TEST REPORT

Report number	:	**KR21-SRT0022**
Issue date	:	**2022-05-24**

Applicant	:	SUPREMA INC 17F-5, Parkview officetower,, 248, Jeongjail-ro, Bundang-gu, Seongnam-si, Gyeonggi-do 13554 Korea (Republic Of) TEL : +82 31-710-5669 FAX : +82 31-783-4516
Equipment under test (EUT)	:	BioEntry W2
Model name	:	BEW2-OAPB
Date of test	:	2022-04-27 ~ 2022-04-28
Test place	:	KCTL Inc. 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 ***KCTL Inc.***
KCTL Inc. is in compliance with KS Q ISO 17025.

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
5	Unwanted (Spurious) Emission Strength	Conducted	PASS
6	RF Output Power Tolerance	Conducted	PASS
7	Secondary Emitted Radio Wave Strength	Conducted	PASS
8	Carrier Sensing Function	Conducted	N/A
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

SUPREMA INC
17F-5, Parkview officetower,, 248, Jeongjail-ro, Bundang-gu, Seongnam-si, Gyeonggi-do 13554 Korea (Republic Of)

2. Equipment under test
BioEntry W2

3. Model number
BEW2-OAPB

4. Serial number
N/A

5. Size
(W) 50 x (D) 45 x (H) 70

6. Terminal limitation
-20˚C to 50˚C

7. RF Specification Frequency range
2402-2480MHz

8. Number of RF Channels
40 Channels

9. Modulation method
FHSS(GFSK)

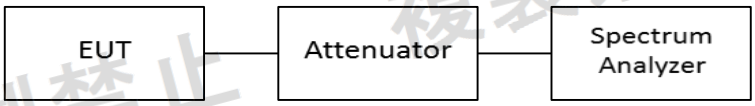
10. Data rate
1 Mbps

10. Variation of the family model(s)
None

複製禁止

2. Configuration of equipment

1. Frequency tolerance, Occupied Bandwidth, Interference Prevention Function
Unwanted(Spurious) emission strength, Secondary emitted radio wave strength



2. RF output power tolerance

複製禁止

3. Test results (Rated voltage)

S/N : N/A

Environment of test room	Date of test	2022-04-27	2022-04-28
	Temperature	22 °C	24 °C
	Humidity	53 %	51 %

Peak Antenna Gain	3.00	dBi
Declaration Output Power	1.5	mW
Declaration Output Power	1.7609	dBm
E.I.R.P.	**4.7609**	**dBm**
Input Power Voltage	12.0	VDC

Tested Circit Insertion Loss		0	dB
Frequency equal to the Transmission rate		-	MHz
Transmission Time	ON TIME (1sec or less)	0.3906	ms
	OFF TIME (0.1sec or more)	0.2316	ms
	Ratio	0.6278	%
Packet Type (Mode)		Not Applicable	mode
Transmit Speed		Not Applicable	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 (GFSK/0-39ch)
The reason why the tests are performed only at rated voltage :	

Measurement Frequency		MHz	2402	2440	2480	Result	Limit	Note
Channel Number		Ch.	1	17	39	---	---	
Frequency Measurements		MHz	2402.010	2440.010	2480.010	**---**	---	
Frequency Tolerance		ppm	4.159	4.094	4.028	**PASS**	$\pm 50\times10^{-6}$(50ppm)	
Occupied Bandwidth		MHz	1.090	1.090	1.090	**PASS**	26MHz or below	
RF Output Power		mW	1.206	1.228	1.228	**PASS**	10mW/MHz or below	
RF Output Power Tolerance		%	-19.628	-18.133	-18.133		+20 to -80%	
Unwanted (Spurious) Emission Strength	30 to 2387MHz	uW/MHz	0.065	0.073	0.073	**PASS**	2.5uW/MHz or below	
		MHz	1013.100	968.300	829.400	-----		
	2387 to 2400MHz	uW/MHz	1.429	0.064	0.061	**PASS**	25uW/MHz or below	
		MHz	2399.942	2391.812	2397.565	-----		
	2483.5 to 2496.5MHz	uW/MHz	0.080	0.076	0.156	**PASS**	25uW/MHz or below	
		MHz	2485.610	2486.805	2483.519	-----		
	2496.5 to 12500MHz	uW/MHz	1.153	1.315	1.030	**PASS**	2.5uW/MHz or below	
		MHz	7208.500	7318.500	7438.500	-----		
Secondary Emitted Radio Wave Strength	30 to 1000MHz	nW	0.071	0.081	0.088	**PASS**	4nW or below	
		MHz	643.880	902.610	915.210	-----		
	1000 to 12500MHz	nW	3.373	2.786	2.924	**PASS**	20nW or below	
		MHz	4797.000	11380.000	10943.000	-----		
Interference Prevention Function			Good			**PASS**		
Transmitting antenna absolute gain			-			-----	*1	
Angular width of the main radiation of the transmitting antenna			-			-----	*1	

*1 Measurement only if the E.I.R.P. exceeds 12.14dBm/MHz

3. Test results (-10% voltage)

S/N : N/A

Environment of test room	Date of test	2022-04-27	2022-04-28
	Temperature	22 °C	24 °C
	Humidity	53 %	51 %

Peak Antenna Gain	3.00	dBi
Declaration Output Power	1.5	mW
Declaration Output Power	1.7609	dBm
E.I.R.P.	**4.7609**	**dBm**
Input Power Voltage	10.8	VDC

Tested Circit Insertion Loss		0	dB
Frequency equal to the Transmission rate		-	MHz
Transmission Time	ON TIME (1sec or less)	0.3912	ms
	OFF TIME (0.1sec or more)	0.234	ms
	Ratio	0.6257	%
Packet Type (Mode)		Not Applicable	mode
Transmit Speed		Not Applicable	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 (GFSK/0-39ch)
The reason why the tests are performed only at rated voltage :	

Measurement Frequency		MHz	2402	2440	2480	Result	Limit	Note
Channel Number		Ch.	0	19	39	---	---	
Frequency Measurements		MHz	2402.010	2440.010	2480.005	**---**	---	
Frequency Tolerance		ppm	4.159	4.094	2.014	**PASS**	$\pm 50\times10^{-6}$(50ppm)	
Occupied Bandwidth		MHz	1.090	1.090	1.090	**PASS**	26MHz or below	
RF Output Power		mW	1.212	1.232	1.232	**PASS**	10mW/MHz or below	
RF Output Power Tolerance		%	-19.178	-17.865	-17.865		+20 to -80%	
Unwanted (Spurious) Emission Strength	30 to 2387MHz	uW/MHz	0.064	0.073	0.070	**PASS**	2.5uW/MHz or below	
		MHz	949.500	1017.800	1006.000	-----		
	2387 to 2400MHz	uW/MHz	1.442	0.073	0.064	**PASS**	25uW/MHz or below	
		MHz	2399.955	2398.435	2394.773	-----		
	2483.5 to 2496.5MHz	uW/MHz	0.066	0.067	0.155	**PASS**	25uW/MHz or below	
		MHz	2492.286	2488.506	2483.532	-----		
	2496.5 to 12500MHz	uW/MHz	1.227	1.256	1.052	**PASS**	2.5uW/MHz or below	
		MHz	7208.500	7318.500	7438.500	-----		
Secondary Emitted Radio Wave Strength	30 to 1000MHz	nW	0.078	0.075	0.078	**PASS**	4nW or below	
		MHz	803.770	814.430	911.330	-----		
	1000 to 12500MHz	nW	3.090	2.992	2.958	**PASS**	20nW or below	
		MHz	4797.000	10553.000	11047.000	-----		
Interference Prevention Function			Good			**PASS**		
Transmitting antenna absolute gain			-			-----	*1	
Angular width of the main radiation of the transmitting antenna			-			-----	*1	

*1 Measurement only if the E.I.R.P. exceeds 12.14dBm/MHz

3. Test results (+10% voltage)

S/N : N/A

Environment of test room	Date of test	2022-04-27	2022-04-28
	Temperature	22 °C	24 °C
	Humidity	53 %	51 %

Peak Antenna Gain	3.00	dBi
Declaration Output Power	1.5	mW
Declaration Output Power	1.7609	dBm
E.I.R.P.	**4.7609**	**dBm**
Input Power Voltage	13.2	VDC

Tested Circit Insertion Loss		0	dB
Frequency equal to the Transmission rate		-	MHz
Transmission Time	ON TIME (1sec or less)	0.39	ms
	OFF TIME (0.1sec or more)	0.2322	ms
	Ratio	0.6268	%
Packet Type (Mode)		Not Applicable	mode
Transmit Speed		Not Applicable	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 (GFSK/0-39ch)
The reason why the tests are performed only at rated voltage :	

Measurement Frequency		MHz	2402	2440	2480	Result	Limit	Note
Channel Number		Ch.	0	19	39	---	---	
Frequency Measurements		MHz	2402.005	2440.010	2480.010	**---**	---	
Frequency Tolerance		ppm	2.080	4.094	4.028	**PASS**	$\pm 50\times10^{-6}$(50ppm)	
Occupied Bandwidth		MHz	1.090	1.090	1.090	**PASS**	26MHz or below	
RF Output Power		mW	1.221	1.227	1.230	**PASS**	10mW/MHz or below	
RF Output Power Tolerance		%	-18.572	-18.196	-18.007		+20 to -80%	
Unwanted (Spurious) Emission Strength	30 to 2387MHz	uW/MHz	0.067	0.076	0.070	**PASS**	2.5uW/MHz or below	
		MHz	1154.300	1041.300	933.000	-----		
	2387 to 2400MHz	uW/MHz	1.754	0.071	0.058	**PASS**	25uW/MHz or below	
		MHz	2399.981	2391.877	2393.357	-----		
	2483.5 to 2496.5MHz	uW/MHz	0.086	0.064	0.129	**PASS**	25uW/MHz or below	
		MHz	2484.974	2494.078	2483.610	-----		
	2496.5 to 12500MHz	uW/MHz	1.288	1.052	1.094	**PASS**	2.5uW/MHz or below	
		MHz	7208.500	7318.500	7438.500	-----		
Secondary Emitted Radio Wave Strength	30 to 1000MHz	nW	0.074	0.073	0.086	**PASS**	4nW or below	
		MHz	886.140	875.480	842.530	-----		
	1000 to 12500MHz	nW	3.327	3.112	3.090	**PASS**	20nW or below	
		MHz	4797.000	10897.000	10507.000	-----		
Interference Prevention Function			Good			**PASS**		
Transmitting antenna absolute gain			-			-----	*1	
Angular width of the main radiation of the transmitting antenna			-			-----	*1	

*1 Measurement only if the E.I.R.P. exceeds 12.14dBm/MHz

3. Test results (Rated voltage)

S/N : N/A

Environment of test room	Date of test	2022-04-27	2022-04-28
	Temperature	22 °C	24 °C
	Humidity	53 %	51 %

Peak Antenna Gain	3.00	dBi
Declaration Output Power	1.5	mW
Declaration Output Power	1.7609	dBm
E.I.R.P.	**4.7609**	**dBm**
Input Power Voltage	48.0	VDC

Tested Circit Insertion Loss		0	dB
Frequency equal to the Transmission rate		-	MHz
Transmission Time	ON TIME (1sec or less)	0.3906	ms
	OFF TIME (0.1sec or more)	0.2346	ms
	Ratio	0.6248	%
Packet Type (Mode)		Not Applicable	mode
Transmit Speed		Not Applicable	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 (GFSK/0-39ch)
The reason why the tests are performed only at rated voltage :	

Measurement Frequency		MHz	2402	2440	2480	Result	Limit	Note
Channel Number		Ch.	1	17	39	---	---	
Frequency Measurements		MHz	2402.010	2440.005	2480.010	**---**	---	
Frequency Tolerance		ppm	4.159	2.047	4.028	**PASS**	$\pm 50\times10^{-6}$(50ppm)	
Occupied Bandwidth		MHz	1.090	1.090	1.090	**PASS**	26MHz or below	
RF Output Power		mW	1.209	1.234	1.237	**PASS**	10mW/MHz or below	
RF Output Power Tolerance		%	-19.426	-17.739	-17.549		+20 to -80%	
Unwanted (Spurious) Emission Strength	30 to 2387MHz	uW/MHz	0.075	0.065	0.076	**PASS**	2.5uW/MHz or below	
		MHz	1006.000	973.000	709.300	-----		
	2387 to 2400MHz	uW/MHz	1.570	0.064	0.068	**PASS**	25uW/MHz or below	
		MHz	2399.994	2391.864	2391.344	-----		
	2483.5 to 2496.5MHz	uW/MHz	0.080	0.080	0.191	**PASS**	25uW/MHz or below	
		MHz	2488.481	2491.494	2483.519	-----		
	2496.5 to 12500MHz	uW/MHz	1.161	1.112	1.081	**PASS**	2.5uW/MHz or below	
		MHz	7208.500	7318.500	7438.500	-----		
Secondary Emitted Radio Wave Strength	30 to 1000MHz	nW	0.081	0.075	0.077	**PASS**	4nW or below	
		MHz	950.090	998.550	687.490	-----		
	1000 to 12500MHz	nW	4.236	3.491	2.754	**PASS**	20nW or below	
		MHz	4797.000	11414.000	10794.000	-----		
Interference Prevention Function			Good			**PASS**		
Transmitting antenna absolute gain			-			-----	*1	
Angular width of the main radiation of the transmitting antenna			-			-----	*1	

*1 Measurement only if the E.I.R.P. exceeds 12.14dBm/MHz

3. Test results (-10% voltage)

S/N : N/A

Environment of test room	Date of test	2022-04-27	2022-04-28
	Temperature	22 °C	24 °C
	Humidity	53 %	51 %

Peak Antenna Gain	3.00	dBi
Declaration Output Power	1.5	mW
Declaration Output Power	1.7609	dBm
E.I.R.P.	**4.7609**	**dBm**
Input Power Voltage	43.2	VDC

Tested Circit Insertion Loss		0	dB
Frequency equal to the Transmission rate		-	MHz
Transmission Time	ON TIME (1sec or less)	0.39	ms
	OFF TIME (0.1sec or more)	0.2343	ms
	Ratio	0.6247	%
Packet Type (Mode)		Not Applicable	mode
Transmit Speed		Not Applicable	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 (GFSK/0-39ch)
The reason why the tests are performed only at rated voltage :	

Measurement Frequency		MHz	2402	2440	2480	Result	Limit	Note
Channel Number		Ch.	0	19	39	---	---	
Frequency Measurements		MHz	2402.010	2440.010	2480.010	**---**	---	
Frequency Tolerance		ppm	4.159	4.094	4.028	**PASS**	$\pm 50\times10^{-6}$(50ppm)	
Occupied Bandwidth		MHz	1.090	1.090	1.090	**PASS**	26MHz or below	
RF Output Power		mW	1.220	1.231	1.234	**PASS**	10mW/MHz or below	
RF Output Power Tolerance		%	-18.672	-17.920	-17.731		+20 to -80%	
Unwanted (Spurious) Emission Strength	30 to 2387MHz	uW/MHz	0.069	0.067	0.071	**PASS**	2.5uW/MHz or below	
		MHz	987.200	1144.900	2258.700	-----		
	2387 to 2400MHz	uW/MHz	1.718	0.062	0.071	**PASS**	25uW/MHz or below	
		MHz	2399.994	2395.578	2397.825	-----		
	2483.5 to 2496.5MHz	uW/MHz	0.068	0.069	0.130	**PASS**	25uW/MHz or below	
		MHz	2494.468	2494.377	2483.558	-----		
	2496.5 to 12500MHz	uW/MHz	1.175	1.164	0.931	**PASS**	2.5uW/MHz or below	
		MHz	7208.500	7318.500	7438.500	-----		
Secondary Emitted Radio Wave Strength	30 to 1000MHz	nW	0.084	0.084	0.073	**PASS**	4nW or below	
		MHz	868.700	727.220	980.130	-----		
	1000 to 12500MHz	nW	3.837	3.388	2.972	**PASS**	20nW or below	
		MHz	10909.000	10886.000	11093.000	-----		
Interference Prevention Function			Good			**PASS**		
Transmitting antenna absolute gain			-			-----	*1	
Angular width of the main radiation of the transmitting antenna			-			-----	*1	

*1 Measurement only if the E.I.R.P. exceeds 12.14dBm/MHz

3. Test results (+10% voltage)

S/N : N/A

Environment of test room	Date of test	2022-04-27	2022-04-28
	Temperature	22 °C	24 °C
	Humidity	53 %	51 %

Peak Antenna Gain	3.00	dBi
Declaration Output Power	1.5	mW
Declaration Output Power	1.7609	dBm
E.I.R.P.	**4.7609**	**dBm**
Input Power Voltage	52.8	VDC

Tested Circit Insertion Loss		0	dB
Frequency equal to the Transmission rate		-	MHz
Transmission Time	ON TIME (1sec or less)	0.3909	ms
	OFF TIME (0.1sec or more)	0.2343	ms
	Ratio	0.6252	%
Packet Type (Mode)		Not Applicable	mode
Transmit Speed		Not Applicable	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 (GFSK/0-39ch)
The reason why the tests are performed only at rated voltage :	

Measurement Frequency		MHz	2402	2440	2480	Result	Limit	Note
Channel Number		Ch.	0	19	39	---	---	
Frequency Measurements		MHz	2402.005	2440.010	2480.010	**---**	---	
Frequency Tolerance		ppm	2.080	4.094	4.028	**PASS**	$\pm 50\times10^{-6}$(50ppm)	
Occupied Bandwidth		MHz	1.090	1.090	1.090	**PASS**	26MHz or below	
RF Output Power		mW	1.213	1.233	1.233	**PASS**	10mW/MHz or below	
RF Output Power Tolerance		%	-19.116	-17.802	-17.802		+20 to -80%	
Unwanted (Spurious) Emission Strength	30 to 2387MHz	uW/MHz	0.064	0.079	0.070	**PASS**	2.5uW/MHz or below	
		MHz	1024.800	977.700	996.600	-----		
	2387 to 2400MHz	uW/MHz	1.656	0.058	0.060	**PASS**	25uW/MHz or below	
		MHz	2399.994	2396.864	2390.812	-----		
	2483.5 to 2496.5MHz	uW/MHz	0.071	0.074	0.156	**PASS**	25uW/MHz or below	
		MHz	2485.169	2493.584	2483.519	-----		
	2496.5 to 12500MHz	uW/MHz	1.091	1.239	1.268	**PASS**	2.5uW/MHz or below	
		MHz	7208.500	7318.500	7438.500	-----		
Secondary Emitted Radio Wave Strength	30 to 1000MHz	nW	0.073	0.097	0.072	**PASS**	4nW or below	
		MHz	966.570	873.540	697.180	-----		
	1000 to 12500MHz	nW	3.954	3.319	2.838	**PASS**	20nW or below	
		MHz	4797.000	10966.000	8347.000	-----		
Interference Prevention Function			Good			**PASS**		
Transmitting antenna absolute gain			-			-----	*1	
Angular width of the main radiation of the transmitting antenna			-			-----	*1	

*1 Measurement only if the E.I.R.P. exceeds 12.14dBm/MHz

4. Measurement equipment list

USE	Equipment	Company	Model No.	Serial No.	Calibrated by	Cal. Method	Cal. Date	Cal. Due
X	Spectrum analyzer	R & S	FSV30	100914	HCT	(c)	2021.09.17	2022.09.17
X	DC Power Supply	AGILENT	E3632A	MY40027567	HCT	(c)	2022.05.02	2023.05.02
X	Signal generator	R & S	SMB100A	176206	HCT	(c)	2022.01.19	2023.01.19
X	Attenuator	HP	8491A	29738	HCT	(c)	2021.12.21	2022.12.21
X	Wideband Power Sensor	R & S	NRP-Z81	1137.9009.02-106225-JM	HCT	(c)	2022.05.02	2023.05.02
X	Attenuator	API Imnet	40AH2W-10	18	HCT	(c)	2022.05.03	2023.05.03
X	Power Divider	AeroFlex/ Weinschel,Inc	1580-1	RZ184	HCT	(c)	2021.12.22	2022.12.22

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～.

