

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

**for**

**RX: Gym Bike Console**

**TX: Duplex Speed/Cadence Sensor**

**Model No.: RX:ZM8K TX:ZAS3D**

**FCC ID: QSWDSCSCS2**

**of**

**Applicant: Zentan Technology Co., Ltd.**

**Address: NO.92, Hsing-Sheng Road, Chia-Li District,  
Tainan City, 72254 Taiwan**

**Tested and Prepared**

**by**

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

**FCC Registration No.: TW1477, TW0020, TW1072**

**Industry Canada filed test laboratory Reg. No.: 20037**



**Report No.: W6M22101-20644-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)



**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 DETAILS OF APPROVAL HOLDER.....3

1.4 APPLICATION DETAILS .....3

1.5 GENERAL INFORMATION OF TEST ITEM .....4

1.6 TEST STANDARDS.....5

**2 TECHNICAL TEST .....6**

2.1 SUMMARY OF TEST RESULTS .....6

2.2 TEST ENVIRONMENT .....6

2.3 TEST EQUIPMENT LIST .....7

2.4 GENERAL TEST PROCEDURE .....10

**3 TEST RESULTS (ENCLOSURE) .....12**

3.1 PEAK OUTPUT POWER (TRANSMITTER).....13

3.2 EQUIVALENT ISOTROPIC RADIATED POWER.....16

3.3 EXEMPTION LIMITS FOR ROUTINE EVALUATION ACCORDING TO FCC KDB PUBLICATION .....16

3.4 TRANSMITTER RADIATED EMISSIONS IN RESTRICTED BANDS.....18

3.5 SPURIOUS EMISSIONS (TX) .....19

3.6 RADIATED EMISSION ON THE BAND EDGE .....21

3.7 MINIMUM 6 dB BANDWIDTH .....24

3.8 PEAK POWER SPECTRAL DENSITY .....28

3.9 RADIATED EMISSION FROM RECEIVER PART .....31

3.10 POWER LINE CONDUCTED EMISSION .....32

**APPENDIX.....33**



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

Registration number: W6M22101-20644-C-1  
FCC ID: QSWDSCSCS2

## **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.

The test results of this test report relate exclusively to the item tested as specified in 1.5.

The test report may only be reproduced or published in full.

Reproduction or publication of extracts from the report requires the prior written approval of the Worldwide Testing Services(Taiwan) Co., Ltd.

### **Tester:**

June 30, 2021

Kent Lin

---

Date

WTS-Lab.

Name

Signature

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

June 30, 2021

Kevin Wang

---

Date

WTS

Name

Signature



Registration number: W6M22101-20644-C-1  
FCC ID: QSWDSCSCS2

## **1.2 Testing laboratory**

### **1.2.1 Location**

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

FAX:886-2-2791-5046

Company

Worldwide Testing Services(Taiwan) Co., Ltd.

6F, NO. 58, LANE 188, RUEY-KUANG RD.

NEIHU, TAIPEI 114, TAIWAN R.O.C.

Tel : 886-2-66068877

Fax : 886-2-66068879

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

Accredited testing laboratory

FCC filed test laboratory Reg. No. TW1477, TW0020, TW1072

Industry Canada filed test laboratory Reg. No. 20037

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

Name: ./.

Accredited number: ./.

Street: ./.

Town: ./.

Country: ./.

Telephone: ./.

Fax: ./.

## **1.3 Details of approval holder**

Name: Zentan Technology Co., Ltd.

Street: NO.92, Hsing-Sheng Road, Chia-Li District,

City: Tainan City, 72254

Country: Taiwan

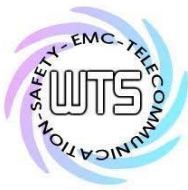
Telephone: +886-6-7232226

Fax: +886-6-7231289

## **1.4 Application details**

Date of receipt of test item: March 29, 2021

Date of test: from March 30, 2021 to June 23, 2021



Registration number: W6M22101-20644-C-1  
FCC ID: QSWDSCSCS2

## 1.5 General information of Test item

Type of test item: RX: Gym Bike Console TX: Duplex Speed/Cadence Sensor  
Model Number: RX:ZM8K TX:ZAS3D  
Brand Name: CARDIOSPORT  
Multi-listing model number: RX:ZM8 TX:ZAS3D  
Photos: see Appendix

### Technical data

Frequency band: 2402 MHz-2480 MHz (BLE), 2457 MHz (ANT+)

BLE

Frequency ( ch 0 or A): 2402 MHz

Frequency ( ch 19 or B): 2440 MHz

Frequency ( ch 39 or C): 2480 MHz

Number of Channels: 40

ANT+

Frequency ( ch D): 2457 MHz

Operation modes: Duplex (BLE), Half-duplex (ANT+)

Modulation Type: GFSK

Fixed point-to-point operation:  Yes /  No

Type of Antenna: Chip Antenna

Antenna gain: 1.57 dBi

(Testing laboratory assumes no responsibility for affecting any validity of the result while the information which is provided by clients.)

Power supply: TX: Battery 3Vd.c. (CR2032)

RX: Battery 4.5Vd.c. (AAA\*3)

Emission designator: BLE: 1M05G1D, ANT+: 1M64G1D

Host device: none

Classification:

Fixed Device	<input type="checkbox"/>
Mobile Device (Human Body distance > 20cm) (FCC rule part 2.1091)	<input type="checkbox"/>
Portable Device (Human Body distance < 20cm) (FCC rule part 2.1093)	<input checked="" type="checkbox"/>



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

Registration number: W6M22101-20644-C-1  
FCC ID: QSWDSCSCS2

## **Transmitter**

## **Unom**

### **BLE**

<b>Power (ch A):</b>	Conducted: 3.15 dBm
<b>Power (ch B):</b>	Conducted: 3.17 dBm
<b>Power (ch C):</b>	Conducted: 3.02 dBm

### **ANT+**

<b>Power (ch D):</b>	Conducted: 0.97 dBm
----------------------	---------------------

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

Name:	./.
Street:	./.
Town:	./.
Country:	./.

Additional information:	./.
-------------------------	-----

## **1.6 Test standards**

Technical standard : 47 CFR PART 15 SUBPART C § 15.247 (2019-10)



Registration number: W6M22101-20644-C-1  
FCC ID: QSWDSCSCS2

**2 Technical test**

**2.1 Summary of test results**

No deviations from the technical specification(s) were ascertained in the course of the tests performed.

or

The deviations were ascertained in the course of the tests performed.

**2.2 Test environment**

Relative humidity content: 20 ... 75 %

Air pressure: 86 ... 103 kPa

Power supply: TX: Battery 3Vd.c. (CR2032)  
RX: Battery 4.5Vd.c. (AAA\*3)

Extreme conditions parameters: ./.

Test item Name	Uncertainty
Estimation Result of Uncertainty of Conducted Emission	Expanded Uncertainty : AMN : 1.05 dB Voltage probe : 1.05 dB
Estimation Result of Uncertainty of Radiated Emission(3M)	Expanded Uncertainty : 0.009-30 MHz : 2.13 dB 30-1000 MHz : 3.53 dB 1-18 GHz : 4.19 dB 18-40 GHz : 4.09 dB
Estimation Result of Uncertainty of Bandwidth Measurement 20 dB Bandwidth, Occupied bandwidth, Channel bandwidth, Necessary Bandwidth	Expanded Uncertainty : 0.41 kHz
Estimation Result of Uncertainty of Conducted Output Power Measurement Output power	Expanded Uncertainty : 1.61 dB
Estimation Result of Uncertainty of Power Density Measurement Power density	Expanded Uncertainty : 1.68 dB
Estimation Result of Uncertainty of Band Edge Measurement	Expanded Uncertainty : 1.33 dBc

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



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

Registration number: W6M22101-20644-C-1  
 FCC ID: QSWDSCSCS2

## 2.3 Test Equipment List

No.	Test equipment	Type	Serial No.	Manufacturer	Cal. Date	Next Cal. Date
ETSTW-CE 001	EMI TEST RECEIVER	ESHS10	842121/013	R&S	2021/6/4	2022/6/3
ETSTW-CE 003	AC POWER SOURCE	APS-9102	D161137	GW	Function Test	
ETSTW-CE 004	ZWEILEITER-V-NETZNACHBILDUNG TWO-LINE V-NETWORK	ESH3-Z5	840731/011	R&S	2020/11/6	2021/11/5
ETSTW-CE 006	IMPULSBEGRENZER PULSE LIMITER	ESH3-Z2	100226	R&S	2020/9/22	2021/9/21
ETSTW-CE 008	HF-EICHLLEITUNG RF STEP ATTENUATOR 139dB DPSP	334.6010.02	844581/024	R&S	Function Test	
ETSTW-CE 009	TEMP.&HUMIDITY CHAMBER	GTH-225-40-1P-U	MAA0305-009	GIANT FORCE	2020/7/22	2021/7/21
ETSTW-CE 016	TWO-LINE V-NETWORK	ENV216	100050	R&S	2020/10/26	2021/10/25
ETSTW-CE 028	MXE EMI Receiver	N9038A	MY53220110	Agilent	2020/7/29	2021/7/28
ETSTW-RE 003	EMI TEST RECEIVER	ESI 26	831438/001	R&S	2021/6/4	2022/6/3
ETSTW-RE 004	EMI TEST RECEIVER	ESI 40	832427/004	R&S	2020/9/14	2021/9/13
ETSTW-RE 012	TUNABLE BANDREJECT FILTER	D.C 0309	146	K&L	Function Test	
ETSTW-RE 013	TUNABLE BANDREJECT FILTER	D.C 0336	397	K&L	Function Test	
ETSTW-RE 018	MICROWAVE HORN ANTENNA	AT4560	27212	AR	2020/7/30	2021/7/29
ETSTW-RE 019	MICROWAVE HORN ANTENNA	22240-25	121074	FM	2021/5/31	2022/5/30
ETSTW-RE 027	Passive Loop Antenna	6512	00034563	ETS-Lindgren	2020/7/8	2021/7/7
ETSTW-RE 030	Double-Ridged Guide Horn Antenna	3117	00035224	ETS-Lindgren	2021/5/5	2022/5/4
ETSTW-RE 042	Biconical Antenna	HK116	100172	R&S	2021/3/18	2022/3/17
ETSTW-RE 043	Log-Periodic Dipole Antenna	HL223	100166	R&S	2021/5/21	2022/5/20
ETSTW-RE 044	Log-Periodic Antenna	HL050	100094	R&S	2020/8/3	2021/8/2
ETSTW-RE 045	ESA-E SERIES SPECTRUM ANALYZER	E4404B	MY45111242	Agilent	Pre-test Use	
ETSTW-RE 050	Attenuator 10dB	50HF-010-1	None	JFW	2021/2/19	2022/2/18
ETSTW-RE 051	Attenuator 6dB	50HF-006-1	None	JFW	2021/2/19	2022/2/18
ETSTW-RE 053	Attenuator 3dB	50HF-003-1	None	JFW	2021/2/19	2022/2/18
ETSTW-RE 055	SPECTRUM ANALYZER	FSU 26	200074	R&S	2021/3/16	2022/3/15
ETSTW-RE 060	Attenuator 30dB	5015-30	F651012z-01	ATM	2021/2/19	2022/2/18
ETSTW-RE 062	Amplifier Module	CHC 2	None	KMIC	2021/5/5	2022/5/4
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	
ETSTW-RE 072	CELL SITE TEST SET	8921A	3339A00375	HP	2020/10/15	2021/10/14
ETSTW-RE 088	SOLID STATE AMPLIFIER	KMA180265A01	99057	KMIC	2020/9/17	2021/9/16
ETSTW-RE 091	Match Pad	MDCS1500	None	WOKEN	2021/5/27	2022/5/26
ETSTW-RE 099	DC Block	50DB-007-1	None	JFW	2021/2/19	2022/2/18
ETSTW-RE 112	AC POWER SOURCE	TFC-1005	T-0A023536	T-Power	Function test	
ETSTW-RE 115	2.4GHz Notch Filter	N0124411	473874	MICROWAVE	2021/1/6	2022/1/5





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

Registration number: W6M22101-20644-C-1  
 FCC ID: QSWDSCSCS2

				CIRCUITS		
ETSTW-RE 120	RF Player	MP9200	MP9210-111022	ADIVIC	2020/12/25	2021/12/24
ETSTW-RE 122	SIGNAL GENERATOR	SMF100A	102149	R&S	2021/6/4	2022/6/3
ETSTW-RE 125	5GHz Notch filter	5NSL11-5200/E221.3-O/O	1	K&L Microwave	2020/8/7	2021/8/6
ETSTW-RE 126	5GHz Notch filter	5NSL12-5800/E221.3-O/O	1	K&L Microwave	2020/8/7	2021/8/6
ETSTW-RE 127	RF Switch Box	RFS-01	None	WTS	2021/2/19	2022/2/18
ETSTW-RE 128	5.3GHz Notch filter	N0153001	SN487233	Microwave Circuits	2020/8/7	2021/8/6
ETSTW-RE 129	5.5GHz Notch filter	N0555984	SN487234	Microwave Circuits	2020/8/7	2021/8/6
ETSTW-RE 130	Handheld RF Spectrum Analyzer	N9340A	CN0147000204	Agilent	Pre-test Use	
ETSTW-RE 142	Amplifier	8447D	2805A03378	Agilent	2021/5/5	2022/5/4
ETSTW-RE 146	Preamplifier	JPA-10M1G	15090004	JPT	2021/6/4	2022/6/3
ETSTW-RE 147	Bi-log Hybrid Antenna	MCTD 2786B	BLB16M04005	ETC	2021/4/7	2022/4/6
ETSTW-RE 148	Bi-log Hybrid Antenna	MCTD 2786B	BLB16M04006	ETC	2020/7/9	2021/7/8
ETSTW-RE 153	Signal Analyzer	FSV40	101929	R&S	2020/10/1	2021/9/30
ETSTW-RF 002	Electromagnetic field probe	LF-30	K-0007	STT	2021/6/4	2022/6/3
ETSTW-EMI 011	USB Compact Modulator	SFC-U	101689	R&S	2021/6/2	2022/6/1
ETSTW-GSM 002	Universal Radio Communication Tester	CMU 200	109439	R&S	2021/3/16	2022/3/15
ETSTW-GSM 003	Radio Communication Analyzer	MT8820C	6201342073	Anritsu	2021/4/27	2022/4/26
ETSTW-GSM 004	Wideband Radio Communication Tester	CMW500	128092	R&S	2020/11/10	2021/11/9
ETSTW-GSM 019	Band Reject Filter	WRCTF824/849-822/851-40 /12+9SS	3	WI	2021/1/6	2022/1/5
ETSTW-GSM 020	Band Reject Filter	WRCD1747/1748-1743/1752-32/5SS	1	WI	2021/1/6	2022/1/5
ETSTW-GSM 021	Band Reject Filter	WRCD1879.5/1880.5-1875.5/1884.5-32/5SS	3	WI	2021/1/6	2022/1/5
ETSTW-GSM 022	Band Reject Filter	WRCT901.9/903.1-904.25-50/8SS	1	WI	2021/1/6	2022/1/5
ETSTW-GSM 023	Power Divider	4901.19.A	None	SUHNER	2020/9/8	2021/9/7
ETSTW-GSM 024	Radio Communication Analyzer	MT8821C	None	Anritsu	2021/4/1	2022/3/31
ETSTW-GSM 025	Band Reject Filter	BRM19835	001	Micro-Tronics	2020/8/7	2021/8/6
ETSTW-Cable 011	SMA to N type Cable	RGU-400	None	THERMAX	Pre-test Use NCR	
ETSTW-Cable 016	BNC Cable	Switch Box	B Cable 1	Schwarz beck	2021/2/19	2022/2/18
ETSTW-Cable 017	BNC Cable	X Cable	B Cable 2	Schwarz beck	2021/2/19	2022/2/18
ETSTW-Cable 018	BNC Cable	Y Cable	B Cable 3	Schwarz beck	2021/2/19	2022/2/18
ETSTW-Cable 019	BNC Cable	Z Cable	B Cable 4	Schwarz beck	2021/2/19	2022/2/18
ETSTW-Cable 020	N TYPE Cable	OATS Cable 1	N30N30-L335-15M	JYE BAO CO.,LTD.	2021/6/22	2022/6/21
ETSTW-Cable 027	Microwave Cable	SUCOFLEX 104	279083	HUBER+SUHNER	2021/5/5	2022/5/4
ETSTW-Cable 028	Microwave Cable	FA147A0015M2020	30064-2	UTIFLEX	2020/9/17	2021/9/16
ETSTW-Cable 029	Microwave Cable	FA147A0015M2020	30064-3	UTIFLEX	2020/9/17	2021/9/16
ETSTW-Cable 030	Microwave Cable	SUCOFLEX 104 (S Cable 9)	279067	HUBER+SUHNER	2021/2/19	2022/2/18



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

Registration number: W6M22101-20644-C-1  
 FCC ID: QSWDSCSCS2

ETSTW-Cable 043	Microwave Cable	SUCOFLEX 104	317576	HUBER+SUHNER	2021/5/5	2022/5/4
ETSTW-Cable 047	Microwave Cable	SUCOFLEX 104	325518	HUBER+SUHNER	2020/7/3	2021/7/2
ETSTW-Cable 058	Microwave Cable	SUCOFLEX 104	none	HUBER+SUHNER	2021/6/4	2022/6/3
ETSTW-Cable 064	Microwave Cable	SUCOFLEX 104	MY28891	HUBER+SUHNER	2021/5/5	2022/5/4
ETSTW-Cable 071	N TYPE CABLE	EMCCFD400-NM-NM-25000	170239	EMCI	2021/6/4	2022/6/3
ETSTW-Cable 072	SMA type cable (8m)	SUCOFLEX 104	805800/4	HUBER+SUHNER	2021/5/5	2022/5/4
ETSTW-Cable 074	SMA type cable (2m)	SUCOFLEX 104	802563/4	HUBER+SUHNER	2021/5/5	2022/5/4
WTSTW-SW 002	EMI TEST SOFTWARE	EZ EMC	None	Farad	Version ETS-03A1	
WTSTW-SW 006	EMI TEST SOFTWARE	e3	None	AUDIX	Version 9.161014	
WTSTW-SW 008	Signal studio	Agilent	None	AUDIX	Version 2.0.0.1	
ETSTW-TH 002	Thermohygrometer	608-H1	45204317	Testo	2020/9/23	2021/9/22
ETSTW-TH 003	Wireless weather station	GAIA	N/A	TFA	2020/12/3	2021/12/2



Registration number: W6M22101-20644-C-1  
FCC ID: QSWDSCSCS2

## **2.4 General Test Procedure**

**POWER LINE CONDUCTED INTERFERENCE:** The procedure used was ANSI STANDARD C63.10-2013 5.2 using a 50 $\mu$ H LISN (if necessary). Both lines were observed. The bandwidth of the spectrum analyzer was 10 kHz with an appropriate sweep speed.

**RADIATION INTERFERENCE:** The test procedure used was according to ANSI STANDARD C63.10-2013 6.4 employing a spectrum analyzer. For investigated frequency is equal to or below 1GHz, the RBW and VBW of the spectrum analyzer was 100 kHz and 100kHz respectively with an appropriate sweep speed. For investigated frequency is above 1GHz, both of RBW and VBW of the spectrum analyzer were 1 MHz with an appropriate sweep speed. The analyzer was calibrated in dB above a microvolt at the output of the antenna.

**FORMULA OF CONVERSION FACTORS:** The Field Strength at 3m was established by adding the meter reading of the spectrum analyzer (which is set to read in units of dB $\mu$ V) to the antenna correction factor supplied by the antenna manufacturer. The antenna correction factors are stated in terms of dB.

Example:

Freq (MHz)      METER READING + ACF + CABLE LOSS (to the receiver) = FS  
33                      20 dB $\mu$ V + 10.36 dB + 6 dB = 36.36 dB $\mu$ V/m @3m

The EUT was placed on a table 80 cm high and with dimensions of 1m by 1.5m (non metallic table) and arranged according to ANSI C63.10-2013 6.3.1. The table used for radiated measurements is capable of continuous rotation. The spectrum was scanned from 30 MHz to the frequency specified as follows:

- (1) If the intentional radiator operates below 10 GHz: to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower.
- (2) If the intentional radiator operates at or above 10 GHz and below 30 GHz: to the fifth harmonic of the highest fundamental frequency or to 100 GHz, whichever is lower.
- (3) If the intentional radiator operates at or above 30 GHz: to the fifth harmonic of the highest fundamental frequency or to 200 GHz, whichever is lower, unless specified otherwise elsewhere in the rules.
- (4) If the intentional radiator contains a digital device, regardless of whether this digital device controls the functions of the intentional radiator or the digital device is used for additional control or function purposes other than to enable the operation of the intentional radiator, the frequency range shall be investigated up to the range specified in paragraphs (a)(1)-(a)(3) of this section or the range applicable to the digital device, as shown in paragraph (b)(1) of this Section, whichever is the higher frequency range of investigation.

For hand-held devices, a exploratory test was performed with three (3) orthogonal planes to determine the highest emissions.

When an emission was found, the table was rotated to produce the maximum signal strength. At this point, the antenna was raised and lowered from 1m to 4m. The antenna was placed in both the horizontal and vertical planes.



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

Registration number: W6M22101-20644-C-1  
FCC ID: QSWDSCSCS2

When the radiated emission limits are expressed in terms of the average value of the emission, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum value.

The formula is as follows:

Average = Peak + Duty Factor

Duty Factor =  $20 \log(\text{dwell time}/T)$

T = 100ms when the pulse train period is over 100 ms or the period of the pulse train.

Modified Limits for peak according to 15.35 (b) = Max Permitted average Limits + 20dB

ANSI STANDARD C63.10-2013 10.2.7: Any measurements that utilize special test software shall be indicated and referenced in the test report. During testing, test software 'EZ EMC' was used for setting up different operation modes.



Registration number: W6M22101-20644-C-1  
 FCC ID: QSWDSCSCS2

**3 Test results (enclosure)**

Test case	Para. Number	Required	Test passed	Test failed
Peak Output Power	15.247(b)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Equivalent isotropically radiated Power	15.247(b)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Spurious Emissions radiated – Transmitter operating	15.247(d): 15.209	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Band Edge Measurement	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"/>
Radiated Emission from Receiver part	15.109	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Power Line Conducted Emission	15.207	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The following is intentionally left blank.



Registration number: W6M22101-20644-C-1  
FCC ID: QSWDSCSCS2

### 3.1 Peak Output Power (transmitter)

FCC Rule: 15.247(b)(3)

This measurement applies to equipment with an integral antenna and to equipment with an antenna connector and equipped with an antenna as declared by the applicant.

