

TEST REPORT

Report number : KR23-SRT0037
Issue date : 2023-07-24

Applicant	:	DREAMUS COMPANY 311, Gangnam-daero, Seocho-gu, Seoul, Republic of Korea TEL : +82 2-6240-9118 FAX : +82 2-3019-7576
Equipment under test (EUT)	:	AK HB1
Model name	:	PEM21
Date of test	:	2023.07.14 ~ 2023.07.18
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;



Heesu Ahn

1. Summary of Test

1. Purpose of test

Ordinance on Technical Standards Conformity Certification of Specified Radio Equipment
2.4GHz Band wide band low power data communication System

2. Standards

Certification Ordinance Article 2 Clause 1 Item19

1) Test Methods

Ministry of Internal Affairs and Communications Notification Article 88 Appendix 43

2) Deviation from standards

None

3. List of applied test to the EUT

Article 88 Appendix 43	Classification of EUT	Condition	Result
3	Frequency Tolerance	Conducted	PASS
4	Occupied Bandwidth	Conducted	PASS
4	Spread Bandwidth	Conducted	PASS
5	Unwanted (Spurious) Emission Strength	Conducted	PASS
6	RF Output Power Tolerance	Conducted	PASS
7	Secondary Emitted Radio Wave Strength	Conducted	PASS
13	Time of occupancy hopping frequency	Conducted	PASS
13	Spreading Factor	Conducted	PASS
12	Interference Prevention Function	Conducted	PASS

1) Test set up

Table-Top

2) Modification to the EUT by laborator

None

1. Test Information

1. Applicant

DREAMUS COMPANY

311, Gangnam-daero, Seocho-gu, Seoul, Republic of Korea

2. Equipment under test

AK HB1

3. Model number

PEM21

4. Serial number

TP-89

5. Size

(W) 39.87 x (D) 16.55 x (H) 68.42

6. Terminal limitation

-10°C to 50°C

7. RF Specification Frequency range

2402-2480MHz

8. Number of RF Channels

79 Channels

9. Modulation method

FHSS(GFSK, $\pi/4$ -DQPSK, 8DPSK)

10. Data rate

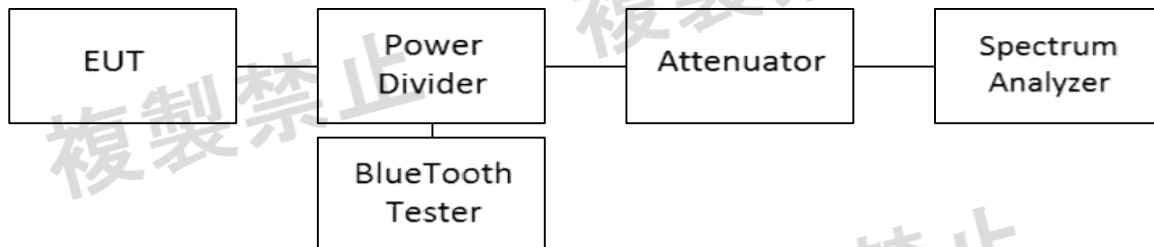
1, 2, 3Mbps

10. Variation of the family model(s)

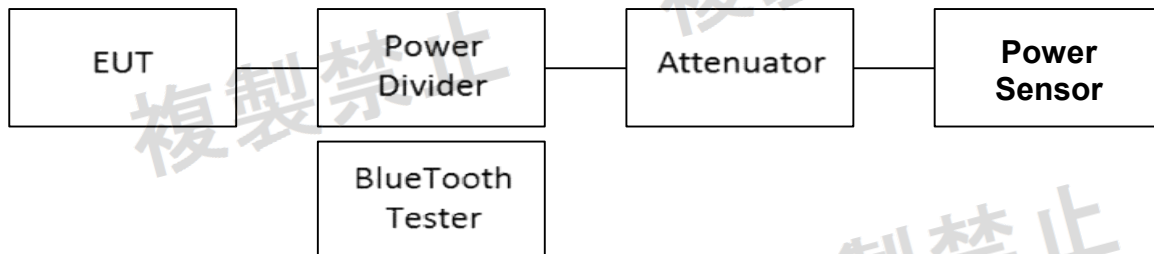
None

2. Configuration of equipment

1. Frequency tolerance, Occupied Bandwidth, Spread bandwidth, Unwanted(Spurious) emission strength, Secondary emitted radio wave strength, Time of occupancy hopping frequency



2. RF output power tolerance



3. Test results (Rated voltage)

S/N : N/A

Environment of test room	Date of test	2023-07-14	2023-07-17	2023-07-18
	Temperature	22 °C	21 °C	23 °C
	Humidity	53 %	55 %	52 %

Peak Antenna Gain	-2.41	dBi
Declaration Output Power	0.050	mW/MHz
Declaration Output Power	-13.01	dBm/MHz
E.I.R.P.	-15.42	dBm/MHz
Input Power Voltage	3.80	VDC

Tested Circuit Insertion Loss	0	dB
Frequency equal to the Transmission rate	1	MHz
Transmission Time	ON TIME	2.893 ms
	OFF TIME	0.858 ms
	Ratio	0.771
Packet Type (Mode)	DH5	mode
Transmit Speed	1	MHz

Using TDF and offset function in Spectrum Analyzer.
Measurement of plots are included Loss value.
(Att : 10dB + Cable loss + EUT cable: 0.5dB offset)

Test category ;	2.4GHz Band Low-Power Data Communication System (BluetoothV4+BDR [GFSK])
The reason why the tests are performed only at rated voltage :	The fluctuation of input voltage to the circuit of the radio part of the equipment to be tested is identified as being less than ± 1 % when input voltage from an external supply into the equipment fluctuates ± 10 %.

Measurement Frequency	MHz	2402	2441	2480	Result	Limit	Note
Channel Number	Ch.	0	39	78	---	---	
Frequency Measurements	MHz	2402.020	2441.015	2480.010	---	---	
Frequency Tolerance	ppm	8.306	6.125	4.032	PASS	$\pm 50 \times 10^{-6}$ (50ppm)	
Occupied Bandwidth	MHz	---	78.12	---	PASS	83.5MHz or below	
Spread Bandwidth	MHz	---	71.13	---	PASS	500kHz or more	
RF Output Power	mW/MHz	0.026	0.020	0.014	PASS	3mW/MHz or below	
RF Output Power Tolerance	%	-47.43	-59.57	-72.47	PASS	+20 to -80%	
Unwanted (Spurious) Emission Strength	30 to 2387MHz	uW/MHz	---	0.008	PASS	2.5uW/MHz or below	
		MHz	---	2310.500	----		
	2387 to 2400MHz	uW/MHz	---	0.3776	PASS	25uW/MHz or below	
		MHz	---	2399.994	----		
	2483.5 to 2496.5MHz	uW/MHz	---	0.0112	PASS	25uW/MHz or below	
		MHz	---	2492.221	----		
	2496.5 to 12500MHz	uW/MHz	---	0.0324	PASS	2.5uW/MHz or below	
		MHz	---	6938.500	----		
Secondary Emitted Radio Wave Strength	30 to 1000MHz	nW	---	0.7889	PASS	4nW or below	
		MHz	---	288.250	----		
	1000 to 12500MHz	nW	---	1.1641	PASS	20nW or below	
		MHz	---	3556.000	----		
Time of occupancy hopping frequency	sec	---	0.0029	---	PASS	0.4sec or below	
	sec	---	0.2283	---	PASS	0.4sec or below	0.4sec×Spread rate
Spreading Factor	---		71.1300		PASS	5 or more	
Interference Prevention Function		Good			PASS		

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	100732	HCT	(c)	2024.07.03	2023.07.03
X	DC Power Supply	AGILENT	E3632A	KR94907664	HCT	(c)	2024.04.27	2023.04.27
X	Signal generator	R & S	SMB100A	176206	HCT	(c)	2024.01.19	2023.01.19
X	Attenuator	API Inmet	40AH2W-10	18	HCT	(c)	2024.05.03	2023.05.03
X	Coaxial Attenuator	R & S	DNF Dämpfungsglied 10 dB in N-50 Ohm	0002	HCT	(c)	2024.04.25	2023.04.25
X	Wideband Power Sensor	R&S	NRP-Z81	1137.9009.02-10625-JM	HCT	(c)	2024.04.25	2023.04.25
X	Divider	Divider_Marki Microwave, Inc	PD-0040	D0005	HCT	(c)	2024.07.04	2023.07.04
X	Bluetooth Tester	TESCOM	TC-3000B	3000B640056	HCT	(c)	2024.07.04	2023.07.04

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: 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

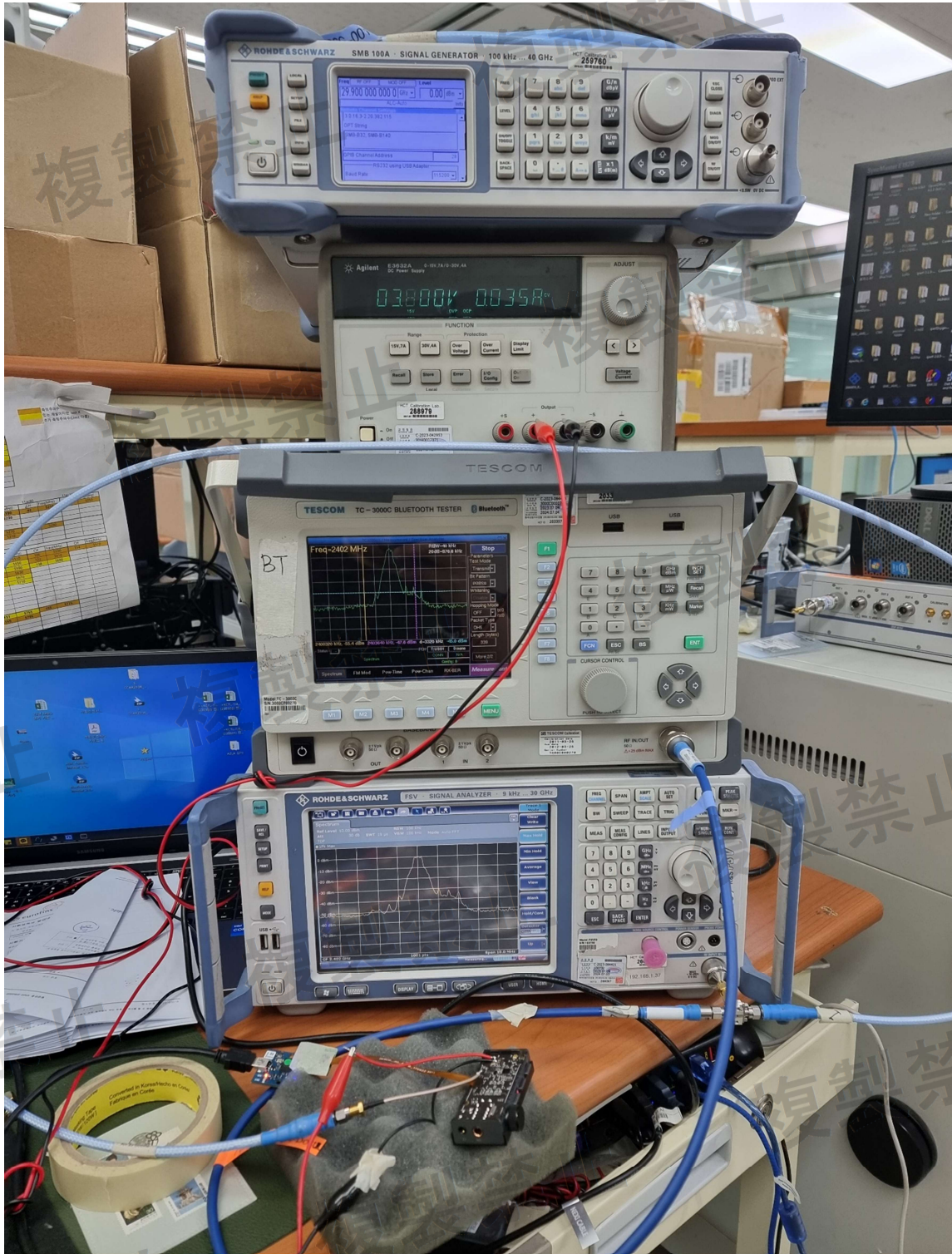
About uncertainty of measured value

Parameter	Uncertainty
Total RF power conducted	$\pm 0.9\text{dB}$
Spurious emissions conducted	$\pm 1.1\text{dB}$
Temperature	$\pm 0.9^{\circ}\text{C}$
Humidity	$\pm 4.6\%$

Judge	Measured value and standard limit value	
PASS	<div> <div>Standard limit value</div> <div> <div>Case1</div> </div> </div> <p>Even if it takes uncertainty into consideration, a standard limit value is fulfilled.</p>	
	<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>	

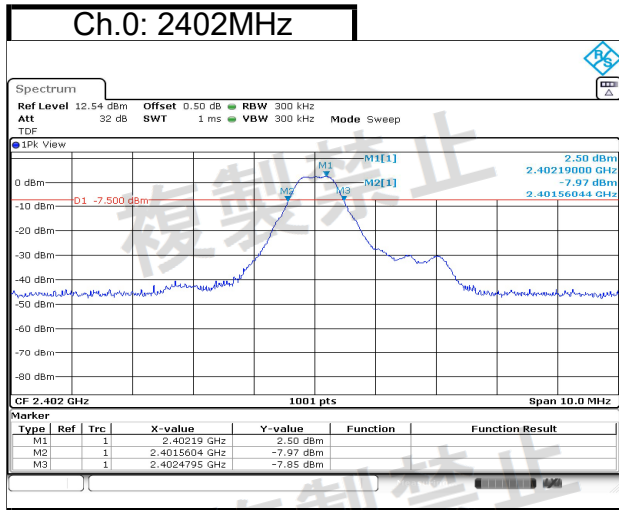
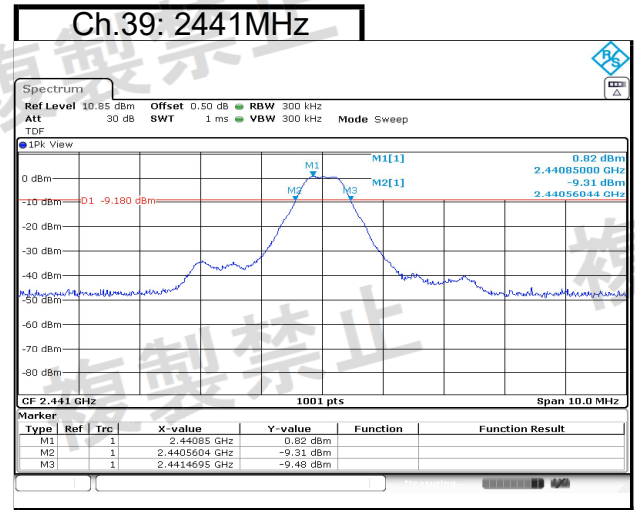
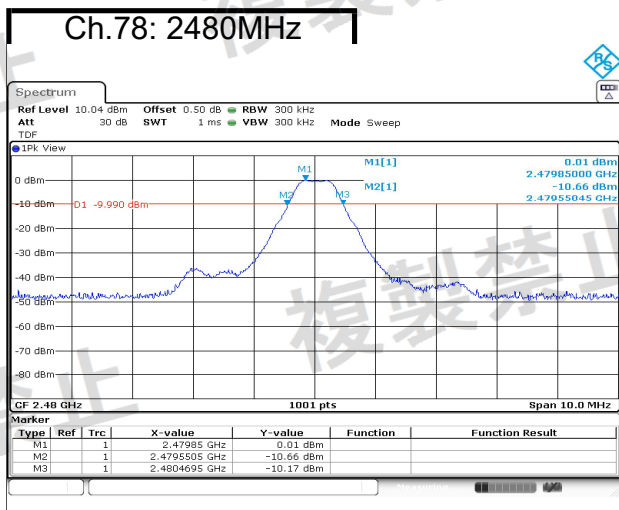
6. Photographs

