

**47 CFR PART 15 SUBPART C TEST REPORT**

**for**

**Gaming Mouse**

**Model No.: M-VM610**

**FCC ID: YWO-M-VM610**

**of**

**Applicant: ELECOM CO., LTD.**

**Address: Fushimimachi 4-1-1, Chuo-ku, Osaka City, Osaka Japan 541-8765**

**Tested and Prepared**

**by**

**Worldwide Testing Services (Taiwan) Co., Ltd.**

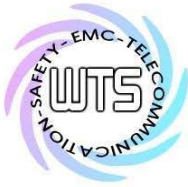
**FCC Registration No.: TW1477, TW1072**

**Industry Canada filed test laboratory Reg. No.: 20037, 5107A**



**Report No.: W6M22307-22829-C-1**

6F, NO. 58, LANE 188, RUEY-KUANG RD., NEIHU TAIPEI 114, TAIWAN, R.O.C.  
TEL: 886-2-66068877      FAX: 886-2-66068879      E-mail: [wts@wts-lab.com](mailto:wts@wts-lab.com)



Registration number: W6M22307-22829-C-1  
FCC ID: YWO-M-VM610

**TABLE OF CONTENTS**

**1 GENERAL INFORMATION.....2**

1.1 NOTES .....2

1.2 TESTING LABORATORY .....3

    1.2.1 Location .....3

    1.2.2 Details of accreditation status .....3

1.3 APPLICATION DETAILS .....3

1.4 GENERAL INFORMATION OF TEST ITEM.....4

1.5 DUTY CYCLE AND FACTOR.....4

1.6 TEST STANDARDS .....5

**2 TEST CONFIGURATION.....6**

2.1 TEST ENVIRONMENT .....6

2.2 MEASUREMENT UNCERTAINTY .....6

2.3 TEST EQUIPMENT LIST.....7

**3 TEST RESULTS (ENCLOSURE) .....9**

3.1 PEAK OUTPUT POWER (TRANSMITTER).....10

3.2 SPURIOUS EMISSIONS RADIATED – TRANSMITTER OPERATING .....13

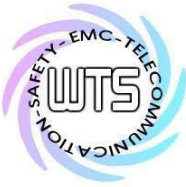
3.3 EMISSIONS IN NONRESTRICTED FREQUENCY BANDS.....15

3.4 MINIMUM 6 DB BANDWIDTH .....17

3.5 PEAK POWER SPECTRAL DENSITY .....20

3.6 POWER LINE CONDUCTED EMISSION .....23

Appendix: Diagrams



# Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M22307-22829-C-1  
FCC ID: YWO-M-VM610

## 1 General Information

### 1.1 Notes

The purpose of conformity testing is to increase the probability of adherence to the essential requirements or conformity specifications, as appropriate.

The complexity of the technical specifications, however, means that full and thorough testing is impractical for both technical and economic reasons.

Furthermore, there is no guarantee that a test sample which has passed all the relevant tests conforms to a specification.

Neither is there any guarantee that such a test sample will interwork with other genuinely open systems. The existence of the tests nevertheless provides the confidence that the test sample possesses the qualities as maintained and that its performance generally conforms to representative cases of communications equipment.

Laboratory disclaimer-

1. The test results of this test report relate exclusively to the item tested as specified in 1.5.
2. The test report may only be reproduced or published in full.
3. Reproduction or publication of extracts from the report requires the prior written approval of the Worldwide Testing Services(Taiwan) Co., Ltd.
4. Antenna gain is provided by applicant and laboratory issue relevant data and results.

### **Tester:**

November 03, 2023

Ken Kang

Date

WTS-Lab.

Name

Signature

### **Technical responsibility for area of testing:**

November 03

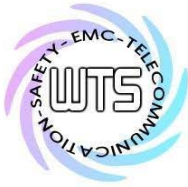
Kevin Wang

Date

WTS

Name

Signature



# **Worldwide Testing Services(Taiwan) Co., Ltd.**

Registration number: W6M22307-22829-C-1

FCC ID: YWO-M-VM610

## **1.2 Testing laboratory**

### **1.2.1 Location**

10m OATS

No.5-1, Lishui, Shuang Sing Village, Wanli Dist.,  
New Taipei City 207, Taiwan (R.O.C.)

3 meter semi-anechoic chamber

No.35, Aly. 21, Ln. 228, Ankang Rd., Neihu Dist.,  
Taipei City 114, Taiwan (R.O.C.)

Tel: 886-2-6613-0228

Worldwide Testing Services (Taiwan) Co., Ltd.

6F., No. 58, Ln. 188, Ruiguang Rd., Neihu Dist.,  
Taipei City 114, Taiwan (R.O.C.)

Tel: 886-2-6606-8877

### **1.2.2 Details of accreditation status**

Accredited testing laboratory

FCC filed test laboratory Reg. No.: TW1477, TW1072

Industry Canada filed test laboratory Reg. No.: 20037, 5107A

**Test location, where different from Worldwide Testing Services (Taiwan) Co., Ltd. :**

Name: ./.

Accredited no.: ./.

Street: ./.

Town: ./.

Country: ./.

## **1.3 Application details**

### **Approval holder**

Name: ELECOM CO., LTD.

Street: Fushimimachi 4-1-1, Chuo-ku,

Town: Osaka City, Osaka

Country: Japan 541-8765

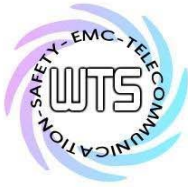
### **Manufacturer: (if applicable)**

Name: ./.

Street: ./.

Town: ./.

Country: ./.



Registration number: W6M22307-22829-C-1  
FCC ID: YWO-M-VM610

Date of receipt of test item: July 14, 2023  
Date of test: from July 17, 2023 to October 31, 2023

## 1.4 General information of Test item

Type of test item: Gaming Mouse  
Model no.: M-VM610  
Multi-listing model no.: ./.  
Brand name: ELECOM  
Power supply: USB 5Vd.c. / Battery 3.7Vd.c., 220mAh, 0.81Wh  
Type of antenna: PCB antenna  
Antenna gain: 3.03 dBi

### Technical data

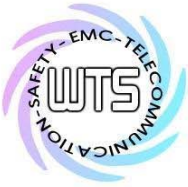
Mode	Channel	Conducted Power (dBm)
2.4G	Ch 0 : 2402 MHz	-3.15
	Ch 19 : 2440 MHz	-3.11
	Ch 39 : 2480 MHz	-3.15

Operation modes: Duplex  
Modulation type: GFSK  
Sample no.: #01  
Special statement: ./.

## 1.5 Duty cycle and factor

The duty factor is computed as  $[10 \log (1 / D)]$ , where D is the duty cycle.

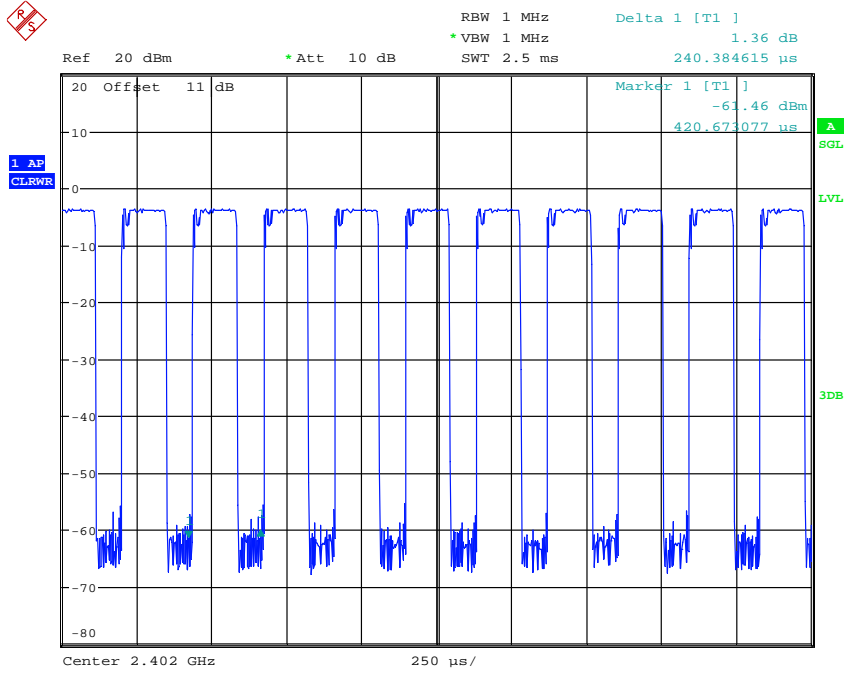
Mode	Ton (ms)	Ton+Toff (ms)	Duty cycle (%)	1/T - VBW (kHz)
2.4G	0.17228	0.24038	71.67%	5.80



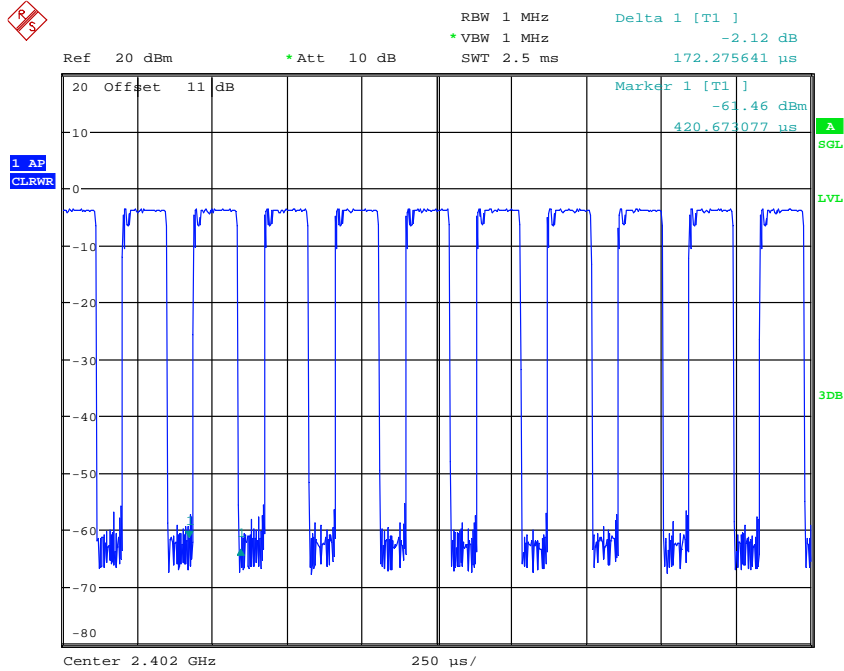
Registration number: W6M22307-22829-C-1

FCC ID: YWO-M-VM610

Duty cycle



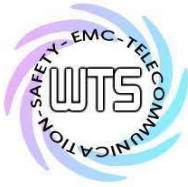
Date: 27.JUL.2023 10:44:59



Date: 27.JUL.2023 10:48:59

## 1.6 Test standards

47 CFR PART 15 SUBPART C § 15.247 (2021-10)



Registration number: W6M22307-22829-C-1

FCC ID: YWO-M-VM610

**2 Test configuration**

**2.1 Test environment**

Relative humidity content: 20 ... 75 %

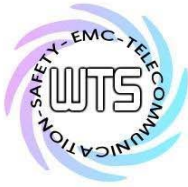
Air pressure: 86 ... 103 kPa

Extreme conditions parameters: ./.

**2.2 Measurement uncertainty**

Test item Name	Uncertainty
Estimation Result of Uncertainty of Conducted Emission (Power Line Conducted Emission)	Expanded Uncertainty : AMN : 0.94 dB Voltage probe : 0.96 dB Include Pulse Limiter : 1.52 dB
Estimation Result of Uncertainty of Radiated Emission(3M) (Spurious Emissions radiated – Transmitter operating)	Expanded Uncertainty : 0.009-30 MHz : 1.92 dB 30-1000 MHz : 3.96 dB 1-18 GHz : 2.46 dB 18-40 GHz : 2.44 dB
Estimation Result of Uncertainty of Bandwidth Measurement (Minimum 6 dB Bandwidth)	Expanded Uncertainty : 0.45 kHz
Estimation Result of Uncertainty of Conducted Output Power Measurement (Peak Output Power (transmitter))	Expanded Uncertainty : 1.48 dB
Estimation Result of Uncertainty of Power Density Measurement (Peak Power Spectral Density)	Expanded Uncertainty : 1.48 dB
Estimation Result of Uncertainty of Band Edge Measurement (Emissions in nonrestricted frequency bands)	Expanded Uncertainty : 0.67 dBc

The decision rule is: Measurement uncertainty is not included in the calculation of test results.



# Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M22307-22829-C-1

FCC ID: YWO-M-VM610

## 2.3 Test Equipment List

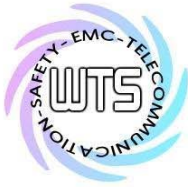
### RF Conducted

No.	Test equipment	Type	Serial No.	Manufacturer	Cal. Date	Next Cal. Date
ETSTW-CE 009	TEMP.&HUMIDITY CHAMBER	GTH-225-40-1P-U	MAA0305-009	GIANT FORCE	2023/7/24	2024/7/23
ETSTW-RE 050	Attenuator 10dB	50HF-010-1	None	JFW	2023/2/17	2024/2/16
ETSTW-RE 051	Attenuator 6dB	50HF-006-1	None	JFW	2023/2/17	2024/2/16
ETSTW-RE 053	Attenuator 3dB	50HF-003-1	None	JFW	2023/2/17	2024/2/16
ETSTW-RE 055	SPECTRUM ANALYZER	FSU 26	200074	R&S	2023/3/22	2024/3/21
ETSTW-RE 060	Attenuator 30dB	5015-30	F651012z-01	ATM	2023/2/17	2024/2/16
ETSTW-RE 099	DC Block	50DB-007-1	None	JFW	2023/2/17	2024/2/16
ETSTW-RE 112	AC POWER SOURCE	TFC-1005	T-0A023536	T-Power	Function test	
ETSTW-RE 127	RF Switch Box	RFS-01	None	WTS	2023/2/17	2024/2/16
ETSTW-RE 153	Signal Analyzer	FSV40	101929	R&S	2023/9/20	2024/9/19
ETSTW-GSM 023	Power Divider	4901.19.A	None	SUHNER	2023/8/28	2024/8/27
ETSTW-Cable 027	Microwave Cable	SUCOFLEX 104	279083	HUBER+SUHNER	2023/4/27	2024/4/26
ETSTW-Cable 030	Microwave Cable	SUCOFLEX 104 (S_Cable 9)	279067	HUBER+SUHNER	2023/02/17	2024/2/16
ETSTW-Cable 045	Microwave Cable	SUCOFLEX 104	325536	HUBER+SUHNER	2023/10/20	2024/10/19
ETSTW-Cable 058	Microwave Cable	SUCOFLEX 104	none	HUBER+SUHNER	2023/5/26	2024/5/25
WTSTW-SW 008	Signal studio	Agilent	None	AUDIX	Version 2.0.0.1	

### Radiated Emission

No.	Test equipment	Type	Serial No.	Manufacturer	Cal. Date	Next Cal. Date
ETSTW-RE 004	EMI TEST RECEIVER	ESI 40	832427/004	R&S	2023/9/28	2024/9/27
ETSTW-RE 018	MICROWAVE HORN ANTENNA	AT4560	27212	AR	2023/7/21	2024/7/20
ETSTW-RE 019	MICROWAVE HORN ANTENNA	22240-25	121074	FM	2023/6/9	2024/6/8
ETSTW-RE 027	Passive Loop Antenna	6512	00034563	ETS-Lindgren	2023/6/28	2024/6/27
ETSTW-RE 030	Double-Ridged Guide Horn Antenna	3117	00035224	ETS-Lindgren	2023/5/5	2024/5/4
ETSTW-RE 062	Amplifier Module	CHC 2	None	KMIC	2023/2/20	2024/2/19
ETSTW-RE 088	SOLID STATE AMPLIFIER	KMA180265A01	99057	KMIC	2023/9/15	2024/9/14
ETSTW-RE 115	2.4GHz Notch Filter	N0124411	473874	MICROWAVE CIRCUITS	2023/1/4	2024/1/3
ETSTW-RE 142	Amplifier	8447D	2805A03378	Agilent	2023/2/20	2024/2/19
ETSTW-RE 152	Bi-log Hybrid Antenna	MCTD 2786B	BLB20J04029	ETC	2023/3/21	2024/3/20
ETSTW-Cable 028	Microwave Cable	FA147A0015M2020	30064-2	UTIFLEX	2023/9/15	2024/9/14
ETSTW-Cable 029	Microwave Cable	FA147A0015M2020	30064-3	UTIFLEX	2023/9/15	2024/9/14
ETSTW-Cable 076	SMA type cable (1m)	N/A	812652/4	HUBER+SUHNER	2023/2/20	2024/2/19
ETSTW-Cable 064	Microwave Cable	SUCOFLEX 104	MY28891	HUBER+SUHNER	2023/2/20	2024/2/19
ETSTW-Cable 071	N TYPE CABLE	EMCCFD400-NM-NM-25000	170239	EMCI	2023/10/23	2024/10/22





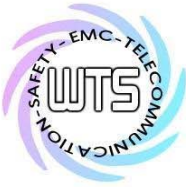
# Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M22307-22829-C-1  
 FCC ID: YWO-M-VM610

ETSTW-Cable 072	SMA type cable (8m)	SUCOFLEX 104	805800/4	HUBER+SUHNER	2023/2/20	2024/2/19
ETSTW-Cable 074	SMA type cable (2m)	SUCOFLEX 104	802563/4	HUBER+SUHNER	2023/2/20	2024/2/19
WTSTW-SW 002	EMI TEST SOFTWARE	EZ EMC	None	Farad	Version ETS-03A1 Version EMEC-3A1+	
ETSTW-TH 002	Thermohygrometer	608-H1	45204317	Testo	2023/7/21	2024/7/20
ETSTW-TH 003	Wireless weather station	GAIA	N/A	TFA	2023/10/23	2024/10/22
ETSTW-RE 064	Bluetooth Test Set	MT8852B-042	6K00005709	Anritsu	Function Test	
ETSTW-RE 069	Double-Ridged Guide Horn Antenna	3117	00069377	ETS-Lindgren	Function Test	

## AC Conducted

No.	Test equipment	Type	Serial No.	Manufacturer	Cal. Date	Next Cal. Date
ETSTW-CE 001	EMI TEST RECEIVER	ESHS10	842121/013	R&S	2023/6/12	2024/6/11
ETSTW-CE 003	AC POWER SOURCE	APS-9102	D161137	GW	Function Test	
ETSTW-CE 016	TWO-LINE V-NETWORK	ENV216	100050	R&S	2023/10/23	2024/10/22
ETSTW-RE 045	ESA-E SERIES SPECTRUM ANALYZER	E4404B	MY45111242	Agilent	Pre-test Use	
ETSTW-Cable 045	Microwave Cable	SUCOFLEX 104	325536	HUBER+SUHNER	2023/10/20	2024/10/19
WTSTW-SW 002	EMI TEST SOFTWARE	EZ EMC	None	Farad	Version ETS-03A1 Version EMEC-3A1+	

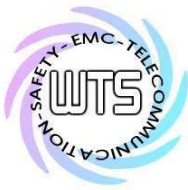


Registration number: W6M22307-22829-C-1  
FCC ID: YWO-M-VM610

**3 Test results (enclosure)**

TEST CASE	Para. Number	Required	Test passed	Test failed
Peak Output Power	15.247(b)(3)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Spurious Emissions radiated – Transmitter operating	15.247(d), 15.205, 15.209	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Emissions in nonrestricted frequency bands	15.247(d)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Minimum 6 dB Bandwidth	15.247(a)(2)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Peak Power Spectral Density	15.247(e)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Power Line Conducted Emission	15.207(a)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The following is intentionally left blank.



Registration number: W6M22307-22829-C-1

FCC ID: YWO-M-VM610

**3.1 Peak Output Power (transmitter)**

**3.1.1 Applicable Standard**

FCC Rule: 15.247(b)(3)

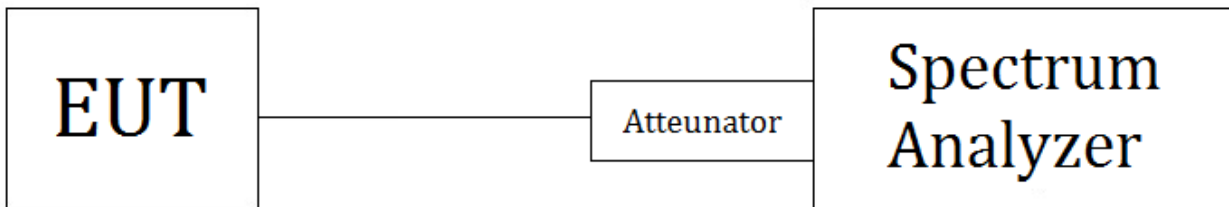
For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt. As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power. Maximum Conducted Output Power is defined as the total transmit power delivered to all antennas and antenna elements averaged across all symbols in the signaling alphabet when the transmitter is operating at its maximum power control level. Power must be summed across all antennas and antenna elements. The average must not include any time intervals during which the transmitter is off or is transmitting at a reduced power level. If multiple modes of operation are possible (e.g., alternative modulation methods), the maximum conducted output power is the highest total transmit power occurring in any mode.

**3.1.2 Test procedure**

Following Subclause 11.9.1.1 of ANSI C63.10

1. Set the RBW  $\geq$  DTS bandwidth , VBW  $\geq$  [3  $\times$  RBW] , span  $\geq$  [3  $\times$  RBW].
2. Sweep time = auto couple , Detector = peak , Trace mode = max hold.
3. Allow trace to fully stabilize and determine the peak amplitude level.

