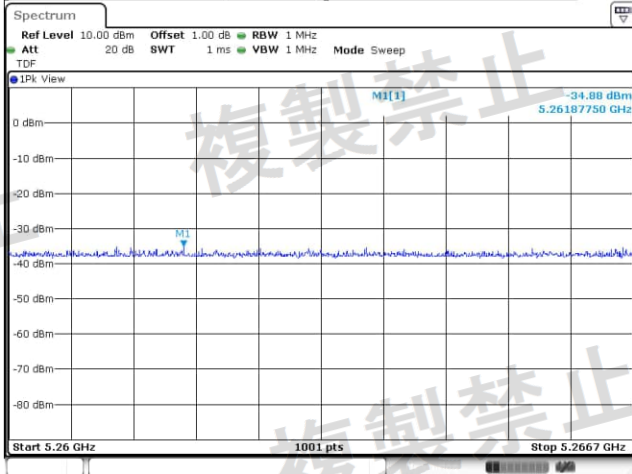
5251-5260MHz(Search)



Date: 1.JAN.2003 07:37:39

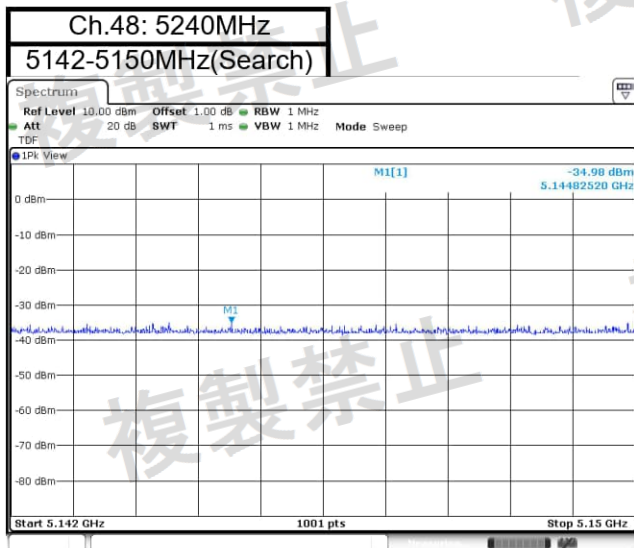
5251-5260MHz(Detail)

5260-5266.7MHz(Search)

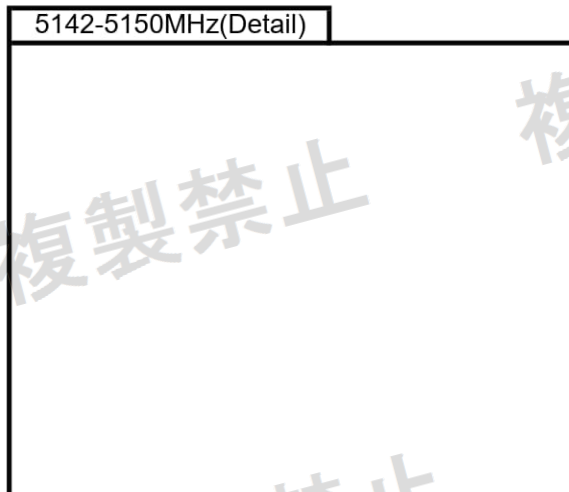
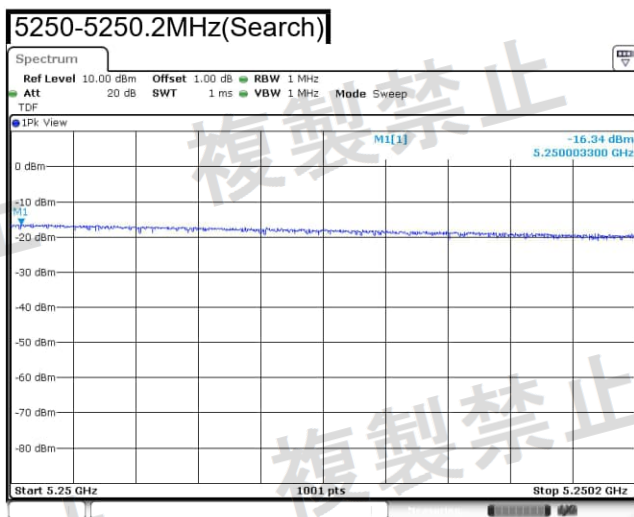


Date: 1.JAN.2003 07:37:50

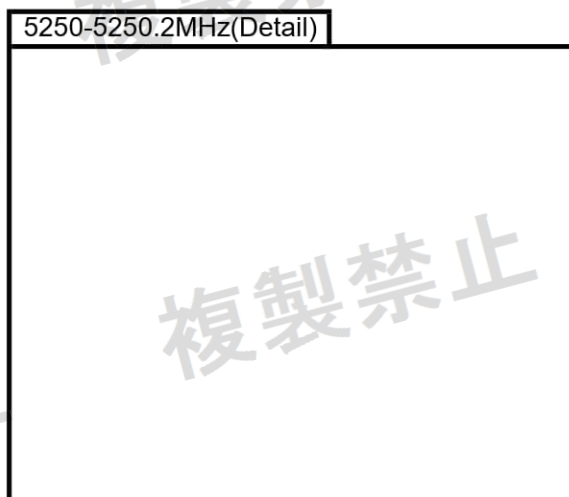
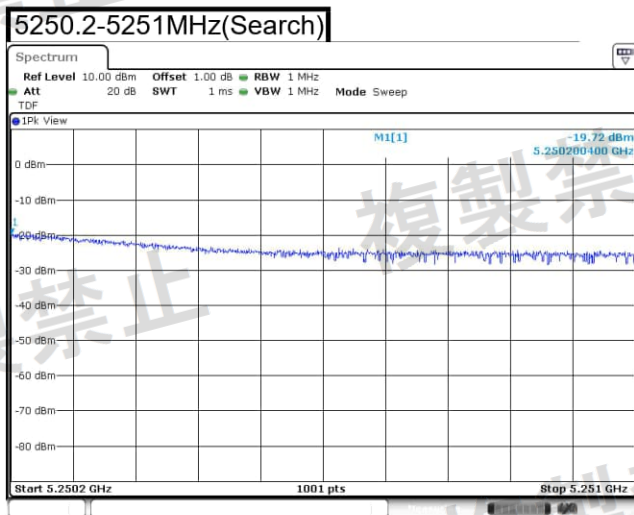
5260-5266.7MHz(Detail)



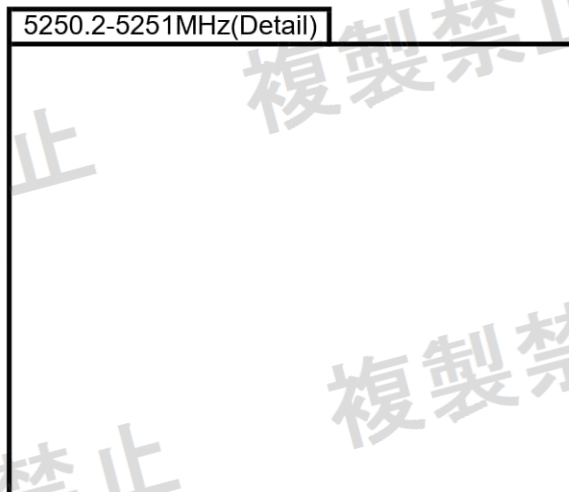
Date: 1.JAN.2003 07:46:18



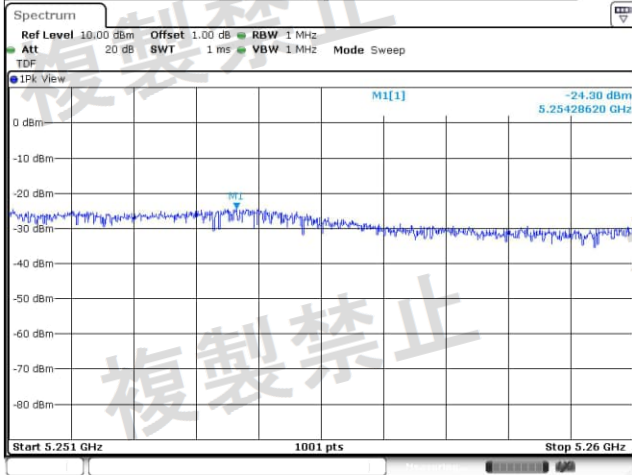
Date: 1.JAN.2003 07:46:28



Date: 1.JAN.2003 07:46:39



5251-5260MHz(Search)

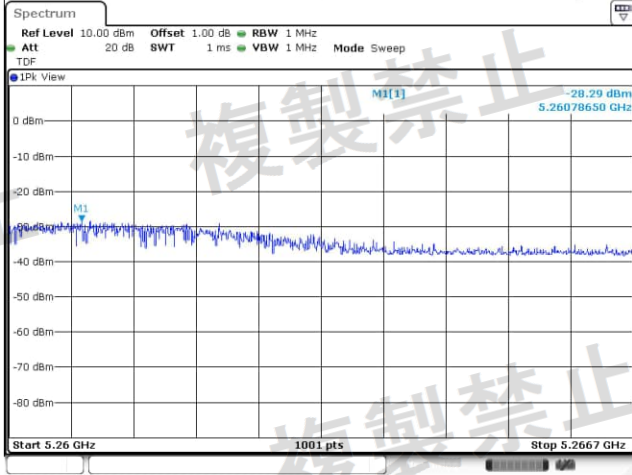


Date: 1.JAN.2003 07:46:50

5251-5260MHz(Detail)



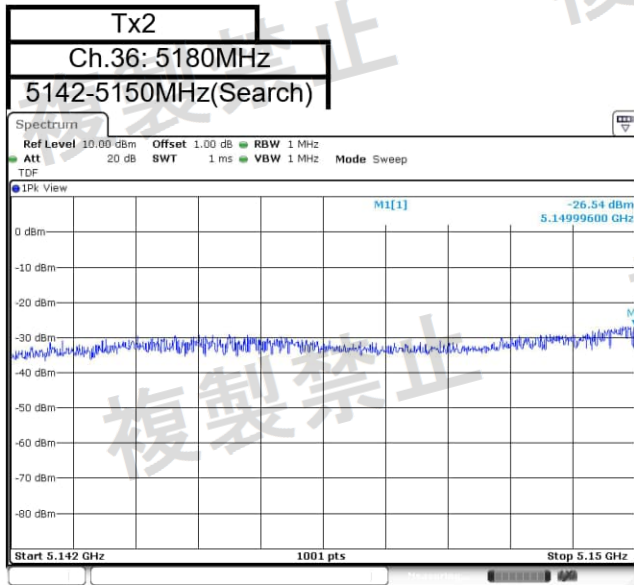
5260-5266.7MHz(Search)



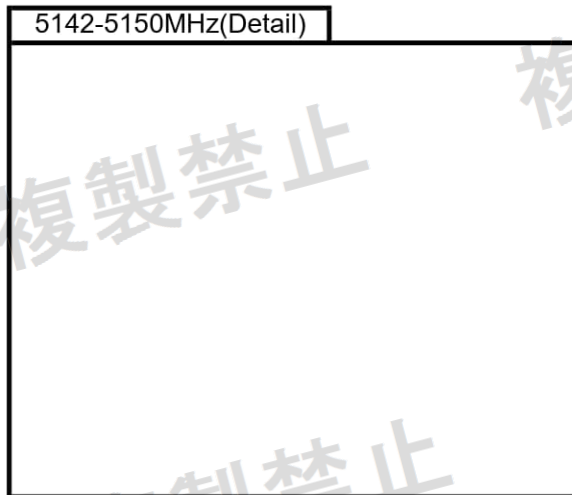
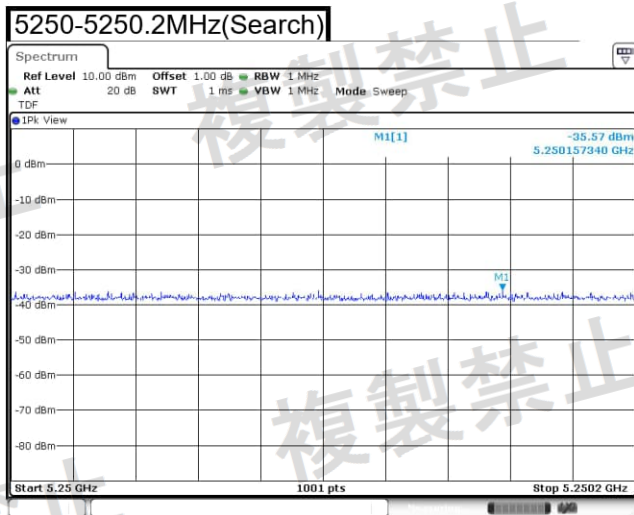
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5260-5266.7MHz(Detail)

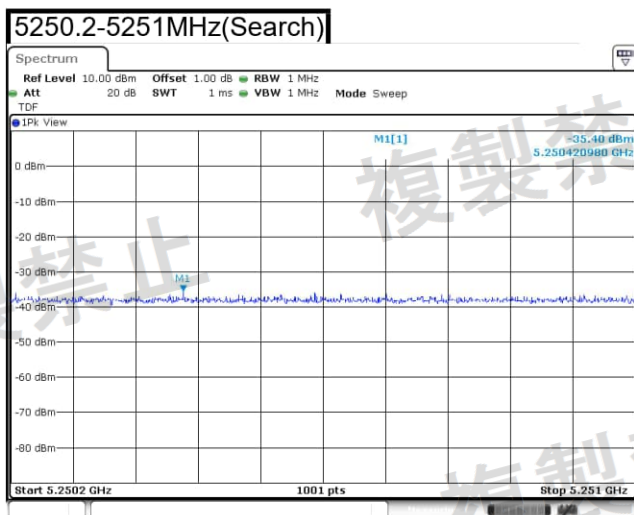




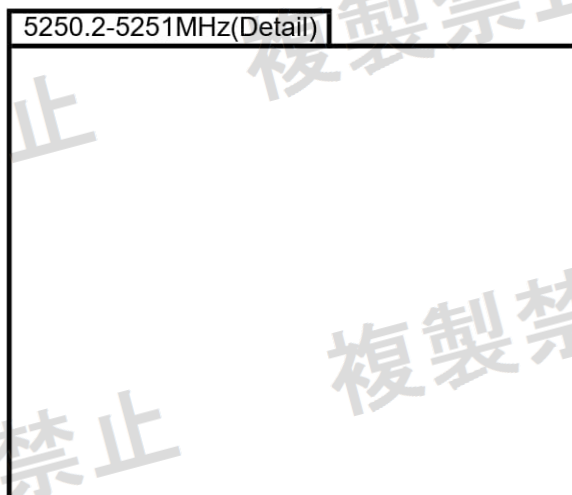
Date: 2.JAN.2003 07:00:26



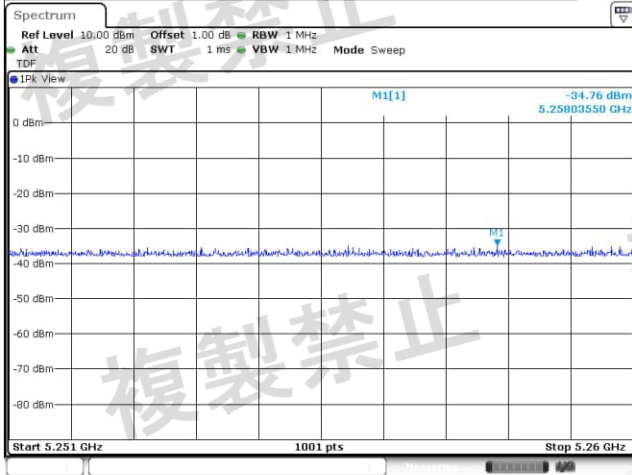
Date: 2.JAN.2003 07:00:37



Date: 2.JAN.2003 07:00:48



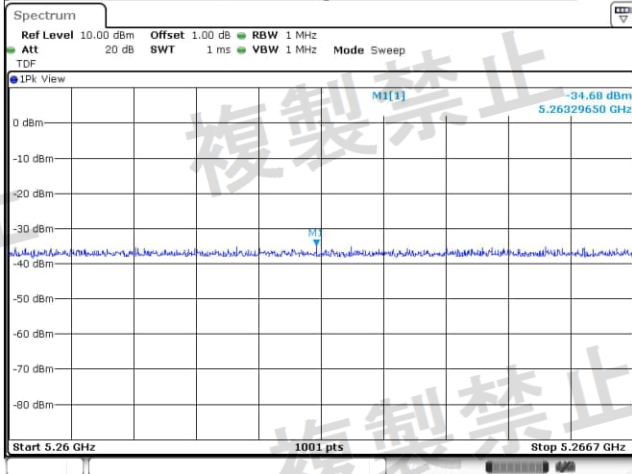
5251-5260MHz(Search)



Date: 2.JAN.2003 07:00:58

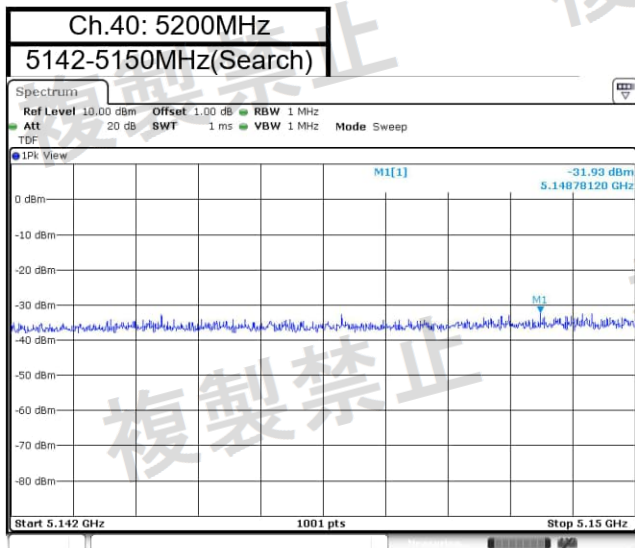
5251-5260MHz(Detail)