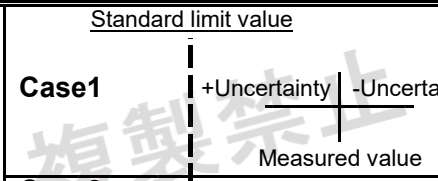
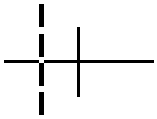
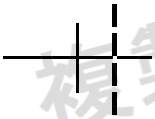
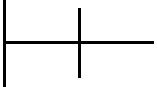
d): Calibration conducted by using other equipment that listed above from a) to c)

複製禁止

5. Uncertainty

About uncertainty of measured value

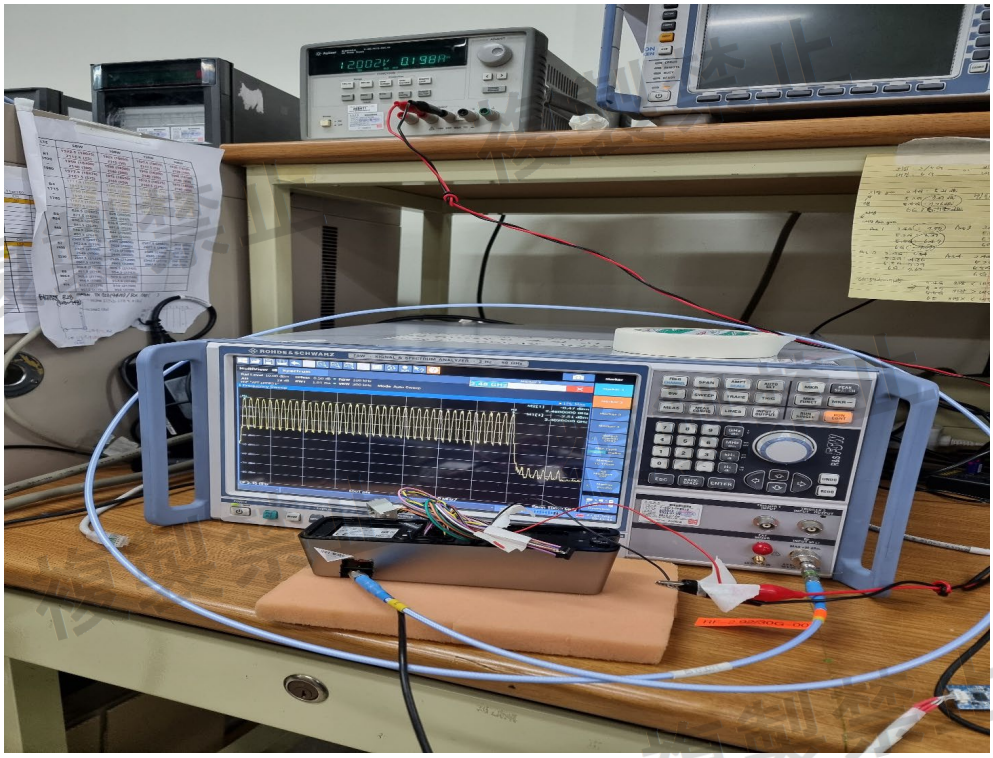
Parameter	Uncertainty
Total RF power conducted	±0.9dB
Spurious emissions conducted	±1.1dB
Temperature	±0.9℃
Humidity	±4.6%

Judge	Measured value and standard limit value	
PASS	Case1 	Even if it takes uncertainty into consideration, a standard limit value is fulfilled.
	Case2 	Although measured value is in a standard limit value, a limit value won't be fulfilled if uncertainty is taken into consideration.
FAIL	Case3 	Although measured value exceeds a standard limit value, a limit value will be fulfilled if uncertainty is taken into consideration.
	Case4 	Even if it takes uncertainty into consideration, a standard limit value isn't fulfilled.