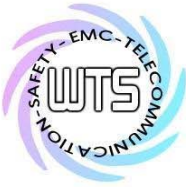
**3.1.3 Test Setup**



**3.1.4 Limits**

Frequency (MHz)	Power (dBm)
902 - 928	30
2400 – 2483.5	30
5725 – 5850	30

In case of employing transmitter antennas having antenna gain > 6 dBi and using fixed point-to point operation consider §15.247 (b)(4)



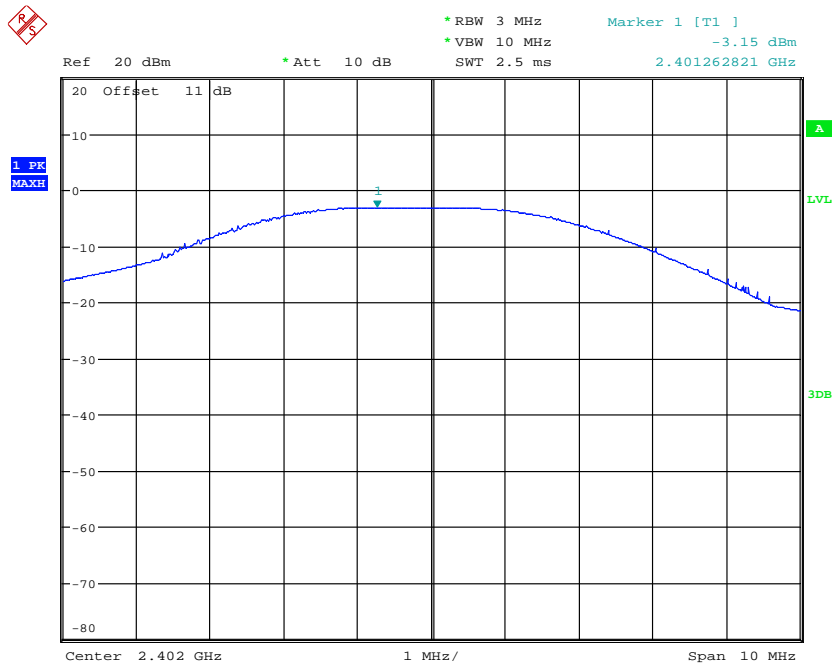
Registration number: W6M22307-22829-C-1  
 FCC ID: YWO-M-VM610

### 3.1.5 Test Environmental Conditions

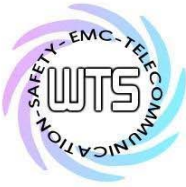
Test date: 2023-07-27 Temperature: 26.1 °C Humidity: 44.0% Tester: Ken

### 3.1.6 Test results

Band	Mode	Channel	Power (dBm)	Limit (dBm)
2.4GHz	2.4G	Ch 0 : 2402 MHz	-3.15	30
		Ch 19 : 2440 MHz	-3.11	30
		Ch 39 : 2480 MHz	-3.15	30

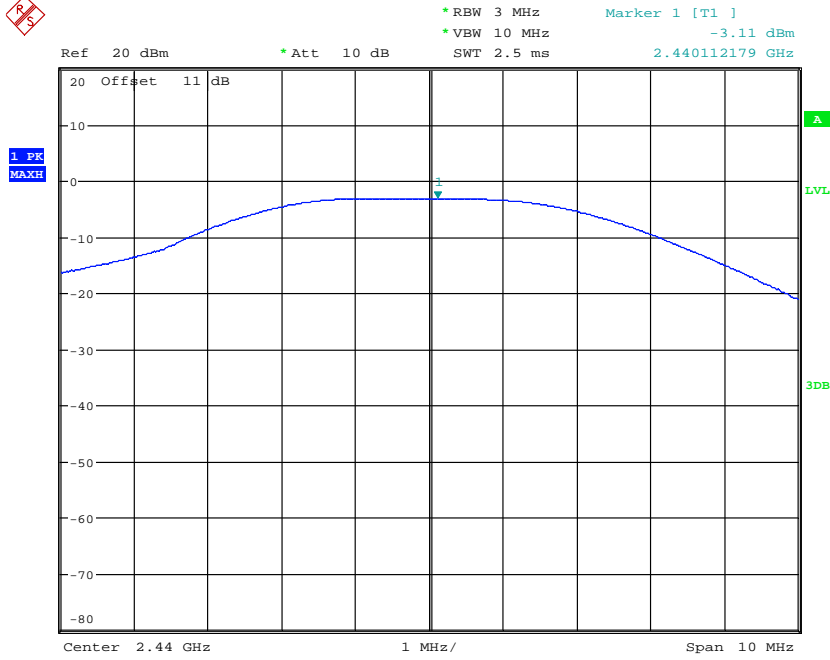


MAX OUTPUT POWER 2402MHZ  
 Date: 27.JUL.2023 10:32:02

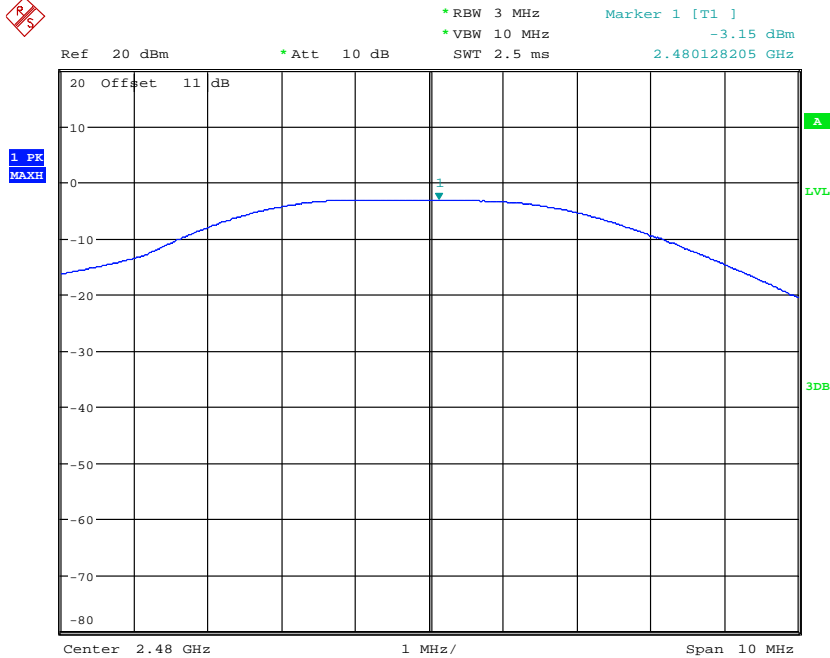


# Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M22307-22829-C-1  
FCC ID: YWO-M-VM610

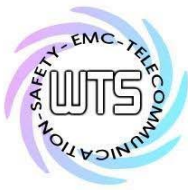


MAX OUTPUT POWER 2440MHZ  
Date: 27.JUL.2023 10:32:42



MAX OUTPUT POWER 2480MHZ  
Date: 27.JUL.2023 10:33:19

Test equipment used: Please see test equipment utilized (RF Conducted).



Registration number: W6M22307-22829-C-1

FCC ID: YWO-M-VM610

## **3.2 Spurious Emissions radiated – Transmitter operating**

### **3.2.1 Applicable Standard**

FCC Rules: 15.247 (d), 15.205, 15.209

Radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a).

### **3.2.2 Test procedure**

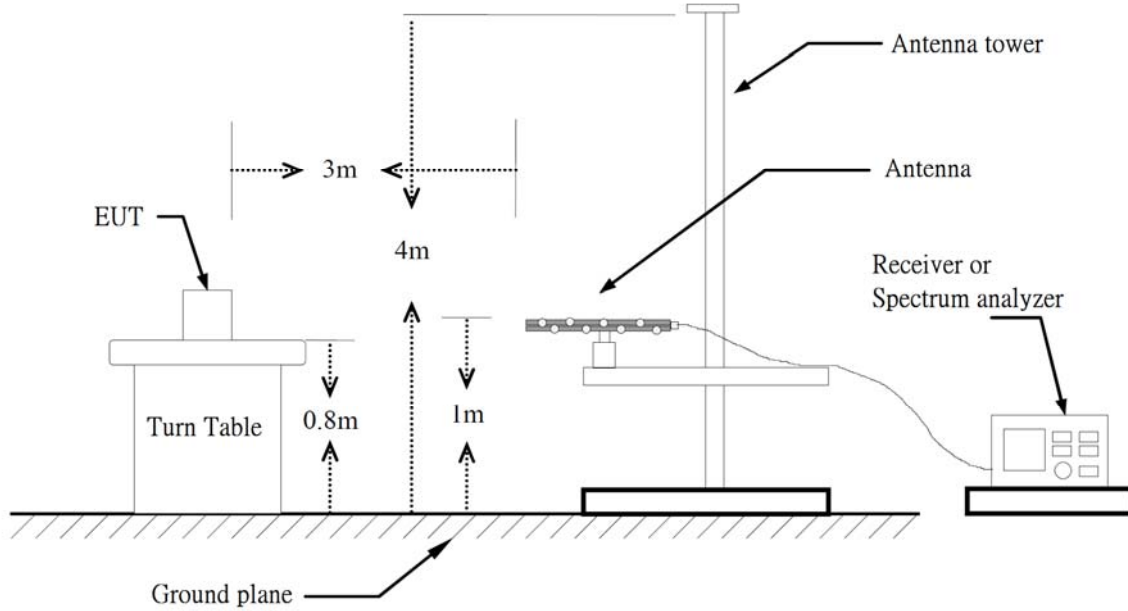
1. Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360°. Below 1GHz measurement the EUT is placed on turntable which is 0.8m above ground plane. And above 1GHz measurement EUT was placed on low permittivity and low tangent turn table which is 1.5m above ground plane.
2. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m height to find out the highest emissions.
3. Receiver or Spectrum analyzer configuration
  - (a)120kHz measurement bandwidth of test receiver and Quasi-peak detector is for radiated emission below 1GHz.
  - (b)RBW=1MHz, VBW=3MHz and Peak detector is for peak measured value of radiated emission above 1GHz.
  - (c)RBW=1MHz, VBW=10Hz(1/T) and Peak detector is for average measured value of radiated emission above 1GHz.

### **3.2.3 Limits**

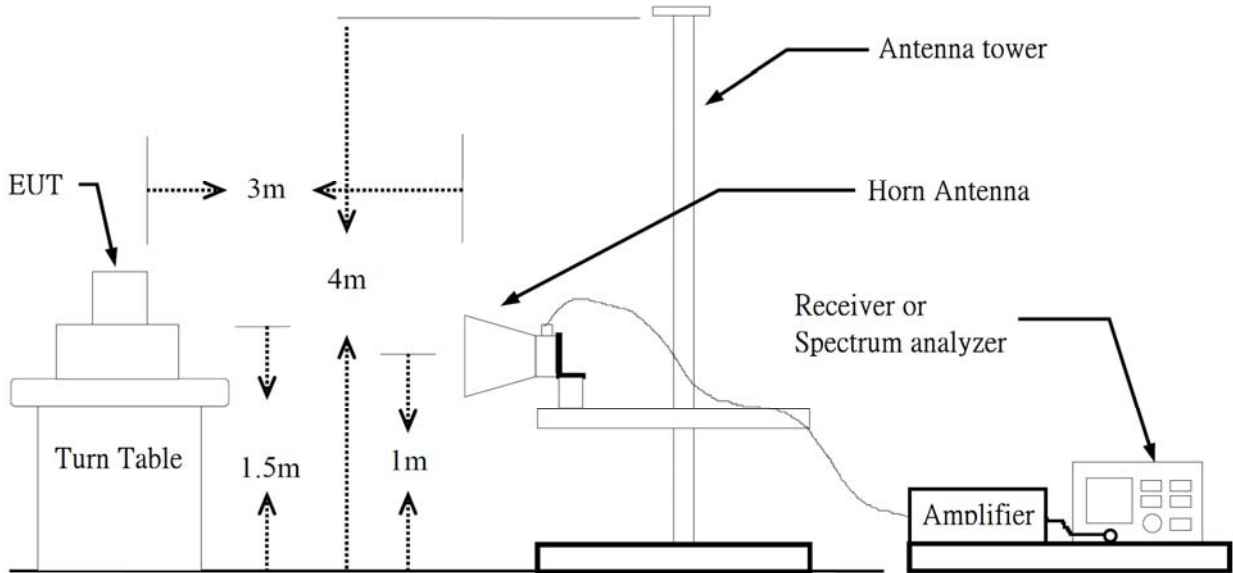
Frequency (MHz)	Field strength (uV/m)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

Registration number: W6M22307-22829-C-1  
 FCC ID: YWO-M-VM610

**3.2.4 Test Setup**



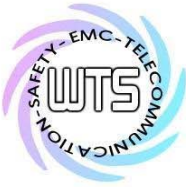
**Below 1 GHz**



**Above 1 GHz**

**3.2.5 Test results (With Environmental Conditions)**

Explanation: See attached diagrams in Appendix.



Registration number: W6M22307-22829-C-1  
FCC ID: YWO-M-VM610

### **3.3 Emissions in nonrestricted frequency bands**

#### **3.3.1 Applicable Standard**

FCC Rules: 15.247(d)

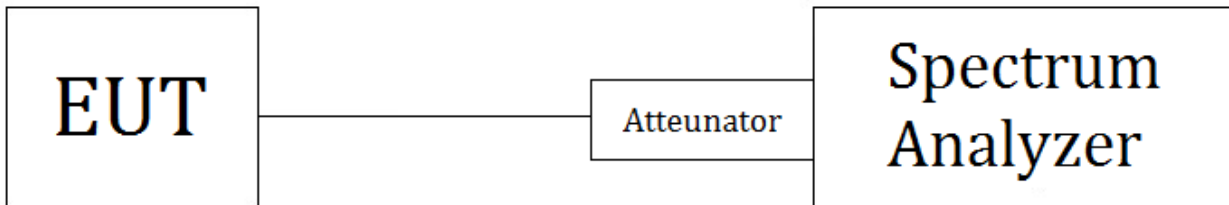
In any 100 kHz bandwidth outside the frequency band in which the intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in § 15.209(a) is not required.

In addition radiated emission which fall in the restricted bands, as defined in section 15.205(a), must also with the radiated emission limits.

#### **3.3.2 Test procedure**

1. Set RBW = 100 kHz , VBW  $\geq [3 \times \text{RBW}]$
2. Set Detector = peak , Sweep time = auto , Trace mode = max hold, and allow sweep to continue until the trace stabilizes
3. Measure the highest amplitude appearing on spectral display and set it as a reference level. Plot the graph with marking the highest point and edge frequency.

#### **3.3.3 Test setup**



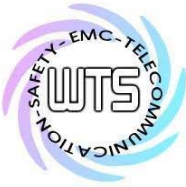
#### **3.3.4 Limits**

See 3.3.1

#### **3.3.5 Test Environmental Conditions**

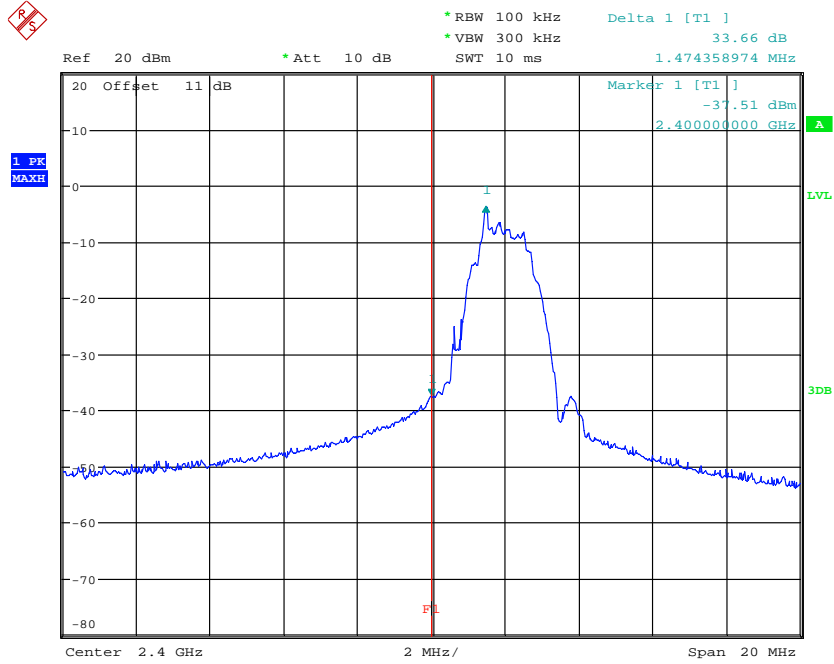
Test date: 2023-07-27 Temperature: 26.1 °C Humidity: 44.0% Tester: Ken



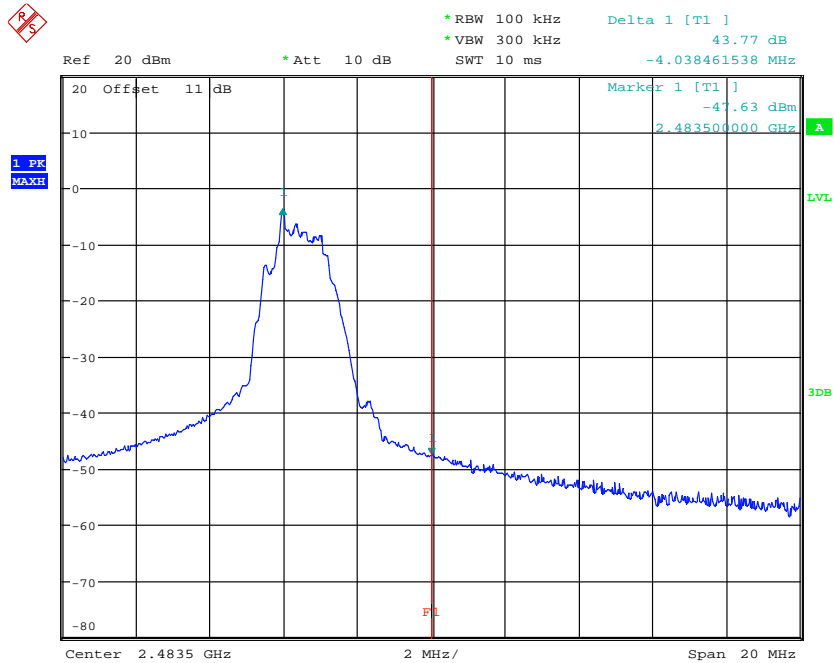


Registration number: W6M22307-22829-C-1  
FCC ID: YWO-M-VM610

### 3.3.6 Test results

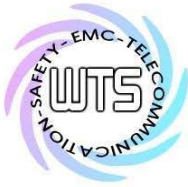


BANDEDGE 2402MHZ  
Date: 27.JUL.2023 10:38:04



BANDEDGE 2480MHZ  
Date: 27.JUL.2023 10:39:07

Test equipment used: Please see test equipment utilized (RF Conducted).



Registration number: W6M22307-22829-C-1  
FCC ID: YWO-M-VM610

### **3.4 Minimum 6 dB Bandwidth**

#### **3.4.1 Applicable Standard**

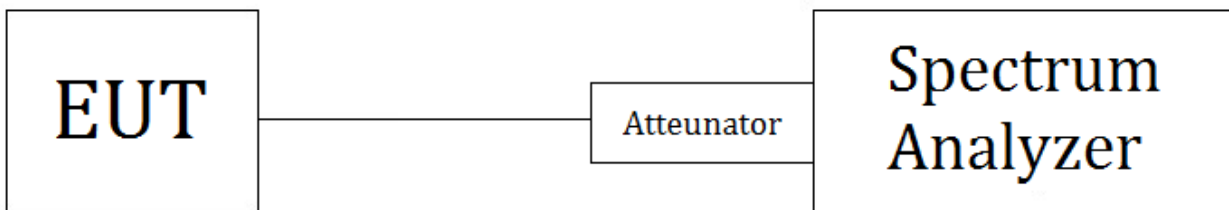
FCC Rules: 15.247(a)(2)

Systems using digital modulation techniques may operate in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

#### **3.4.2 Test procedure**

1. Set RBW = 100 kHz , Set the VBW  $\geq [3 \times \text{RBW}]$ .
2. Set Detector = peak , Trace mode = max hold , Sweep = auto couple and allow the trace to stabilize.
3. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

#### **3.4.3 Test setup**

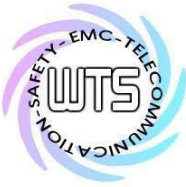


#### **3.4.4 Limits**

Frequency Range (MHz)	Limits (kHz)
902-928	$\geq 500$
2400-2483.5	
5725-5850	

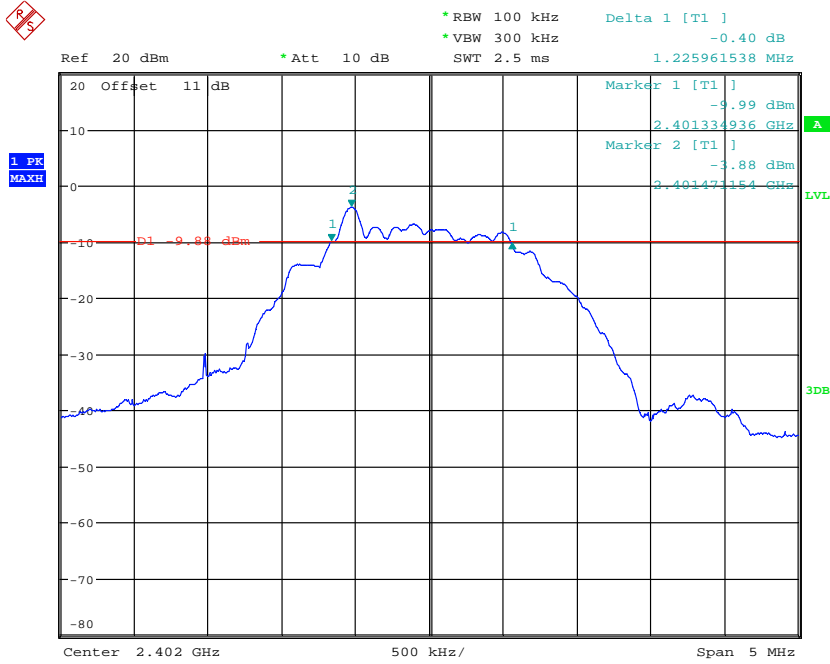
#### **3.4.5 Test Environmental Conditions**

Test date: 2023-07-27 Temperature: 26.1 °C Humidity: 44.0% Tester: Ken

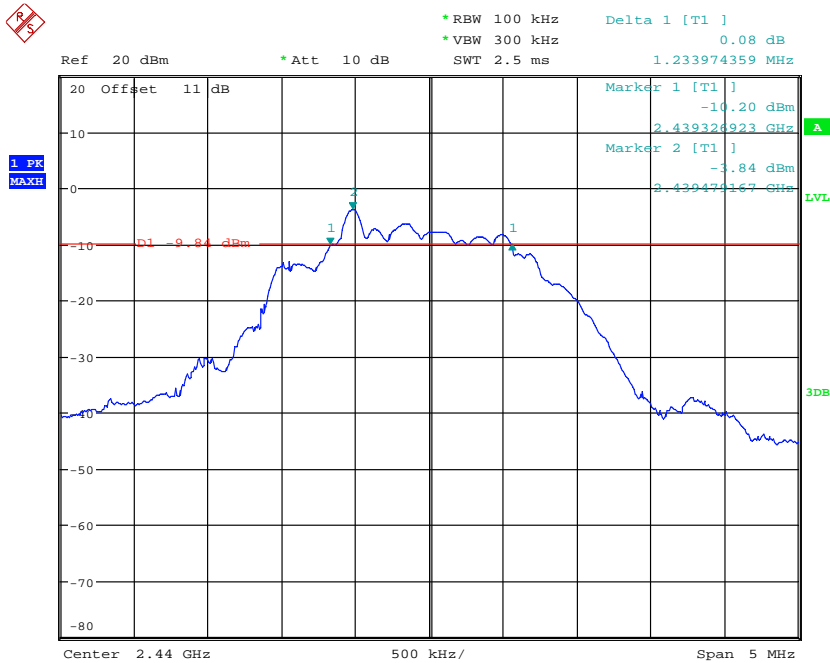


Registration number: W6M22307-22829-C-1  
 FCC ID: YWO-M-VM610

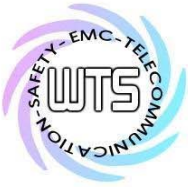
### 3.4.6 Test results



6DB BANDWIDTH 2402MHZ  
 Date: 27.JUL.2023 10:43:50

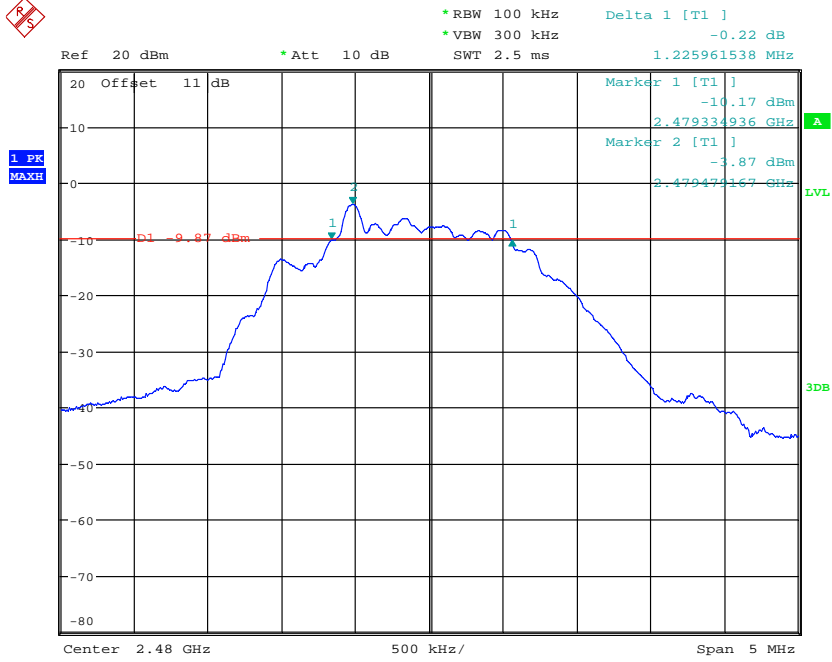


6DB BANDWIDTH 2440MHZ  
 Date: 27.JUL.2023 10:42:39



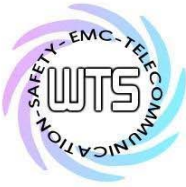
# Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M22307-22829-C-1  
FCC ID: YWO-M-VM610



6DB BANDWIDTH 2480MHZ  
Date: 27.JUL.2023 10:41:24

Test equipment used: Please see test equipment utilized (RF Conducted).