Conducted Measurement Photo



7. Test chart

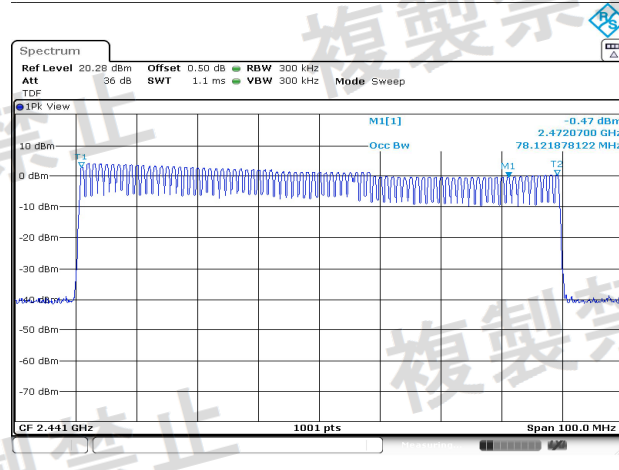
7.1 Frequency tolerance (Rated voltage)



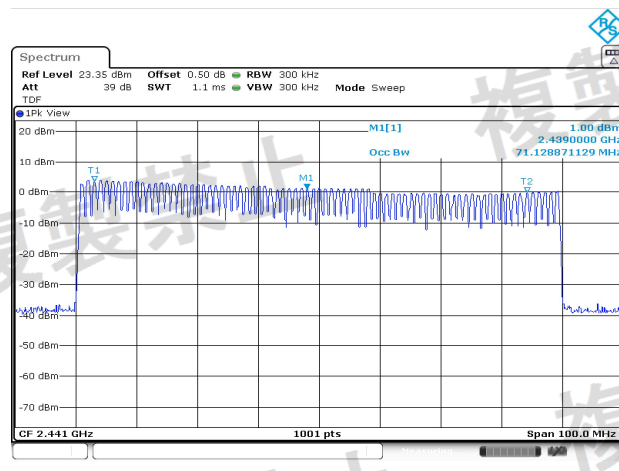
7. Test chart

7.2 Occupied bandwidth / Spread bandwidth (Rated voltage)

Occupied bandwidth

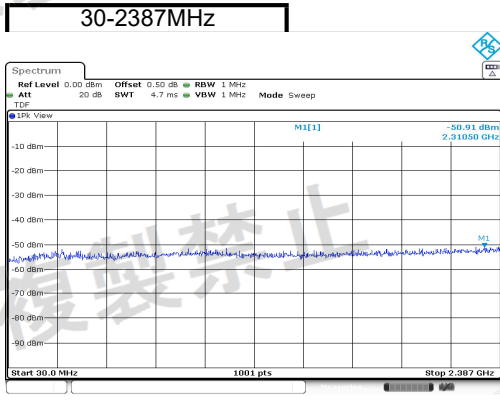
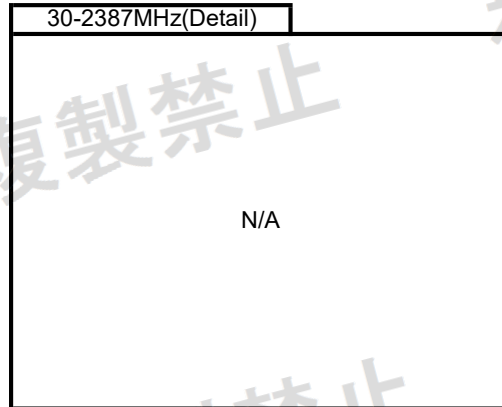
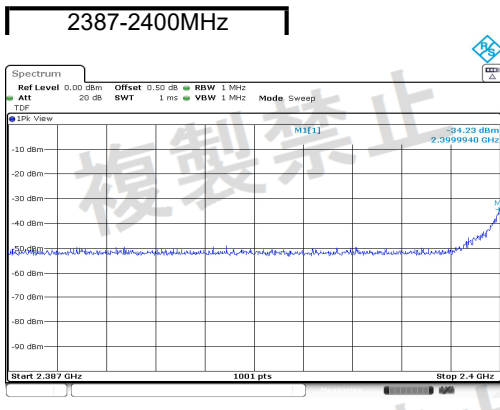
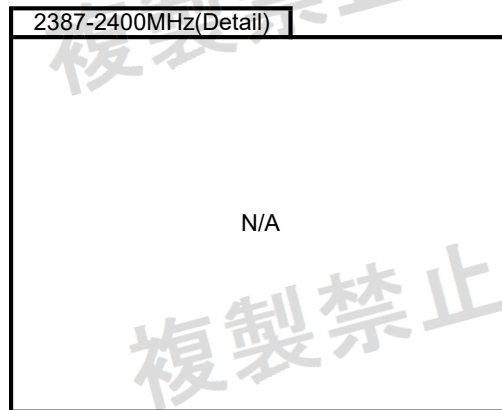
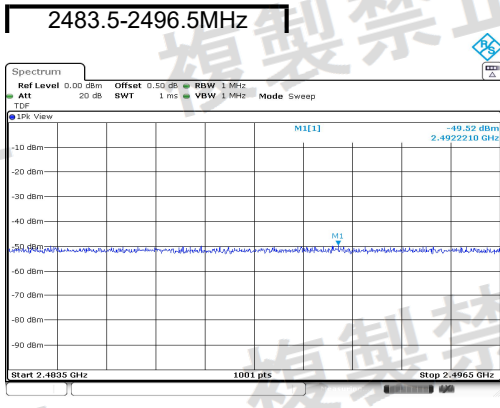
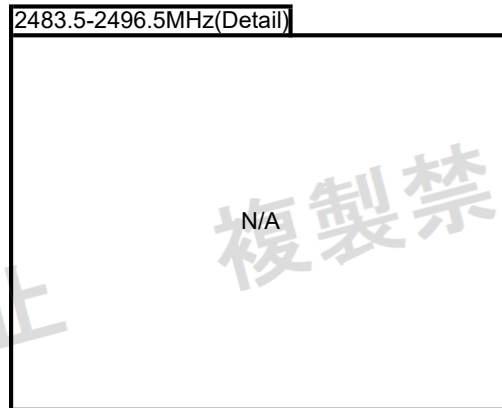
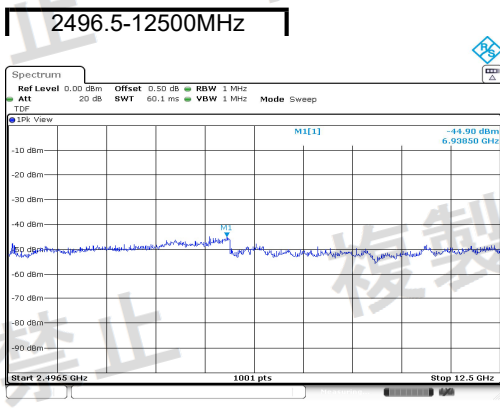
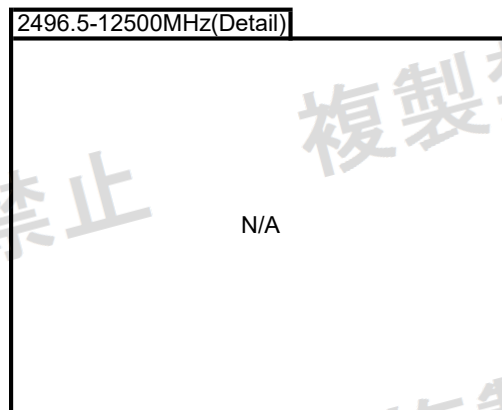


Spread bandwidth



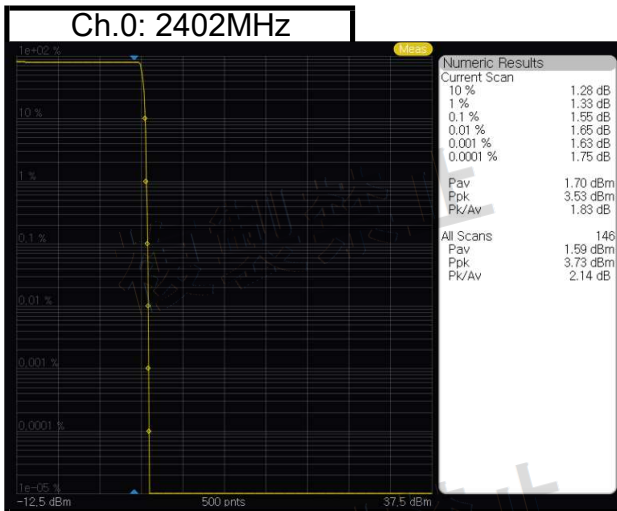
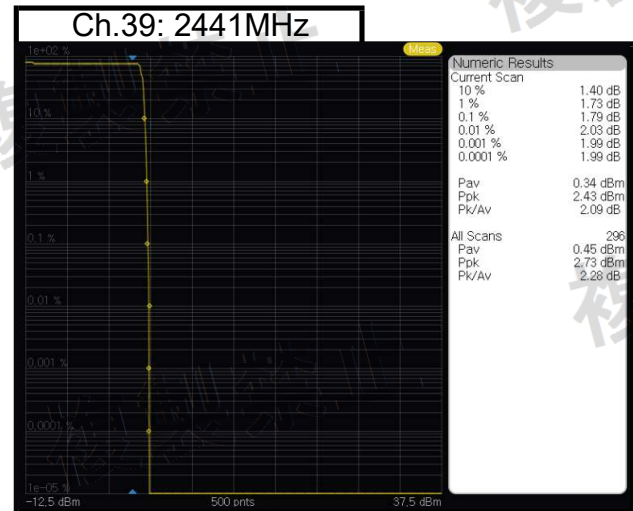
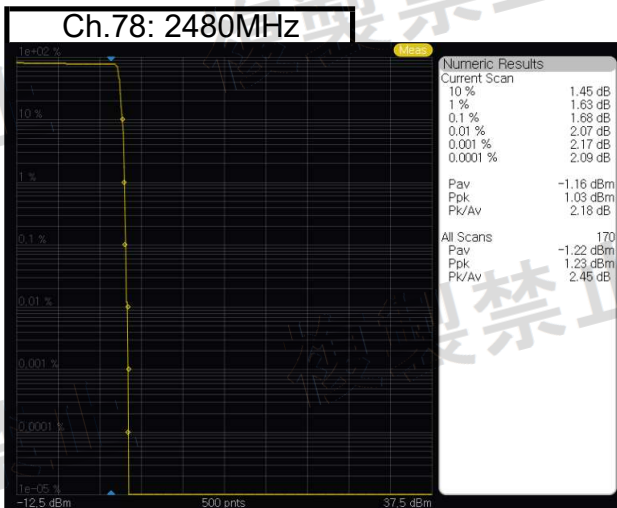
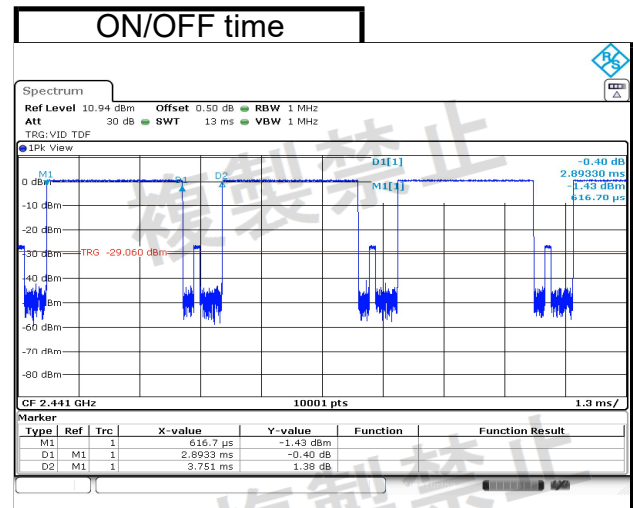
7. Test chart

7.3 Unwanted(Spurious) emission strength (Rated voltage)



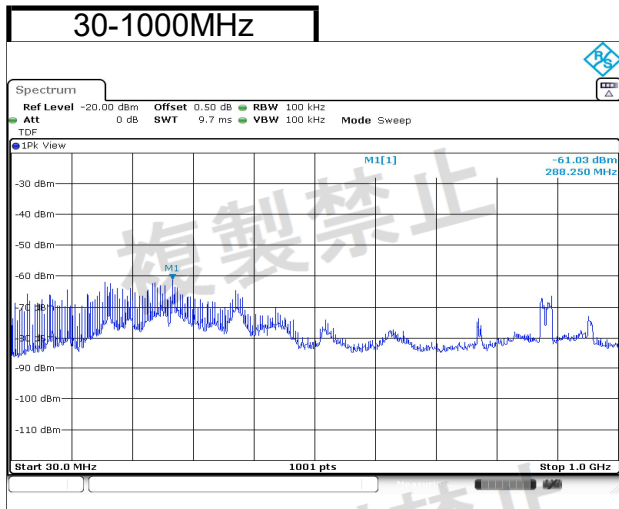
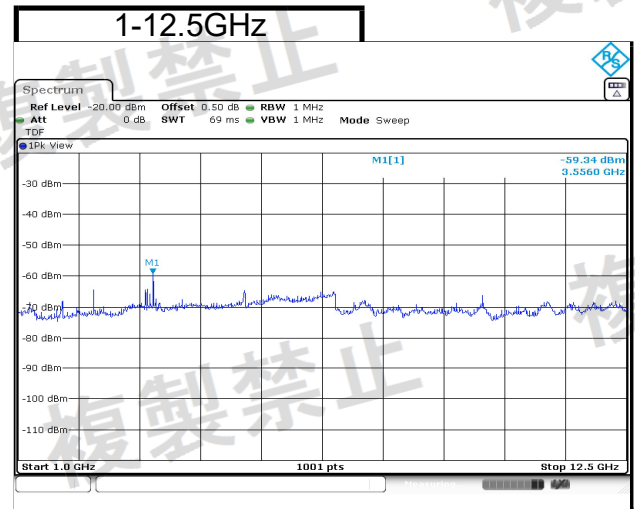
7. Test chart

7.4 RF output power tolerance (Rated voltage)



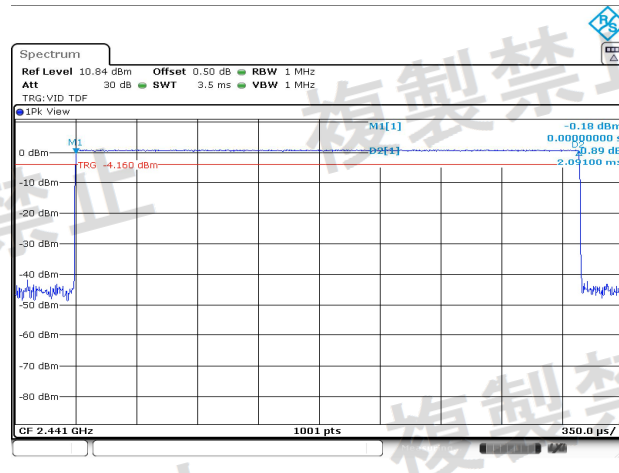
7. Test chart

7.5 Secondary emitted radio wave strength (Rated voltage)



7. Test chart

7.6 Time of occupancy hopping frequency (Rated voltage)



$$\text{Sweep time} = (0.4\text{sec} \times \text{Spread rate})$$



8. Test results (Rated voltage)

S/N : N/A

Environment of test room	Date of test	2023-07-14	2023-07-17	2023-07-18
	Temperature	22 °C	21 °C	23 °C
	Humidity	53 %	55 %	52 %

Peak Antenna Gain	-2.41	dBi
Declaration Output Power	0.10	mW/MHz
Declaration Output Power	-10.00	dBm/MHz
E.I.R.P.	-12.41	dBm/MHz
Input Power Voltage	3.80	VDC

Tested Circuit Insertion Loss		0	dB
Frequency equal to the Transmission rate		1	MHz
Transmission Time	ON TIME	2.889	ms
	OFF TIME	0.861	ms
	Ratio	0.770	
Packet Type (Mode)		DH5	mode
Transmit Speed		1	MHz

Using TDF and offset function in Spectrum Analyzer.
Measurement of plots are included Loss value.