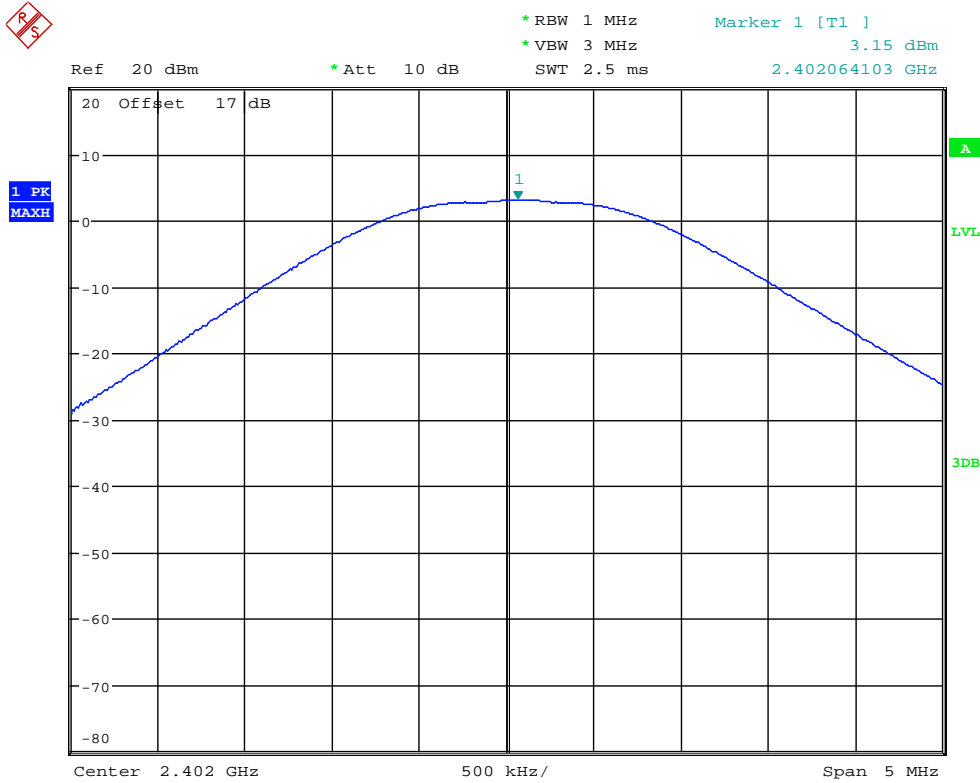
Test date: April 08, 2021

Temperature: 22.1 °C

Humidity: 54.0 %

Tester: Kent

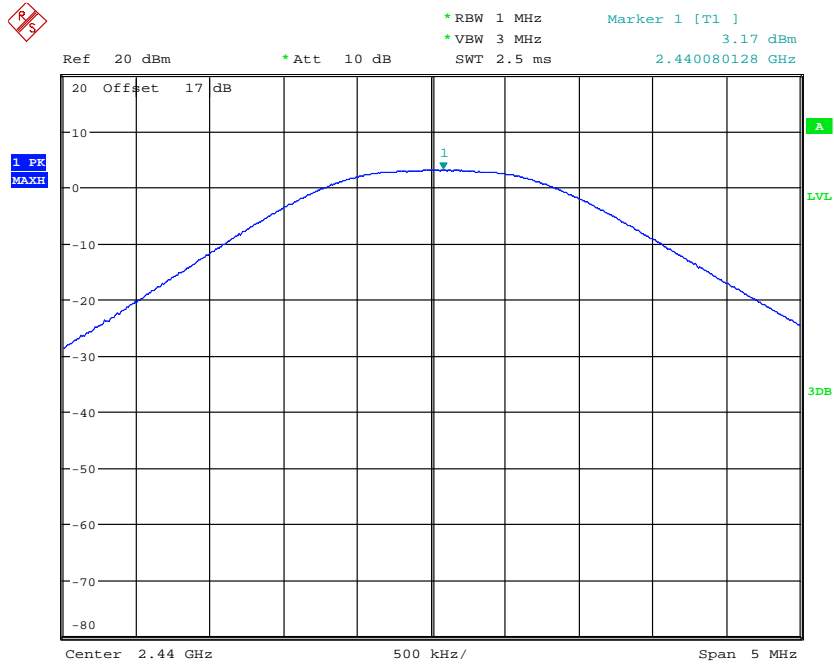
BLE



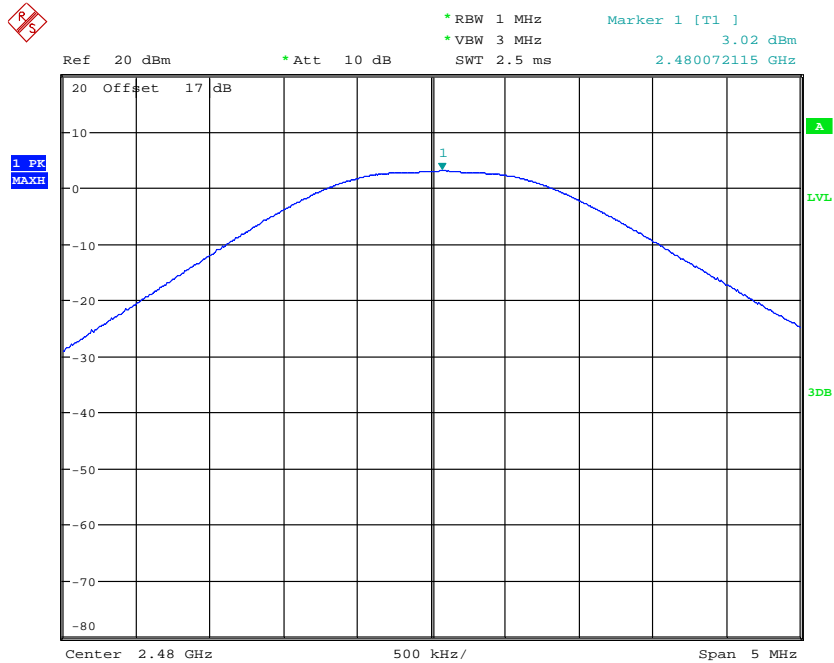
MAX OUTPUT POWER BT4.0 CH00  
Date: 8.APR.2021 19:55:24



Registration number: W6M22101-20644-C-1  
FCC ID: QSWDSCSCS2



MAX OUTPUT POWER BT4.0 CH19  
Date: 8.APR.2021 19:56:22



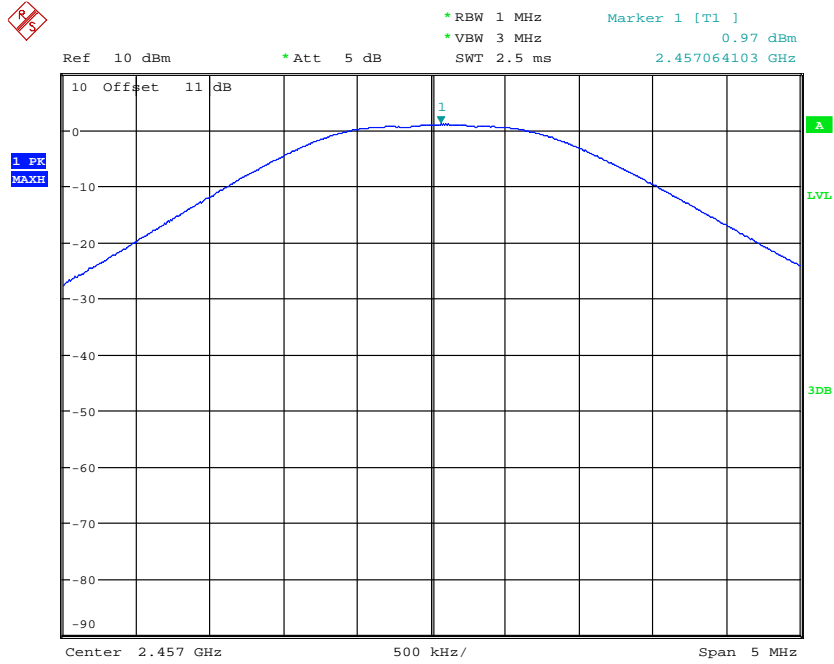
MAX OUTPUT POWER BT4.0 CH39  
Date: 8.APR.2021 19:57:16



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

Registration number: W6M22101-20644-C-1  
 FCC ID: QSWDSCSCS2

ANT+



MAX OUTPUT POWER ANT+ 2457MHz  
 Date: 8.APR.2021 19:25:11

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)

Test equipment used: ETSTW-RE 055, ETSTW-RE 050





Registration number: W6M22101-20644-C-1  
FCC ID: QSWDSCSCS2

**3.2 Equivalent isotropic radiated power**

FCC Rule: 15.247(b)(3)

EIRP = max. conducted output power + antenna gain

**BLE**

EIRP=3.17 dBm+1.57 dBi [antenna gain claimed by manufacturer]=4.74 dBm=2.98 mW

**ANT+**

EIRP=0.97 dBm+1.57 dBi [antenna gain claimed by manufacturer]=2.54 dBm=1.79 mW

**3.3 Exemption Limits for Routine Evaluation according to FCC KDB Publication**

**RESULT:**

Test standard : FCC KDB Publication  
447498 D01 General RF Exposure Guidance v06

According to 447498 D01 General RF Exposure Guidance v06:

SAR evaluation, by measurement or numerical simulation, is not required when the corresponding SAR Exclusion Threshold condition, listed below, is satisfied.

**3.3.1 Exemption Limits for Routine Evaluation – SAR Evaluation**

SAR evaluation is required if the separation distance between the user and/or bystander and the antenna and/or radiating element of the device is less than or equal to 20 cm, except when the device operates at or below the applicable output power level (adjusted for tune-up tolerance) for the specified separation distance defined in Table .

Table: SAR evaluation — Exemption limits for routine evaluation based on frequency and separation distance

**BLE**

MHz	5	10	15	20	25	mm
2402	10.09	19.26	29.35	38.52	48.52	SAR Test Exclusion Threshold (mW)

MHz	30	35	40	45	50	mm
2402	57.70	67.79	77.87	87.05	97.13	SAR Test Exclusion Threshold (mW)

Output power level shall be the higher of the maximum conducted or equivalent isotropically radiated power (e.i.r.p.) source-based, time-averaged output power.

Established separation distance is 5 mm.

**BLE**

Operating frequency band : 2402-2480 MHz

Max. output power level at 5 mm separation distance at 2402 MHz according to table is: 10.09 mW

The product is exempt from SAR Evaluation/Testing because the output power of 2.98 mW is below the exemption limit of 10.09 mW.



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

Registration number: W6M22101-20644-C-1  
FCC ID: QSWDSCSCS2

## ANT+

MHz	5	10	15	20	25	mm
2457	9.99	18.98	28.97	37.96	47.95	SAR Test Exclusion Threshold (mW)

MHz	30	35	40	45	50	mm
2457	56.94	66.93	76.91	85.91	95.90	SAR Test Exclusion Threshold (mW)

Output power level shall be the higher of the maximum conducted or equivalent isotropically radiated power (e.i.r.p.) source-based, time-averaged output power.

Established separation distance is 5 mm.

ANT+

Operating frequency band : 2457 MHz

Max. output power level at 5 mm separation distance at 2457 MHz  
according to table is: 9.99 mW

The product is exempt from SAR Evaluation/Testing because the output power of 1.79 mW is below the exemption limit of 9.99 mW.



Registration number: W6M22101-20644-C-1  
FCC ID: QSWDSCSCS2

**3.4 Transmitter Radiated Emissions in Restricted Bands**

FCC Rules: 15.247 (d), 15.205, 15.209, 15.35

Radiated emission measurements were performed from 30 MHz to 26500 MHz.  
For radiated emission tests, the analyzer setting was as followings:

- Frequency  $\leq$  1 GHz, RBW:100 kHz, VBW: 100 kHz (Peak measurements)
- Frequency  $>$  1 GHz, RBW: 1 MHz, VBW: 1 MHz (Peak measurements)
- Frequency  $>$  1 GHz , RBW:1 MHz , VBW: 10 Hz (Average measurements)

Limits.

For frequencies below 1GHz:

Frequency of Emission (MHz)	Field strength (microvolts/meter)	Field Strength (dB microvolts/meter)
30 - 88	100	40.0
88 - 216	150	43.5
216 - 960	200	46.0
Above	500	54.0

For frequencies above 1GHz (Average measurements).

Guidance on Measurement of Digit Transmission Systems:

“If the emission is pulsed, modify the unit for continuous operation, use the setting shown above, then correct the reading by subtracting the peak-average correction factor, derived from the appropriate duty cycle calculation.”

The correction factor, based on the total channel dwell time in a 100 ms period, may be mathematically applied to a measurement made with an average detector, to further reduce the value.

$$\text{Duty cycle correction} = 20 \log (\text{dwell time}/ 100\text{ms})$$

Note: No duty cycle correction was added to the reading of this EUT.

Explanation: See attached diagrams in Appendix.



Registration number: W6M22101-20644-C-1  
FCC ID: QSWDSCSCS2

## **3.5 Spurious Emissions (tx)**

Spurious emission was measured with modulation (declared by manufacturer).

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 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) (see § 15.205(c))

FCC Rule: 15.247(d), 15.35

For out of band emissions that are close to or that exceed the 20 dB attenuation requirement described in the specification, radiated measurements were performed at a 3 m separation distance to determine whether these emissions complied with the general radiated emission requirement.

Limits:

For frequencies above 1GHz (Peak measurements).

Modified Limit for peak according to 15.35 (b) = Max Permitted average Limits + 20dB

For frequencies above 1GHz (Average measurements).

Max. reading – 20dB

Max. reading – 20 dB

Guidance on Measurement of Digit Transmission Systems:

“If the emission is pulsed, modify the unit for continuous operation, use the settings shown above, then correct the reading by subtracting the peak-average correction factor, derived from the appropriate duty cycle calculation.”

The correction factor, based on the total channel dwell time in a 100 ms period, may be mathematically applied to a measurement made with an average detector, to further reduce the value.

Duty Cycle correction =  $20 \log (\text{dwell time}/100\text{ms})$

Note: No duty cycle correction was added to the reading of EUT.



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

Registration number: W6M22101-20644-C-1  
 FCC ID: QSWDSCSCS2

SAMPLE CALCULATION OF LIMIT. All results will be updated by an automatic measuring system in accordance with point 2.3.

Calculation of test results:

Such factors like antenna correction, cable loss, external attenuation etc. are already included in the provided measurement results. This is done by using validated test software and calibrated test system according the accreditation requirements.

The peak and average spurious emission plots was measured with the average limits.

In the Table being listed the critical peak and average value and exhibit the compliance with the above calculated Limits.

If in the column's correction factor states a value then the max. Field strength in the same row is corrected by a value gained from the "Correction Factor".

### Summary table with radiated data of the test plots

Model: RX:ZM8K TX:ZAS3D Date: --  
 Mode: -- Temperature: -- °C Engineer: --  
 Polarization: -- Humidity: -- %

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--

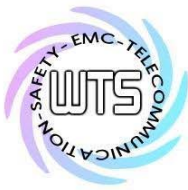
Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result (dBuV/m)		Limit (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (m)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--

### Note

1. Correction Factor = Antenna factor + Cable loss - Preamplifier
2. The formula of measured value as: Test Result = Reading + Correction Factor
3. Detector function in the form : PK = Peak, QP = Quasi Peak, AV = Average
4. All not in the table noted test results are more than 20 dB below the relevant limits.
5. After evaluated, the test result in this report adopt the worst case to measure, please see attached diagrams in appendix.

TEST RESULT (Transmitter): The unit DOES meet the FCC requirements.

Test equipment used: ETSTW-RE 004, ETSTW-RE 030, ETSTW-RE 111, ETSTW-RE 088, ETSTW-RE 018



Registration number: W6M22101-20644-C-1  
FCC ID: QSWDSCSCS2

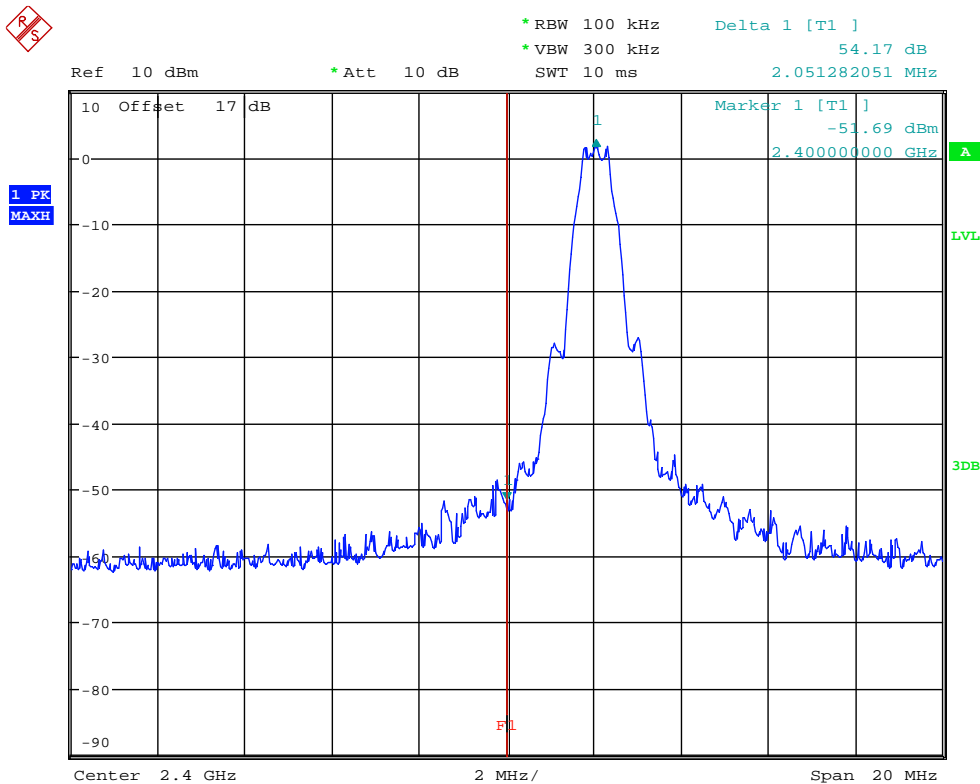
### 3.6 Radiated Emission on the band edge

According to FCC rules part 15 subpart C §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.

Test date: April 08, 2021  
Temperature: 22.1 °C  
Humidity: 54.0 %  
Tester: Kent

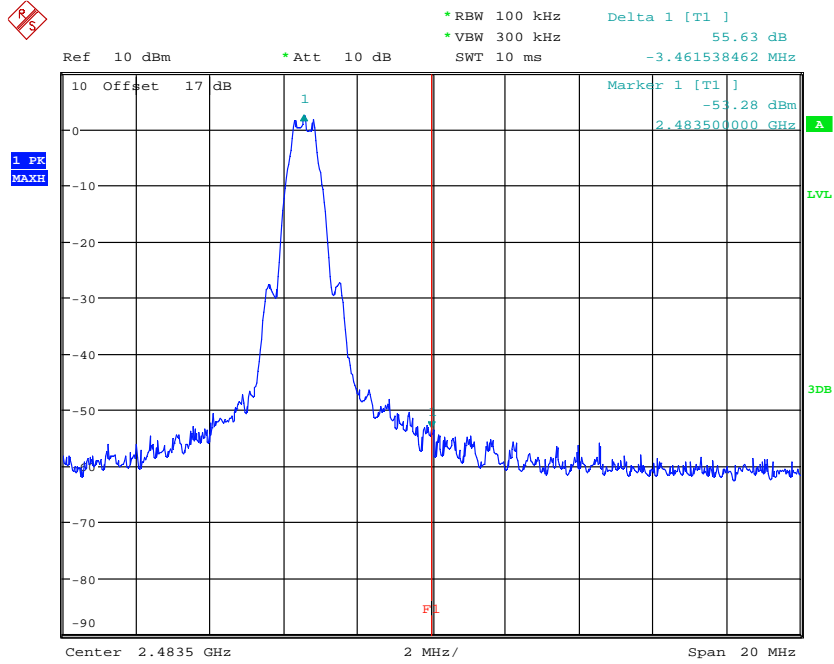
BLE



BANDEDGE BT4.0 CH00  
Date: 8.APR.2021 19:55:56

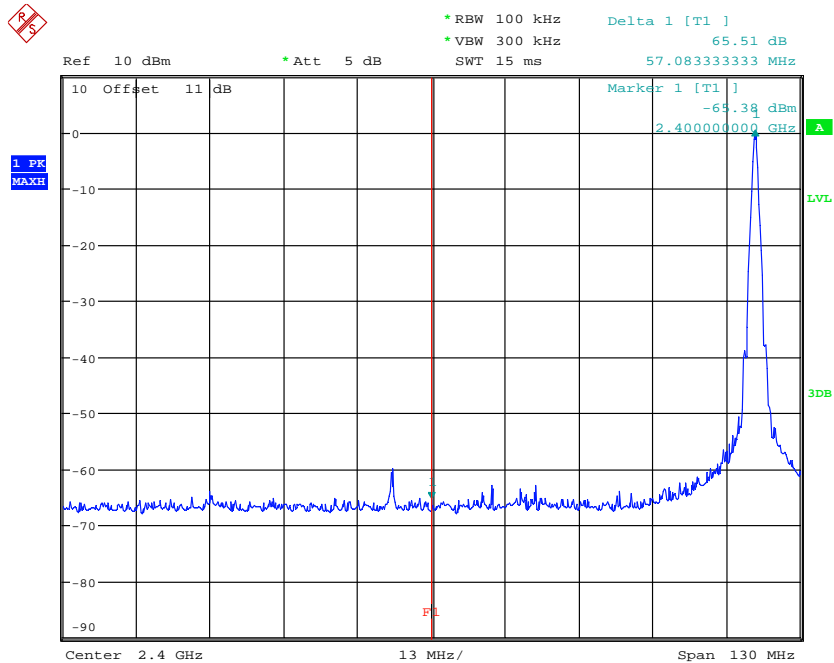


Registration number: W6M22101-20644-C-1  
FCC ID: QSWDSCSCS2



BANDEDGE BT4.0 CH39  
Date: 8.APR.2021 19:57:48

ANT+

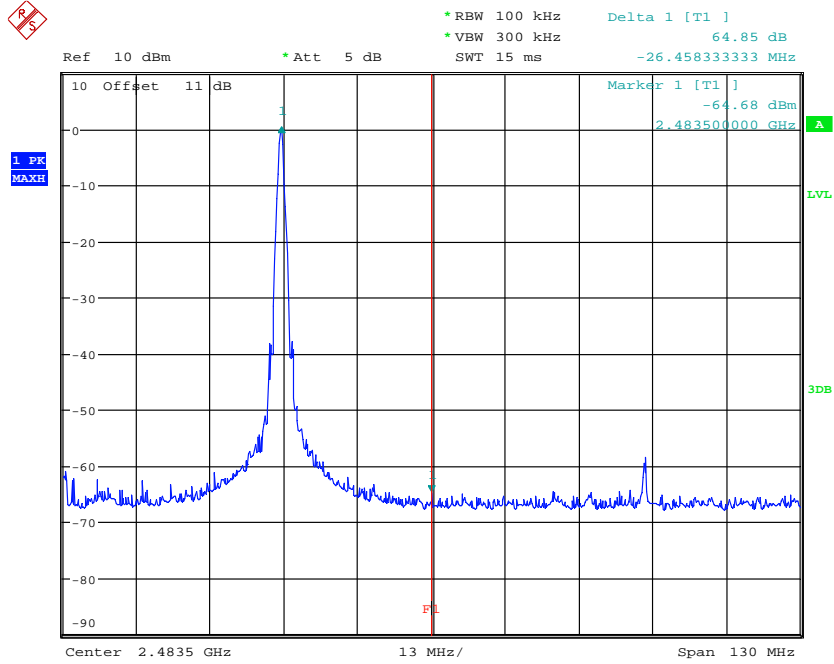


BANDEDGE ANT+ 2457MHz  
Date: 8.APR.2021 19:27:10



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

Registration number: W6M22101-20644-C-1  
 FCC ID: QSWDSCSCS2



BANDEGE ANT+ 2457MHz  
 Date: 8.APR.2021 19:27:44

Limit:

Frequency Range / MHz	Limit
902 –928	- 20 dB
2400 – 2483.5	
5725 - 5850	

Test equipment used: ETSTW-RE 055, ETSTW-RE 050





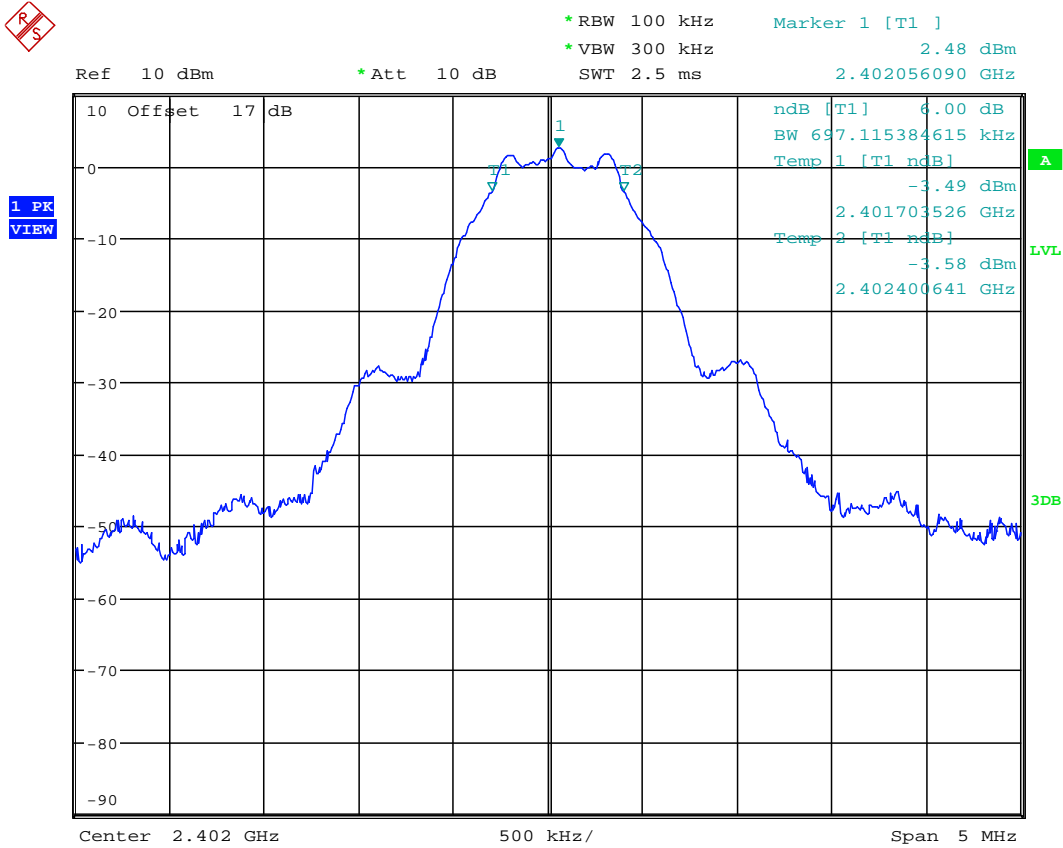
Registration number: W6M22101-20644-C-1  
FCC ID: QSWDSCSCS2

### 3.7 Minimum 6 dB Bandwidth

The analyzer ResBW was set to 100 kHz. For each RF output channel investigated, the spectrum analyzer center frequency was set to the channel carrier. A PEAK reading was taken, two markers were set 6 dB below the maximum level on the right and the left side of the emission. The 6 dB bandwidth is the frequency difference between the two markers.

Test date: April 08, 2021  
Temperature: 22.1 °C  
Humidity: 54.0 %  
Tester: Kent

BLE

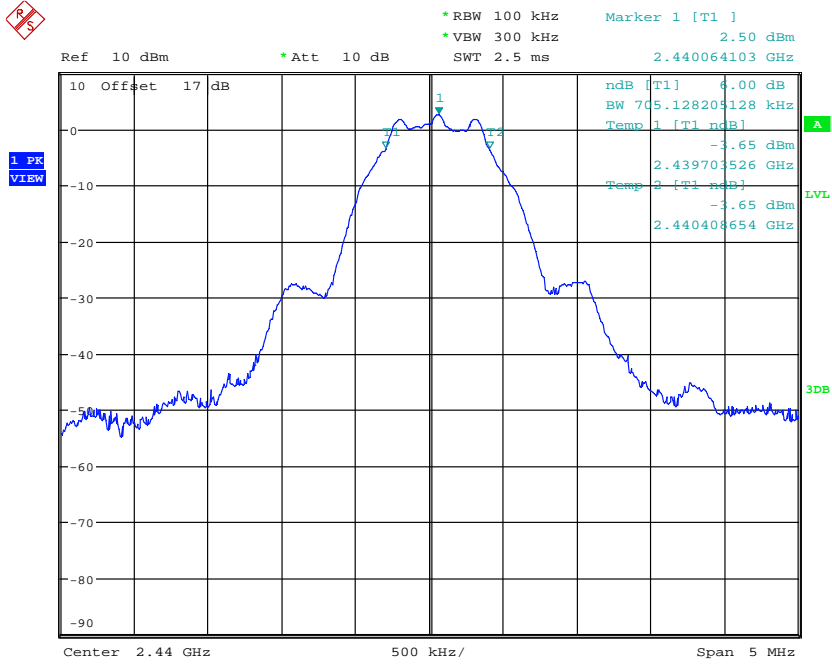


6DB BANDWIDTH BT4.0 CH00  
Date: 8.APR.2021 19:55:36

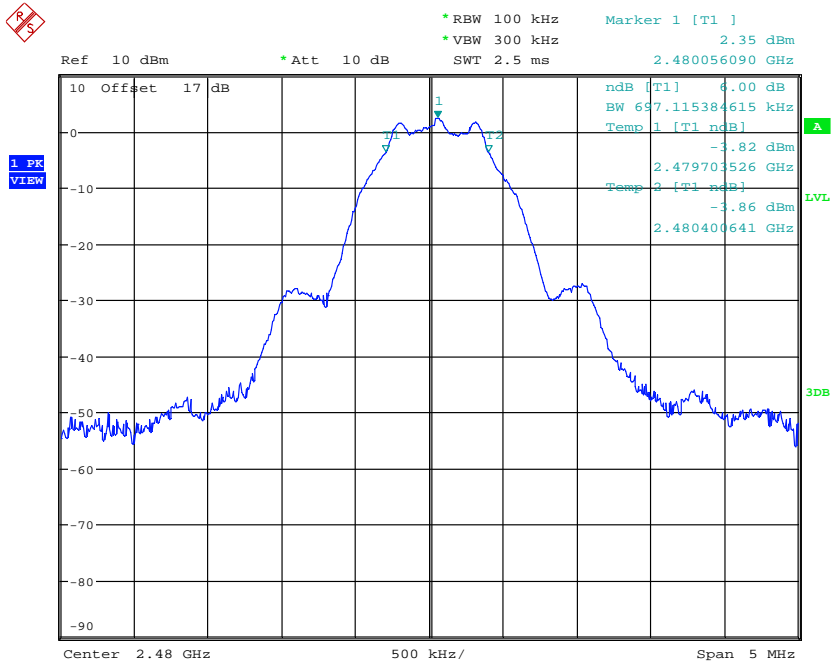


# Worldwide Testing Services(Taiwan) Co., Ltd.

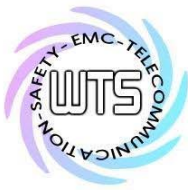
Registration number: W6M22101-20644-C-1  
FCC ID: QSWDSCSCS2



6DB BANDWIDTH BT4.0 CH19  
Date: 8.APR.2021 19:56:34



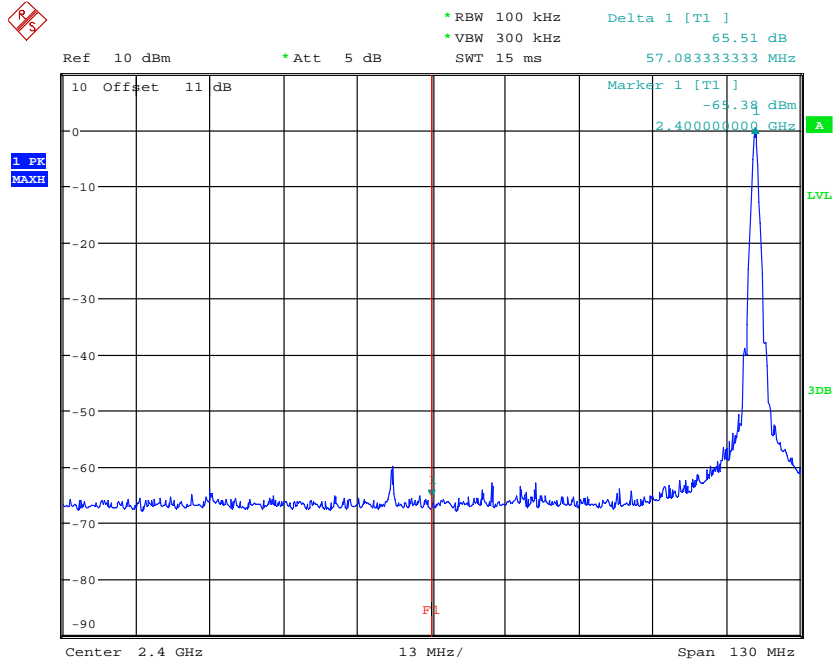
6DB BANDWIDTH BT4.0 CH39  
Date: 8.APR.2021 19:57:28



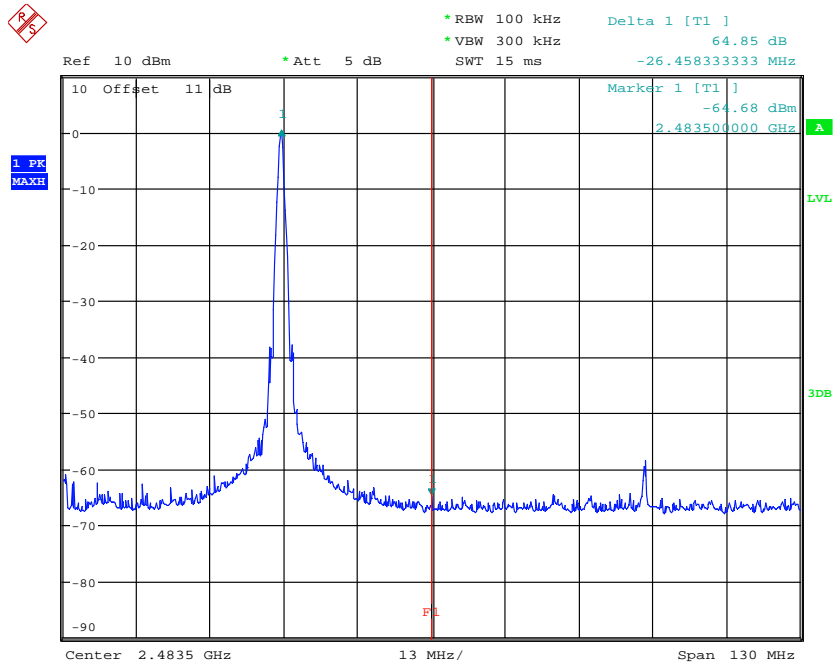
# Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M22101-20644-C-1  
FCC ID: QSWDSCSCS2

ANT+



BANDEDGE ANT+ 2457MHz  
Date: 8.APR.2021 19:27:10



BANDEDGE ANT+ 2457MHz  
Date: 8.APR.2021 19:27:44



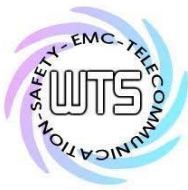
# Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M22101-20644-C-1  
FCC ID: QSWDSCSCS2

**Limits:**

Frequency Range MHz	Limits
902-928	min 500 kHz
2400-2483.5	min 500 kHz
5725-5850	min 500 kHz

Test equipment used: ETSTW-RE 055, ETSTW-RE 050



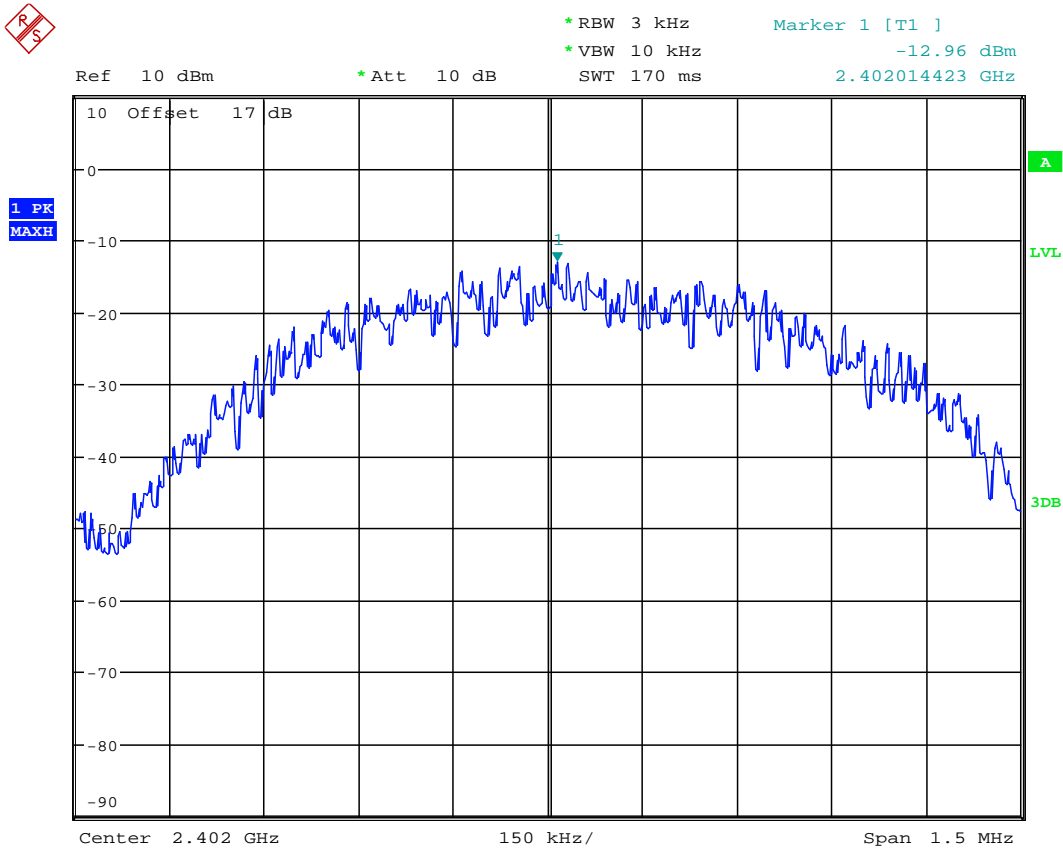
Registration number: W6M22101-20644-C-1  
FCC ID: QSWDSCSCS2

### 3.8 Peak Power Spectral Density

Peak Power Spectral density is a measured at low, middle and high channel.  
The peak output power is measured with a measurement bandwidth of 10 MHz and displayed on diagram together with Peak Power Spectral Density result which was measured with a bandwidth of 3 kHz, appreciate frequency span and sweep time.

Test date: April 08, 2021  
Temperature: 22.1 °C  
Humidity: 54.0 %  
Tester: Kent

BLE

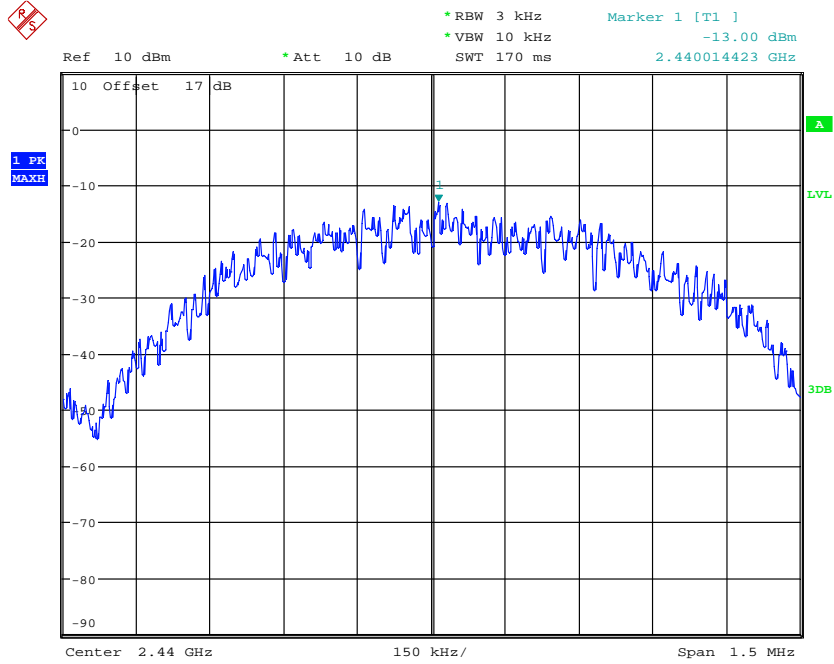


POWER DENSITY BT4.0 CH00  
Date: 8.APR.2021 19:55:48

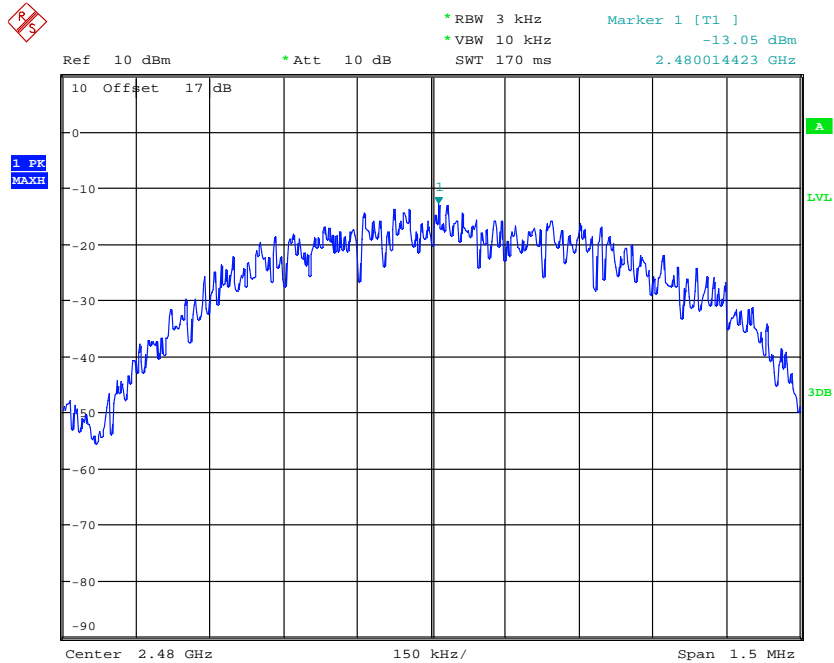


# Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M22101-20644-C-1  
FCC ID: QSWDSCSCS2



POWER DENSITY BT4.0 CH19  
Date: 8.APR.2021 19:56:46



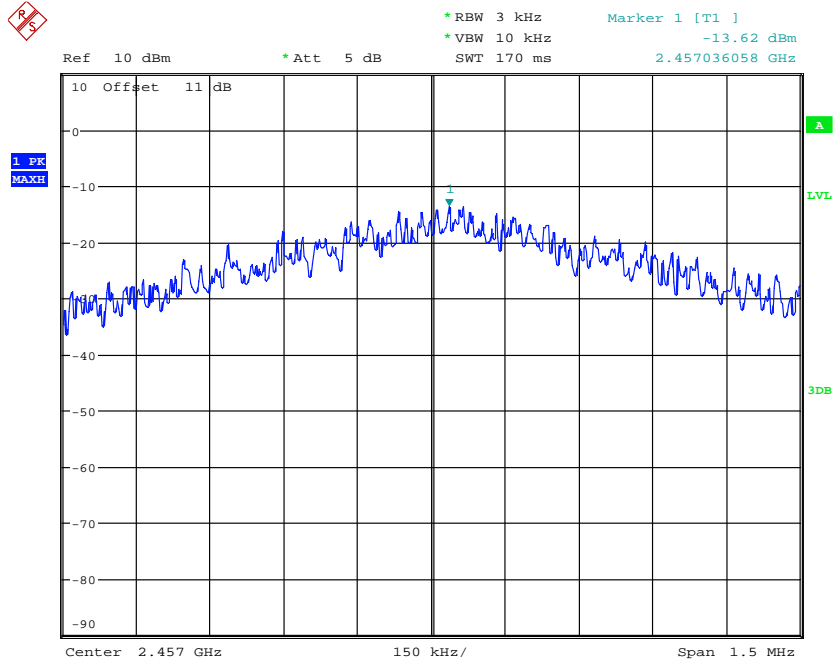
POWER DENSITY BT4.0 CH39  
Date: 8.APR.2021 19:57:40



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

Registration number: W6M22101-20644-C-1  
 FCC ID: QSWDSCSCS2

ANT+

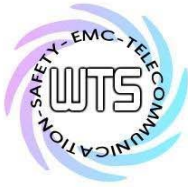


POWER DENSITY ANT+ 2457MHz  
 Date: 8.APR.2021 19:26:00

**Limits:**

Frequency Range MHz	dBm
902-928	8
2400-2483.5	8
5725-5850	8

Test equipment used: ETSTW-RE 055, ETSTW-RE 050



Registration number: W6M22101-20644-C-1  
 FCC ID: QSWDSCSCS2

**3.9 Radiated Emission from Receiver Part**

Model: RX:ZM8K TX:ZAS3D Date: --  
 Mode: -- Temperature: -- °C Engineer: --  
 Polarization: -- Humidity: -- %

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result (dBuV/m)		Limit (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (m)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--

**Note**

1. Correction Factor = Antenna factor + Cable loss - Preamplifier
2. The formula of measured value as: Test Result = Reading + Correction Factor
3. Detector function in the form : PK = Peak, QP = Quasi Peak, AV = Average
4. All not in the table noted test results are more than 20 dB below the relevant limits.
5. Please refer to the test report number W6M22101-20644-P-15B.