Registration number: W6M22307-22829-C-1  
FCC ID: YWO-M-VM610

### **3.5 Peak Power Spectral Density**

#### **3.5.1 Applicable Standard**

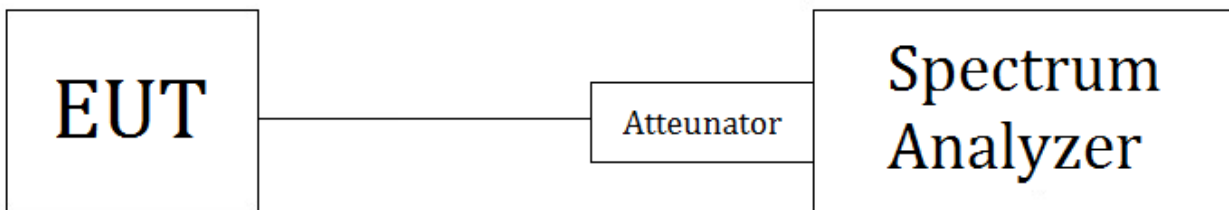
FCC Rules: 15.247(e)

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of paragraph (b) of this section. The same method of determining the conducted output power shall be used to determine the power spectral density.

#### **3.5.2 Test procedure**

1. Set the RBW to  $3\text{ kHz} \leq \text{RBW} \leq 100\text{ kHz}$  , the VBW  $\geq [3 \times \text{RBW}]$ .
2. Set Detector = peak , Sweep time = auto couple , Trace mode = max hold and allow trace to fully stabilize
3. Use the peak marker function to determine the maximum amplitude level within the RBW.

#### **3.5.3 Test setup**

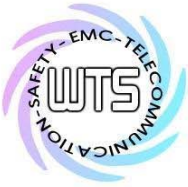


#### **3.5.4 Limits**

Frequency Range (MHz)	Limits (dBm/3KHz)
902-928	8
2400-2483.5	
5725-5850	

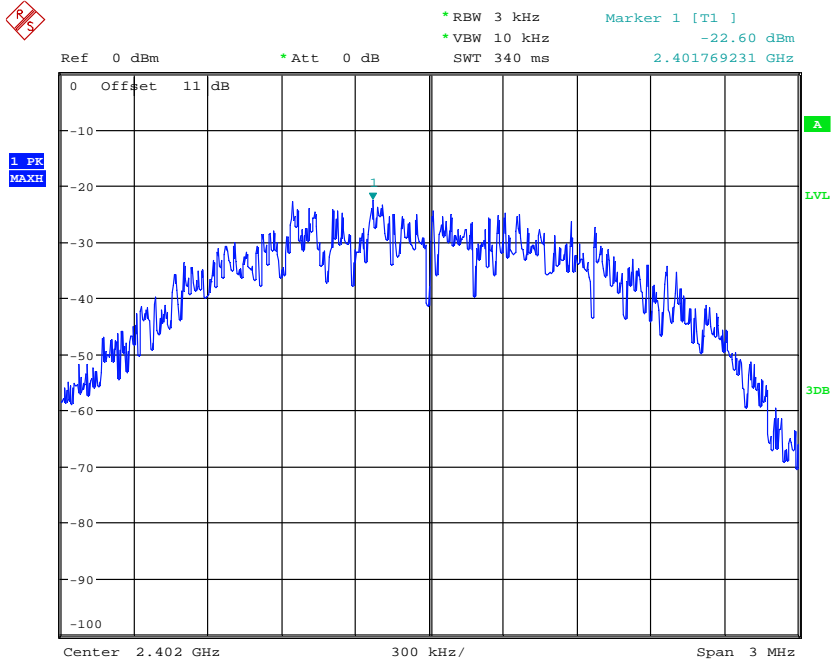
#### **3.5.5 Test Environmental Conditions**

Test date: 2023-07-27 Temperature: 26.1 °C Humidity: 44.0% Tester: Ken

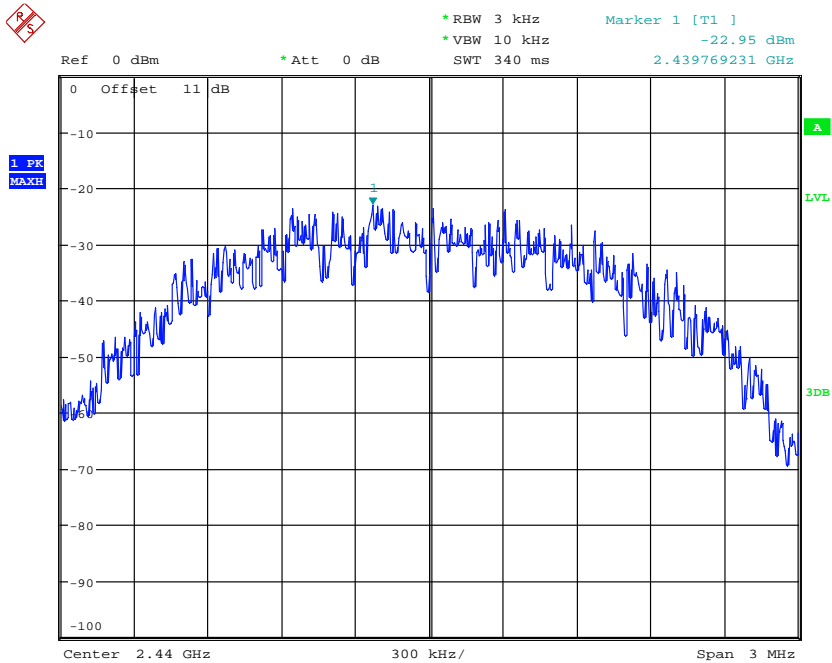


Registration number: W6M22307-22829-C-1  
FCC ID: YWO-M-VM610

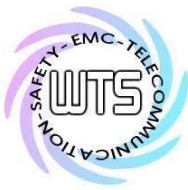
## 3.5.6 Test results



POWER DENSITY 2402MHZ  
Date: 27.JUL.2023 10:36:54

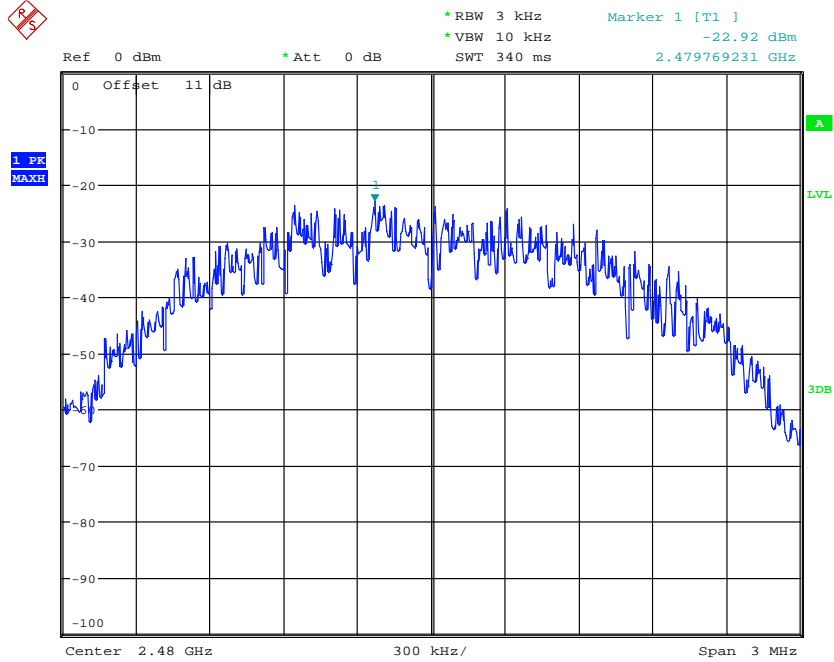


POWER DENSITY 2440MHZ  
Date: 27.JUL.2023 10:36:12



# Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M22307-22829-C-1  
FCC ID: YWO-M-VM610



POWER DENSITY 2480MHZ  
Date: 27.JUL.2023 10:35:23

Test equipment used: Please see test equipment utilized (RF Conducted).

Registration number: W6M22307-22829-C-1  
 FCC ID: YWO-M-VM610

**3.6 Power Line Conducted Emission**

**3.6.1 Applicable Standard**

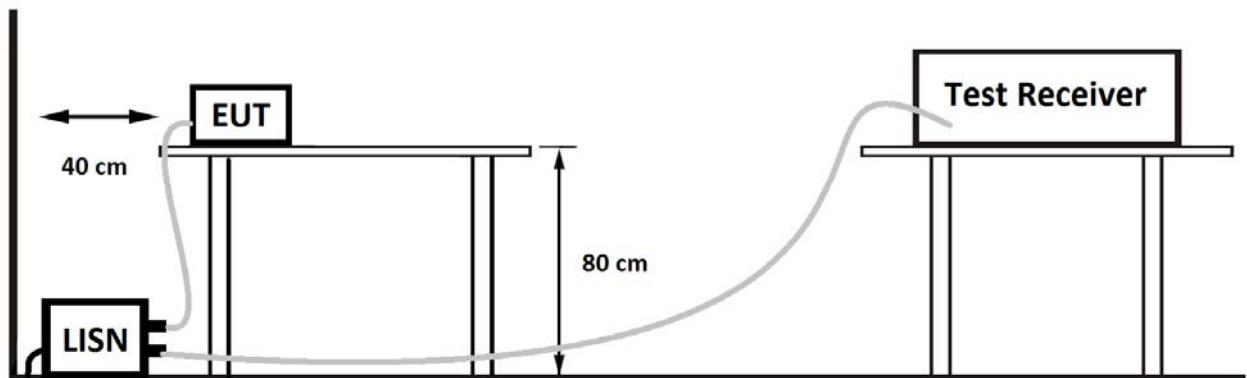
FCC Rules:15.207(a)

For an intentional radiator which is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the table bellows with this provision shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminals.

**3.6.2 Test procedure**

1. EUT is placed on a test table, raised 80 cm above the reference ground plane. The vertical conducting plane is located 40 cm to the rear of the device.
2. Connect EUT to a 50  $\mu$ H/50 ohms line impedance stabilization network (LISN). AC input is 120V/60Hz
3. This measurement was transact first with instrumentation using an average and peak detector and a 10 kHz bandwidth. If the peak detector achieves a calculated level, the measurement is repeated by an instrumentation using a quasi-peak detector.

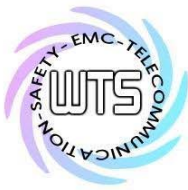
**3.6.3 Test setup**



**3.6.4 Limits**

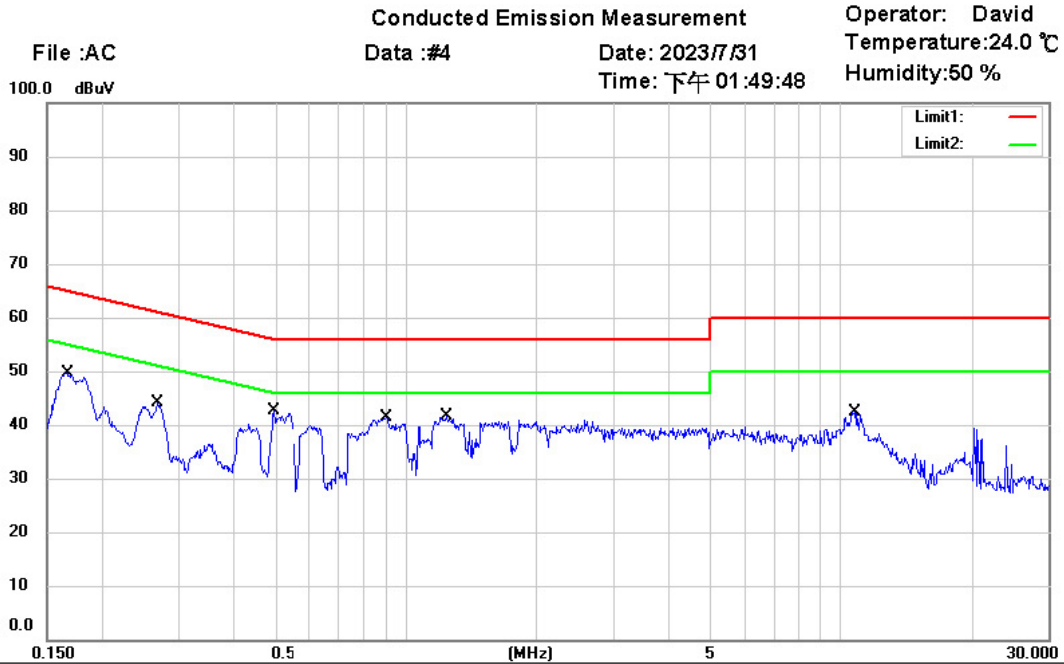
Frequency of emission (MHz)	Conducted limit (dB $\mu$ V)	
	Quasi-peak	Average
0.15-0.5	66 to 56	56 to 46
0.5-5	56	46
5-30	60	50





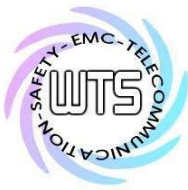
Registration number: W6M22307-22829-C-1  
 FCC ID: YWO-M-VM610

### 3.6.5 Test results (With Environmental Conditions)



Site : Chamber\_03  
 Condition : FCC Part 15 Class B Conduction (QP)      Phase: N  
 EUT : W6M22307-22829      Power : 5 Vd.c.  
 M/N:  
 Test Mode :  
 Note :

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corrected factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Comment
	0.1661	37.18	QP	9.59	46.77	65.15	-18.38	
*	0.1661	29.99	AVG	9.59	39.58	55.15	-15.57	
	0.2685	29.69	QP	9.61	39.30	61.16	-21.86	
	0.2685	22.15	AVG	9.61	31.76	51.16	-19.40	
	0.4950	28.87	QP	9.64	38.51	56.08	-17.57	
	0.4950	15.44	AVG	9.64	25.08	46.08	-21.00	
	0.9028	28.06	QP	9.66	37.72	56.00	-18.28	
	0.9028	14.53	AVG	9.66	24.19	46.00	-21.81	
	1.2403	27.15	QP	9.65	36.80	56.00	-19.20	
	1.2403	15.55	AVG	9.65	25.20	46.00	-20.80	
	10.7500	28.81	QP	9.82	38.63	60.00	-21.37	
	10.7500	21.84	AVG	9.82	31.66	50.00	-18.34	



# Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M22307-22829-C-1  
 FCC ID: YWO-M-VM610

Conducted Emission Measurement

Operator: David

Data :#3

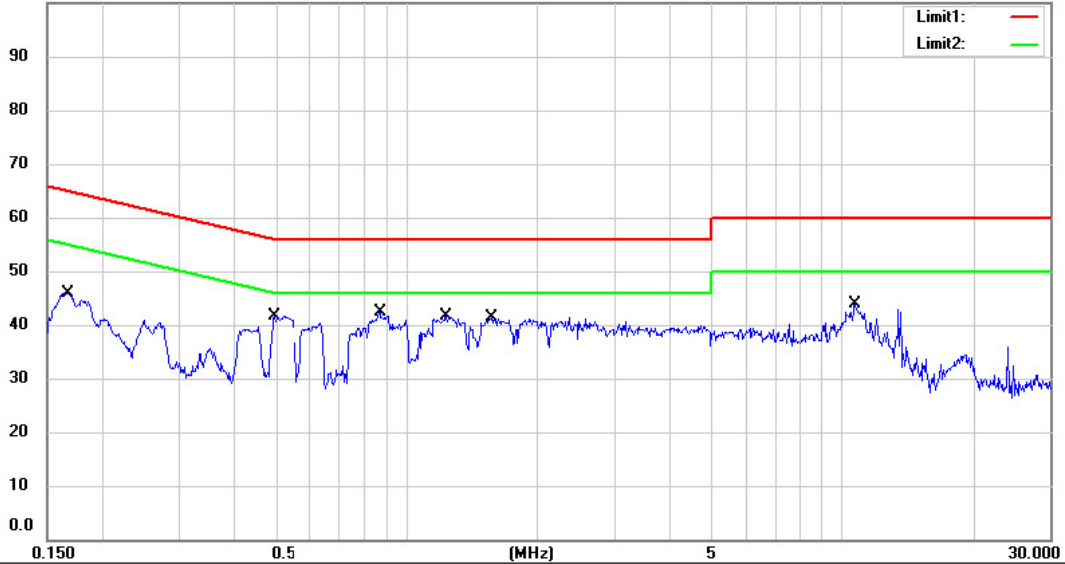
Date: 2023/7/31

Temperature:24.0 °C

Time: 下午 01:47:30

Humidity:50 %

File :AC  
 100.0 dBuV



Site : Chamber\_03

Condition : FCC Part 15 Class B Conduction (QP)

Phase: L1

EUT : W6M22307-22829

Power : 5 Vd.c.

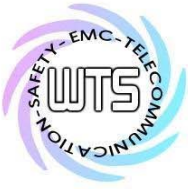
M/N:

Test Mode :

Note :

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corrected factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Comment
	0.1668	32.75	QP	9.63	42.38	65.12	-22.74	
	0.1668	26.19	AVG	9.63	35.82	55.12	-19.30	
*	0.4963	29.21	QP	9.67	38.88	56.06	-17.18	
	0.4963	16.22	AVG	9.67	25.89	46.06	-20.17	
	0.8668	28.12	QP	9.69	37.81	56.00	-18.19	
	0.8668	13.39	AVG	9.69	23.08	46.00	-22.92	
	1.2312	26.97	QP	9.69	36.66	56.00	-19.34	
	1.2312	13.15	AVG	9.69	22.84	46.00	-23.16	
	1.5642	25.91	QP	9.68	35.59	56.00	-20.41	
	1.5642	12.06	AVG	9.68	21.74	46.00	-24.26	
	10.6875	27.40	QP	9.92	37.32	60.00	-22.68	
	10.6875	18.64	AVG	9.92	28.56	50.00	-21.44	

Test equipment used: Please see test equipment utilized (AC Conducted).



Registration number: W6M22307-22829-C-1  
FCC ID: YWO-M-VM610

## **Appendix**

### **Measurement diagrams**

Radiated Emission



Radiated Emission Measurement

Operator: Sky

File :1\_2

Data :#1

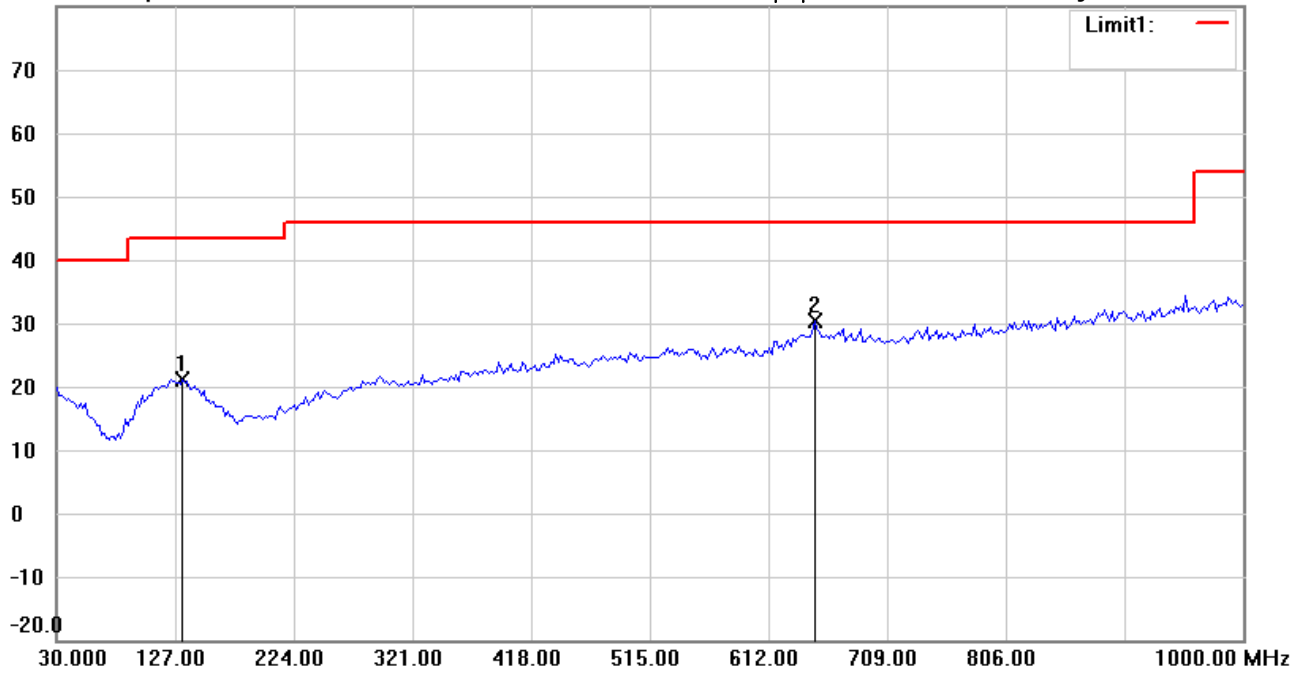
Date: 2023/10/18

Temperature:27.0 °C

80.0 dBuV/m

Time: 下午 08:13:49

Humidity:52.6 %



Site : Chamber

Condition : FCC\_part 15 RE-Class C\_30-1000MHz

EUT : W6M22307-22829

M/N:

Test Mode : TX 2402MHz

Note :

Polarization: *Horizontal*

Power : 3.7 Vd.c.