5260-5266.7MHz(Search)

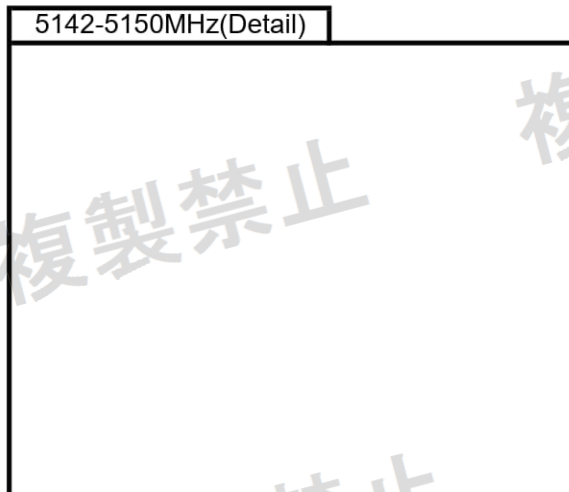
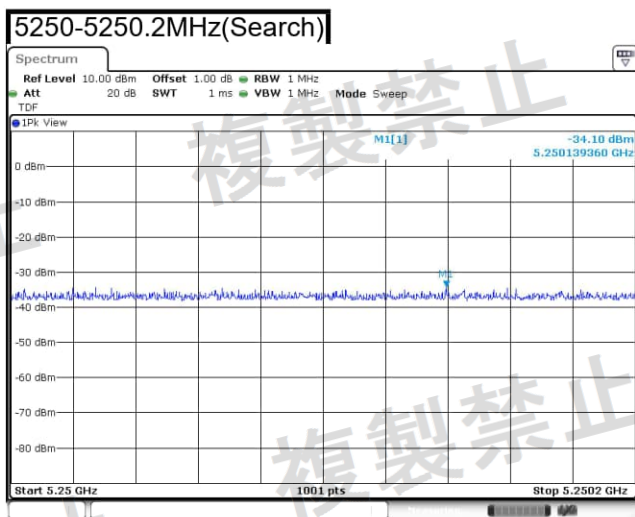


Date: 2.JAN.2003 07:01:09

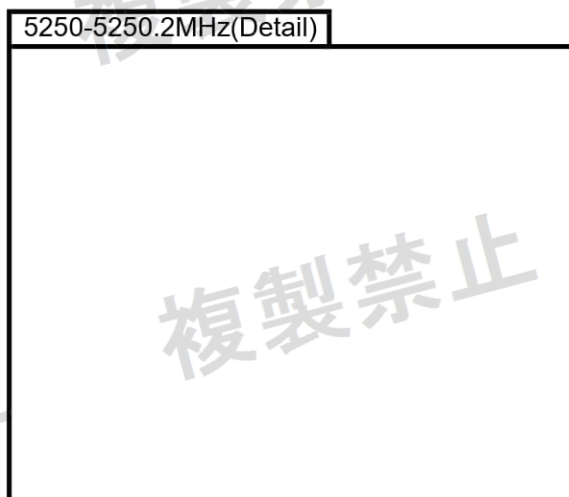
5260-5266.7MHz(Detail)



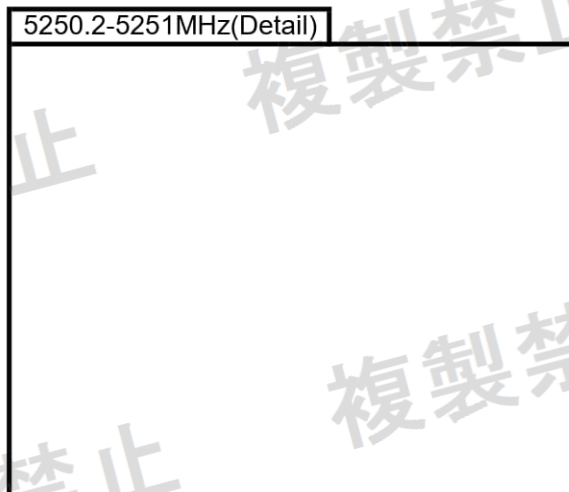
Date: 1.JAN.2003 08:07:31



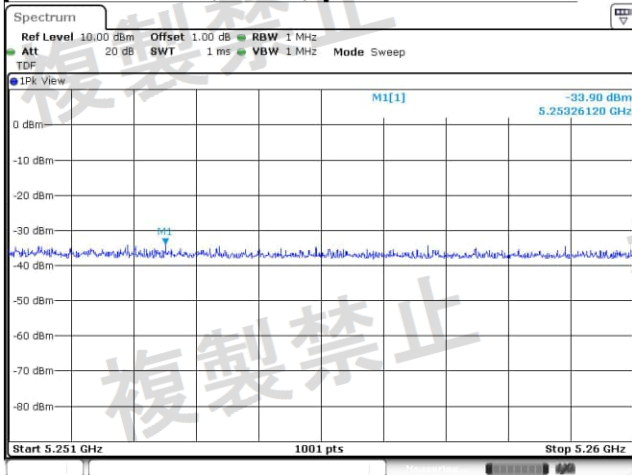
Date: 1.JAN.2003 08:07:42



Date: 1.JAN.2003 08:07:53



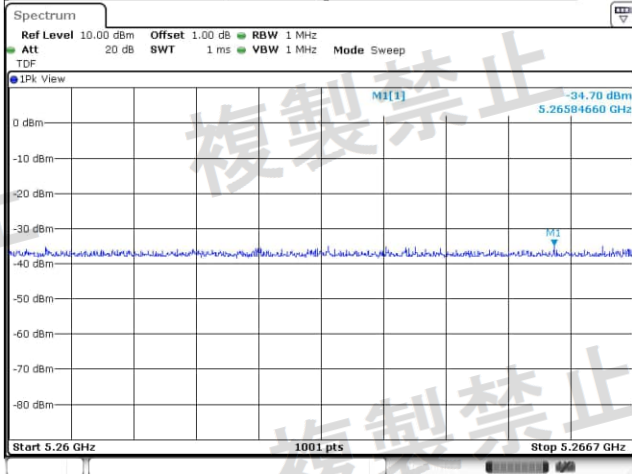
5251-5260MHz(Search)



Date: 1.JAN.2003 08:08:03

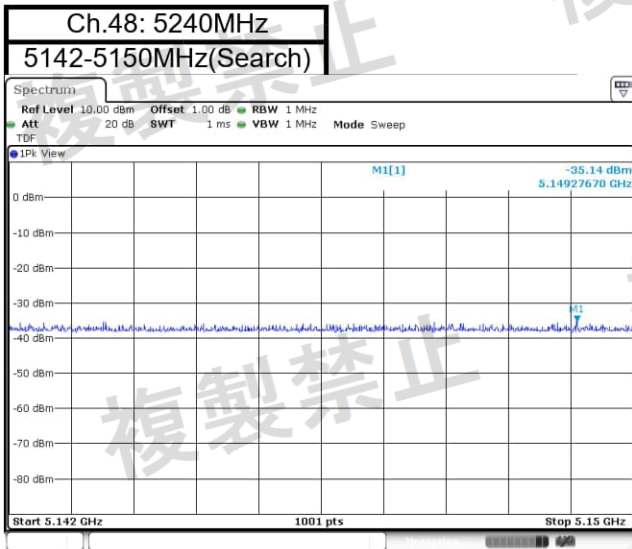
5251-5260MHz(Detail)

5260-5266.7MHz(Search)

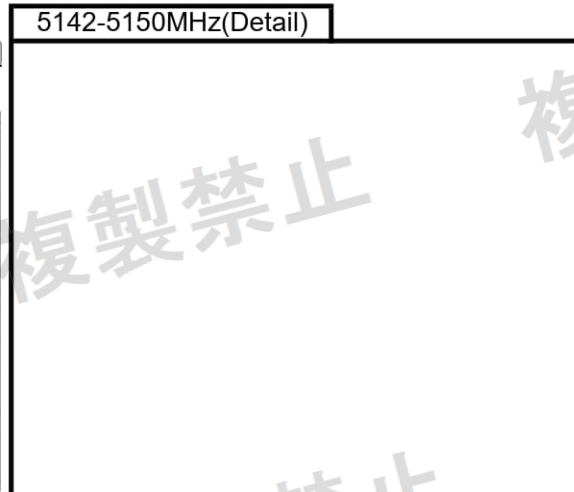
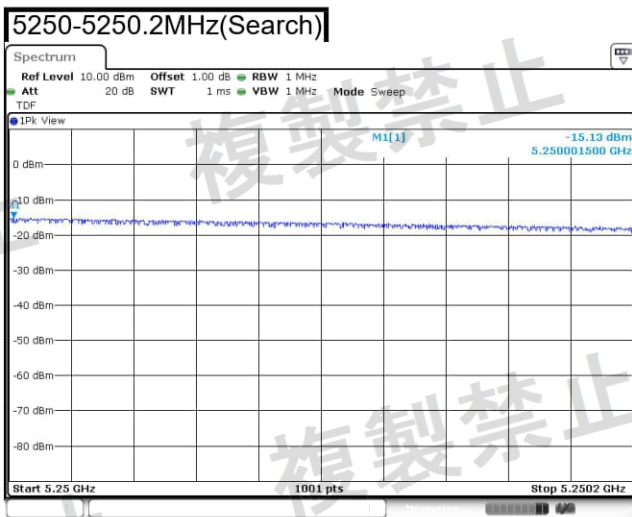


Date: 1.JAN.2003 08:08:14

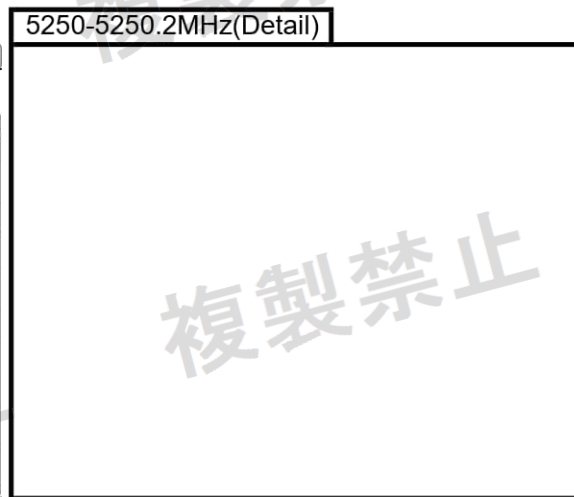
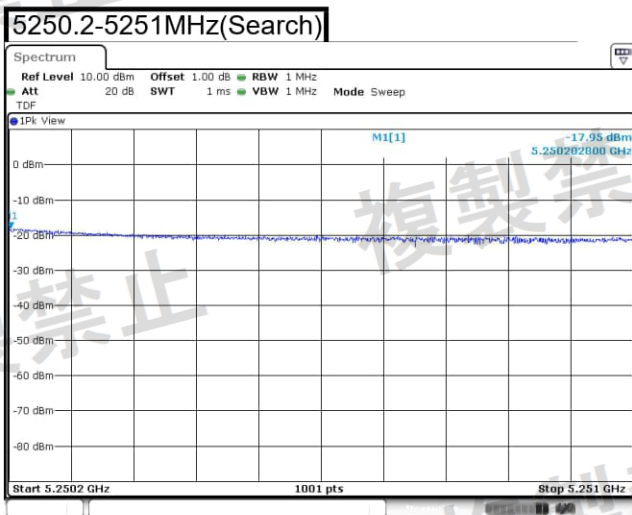
5260-5266.7MHz(Detail)



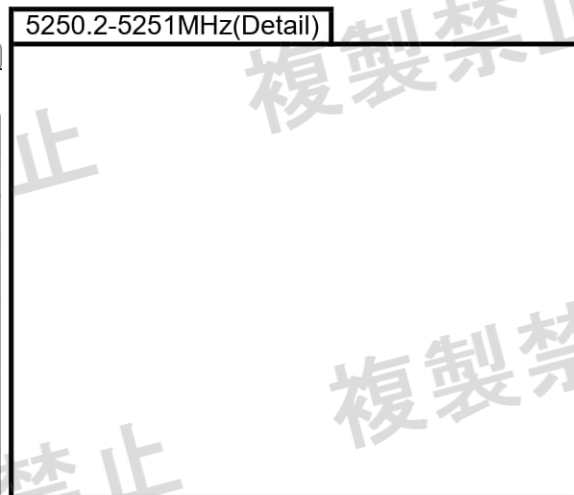
Date: 1.JAN.2003 08:17:05



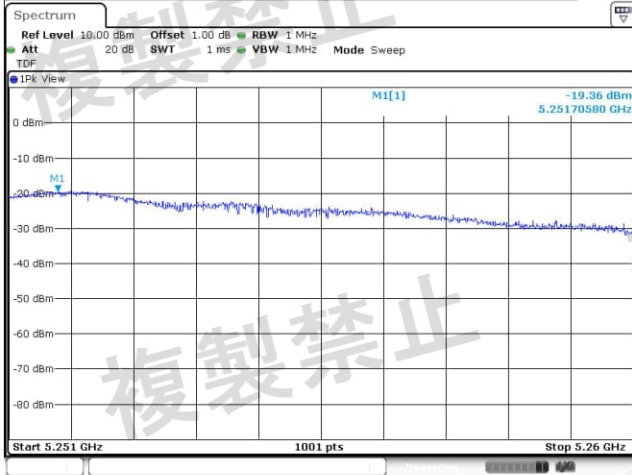
Date: 1.JAN.2003 08:17:16



Date: 1.JAN.2003 08:17:26



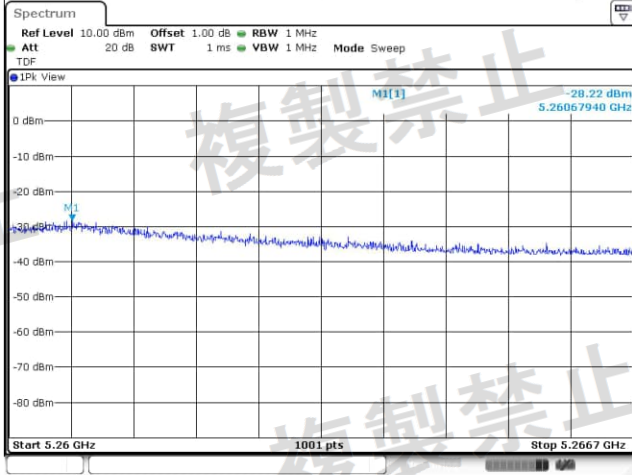
5251-5260MHz(Search)