複製禁止

6. Photographs

Conducted Measurement Photo - DV 12.0V

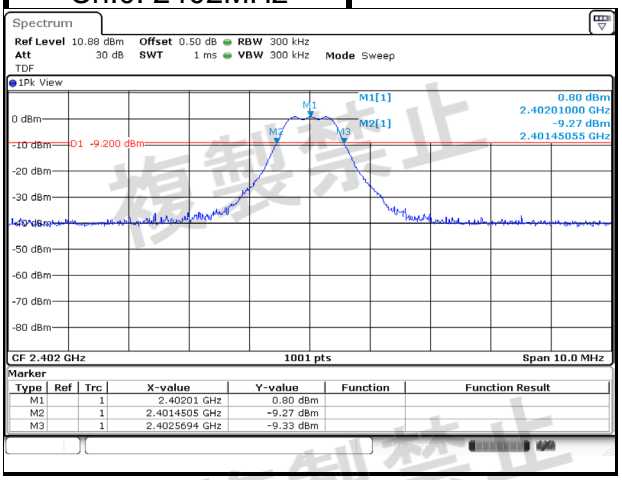


Conducted Measurement Photo - PoE 48V

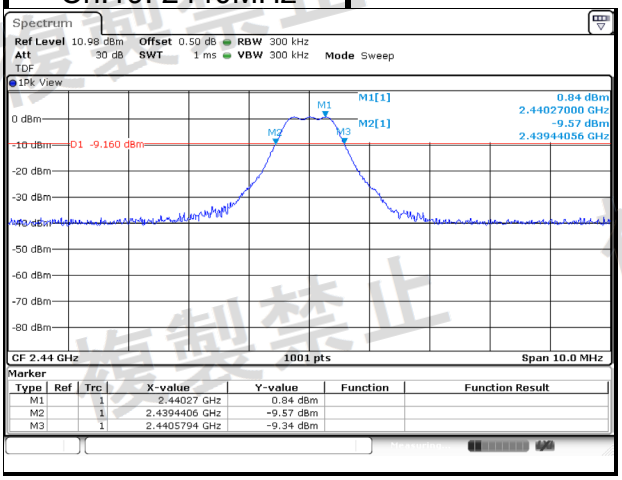
7. Test chart

7.1 Frequency tolerance (DC 12.0V Rated voltage)

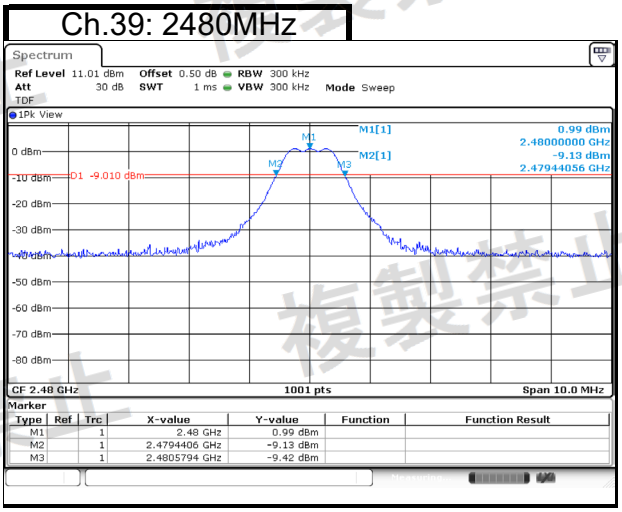
Ch.0: 2402MHz



Ch.19: 2440MHz



Ch.39: 2480MHz

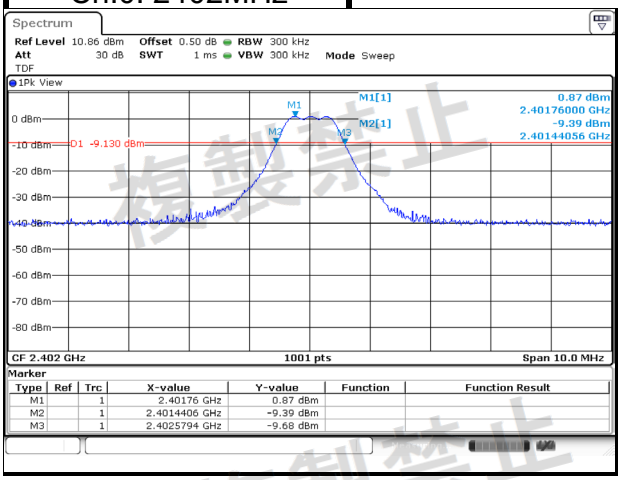


複製禁止

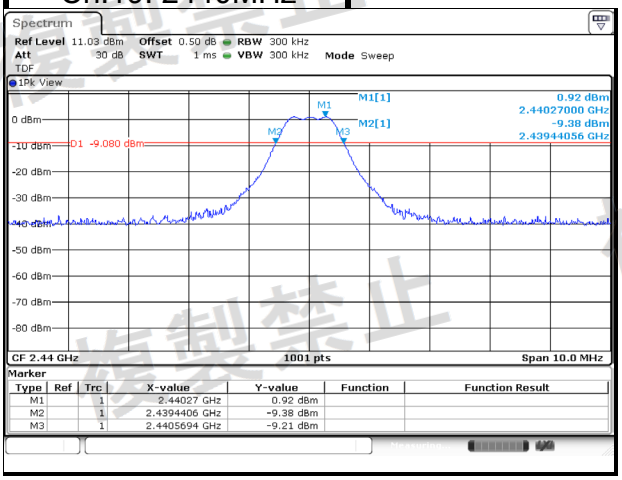
7. Test chart

7.1 Frequency tolerance (PoE Rated voltage)

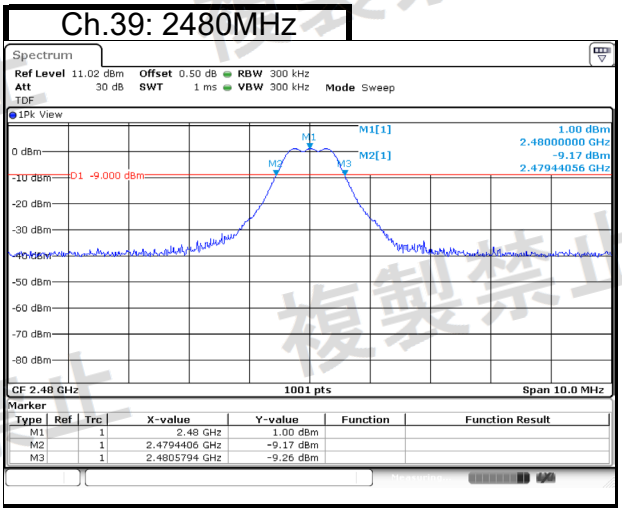
Ch.0: 2402MHz



Ch.19: 2440MHz



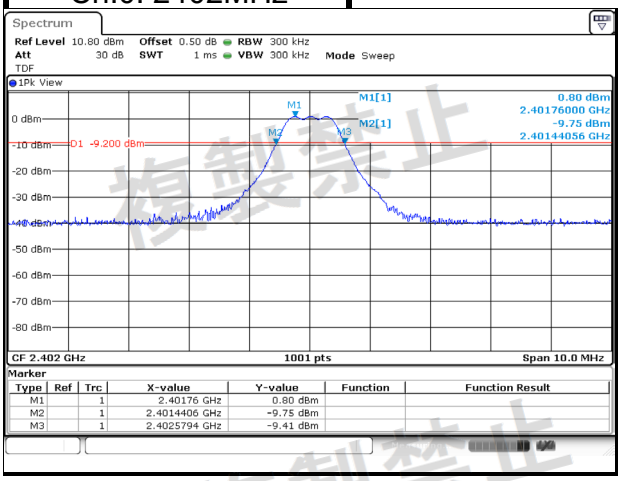
Ch.39: 2480MHz



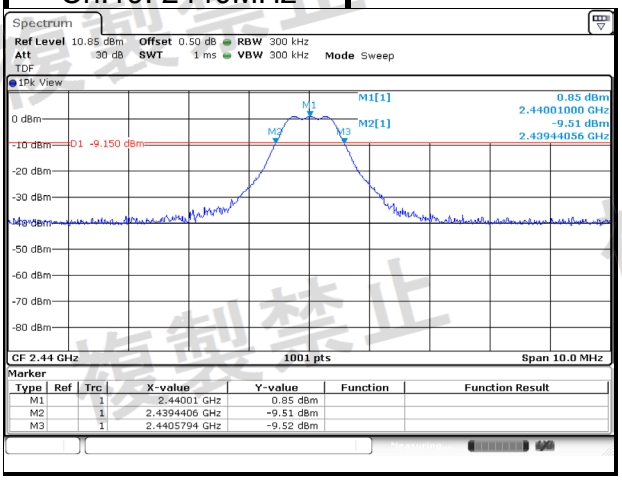
7. Test chart

7.1 Frequency tolerance (DC 12.0V -10% voltage)

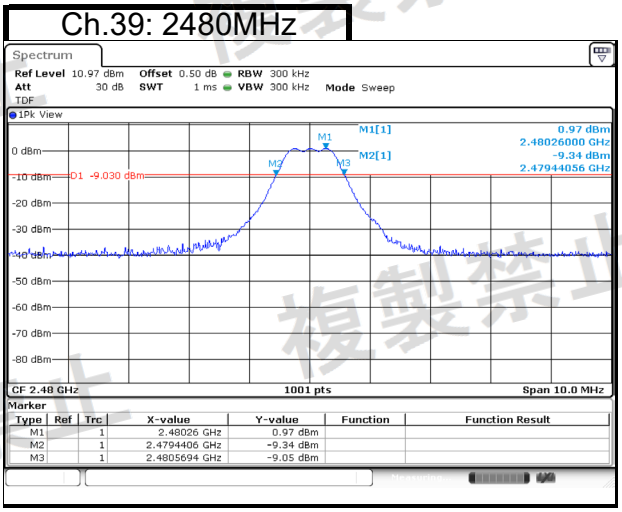
Ch.0: 2402MHz



Ch.19: 2440MHz



Ch.39: 2480MHz

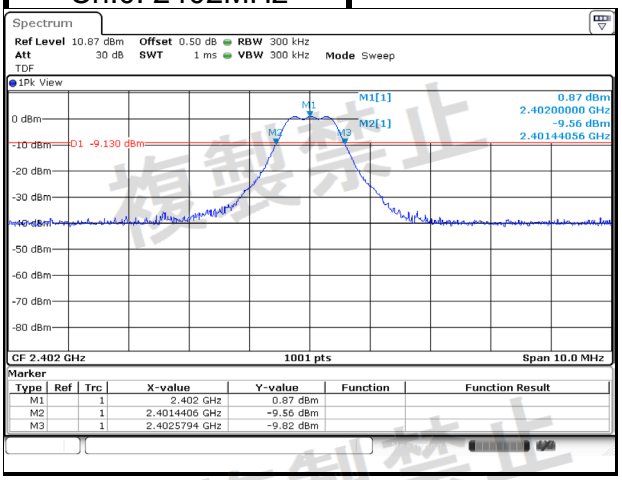


複製禁止

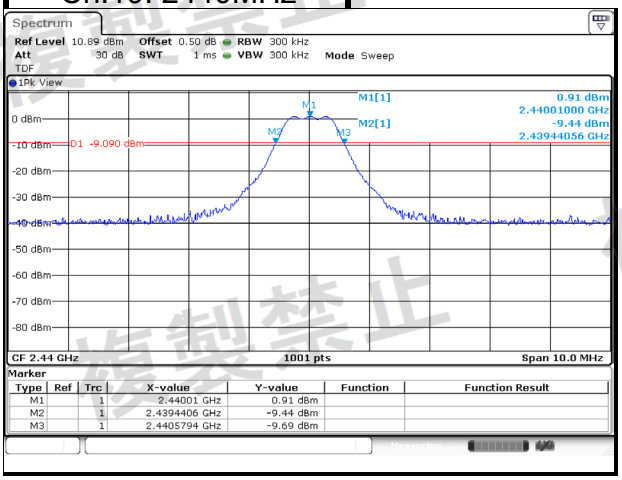
7. Test chart

7.1 Frequency tolerance (-10% voltage)

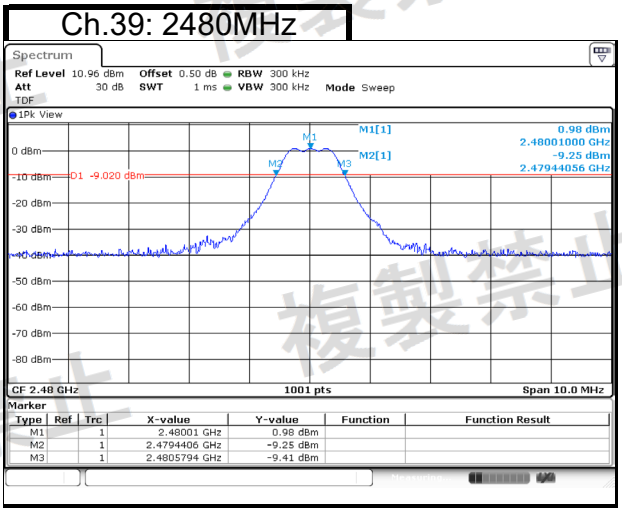
Ch.0: 2402MHz



Ch.19: 2440MHz



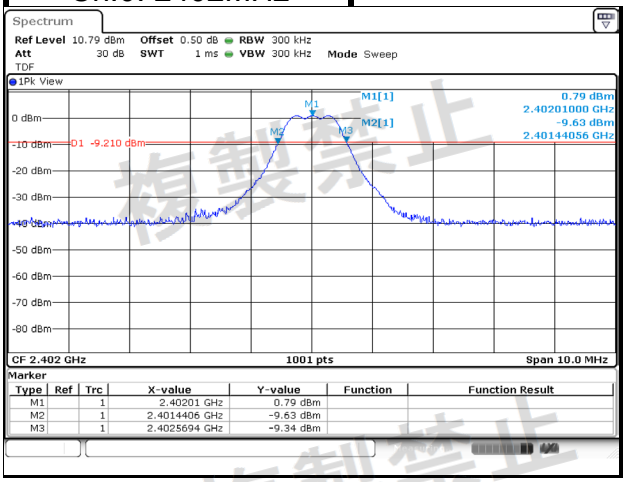
Ch.39: 2480MHz



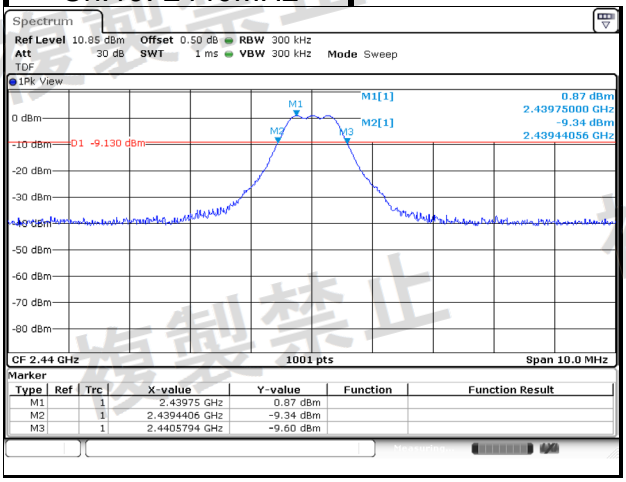
7. Test chart

7.1 Frequency tolerance (DC 12.0V +10% voltage)

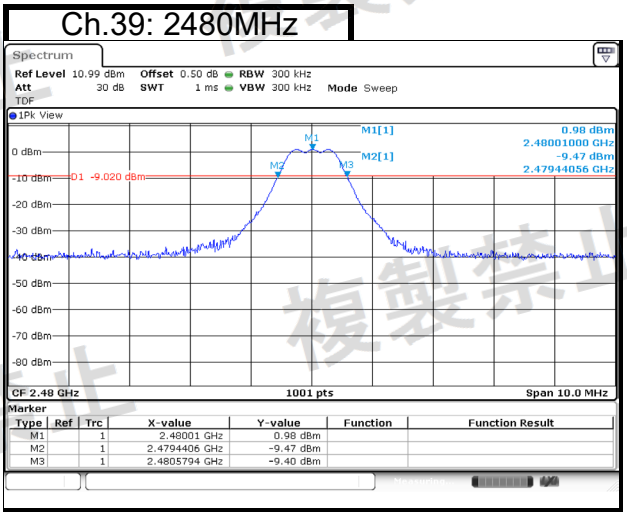
Ch.0: 2402MHz



Ch.19: 2440MHz



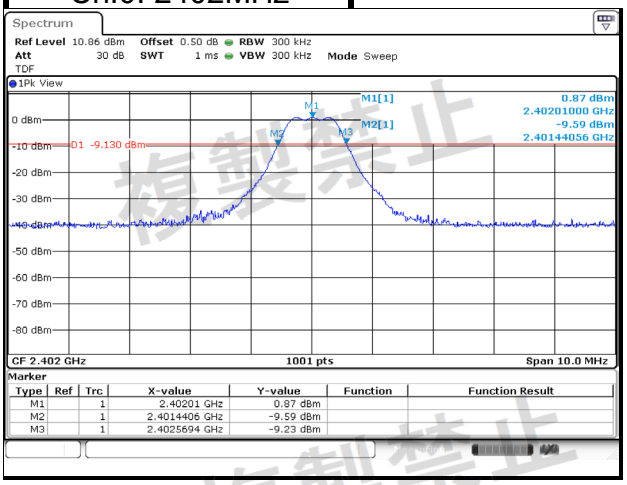
Ch.39: 2480MHz



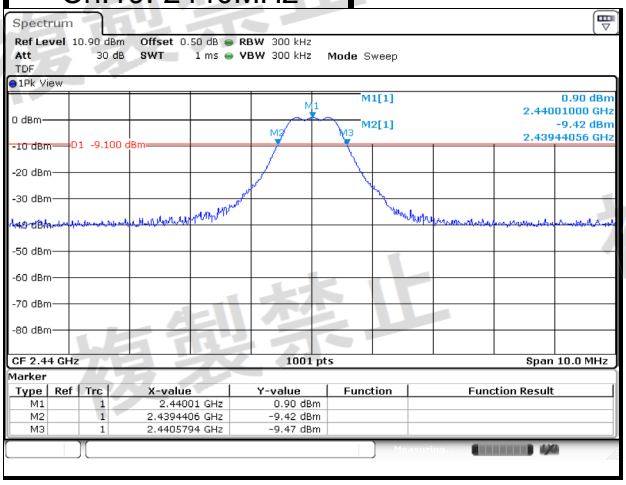
7. Test chart

7.1 Frequency tolerance (PoE +10% voltage)

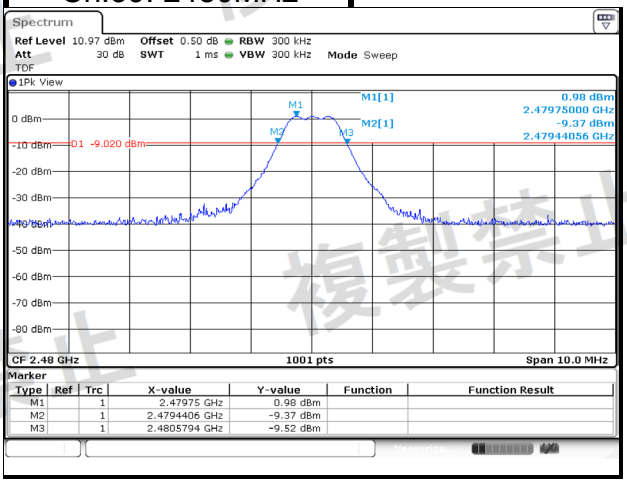
Ch.0: 2402MHz



Ch.19: 2440MHz



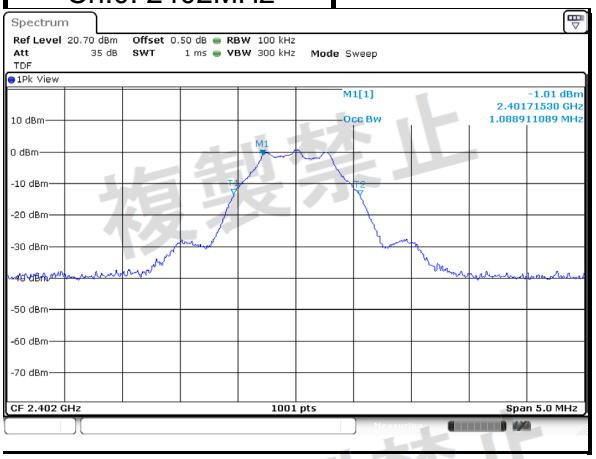