Test equipment used: ETSTW-RE 030, ETSTW-RE 055, ETSTW-RE 064, ETSTW-RE 111





Registration number: W6M22101-20644-C-1  
 FCC ID: QSWDSCSCS2

**3.10 Power Line Conducted Emission**

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.

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.

RX:ZM8K  
 Model: TX:ZAS3D Date: --  
 Mode: -- Temperature: -- °C Engineer: --  
 Polarization: N Humidity: -- %

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result (dBuV)		Limit (dBuV)		Margin (dB)
	QP	Ave.		QP	Ave.	QP	Ave.	
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--

Polarization: L1

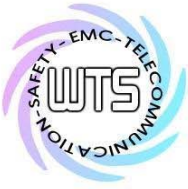
Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result (dBuV)		Limit (dBuV)		Margin (dB)
	QP	Ave.		QP	Ave.	QP	Ave.	
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--

- Note:**
1. The formula of measured value as: **Test Result = Reading + Correction Factor**
  2. The **Correction Factor = Cable Loss + LISN Insertion Loss + Pulse Limit Loss**
  3. **Detector function in the form : PK = Peak, QP = Quasi Peak, AV = Average**
  4. **All not in the table noted test results are more than 20 dB below the relevant limits.**
  5. **Up Line: QP Limit Line, Down Line: Ave Limit Line.**
  6. **This test in not required because the EUT uses battery.**

**Limits:**

Frequency of Emission (MHz)	Conducted Limit (dBuV)	
	Quasi Peak	Average
0.15-0.5	66 to 56	56 to 46
0.5-5	56	46
5-30	60	50

Test equipment used: ETSTW-CE 001, ETSTW-CE 016, ETSTW-RE 045



Registration number: W6M22101-20644-C-1  
FCC ID: QSWDSCSCS2

## **Appendix**

### **Measurement diagrams**

Radiated Emission



Radiated Emission Measurement

Operator: Vincent

File :1\_TX 2402 below 1G

Data :#1

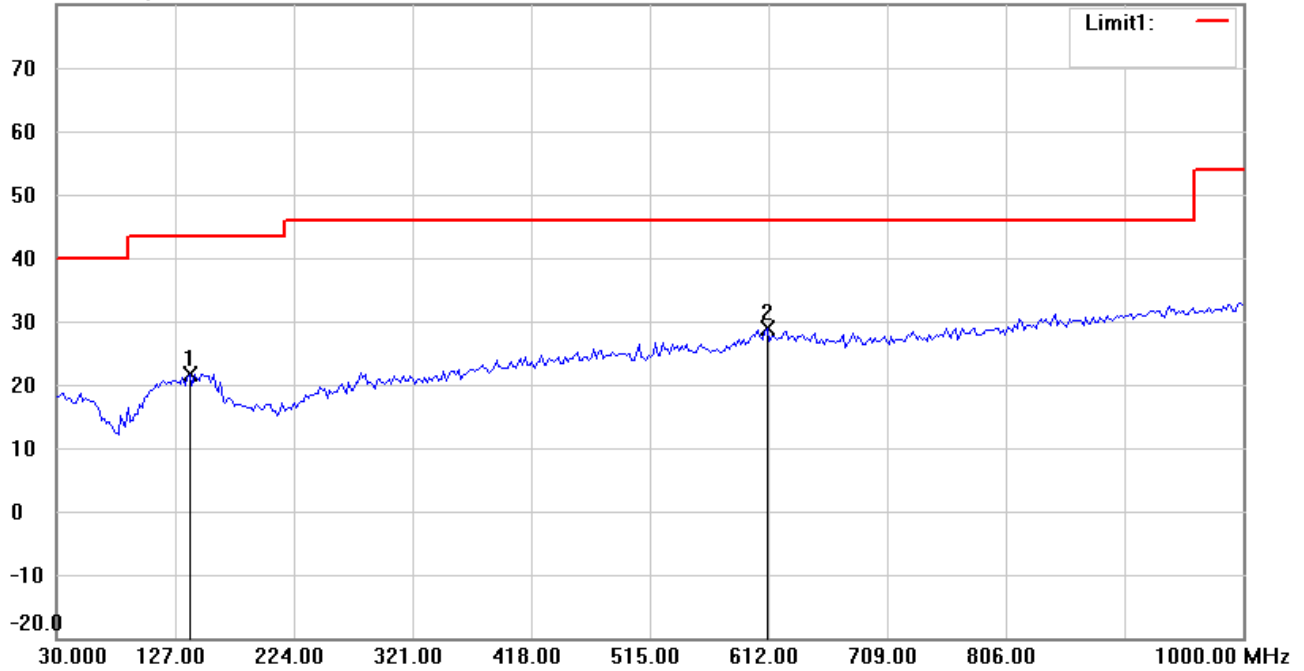
Date: 6/19/2021

Temperature:28.4 °C

80.0 dBuV/m

Time: 9:36:27 AM

Humidity:48.9 %



Site : Chamber

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

Polarization: *Horizontal*

EUT : W6M22101-20644

Power : 3 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
	138.8575	28.34	peak	-6.65	21.69	43.50	110	286	-21.81	
*	611.2223	30.53	peak	-1.69	28.84	46.00	103	117	-17.16	



Radiated Emission Measurement

Operator: Vincent

File :1\_TX 2402 below 1G

Data :#2

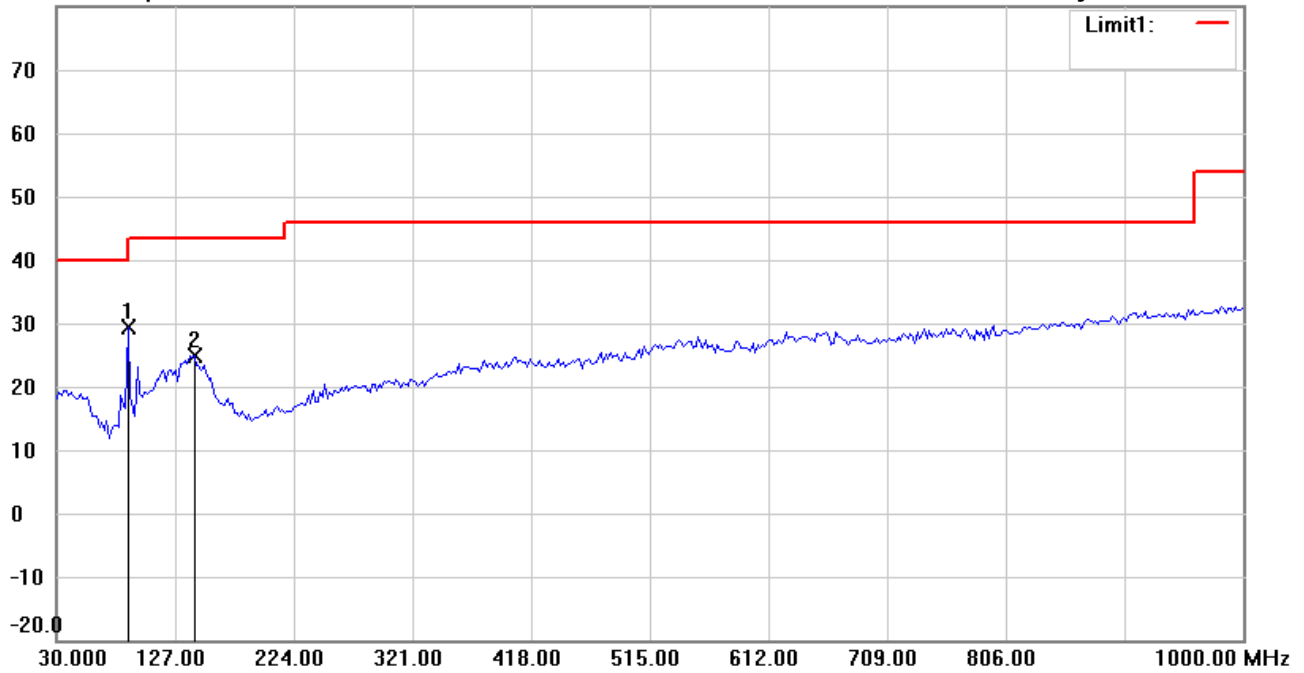
Date: 6/19/2021

Temperature:28.4 °C

80.0 dBuV/m

Time: 9:45:33 AM

Humidity:48.9 %



Site : Chamber

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

Polarization: **Vertical**

EUT : W6M22101-20644

Power : 3 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
*	88.3164	43.01	peak	-13.72	29.29	43.50	107	155	-14.21	
	142.7452	31.77	peak	-6.80	24.97	43.50	100	238	-18.53	



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: Allen

File :3

Data :#1

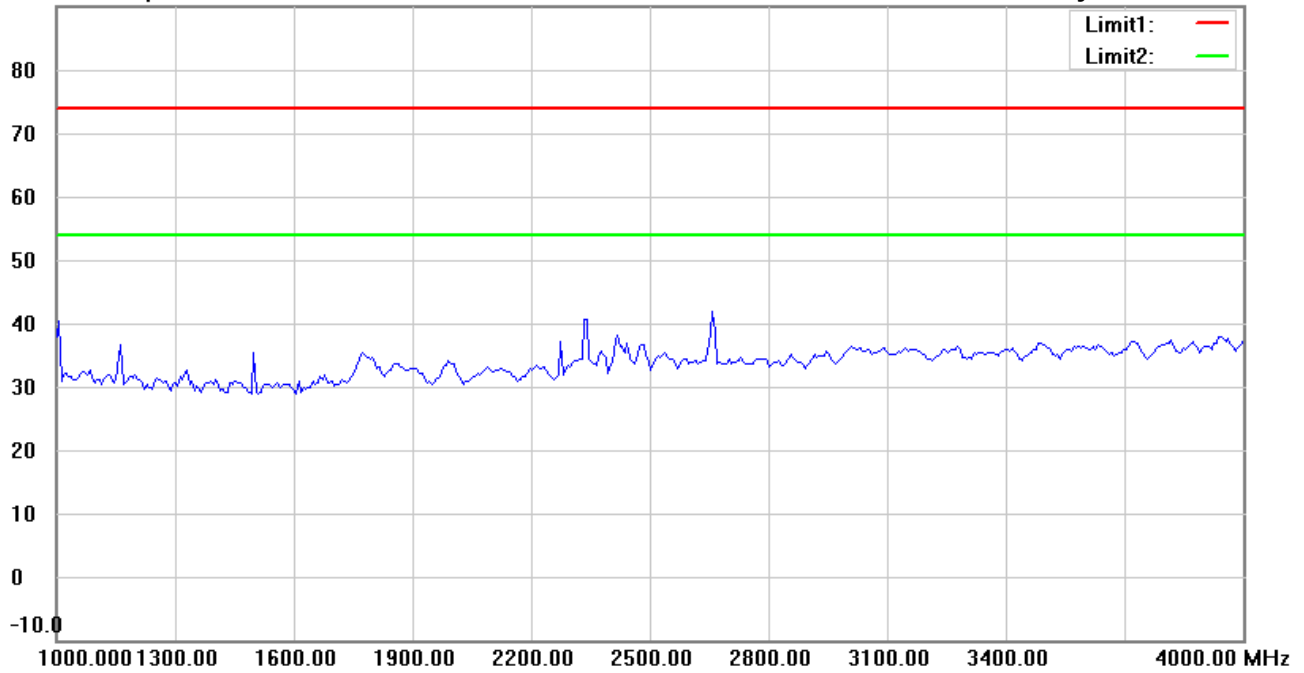
Date: 4/7/2021

Temperature:23.1 °C

90.0 dBuV/m

Time: 2:00:47 AM

Humidity:54.3 %



Site : Chamber

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

Polarization: *Horizontal*

EUT : W6M22101-20644

Power : 3 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: Allen

File :3

Data :#6

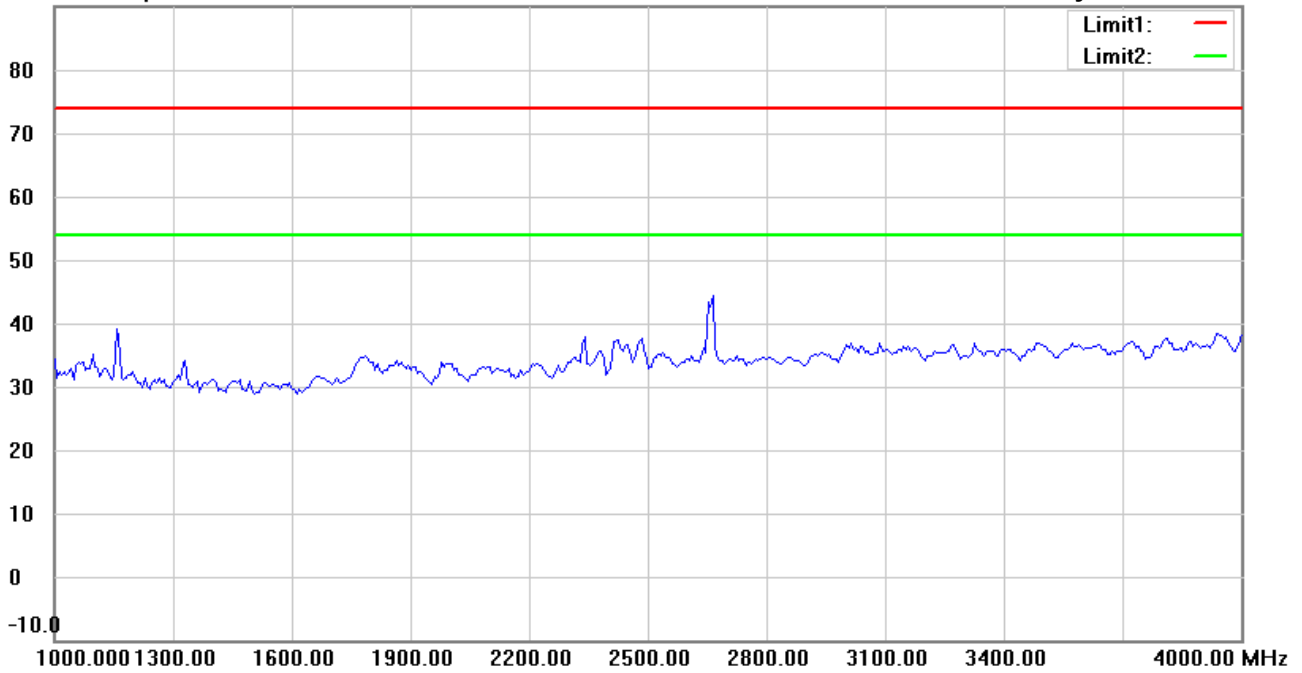
Date: 4/7/2021

Temperature:23.1 °C

90.0 dBuV/m

Time: 2:04:19 AM

Humidity:54.3 %



Site : Chamber

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

Polarization: *Vertical*

EUT : W6M22101-20644

Power : 3 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



Radiated Emission Measurement

Operator: Allen

File :3

Data :#2

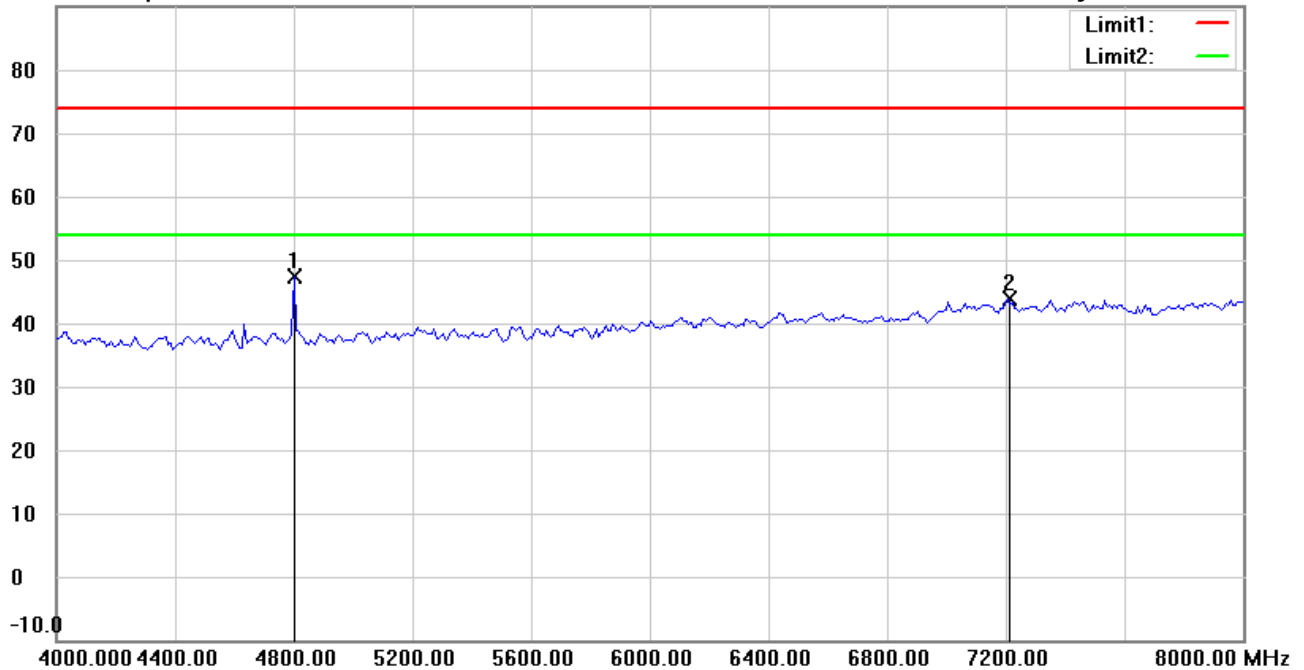
Date: 4/7/2021

Temperature:23.1 °C

90.0 dBuV/m

Time: 2:01:48 AM

Humidity:54.3 %



Site : Chamber

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

Polarization: *Horizontal*

EUT : W6M22101-20644

Power : 3 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
*	4801.603	49.10	peak	-1.76	47.34	74.00	150	115	-26.66	
	7206.413	40.61	peak	3.32	43.93	74.00	150	360	-30.07	



Radiated Emission Measurement

Operator: Allen

File :3

Data :#7

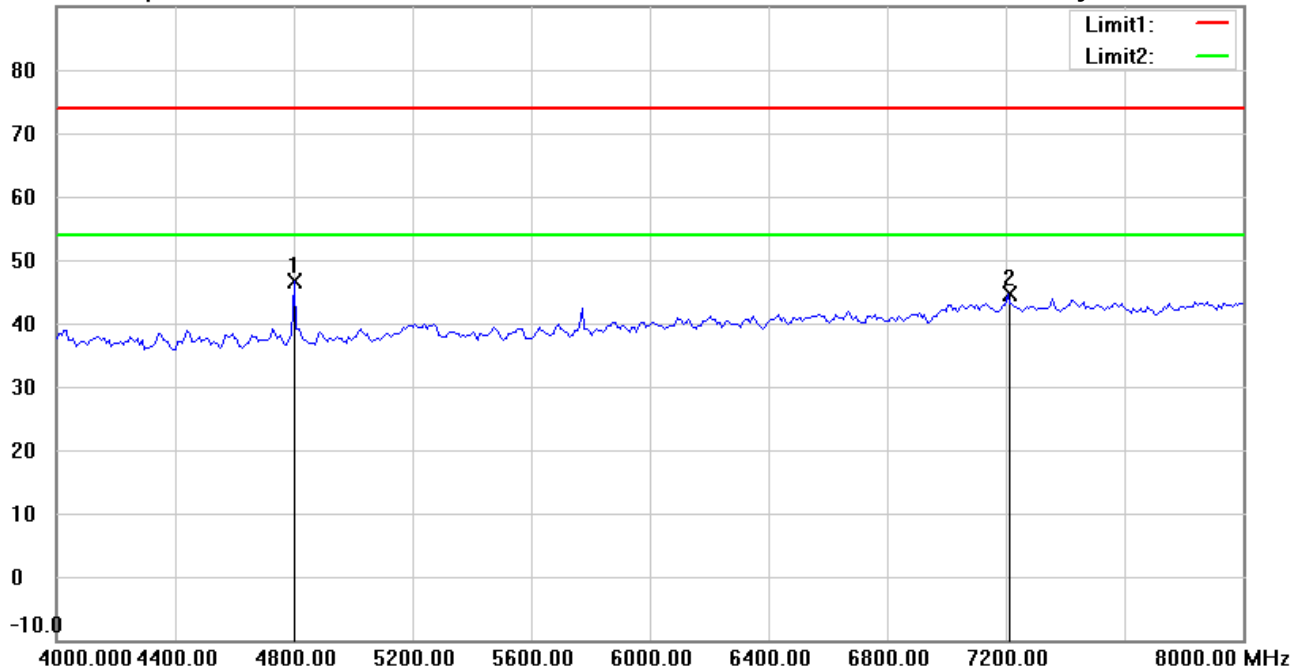
Date: 4/7/2021

Temperature:23.1 °C

90.0 dBuV/m

Time: 2:05:20 AM

Humidity:54.3 %



Site : Chamber

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

EUT : W6M22101-20644

M/N:

Test Mode : TX 2402MHz

Note :

Polarization: **Vertical**

Power : 3 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
*	4801.603	48.32	peak	-1.76	46.56	74.00	150	180	-27.44	
	7206.413	41.23	peak	3.32	44.55	74.00	150	60	-29.45	