Date: 1.JAN.2003 08:17:37

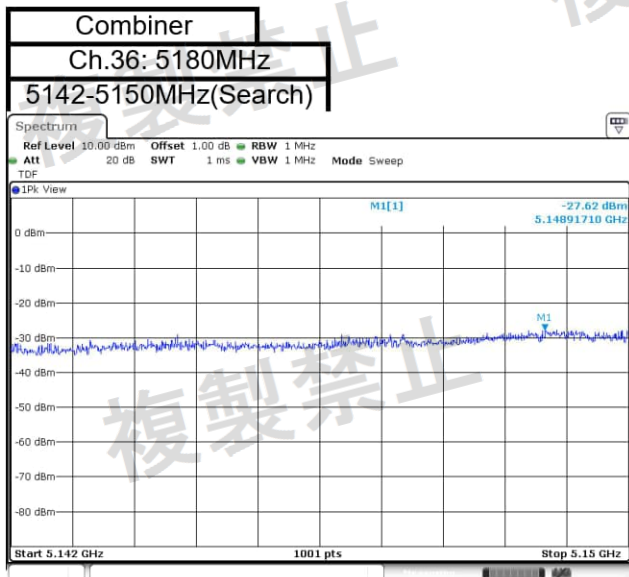
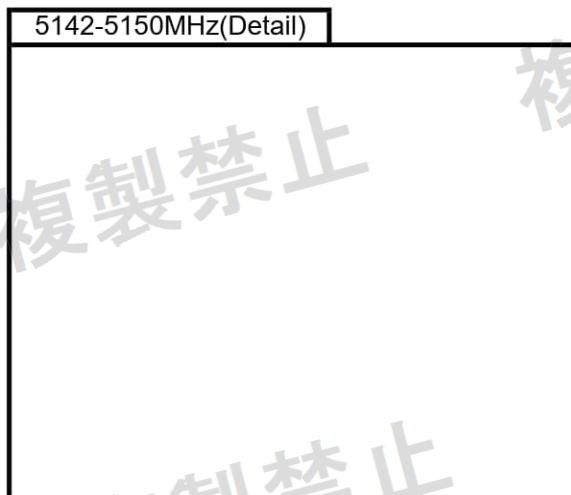
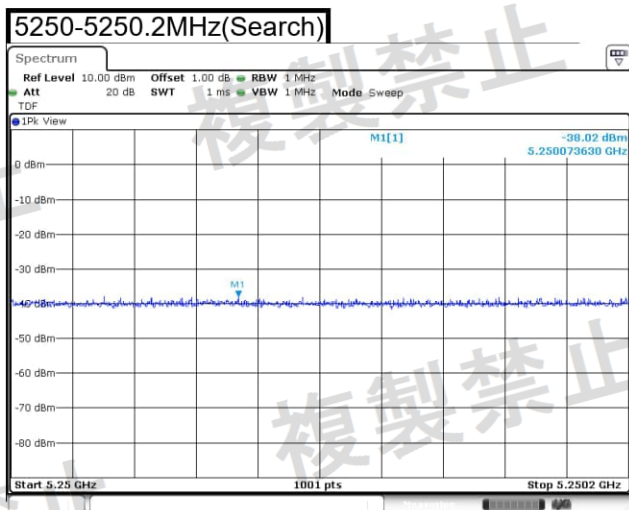
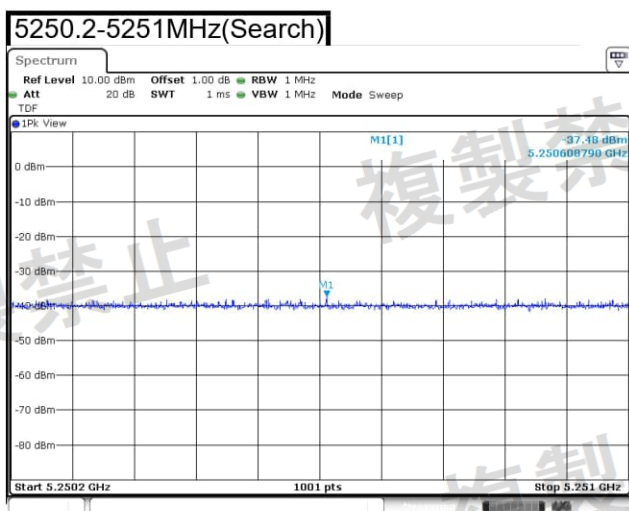
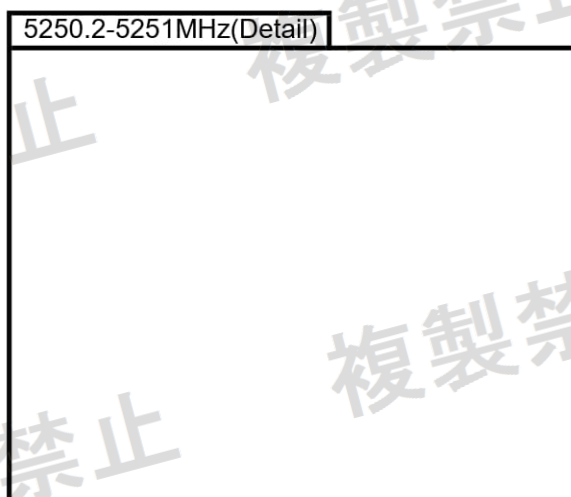
5251-5260MHz(Detail)

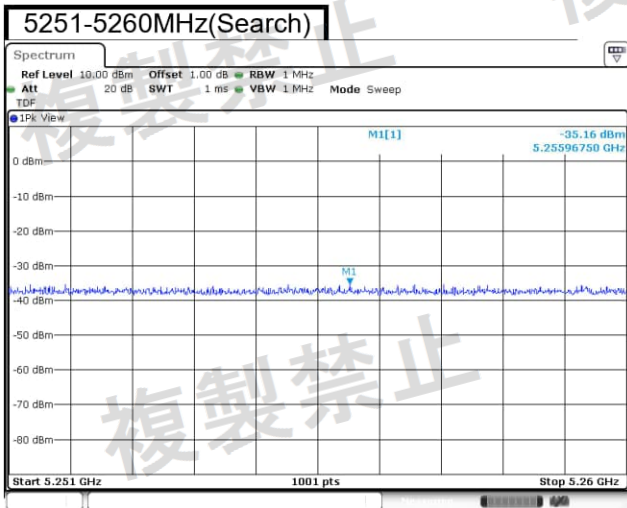
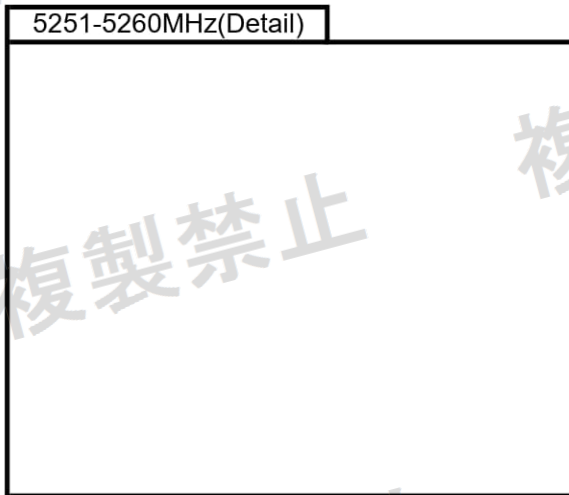
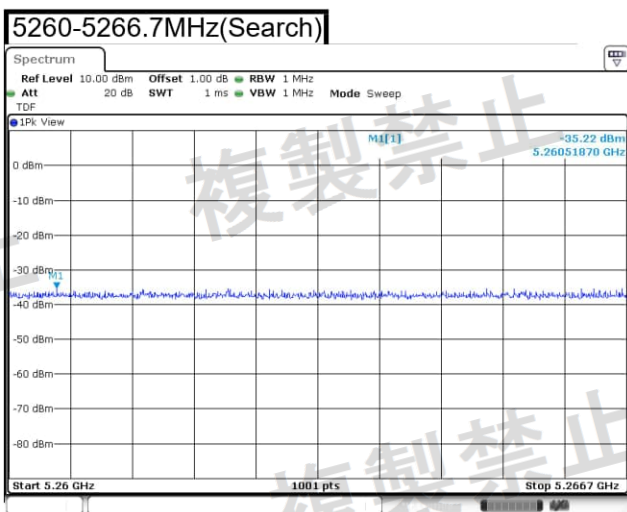
5260-5266.7MHz(Search)

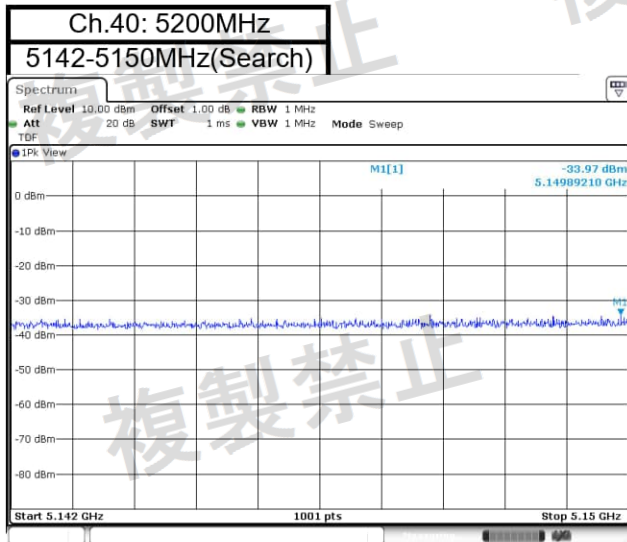
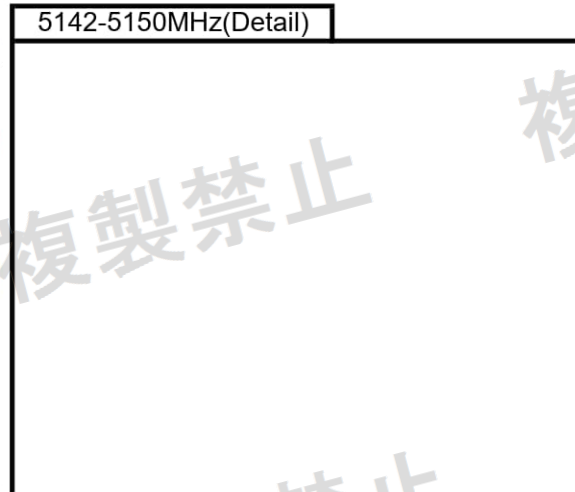
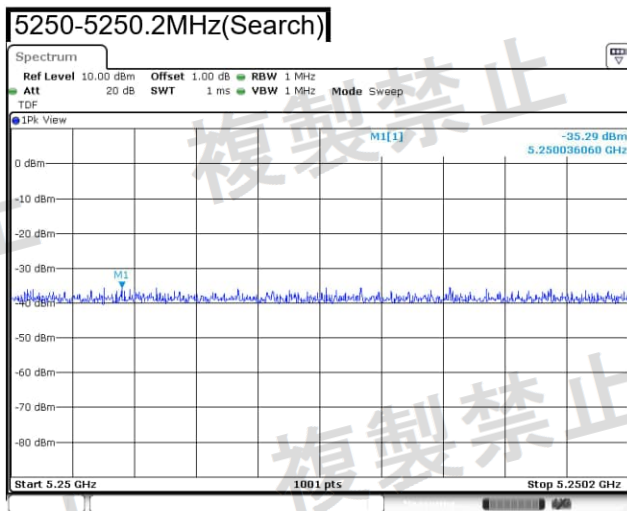
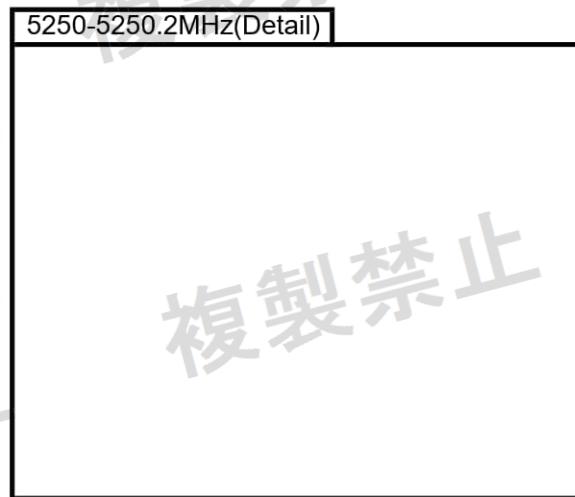
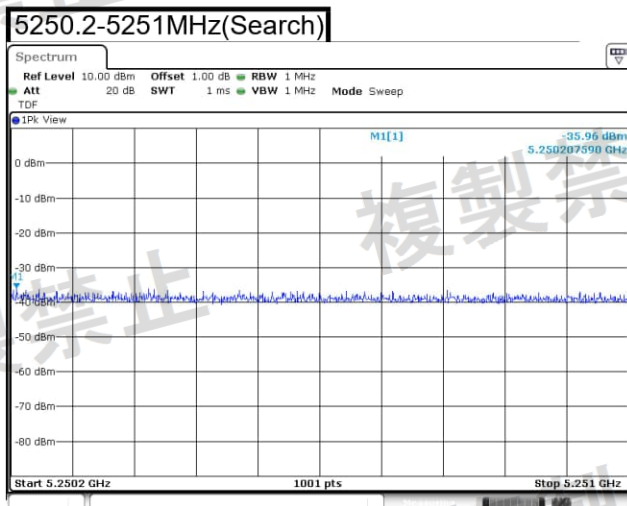
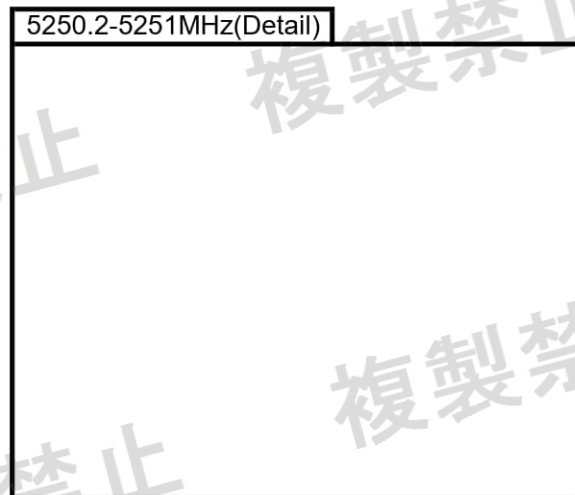


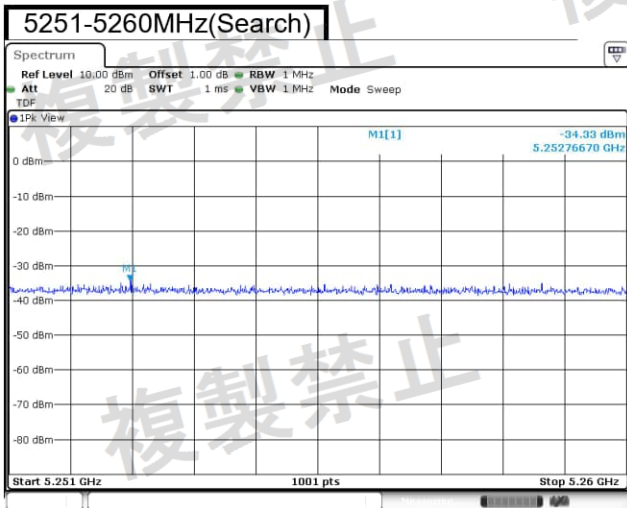
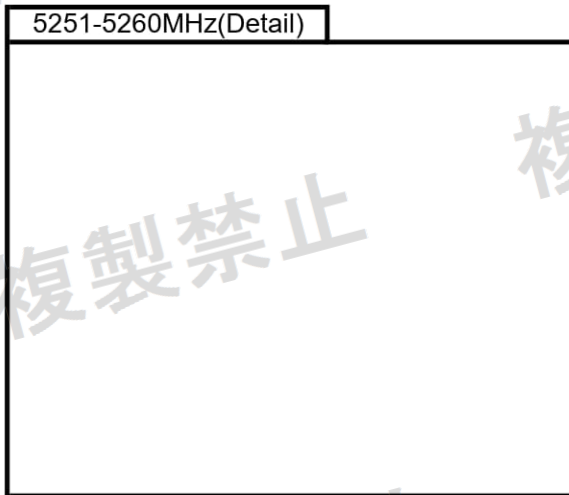
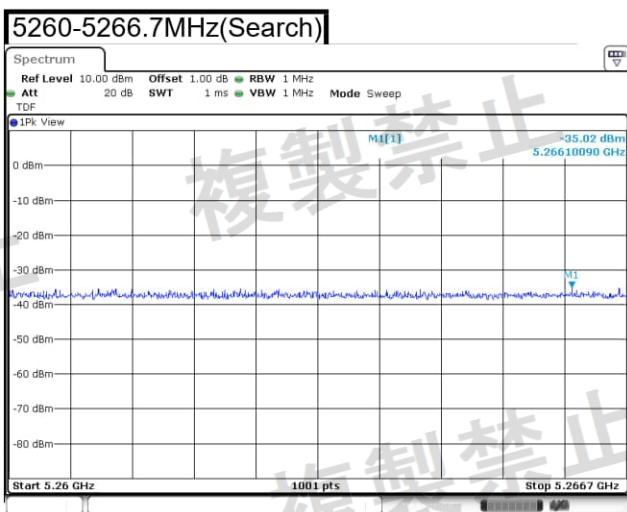
Date: 1.JAN.2003 08:17:48