(Att : 10dB + Divider : 6dB + Cable loss + EUT cable: 0.5dB offset)

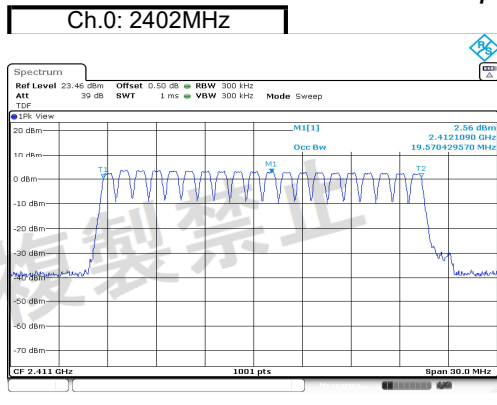
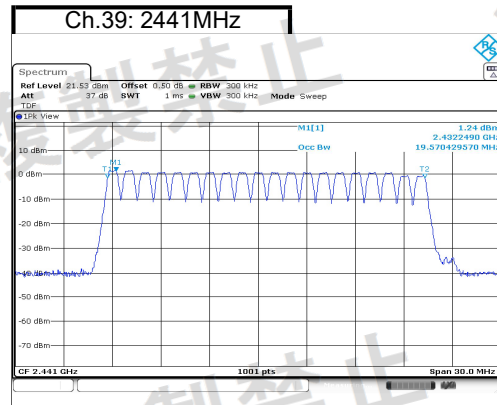
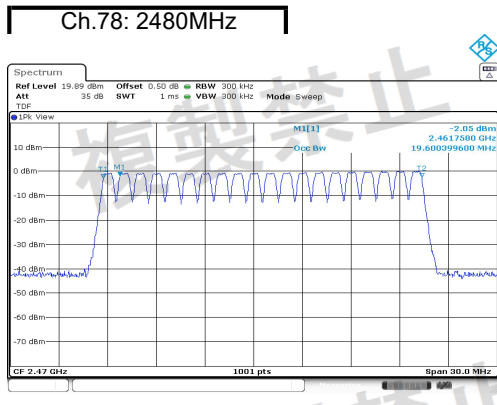
Test category : 2.4GHz Band Low-Power Data Communication System (BluetoothV4+BDR [GFSK])	
The reason why the tests are performed only at rated voltage :	The fluctuation of input voltage to the circuit of the radio part of the equipment to be tested is identified as being less than ± 1 % when input voltage from an external supply into the equipment fluctuates ± 10 %.

Measurement Frequency		MHz	2402	2441	2480	Result	Limit	Note
Channel Number		Ch.	0	39	78	---	---	
Frequency Measurements		MHz	---	---	---	---	---	
Frequency Tolerance		ppm	---	---	---	---	±50×10 ⁻⁶ (50ppm)	
Occupied Bandwidth		MHz	19.57	19.57	19.6	PASS	83.5MHz or below	
Spread Bandwidth		MHz	17.53	17.89	18.13	PASS	500kHz or more	
RF Output Power		mW/MHz	0.107019	0.080841	0.054056	PASS	3mW/MHz or below	
RF Output Power Tolerance		%	7.019065	-19.158804	-45.943831	PASS	+20 to -80%	
Unwanted (Spurious) Emission Strength	30 to 2387MHz	uW/MHz	0.041	0.009	0.008	PASS	2.5uW/MHz or below	
		MHz	1735.900	1721.800	2357.600	----		
	2387 to 2400MHz	uW/MHz	0.366	0.013	0.010	PASS	25uW/MHz or below	
		MHz	2399.994	2397.162	2392.825	----		
	2483.5 to 2496.5MHz	uW/MHz	0.011	0.011	0.012	PASS	25uW/MHz or below	
		MHz	2494.649	2492.545	2494.961	----		
	2496.5 to 12500MHz	uW/MHz	0.034	0.027	0.037	PASS	2.5uW/MHz or below	
		MHz	6868.500	6968.500	6998.500	----		
Time of occupancy hopping frequency		sec	0.003	0.003	0.003	PASS	0.4sec or below	0.4sec×Spread rate
		sec	0.246	0.249	0.254	PASS	0.4sec or below	
Spreading Factor		---	17.530	17.890	18.130	PASS	5 or more	
Interference Prevention Function			Good			PASS		

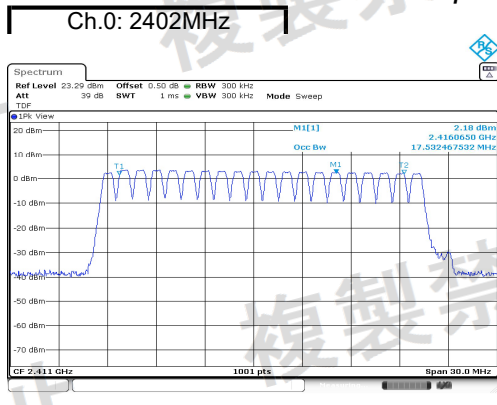
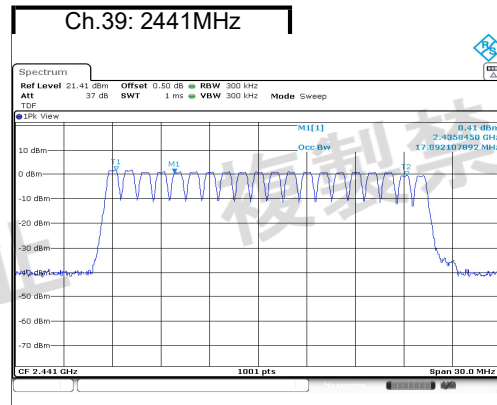
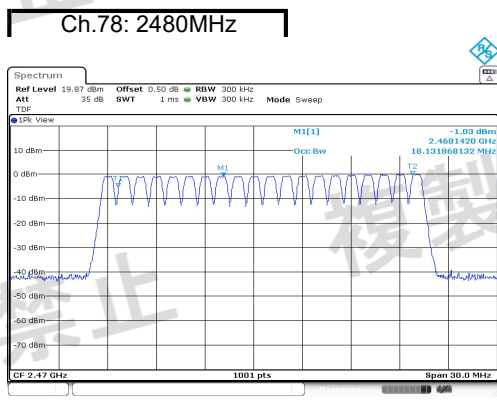
9. Test chart

9.1 Occupied bandwidth / Spread bandwidth (Rated voltage)

Occupied bandwidth

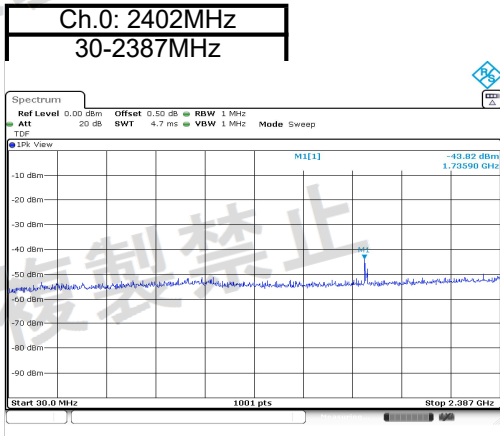
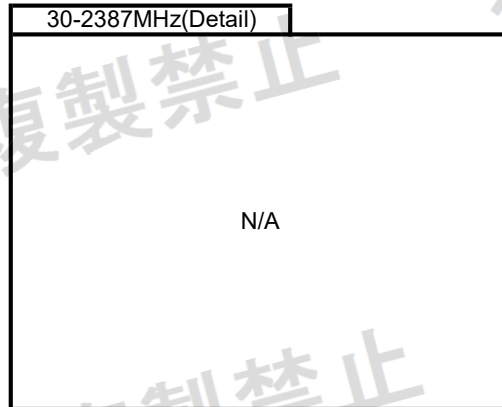
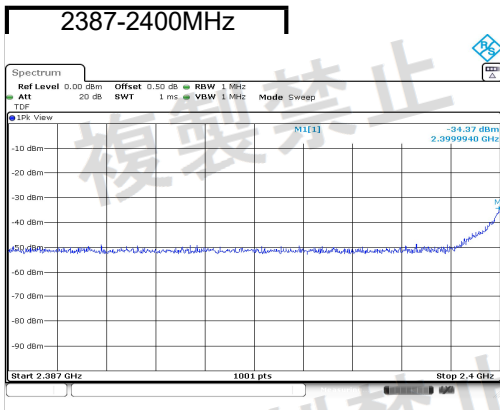
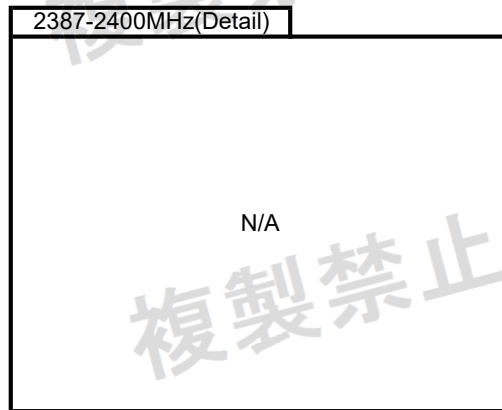
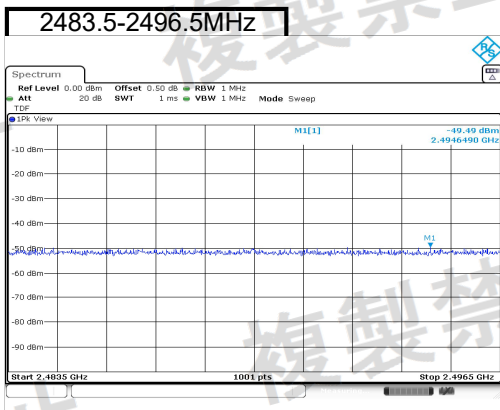
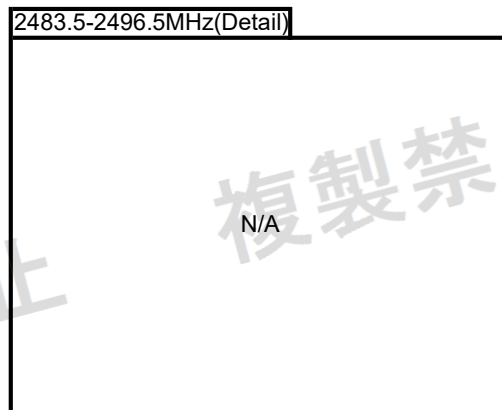
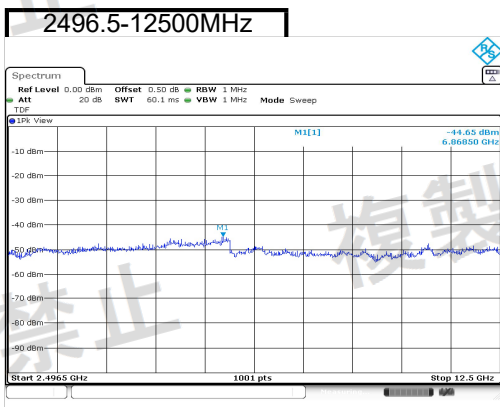
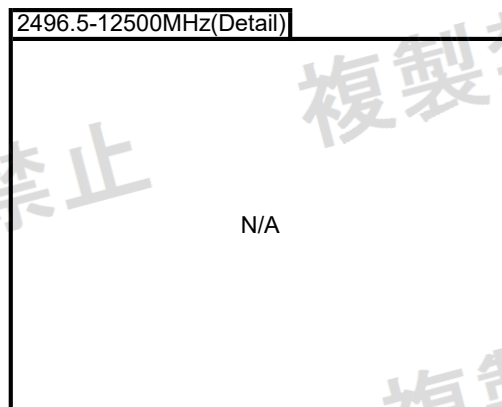