Ch.39: 2480MHz



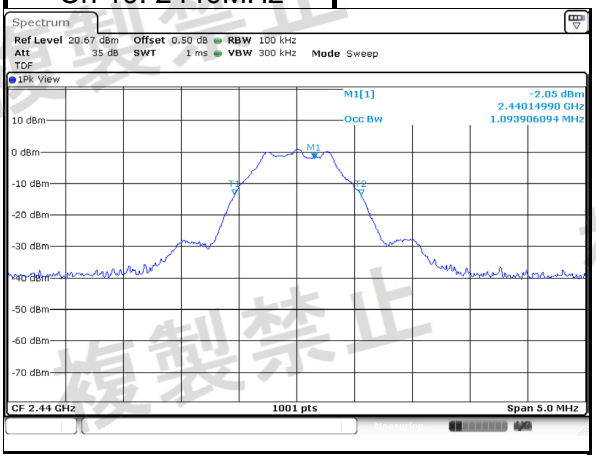
7. Test chart

7.2 Occupied bandwidth (DC 12.0V Rated voltage)

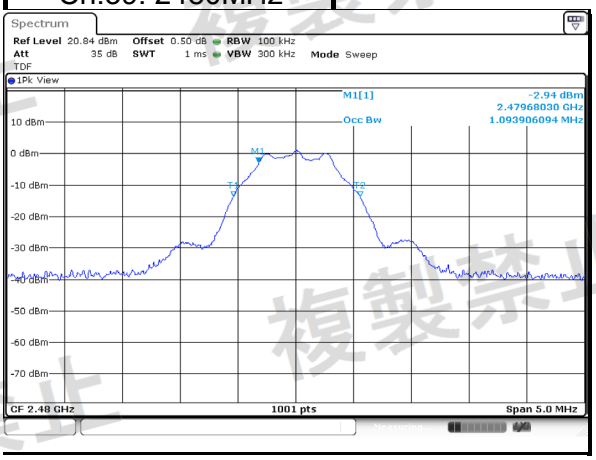
Ch.0: 2402MHz



Ch 19: 2440MHz



Ch.39: 2480MHz

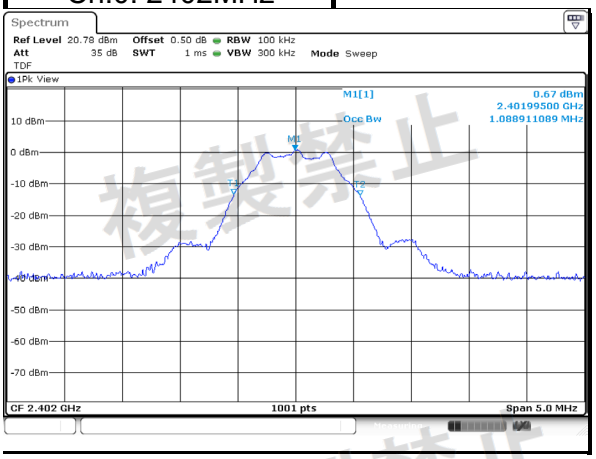


複製禁止

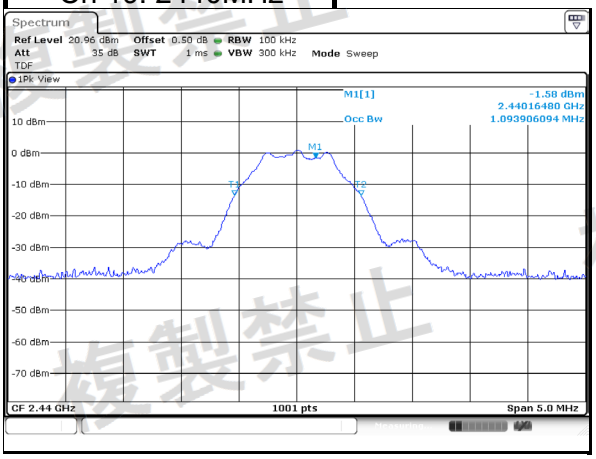
7. Test chart

7.2 Occupied bandwidth (PoE Rated voltage)

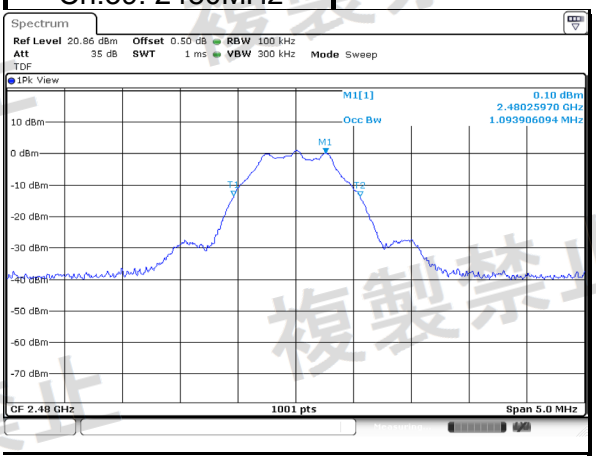
Ch.0: 2402MHz



Ch 19: 2440MHz



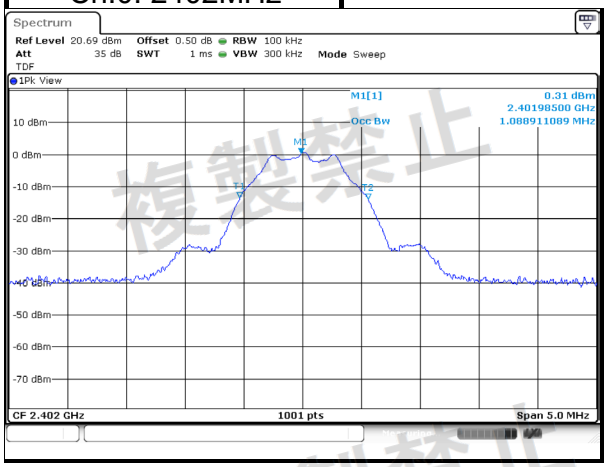
Ch.39: 2480MHz



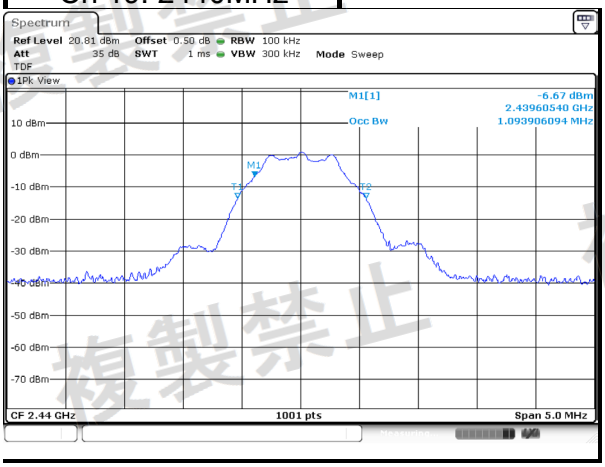
7. Test chart

7.2 Occupied bandwidth (DC 12.0V -10% voltage)

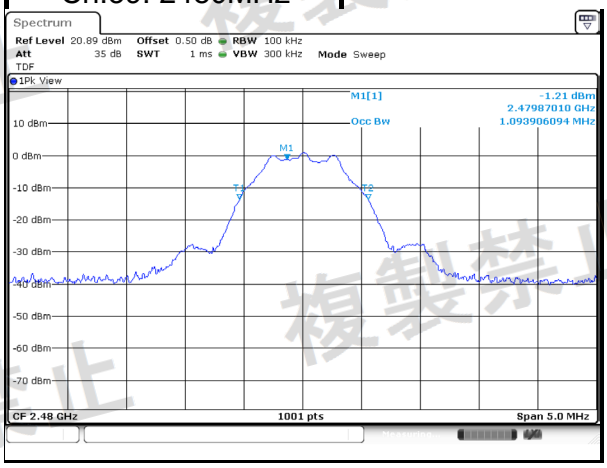
Ch.0: 2402MHz



Ch 19: 2440MHz



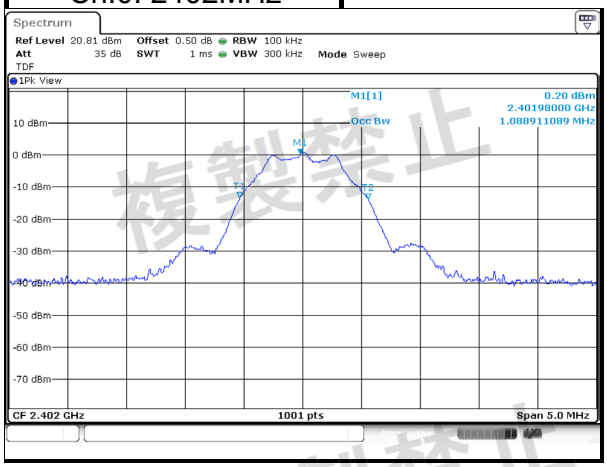
Ch.39: 2480MHz



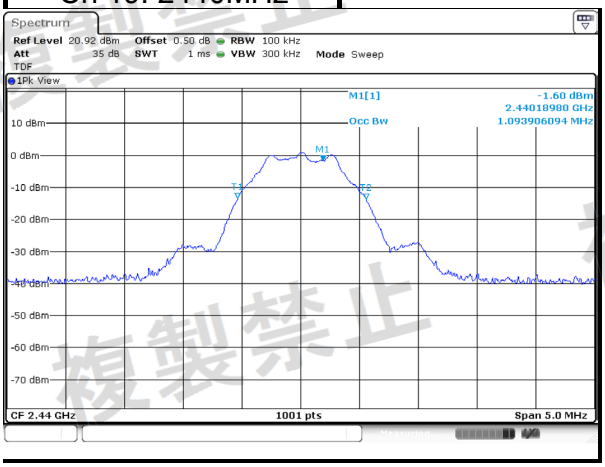
7. Test chart

7.2 Occupied bandwidth (PoE -10% voltage)

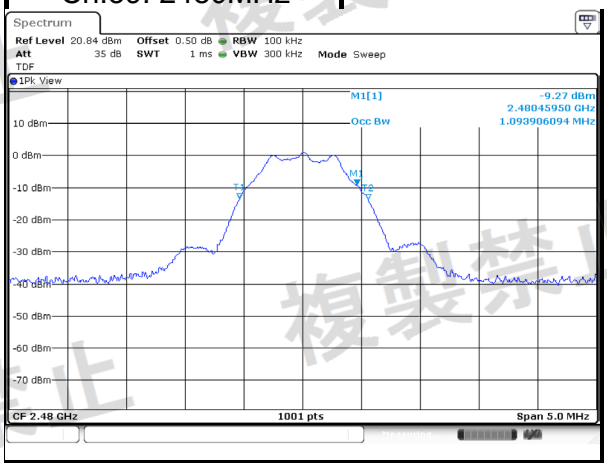
Ch.0: 2402MHz



Ch 19: 2440MHz



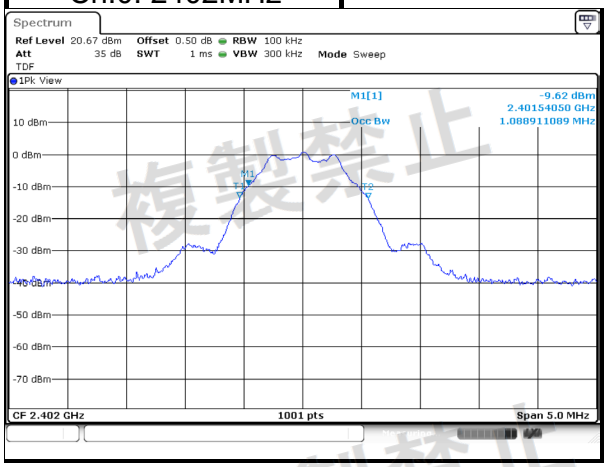
Ch.39: 2480MHz



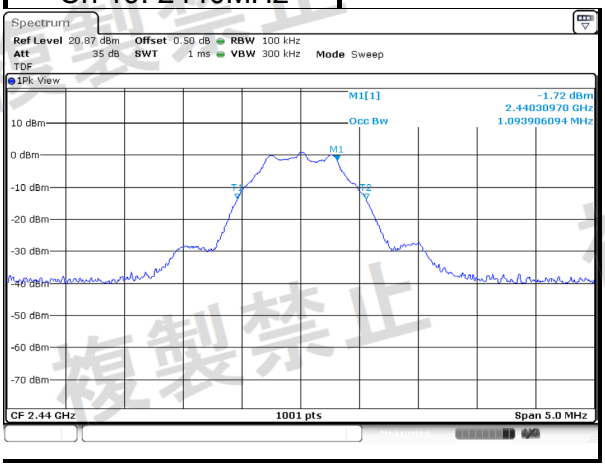
7. Test chart

7.2 Occupied bandwidth (DC 12.0V +10% voltage)

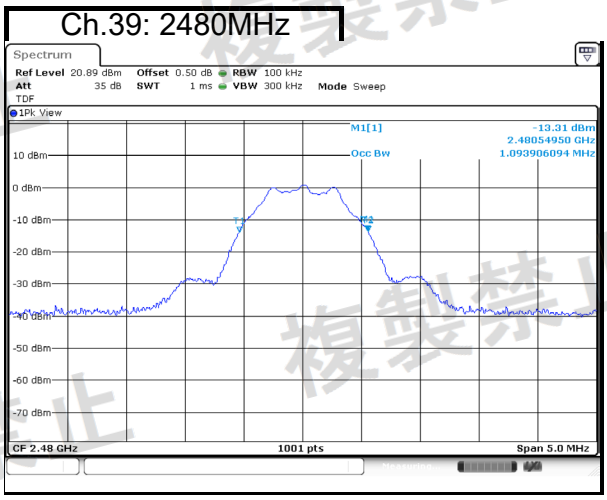
Ch.0: 2402MHz



Ch 19: 2440MHz



Ch.39: 2480MHz

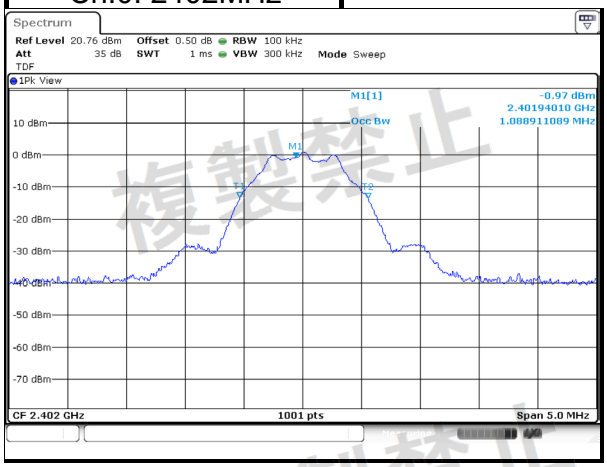


複製禁止

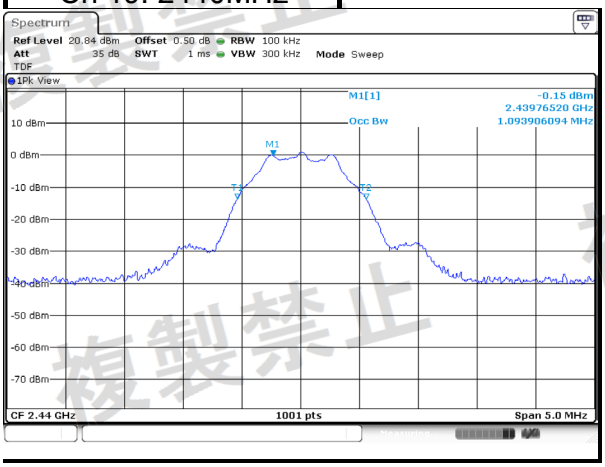
7. Test chart

7.2 Occupied bandwidth (PoE +10% voltage)

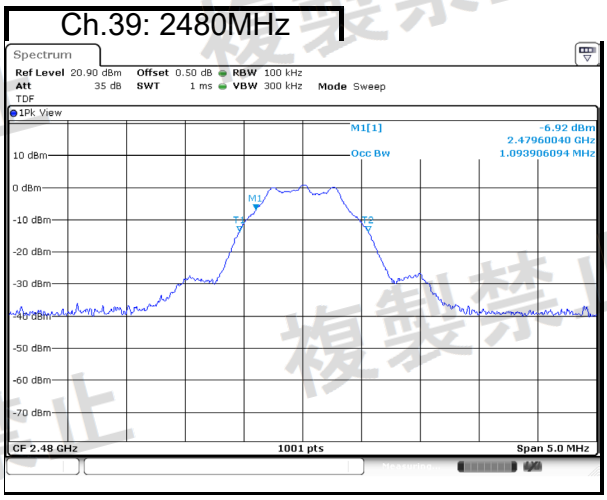
Ch.0: 2402MHz



Ch 19: 2440MHz



Ch.39: 2480MHz

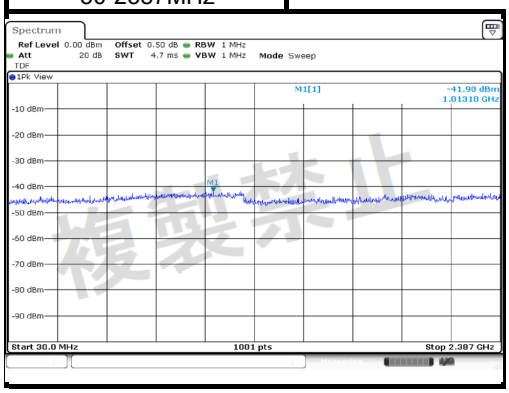


7. Test chart

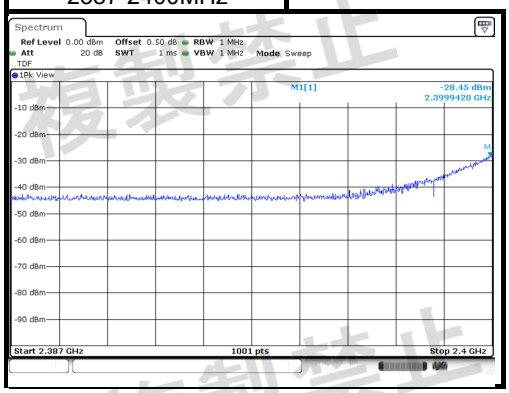
7.3 Unwanted(Spurious) emission strength (DC 12.0V Rated voltage)