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: Allen

File :3

Data :#3

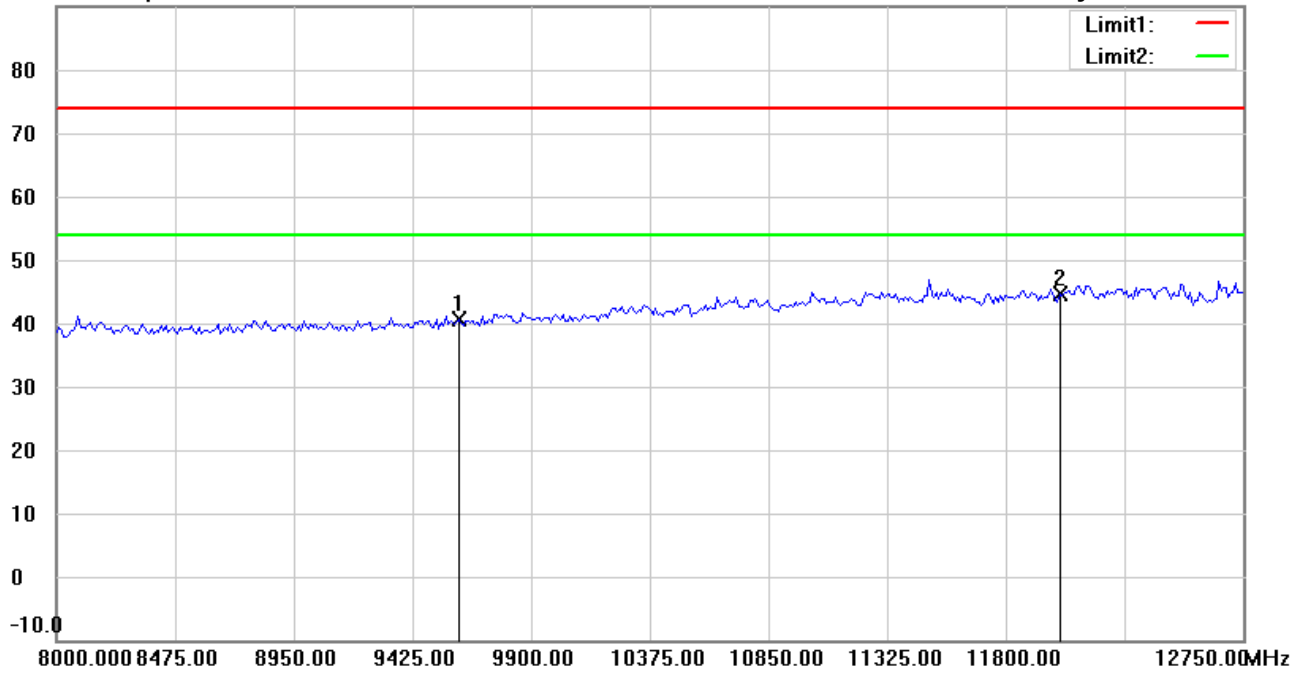
Date: 4/7/2021

Temperature:23.1 °C

90.0 dBuV/m

Time: 2:02:55 AM

Humidity:54.3 %



Site : Chamber

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

Polarization: *Horizontal*

EUT : W6M22101-20644

Power : 3 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	33.93	peak	6.70	40.63	74.00	150	55	-33.37	
*	12010.000	33.03	peak	11.68	44.71	74.00	150	100	-29.29	

\*: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: Allen

File :3

Data :#8

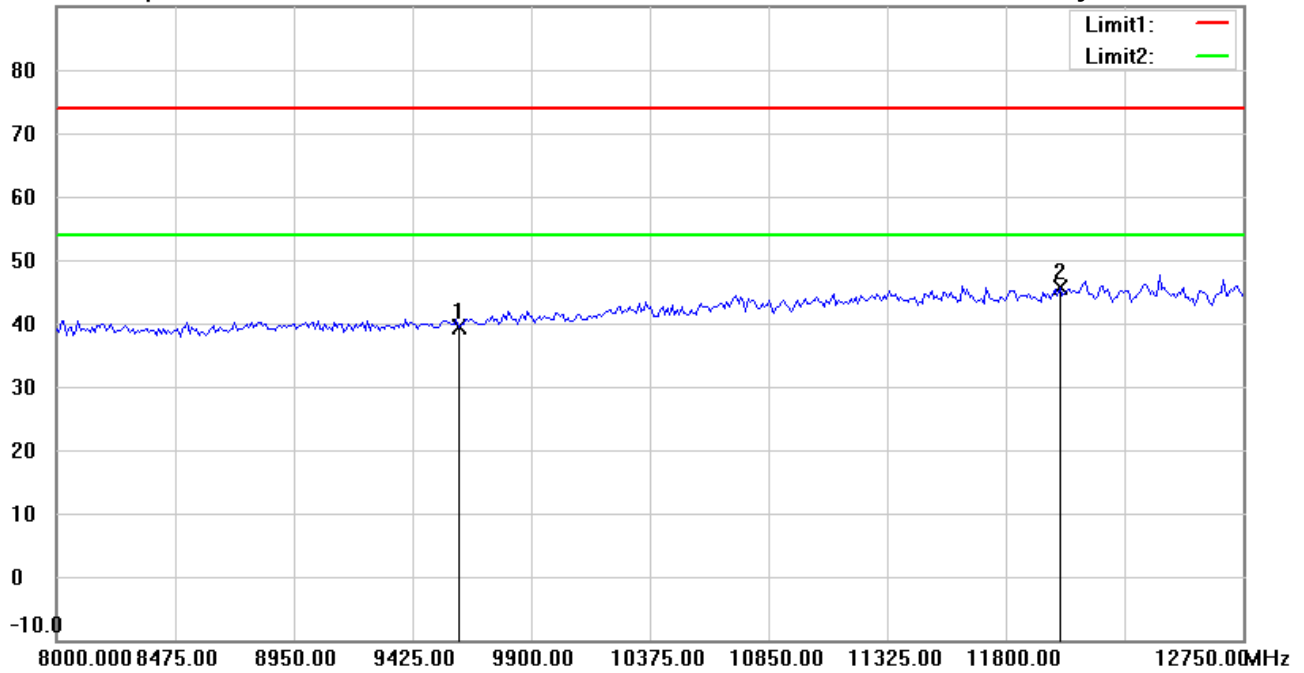
Date: 4/7/2021

Temperature:23.1 °C

90.0 dBuV/m

Time: 2:06:20 AM

Humidity:54.3 %



Site : Chamber

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

Polarization: **Vertical**

EUT : W6M22101-20644

Power : 3 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	32.77	peak	6.70	39.47	74.00	150	275	-34.53	
*	12010.000	33.87	peak	11.68	45.55	74.00	150	110	-28.45	