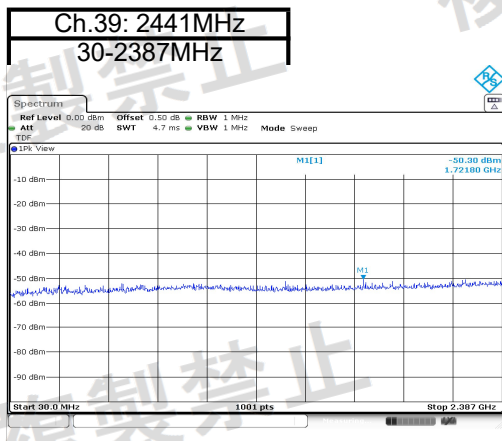
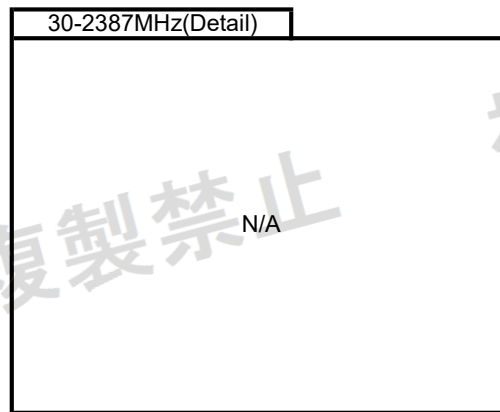
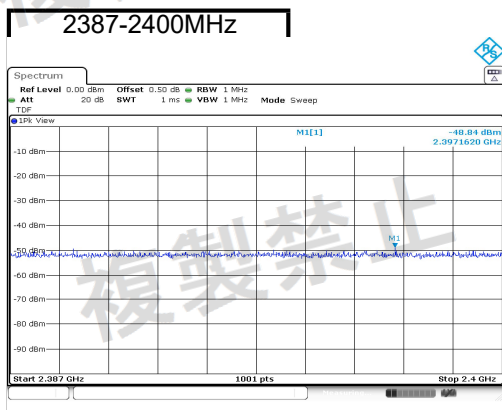
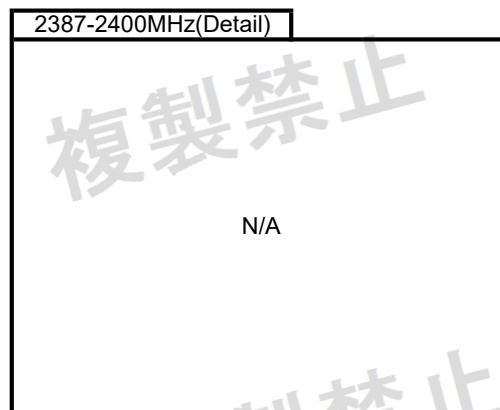
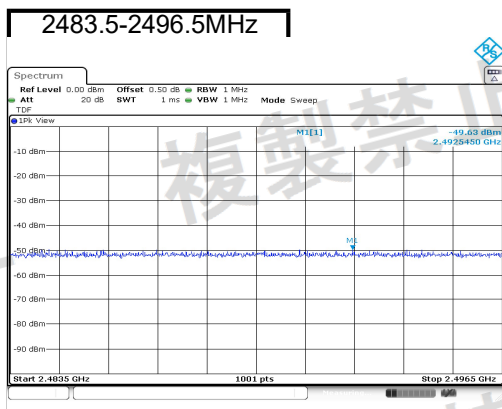
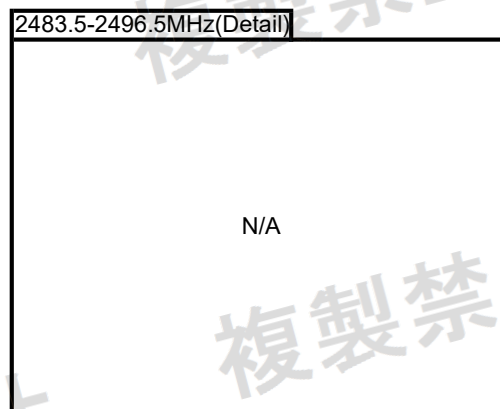
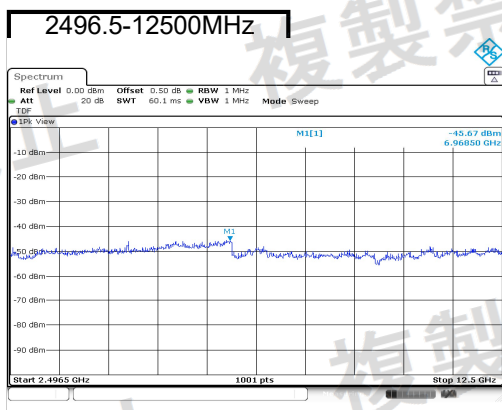
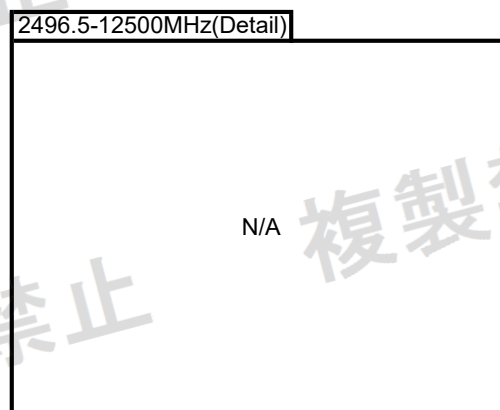
Spread bandwidth

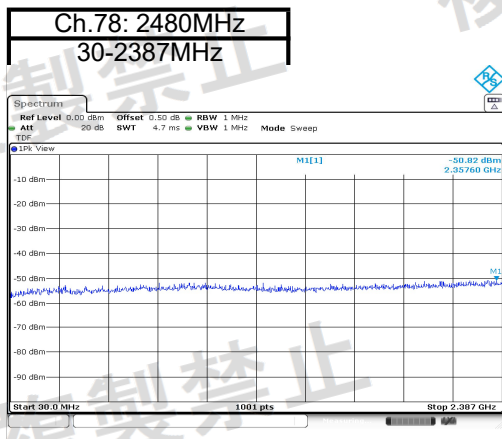
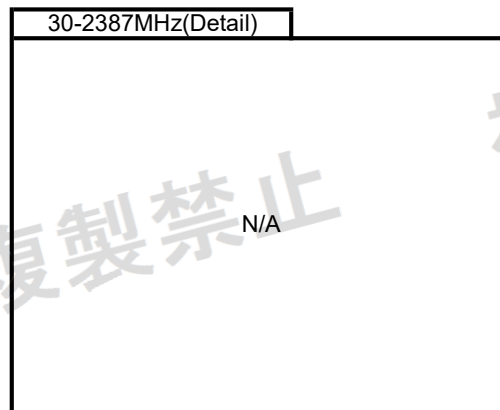
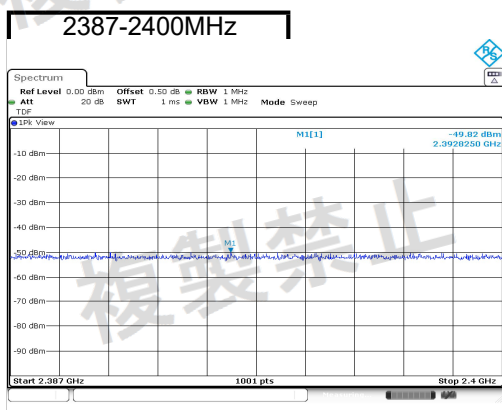
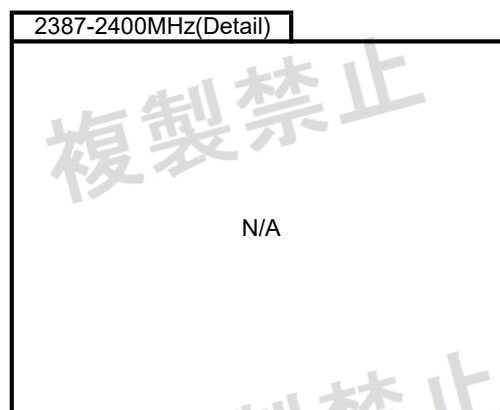
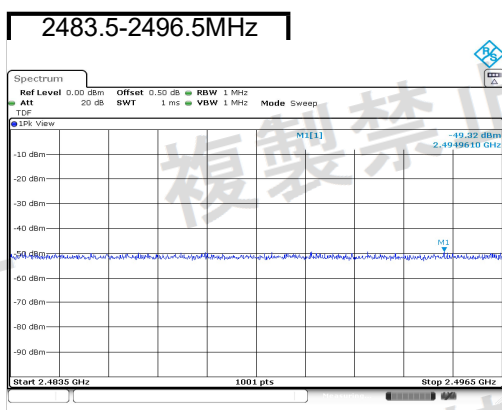
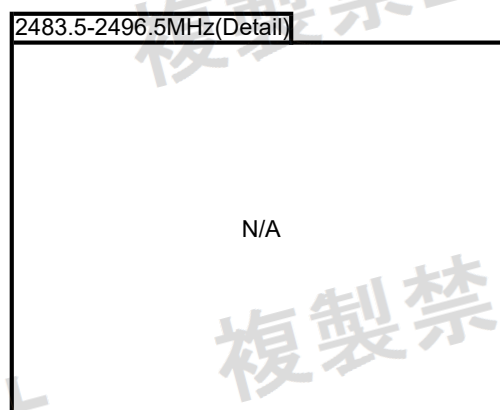
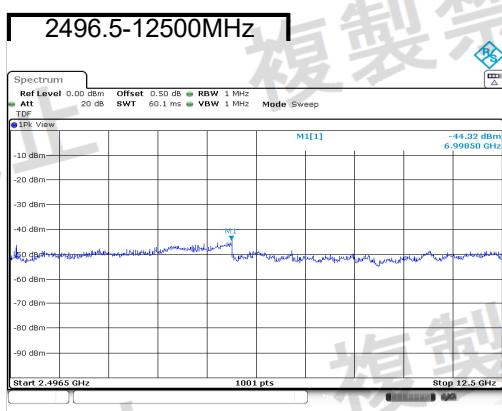
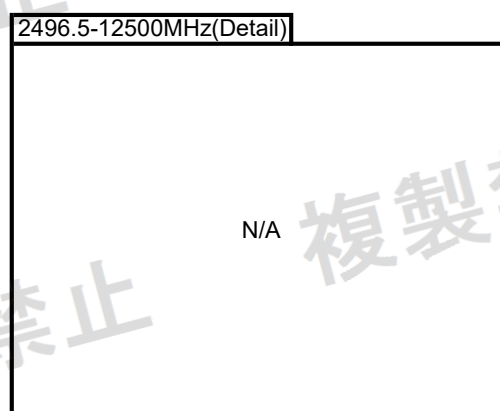


9. Test chart

9.2 Unwanted(Spurious) emission strength (Rated voltage)

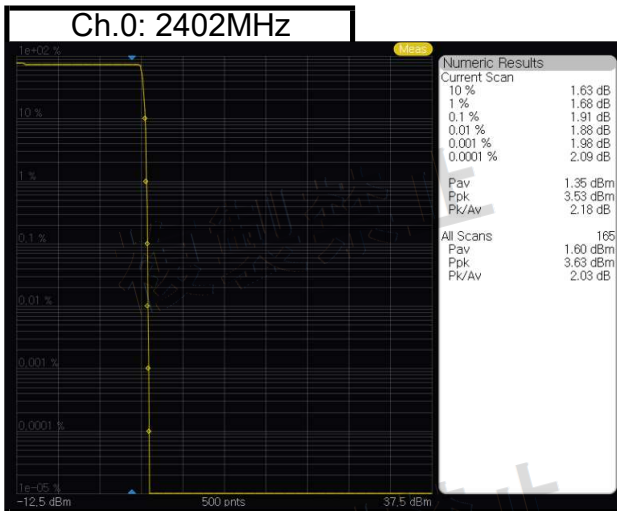
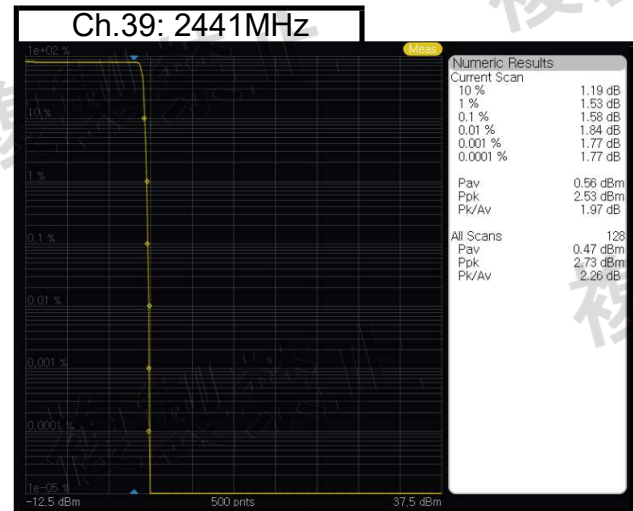
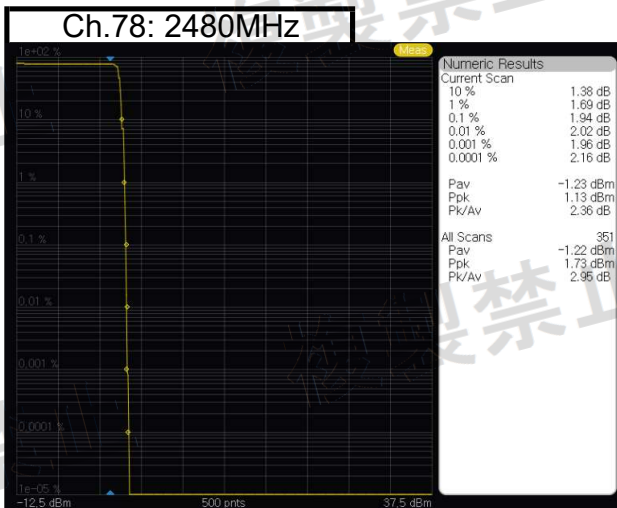
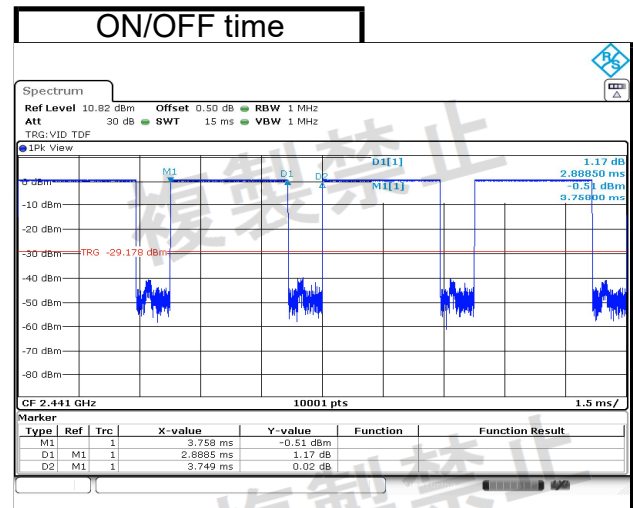