Ch.0: 2402MHz

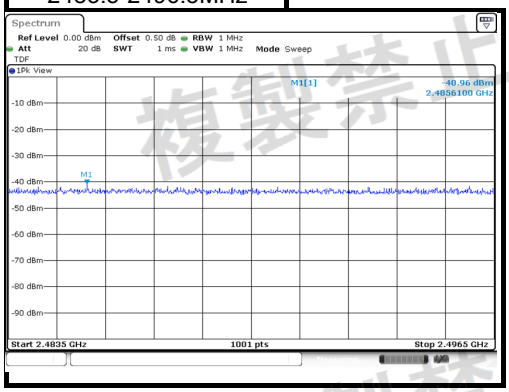
30-2387MHz



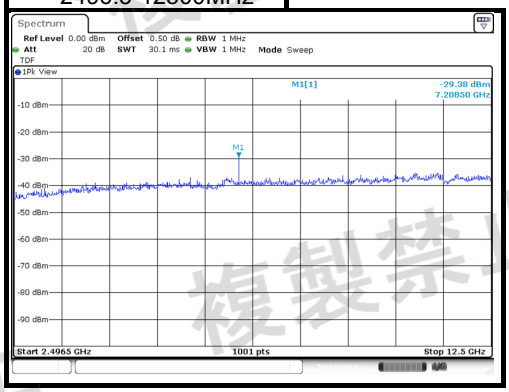
2387-2400MHz



2483.5-2496.5MHz

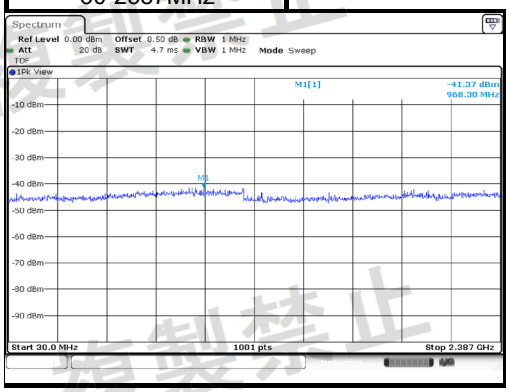


2496.5-12500MHz

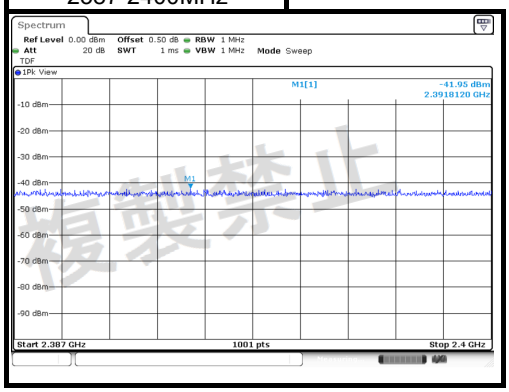


Ch.19: 2440MHz

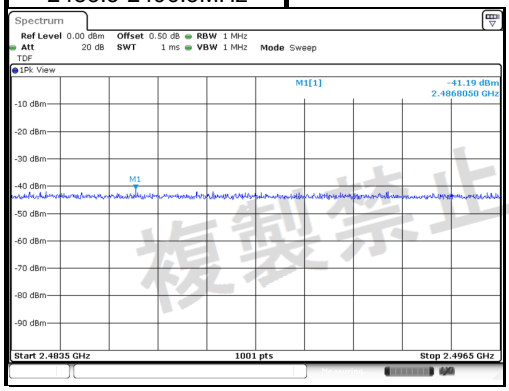
30-2387MHz



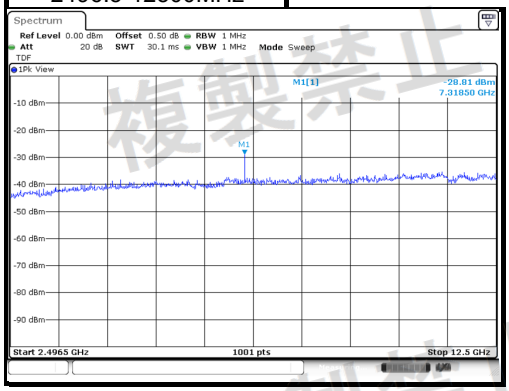
2387-2400MHz



2483.5-2496.5MHz



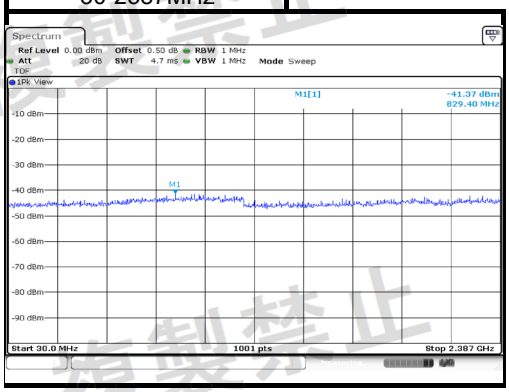
2496.5-12500MHz



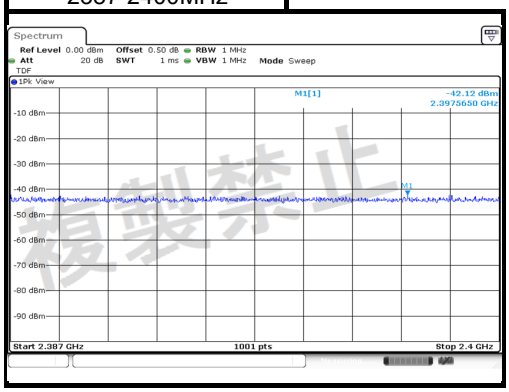
複製禁止

Ch.39: 2480MHz

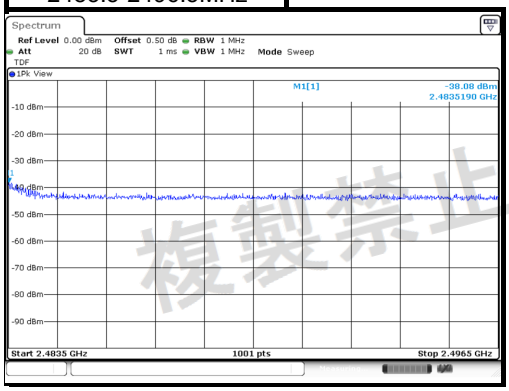
30-2387MHz



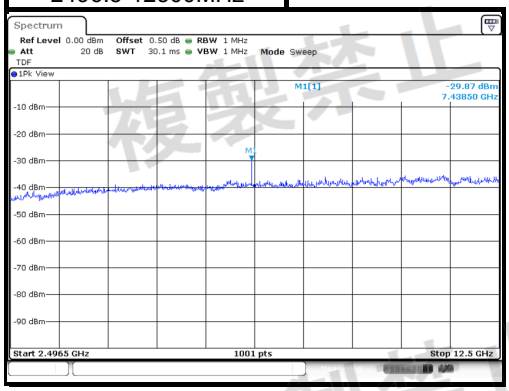
2387-2400MHz



2483.5-2496.5MHz



2496.5-12500MHz

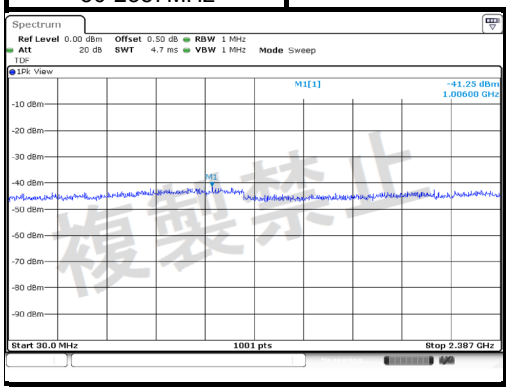


7. Test chart

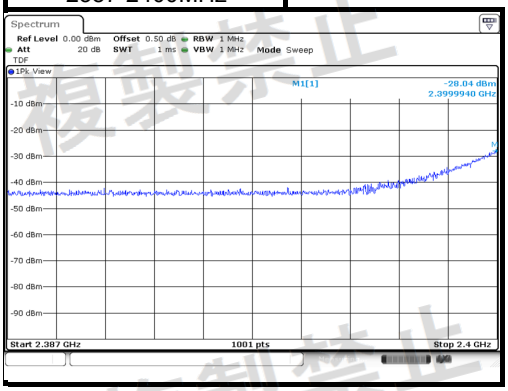
7.3 Unwanted(Spurious) emission strength (PoE Rated voltage)

Ch.0: 2402MHz

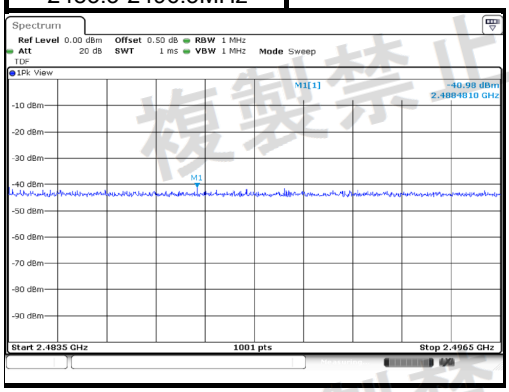
30-2387MHz



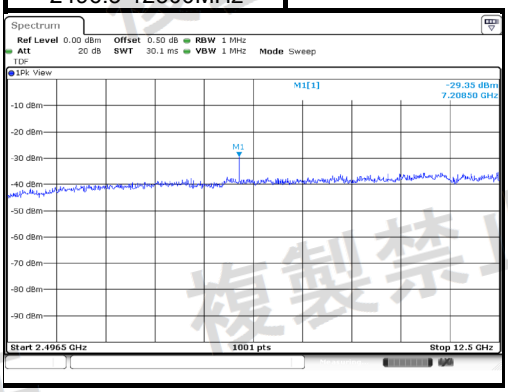
2387-2400MHz



2483.5-2496.5MHz

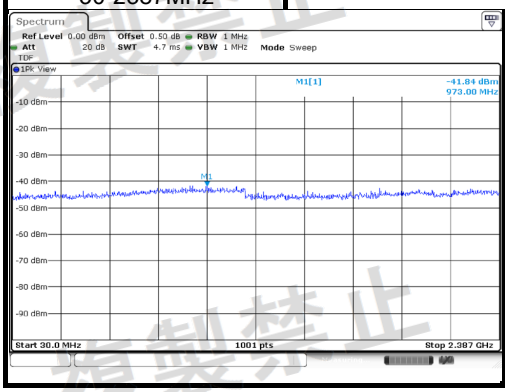


2496.5-12500MHz

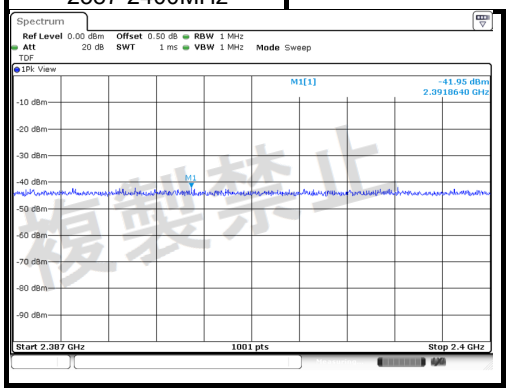


Ch.19: 2440MHz

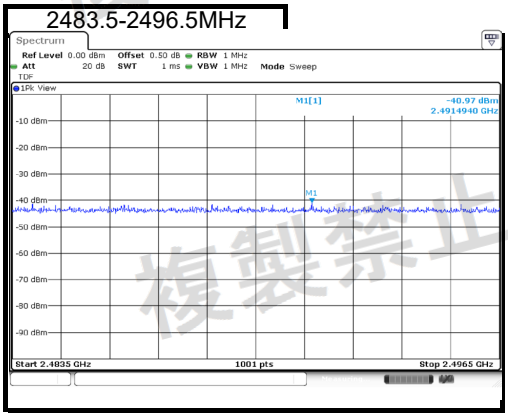
30-2387MHz



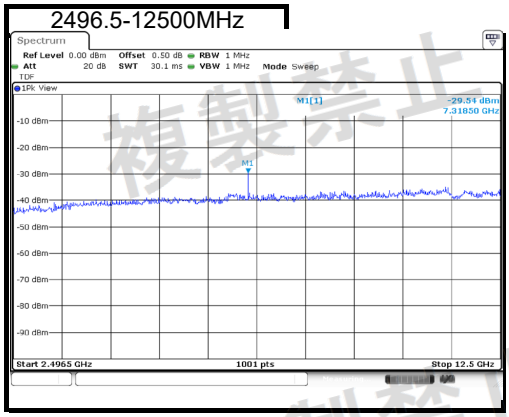
2387-2400MHz



2483.5-2496.5MHz



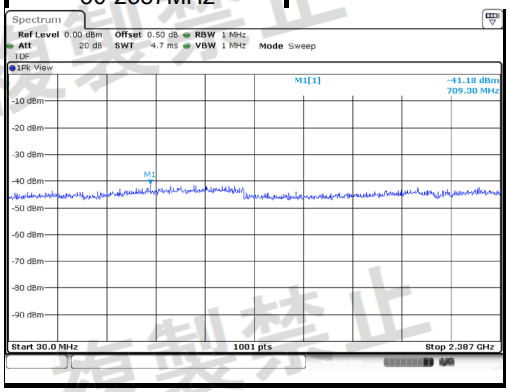
2496.5-12500MHz



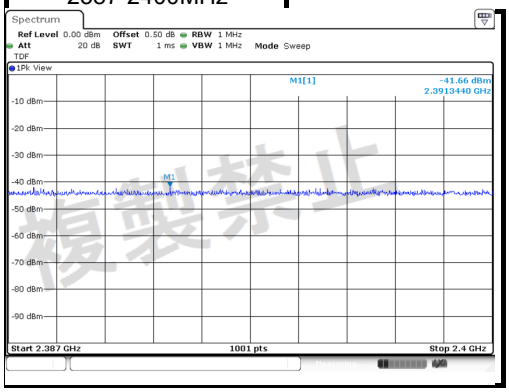
複製禁止

Ch.39: 2480MHz

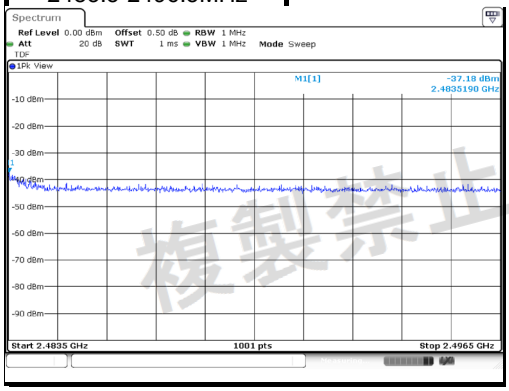
30-2387MHz



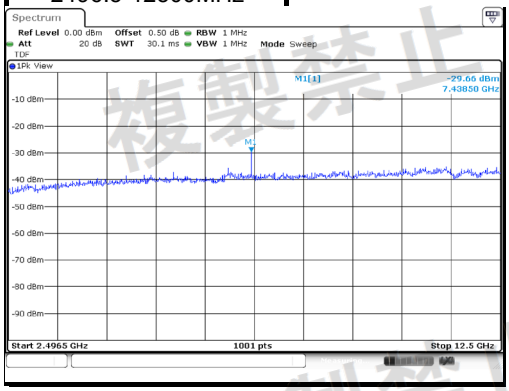
2387-2400MHz



2483.5-2496.5MHz



2496.5-12500MHz

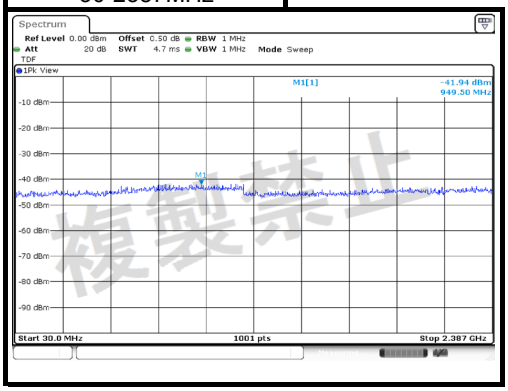


7. Test chart

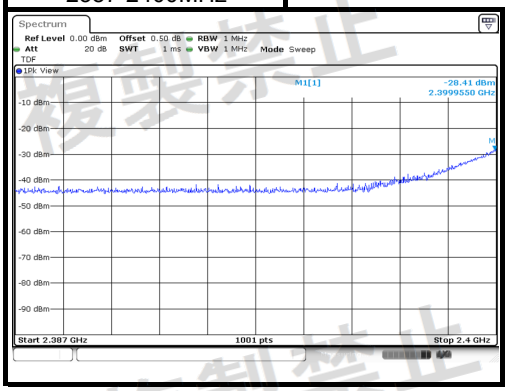
7.3 Unwanted(Spurious) emission strength (DC 12.0V -10% voltage)

Ch.0: 2402MHz

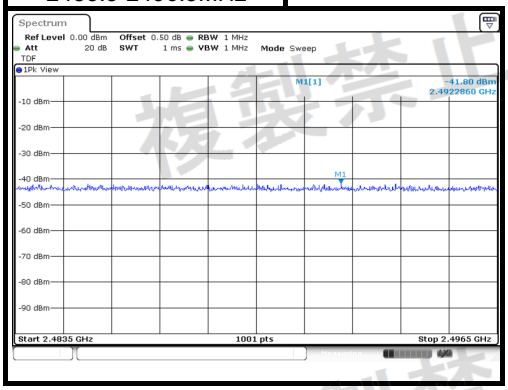
30-2387MHz



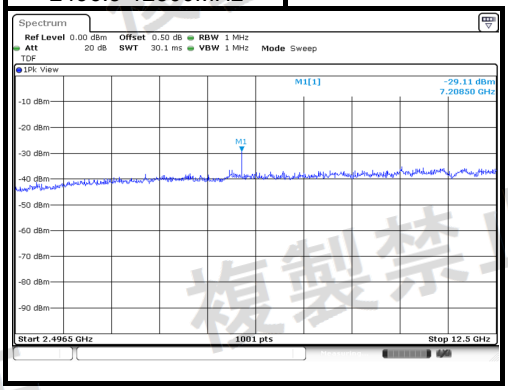
2387-2400MHz



2483.5-2496.5MHz

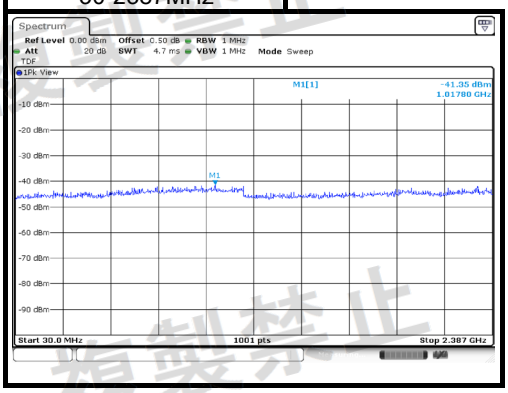


2496.5-12500MHz

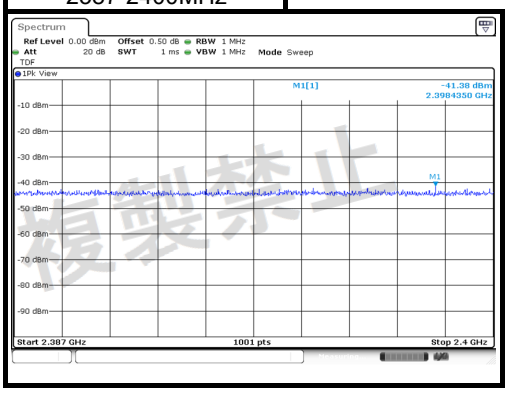


Ch.19: 2440MHz

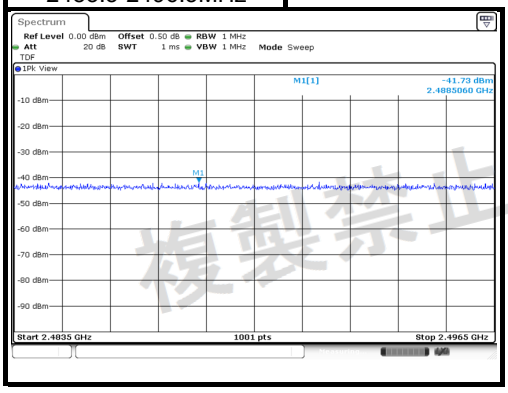
30-2387MHz



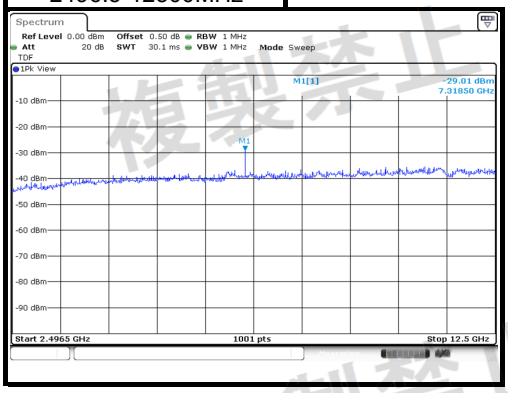
2387-2400MHz



2483.5-2496.5MHz



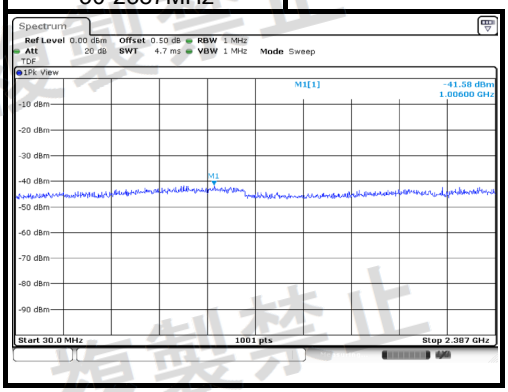
2496.5-12500MHz



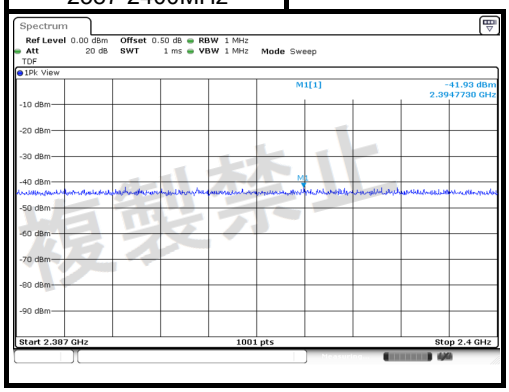
複製禁止

Ch.39: 2480MHz

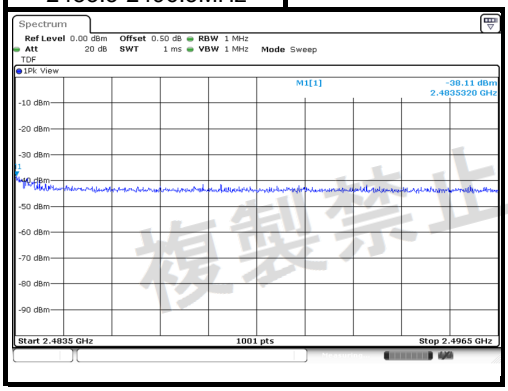
30-2387MHz



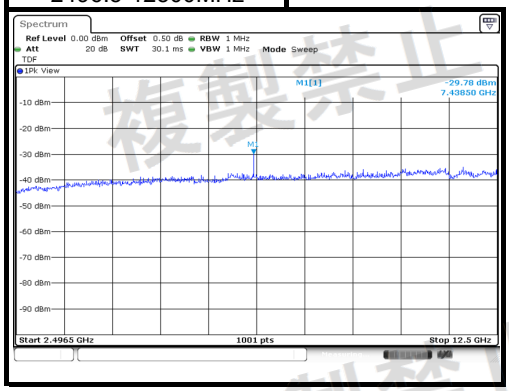
2387-2400MHz



2483.5-2496.5MHz



2496.5-12500MHz



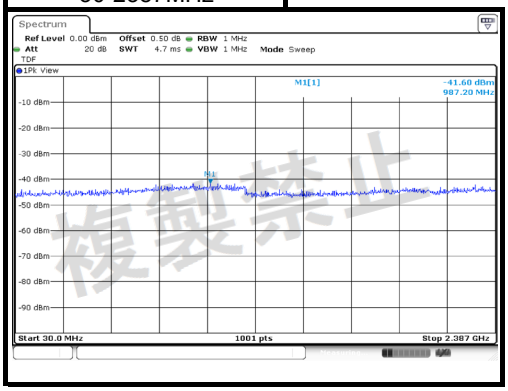
複製禁止

7. Test chart

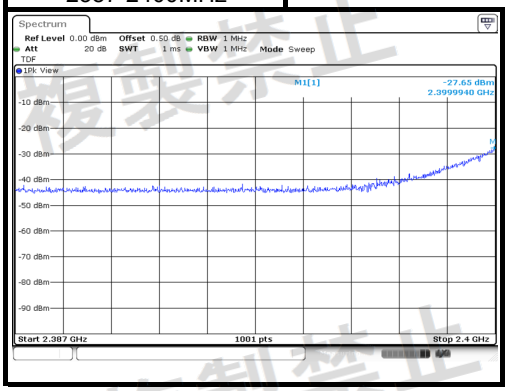
7.3 Unwanted(Spurious) emission strength (PoE -10% voltage)