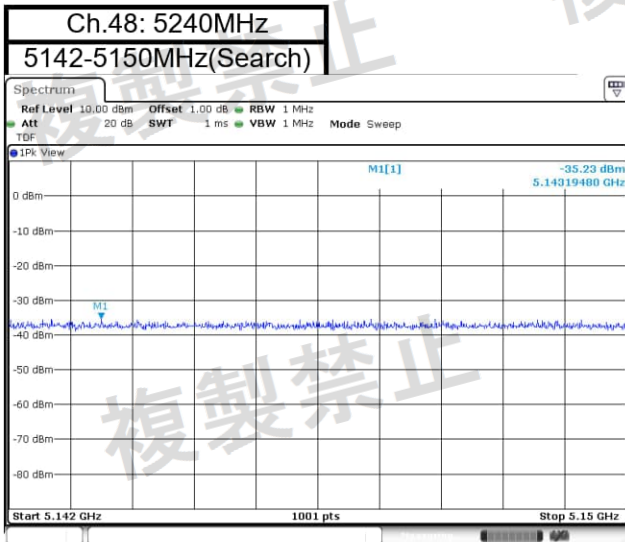
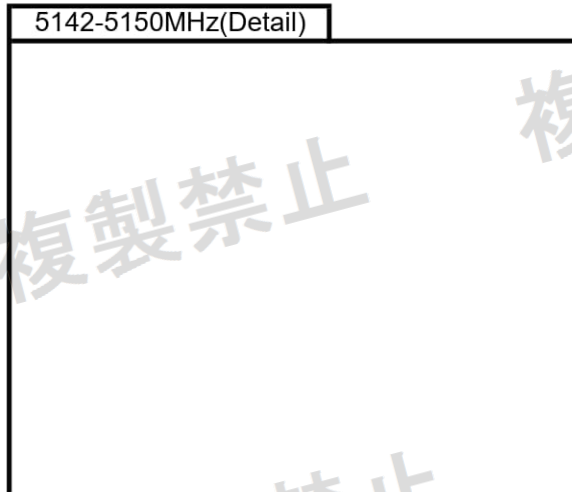
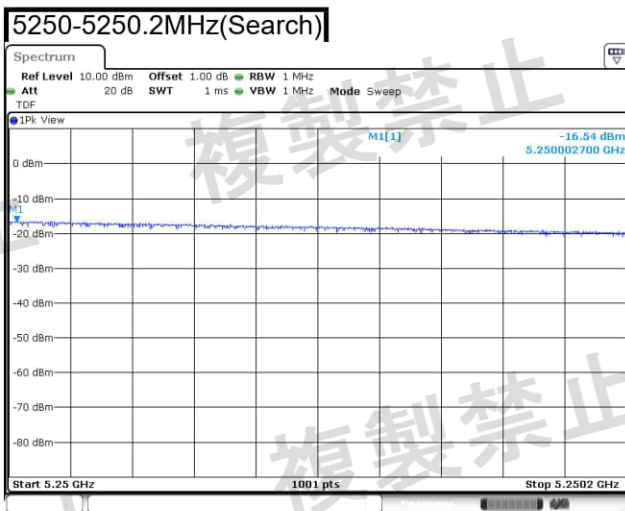
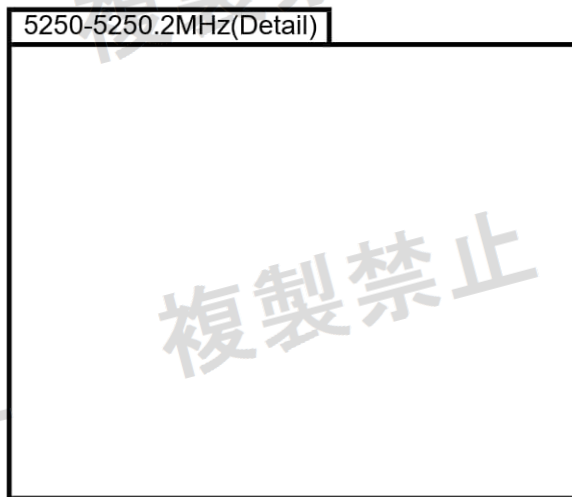
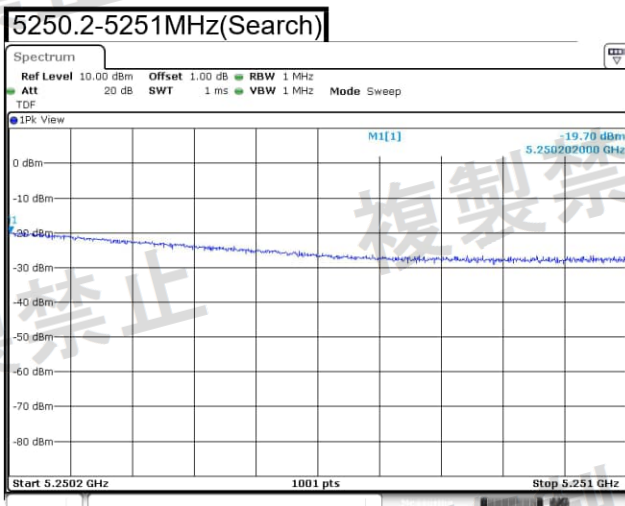
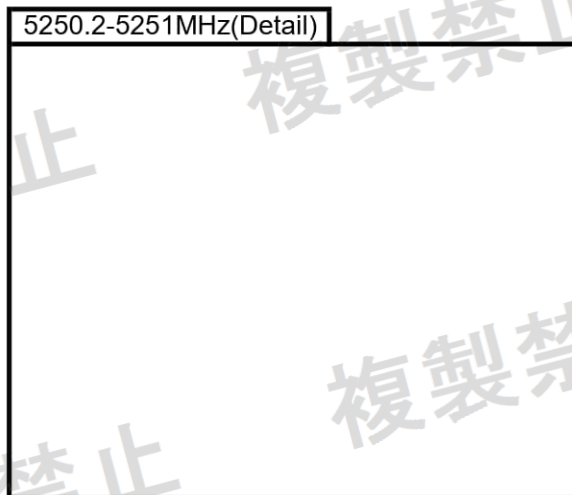
5260-5266.7MHz(Detail)

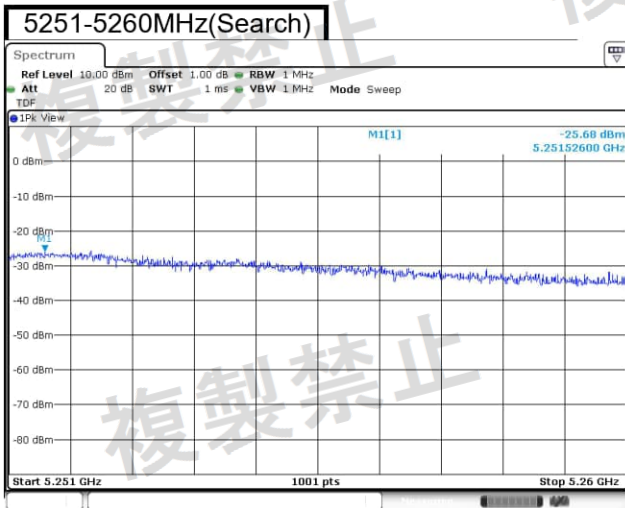
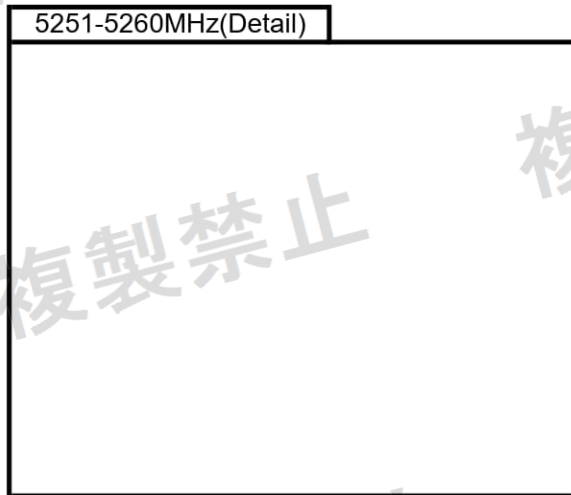
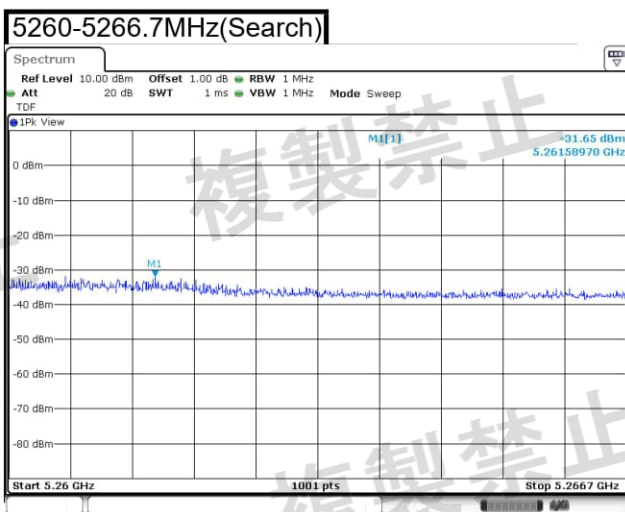






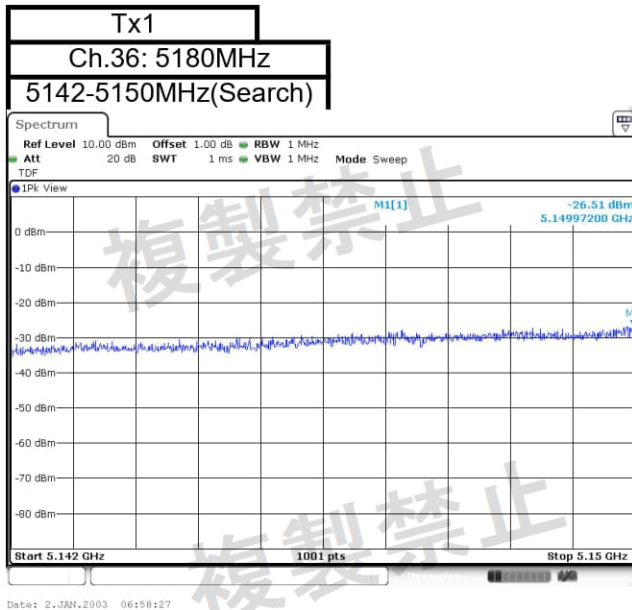
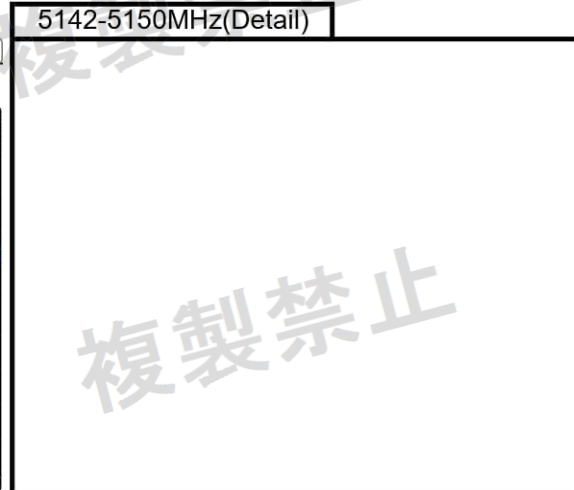
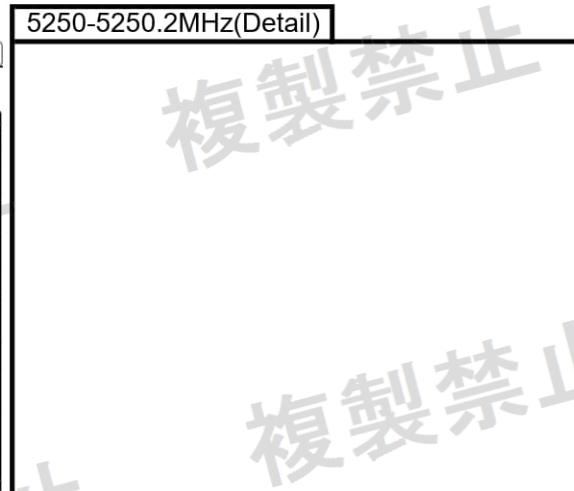
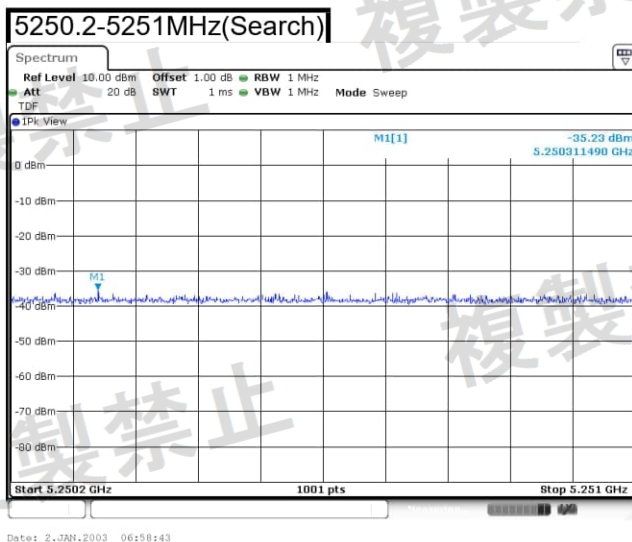
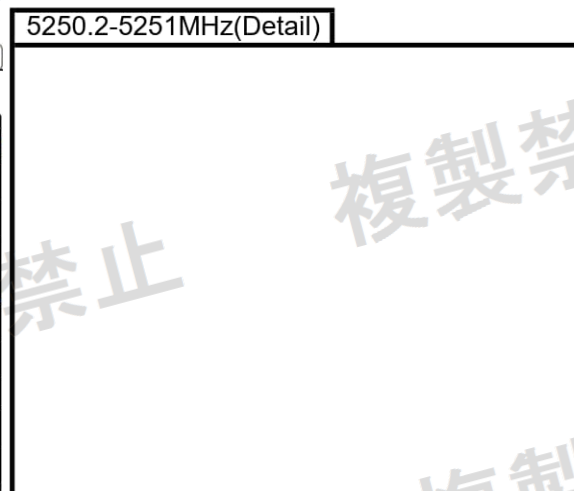


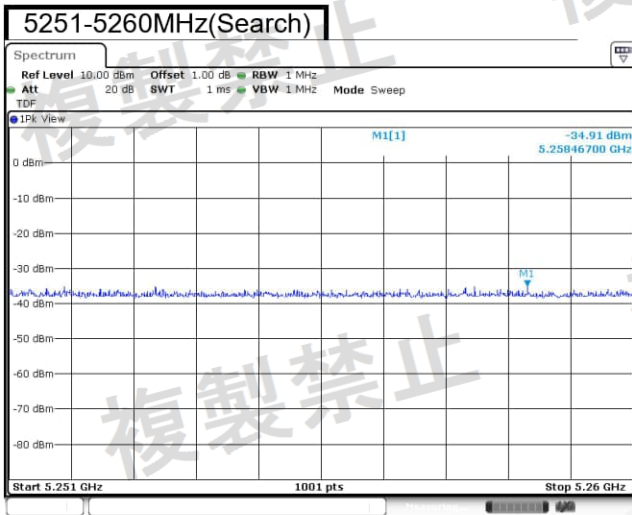




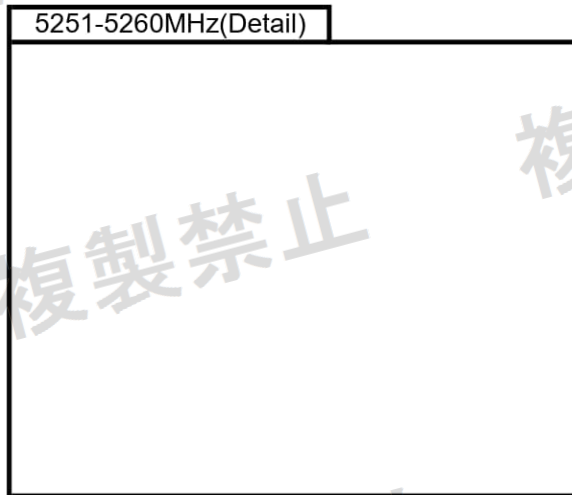
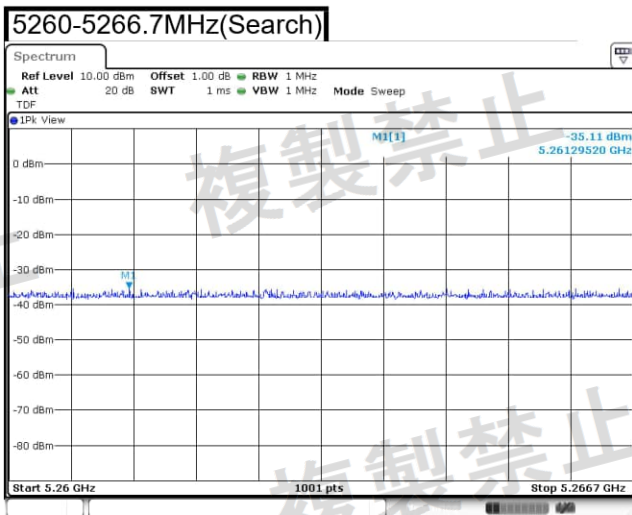
7. Test chart

7.6 Out-Band Leakage Power (+10% voltage)

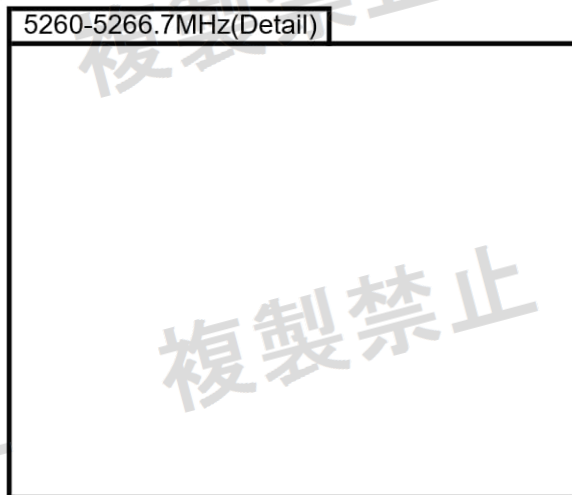


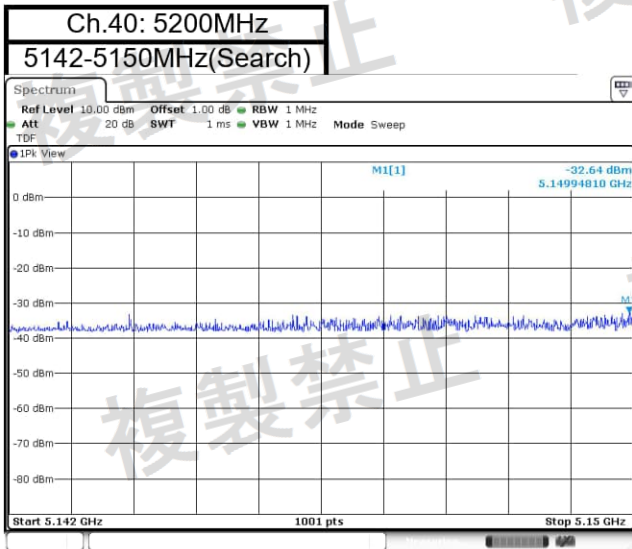


Date: 2.JAN.2003 06:58:51

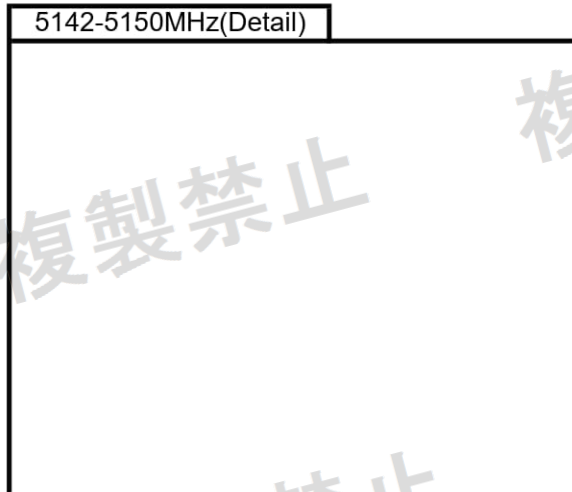
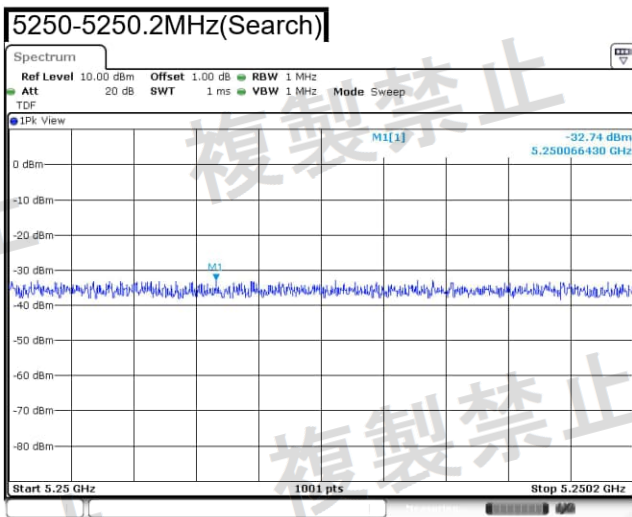