Distance: 3m

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	133.0261	27.16	peak	-6.09	21.07	43.50	100	79	-22.43	
*	650.1001	29.28	peak	0.99	30.27	46.00	100	42	-15.73	



Radiated Emission Measurement

Operator: Sky

File :1\_2

Data :#2

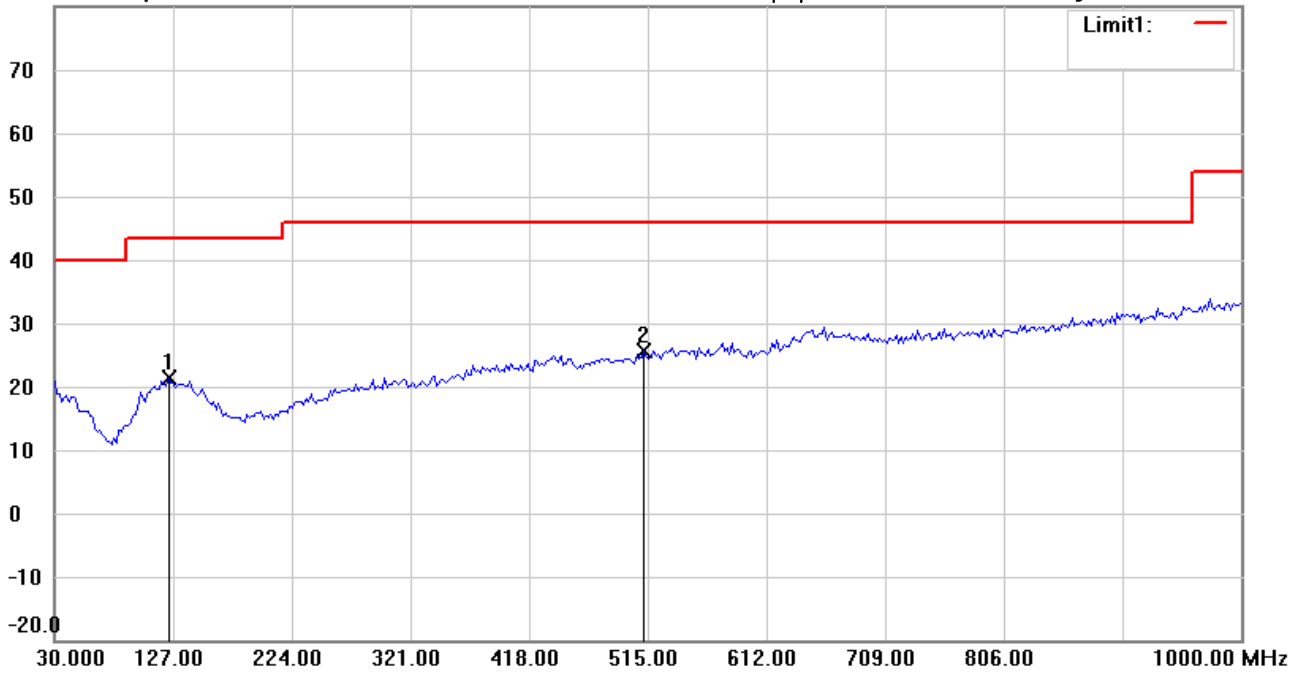
Date: 2023/10/18

Temperature:27.0 °C

80.0 dBuV/m

Time: 下午 08:14:51

Humidity:52.6 %



Site : Chamber

Condition : FCC\_part 15 RE-Class C\_30-1000MHz

Polarization: *Vertical*

EUT : W6M22307-22829

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2402MHz

Note :

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	123.3066	27.42	peak	-6.12	21.30	43.50	103	52	-22.20	
*	512.0842	28.42	peak	-2.69	25.73	46.00	112	100	-20.27	



Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei  
 Tel:+886-2-6606-8877  
 Fax:+886-2-6606-8879

Radiated Emission Measurement

Operator: Sky

File :3

Data :#1

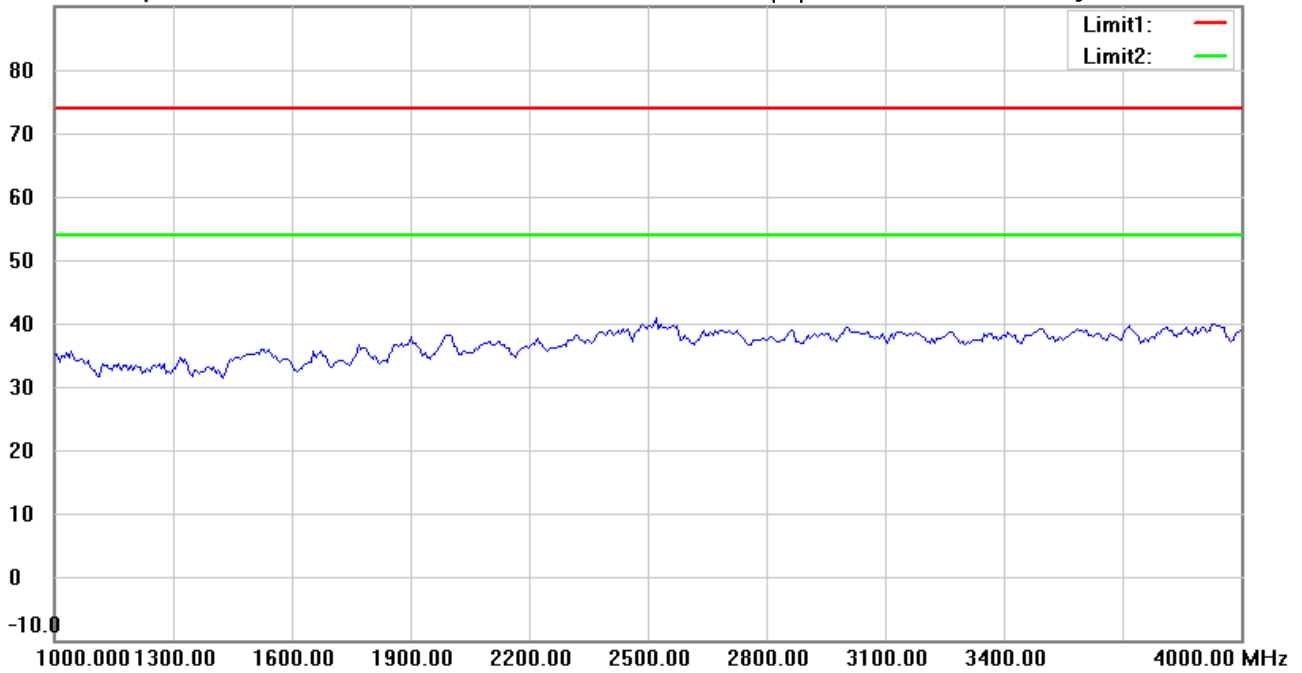
Date: 2023/7/27

Temperature:25.5 °C

90.0 dBuV/m

Time: 下午 09:48:19

Humidity:56.2 %



Site : Chamber

Condition : FCC\_part 15 RE-Class C\_Above 1GHz\_PK

EUT : W6M22307-22829

M/N:

Test Mode : TX 2402MHz

Note :

Polarization: *Horizontal*

Power : 3.7 Vd.c.

Distance: 3m

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
-----	-----------------	----------------	----------	---------------------	-----------------	----------------	--------------	----------------	-------------	---------

\*:Maximum data    x:Over limit    !:over margin



Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei  
 Tel:+886-2-6606-8877  
 Fax:+886-2-6606-8879

Radiated Emission Measurement

Operator: Sky

File :3

Data :#6

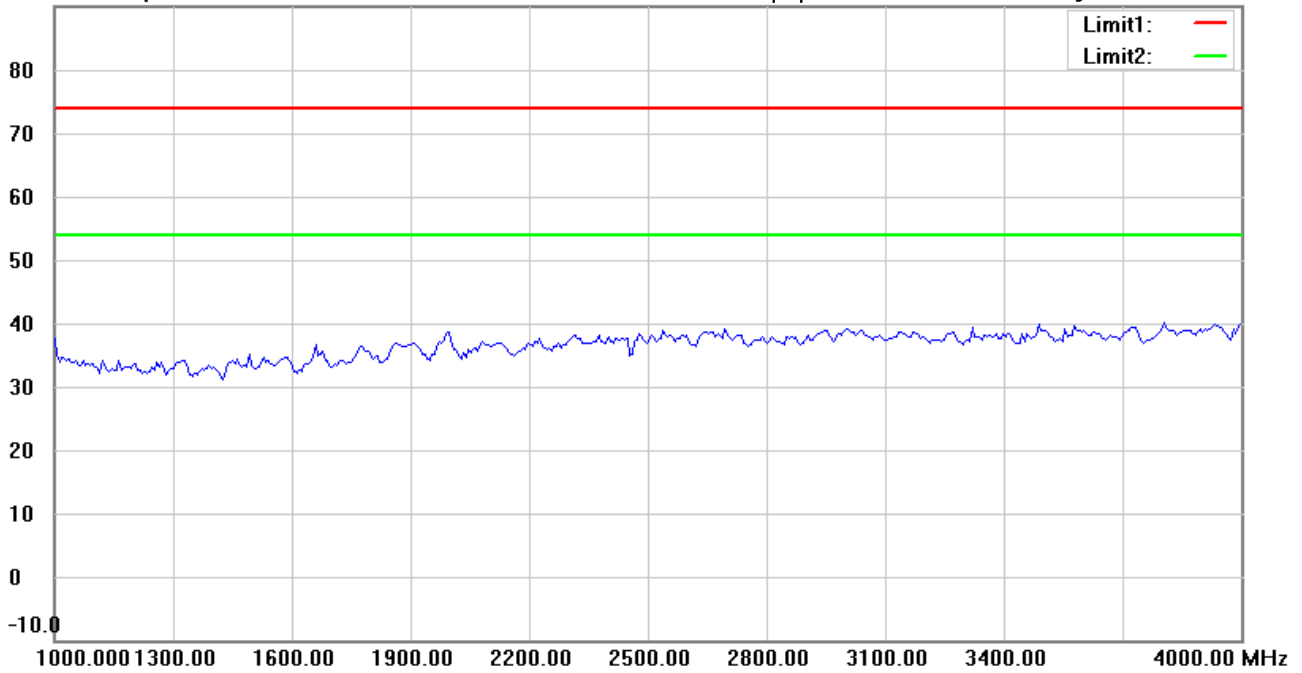
Date: 2023/7/27

Temperature:25.5 °C

90.0 dBuV/m

Time: 下午 09:52:37

Humidity:56.2 %



Site : Chamber

Condition : FCC\_part 15 RE-Class C\_Above 1GHz\_PK

Polarization: *Vertical*

EUT : W6M22307-22829

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2402MHz

Note :

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
-----	-----------------	----------------	----------	---------------------	-----------------	----------------	--------------	----------------	-------------	---------

\*:Maximum data    x:Over limit    !:over margin



Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei  
 Tel:+886-2-6606-8877  
 Fax:+886-2-6606-8879

Radiated Emission Measurement

Operator: Sky

File :3

Data :#2

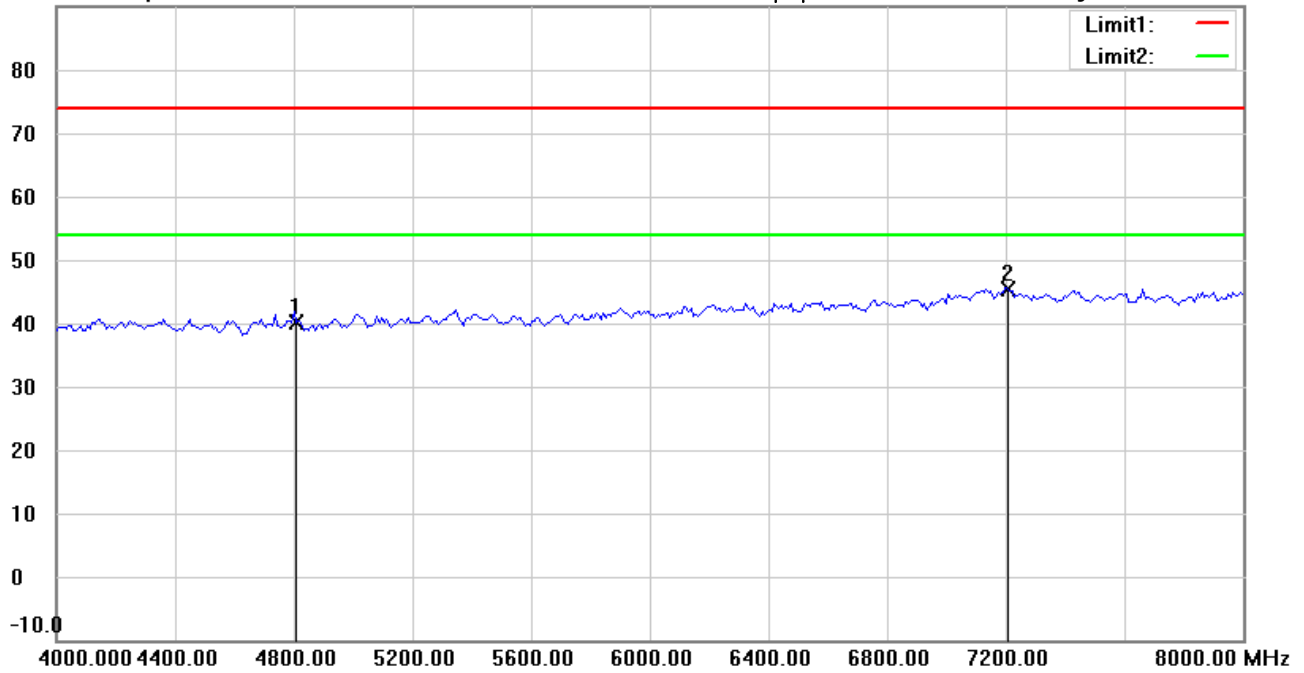
Date: 2023/7/27

Temperature:25.5 °C

90.0 dBuV/m

Time: 下午 09:49:22

Humidity:56.2 %



Site : Chamber

Condition : FCC\_part 15 RE-Class C\_Above 1GHz\_PK

EUT : W6M22307-22829

M/N:

Test Mode : TX 2402MHz

Note :

Polarization: **Horizontal**

Power : 3.7 Vd.c.

Distance: 3m

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	4804.000	41.84	peak	-1.73	40.11	74.00	150	150	-33.89	
*	7206.000	41.39	peak	4.08	45.47	74.00	150	17	-28.53	

\*:Maximum data    x:Over limit    !:over margin





Radiated Emission Measurement

Operator: Sky

File :3

Data :#7

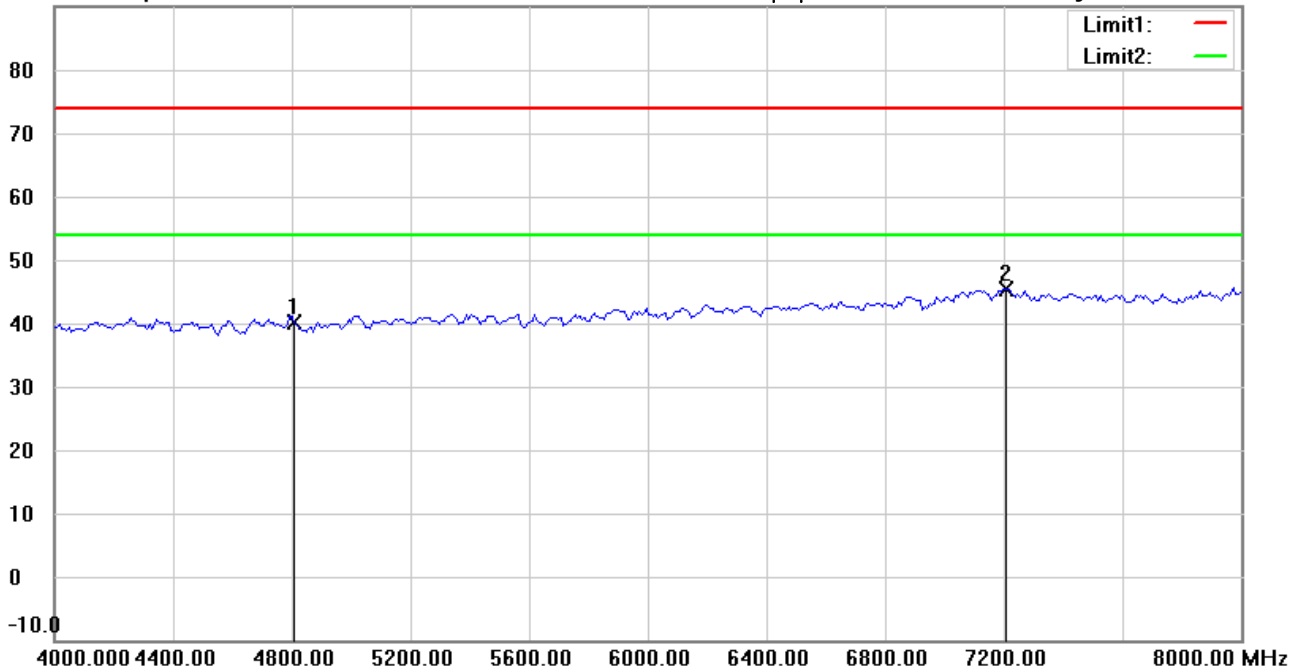
Date: 2023/7/27

Temperature:25.5 °C

90.0 dBuV/m

Time: 下午 09:53:41

Humidity:56.2 %



Site : Chamber

Condition : FCC\_part 15 RE-Class C\_Above 1GHz\_PK

Polarization: **Vertical**

EUT : W6M22307-22829

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2402MHz

Note :

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	4804.000	41.97	peak	-1.73	40.24	74.00	150	99	-33.76	
*	7206.000	41.19	peak	4.08	45.27	74.00	150	24	-28.73	



Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei  
 Tel:+886-2-6606-8877  
 Fax:+886-2-6606-8879

Radiated Emission Measurement

Operator: Sky

File :3

Data :#3

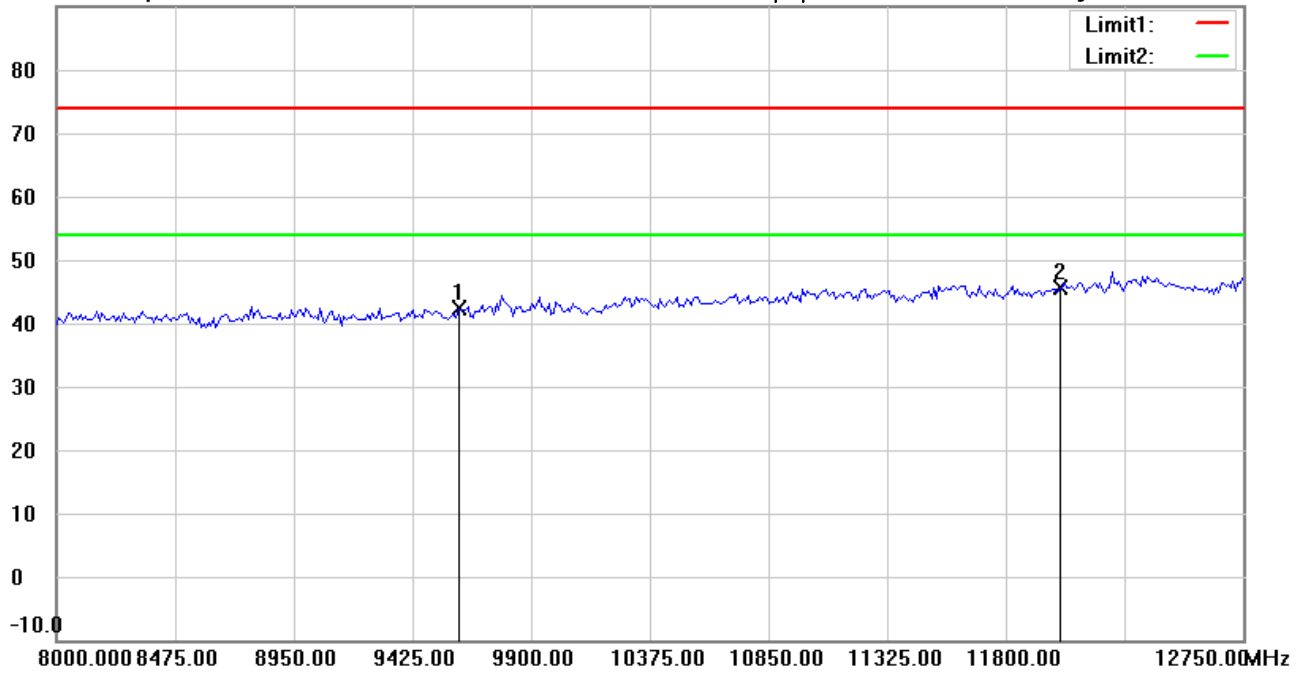
Date: 2023/7/27

Temperature:25.5 °C

90.0 dBuV/m

Time: 下午 09:50:51

Humidity:56.2 %



Site : Chamber

Condition : FCC\_part 15 RE-Class C\_Above 1GHz\_PK

Polarization: *Horizontal*

EUT : W6M22307-22829

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2402MHz

Note :

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	9608.000	35.52	peak	6.90	42.42	74.00	150	92	-31.58	
*	12010.000	33.32	peak	12.19	45.51	74.00	150	84	-28.49	

\*:Maximum data    x:Over limit    !:over margin



Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei  
 Tel:+886-2-6606-8877  
 Fax:+886-2-6606-8879

Radiated Emission Measurement

Operator: Sky

File :3

Data :#8

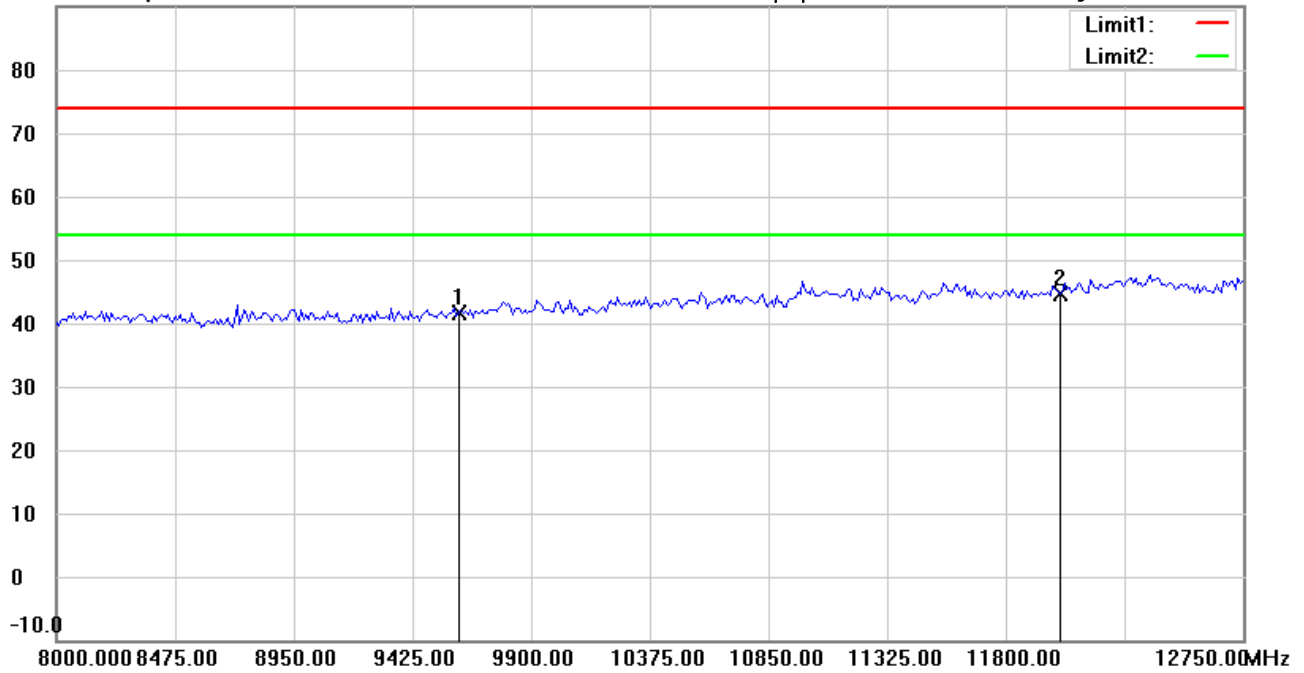
Date: 2023/7/27

Temperature:25.5 °C

90.0 dBuV/m

Time: 下午 09:55:37

Humidity:56.2 %



Site : Chamber

Condition : FCC\_part 15 RE-Class C\_Above 1GHz\_PK

Polarization: Vertical

EUT : W6M22307-22829

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2402MHz

Note :

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	9608.000	34.70	peak	6.90	41.60	74.00	150	29	-32.40	
*	12010.000	32.55	peak	12.19	44.74	74.00	150	7	-29.26	

\*:Maximum data x:Over limit !:over margin



Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei  
 Tel:+886-2-6606-8877  
 Fax:+886-2-6606-8879

Radiated Emission Measurement

Operator: Sky

File :3

Data :#4

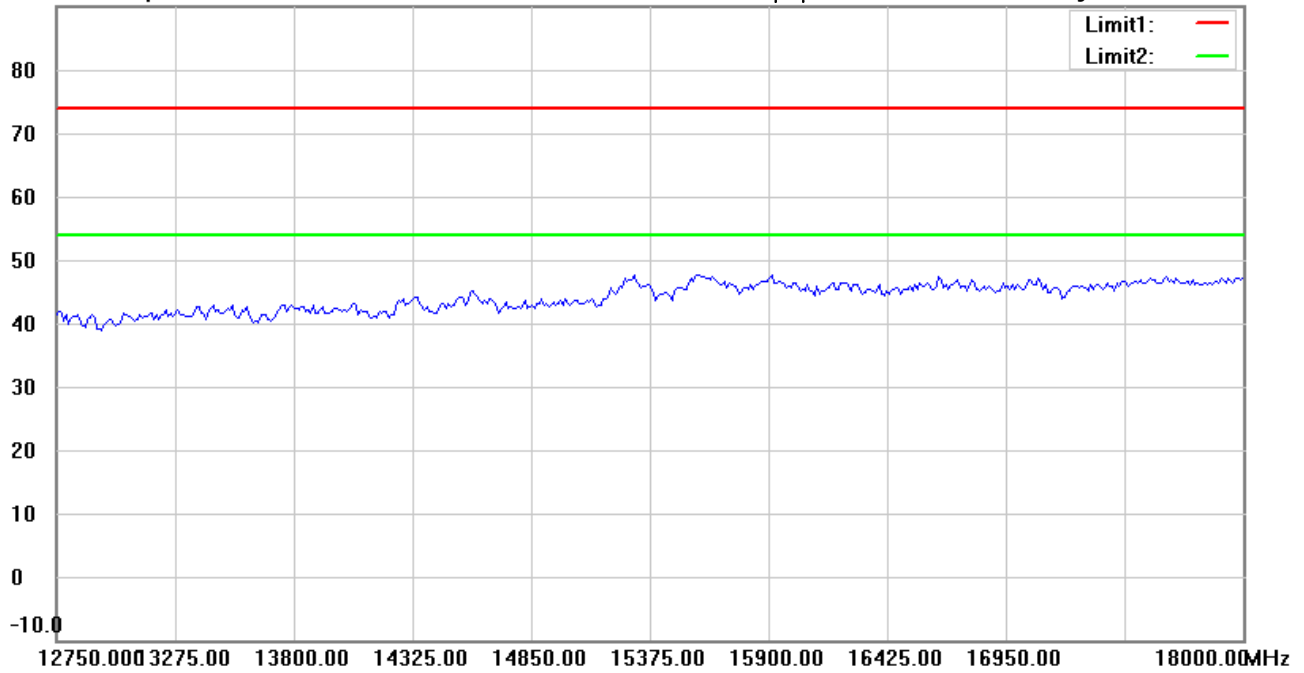
Date: 2023/7/27

Temperature:25.5 °C

90.0 dBuV/m

Time: 下午 09:51:07

Humidity:56.2 %



Site : Chamber

Condition : FCC\_part 15 RE-Class C\_Above 1GHz\_PK

Polarization: *Horizontal*

EUT : W6M22307-22829

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2402MHz

Note :