\*: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: Allen

File :3

Data :#4

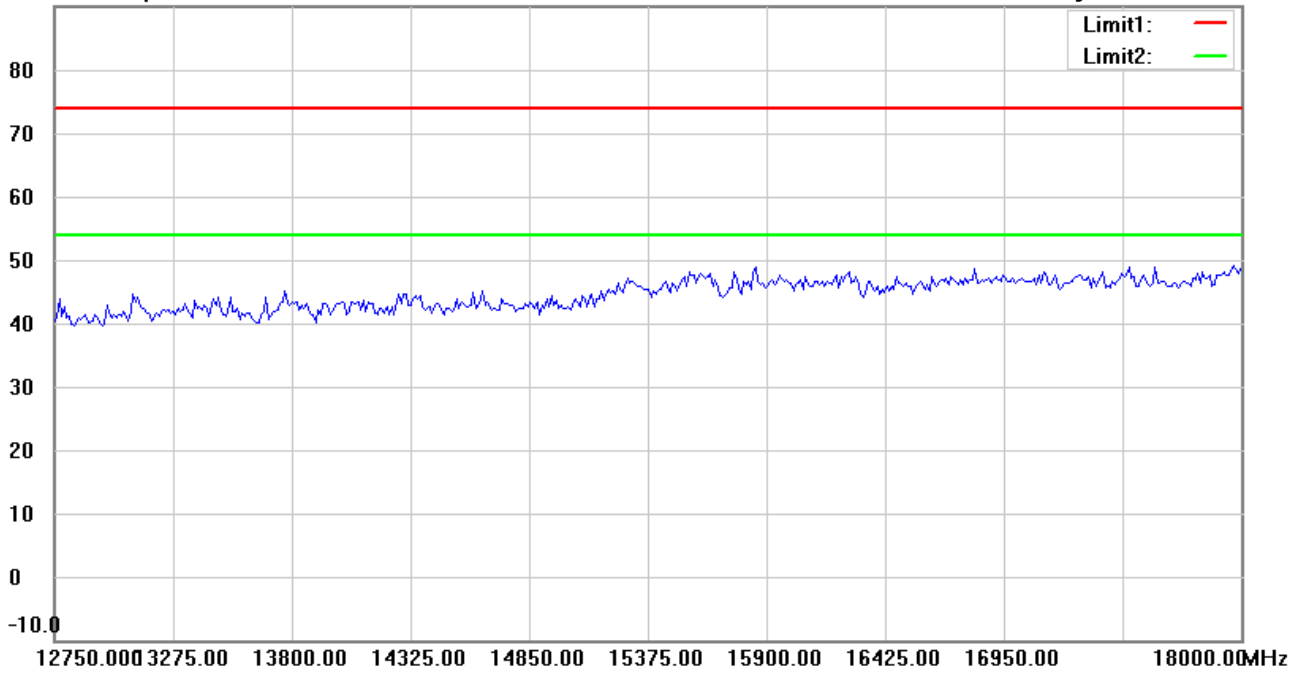
Date: 4/7/2021

Temperature:23.1 °C

90.0 dBuV/m

Time: 2:03:09 AM

Humidity:54.3 %



Site : Chamber

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

Polarization: *Horizontal*

EUT : W6M22101-20644

Power : 3 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: Allen

File :3

Data :#9

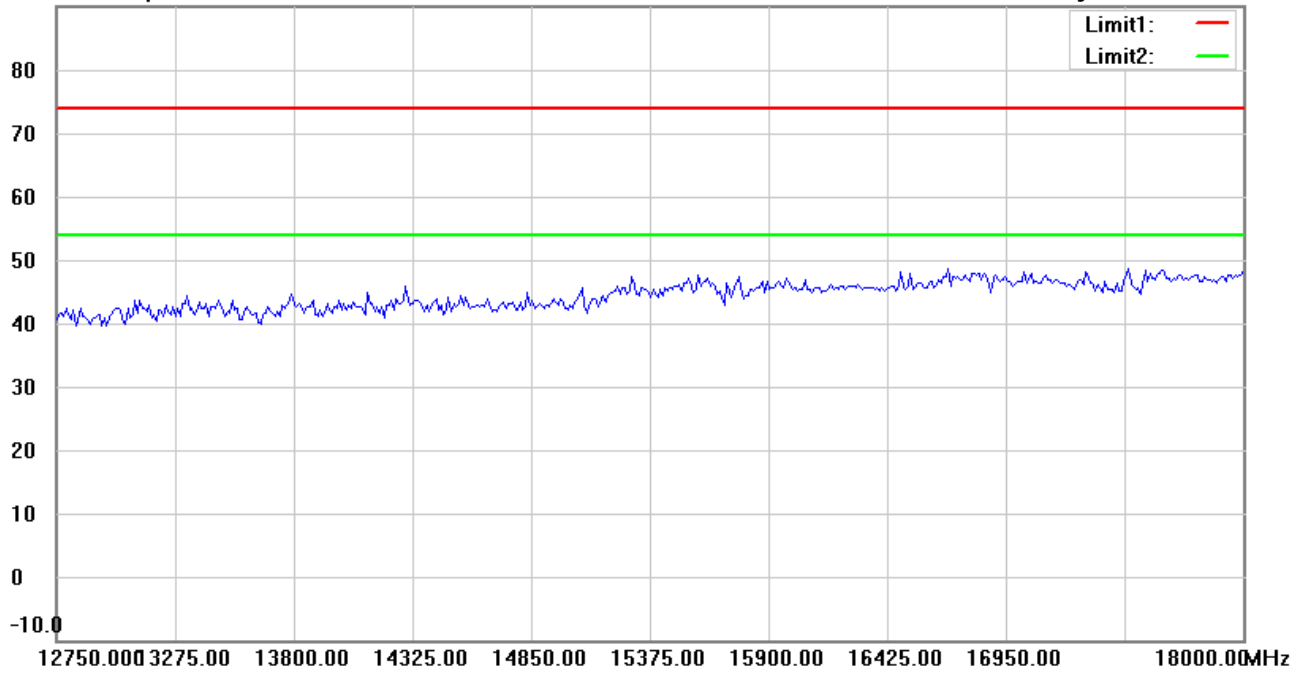
Date: 4/7/2021

Temperature:23.1 °C

90.0 dBuV/m

Time: 2:06:34 AM

Humidity:54.3 %



Site : Chamber

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

Polarization: *Vertical*

EUT : W6M22101-20644

Power : 3 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: Allen

File :3

Data :#5

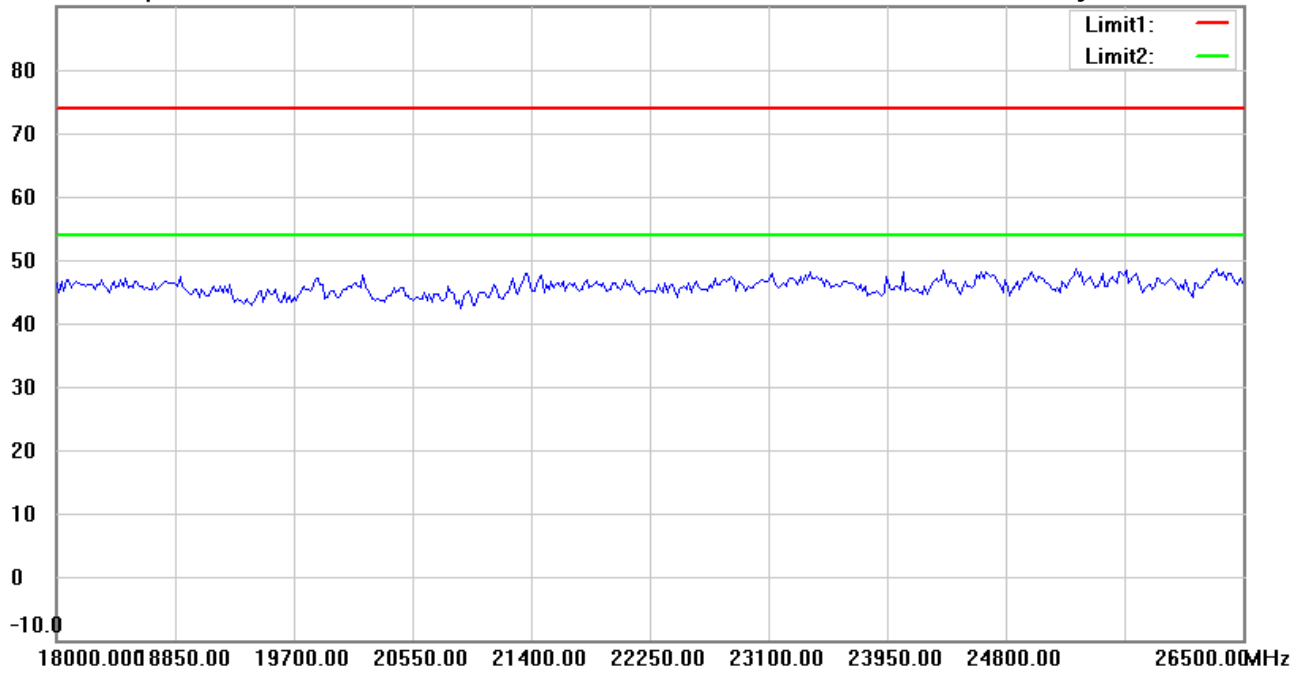
Date: 4/7/2021

Temperature:23.1 °C

90.0 dBuV/m

Time: 2:03:19 AM

Humidity:54.3 %



Site : Chamber

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

Polarization: *Horizontal*

EUT : W6M22101-20644

Power : 3 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: Allen

File :3

Data :#10

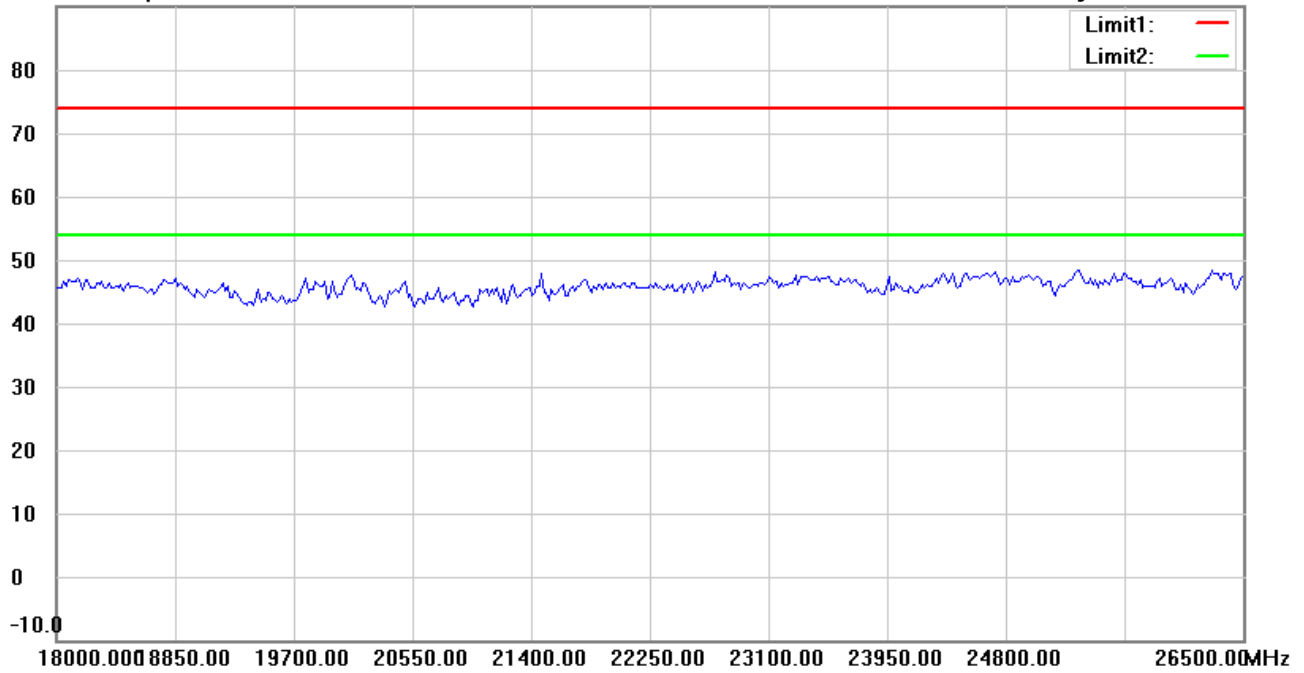
Date: 4/7/2021

Temperature:23.1 °C

90.0 dBuV/m

Time: 2:06:44 AM

Humidity:54.3 %



Site : Chamber

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

Polarization: *Vertical*

EUT : W6M22101-20644

Power : 3 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: Allen

File :3

Data :#1

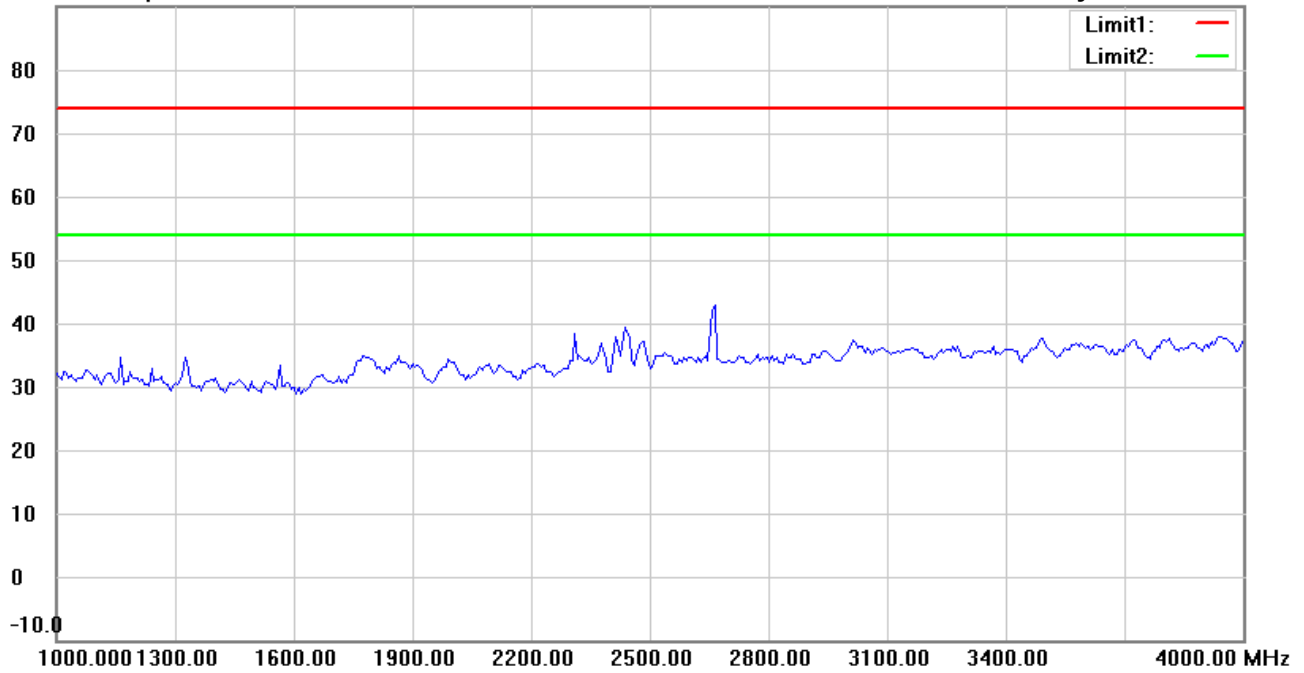
Date: 4/7/2021

Temperature:23.1 °C

90.0 dBuV/m

Time: 2:22:07 AM

Humidity:54.3 %



Site : Chamber

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

Polarization: *Horizontal*

EUT : W6M22101-20644

Power : 3 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: Allen

File :3

Data :#6

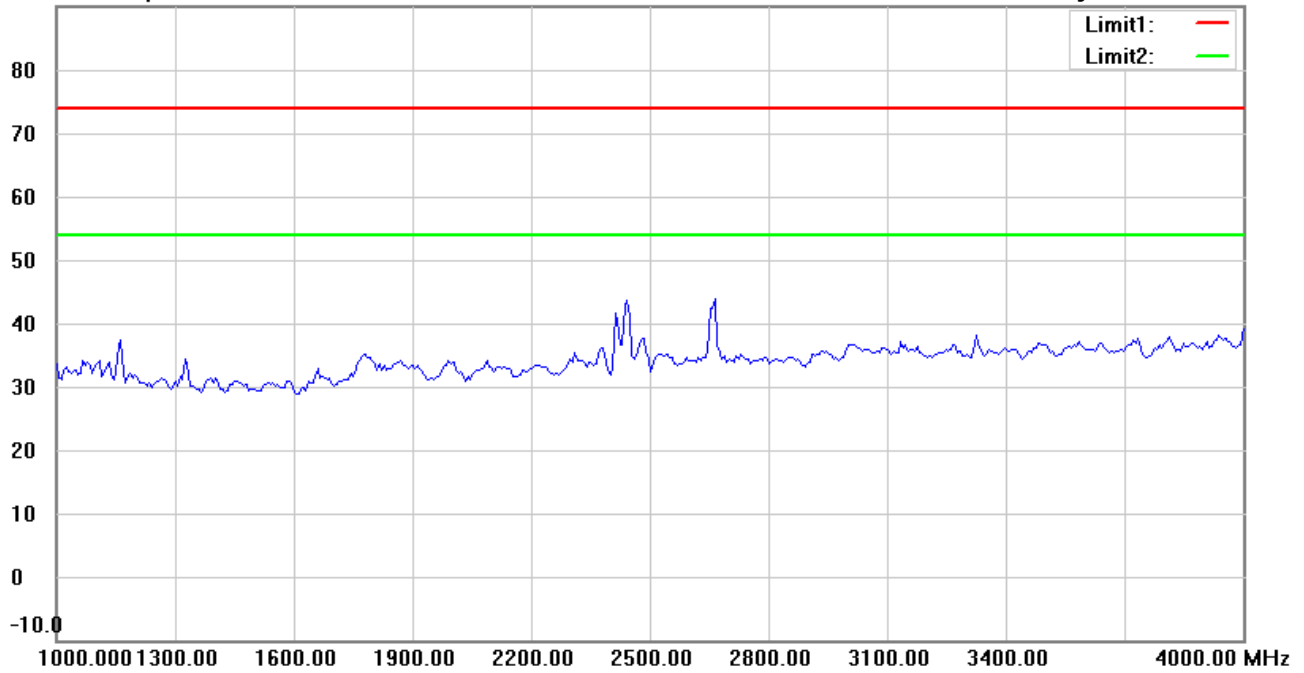
Date: 4/7/2021

Temperature:23.1 °C

90.0 dBuV/m

Time: 2:25:38 AM

Humidity:54.3 %



Site : Chamber

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

Polarization: *Vertical*

EUT : W6M22101-20644

Power : 3 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: Allen

File :3

Data :#2

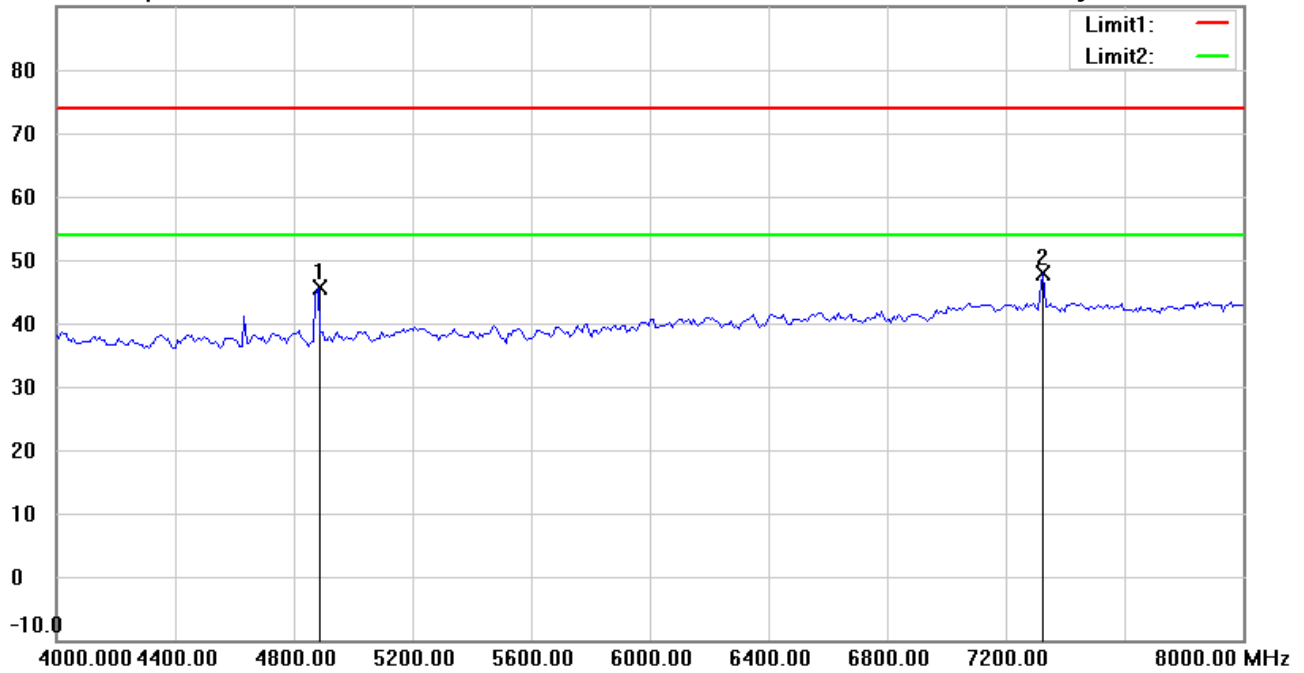
Date: 4/7/2021

Temperature:23.1 °C

90.0 dBuV/m

Time: 2:23:07 AM

Humidity:54.3 %



Site : Chamber

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

Polarization: *Horizontal*

EUT : W6M22101-20644

Power : 3 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
	4881.764	47.18	peak	-1.60	45.58	74.00	150	150	-28.42	
*	7326.653	44.29	peak	3.54	47.83	74.00	150	270	-26.17	



Radiated Emission Measurement

Operator: Allen

File :3

Data :#7

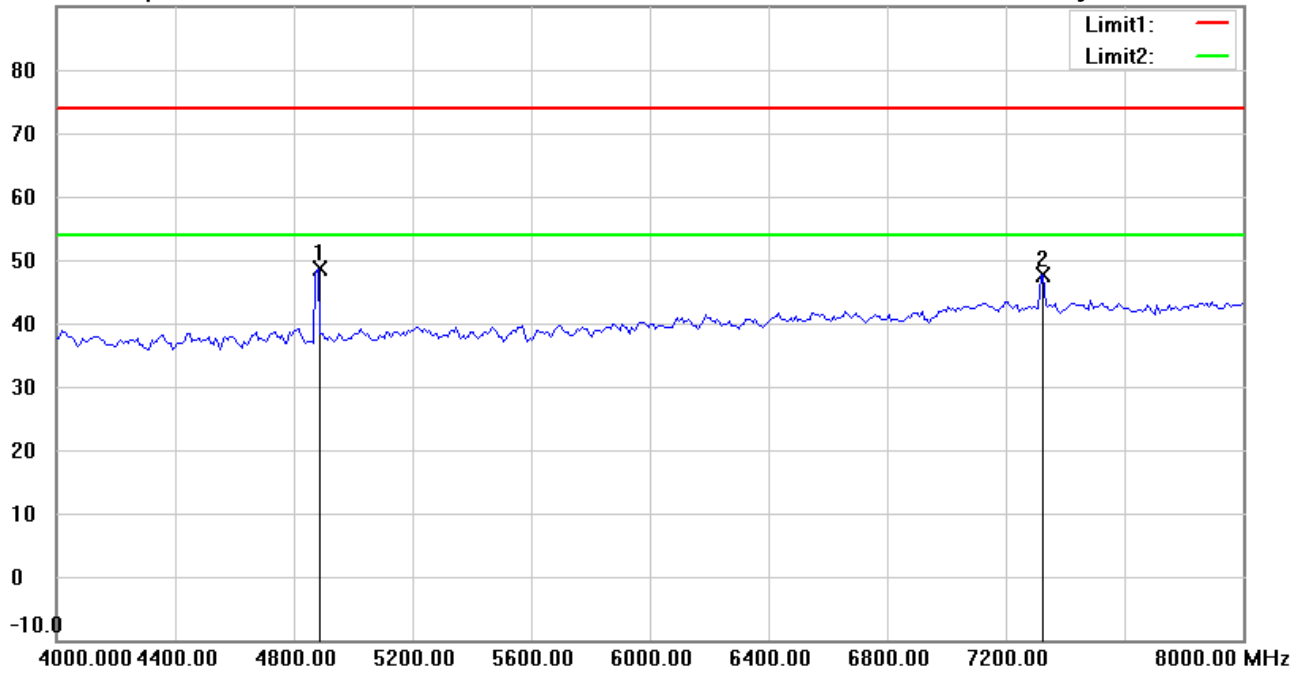
Date: 4/7/2021

Temperature:23.1 °C

90.0 dBuV/m

Time: 2:26:39 AM

Humidity:54.3 %



Site : Chamber

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

Polarization: **Vertical**

EUT : W6M22101-20644

Power : 3 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
*	4881.764	50.14	peak	-1.60	48.54	74.00	150	80	-25.46	
	7326.653	44.18	peak	3.54	47.72	74.00	150	165	-26.28	



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: Allen

File :3

Data :#3

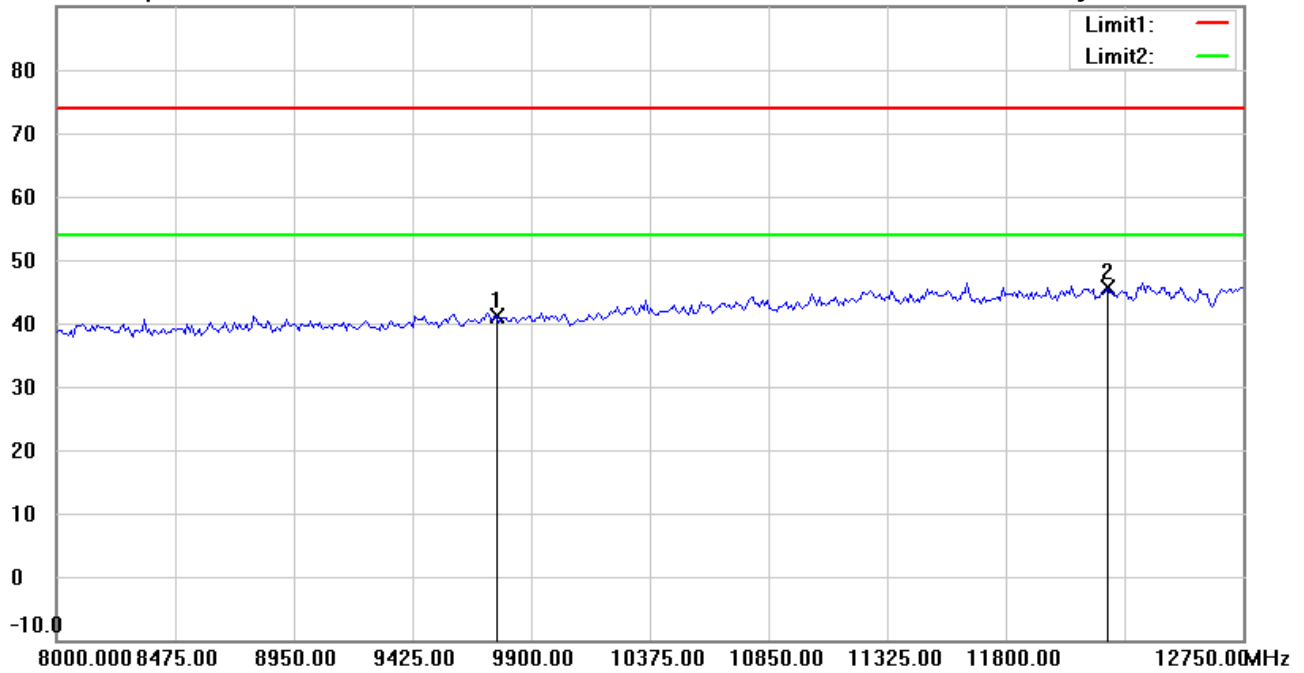
Date: 4/7/2021

Temperature:23.1 °C

90.0 dBuV/m

Time: 2:24:14 AM

Humidity:54.3 %



Site : Chamber

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

Polarization: **Horizontal**

EUT : W6M22101-20644

Power : 3 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	34.17	peak	6.84	41.01	74.00	150	290	-32.99	
*	12200.000	32.57	peak	13.02	45.59	74.00	150	345	-28.41	

\*: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: Allen

File :3

Data :#8

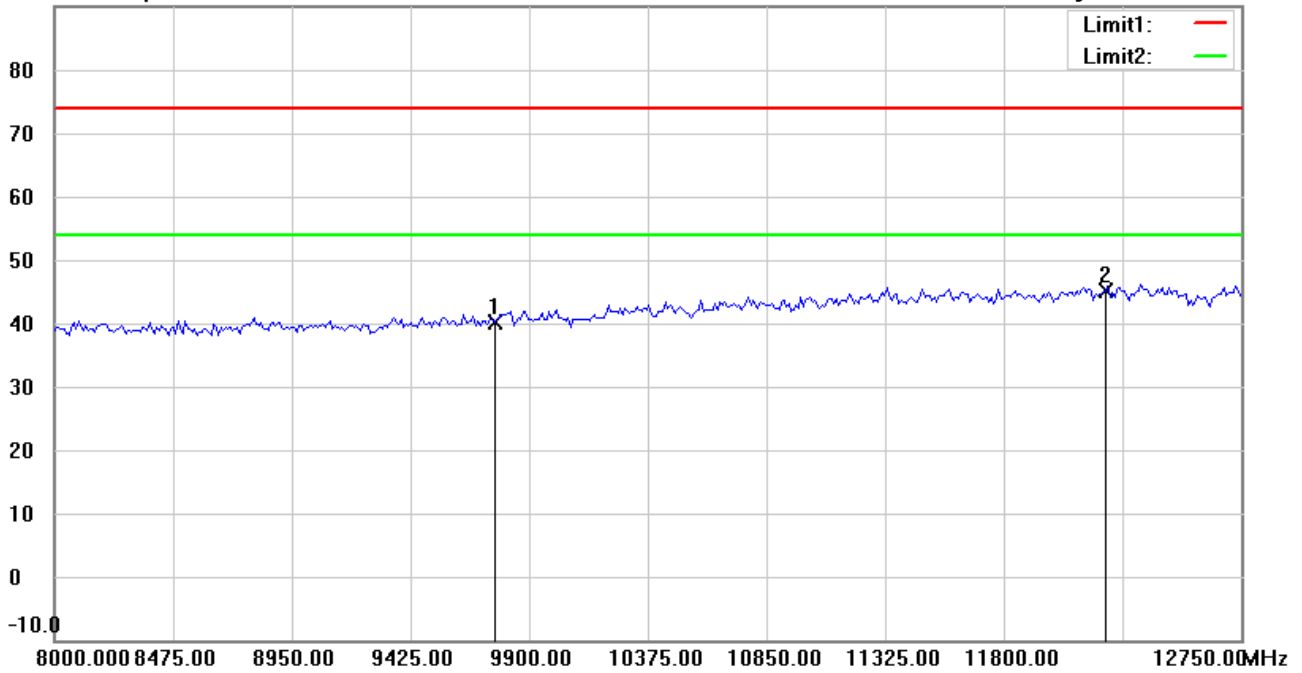
Date: 4/7/2021

Temperature:23.1 °C

90.0 dBuV/m

Time: 2:27:39 AM

Humidity:54.3 %



Site : Chamber

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

Polarization: **Vertical**

EUT : W6M22101-20644

Power : 3 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	33.23	peak	6.84	40.07	74.00	150	234	-33.93	
*	12200.000	32.01	peak	13.02	45.03	74.00	150	100	-28.97	