Date: 2.JAN.2003 06:59:00

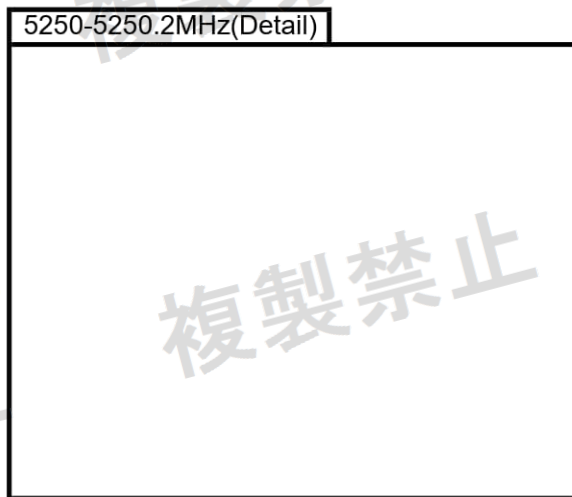
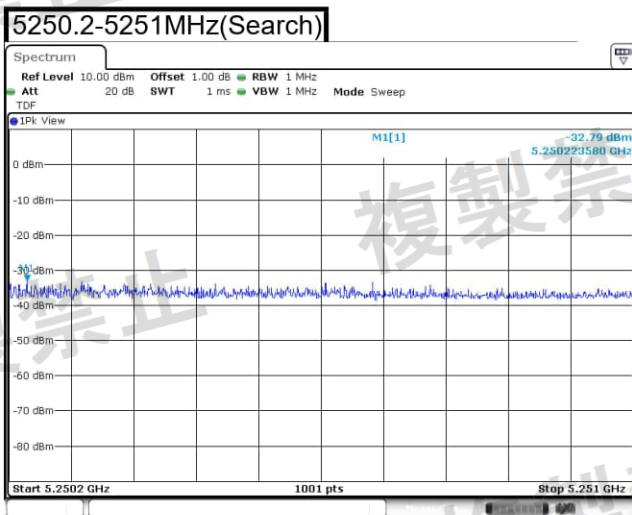




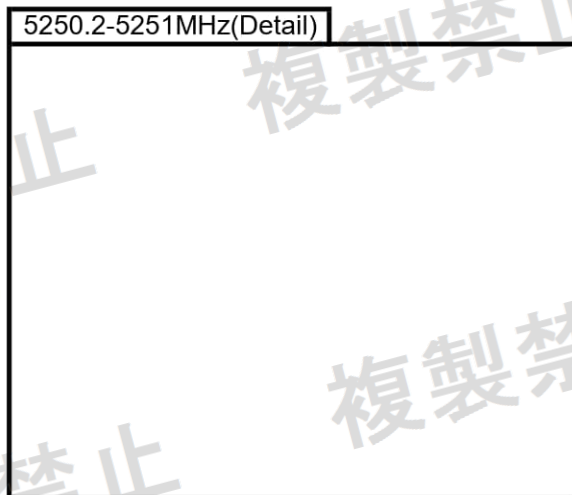
Date: 1.JAN.2003 07:38:04



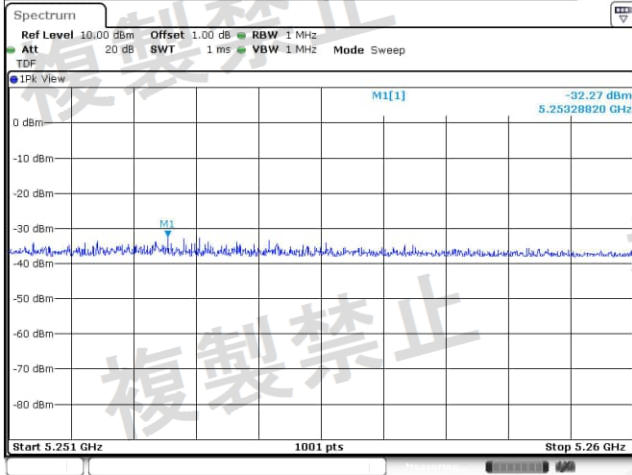
Date: 1.JAN.2003 07:38:15



Date: 1.JAN.2003 07:38:25



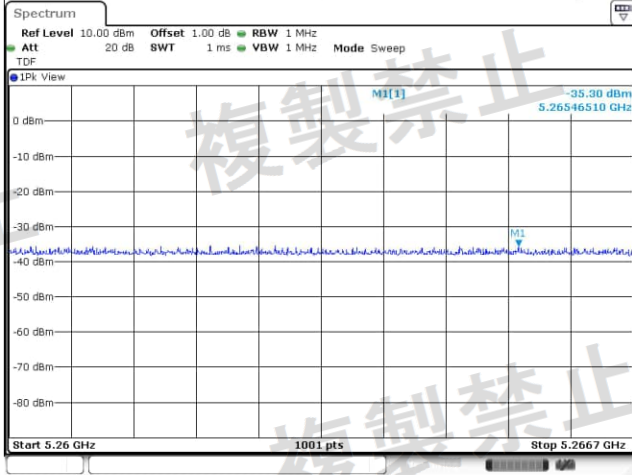
5251-5260MHz(Search)



Date: 1.JAN.2003 07:38:36

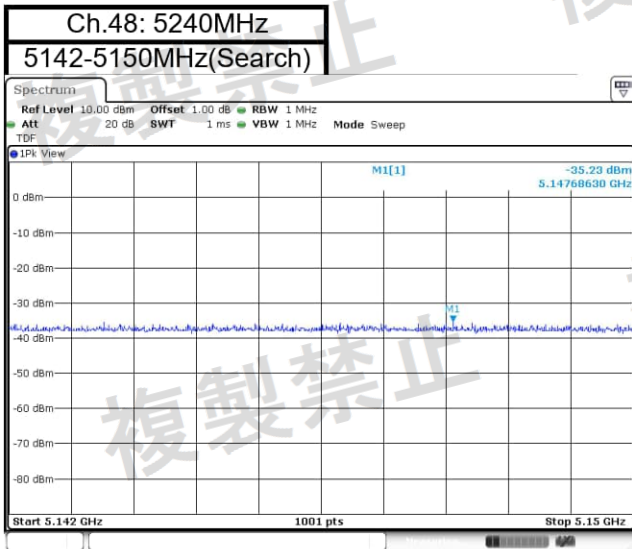
5251-5260MHz(Detail)

5260-5266.7MHz(Search)

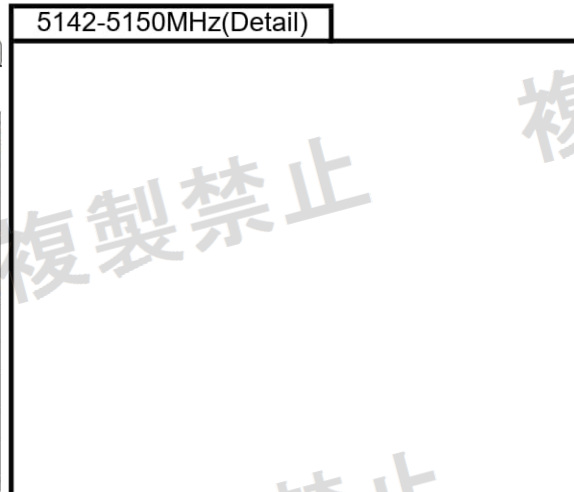


Date: 1.JAN.2003 07:38:47

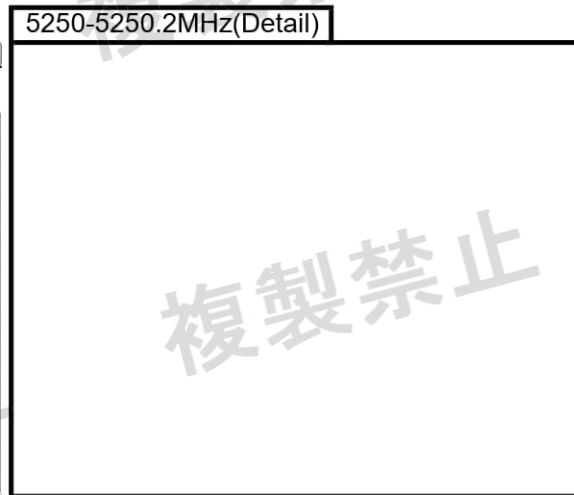
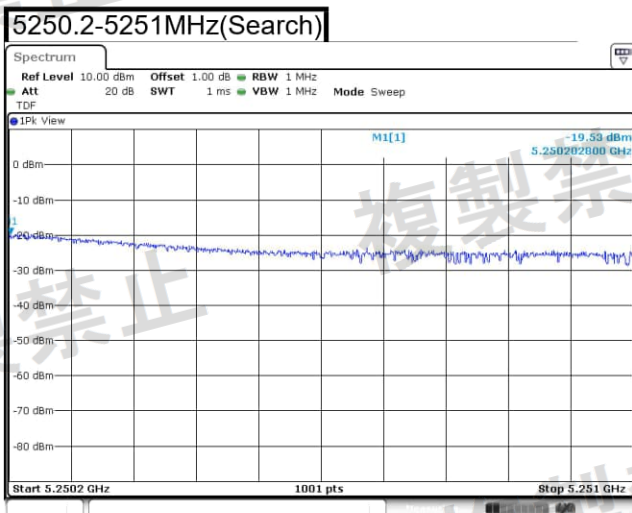
5260-5266.7MHz(Detail)



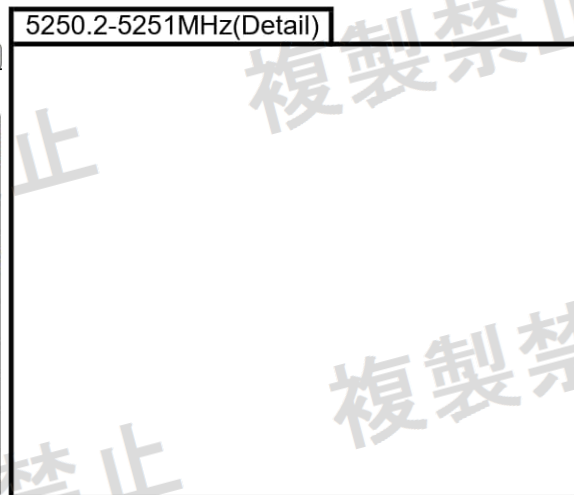
Date: 1.JAN.2003 07:47:14

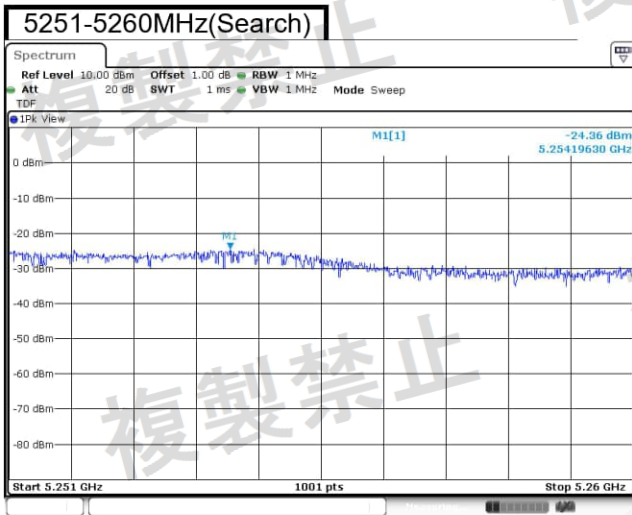


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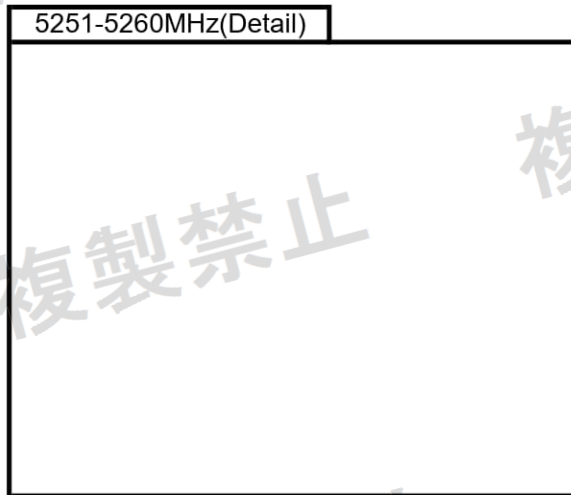
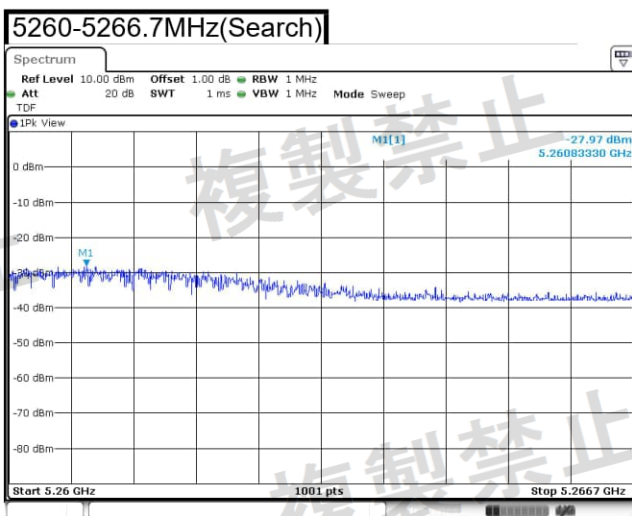


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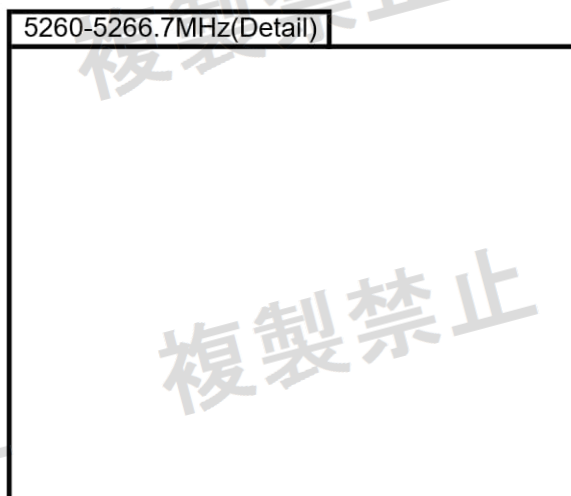