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
-----	-----------------	----------------	----------	---------------------	-----------------	----------------	--------------	----------------	-------------	---------

\*:Maximum data    x:Over limit    !:over margin



Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei  
 Tel:+886-2-6606-8877  
 Fax:+886-2-6606-8879

Radiated Emission Measurement

Operator: Sky

File :3

Data :#9

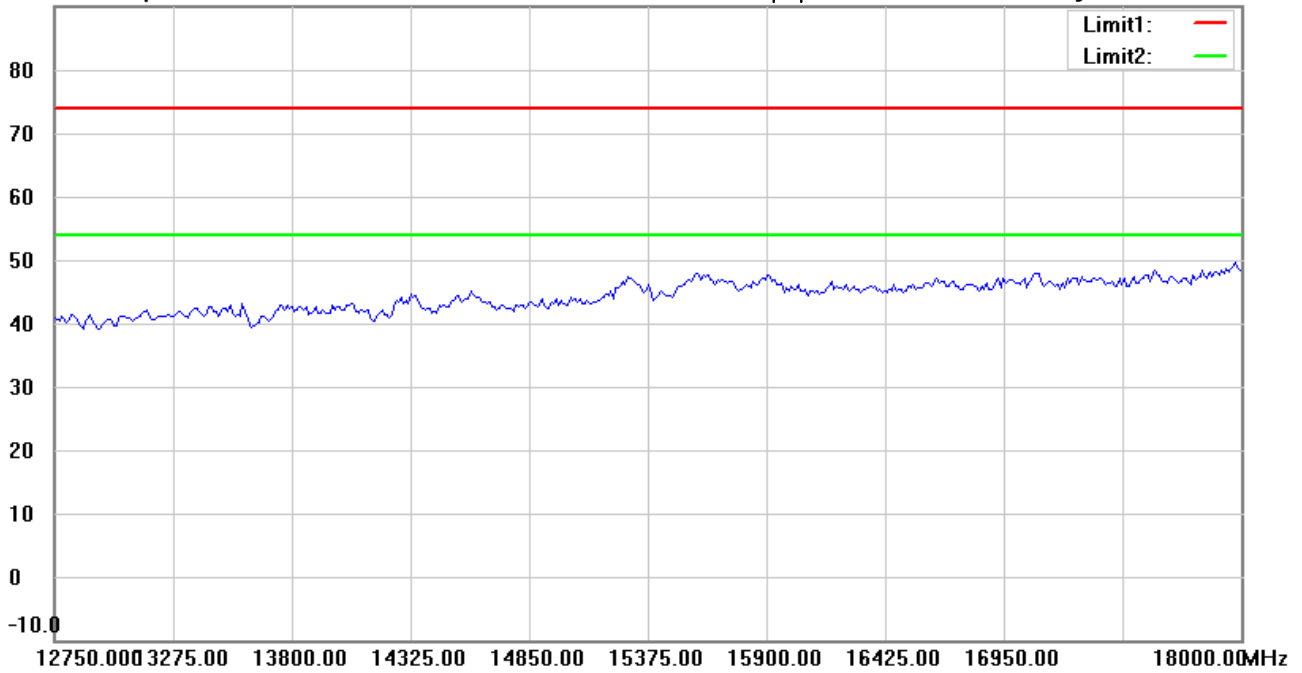
Date: 2023/7/27

Temperature:25.5 °C

90.0 dBuV/m

Time: 下午 09:55:54

Humidity:56.2 %



Site : Chamber

Condition : FCC\_part 15 RE-Class C\_Above 1GHz\_PK

Polarization: *Vertical*

EUT : W6M22307-22829

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2402MHz

Note :

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
-----	-----------------	----------------	----------	---------------------	-----------------	----------------	--------------	----------------	-------------	---------

\*:Maximum data    x:Over limit    !:over margin



Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei  
 Tel:+886-2-6606-8877  
 Fax:+886-2-6606-8879

Radiated Emission Measurement

Operator: Sky

File :3

Data :#5

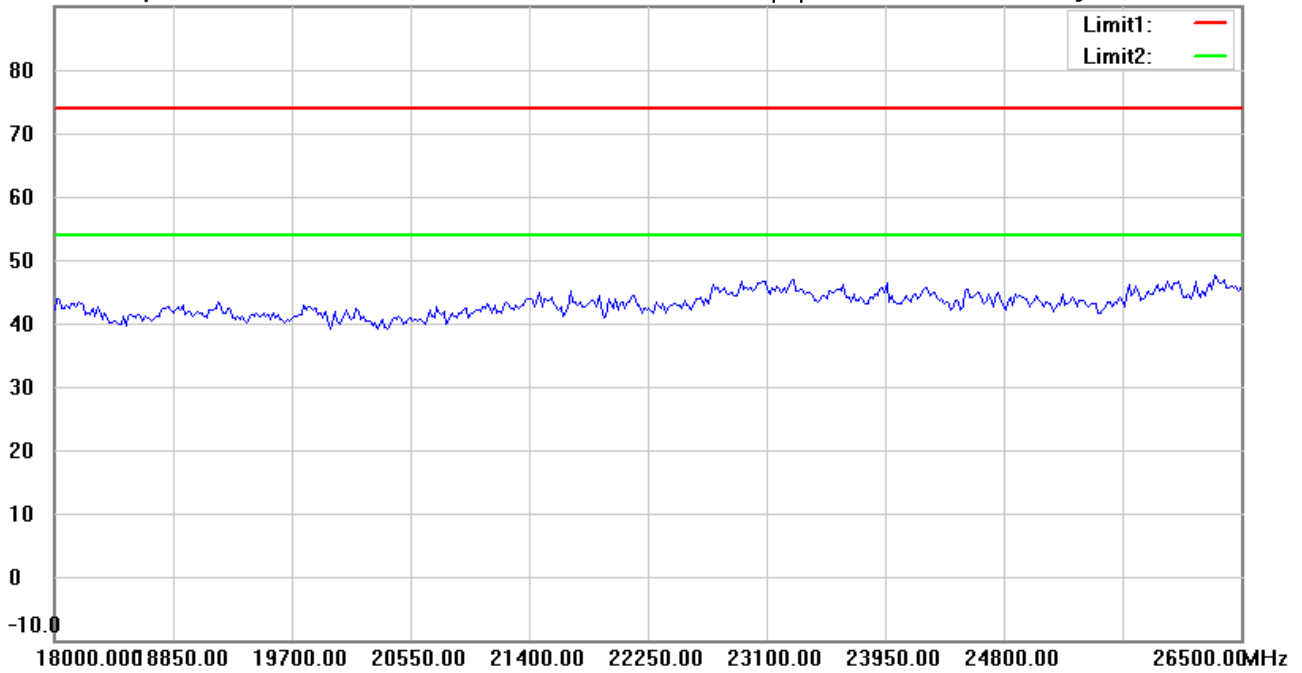
Date: 2023/7/27

Temperature:25.5 °C

90.0 dBuV/m

Time: 下午 09:51:19

Humidity:56.2 %



Site : Chamber

Condition : FCC\_part 15 RE-Class C\_Above 1GHz\_PK

Polarization: *Horizontal*

EUT : W6M22307-22829

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2402MHz

Note :

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
-----	-----------------	----------------	----------	---------------------	-----------------	----------------	--------------	----------------	-------------	---------

\*:Maximum data    x:Over limit    !:over margin



Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei  
 Tel:+886-2-6606-8877  
 Fax:+886-2-6606-8879

Radiated Emission Measurement

Operator: Sky

File :3

Data :#10

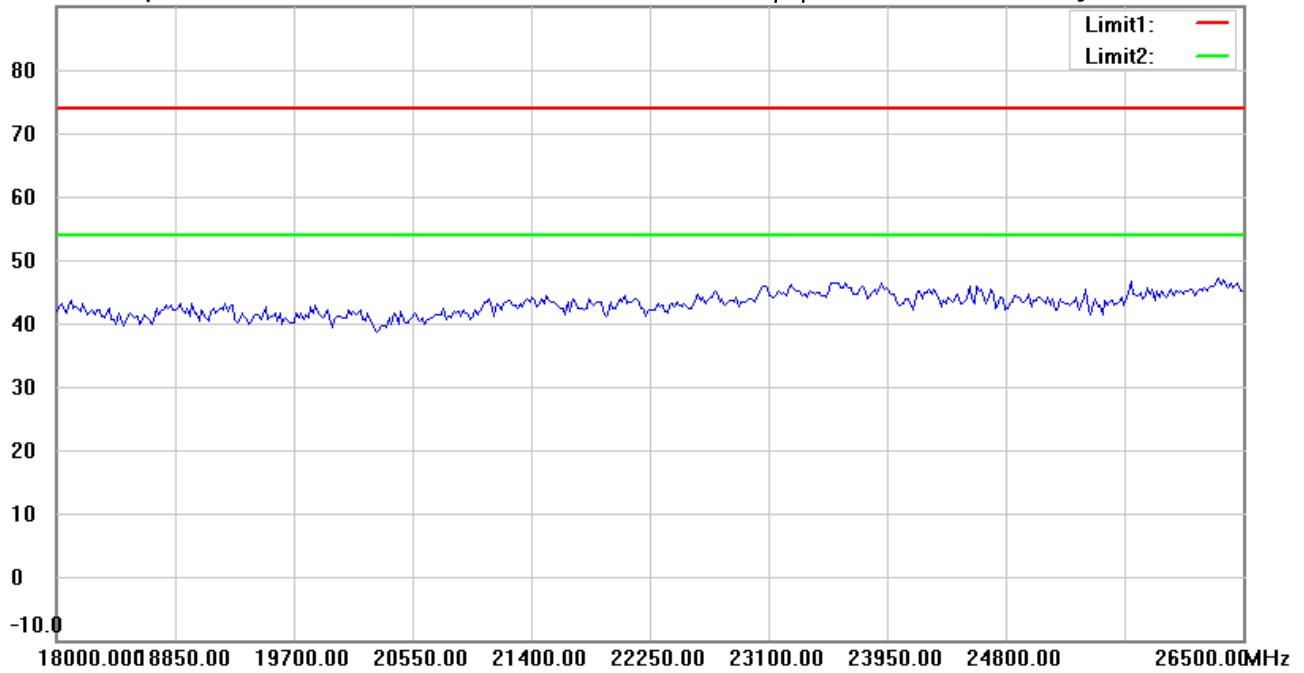
Date: 2023/7/27

Temperature:25.5 °C

90.0 dBuV/m

Time: 下午 09:56:05

Humidity:56.2 %



Site : Chamber

Condition : FCC\_part 15 RE-Class C\_Above 1GHz\_PK

Polarization: **Vertical**

EUT : W6M22307-22829

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2402MHz

Note :

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
-----	-----------------	----------------	----------	---------------------	-----------------	----------------	--------------	----------------	-------------	---------

\*:Maximum data    x:Over limit    !:over margin



Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei  
 Tel:+886-2-6606-8877  
 Fax:+886-2-6606-8879

Radiated Emission Measurement

Operator: Sky

File :3

Data :#1

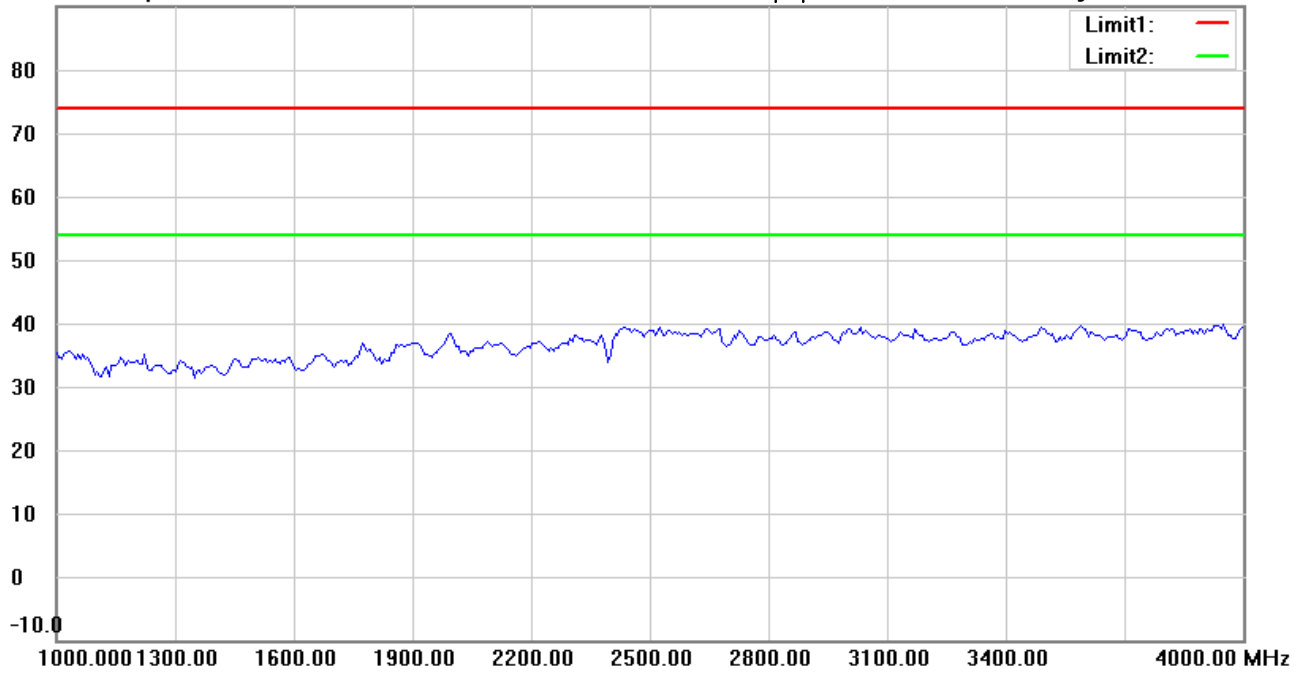
Date: 2023/7/27

Temperature:25.5 °C

90.0 dBuV/m

Time: 下午 10:00:48

Humidity:56.2 %



Site : Chamber

Condition : FCC\_part 15 RE-Class C\_Above 1GHz\_PK

Polarization: *Horizontal*

EUT : W6M22307-22829

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2440MHz

Note :

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
-----	-----------------	----------------	----------	---------------------	-----------------	----------------	--------------	----------------	-------------	---------

\*:Maximum data    x:Over limit    !:over margin





Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei  
 Tel:+886-2-6606-8877  
 Fax:+886-2-6606-8879

Radiated Emission Measurement

Operator: Sky

File :3

Data :#6

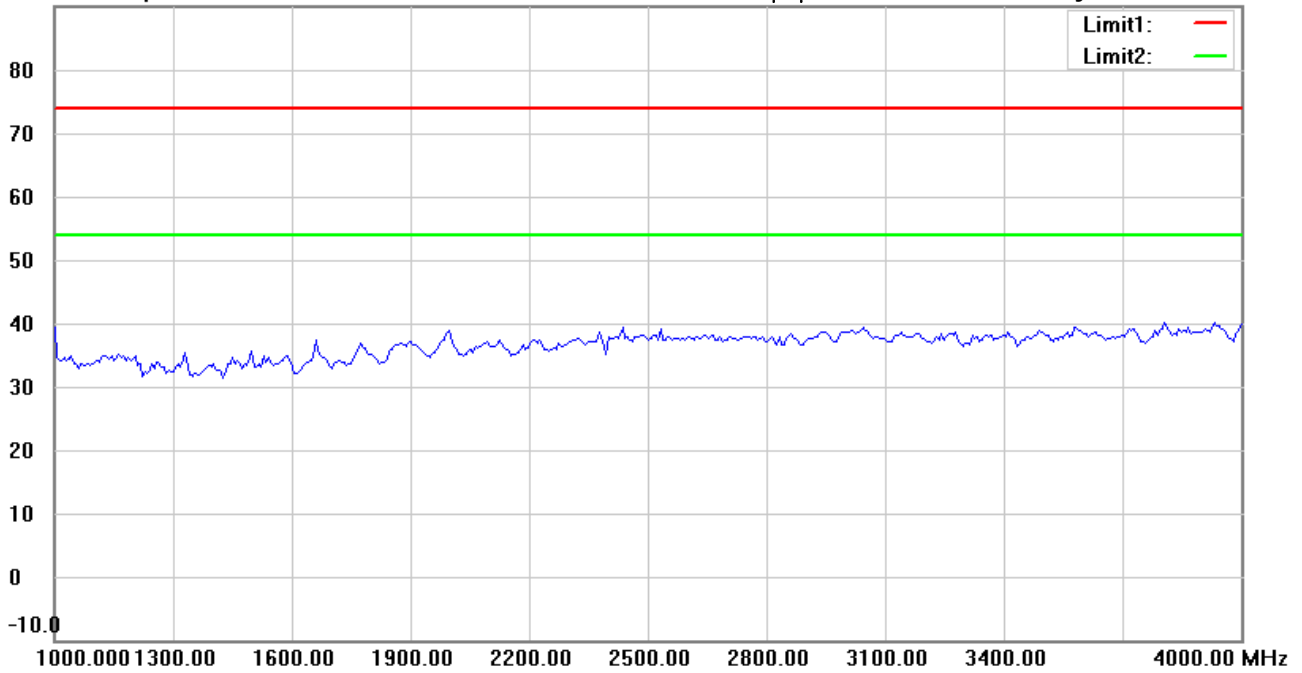
Date: 2023/7/27

Temperature:25.5 °C

90.0 dBuV/m

Time: 下午 10:05:26

Humidity:56.2 %



Site : Chamber

Condition : FCC\_part 15 RE-Class C\_Above 1GHz\_PK

Polarization: *Vertical*

EUT : W6M22307-22829

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2440MHz

Note :

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
-----	-----------------	----------------	----------	---------------------	-----------------	----------------	--------------	----------------	-------------	---------

\*:Maximum data    x:Over limit    !:over margin



Radiated Emission Measurement

Operator: Sky

File :3

Data :#2

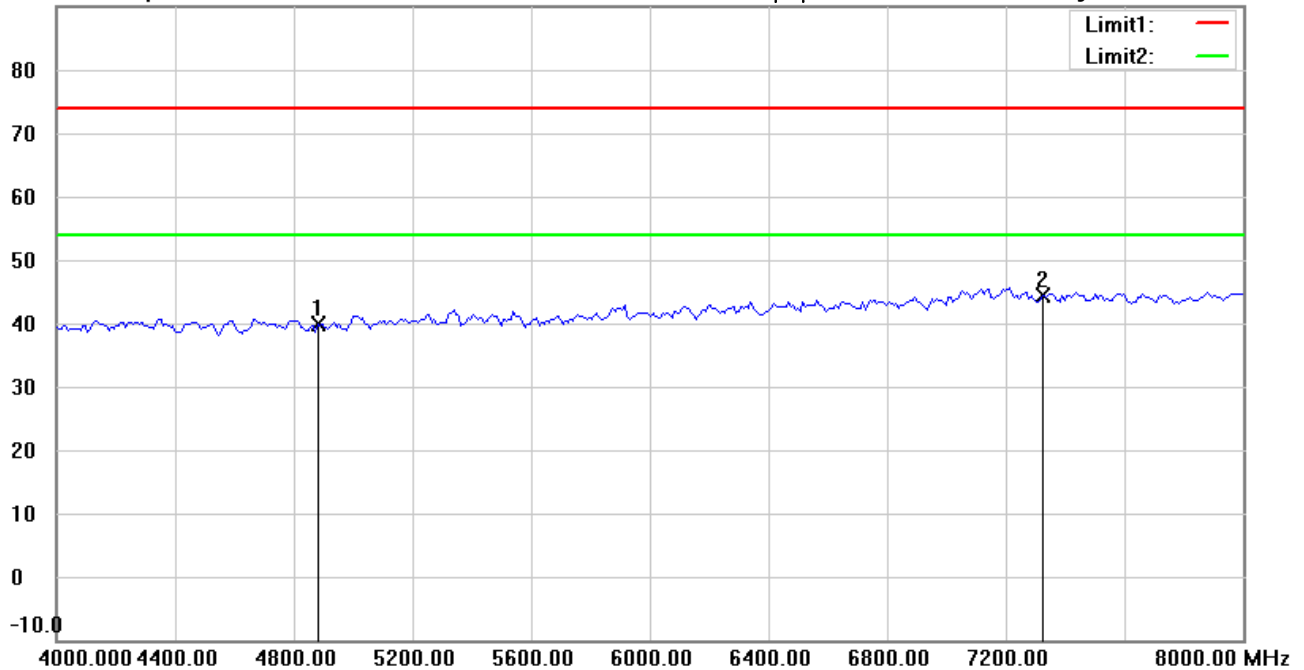
Date: 2023/7/27

Temperature:25.5 °C

90.0 dBuV/m

Time: 下午 10:01:49

Humidity:56.2 %



Site : Chamber

Condition : FCC\_part 15 RE-Class C\_Above 1GHz\_PK

Polarization: **Horizontal**

EUT : W6M22307-22829

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2440MHz

Note :

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	4880.000	41.30	peak	-1.41	39.89	74.00	150	247	-34.11	
*	7320.000	40.69	peak	3.59	44.28	74.00	150	10	-29.72	



Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei  
 Tel:+886-2-6606-8877  
 Fax:+886-2-6606-8879