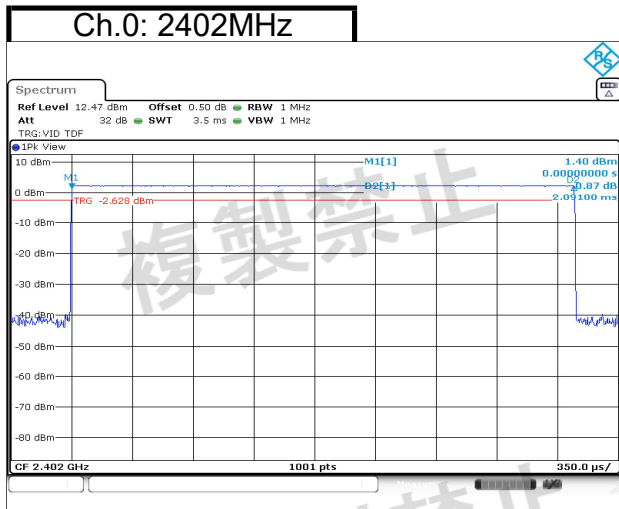
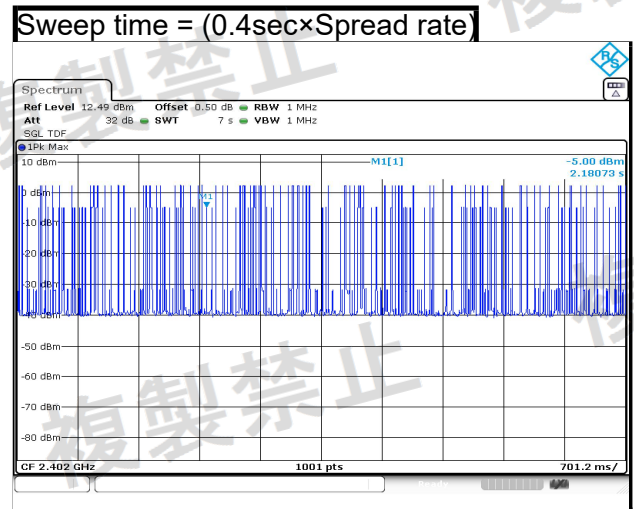
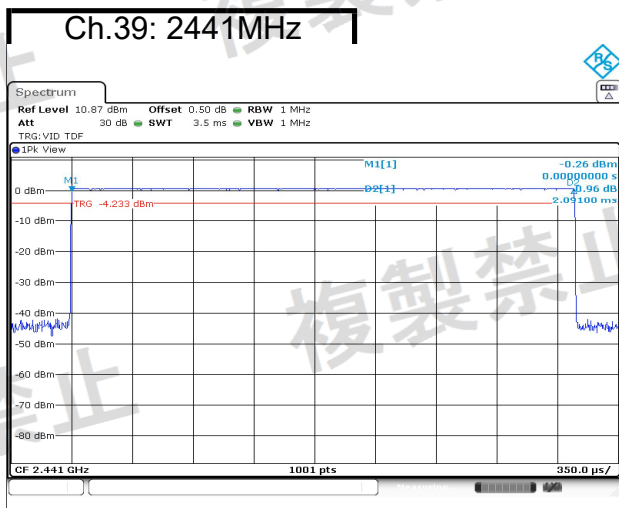
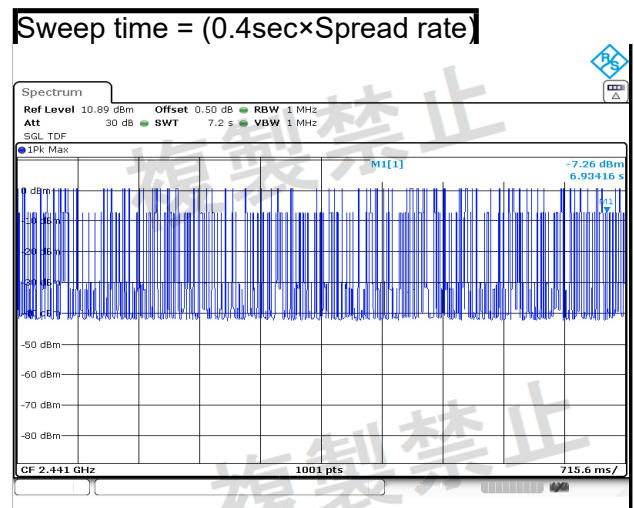
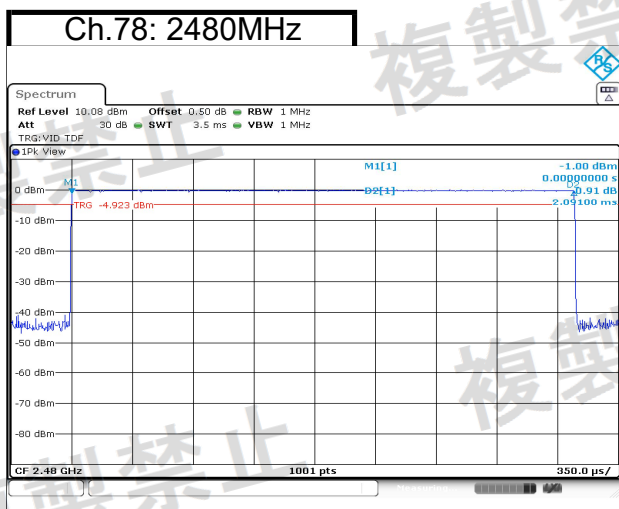
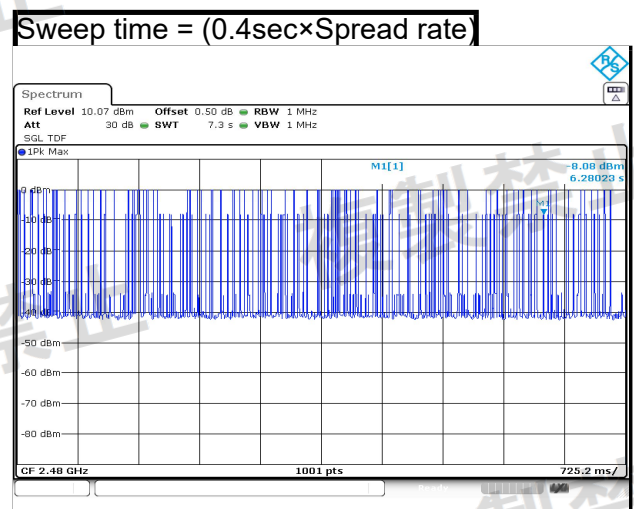
9. Test chart

9.3 RF output power tolerance (Rated voltage)



9. Test chart

9.4 Time of occupancy hopping frequency (Rated voltage)



10. Test results (Rated voltage)

S/N : N/A

Environment of test room	Date of test	2023-07-14	2023-07-17	2023-07-18
	Temperature	22 °C	21 °C	23 °C
	Humidity	53 %	55 %	52 %

Peak Antenna Gain	-2.41	dBi
Declaration Output Power	0.030	mW/MHz
Declaration Output Power	-15.23	dBm/MHz
E.I.R.P.	-17.64	dBm/MHz
Input Power Voltage	3.80	VDC

Tested Circuit Insertion Loss	0	dB
Frequency equal to the Transmission rate	1	MHz
Transmission Time	ON TIME	2.904 ms
	OFF TIME	0.851 ms
	Ratio	0.773
Packet Type (Mode)	3DH5	mode
Transmit Speed	1	MHz

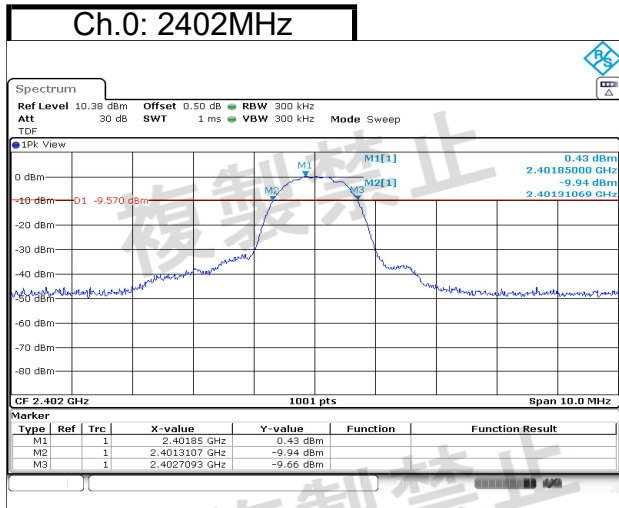
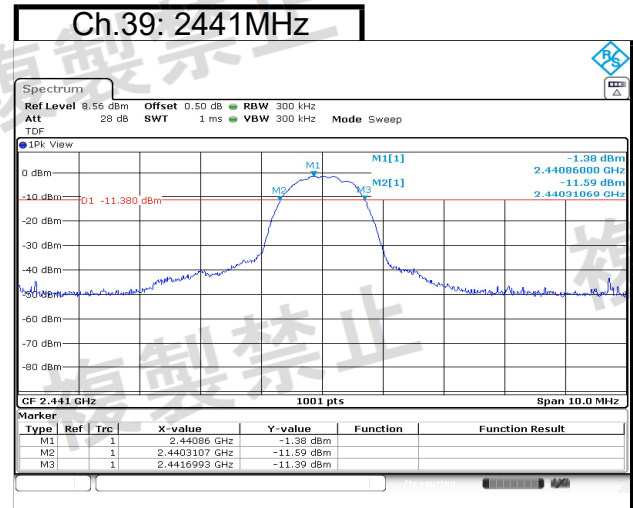
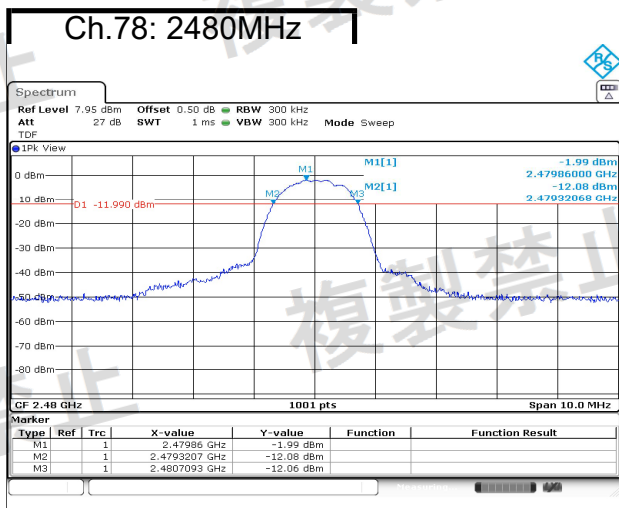
Using TDF and offset function in Spectrum Analyzer.
Measurement of plots are included Loss value.
(Att : 10dB + Cable loss + EUT cable: 0.5dB offset)

Test category ;	2.4GHz Band Low-Power Data Communication System (BluetoothV4+EDR [8DPSK])
The reason why the tests are performed only at rated voltage :	The fluctuation of input voltage to the circuit of the radio part of the equipment to be tested is identified as being less than ± 1 % when input voltage from an external supply into the equipment fluctuates ± 10 %.

Measurement Frequency	MHz	2402	2441	2480	Result	Limit	Note
Channel Number	Ch.	0	39	78	---	---	
Frequency Measurements	MHz	2402.010	2441.005	2480.015	---	---	
Frequency Tolerance	ppm	4.163	2.048	6.048	PASS	$\pm 50 \times 10^{-6}$ (50ppm)	
Occupied Bandwidth	MHz	---	78.42	---	PASS	83.5MHz or below	
Spread Bandwidth	MHz	---	71.63	---	PASS	500kHz or more	
RF Output Power	mW/MHz	0.014	0.010	0.007	PASS	3mW/MHz or below	
RF Output Power Tolerance	%	-54.25	-65.93	-77.07	PASS	+20 to -80%	
Unwanted (Spurious) Emission Strength	30 to 2387MHz	uW/MHz	---	0.009	PASS	2.5uW/MHz or below	
		MHz	---	2362.300	----		
	2387 to 2400MHz	uW/MHz	---	1.5066	PASS	25uW/MHz or below	
		MHz	---	2399.981	----		
	2483.5 to 2496.5MHz	uW/MHz	---	0.0107	PASS	25uW/MHz or below	
		MHz	---	2486.416	----		
	2496.5 to 12500MHz	uW/MHz	---	0.0356	PASS	2.5uW/MHz or below	
		MHz	---	6998.500	----		
Secondary Emitted Radio Wave Strength	30 to 1000MHz	nW	---	0.8241	PASS	4nW or below	
		MHz	---	267.900	----		
	1000 to 12500MHz	nW	---	0.4966	PASS	20nW or below	
		MHz	---	5256.000	----		
Time of occupancy hopping frequency	sec	---	0.0029	---	PASS	0.4sec or below	
	sec	---	0.2958	---	PASS	0.4sec or below	0.4sec×Spread rate
Spreading Factor	---		71.6300		PASS	5 or more	
Interference Prevention Function			Good		PASS		

11. Test chart

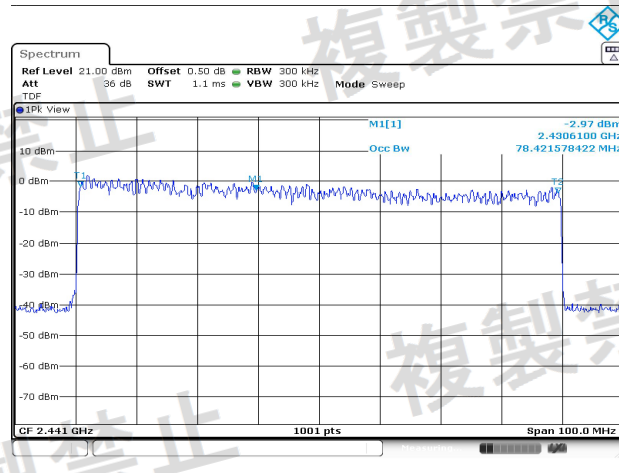
11.1 Frequency tolerance (Rated voltage)