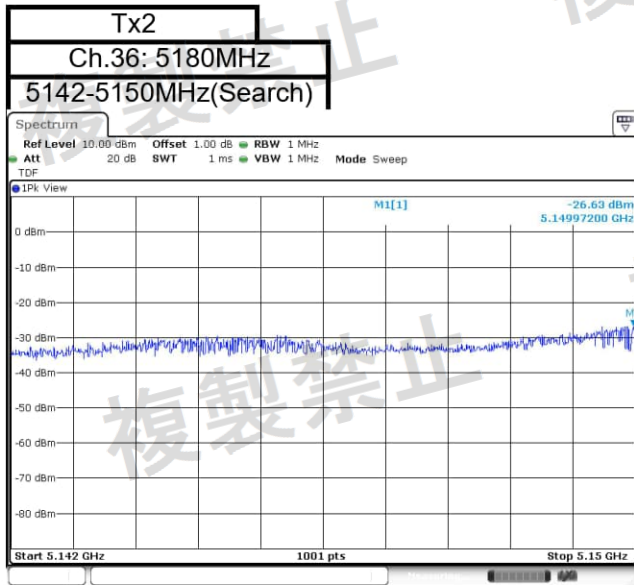


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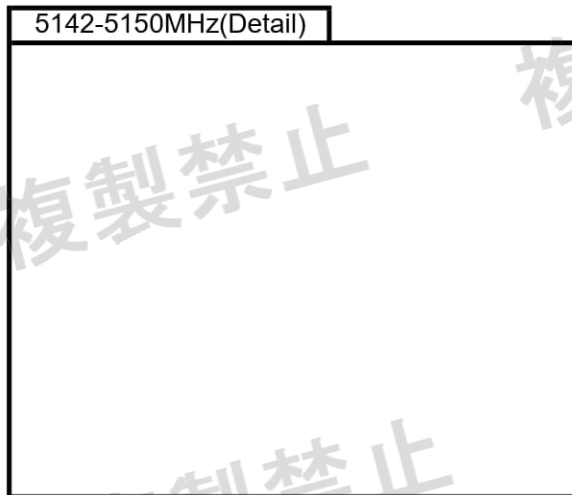
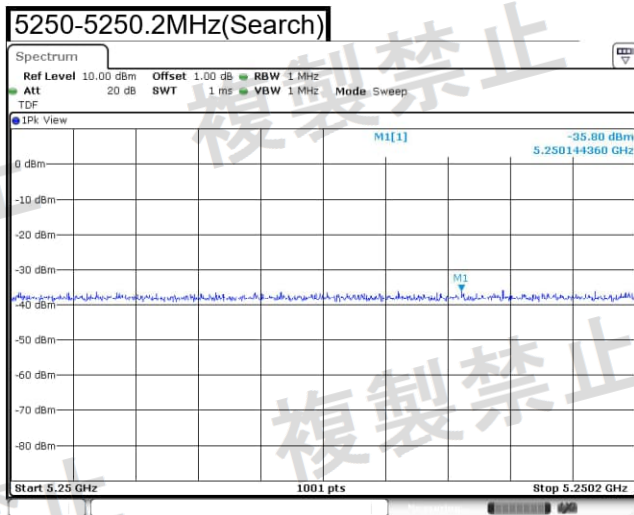


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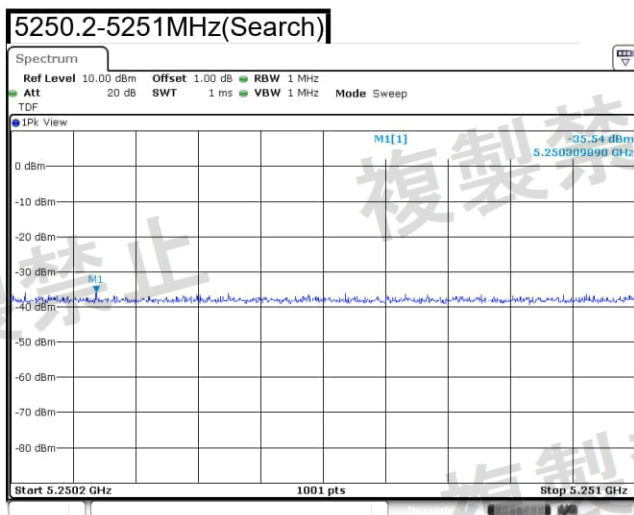




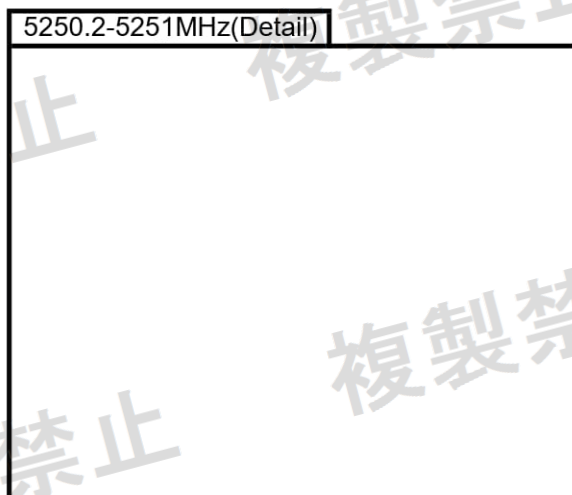
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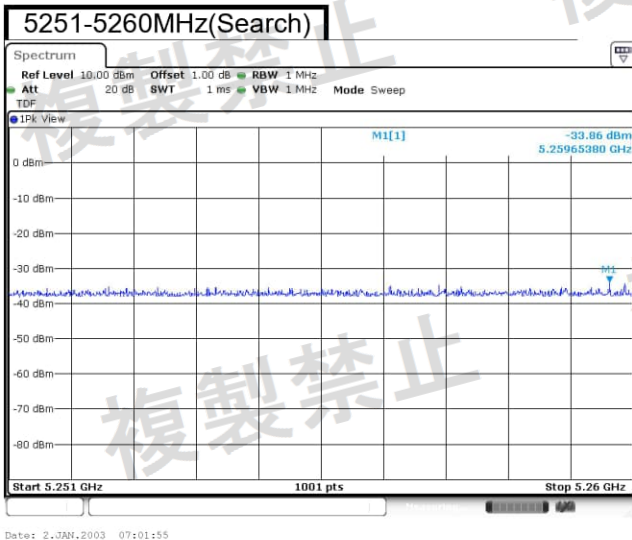
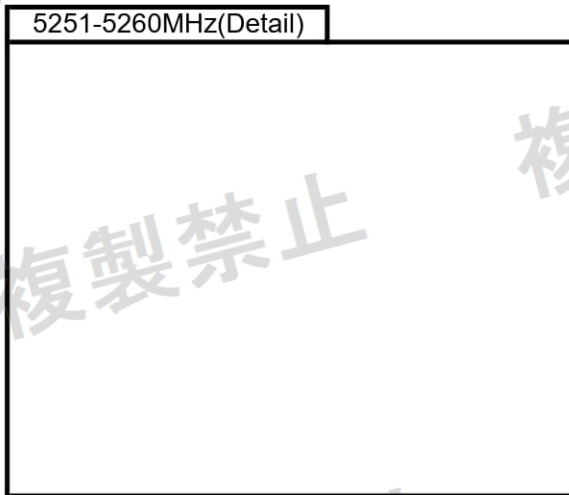
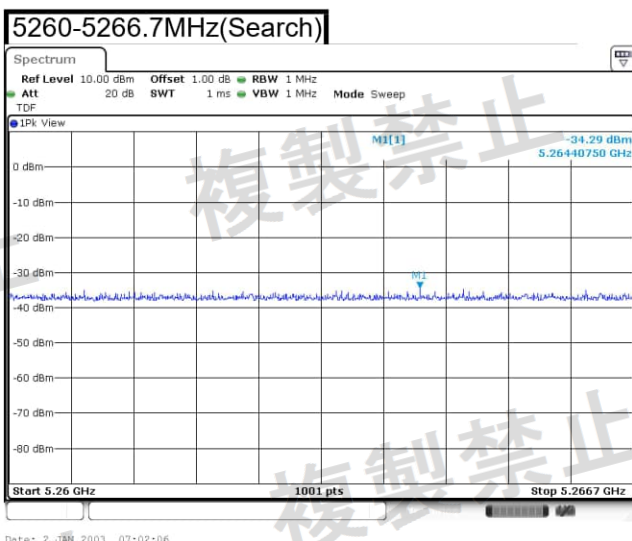
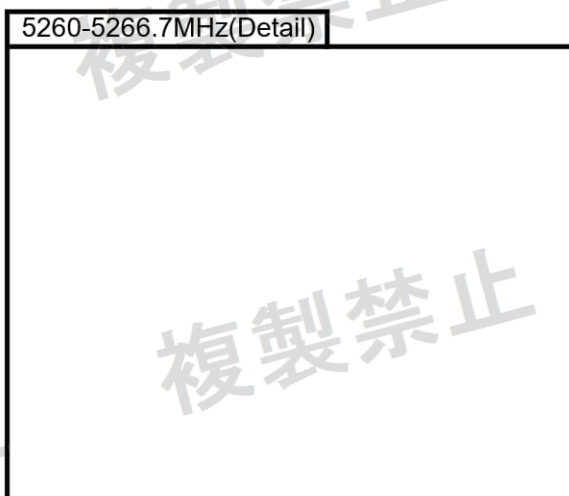


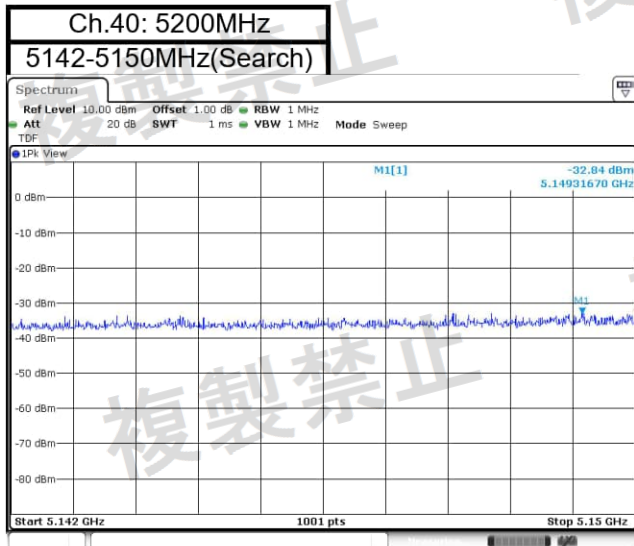
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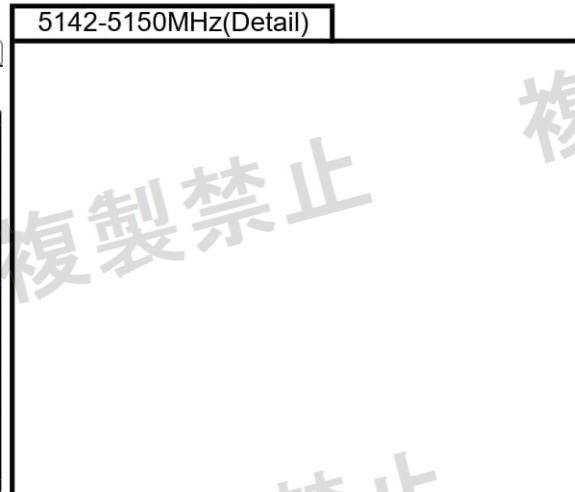
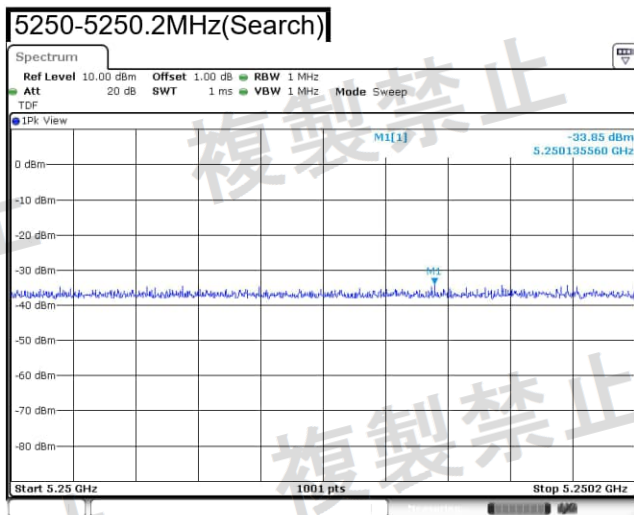
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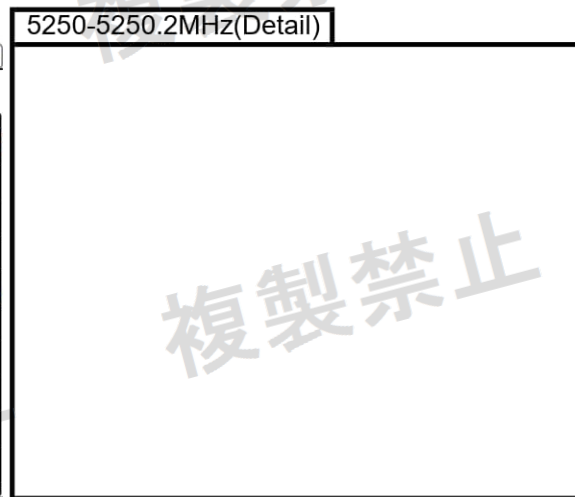
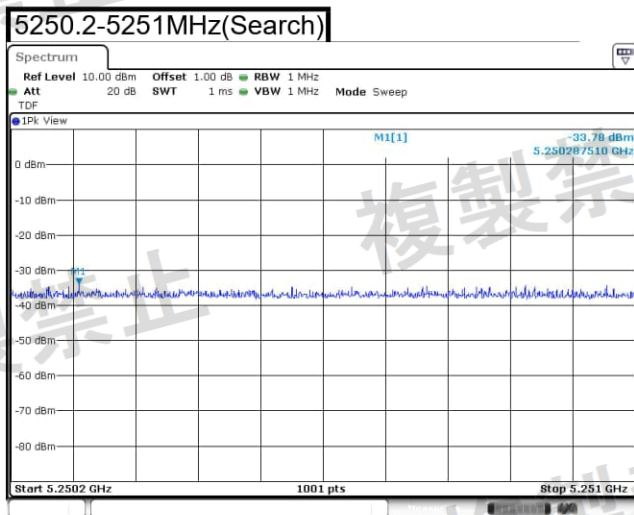




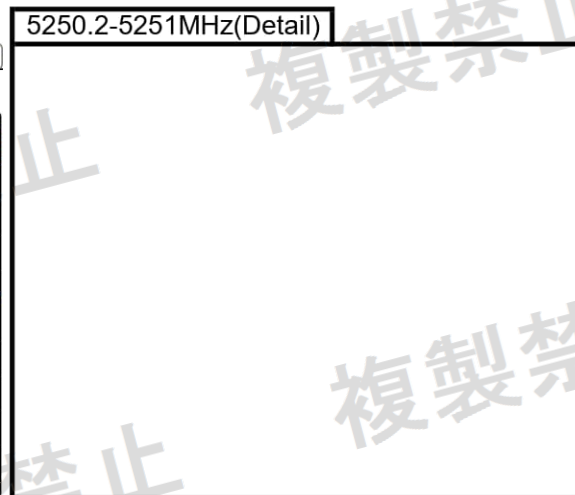
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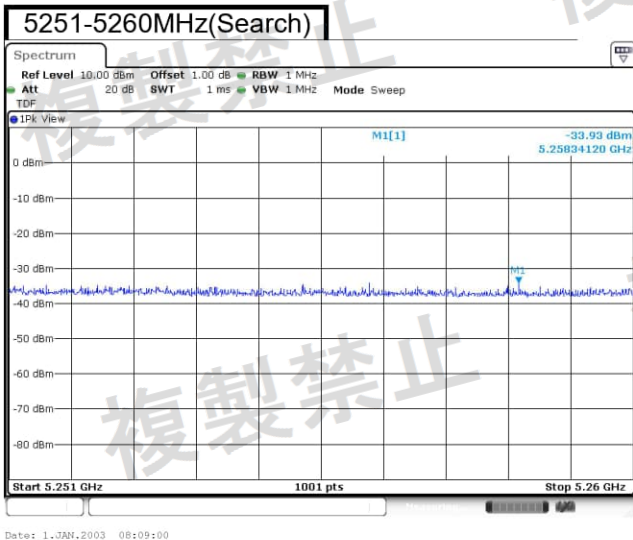
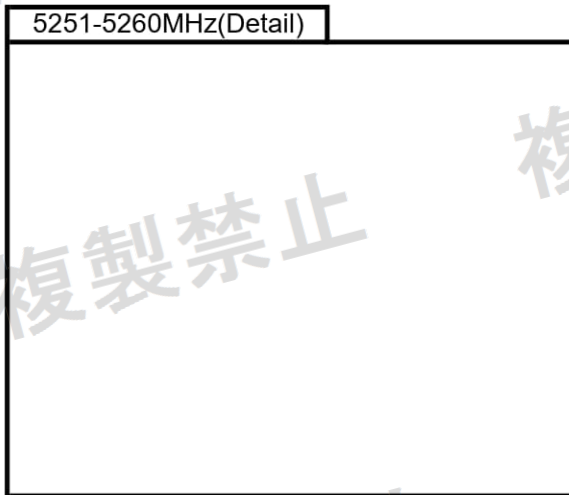
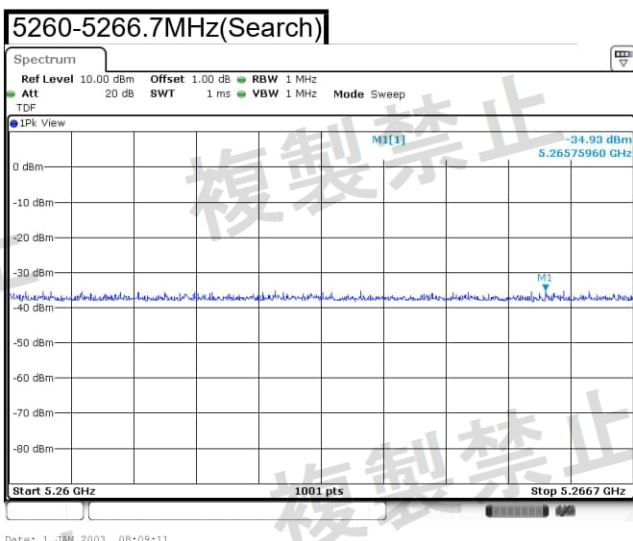
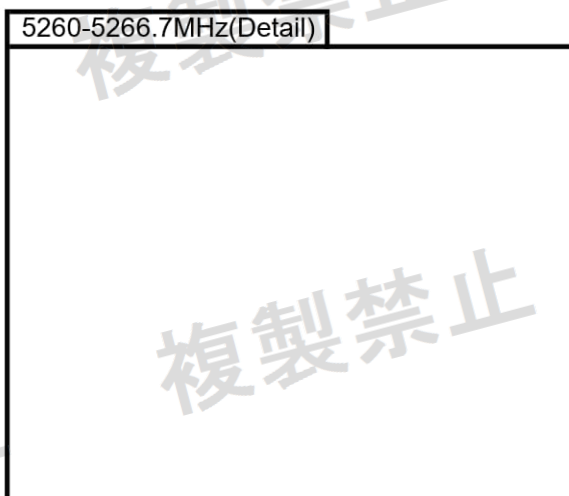