Radiated Emission Measurement

Operator: Sky

File :3

Data :#7

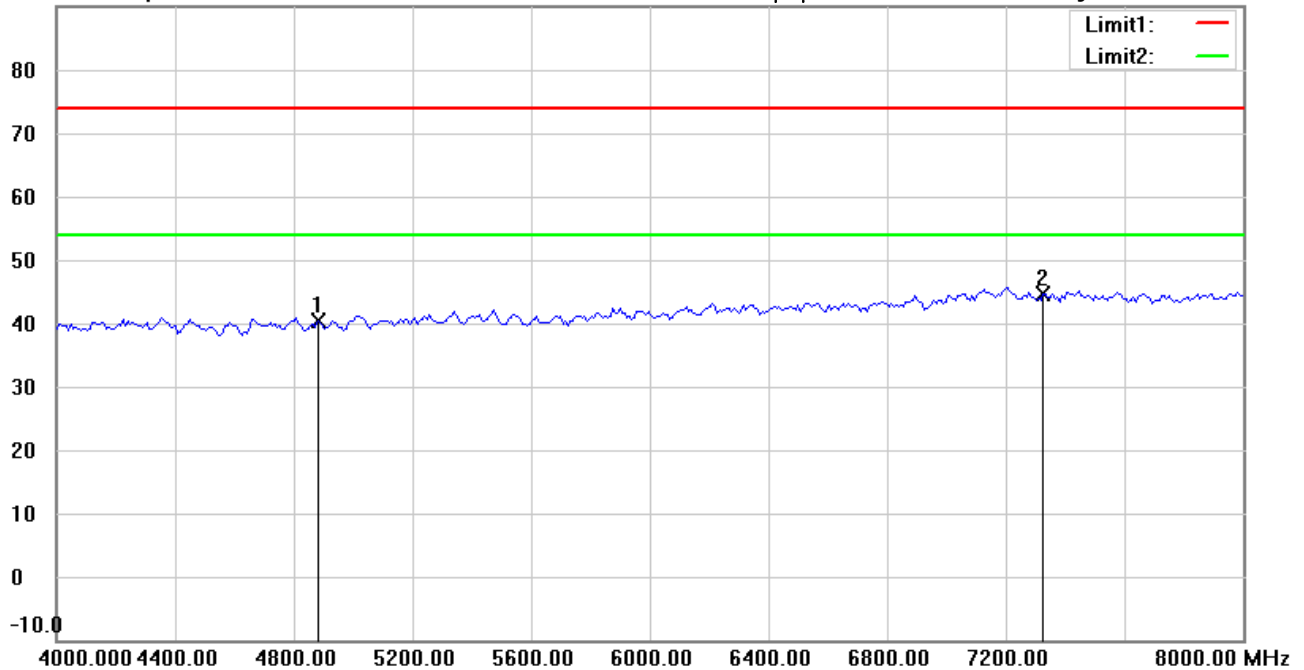
Date: 2023/7/27

Temperature:25.2 °C

90.0 dBuV/m

Time: 下午 10:06:29

Humidity:56.2 %



Site : Chamber

Condition : FCC\_part 15 RE-Class C\_Above 1GHz\_PK

Polarization: **Vertical**

EUT : W6M22307-22829

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2440MHz

Note :

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	4880.000	41.75	peak	-1.41	40.34	74.00	150	287	-33.66	
*	7320.000	41.09	peak	3.59	44.68	74.00	150	40	-29.32	

\*:Maximum data    x:Over limit    !:over margin



Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei  
 Tel:+886-2-6606-8877  
 Fax:+886-2-6606-8879

Radiated Emission Measurement

Operator: Sky

File :3

Data :#3

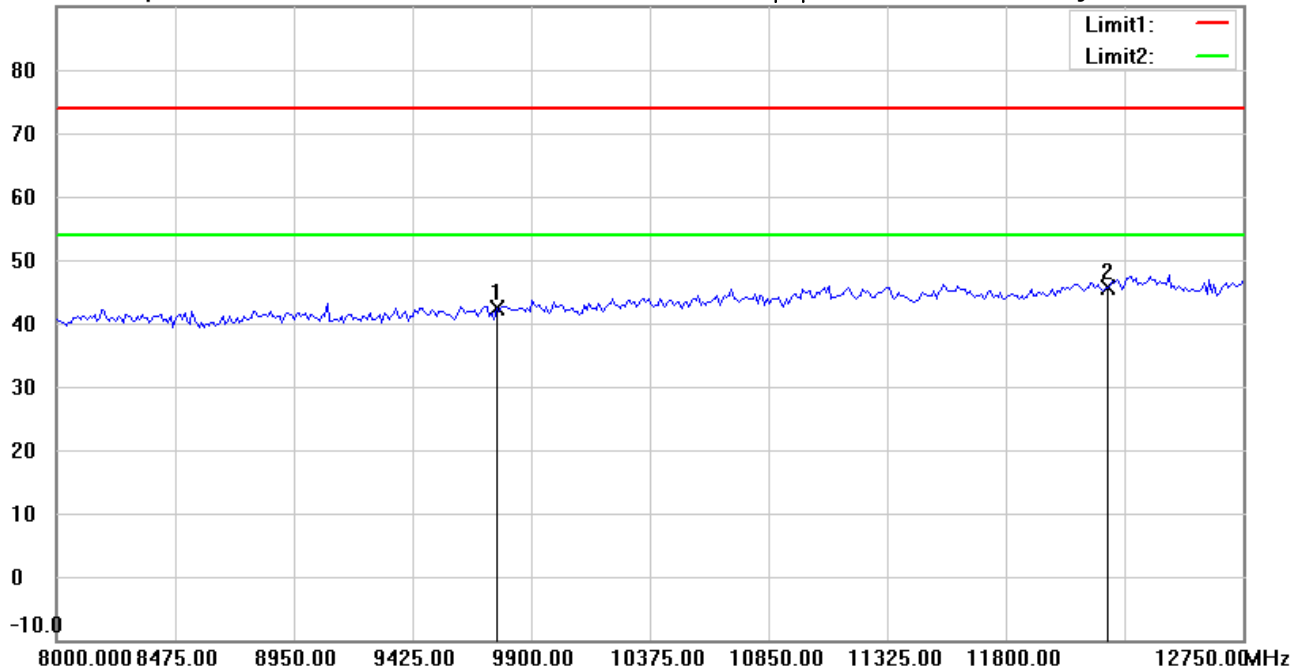
Date: 2023/7/27

Temperature:25.5 °C

90.0 dBuV/m

Time: 下午 10:03:25

Humidity:56.2 %



Site : Chamber

Condition : FCC\_part 15 RE-Class C\_Above 1GHz\_PK

Polarization: *Horizontal*

EUT : W6M22307-22829

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2440MHz

Note :

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	9760.000	35.23	peak	7.24	42.47	74.00	150	106	-31.53	
*	12200.000	32.15	peak	13.50	45.65	74.00	150	99	-28.35	

\*:Maximum data    x:Over limit    !:over margin



Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei  
 Tel:+886-2-6606-8877  
 Fax:+886-2-6606-8879

Radiated Emission Measurement

Operator: Sky

File :3

Data :#8

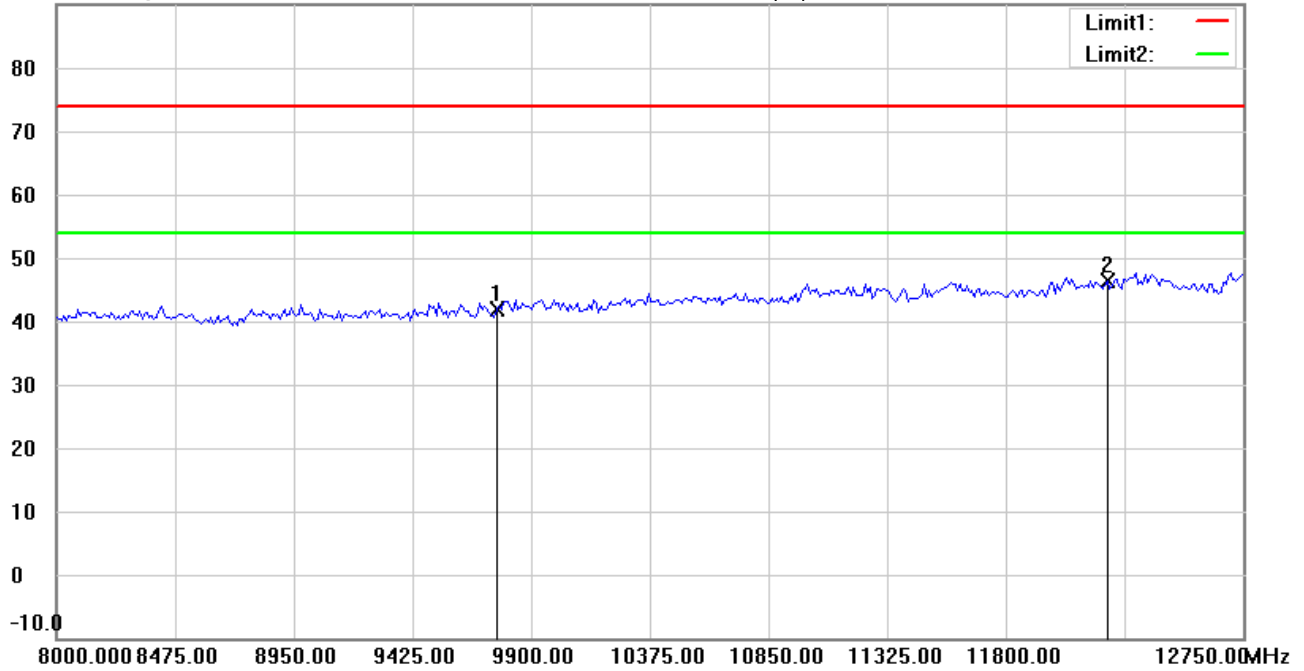
Date: 2023/7/27

Temperature:25.5 °C

90.0 dBuV/m

Time: 下午 10:07:53

Humidity:56.2 %



Site : Chamber

Condition : FCC\_part 15 RE-Class C\_Above 1GHz\_PK

Polarization: *Vertical*

EUT : W6M22307-22829

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2440MHz

Note :

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	9760.000	34.63	peak	7.24	41.87	74.00	150	201	-32.13	
*	12200.000	32.98	peak	13.50	46.48	74.00	150	6	-27.52	

\*:Maximum data x:Over limit !:over margin



Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei  
 Tel:+886-2-6606-8877  
 Fax:+886-2-6606-8879

Radiated Emission Measurement

Operator: Sky

File :3

Data :#4

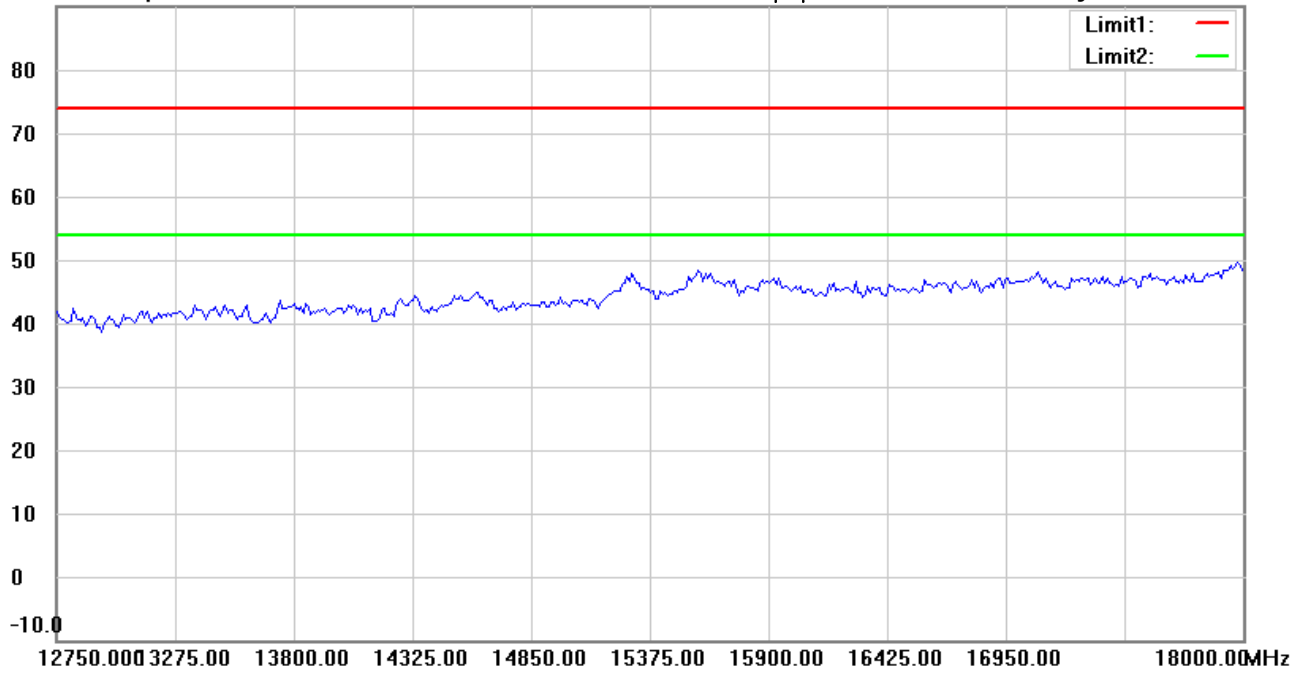
Date: 2023/7/27

Temperature:25.5 °C

90.0 dBuV/m

Time: 下午 10:03:40

Humidity:56.2 %



Site : Chamber

Condition : FCC\_part 15 RE-Class C\_Above 1GHz\_PK

Polarization: *Horizontal*

EUT : W6M22307-22829

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2440MHz

Note :

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
-----	-----------------	----------------	----------	---------------------	-----------------	----------------	--------------	----------------	-------------	---------

\*:Maximum data    x:Over limit    !:over margin



Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei  
 Tel:+886-2-6606-8877  
 Fax:+886-2-6606-8879

Radiated Emission Measurement

Operator: Sky

File :3

Data :#9

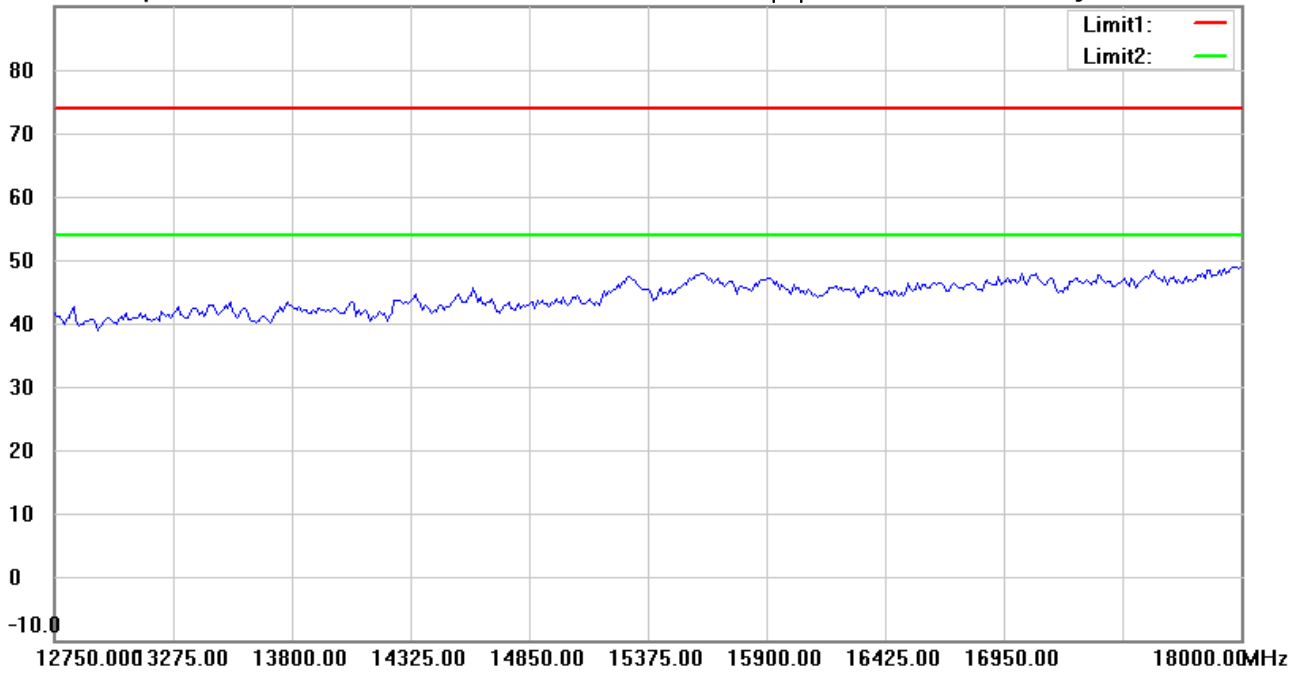
Date: 2023/7/27

Temperature:25.5 °C

90.0 dBuV/m

Time: 下午 10:08:08

Humidity:56.2 %



Site : Chamber

Condition : FCC\_part 15 RE-Class C\_Above 1GHz\_PK

Polarization: **Vertical**

EUT : W6M22307-22829

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2440MHz

Note :

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
-----	-----------------	----------------	----------	---------------------	-----------------	----------------	--------------	----------------	-------------	---------

\*:Maximum data    x:Over limit    !:over margin



Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei  
 Tel:+886-2-6606-8877  
 Fax:+886-2-6606-8879

Radiated Emission Measurement

Operator: Sky

File :3

Data :#5

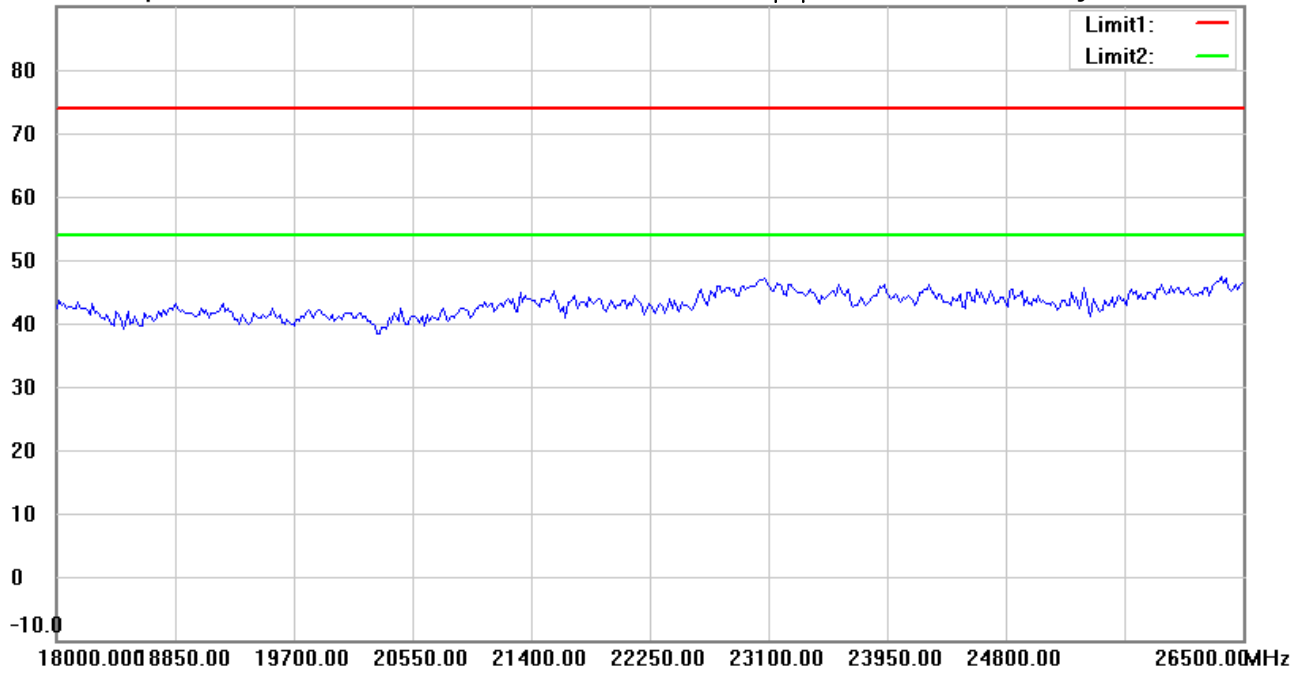
Date: 2023/7/27

Temperature:25.5 °C

90.0 dBuV/m

Time: 下午 10:03:50

Humidity:56.2 %



Site : Chamber

Condition : FCC\_part 15 RE-Class C\_Above 1GHz\_PK

Polarization: *Horizontal*

EUT : W6M22307-22829

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2440MHz

Note :

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
-----	-----------------	----------------	----------	---------------------	-----------------	----------------	--------------	----------------	-------------	---------

\*:Maximum data    x:Over limit    !:over margin





Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei  
 Tel:+886-2-6606-8877  
 Fax:+886-2-6606-8879

**Radiated Emission Measurement**

Operator: Sky

File :3

Data :#10

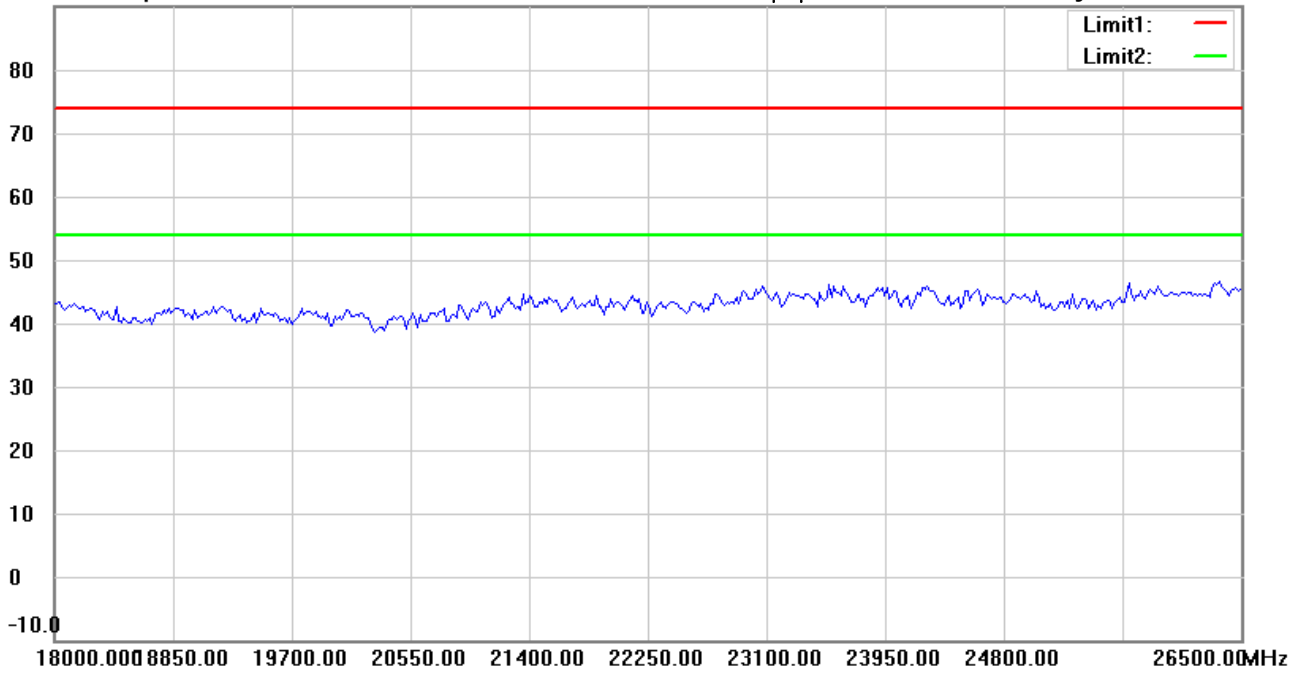
Date: 2023/7/27

Temperature:25.5 °C

90.0 dBuV/m

Time: 下午 10:08:19

Humidity:56.2 %



Site : Chamber

Condition : FCC\_part 15 RE-Class C\_Above 1GHz\_PK

Polarization: *Vertical*

EUT : W6M22307-22829

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2440MHz

Note :

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
-----	-----------------	----------------	----------	---------------------	-----------------	----------------	--------------	----------------	-------------	---------

\*:Maximum data    x:Over limit    !:over margin



Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei  
 Tel:+886-2-6606-8877  
 Fax:+886-2-6606-8879

Radiated Emission Measurement

Operator: Sky

File :3

Data :#1

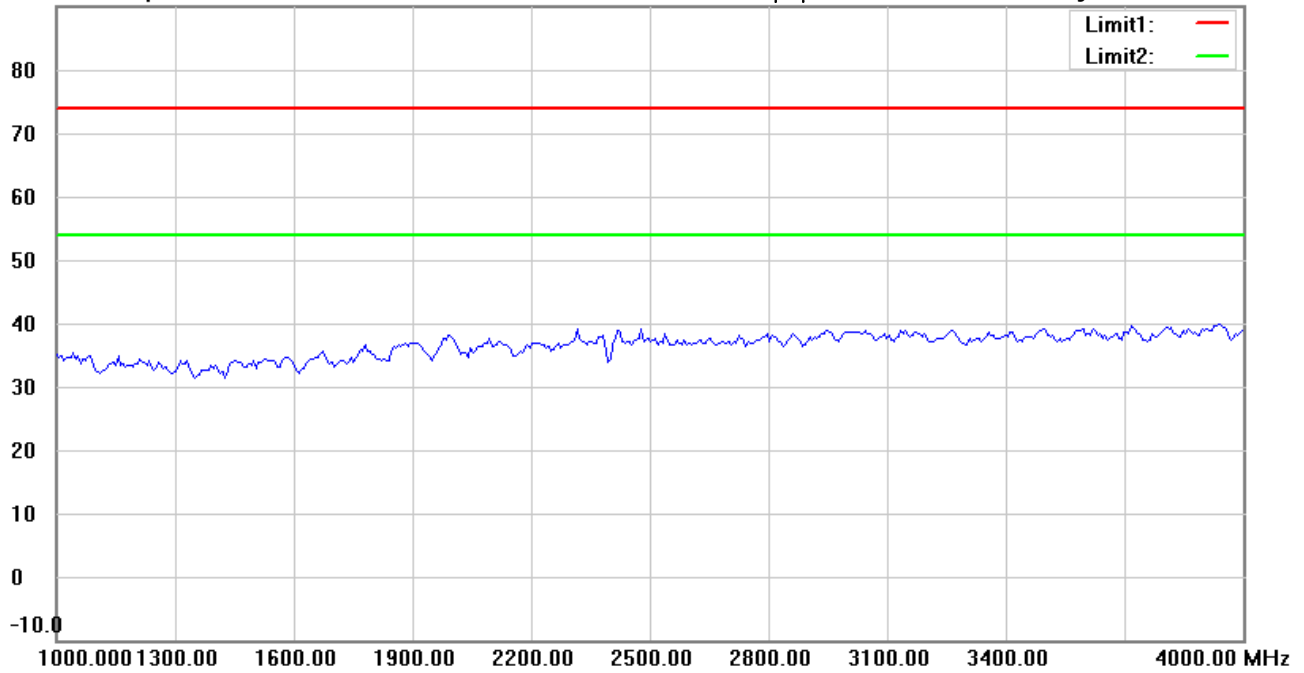
Date: 2023/7/27

Temperature:25.5 °C

90.0 dBuV/m

Time: 下午 10:12:17

Humidity:56.2 %



Site : Chamber

Condition : FCC\_part 15 RE-Class C\_Above 1GHz\_PK

EUT : W6M22307-22829

M/N:

Test Mode : TX 2480MHz

Note :

Polarization: *Horizontal*

Power : 3.7 Vd.c.