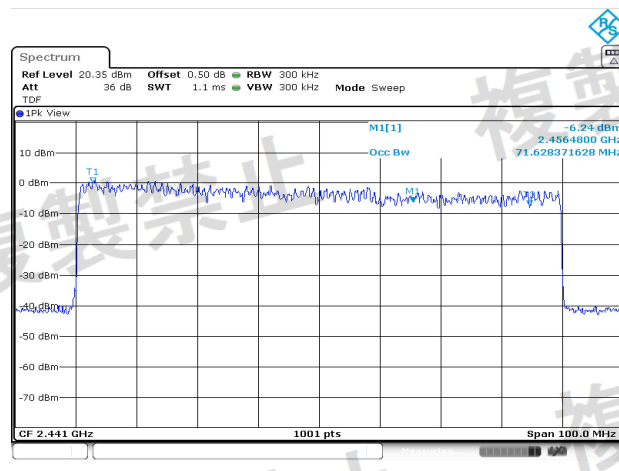
11. Test chart

11.2 Occupied bandwidth / Spread bandwidth (Rated voltage)

Occupied bandwidth

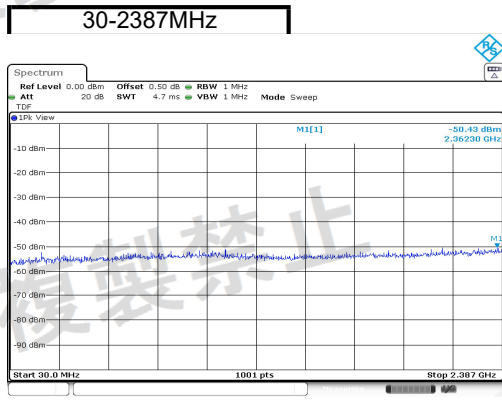
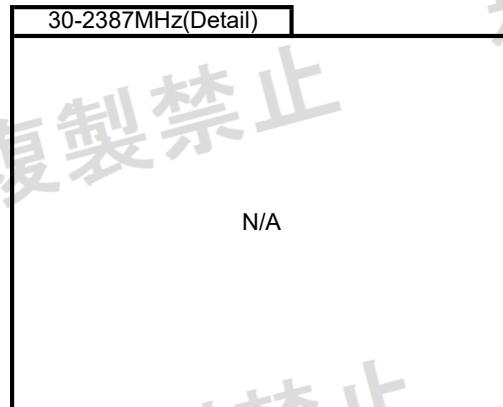
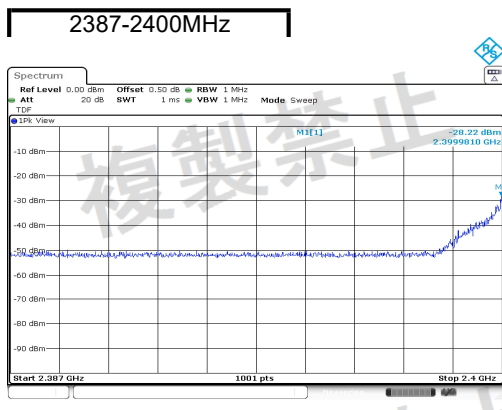
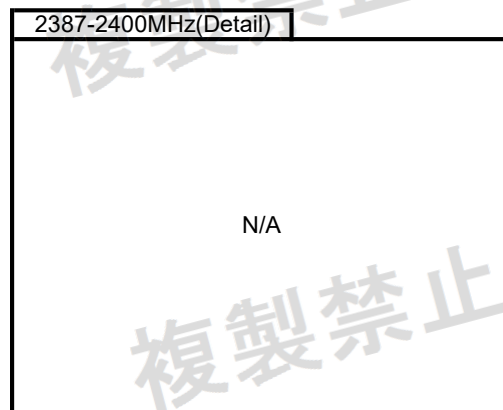
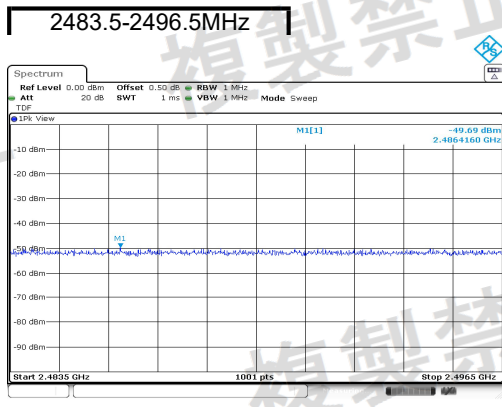
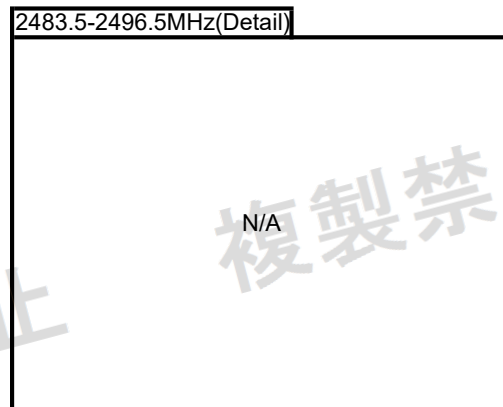
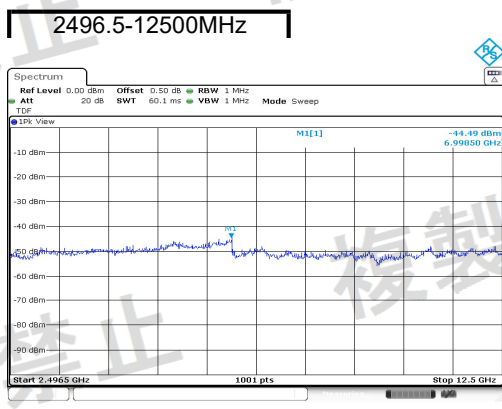
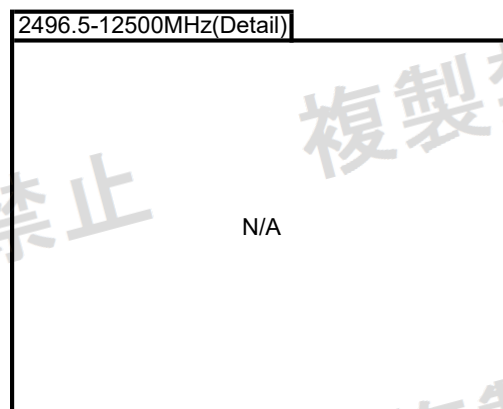


Spread bandwidth



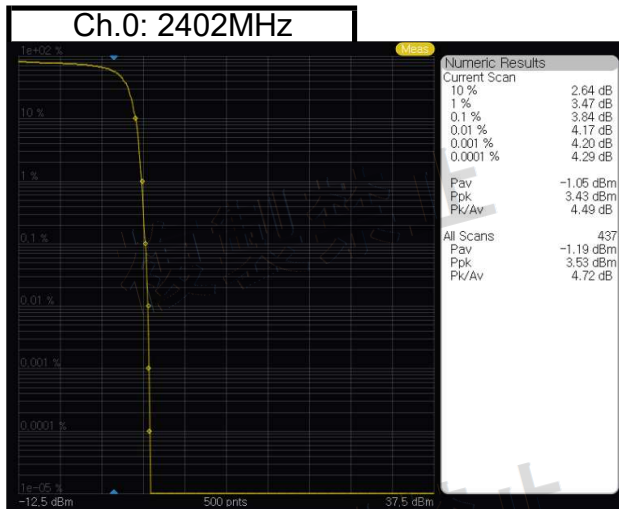
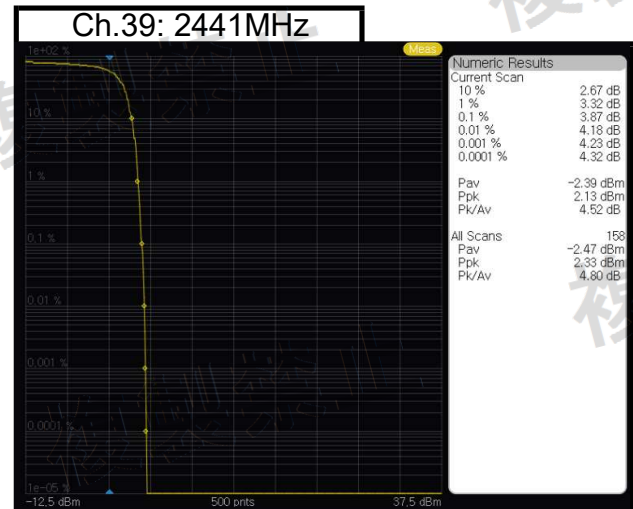
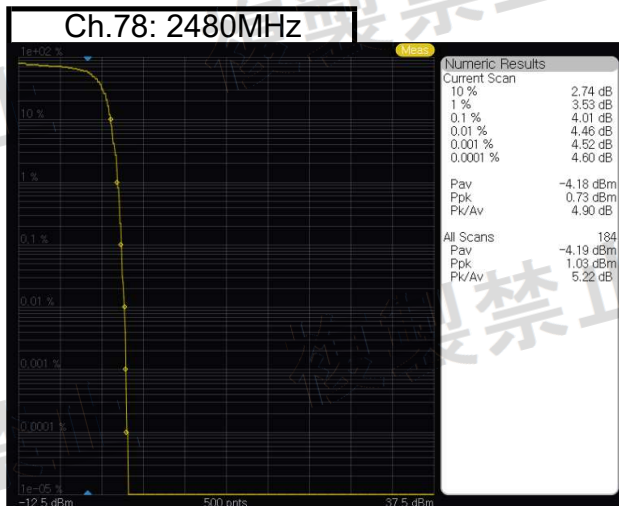
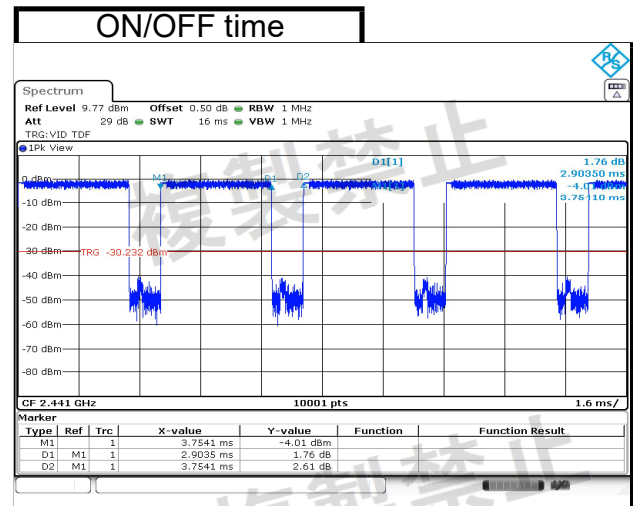
11. Test chart

11.3 Unwanted(Spurious) emission strength (Rated voltage)



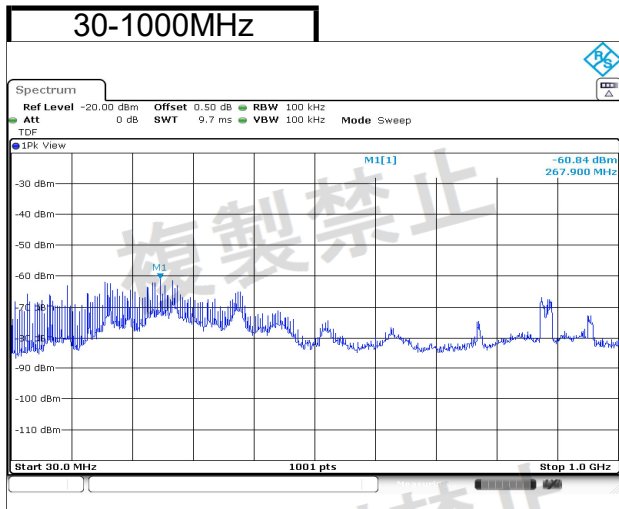
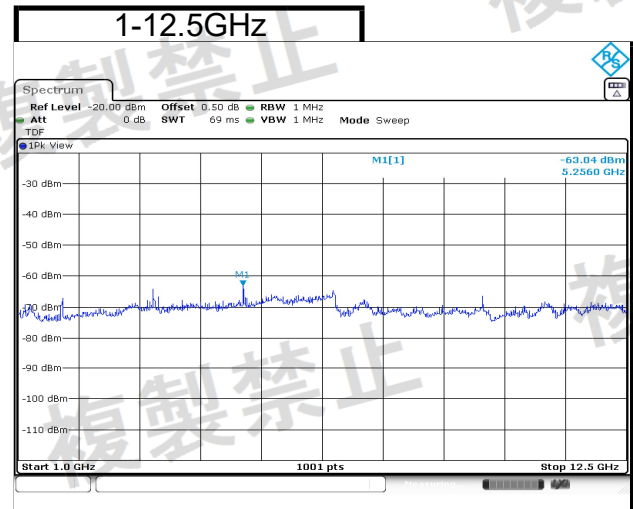
11. Test chart

11.4 RF output power tolerance (Rated voltage)



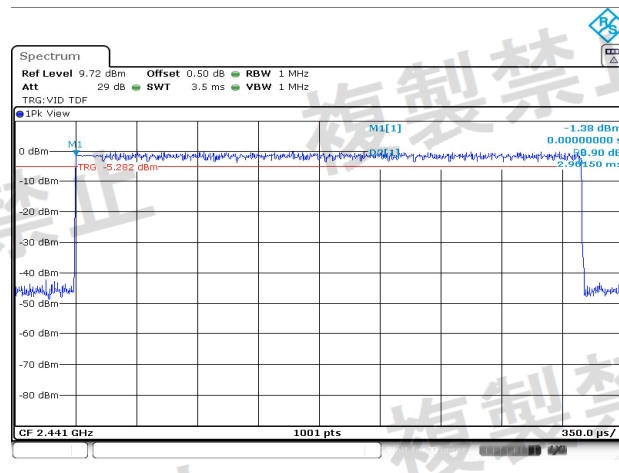
11. Test chart

11.5 Secondary emitted radio wave strength (Rated voltage)



11. Test chart

11.6 Time of occupancy hopping frequency (Rated voltage)



$$\text{Sweep time} = (0.4\text{sec} \times \text{Spread rate})$$



12. Test results (Rated voltage)

S/N : N/A

Environment of test room	Date of test	2023-07-14	2023-07-17	2023-07-18
	Temperature	22 °C	21 °C	23 °C
	Humidity	53 %	55 %	52 %

Peak Antenna Gain	-2.41	dBi
Declaration Output Power	0.05	mW/MHz
Declaration Output Power	-13.01	dBm/MHz
E.I.R.P.	-15.42	dBm/MHz
Input Power Voltage	3.80	VDC

Tested Circuit Insertion Loss		0	dB
Frequency equal to the Transmission rate		1	MHz
Transmission Time	ON TIME	2.889	ms
	OFF TIME	0.871	ms
	Ratio	0.768	
Packet Type (Mode)		DH5	mode
Transmit Speed		1	MHz

Using TDF and offset function in Spectrum Analyzer.
Measurement of plots are included Loss value.

(Att : 10dB + Divider : 6dB + Cable loss + EUT cable: 0.5dB offset)

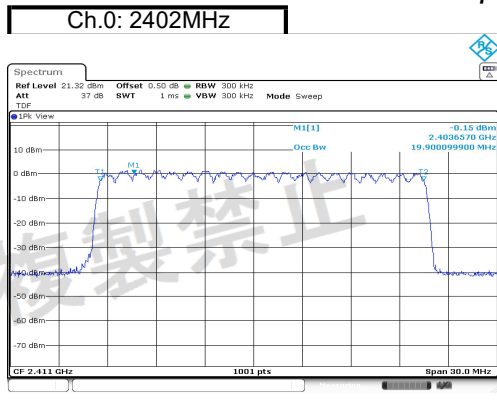
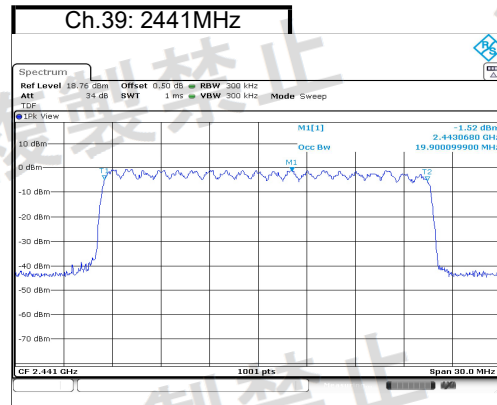
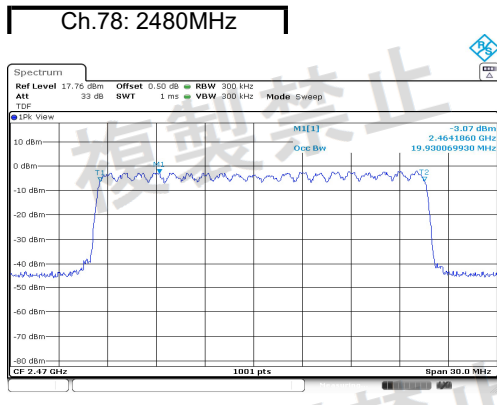
Test category : 2.4GHz Band Low-Power Data Communication System (BluetoothV5+EDR)	
The reason why the tests are performed only at rated voltage :	The fluctuation of input voltage to the circuit of the radio part of the equipment to be tested is identified as being less than $\pm 1\%$ when input voltage from an external supply into the equipment fluctuates $\pm 10\%$.