Ch.0: 2402MHz

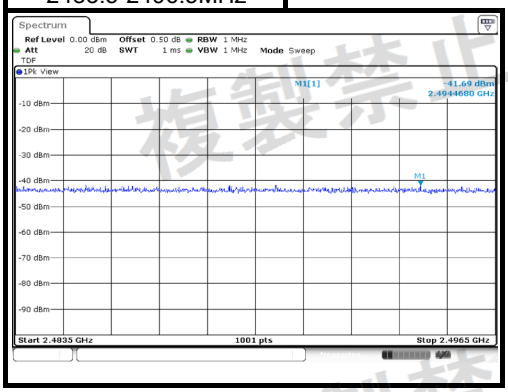
30-2387MHz



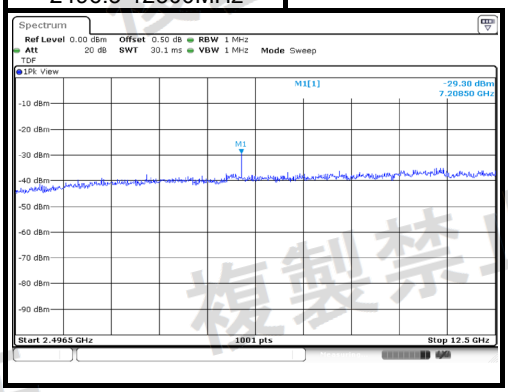
2387-2400MHz



2483.5-2496.5MHz

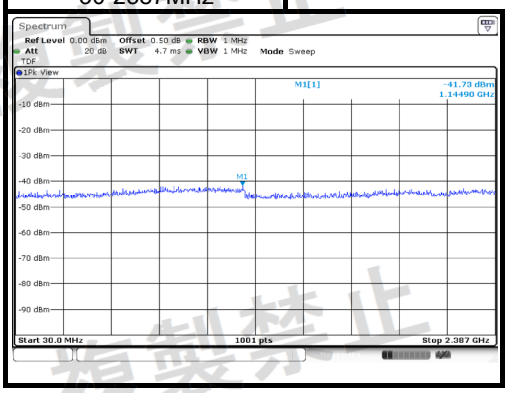


2496.5-12500MHz

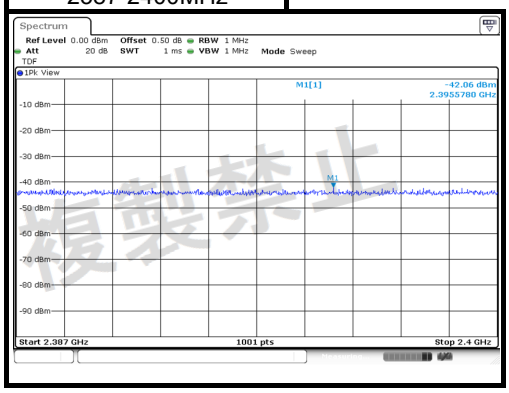


Ch.19: 2440MHz

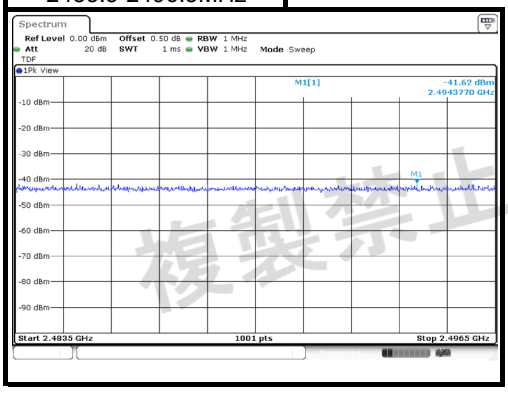
30-2387MHz



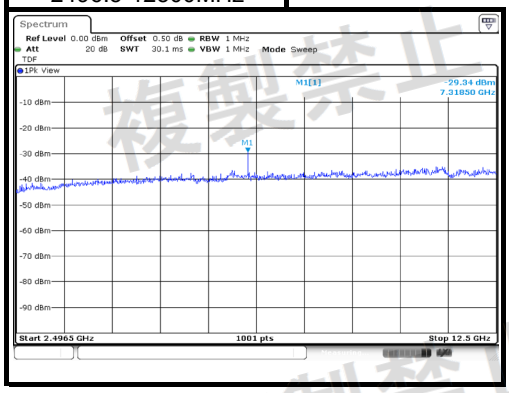
2387-2400MHz



2483.5-2496.5MHz

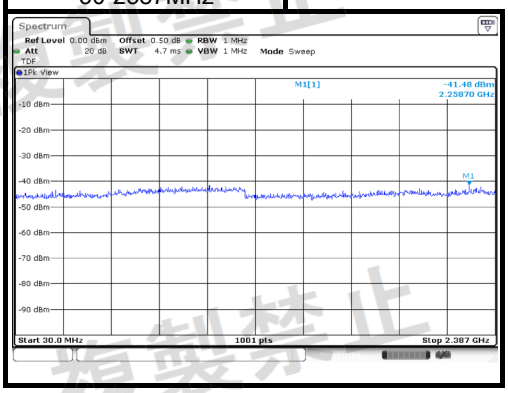


2496.5-12500MHz

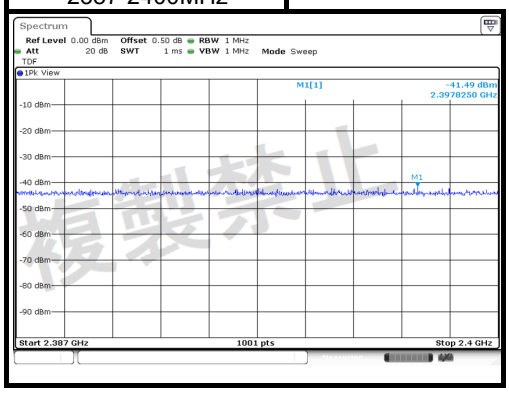


Ch.39: 2480MHz

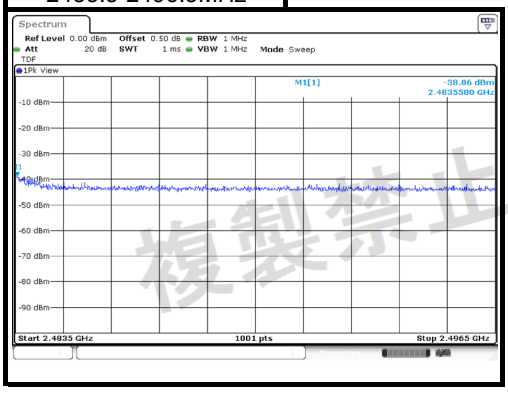
30-2387MHz



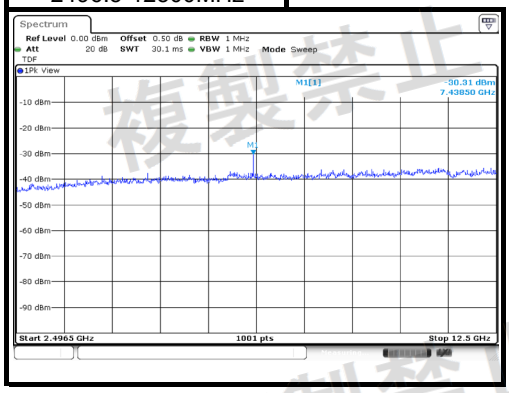
2387-2400MHz



2483.5-2496.5MHz



2496.5-12500MHz



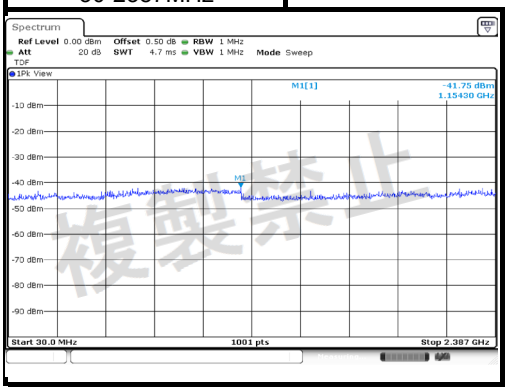
複製禁止

7. Test chart

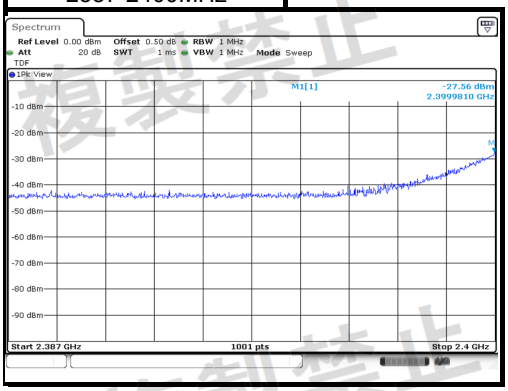
7.3 Unwanted(Spurious) emission strength (DC 12.0V +10% voltage)

Ch.0: 2402MHz

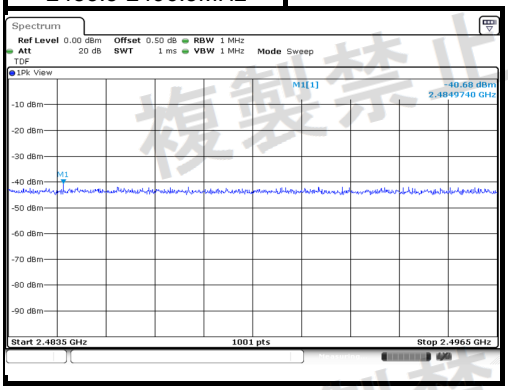
30-2387MHz



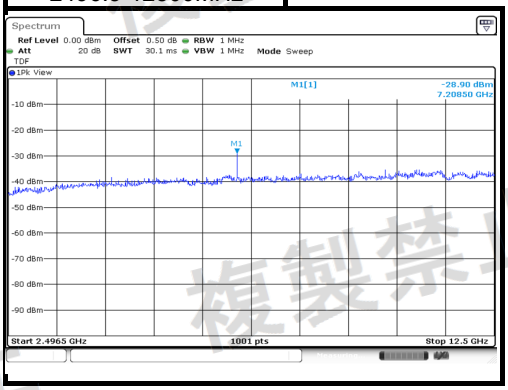
2387-2400MHz



2483.5-2496.5MHz

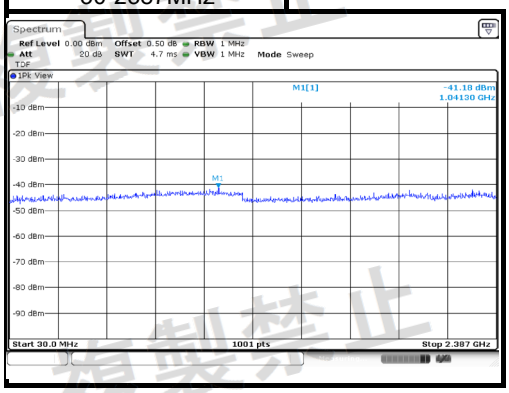


2496.5-12500MHz

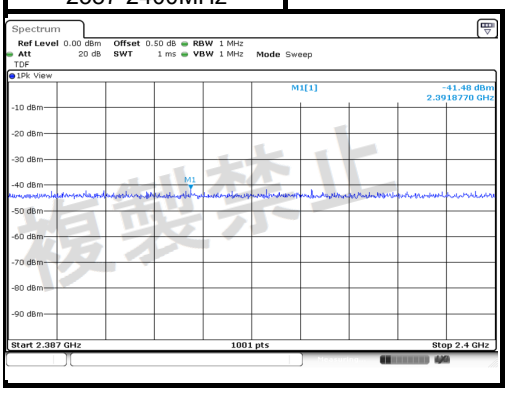


Ch.19: 2440MHz

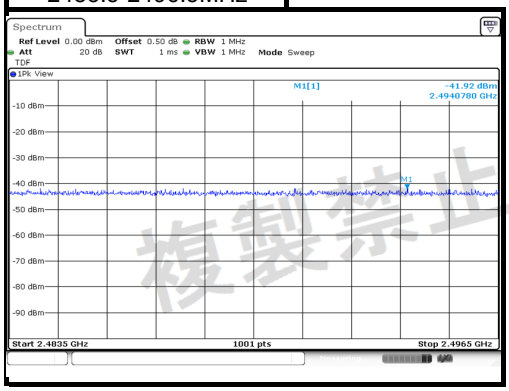
30-2387MHz



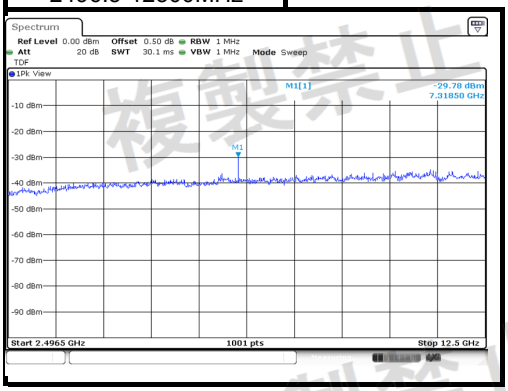
2387-2400MHz



2483.5-2496.5MHz



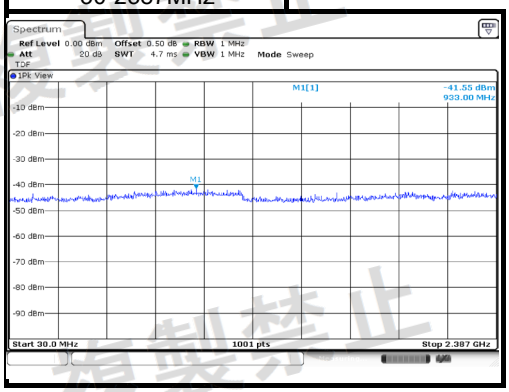
2496.5-12500MHz



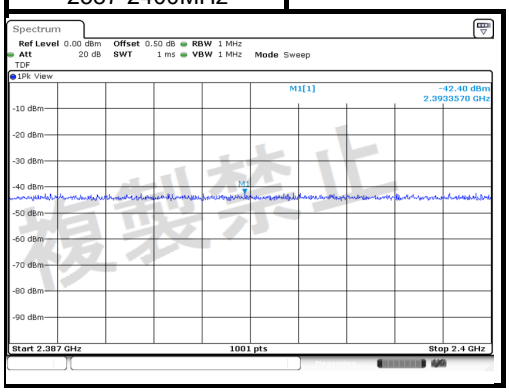
複製禁止

Ch.39: 2480MHz

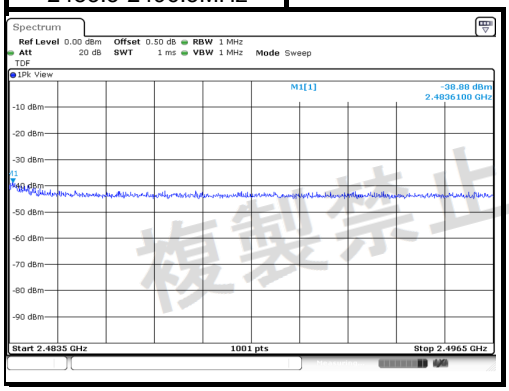
30-2387MHz



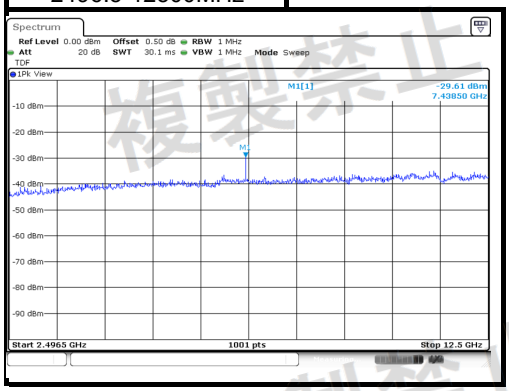
2387-2400MHz



2483.5-2496.5MHz



2496.5-12500MHz

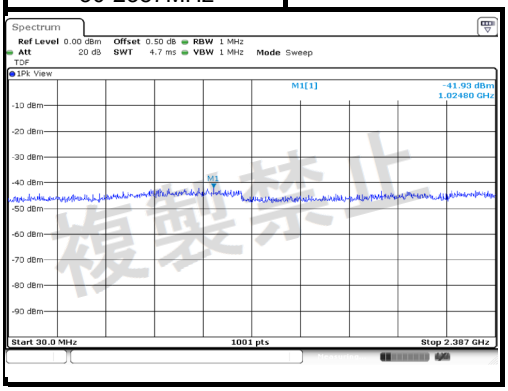


7. Test chart

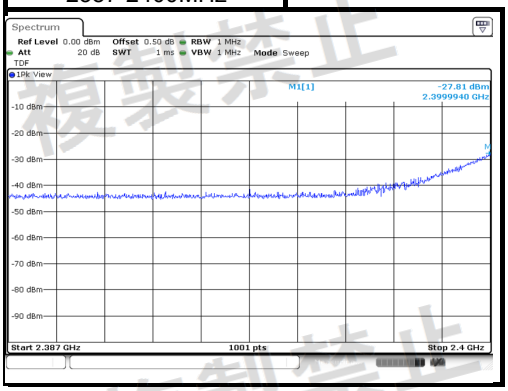
7.3 Unwanted(Spurious) emission strength (PoE +10% voltage)