Distance: 3m

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
-----	-----------------	----------------	----------	---------------------	-----------------	----------------	--------------	----------------	-------------	---------

\*:Maximum data    x:Over limit    !:over margin



Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei  
 Tel:+886-2-6606-8877  
 Fax:+886-2-6606-8879

Radiated Emission Measurement

Operator: Sky

File :3

Data :#6

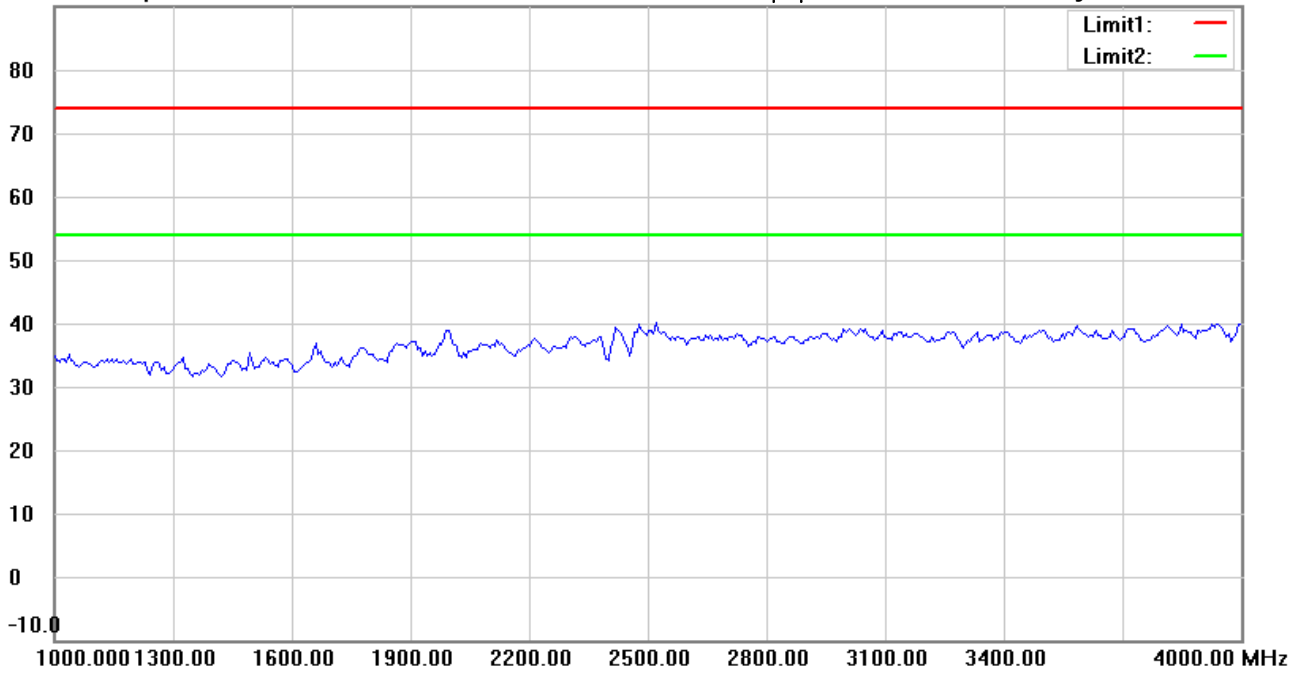
Date: 2023/7/27

Temperature:25.5 °C

90.0 dBuV/m

Time: 下午 10:16:12

Humidity:56.2 %



Site : Chamber

Condition : FCC\_part 15 RE-Class C\_Above 1GHz\_PK

Polarization: *Vertical*

EUT : W6M22307-22829

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2480MHz

Note :

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
-----	-----------------	----------------	----------	---------------------	-----------------	----------------	--------------	----------------	-------------	---------

\*:Maximum data    x:Over limit    !:over margin



Radiated Emission Measurement

Operator: Sky

File :3

Data :#2

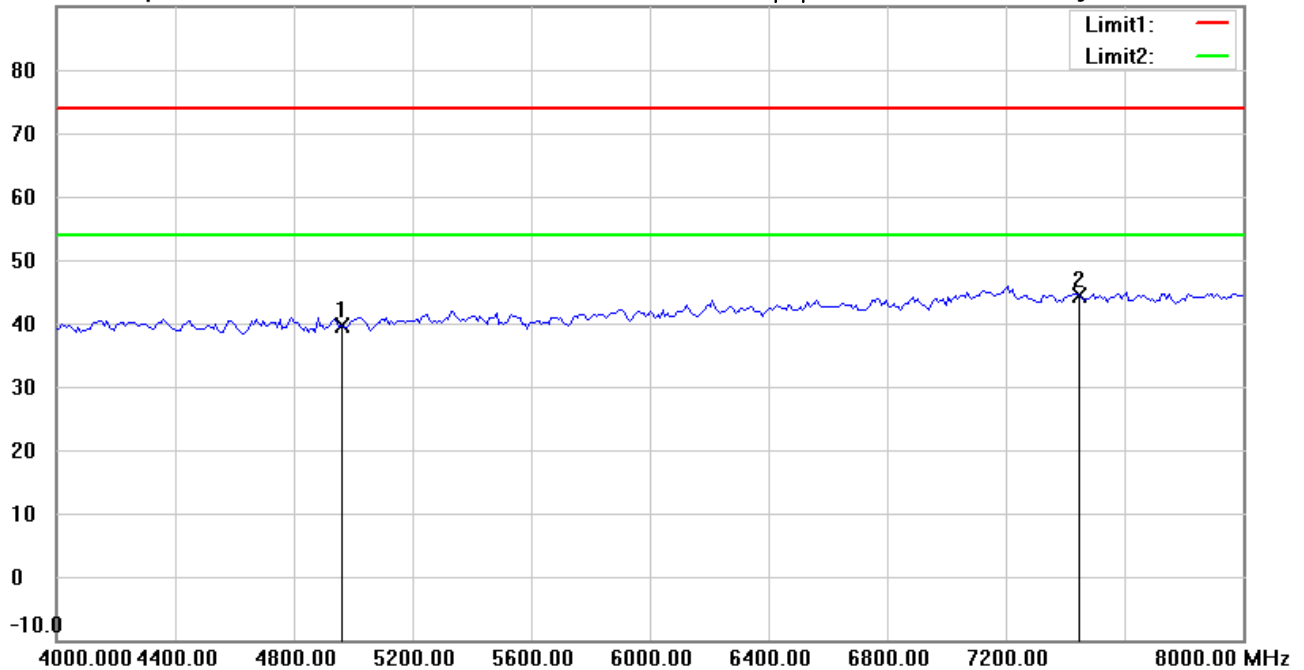
Date: 2023/7/27

Temperature:25.5 °C

90.0 dBuV/m

Time: 下午 10:13:19

Humidity:56.2 %



Site : Chamber

Condition : FCC\_part 15 RE-Class C\_Above 1GHz\_PK

Polarization: **Horizontal**

EUT : W6M22307-22829

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2480MHz

Note :

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	4960.000	40.32	peak	-0.79	39.53	74.00	150	92	-34.47	
*	7440.000	40.62	peak	3.81	44.43	74.00	150	101	-29.57	



Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei  
 Tel:+886-2-6606-8877  
 Fax:+886-2-6606-8879

Radiated Emission Measurement

Operator: Sky

File :3

Data :#7

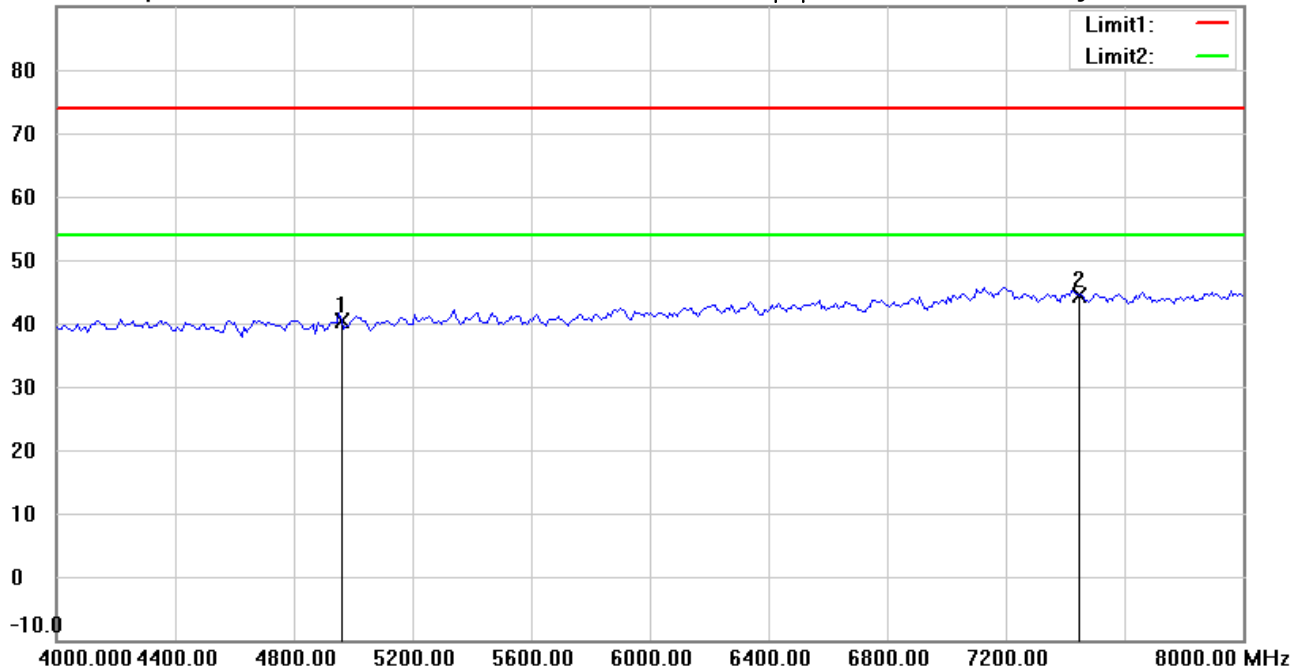
Date: 2023/7/27

Temperature:25.5 °C

90.0 dBuV/m

Time: 下午 10:17:14

Humidity:56.2 %



Site : Chamber

Condition : FCC\_part 15 RE-Class C\_Above 1GHz\_PK

Polarization: **Vertical**

EUT : W6M22307-22829

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2480MHz

Note :

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	4960.000	41.13	peak	-0.79	40.34	74.00	150	107	-33.66	
*	7440.000	40.59	peak	3.81	44.40	74.00	150	255	-29.60	

\*:Maximum data    x:Over limit    !:over margin



Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei  
 Tel:+886-2-6606-8877  
 Fax:+886-2-6606-8879

Radiated Emission Measurement

Operator: Sky

File :3

Data :#3

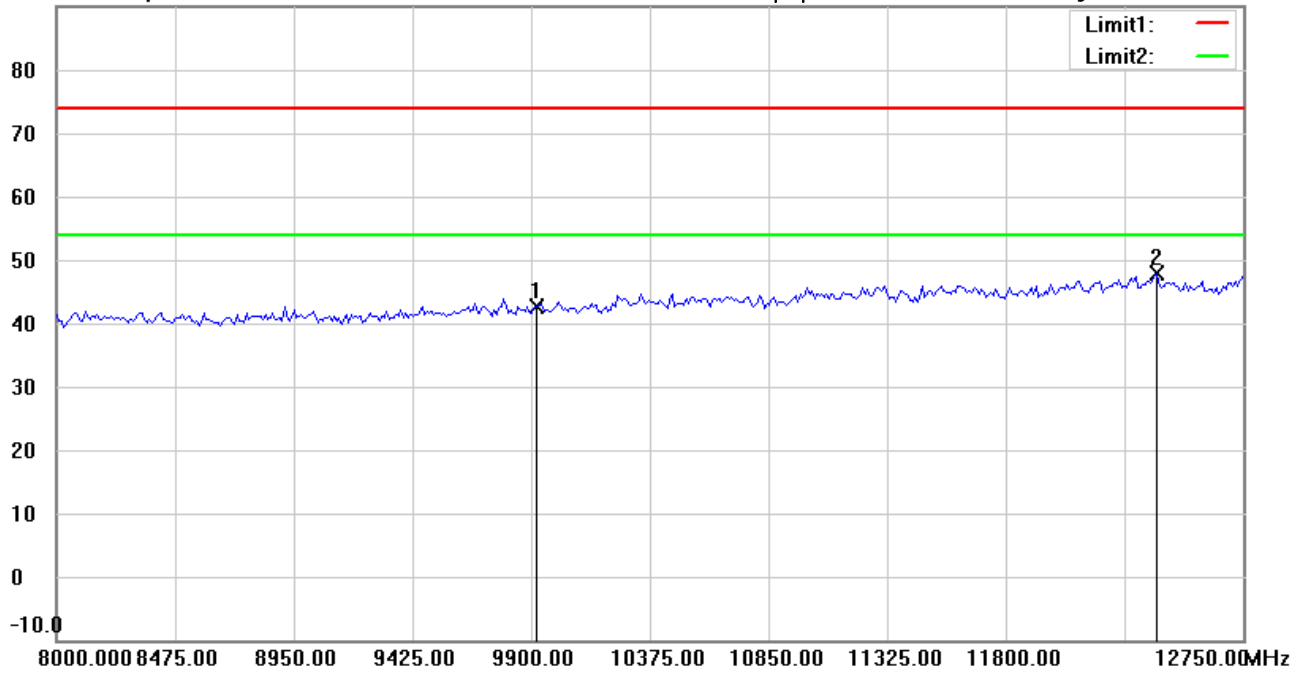
Date: 2023/7/27

Temperature:25.5 °C

90.0 dBuV/m

Time: 下午 10:14:35

Humidity:56.2 %



Site : Chamber

Condition : FCC\_part 15 RE-Class C\_Above 1GHz\_PK

Polarization: *Horizontal*

EUT : W6M22307-22829

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2480MHz

Note :

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	9920.000	35.12	peak	7.56	42.68	74.00	150	304	-31.32	
*	12400.000	34.45	peak	13.51	47.96	74.00	150	72	-26.04	

\*:Maximum data    x:Over limit    !:over margin



Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei  
 Tel:+886-2-6606-8877  
 Fax:+886-2-6606-8879

Radiated Emission Measurement

Operator: Sky

File :3

Data :#8

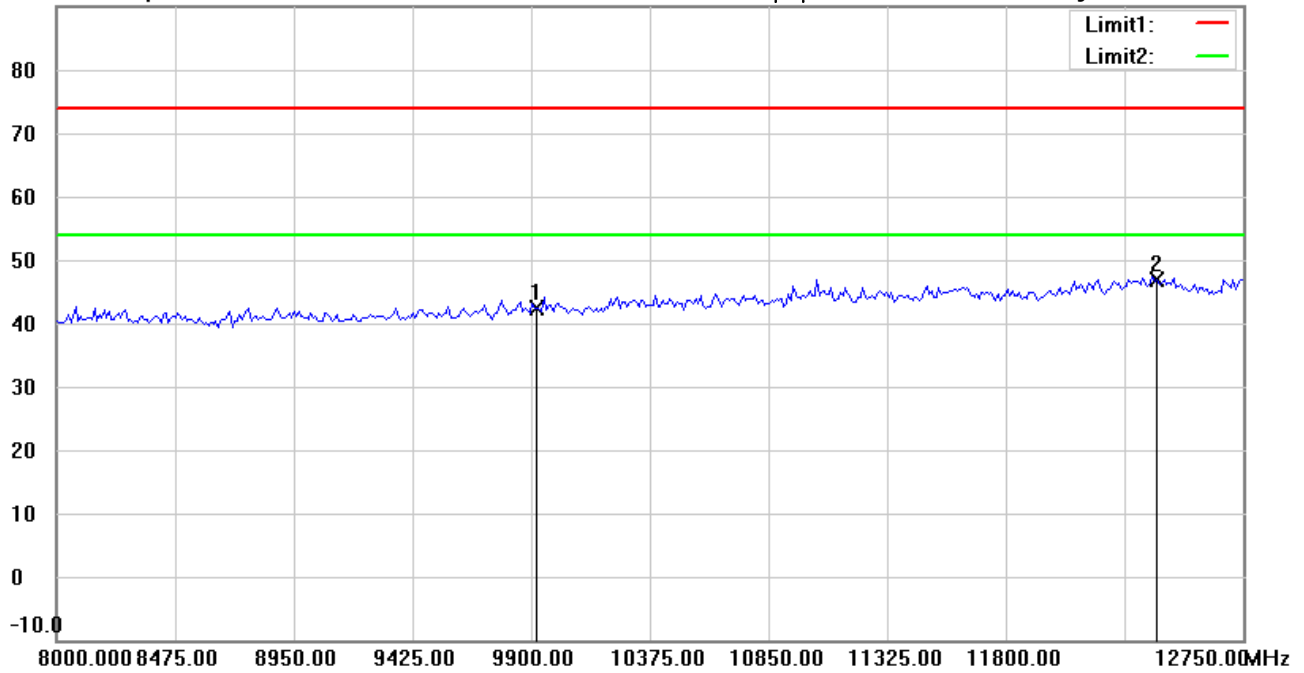
Date: 2023/7/27

Temperature:25.5 °C

90.0 dBuV/m

Time: 下午 10:18:24

Humidity:56.2 %



Site : Chamber

Condition : FCC\_part 15 RE-Class C\_Above 1GHz\_PK

Polarization: **Vertical**

EUT : W6M22307-22829

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2480MHz

Note :

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	9920.000	34.84	peak	7.56	42.40	74.00	150	201	-31.60	
*	12400.000	33.30	peak	13.51	46.81	74.00	150	93	-27.19	

\*:Maximum data x:Over limit !:over margin



Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei  
 Tel:+886-2-6606-8877  
 Fax:+886-2-6606-8879

Radiated Emission Measurement

Operator: Sky

File :3

Data :#4

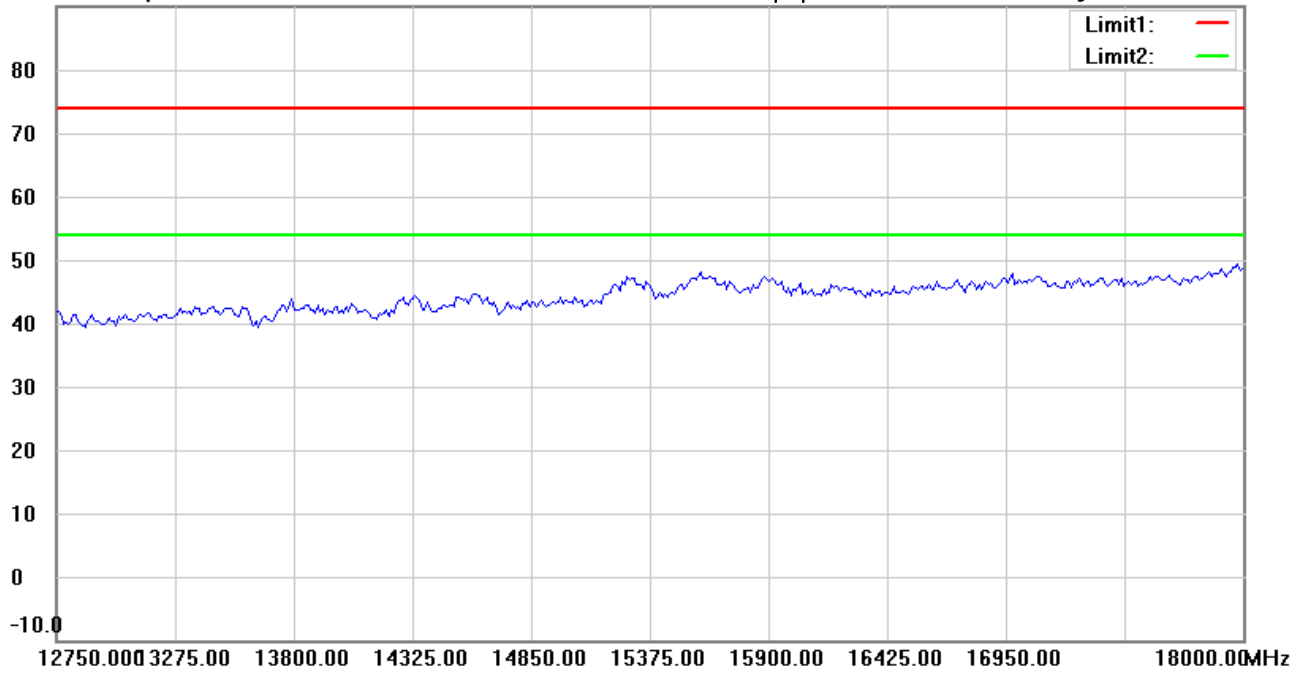
Date: 2023/7/27

Temperature:25.5 °C

90.0 dBuV/m

Time: 下午 10:14:50

Humidity:56.2 %



Site : Chamber

Condition : FCC\_part 15 RE-Class C\_Above 1GHz\_PK

Polarization: *Horizontal*

EUT : W6M22307-22829

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2480MHz

Note :

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
-----	-----------------	----------------	----------	---------------------	-----------------	----------------	--------------	----------------	-------------	---------

\*:Maximum data    x:Over limit    !:over margin





Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei  
 Tel:+886-2-6606-8877  
 Fax:+886-2-6606-8879