\*: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: Allen

File :3

Data :#4

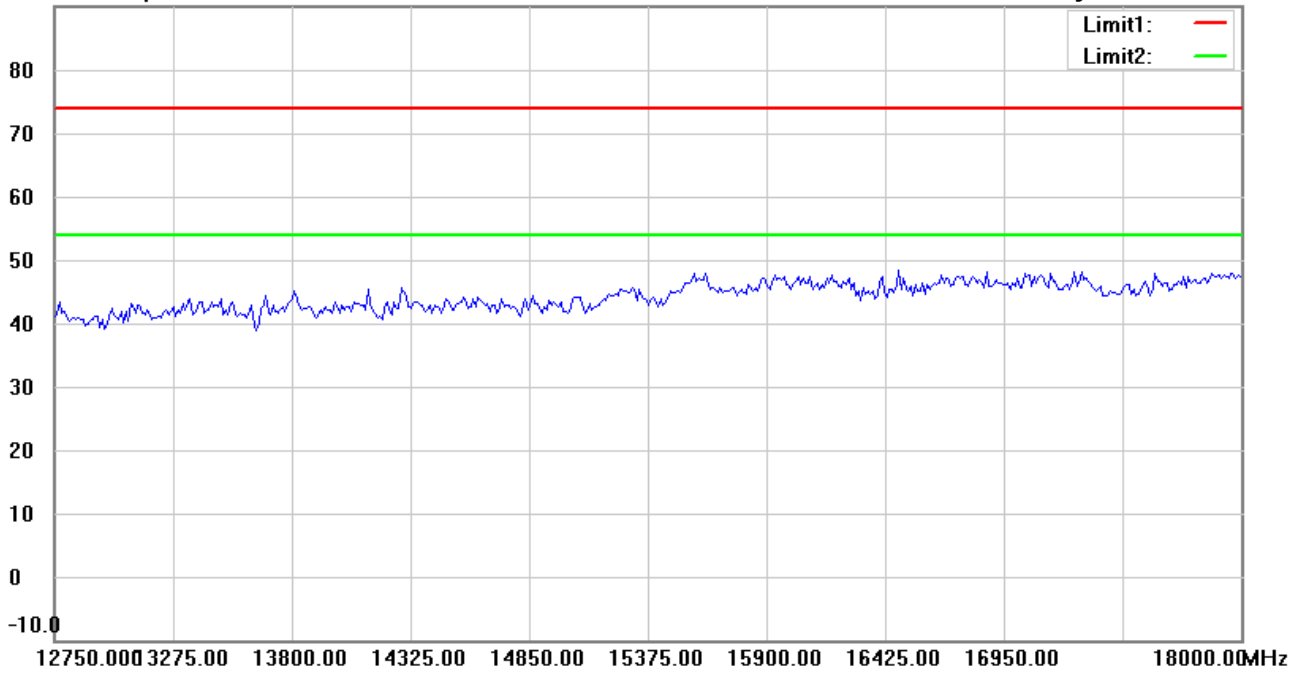
Date: 4/7/2021

Temperature:23.1 °C

90.0 dBuV/m

Time: 2:24:28 AM

Humidity:54.3 %



Site : Chamber

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

Polarization: *Horizontal*

EUT : W6M22101-20644

Power : 3 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: Allen

File :3

Data :#9

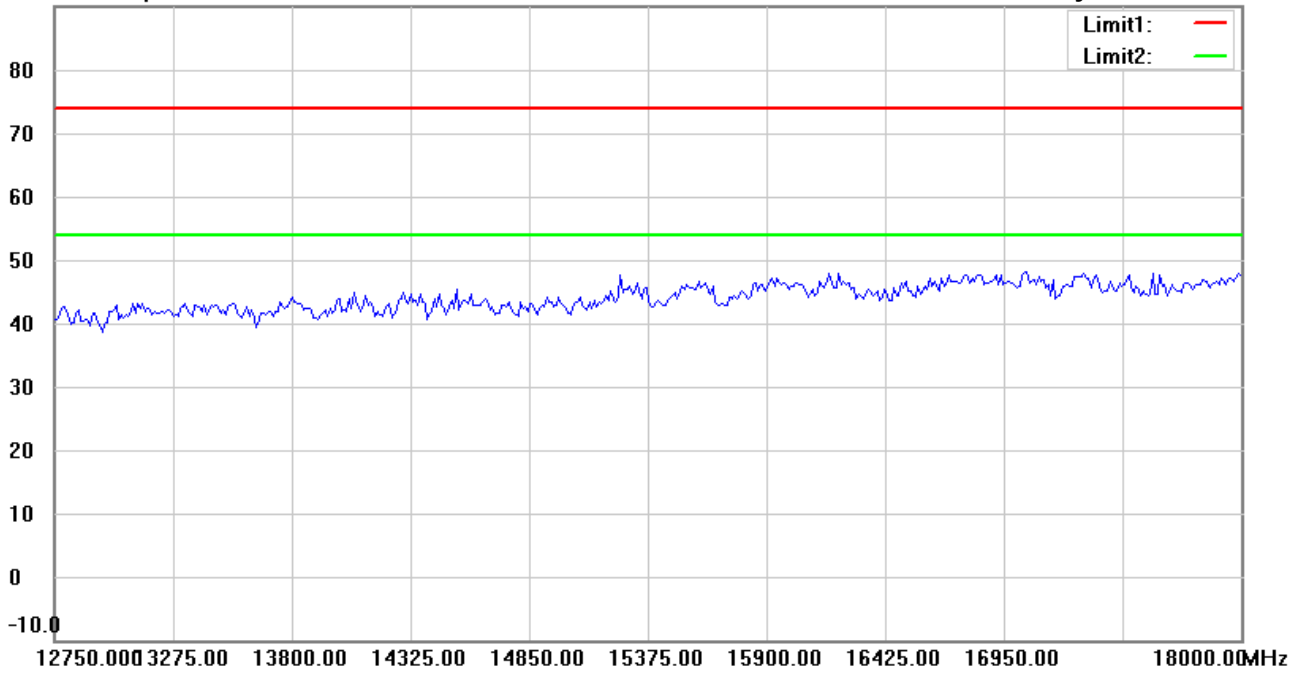
Date: 4/7/2021

Temperature:23.1 °C

90.0 dBuV/m

Time: 2:27:53 AM

Humidity:54.3 %



Site : Chamber

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

Polarization: **Vertical**

EUT : W6M22101-20644

Power : 3 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: Allen

File :3

Data :#5

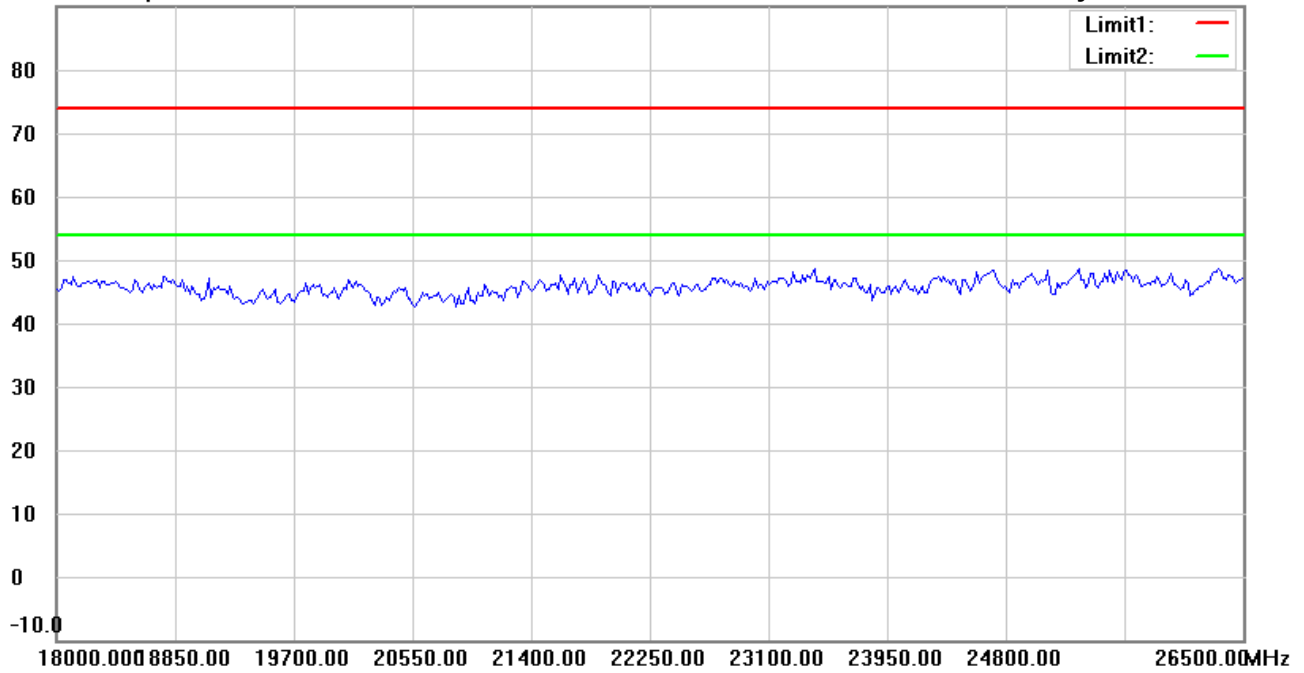
Date: 4/7/2021

Temperature:23.1 °C

90.0 dBuV/m

Time: 2:24:38 AM

Humidity:54.3 %



Site : Chamber

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

Polarization: *Horizontal*

EUT : W6M22101-20644

Power : 3 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: Allen

File :3

Data :#10

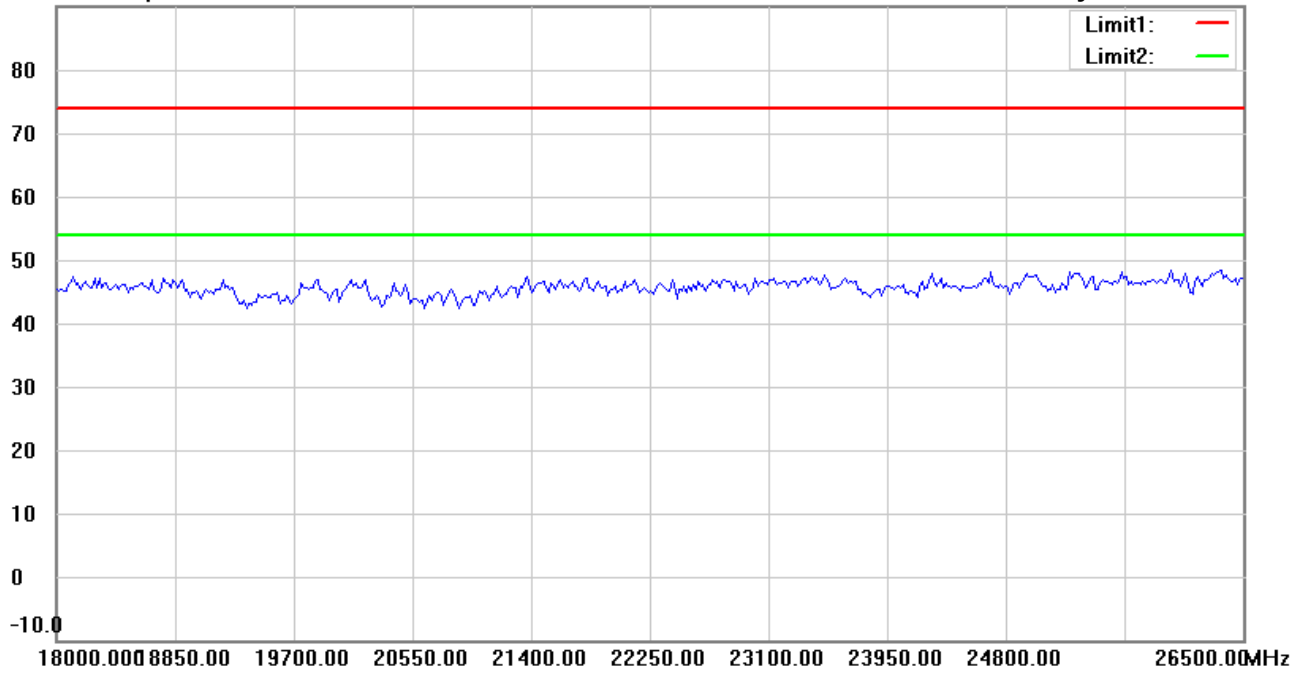
Date: 4/7/2021

Temperature:23.1 °C

90.0 dBuV/m

Time: 2:28:03 AM

Humidity:54.3 %



Site : Chamber

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

Polarization: *Vertical*

EUT : W6M22101-20644

Power : 3 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: Allen

File :3

Data :#1

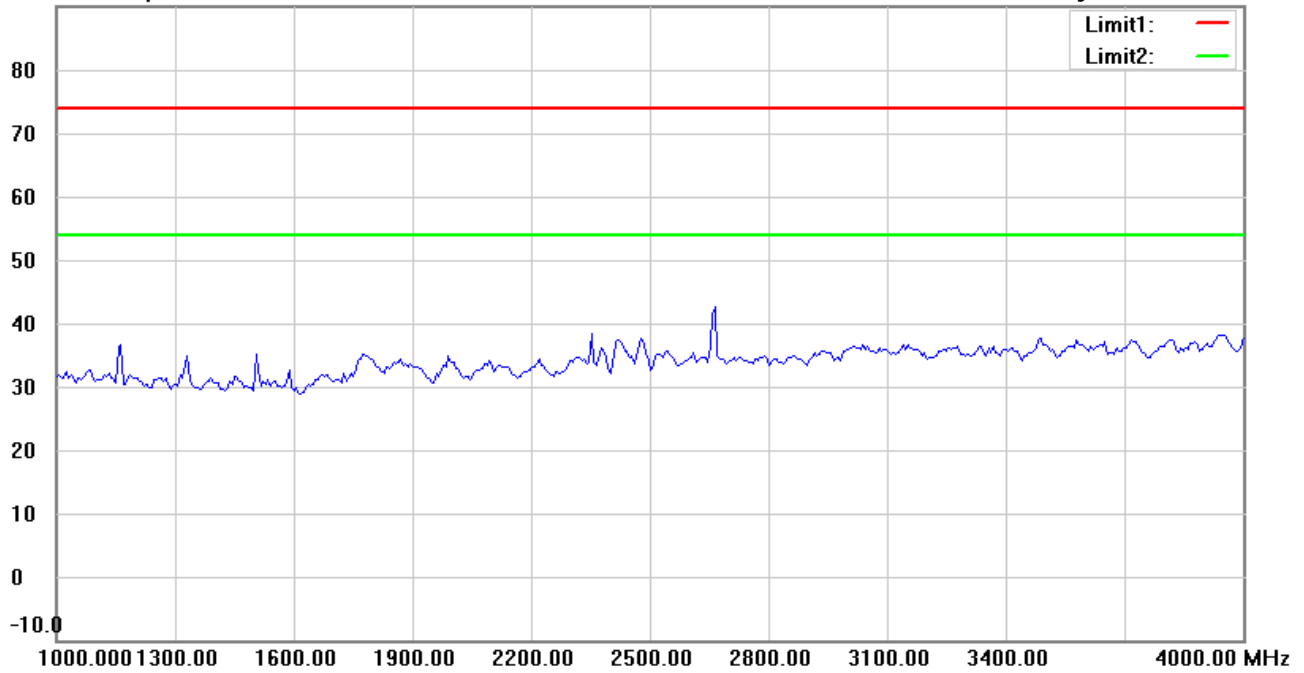
Date: 4/7/2021

Temperature:23.1 °C

90.0 dBuV/m

Time: 2:35:33 AM

Humidity:54.3 %



Site : Chamber

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

Polarization: *Horizontal*

EUT : W6M22101-20644

Power : 3 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: Allen

File :3

Data :#6

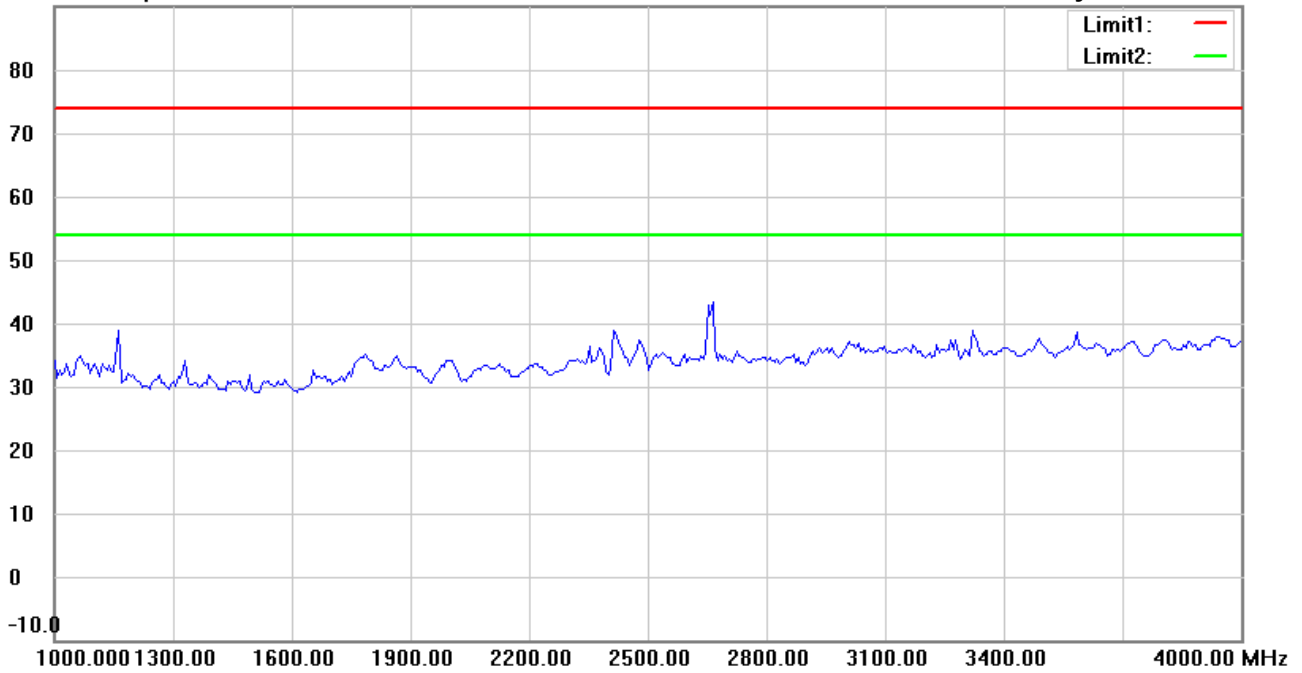
Date: 4/7/2021

Temperature:23.1 °C

90.0 dBuV/m

Time: 2:39:04 AM

Humidity:54.3 %



Site : Chamber

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

Polarization: *Vertical*

EUT : W6M22101-20644

Power : 3 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: Allen

File :3

Data :#2

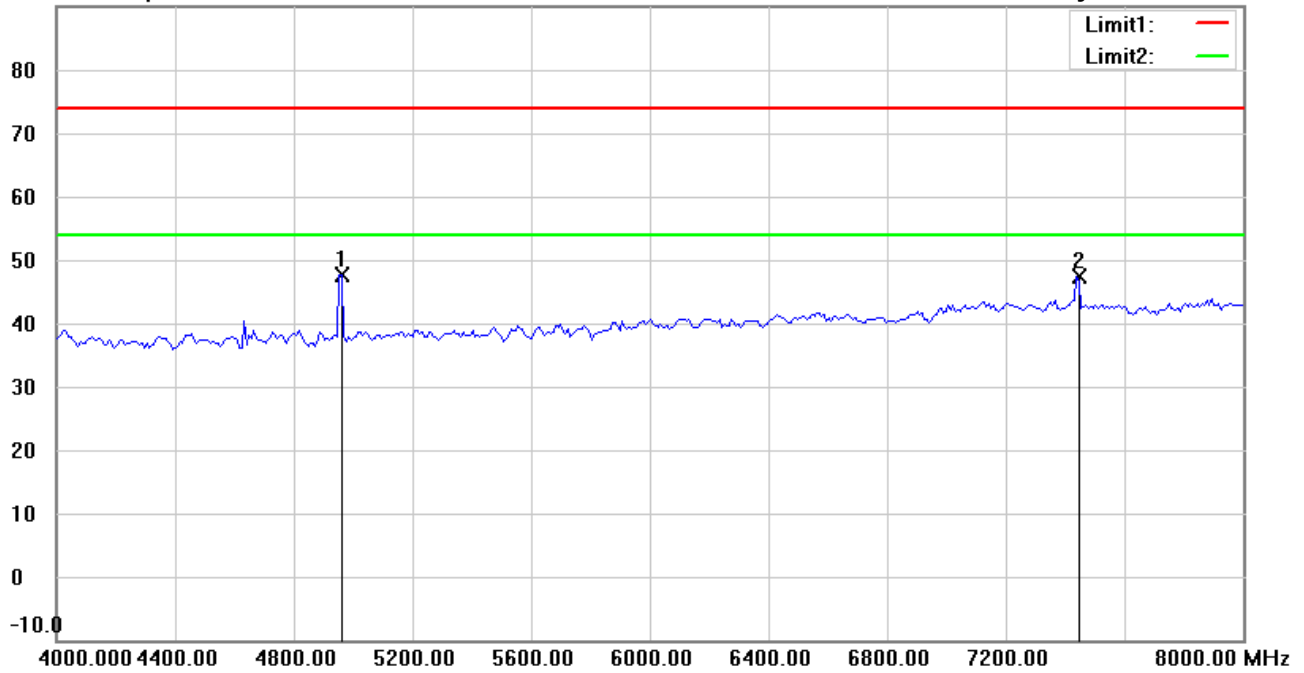
Date: 4/7/2021

Temperature:23.1 °C

90.0 dBuV/m

Time: 2:36:33 AM

Humidity:54.3 %



Site : Chamber

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

Polarization: *Horizontal*

EUT : W6M22101-20644

Power : 3 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
*	4953.908	48.98	peak	-1.38	47.60	74.00	150	75	-26.40	
	7438.878	43.66	peak	3.76	47.42	74.00	150	228	-26.58	



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: Allen

File :3

Data :#7

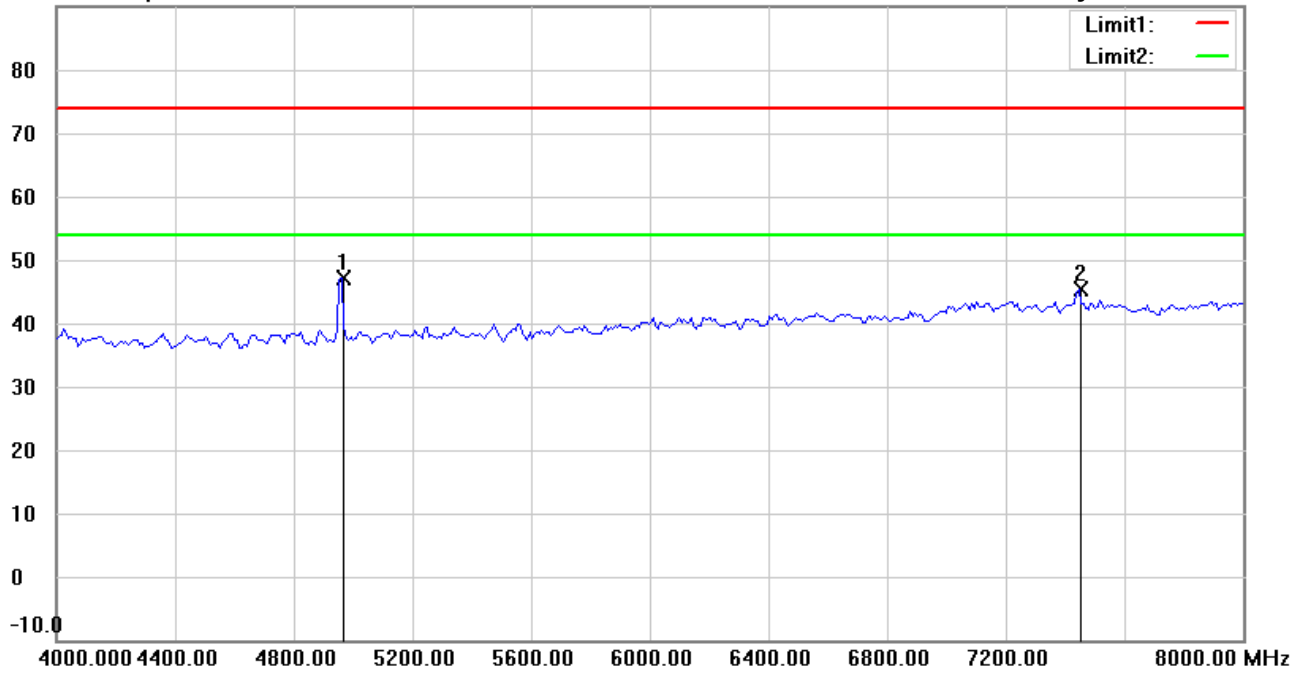
Date: 4/7/2021

Temperature:23.1 °C

90.0 dBuV/m

Time: 2:40:05 AM

Humidity:54.3 %



Site : Chamber

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

Polarization: **Vertical**

EUT : W6M22101-20644

Power : 3 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
*	4961.924	48.43	peak	-1.35	47.08	74.00	150	340	-26.92	
	7446.894	41.67	peak	3.74	45.41	74.00	150	45	-28.59	

\*: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: Allen

File :3

Data :#3

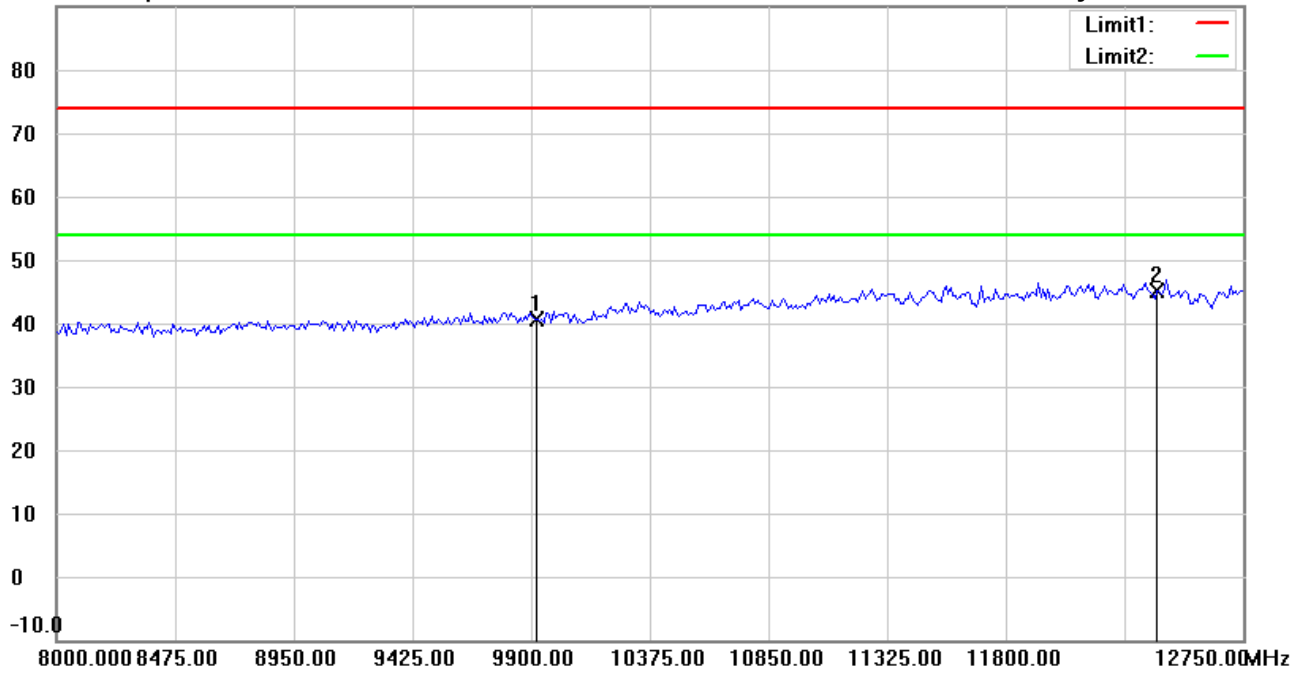
Date: 4/7/2021

Temperature:23.1 °C

90.0 dBuV/m

Time: 2:37:40 AM

Humidity:54.3 %



Site : Chamber

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

Polarization: *Horizontal*

EUT : W6M22101-20644

Power : 3 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	33.50	peak	7.23	40.73	74.00	150	35	-33.27	
*	12400.000	32.43	peak	12.81	45.24	74.00	150	240	-28.76	

\*: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: Allen

File :3

Data :#8

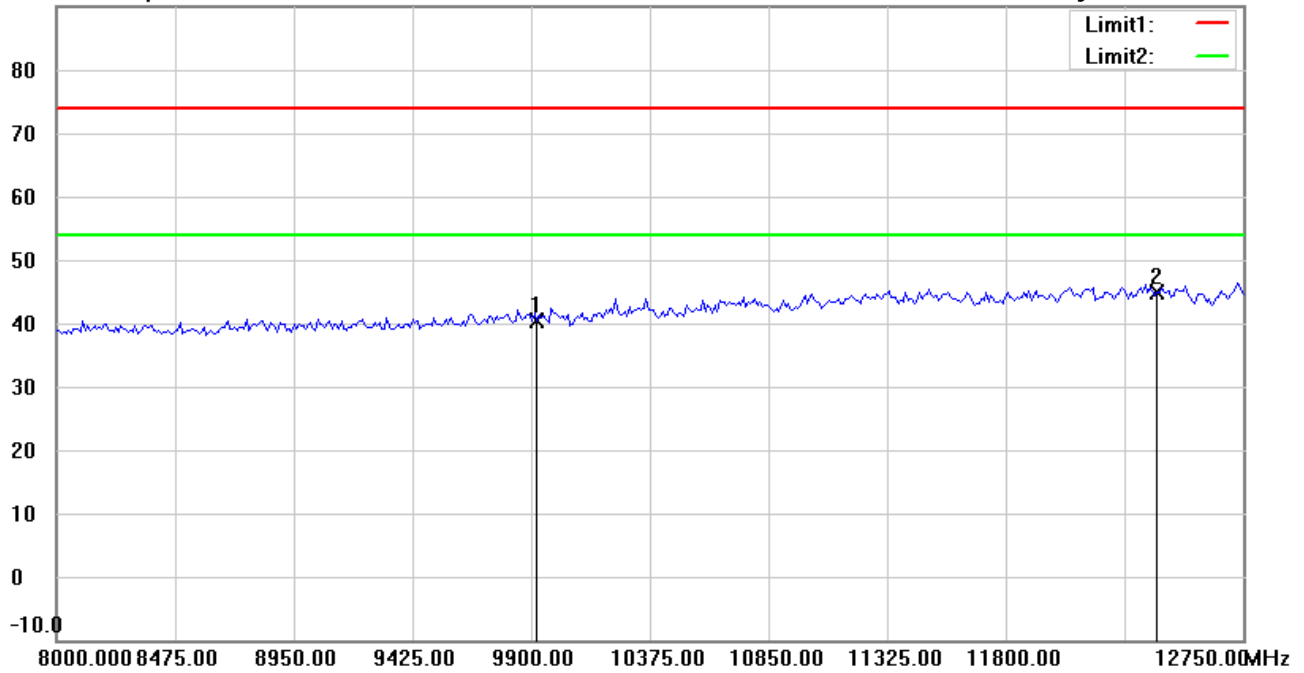
Date: 4/7/2021

Temperature:23.1 °C

90.0 dBuV/m

Time: 2:41:05 AM

Humidity:54.3 %



Site : Chamber

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

Polarization: *Vertical*

EUT : W6M22101-20644

Power : 3 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	33.22	peak	7.23	40.45	74.00	150	230	-33.55	
*	12400.000	32.11	peak	12.81	44.92	74.00	150	112	-29.08	