Ch.0: 2402MHz

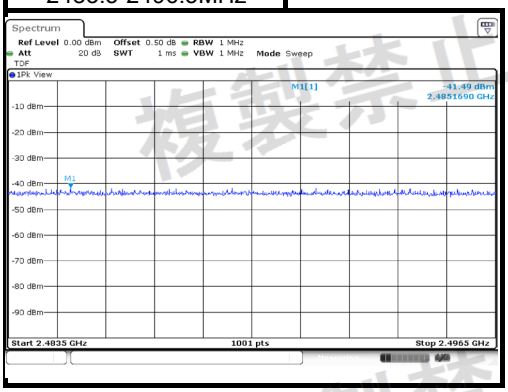
30-2387MHz



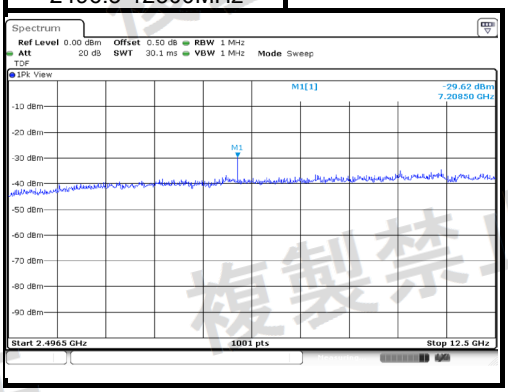
2387-2400MHz



2483.5-2496.5MHz

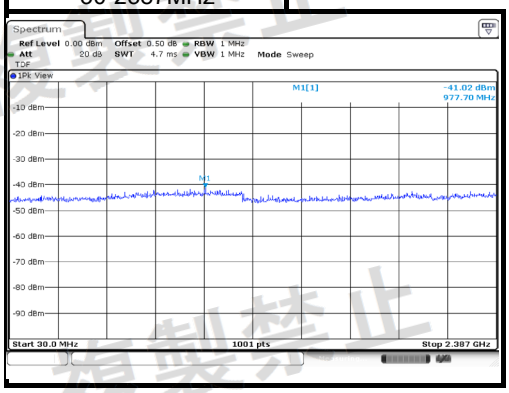


2496.5-12500MHz

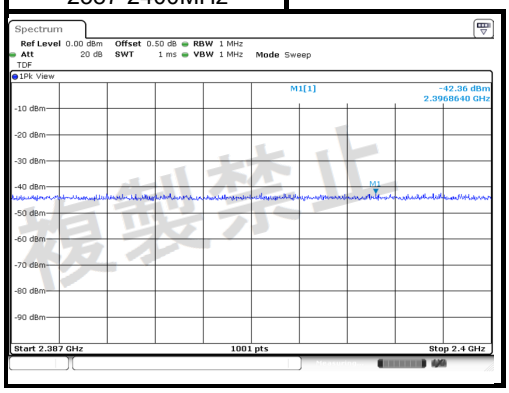


Ch.19: 2440MHz

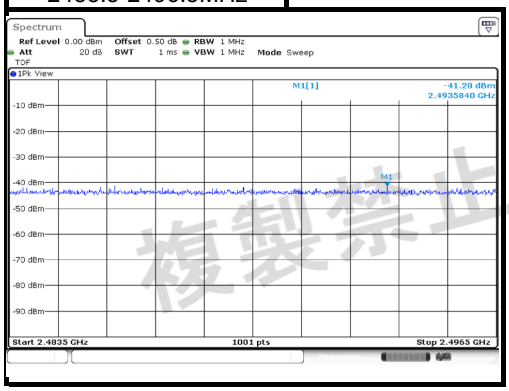
30-2387MHz



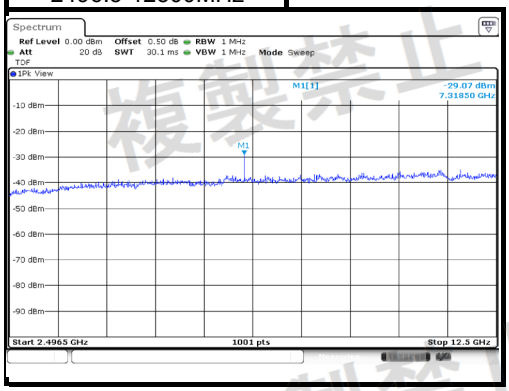
2387-2400MHz



2483.5-2496.5MHz



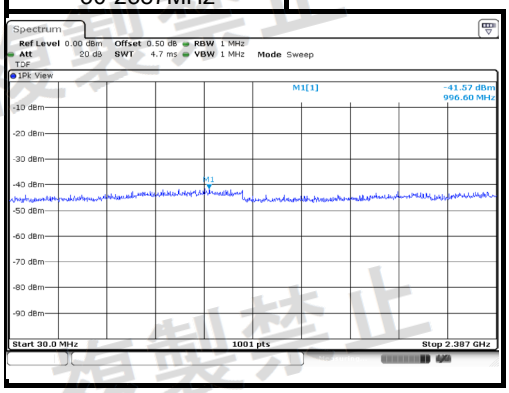
2496.5-12500MHz



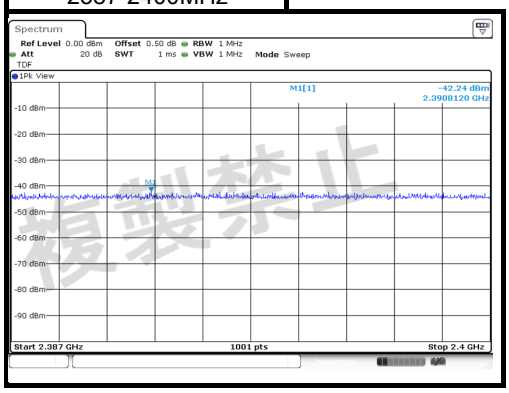
複製禁止

Ch.39: 2480MHz

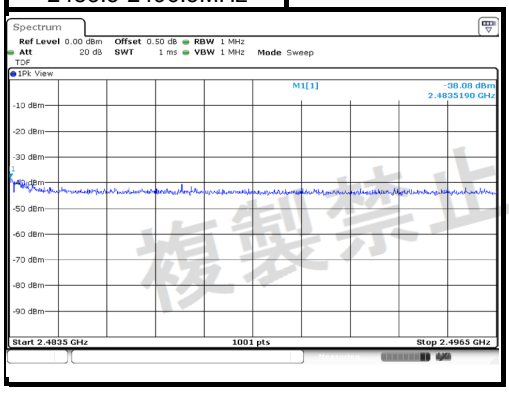
30-2387MHz



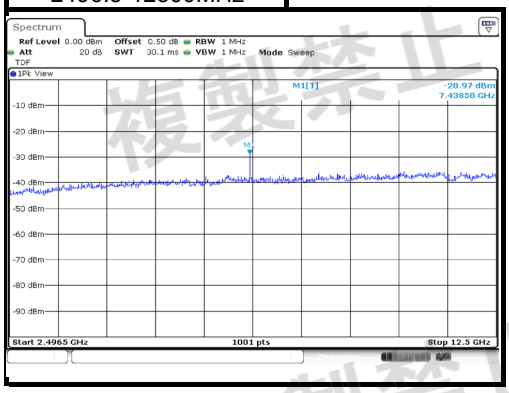
2387-2400MHz



2483.5-2496.5MHz



2496.5-12500MHz

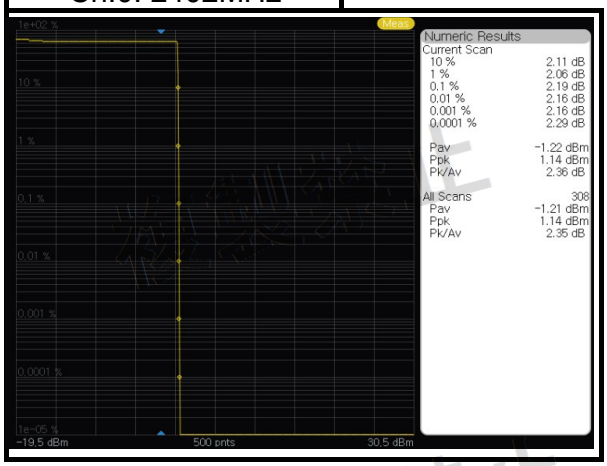


複製禁止

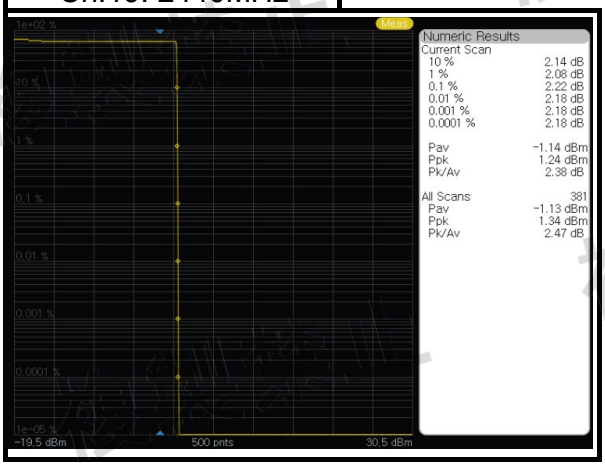
7. Test chart

7.4 RF output power tolerance (DC 12.0V Rated voltage)

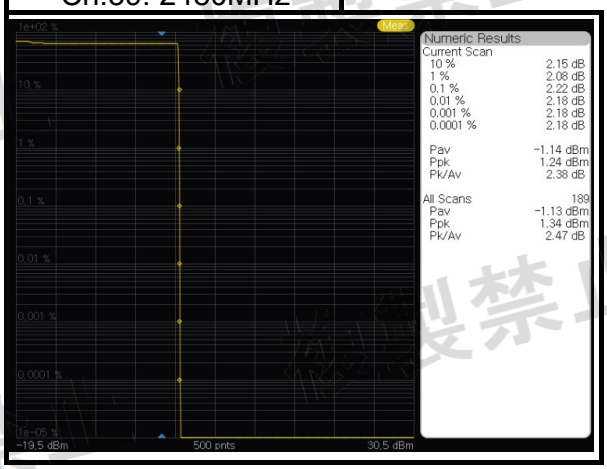
Ch.0: 2402MHz



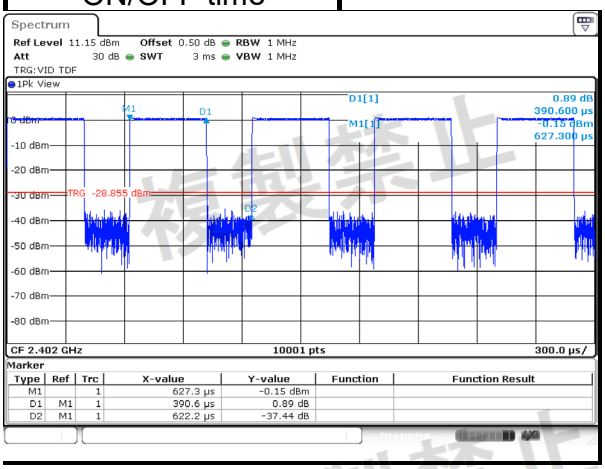
Ch.19: 2440MHz



Ch.39: 2480MHz



ON/OFF time

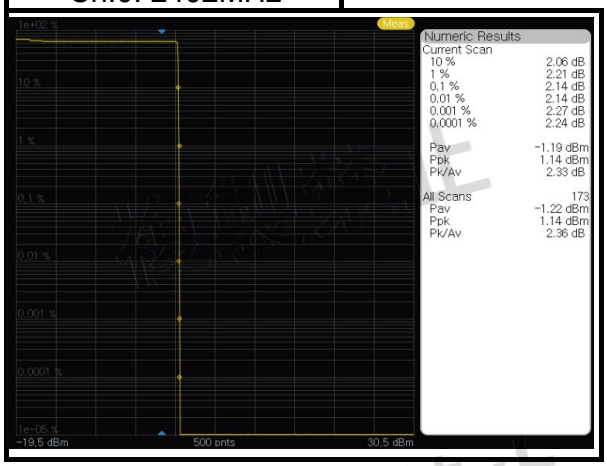


複製禁止

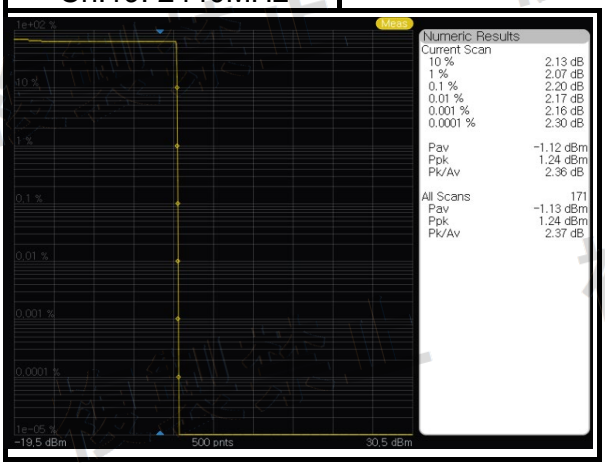
7. Test chart

7.4 RF output power tolerance (PoE Rated voltage)

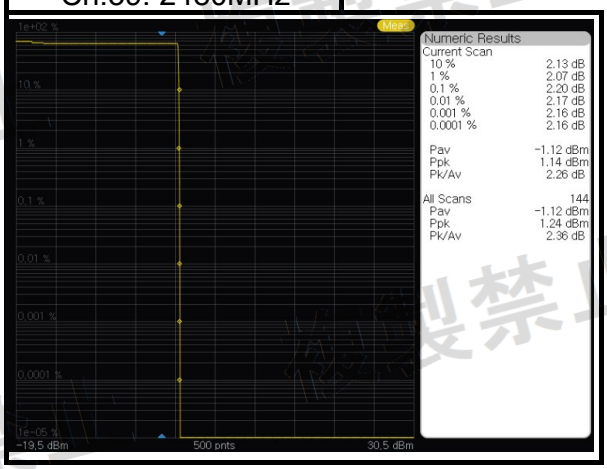
Ch.0: 2402MHz



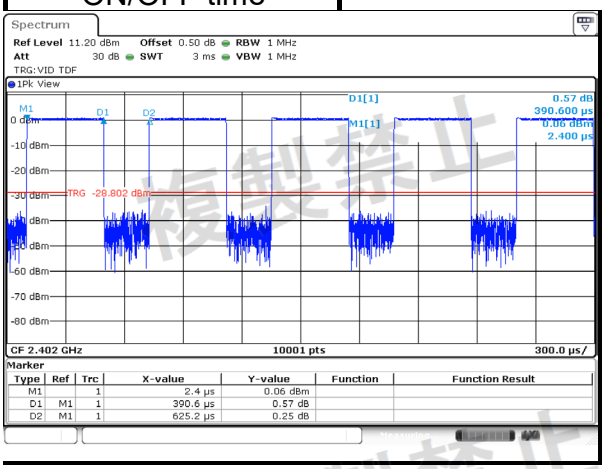
Ch.19: 2440MHz



Ch.39: 2480MHz



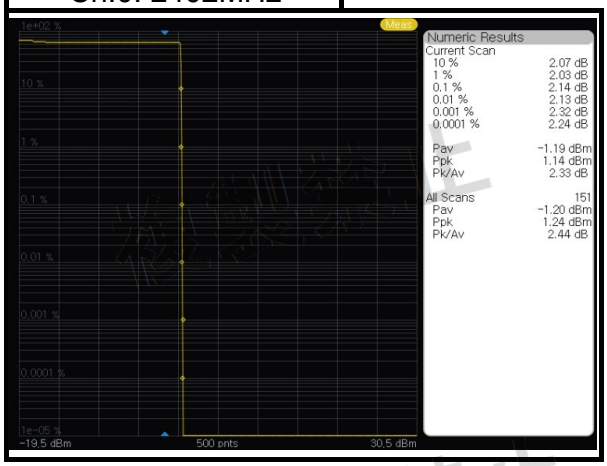
ON/OFF time



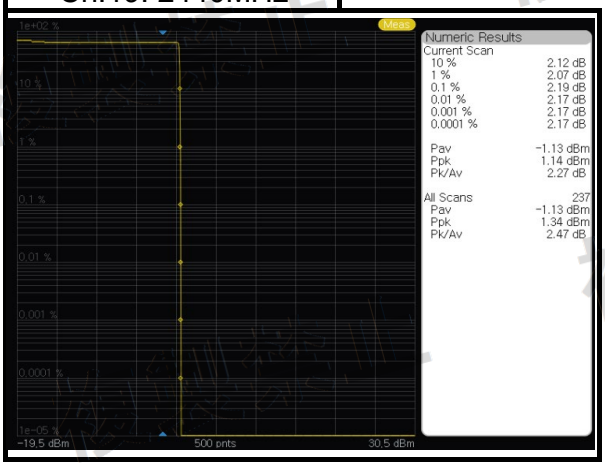
7. Test chart

7.4 RF output power tolerance (DC 12.0V -10% voltage)

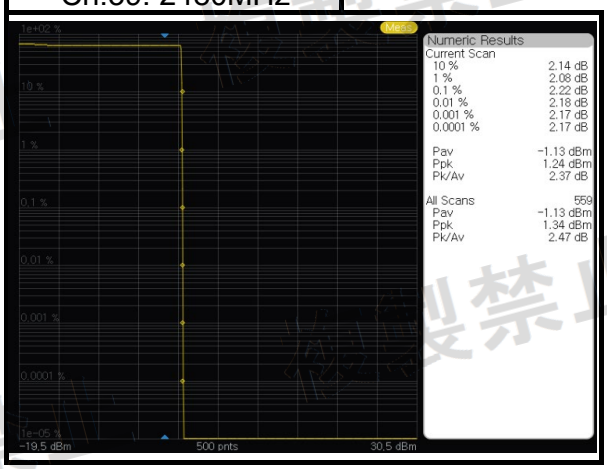
Ch.0: 2402MHz



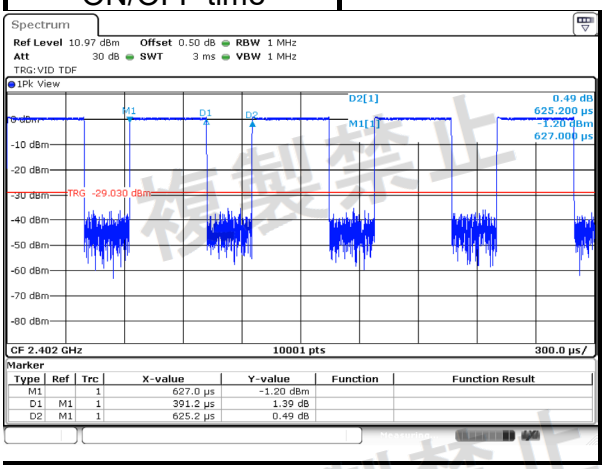
Ch.19: 2440MHz



Ch.39: 2480MHz



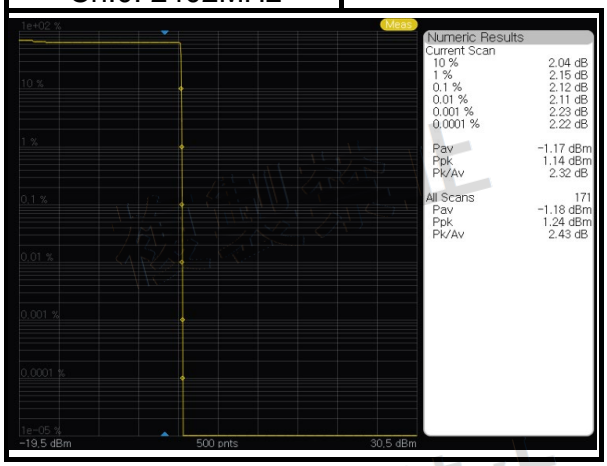
ON/OFF time



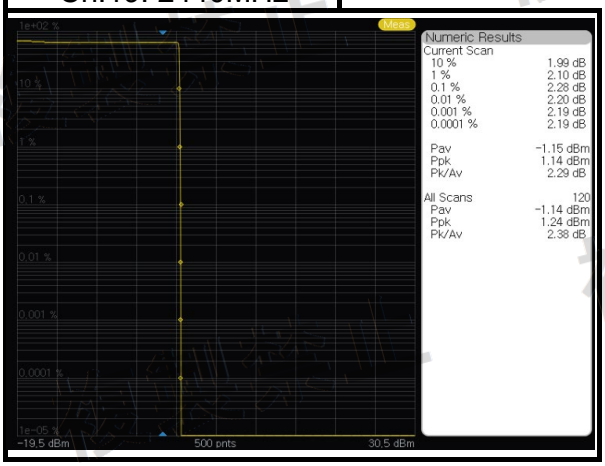
7. Test chart

7.4 RF output power tolerance (PoE -10% voltage)

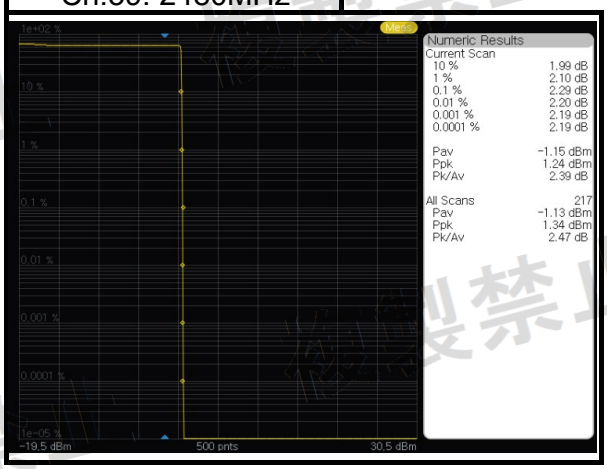
Ch.0: 2402MHz



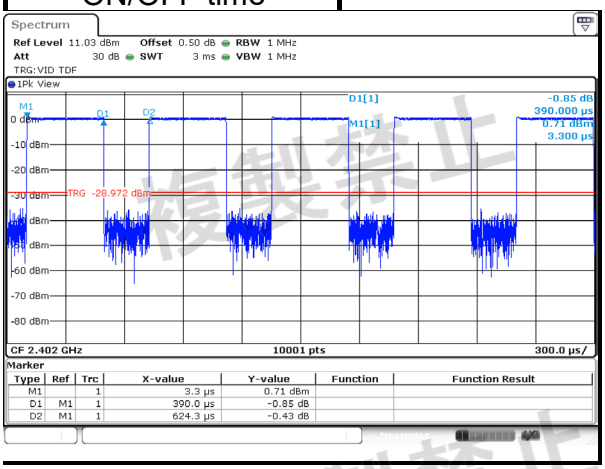
Ch.19: 2440MHz



Ch.39: 2480MHz



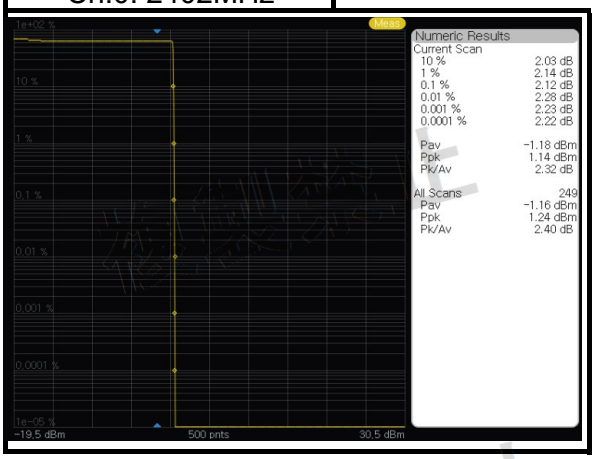
ON/OFF time



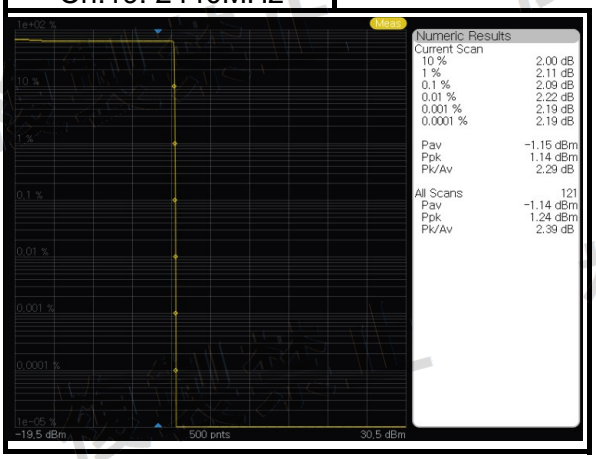
7. Test chart

7.4 RF output power tolerance (DC 12.0V +10% voltage)

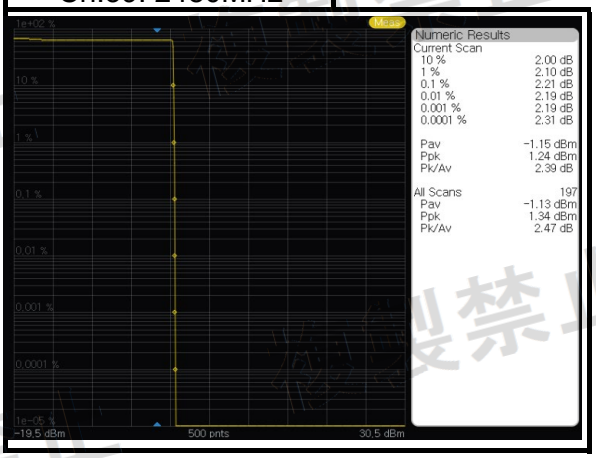
Ch.0: 2402MHz



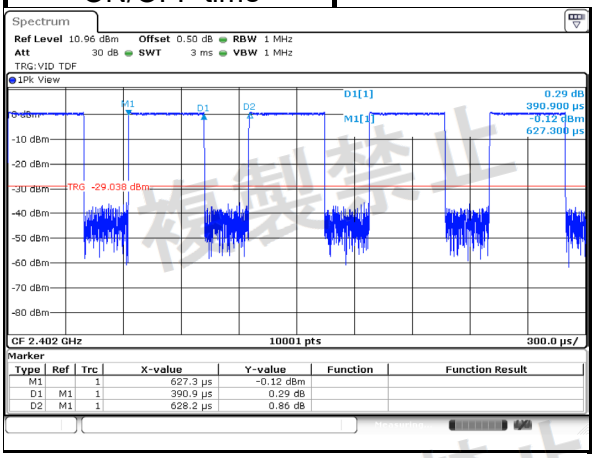
Ch.19: 2440MHz



Ch.39: 2480MHz



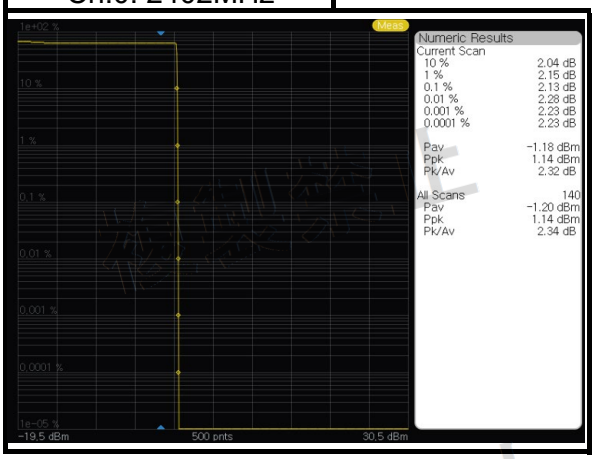
ON/OFF time



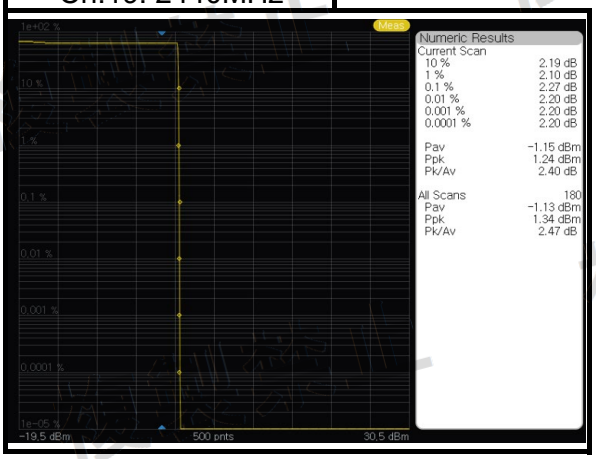
7. Test chart

7.4 RF output power tolerance (PoE +10% voltage)

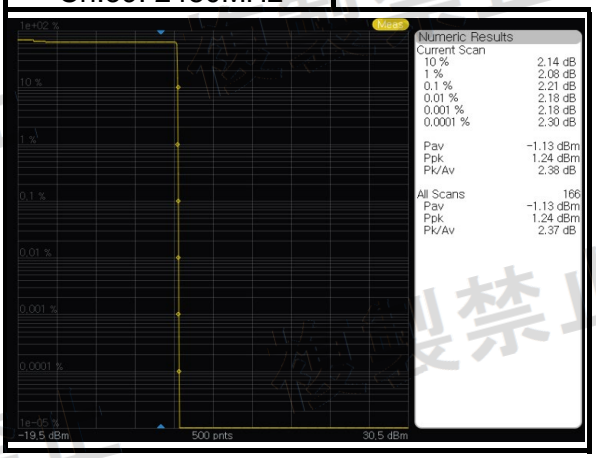
Ch.0: 2402MHz



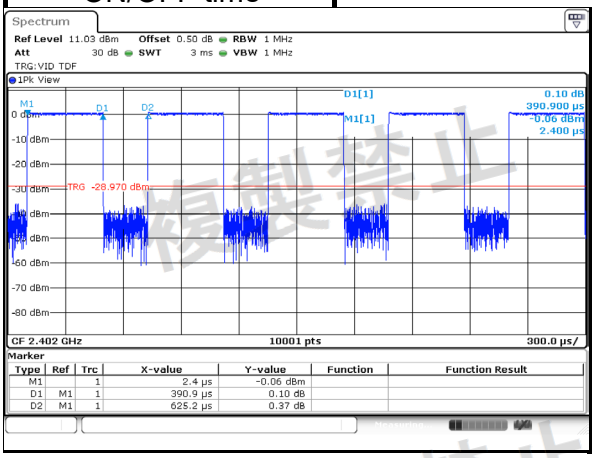
Ch.19: 2440MHz



Ch.39: 2480MHz



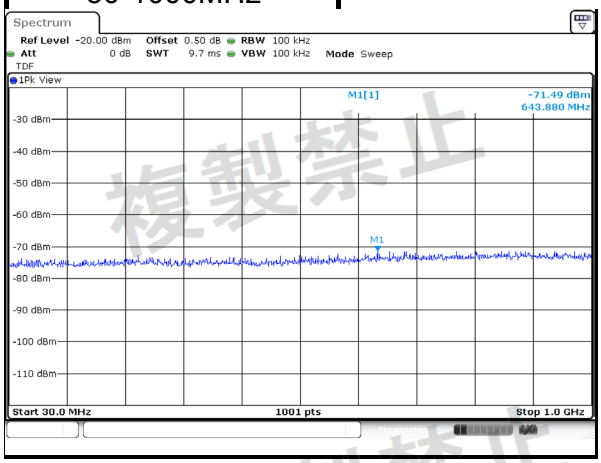
ON/OFF time



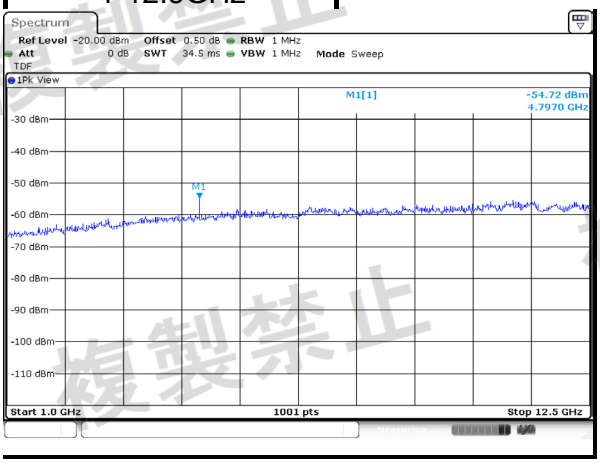
7. Test chart

7.5 Secondary emitted radio wave strength (DC 12.0V Rated voltage)

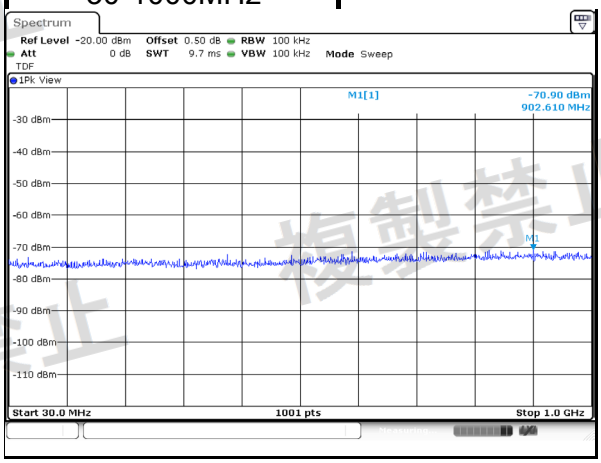
Ch.0: 2402MHz
30-1000MHz



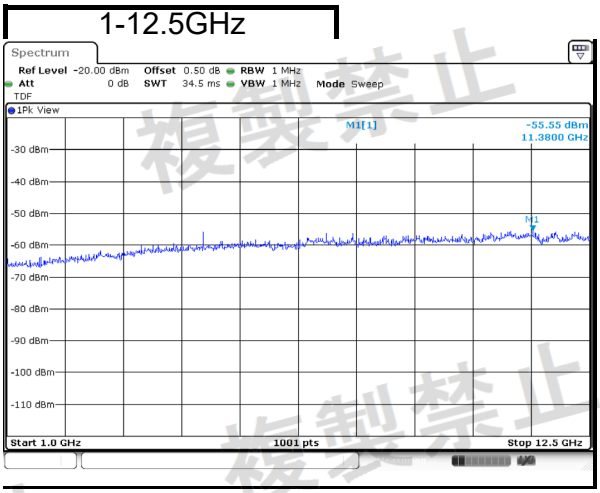
1-12.5GHz



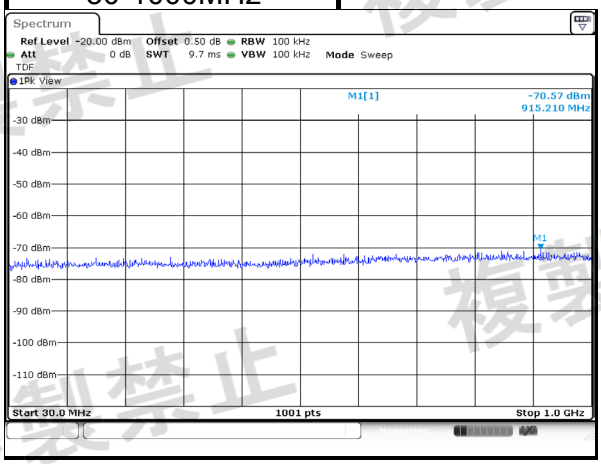
Ch.19: 2440MHz
30-1000MHz



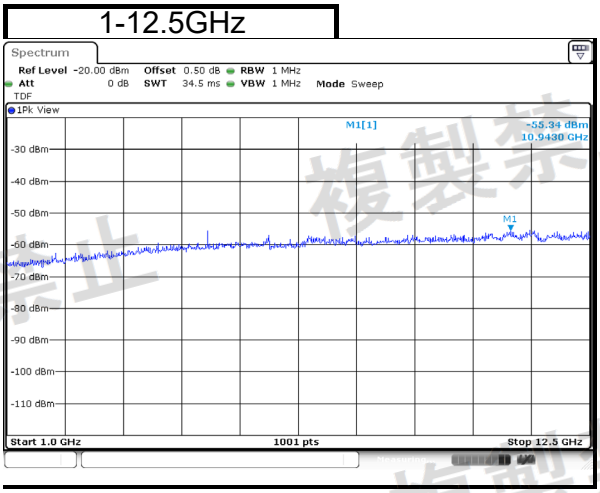
1-12.5GHz



Ch.39: 2480MHz
30-1000MHz



1-12.5GHz

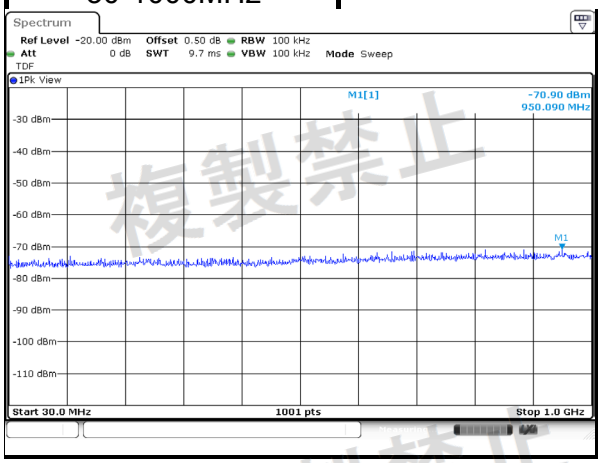


7. Test chart

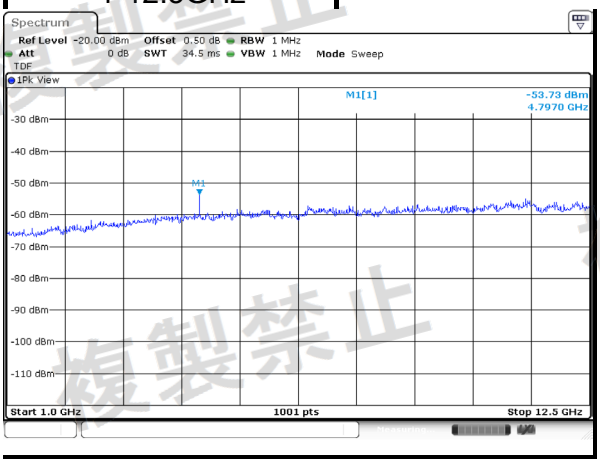
7.5 Secondary emitted radio wave strength (PoE Rated voltage)