Measurement Frequency		MHz	2402	2441	2480	Result	Limit	Note
Channel Number		Ch.	0	39	78	---	---	
Frequency Measurements		MHz	---	---	---	---	---	
Frequency Tolerance		ppm	---	---	---	---	±50×10 ⁻⁶ (50ppm)	
Occupied Bandwidth		MHz	19.9	19.9	19.93	PASS	83.5MHz or below	
Spread Bandwidth		MHz	17.86	18.01	18.25	PASS	500kHz or more	
RF Output Power		mW/MHz	0.055667	0.040641	0.027367	PASS	3mW/MHz or below	
RF Output Power Tolerance		%	11.334961	-18.717079	-45.266888	PASS	+20 to -80%	
Unwanted (Spurious) Emission Strength	30 to 2387MHz	uW/MHz	0.010	0.011	0.033	PASS	2.5uW/MHz or below	
		MHz	2171.500	1719.500	1717.100	----		
	2387 to 2400MHz	uW/MHz	1.409	0.010	0.011	PASS	25uW/MHz or below	
		MHz	2399.955	2399.188	2393.682	----		
	2483.5 to 2496.5MHz	uW/MHz	0.011	0.015	0.012	PASS	25uW/MHz or below	
		MHz	2487.299	2483.545	2488.974	----		
	2496.5 to 12500MHz	uW/MHz	0.032	0.035	0.043	PASS	2.5uW/MHz or below	
		MHz	6988.500	6968.500	6918.500	----		
Time of occupancy hopping frequency		sec	0.003	0.003	0.003	PASS	0.4sec or below	0.4sec×Spread rate
		sec	0.288	0.236	0.264	PASS	0.4sec or below	
Spreading Factor		---	17.860	18.010	18.250	PASS	5 or more	
Interference Prevention Function			Good			PASS		

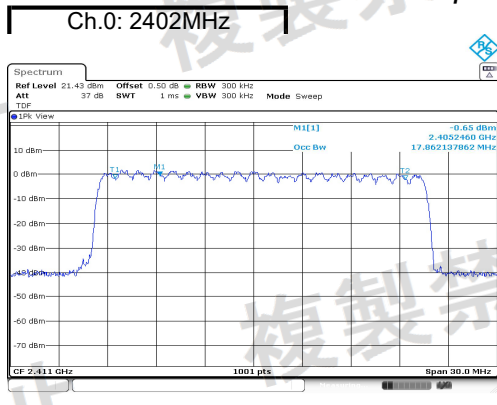
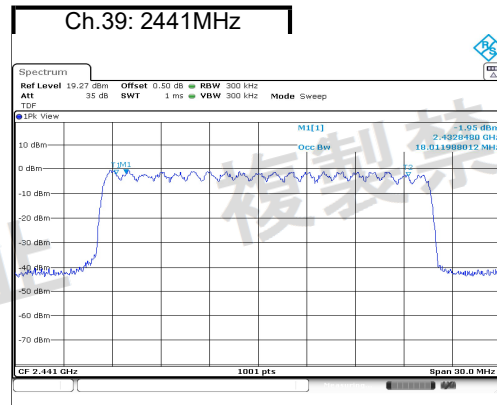
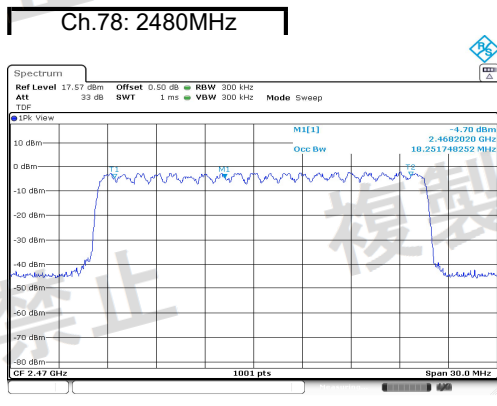
13. Test chart

13.1 Occupied bandwidth / Spread bandwidth (Rated voltage)

Occupied bandwidth

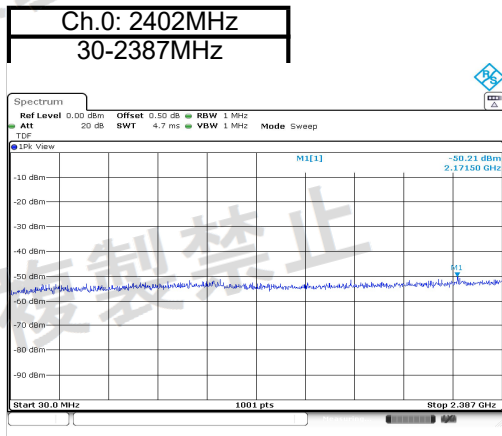
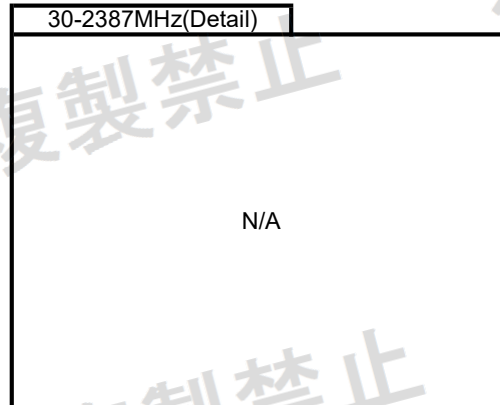
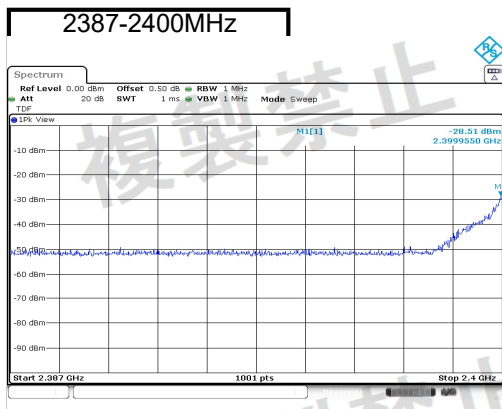
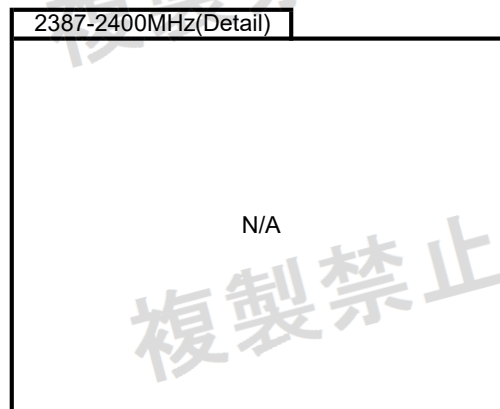
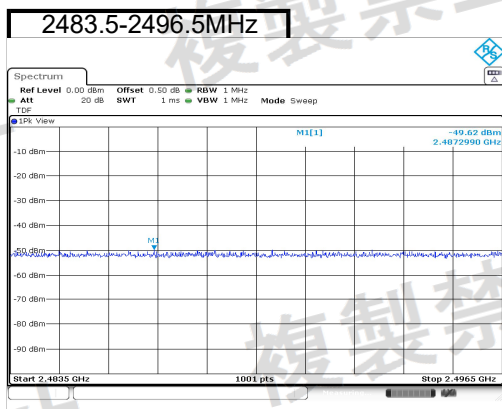
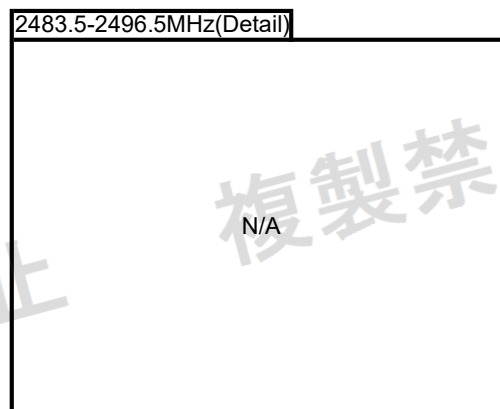
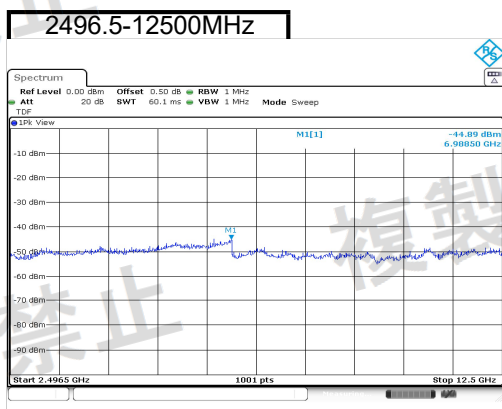
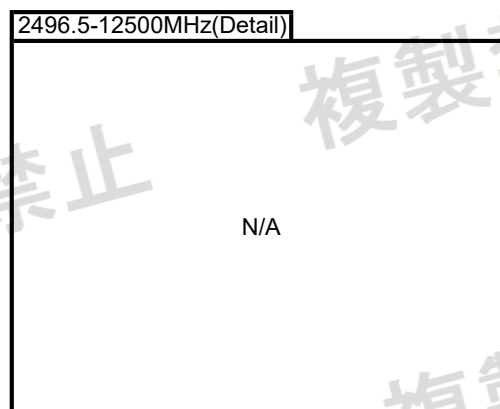


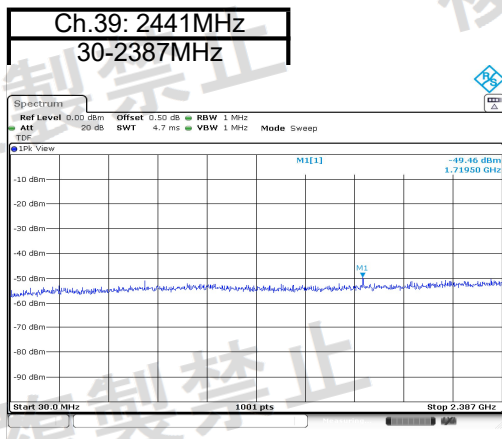
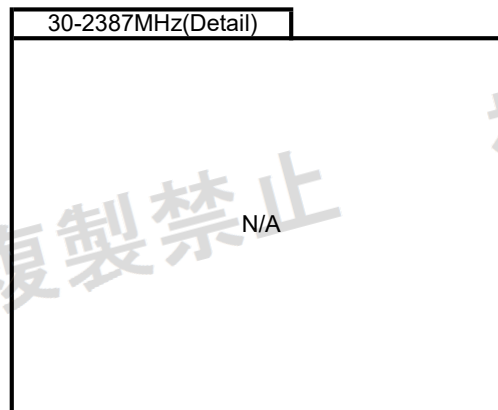
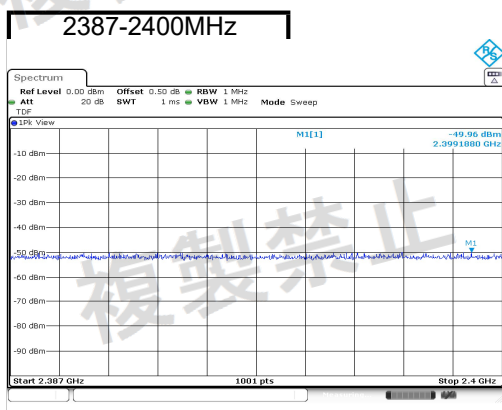
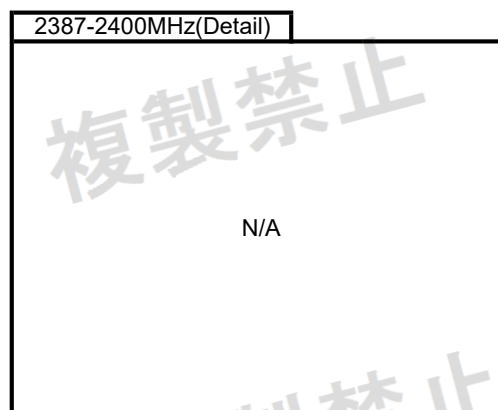
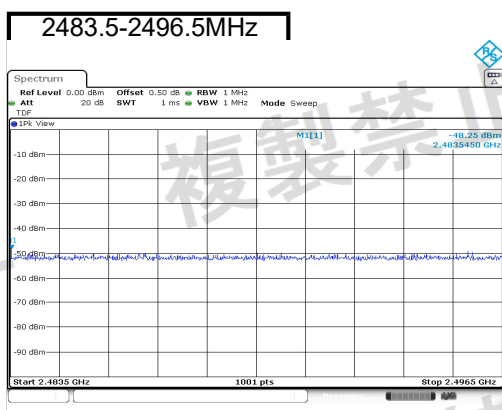
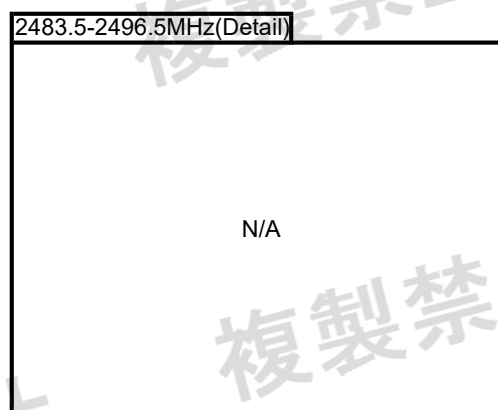
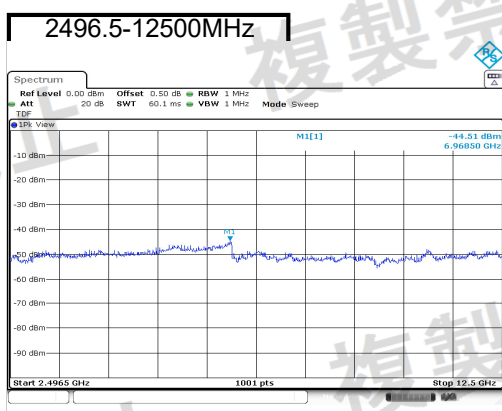
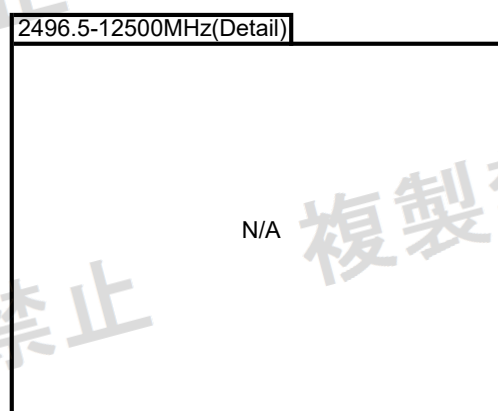
Spread bandwidth