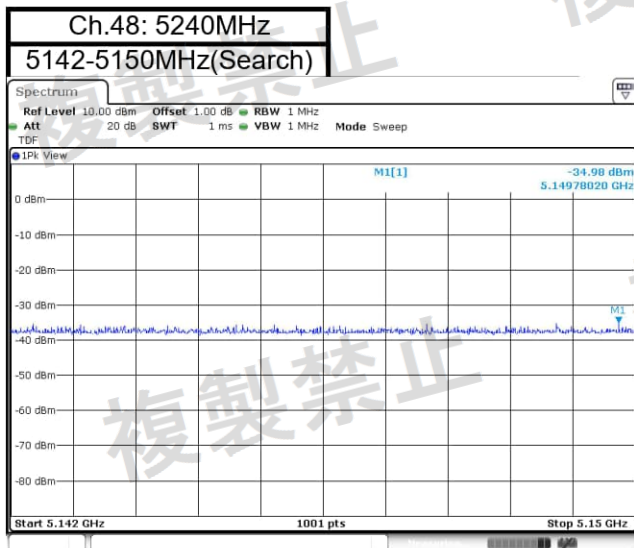
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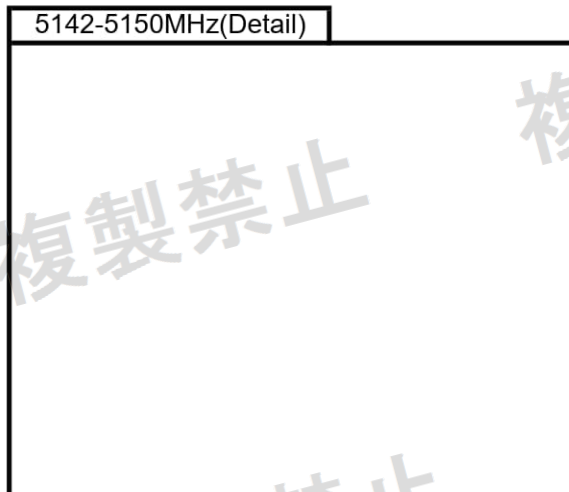
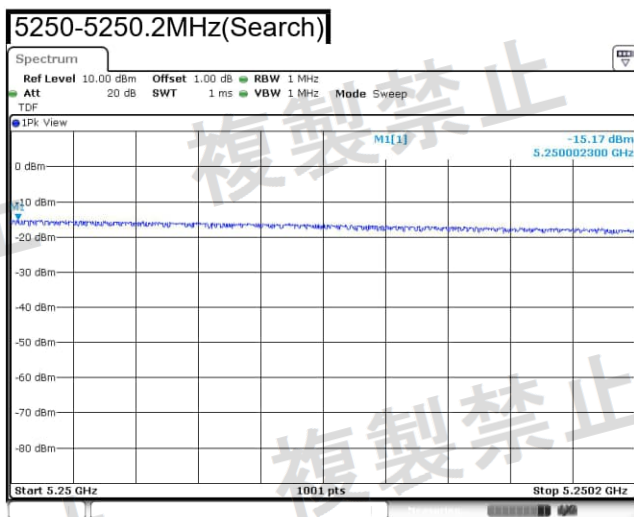
Date: 1.JAN.2003 08:08:49



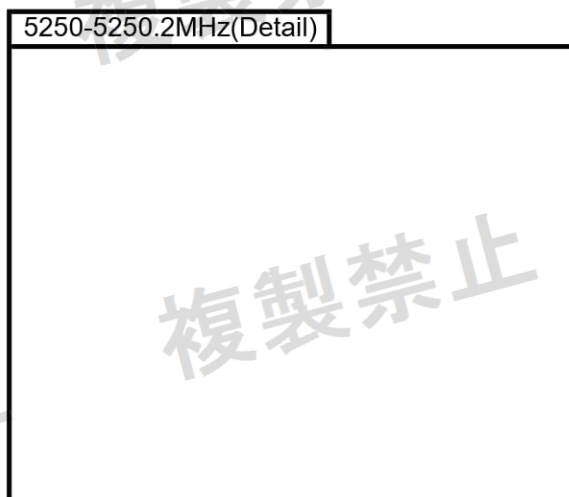
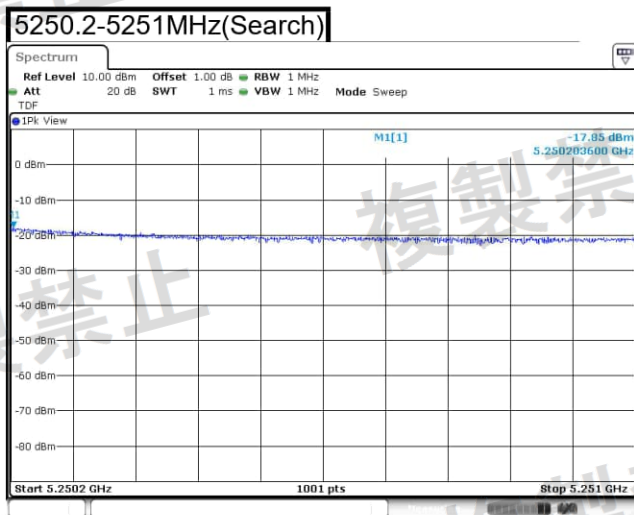




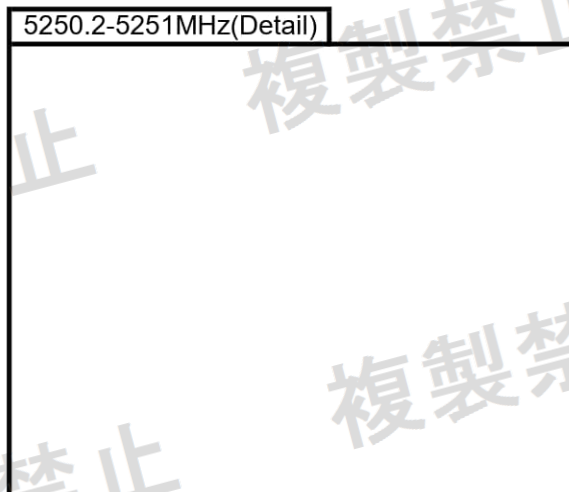
Date: 1.JAN.2003 08:18:01



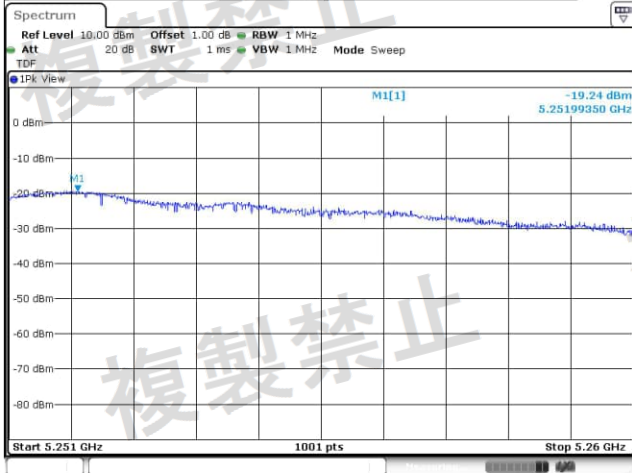
Date: 1.JAN.2003 08:18:12



Date: 1.JAN.2003 08:18:23



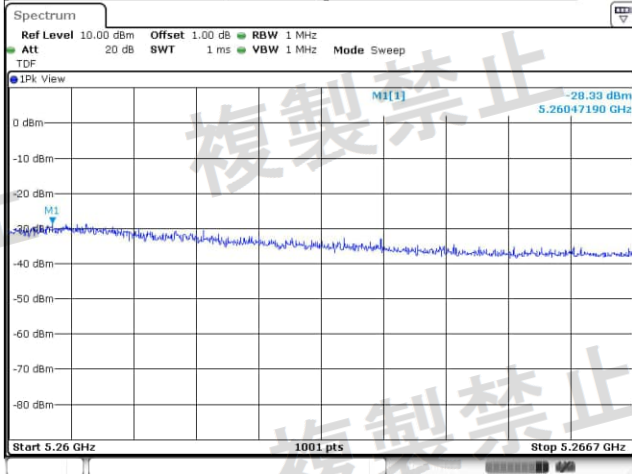
5251-5260MHz(Search)



Date: 1.JAN.2003 08:18:34

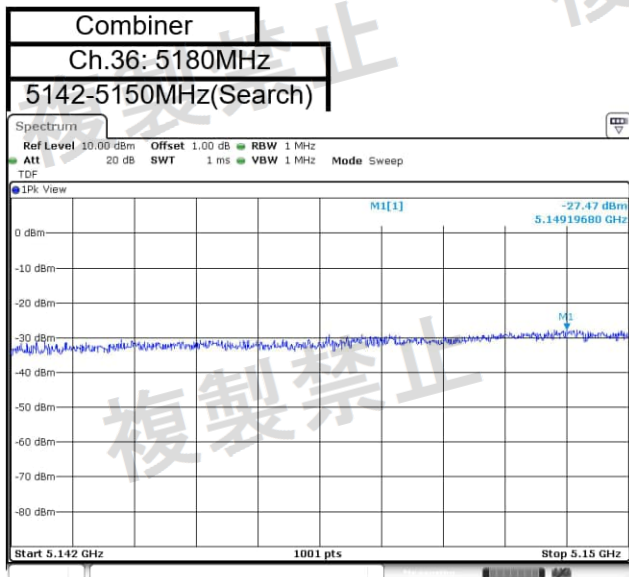
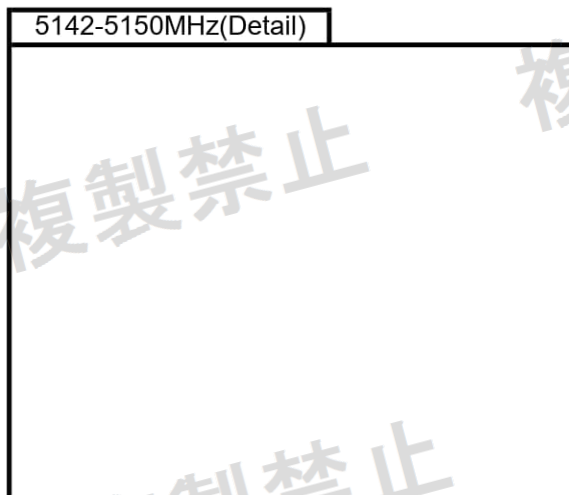
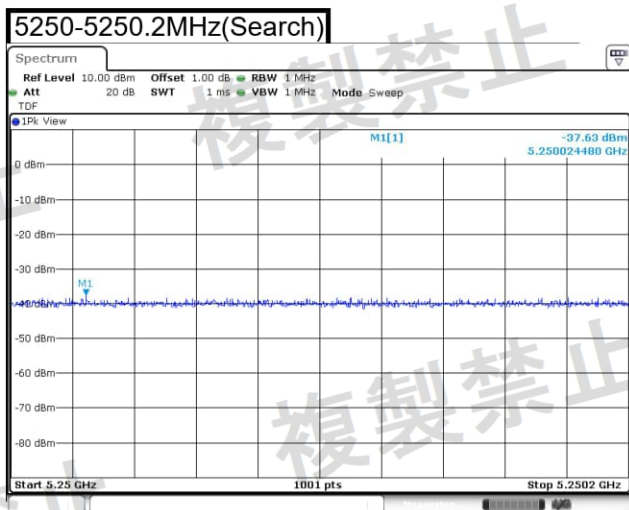
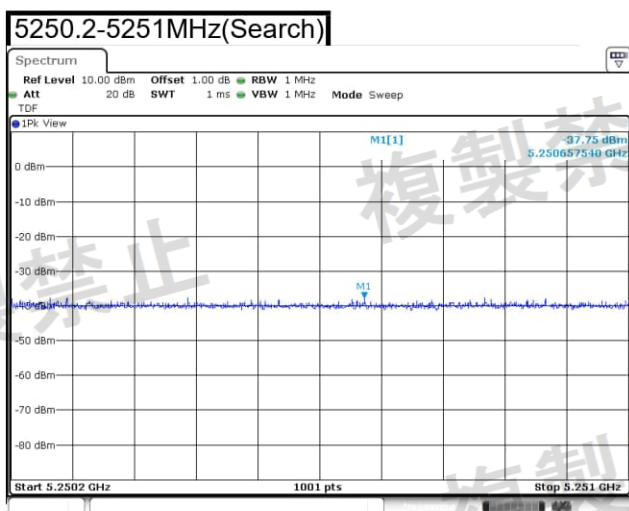
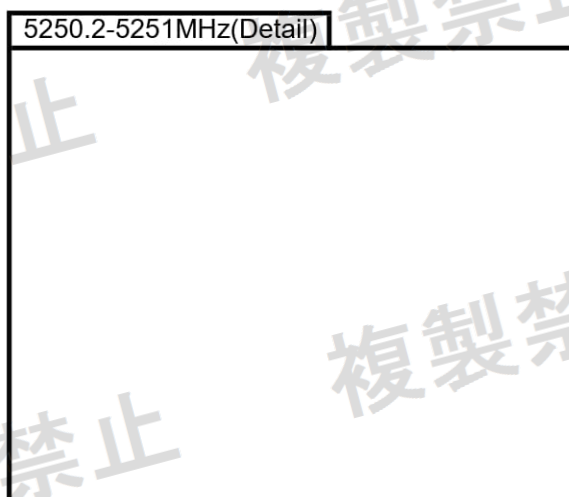
5251-5260MHz(Detail)

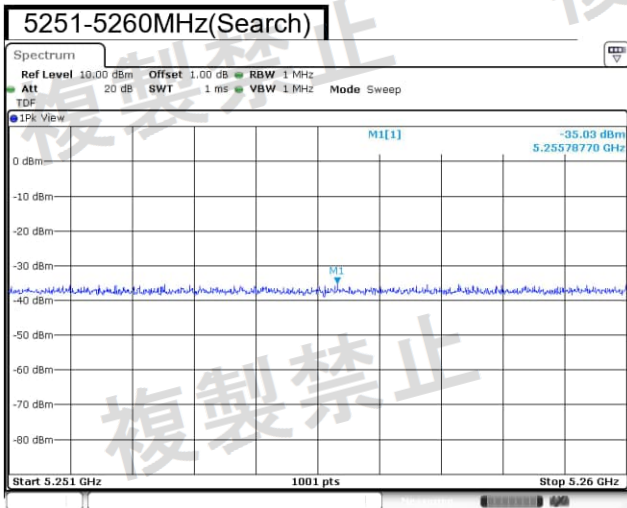
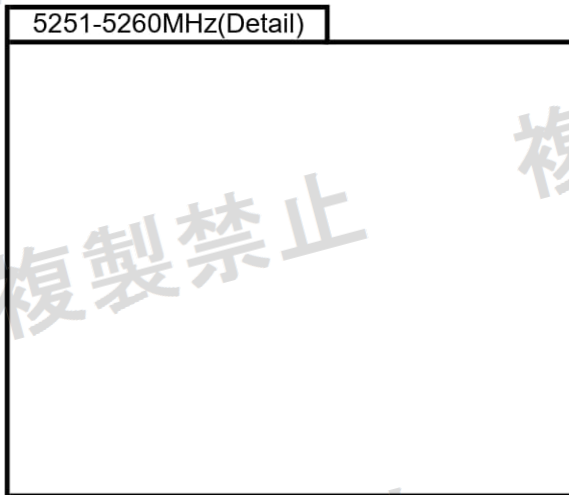
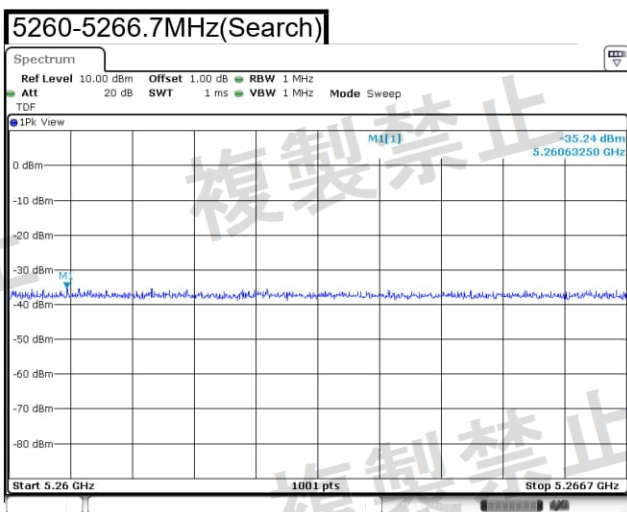
5260-5266.7MHz(Search)