Ch.0: 2402MHz

30-1000MHz

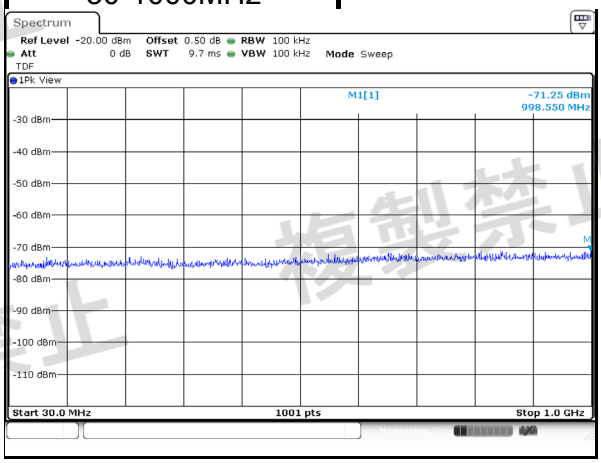


1-12.5GHz

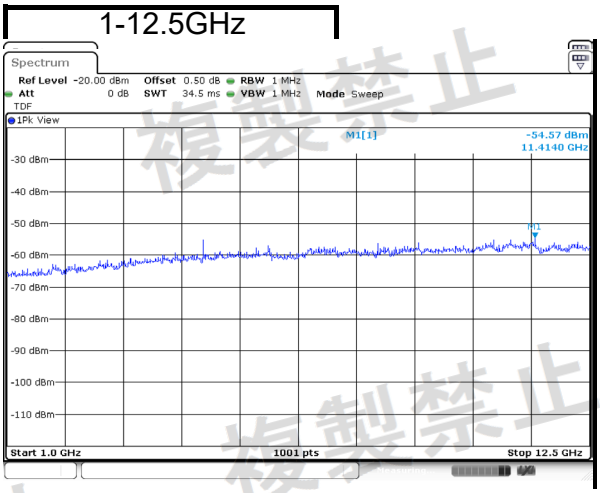


Ch.19: 2440MHz

30-1000MHz

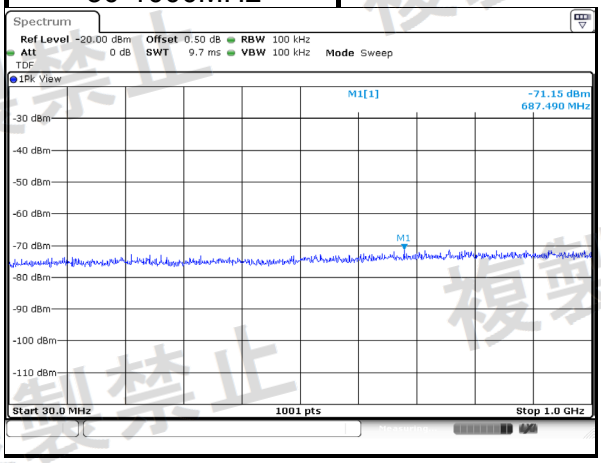


1-12.5GHz

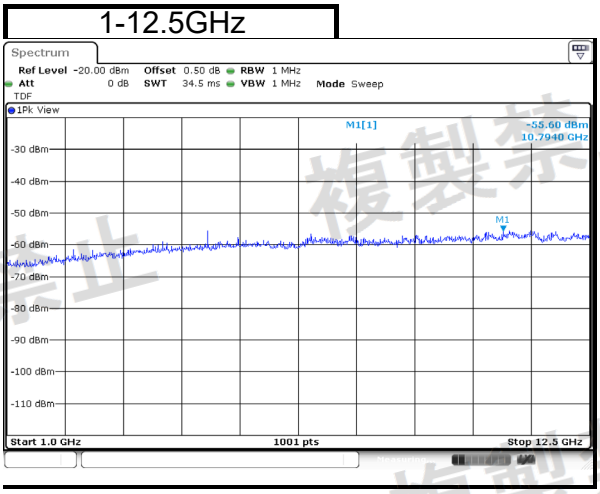


Ch.39: 2480MHz

30-1000MHz



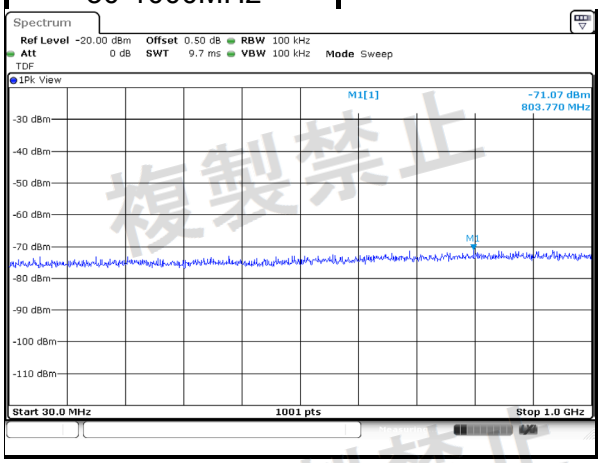
1-12.5GHz



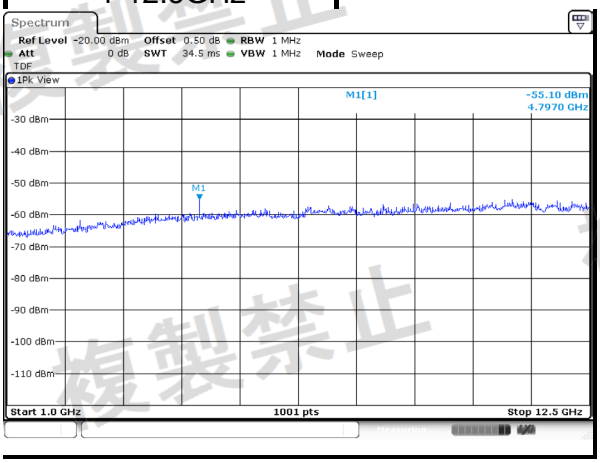
7. Test chart

7.5 Secondary emitted radio wave strength (DC 12.0V -10% voltage)

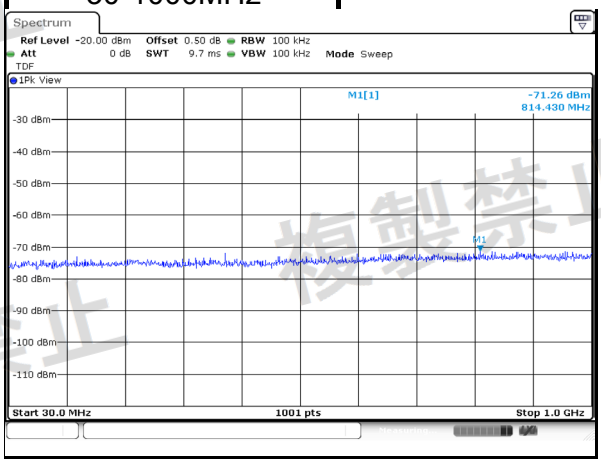
Ch.0: 2402MHz
30-1000MHz



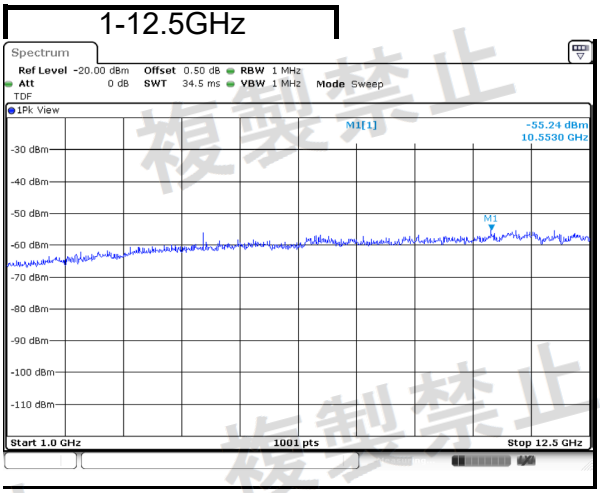
1-12.5GHz



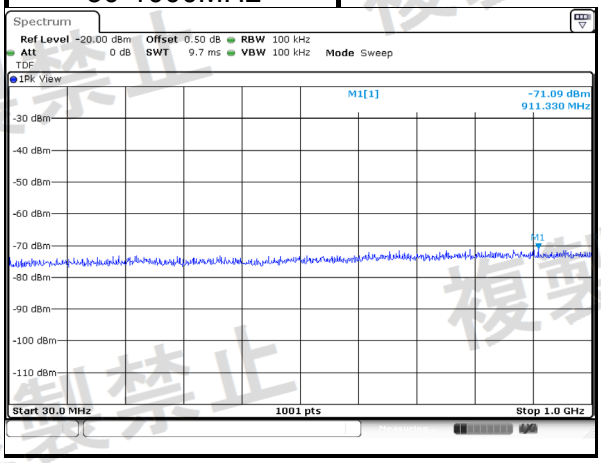
Ch.19: 2440MHz
30-1000MHz



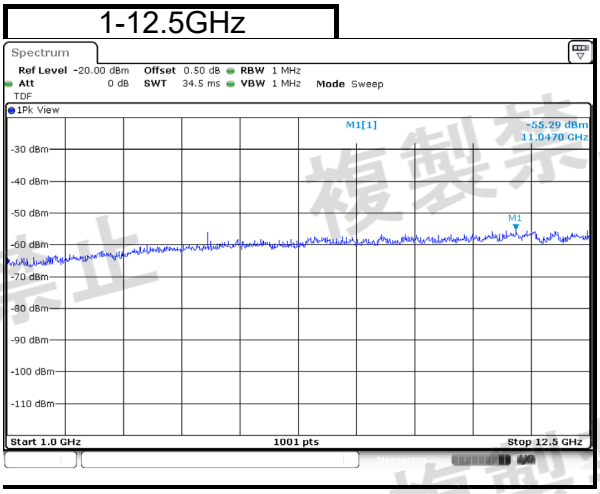
1-12.5GHz



Ch.39: 2480MHz
30-1000MHz



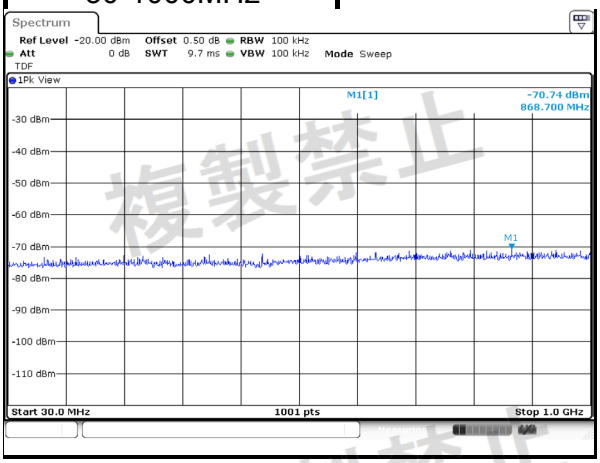
1-12.5GHz



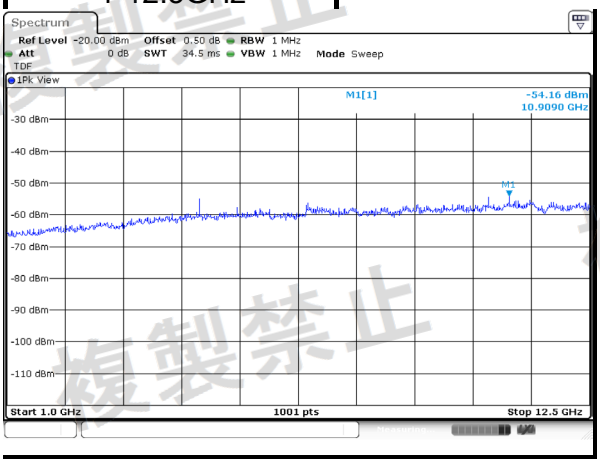
7. Test chart

7.5 Secondary emitted radio wave strength (PoE -10% voltage)

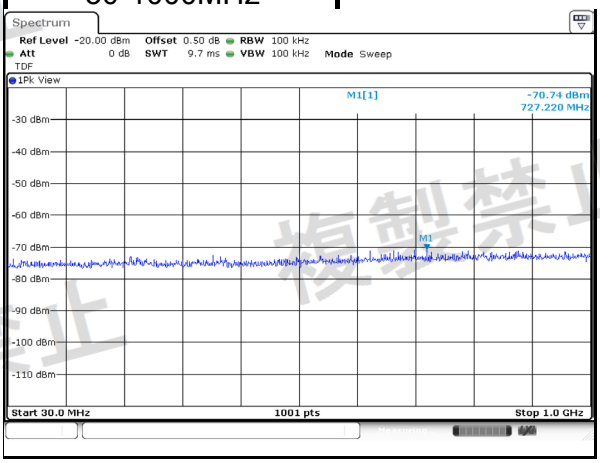
Ch.0: 2402MHz
30-1000MHz



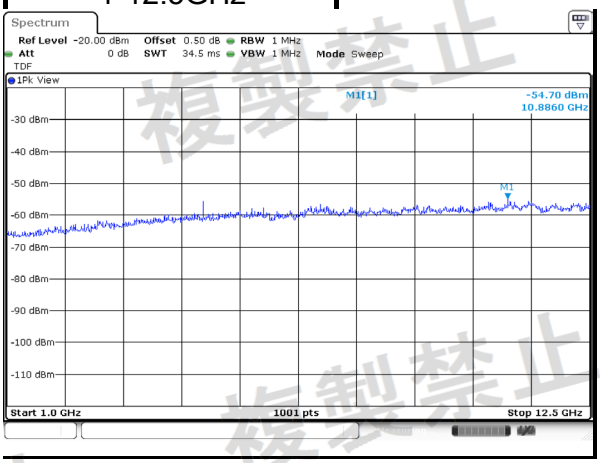
1-12.5GHz



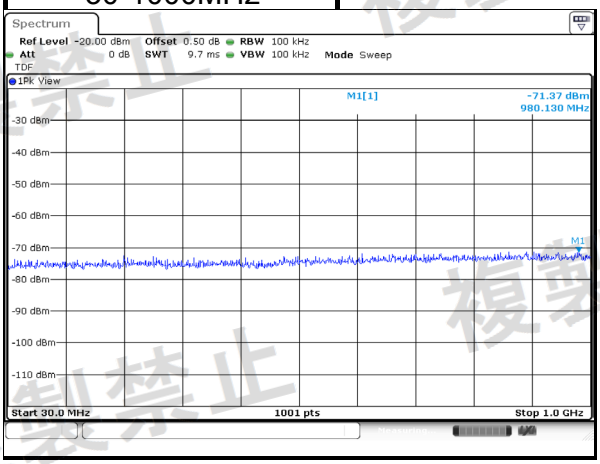
Ch.19: 2440MHz
30-1000MHz



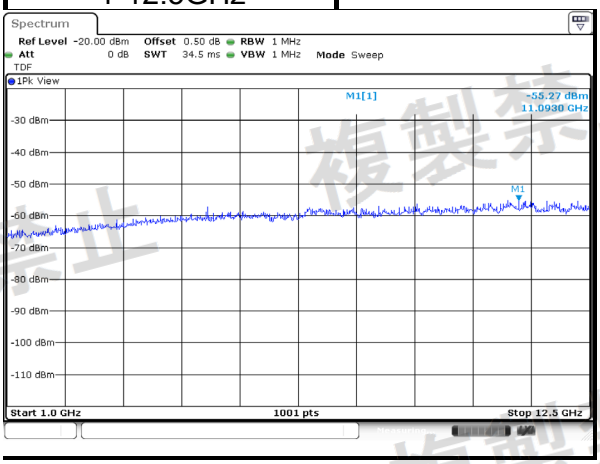
1-12.5GHz



Ch.39: 2480MHz
30-1000MHz



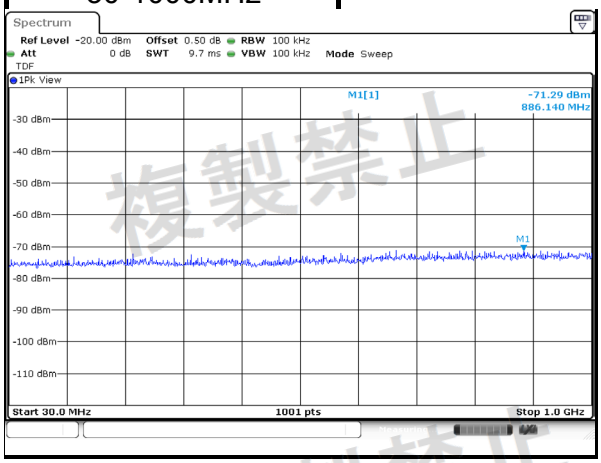
1-12.5GHz



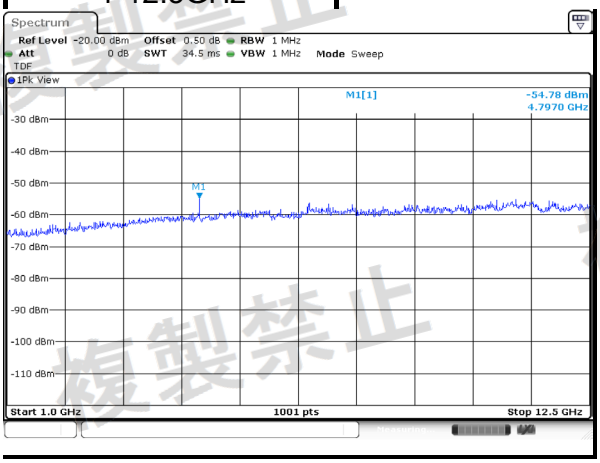
7. Test chart

7.5 Secondary emitted radio wave strength (DC 12.0V +10% voltage)

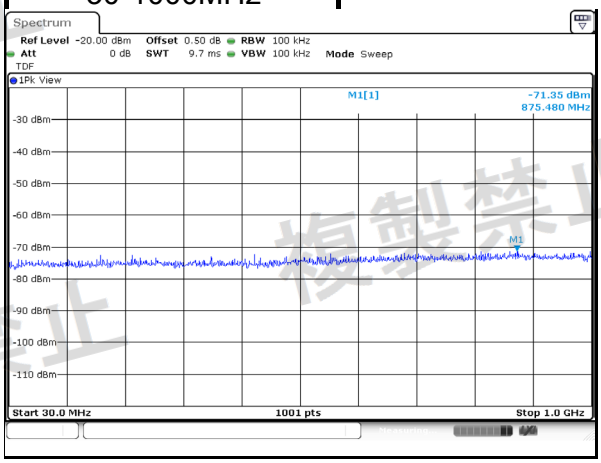
Ch.0: 2402MHz
30-1000MHz



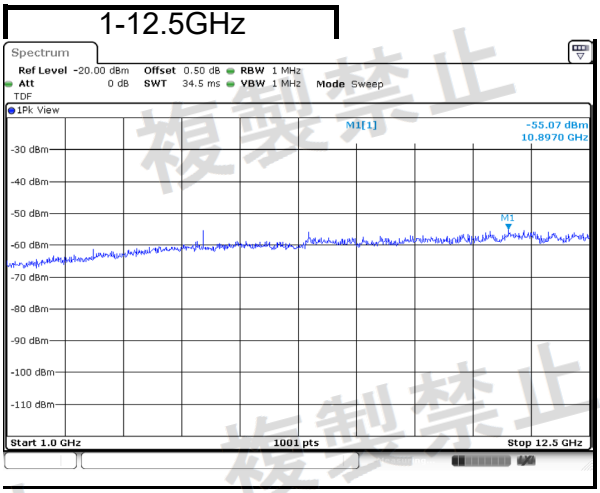
1-12.5GHz



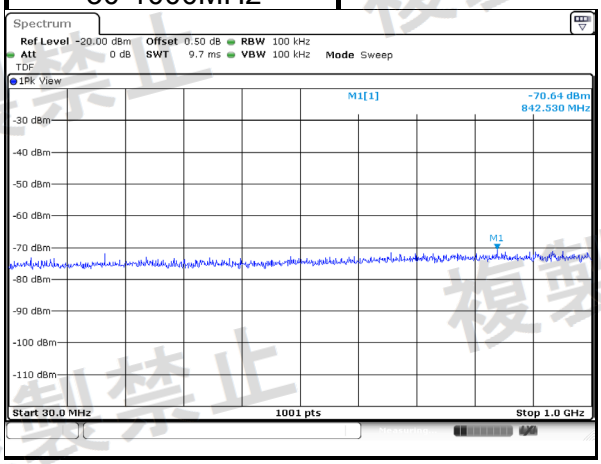
Ch.19: 2440MHz
30-1000MHz



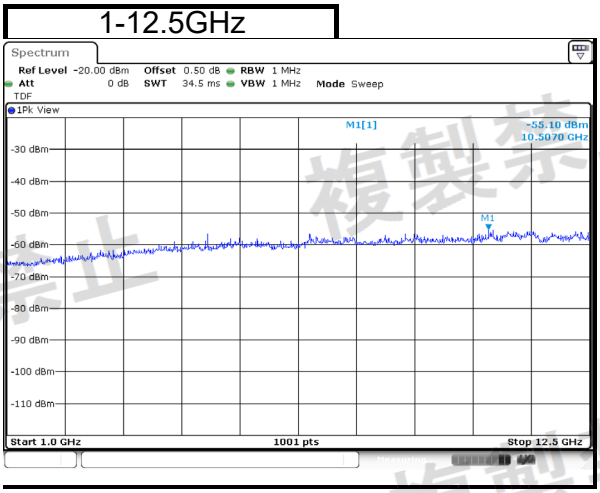
1-12.5GHz



Ch.39: 2480MHz
30-1000MHz



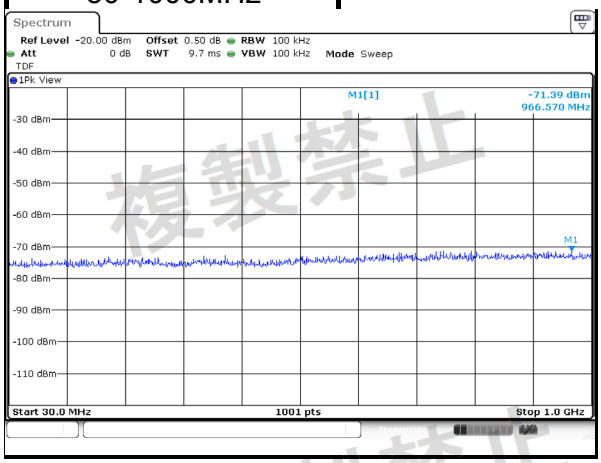
1-12.5GHz



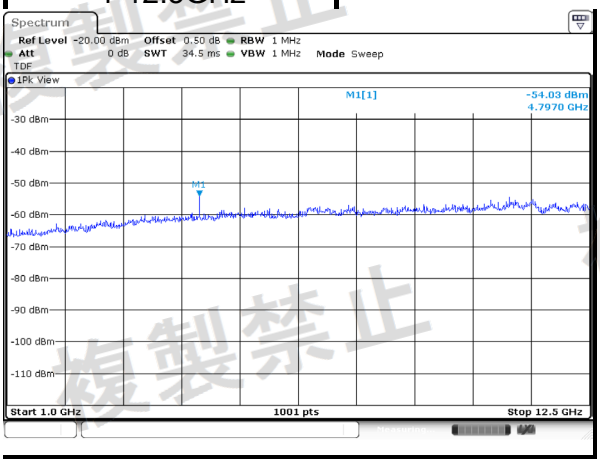
7. Test chart

7.5 Secondary emitted radio wave strength (PoE +10% voltage)

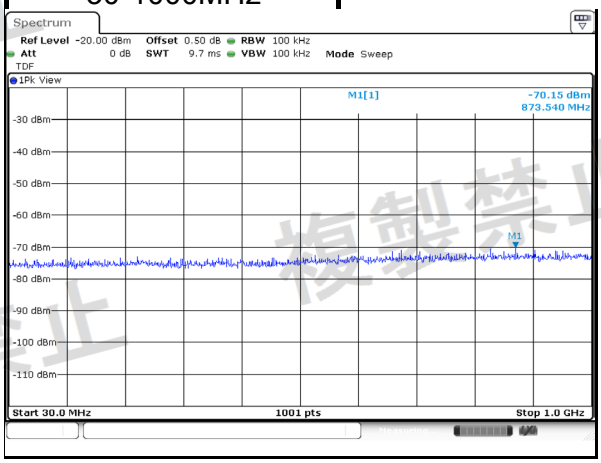
Ch.0: 2402MHz
30-1000MHz



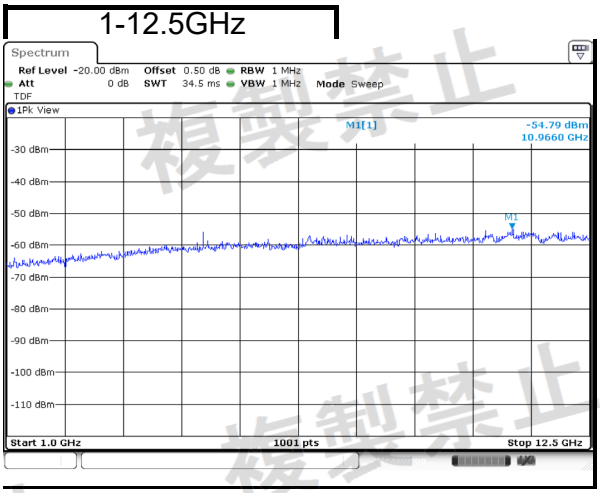
1-12.5GHz



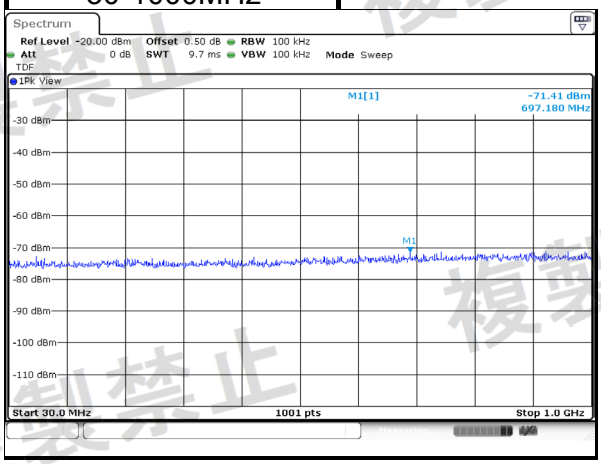
Ch.19: 2440MHz
30-1000MHz



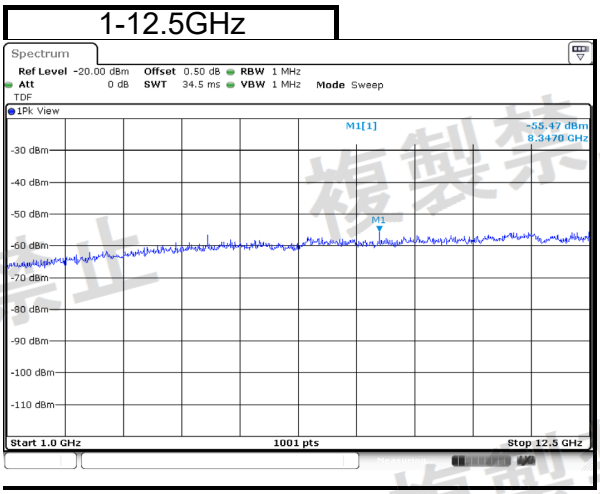
1-12.5GHz



Ch.39: 2480MHz
30-1000MHz



1-12.5GHz



8. Laboratory description

1. Location
Name: KCTL Inc.
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 No.: 8035A-2

4) KOLAS
Registration No.: KT231

複製禁止