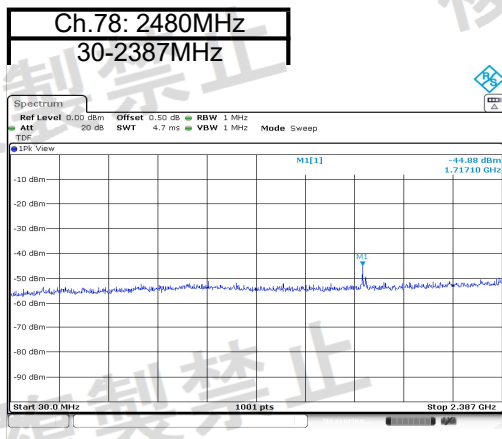
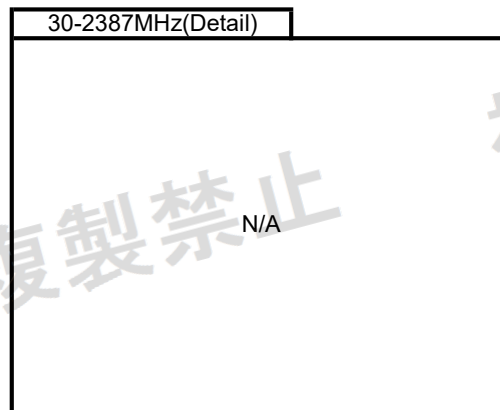
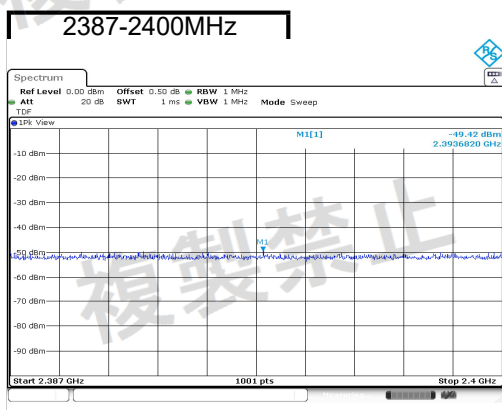
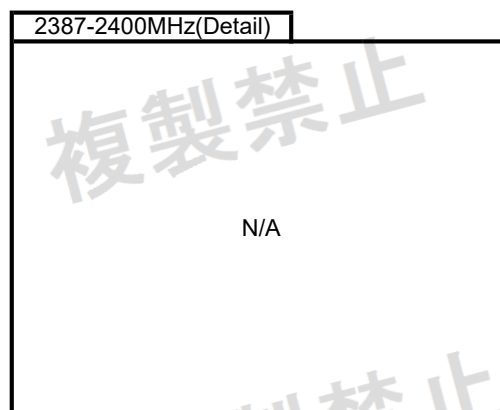
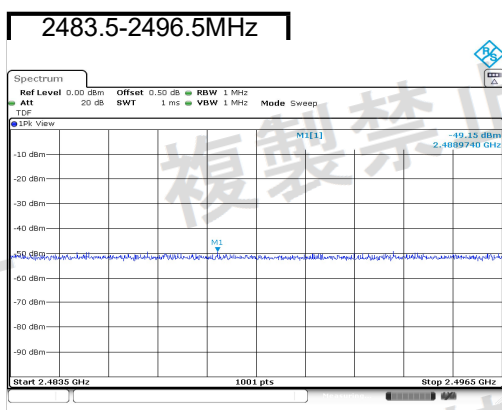
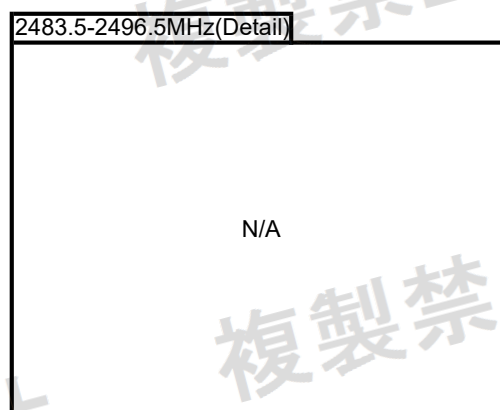
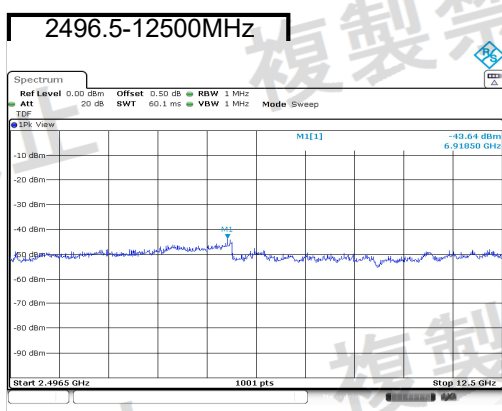
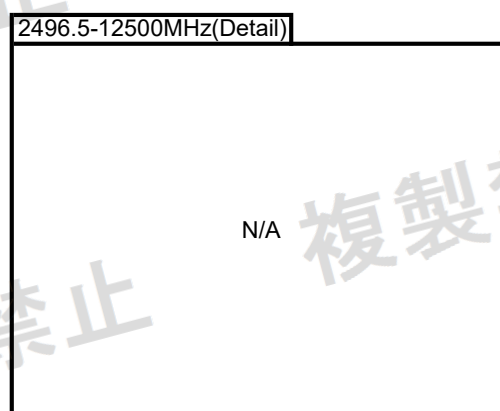


13. Test chart

13.2 Unwanted(Spurious) emission strength (Rated voltage)

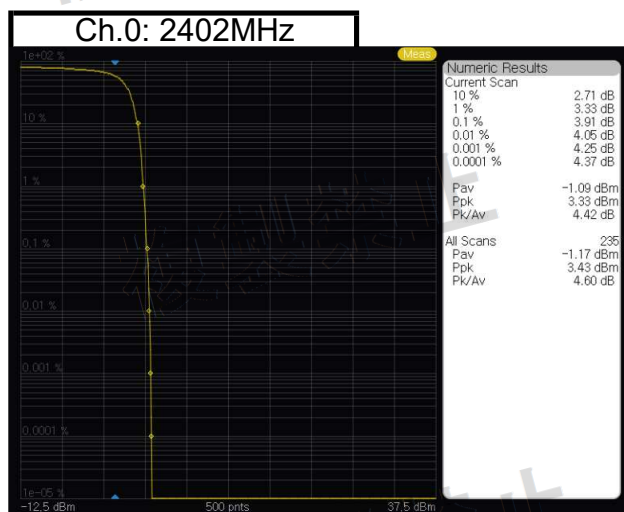
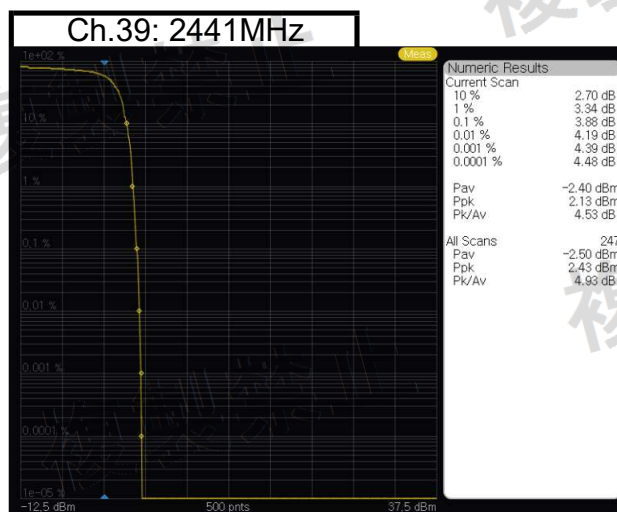
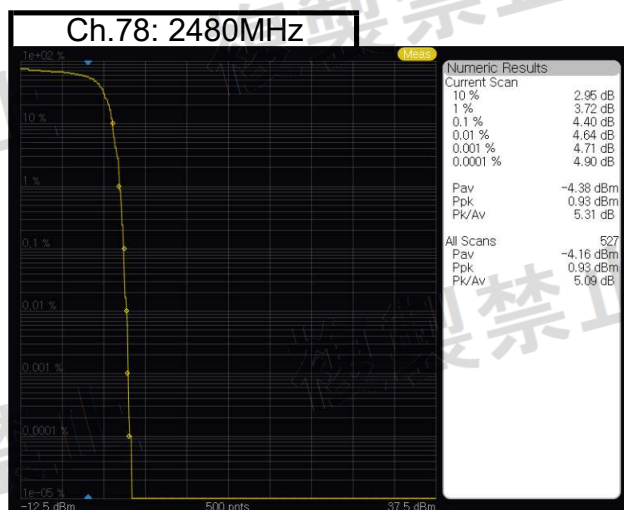
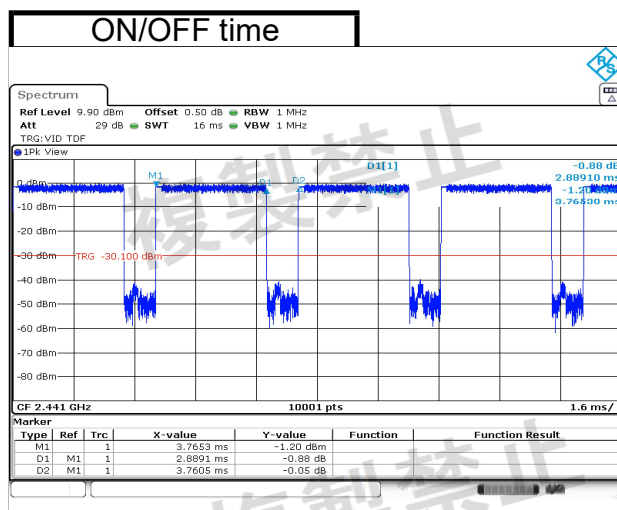






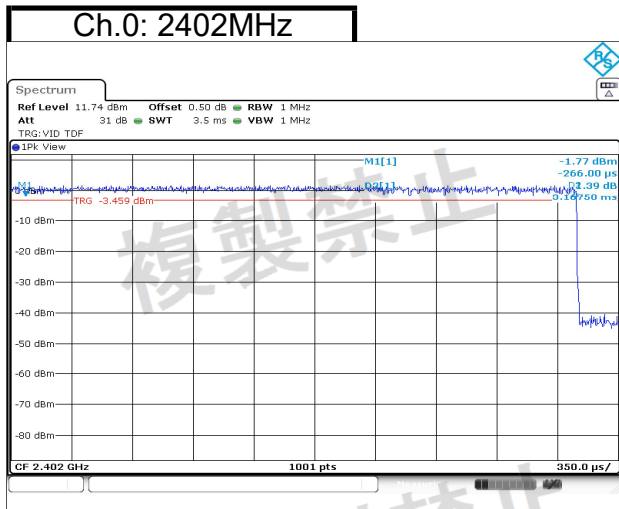
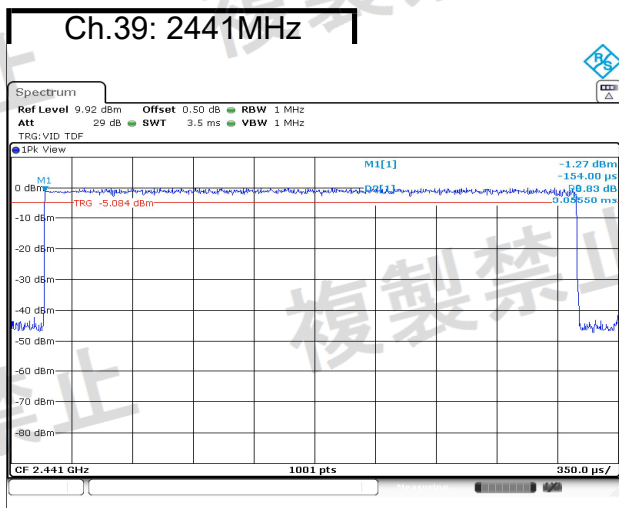
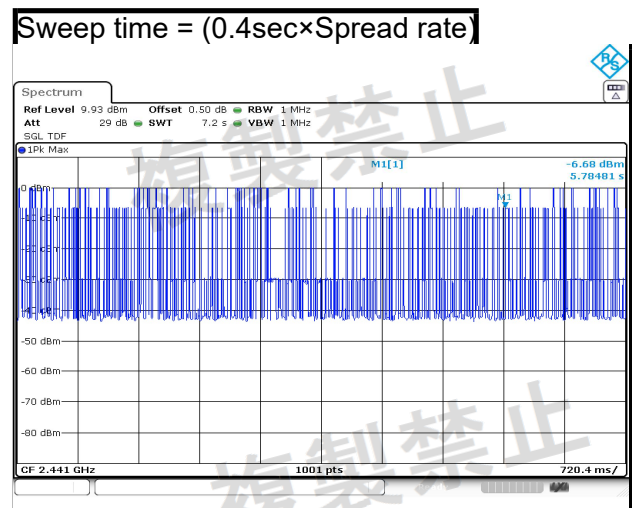
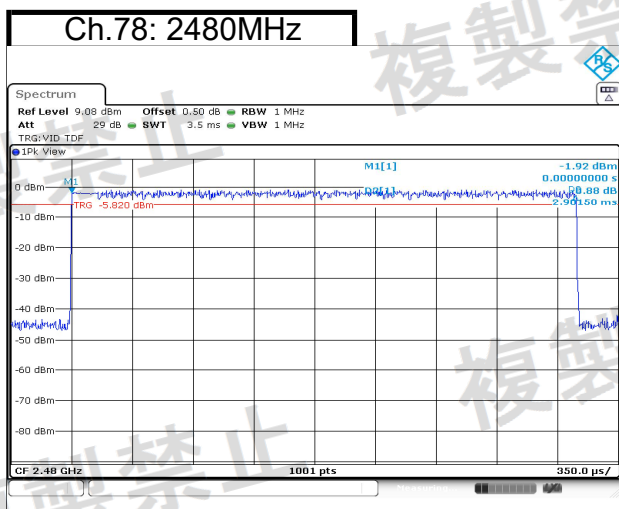
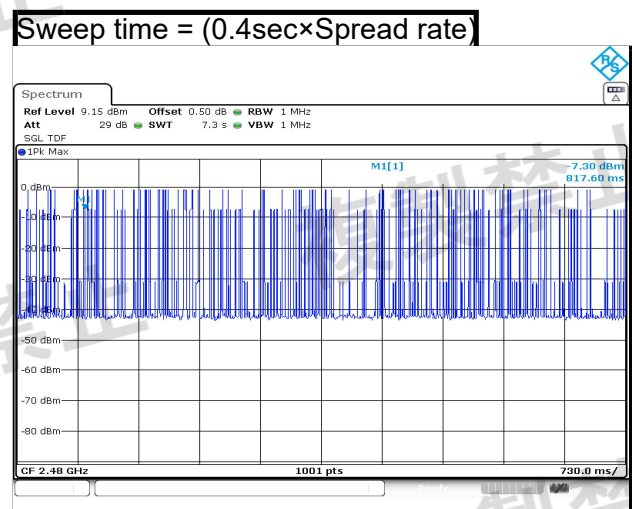
13. Test chart

13.3 RF output power tolerance (Rated voltage)



13. Test chart

13.4 Time of occupancy hopping frequency (Rated voltage)



14. Laboratory description

1. Location

Name: Eurofins KCTL Co., Ltd.

65, Sinwon-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Korea

Telephone Number: +82 31 285 0894

Facsimile Number: +82 505 299 8311

2. Accreditation and Registration

1) FCC

Site Designation No.: KR0040

Site Registration No.: 687132

2) VCCI

Registration No.: R-20080, G-20078, C-20059, T-20056

3) Industry Canada

Registration No.: 8035A

Test Site :8035A-2

4) KOLAS

Registration number : KT231