Radiated Emission Measurement

Operator: Sky

File :3

Data :#9

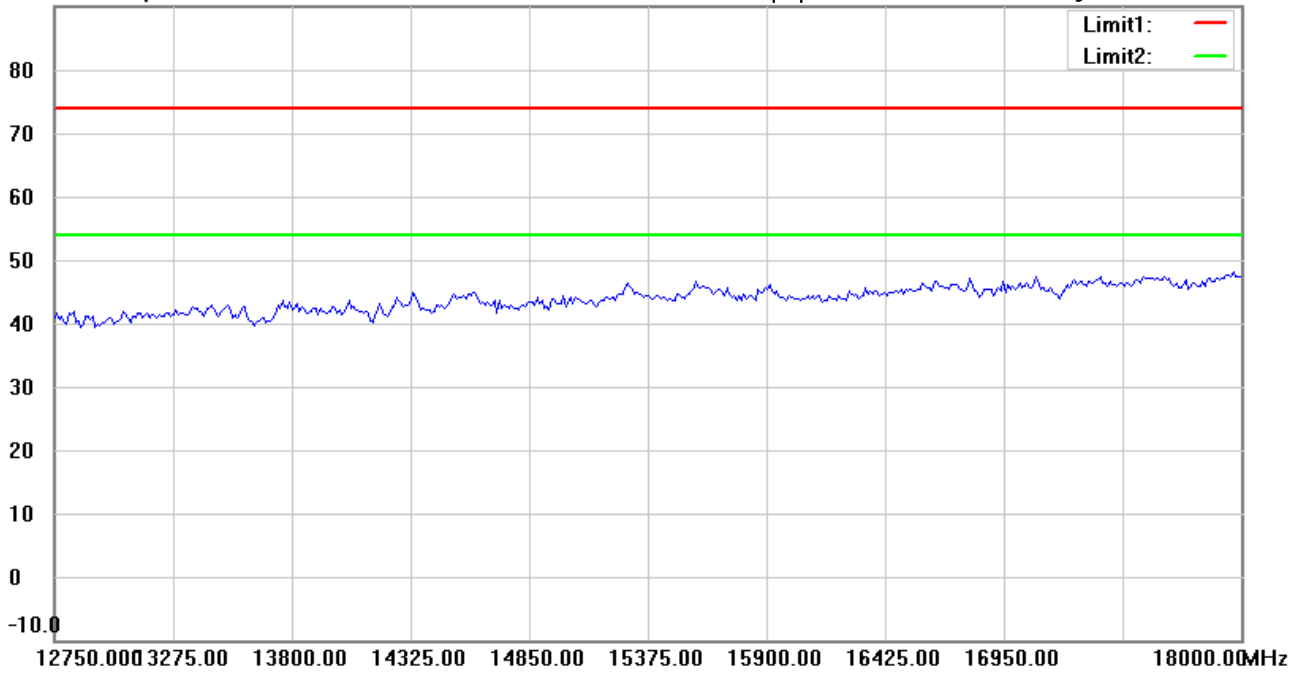
Date: 2023/7/27

Temperature:25.5 °C

90.0 dBuV/m

Time: 下午 10:18:39

Humidity:56.2 %



Site : Chamber

Condition : FCC\_part 15 RE-Class C\_Above 1GHz\_PK

Polarization: *Vertical*

EUT : W6M22307-22829

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2480MHz

Note :

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
-----	-----------------	----------------	----------	---------------------	-----------------	----------------	--------------	----------------	-------------	---------

\*:Maximum data    x:Over limit    !:over margin



Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei  
 Tel:+886-2-6606-8877  
 Fax:+886-2-6606-8879

Radiated Emission Measurement

Operator: Sky

File :3

Data :#5

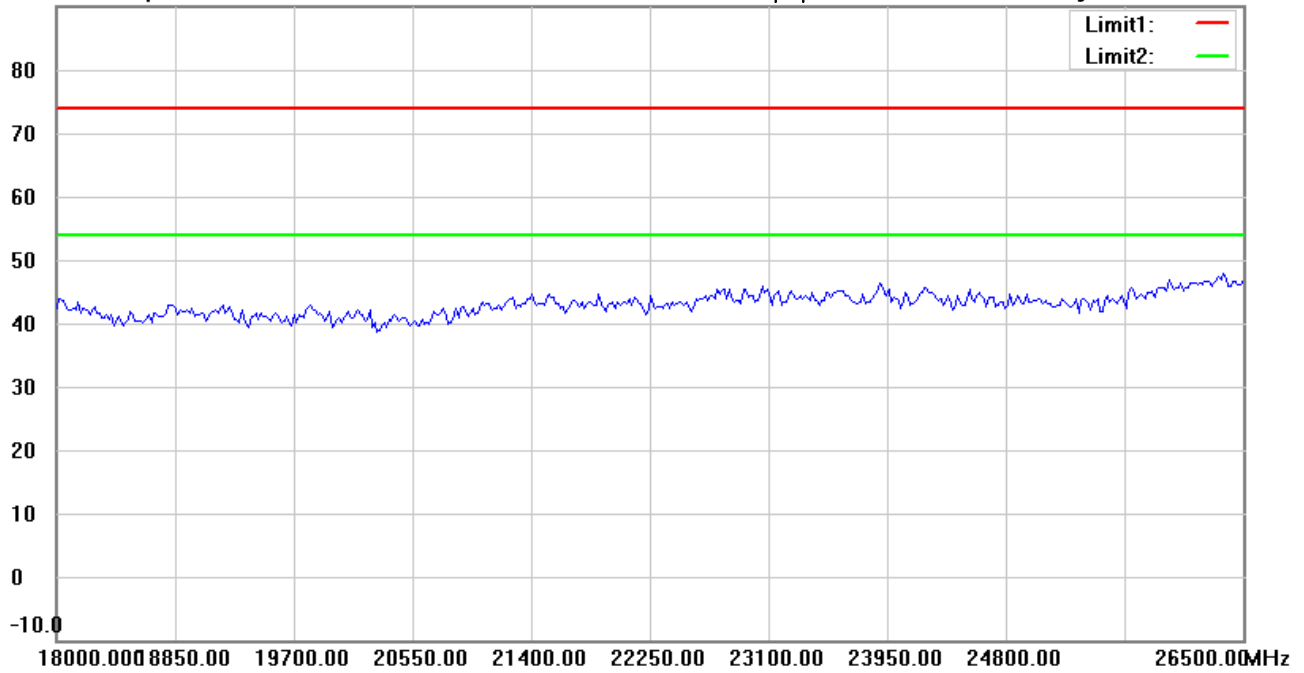
Date: 2023/7/27

Temperature:25.5 °C

90.0 dBuV/m

Time: 下午 10:15:01

Humidity:56.2 %



Site : Chamber

Condition : FCC\_part 15 RE-Class C\_Above 1GHz\_PK

Polarization: *Horizontal*

EUT : W6M22307-22829

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2480MHz

Note :

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
-----	-----------------	----------------	----------	---------------------	-----------------	----------------	--------------	----------------	-------------	---------

\*:Maximum data    x:Over limit    !:over margin



Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei  
 Tel:+886-2-6606-8877  
 Fax:+886-2-6606-8879

**Radiated Emission Measurement**

Operator: Sky

File :3

Data :#10

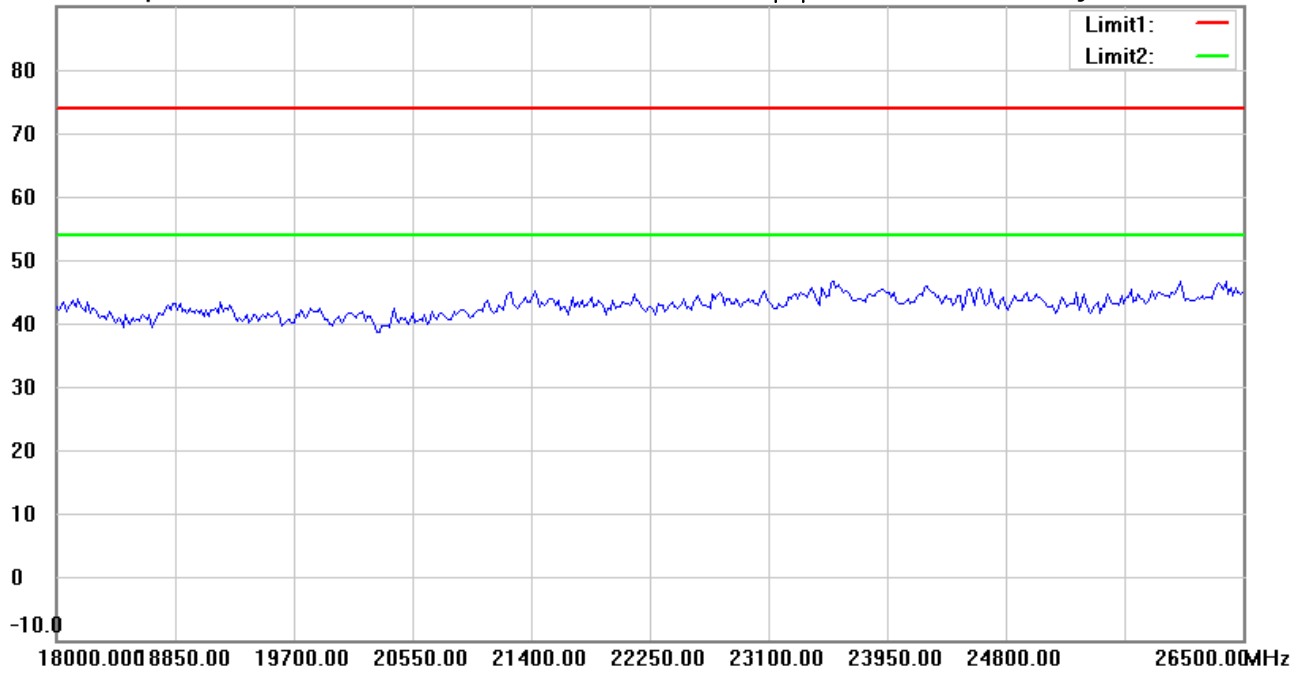
Date: 2023/7/27

Temperature:25.5 °C

90.0 dBuV/m

Time: 下午 10:18:50

Humidity:56.2 %



Site : Chamber

Condition : FCC\_part 15 RE-Class C\_Above 1GHz\_PK

EUT : W6M22307-22829

M/N:

Test Mode : TX 2480MHz

Note :

Polarization: **Vertical**

Power : 3.7 Vd.c.

Distance: 3m

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
-----	-----------------	----------------	----------	---------------------	-----------------	----------------	--------------	----------------	-------------	---------

\*:Maximum data    x:Over limit    !:over margin



Radiated Emission Measurement

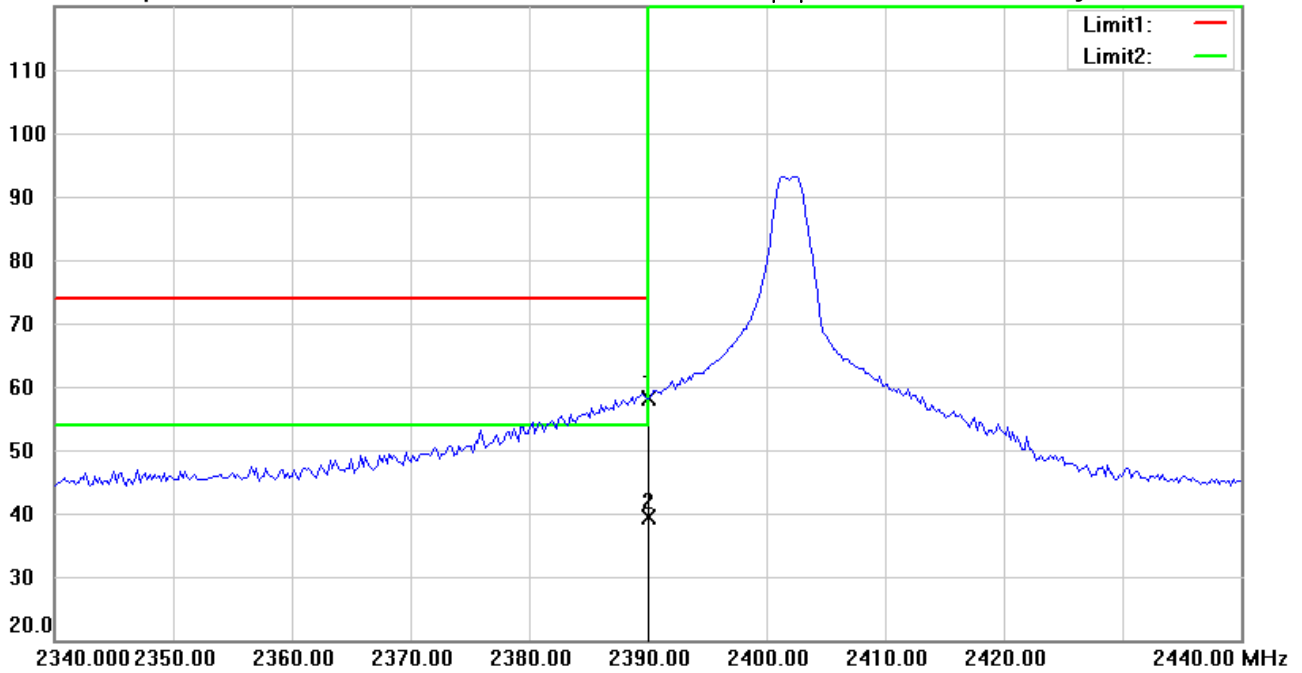
Operator: Kai

File :Bandedge  
 120.0 dBuV/m

Data :#1

Date: 2023/7/27  
 Time: 下午 03:58:35

Temperature:25.5 °C  
 Humidity:56.2 %



Site : Chamber

Condition : FCC 15.247 PK (Bandedge)

EUT : W6M22307-22829

M/N:

Test Mode : TX 2402MHz

Note :

Polarization: *Horizontal*

Power : 3.7 Vd.c.

Distance: 3m

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	2390.000	21.13	peak	37.04	58.17	74.00	269	309	-15.83	
*	2390.000	2.45	AVG	37.04	39.49	54.00	269	309	-14.51	



Radiated Emission Measurement

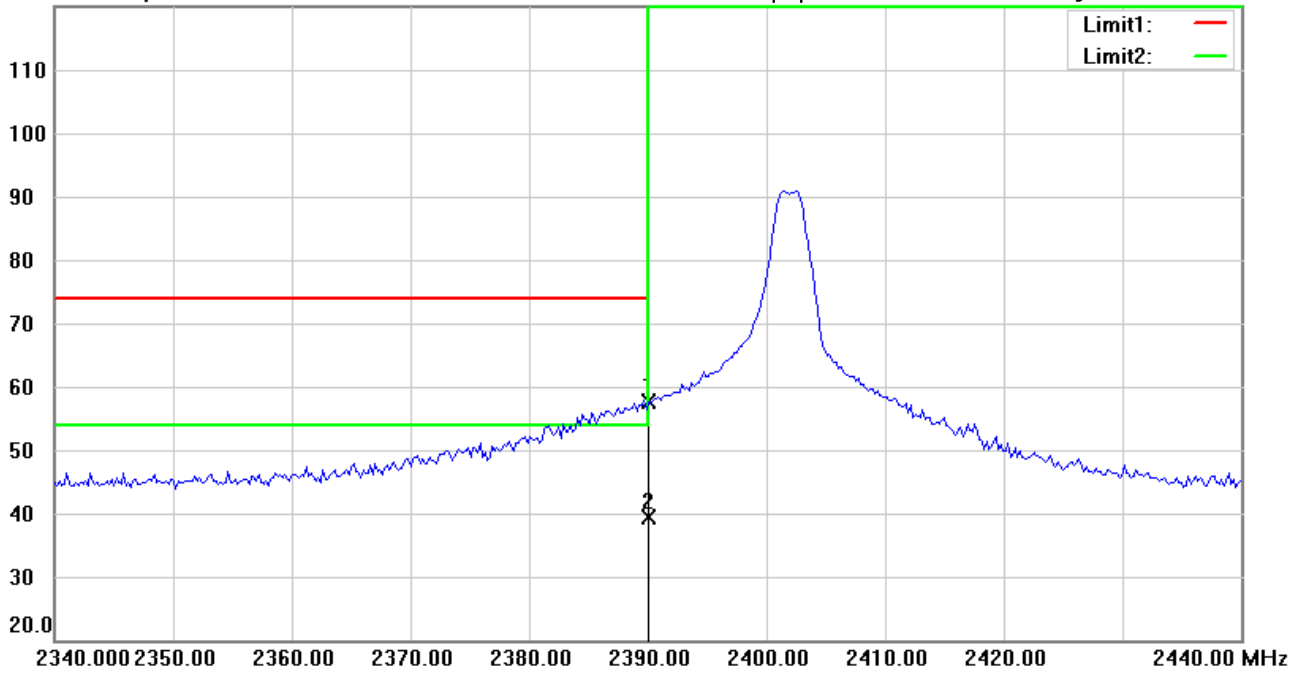
Operator: Kai

File :Bandedge  
 120.0 dBuV/m

Data :#2

Date: 2023/7/27  
 Time: 下午 04:02:42

Temperature:25.5 °C  
 Humidity:56.2 %



Site : Chamber

Condition : FCC 15.247 PK (Bandedge)

EUT : W6M22307-22829

M/N:

Test Mode : TX 2402MHz

Note :

Polarization: **Vertical**

Power : 3.7 Vd.c.

Distance: 3m

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	2390.000	20.56	peak	37.04	57.60	74.00	273	108	-16.40	
*	2390.000	2.40	AVG	37.04	39.44	54.00	273	108	-14.56	



Radiated Emission Measurement

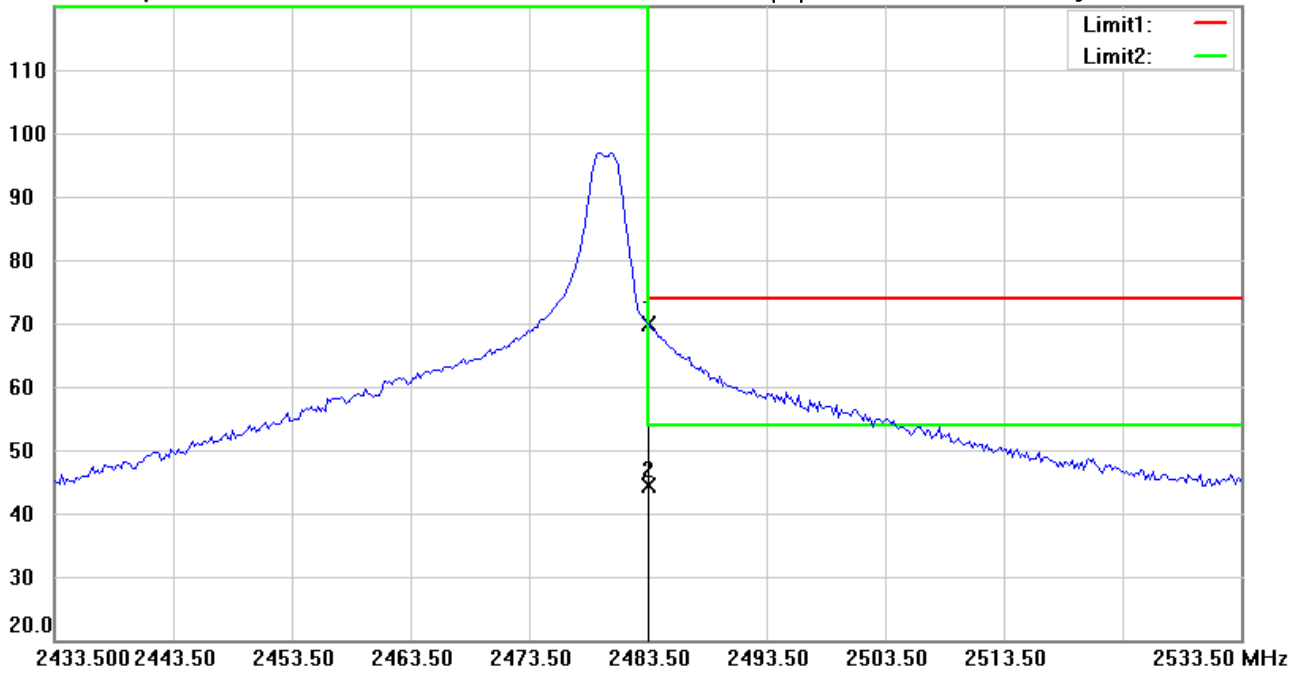
Operator: Kai

File :Bandedge  
 120.0 dBuV/m

Data :#1

Date: 2023/7/27  
 Time: 下午 04:09:14

Temperature:25.5 °C  
 Humidity:56.2 %



Site : Chamber

Condition : FCC 15.247 PK (Bandedge)

EUT : W6M22307-22829

M/N:

Test Mode : TX 2480MHz

Note :

Polarization: *Horizontal*

Power : 3.7 Vd.c.

Distance: 3m

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
*	2483.500	31.90	peak	37.88	69.78	74.00	150	221	-4.22	
	2483.500	6.48	AVG	37.88	44.36	54.00	150	221	-9.64	



Radiated Emission Measurement

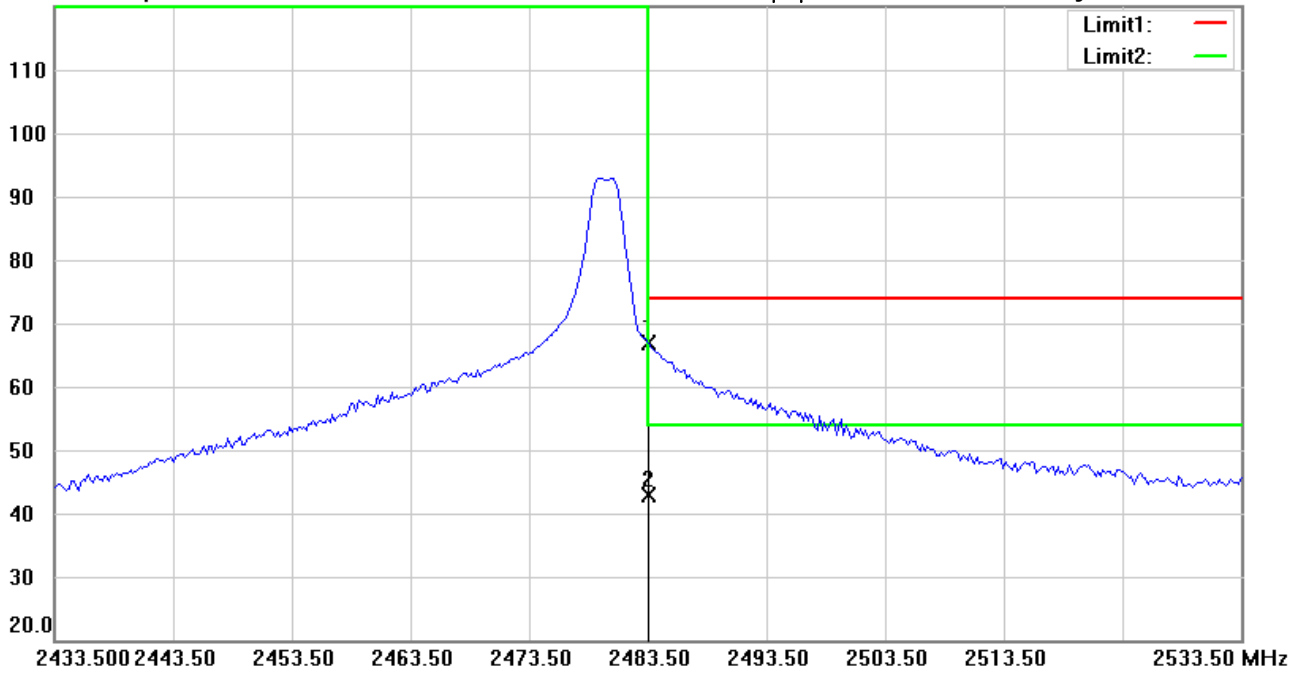
Operator: Kai

File :Bandedge  
 120.0 dBuV/m

Data :#2

Date: 2023/7/27  
 Time: 下午 04:14:20

Temperature:25.5 °C  
 Humidity:56.2 %



Site : Chamber

Condition : FCC 15.247 PK (Bandedge)

EUT : W6M22307-22829

M/N:

Test Mode : TX 2480MHz

Note :

Polarization: *Vertical*

Power : 3.7 Vd.c.

Distance: 3m

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
*	2483.500	29.01	peak	37.88	66.89	74.00	150	108	-7.11	
	2483.500	5.12	AVG	37.88	43.00	54.00	150	108	-11.00	