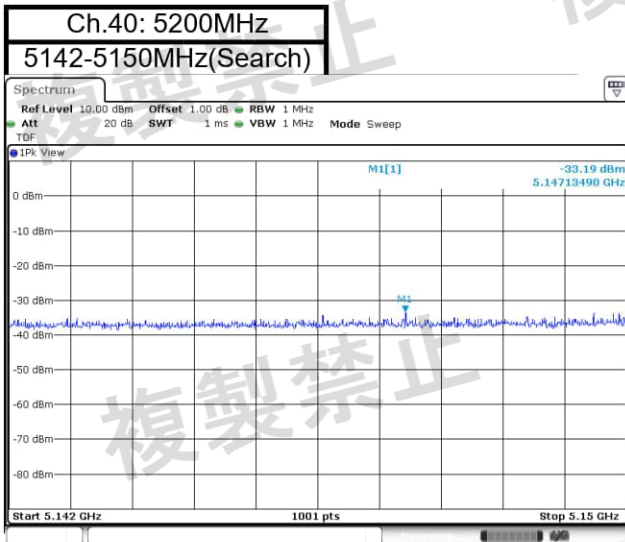
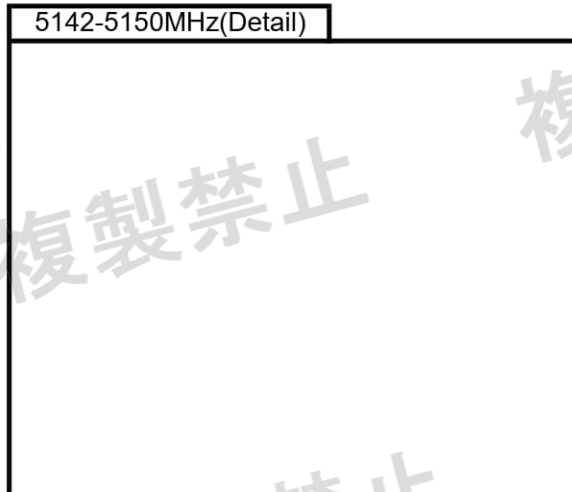
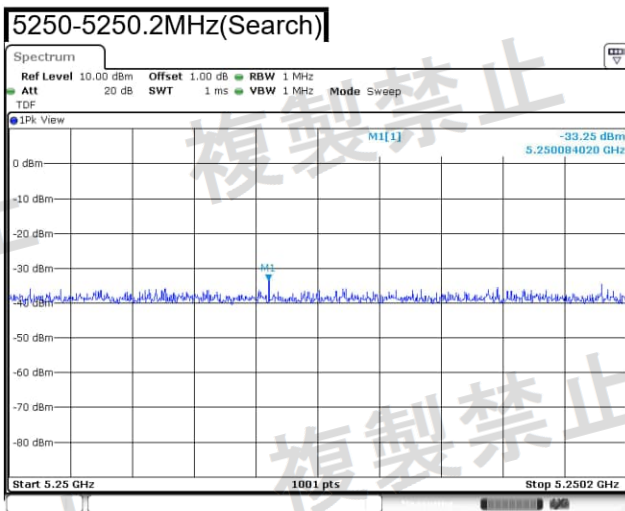
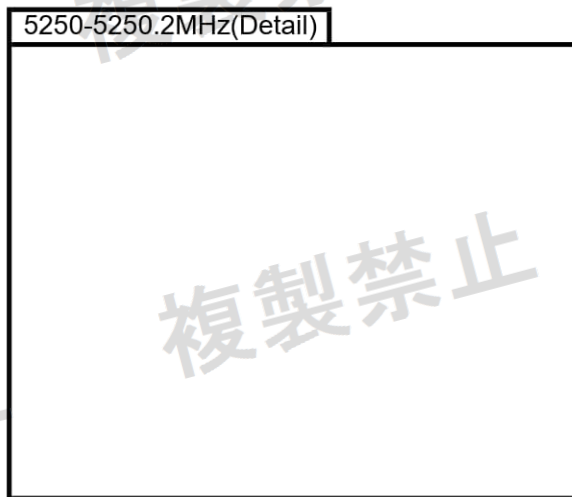
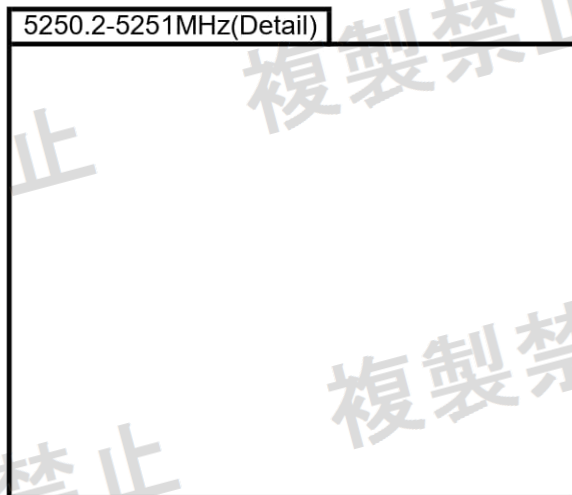


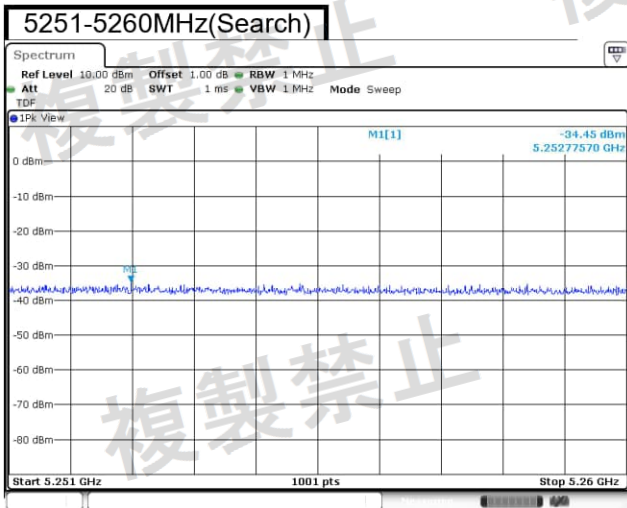
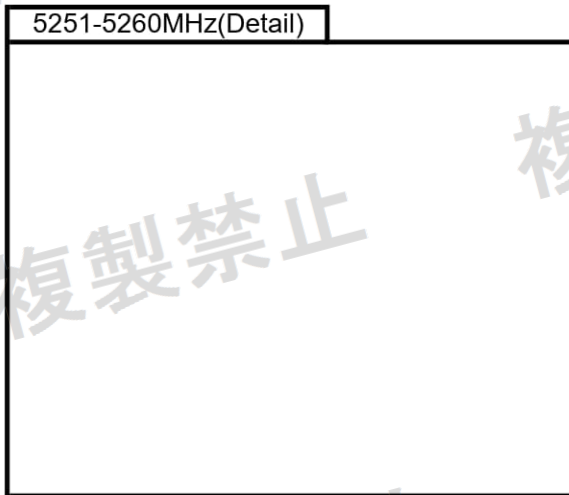
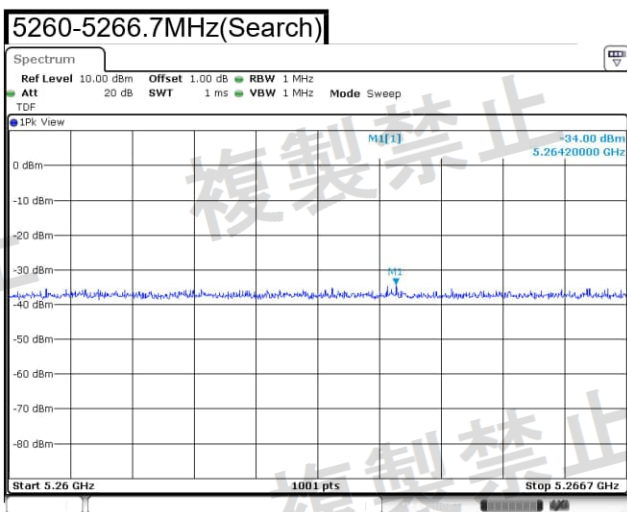
Date: 1.JAN.2003 08:18:44

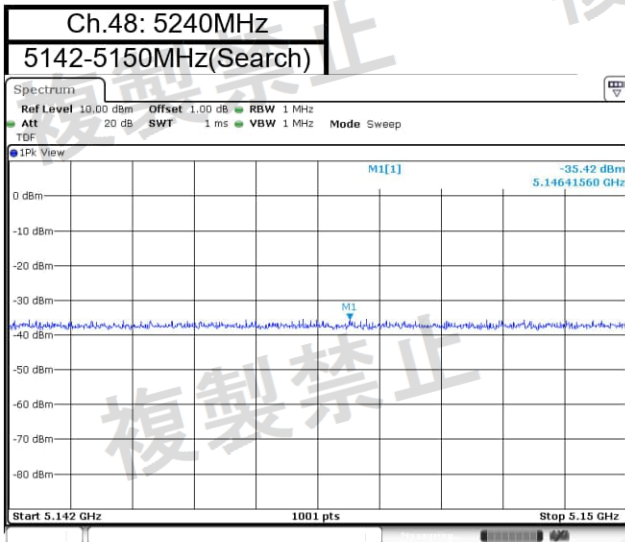
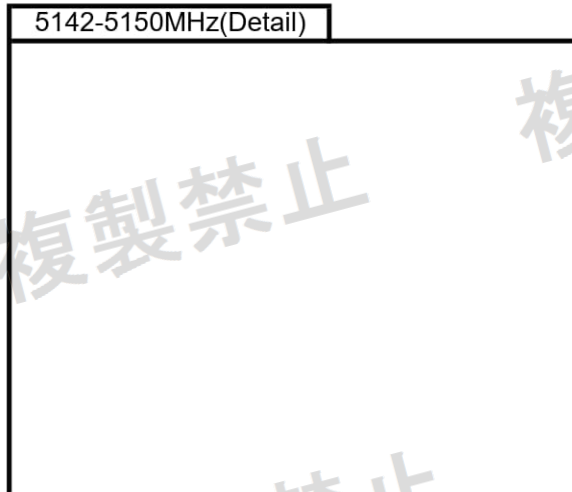
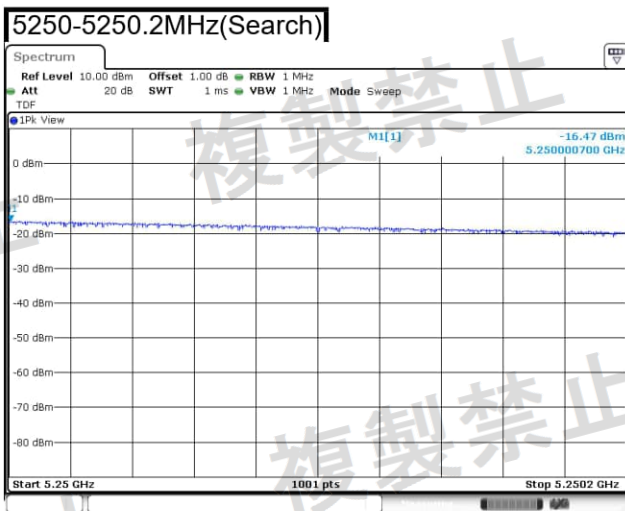
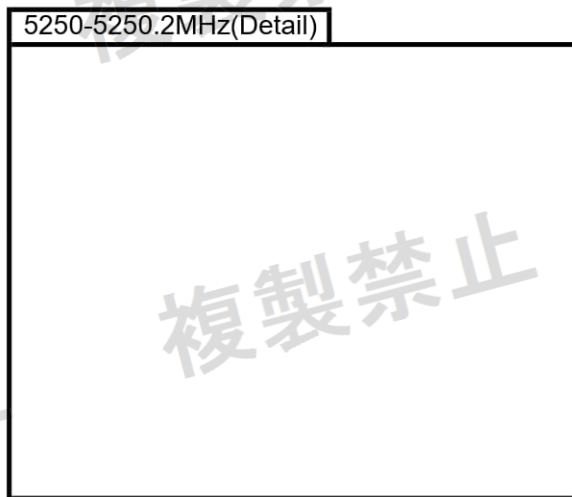
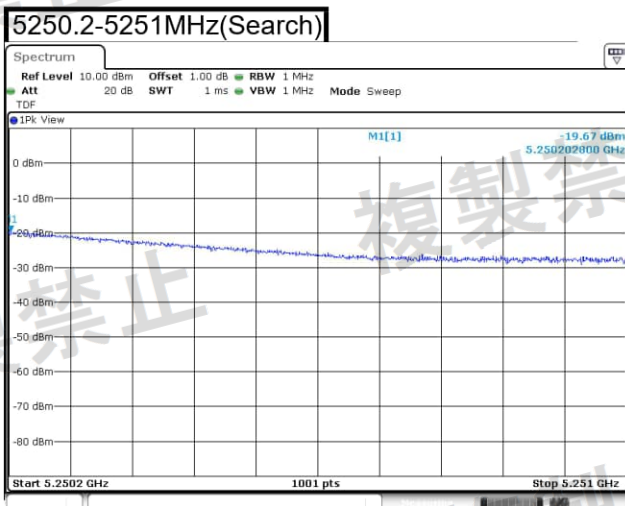
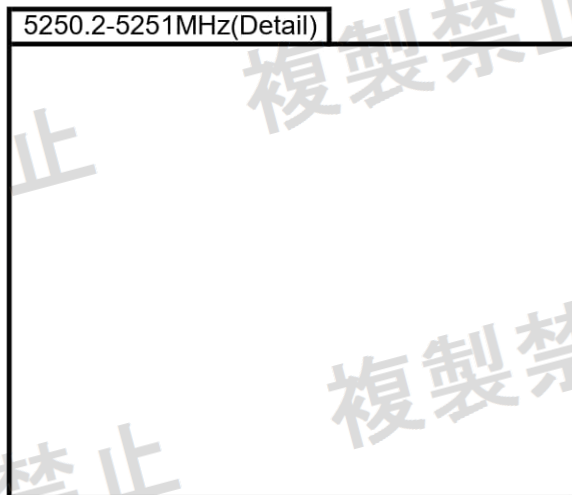
5260-5266.7MHz(Detail)

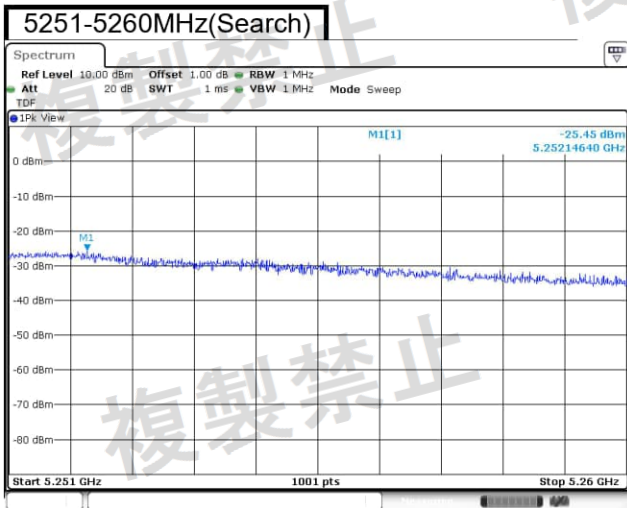
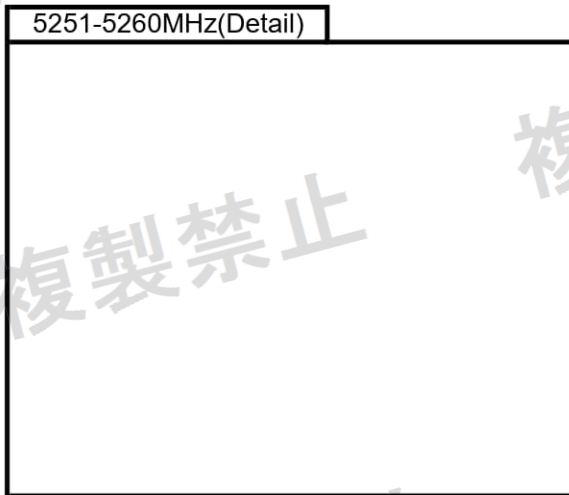
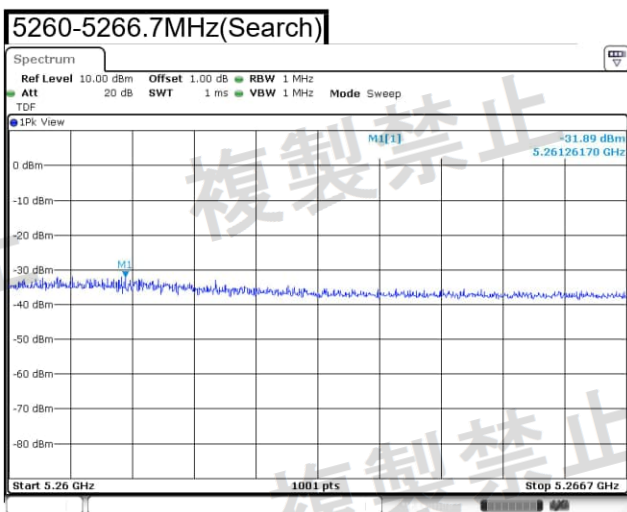












7. Test chart

7.7 Secondary emitted radio wave strength (Rated voltage)