\*: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: Allen

File :3

Data :#4

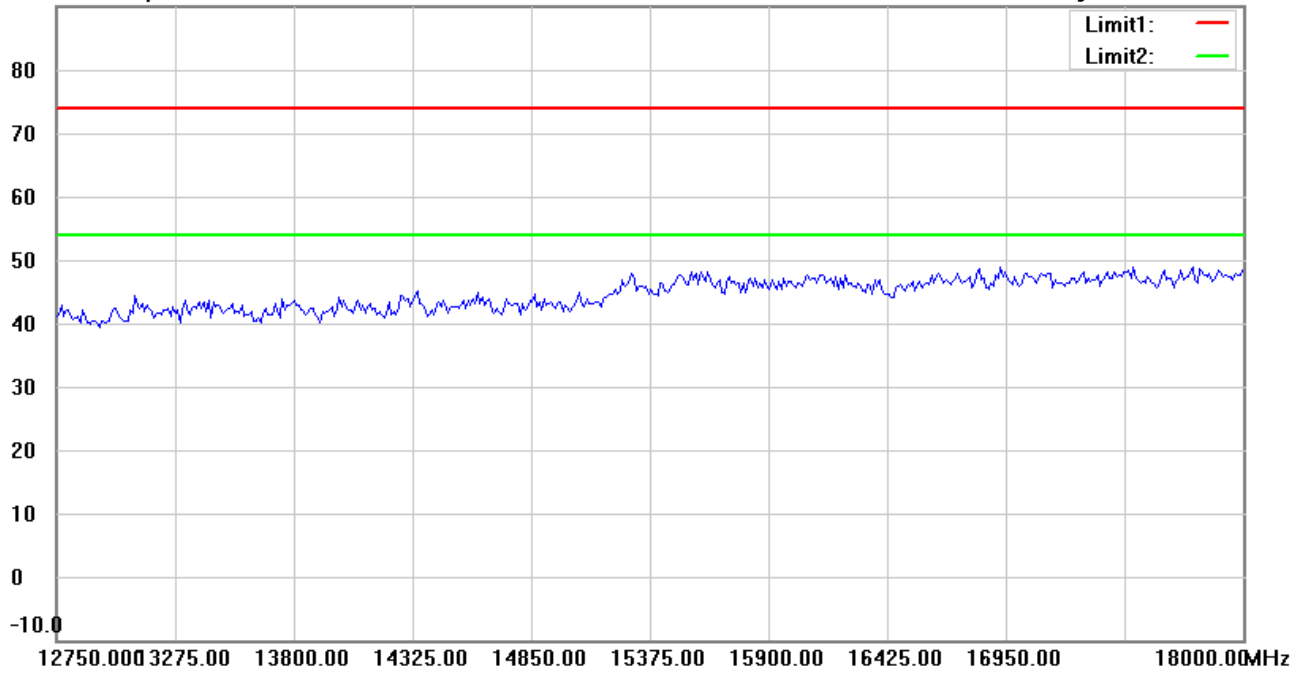
Date: 4/7/2021

Temperature:23.1 °C

90.0 dBuV/m

Time: 2:37:54 AM

Humidity:54.3 %



Site : Chamber

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

Polarization: *Horizontal*

EUT : W6M22101-20644

Power : 3 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: Allen

File :3

Data :#9

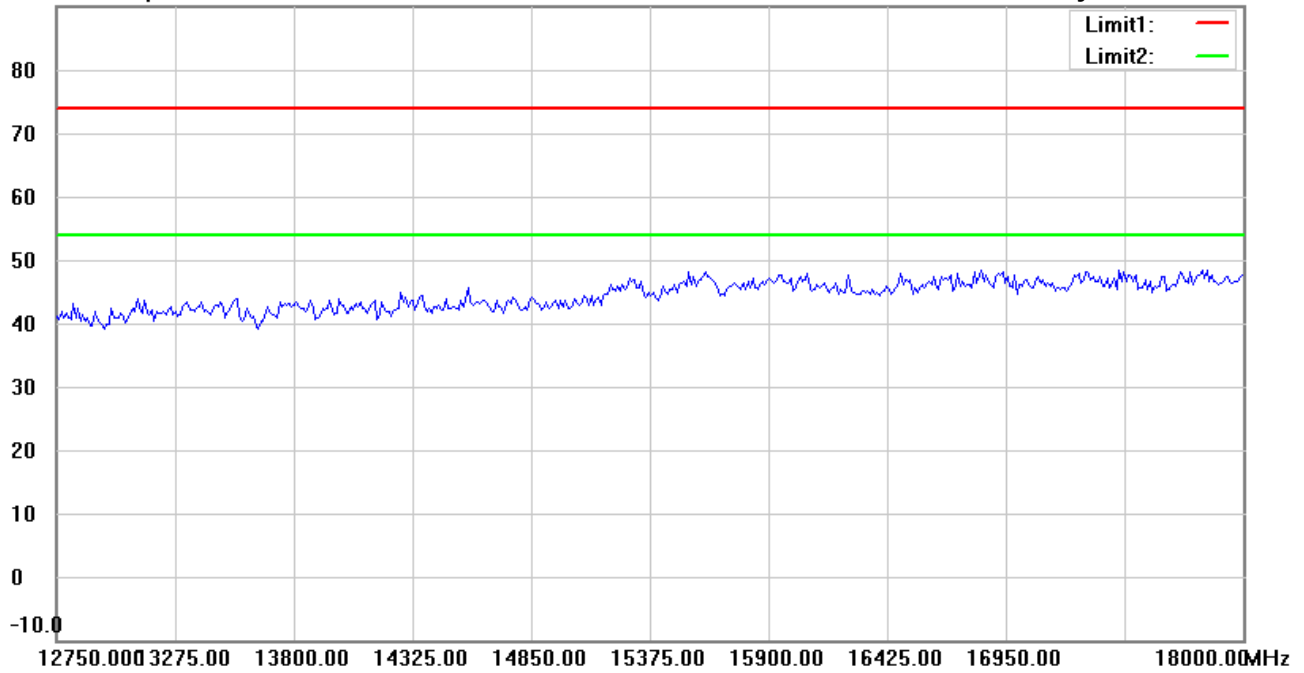
Date: 4/7/2021

Temperature:23.1 °C

90.0 dBuV/m

Time: 2:41:19 AM

Humidity:54.3 %



Site : Chamber

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

Polarization: *Vertical*

EUT : W6M22101-20644

Power : 3 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: Allen

File :3

Data :#5

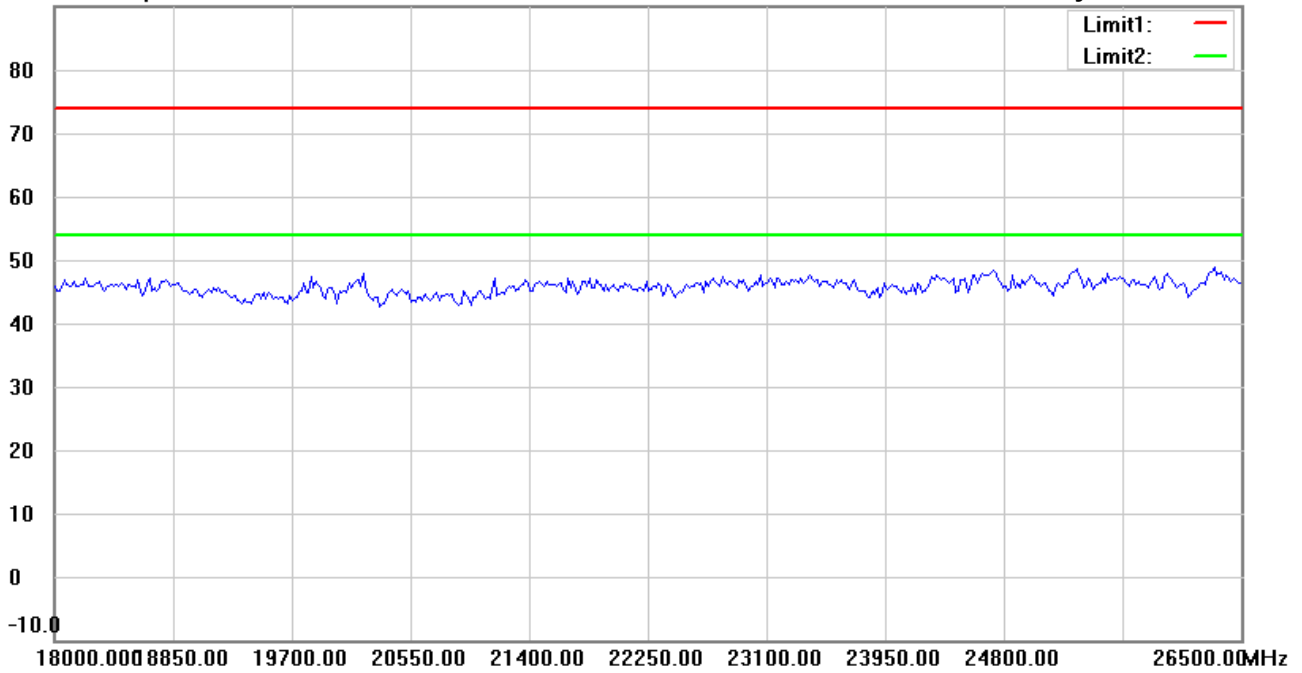
Date: 4/7/2021

Temperature:23.1 °C

90.0 dBuV/m

Time: 2:38:04 AM

Humidity:54.3 %



Site : Chamber

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

Polarization: *Horizontal*

EUT : W6M22101-20644

Power : 3 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: Allen

File :3

Data :#10

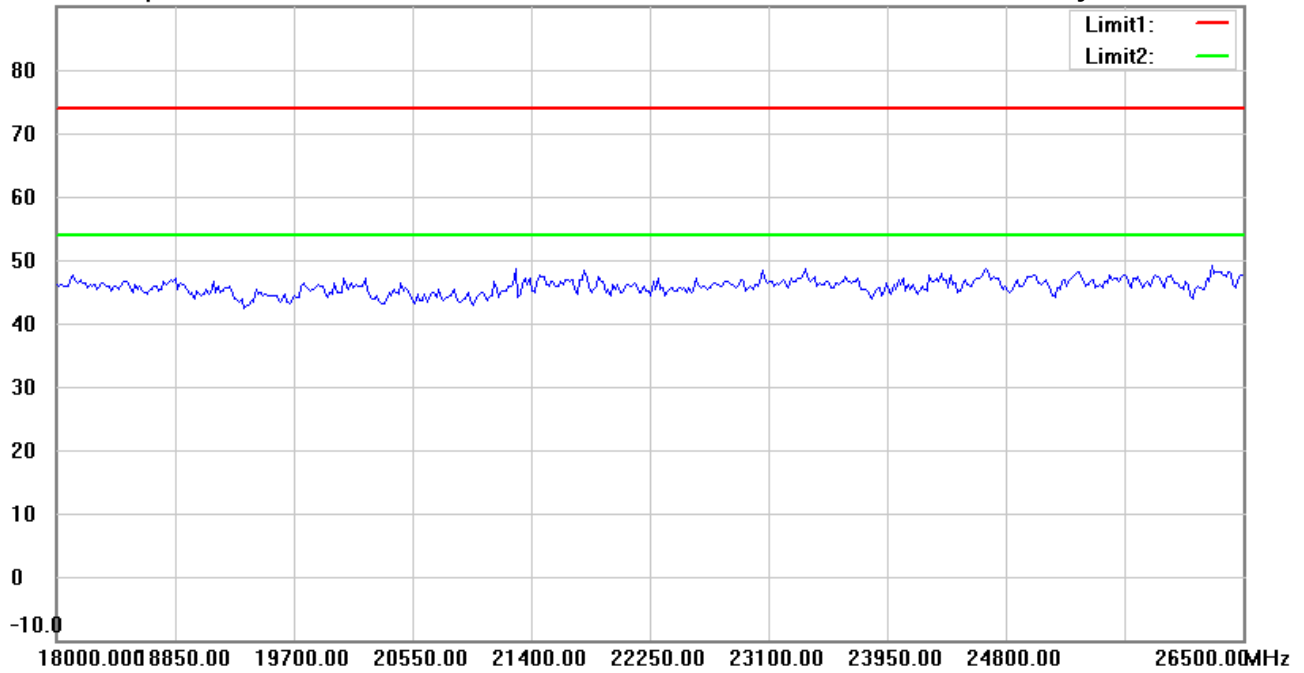
Date: 4/7/2021

Temperature:23.1 °C

90.0 dBuV/m

Time: 2:41:29 AM

Humidity:54.3 %



Site : Chamber

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

Polarization: *Vertical*

EUT : W6M22101-20644

Power : 3 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: Vincent

File :1\_TX 2457 below 1G

Data :#1

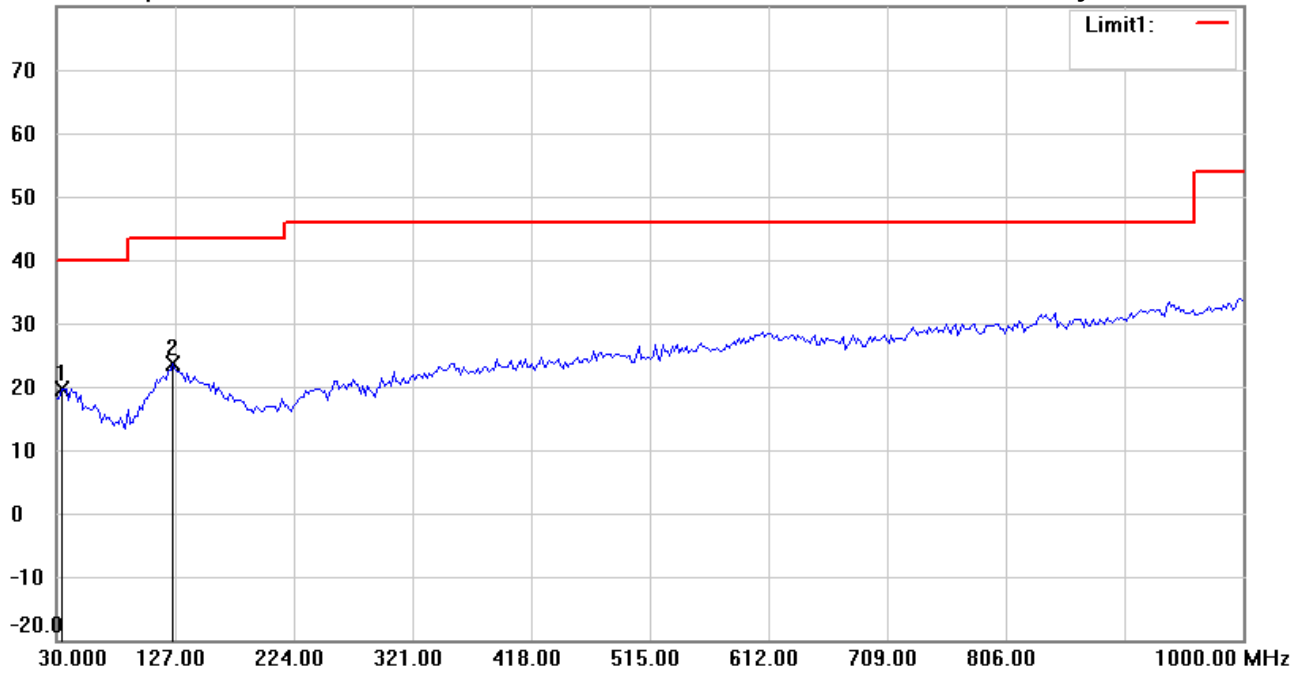
Date: 6/19/2021

Temperature:28.4 °C

80.0 dBuV/m

Time: 9:57:12 AM

Humidity:48.9 %



Site : Chamber

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

Polarization: *Horizontal*

EUT : W6M22101-20644

Power : 3 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2457MHz

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
	33.8877	28.31	peak	-8.68	19.63	40.00	107	65	-20.37	
*	125.2505	30.67	peak	-7.05	23.62	43.50	100	138	-19.88	



Radiated Emission Measurement

Operator: Vincent

File :1\_TX 2457 below 1G

Data :#2

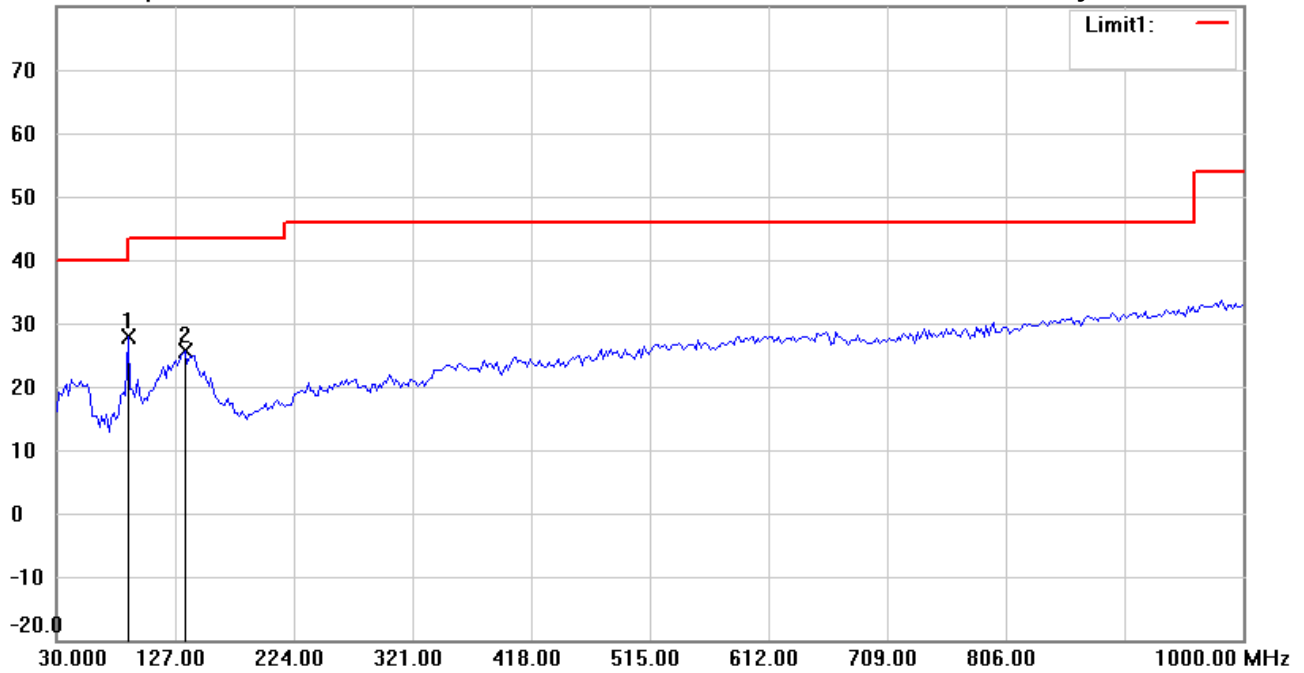
Date: 6/19/2021

Temperature:28.4 °C

80.0 dBuV/m

Time: 10:08:39 AM

Humidity:48.9 %



Site : Chamber

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

Polarization: **Vertical**

EUT : W6M22101-20644

Power : 3 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2457MHz

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
*	88.3164	41.51	peak	-13.72	27.79	43.50	100	256	-15.71	
	134.9696	32.41	peak	-6.73	25.68	43.50	100	110	-17.82	



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: Allen

File :3

Data :#1

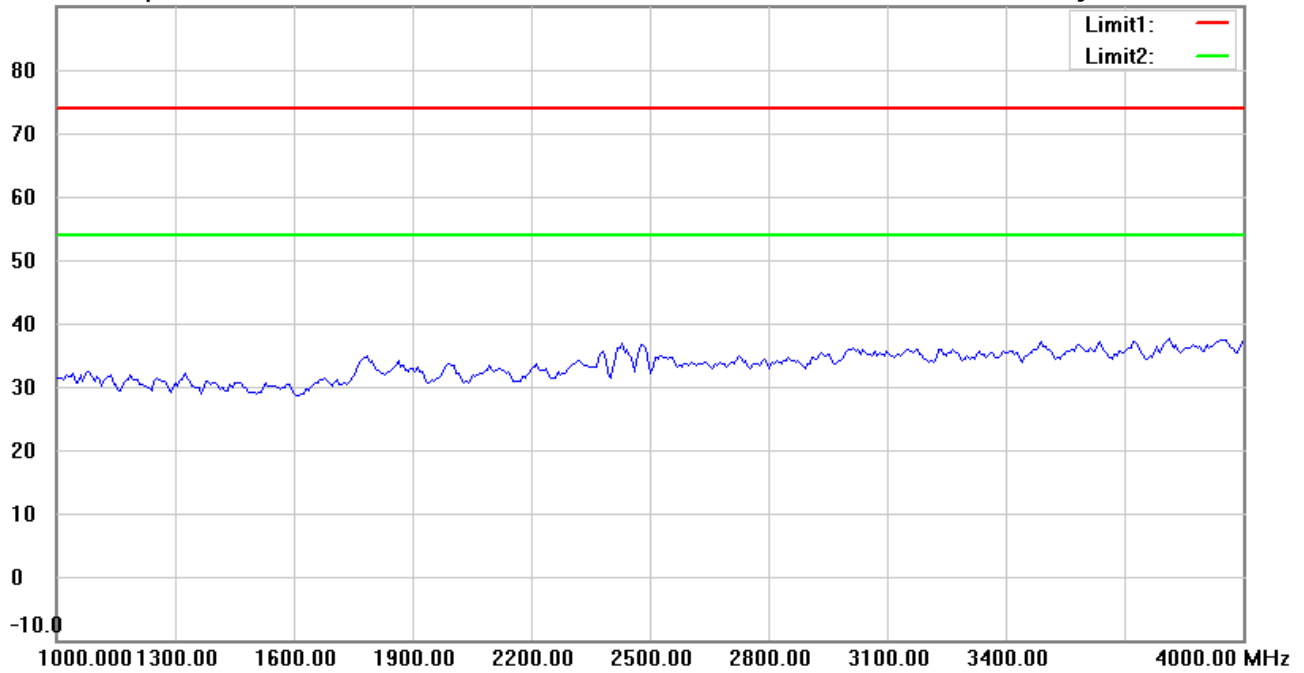
Date: 4/7/2021

Temperature:23.1 °C

90.0 dBuV/m

Time: 5:29:58 AM

Humidity:54.3 %



Site : Chamber

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

Polarization: *Horizontal*

EUT : W6M22101-20644

Power : 3 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2457MHz

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: Allen

File :3

Data :#6

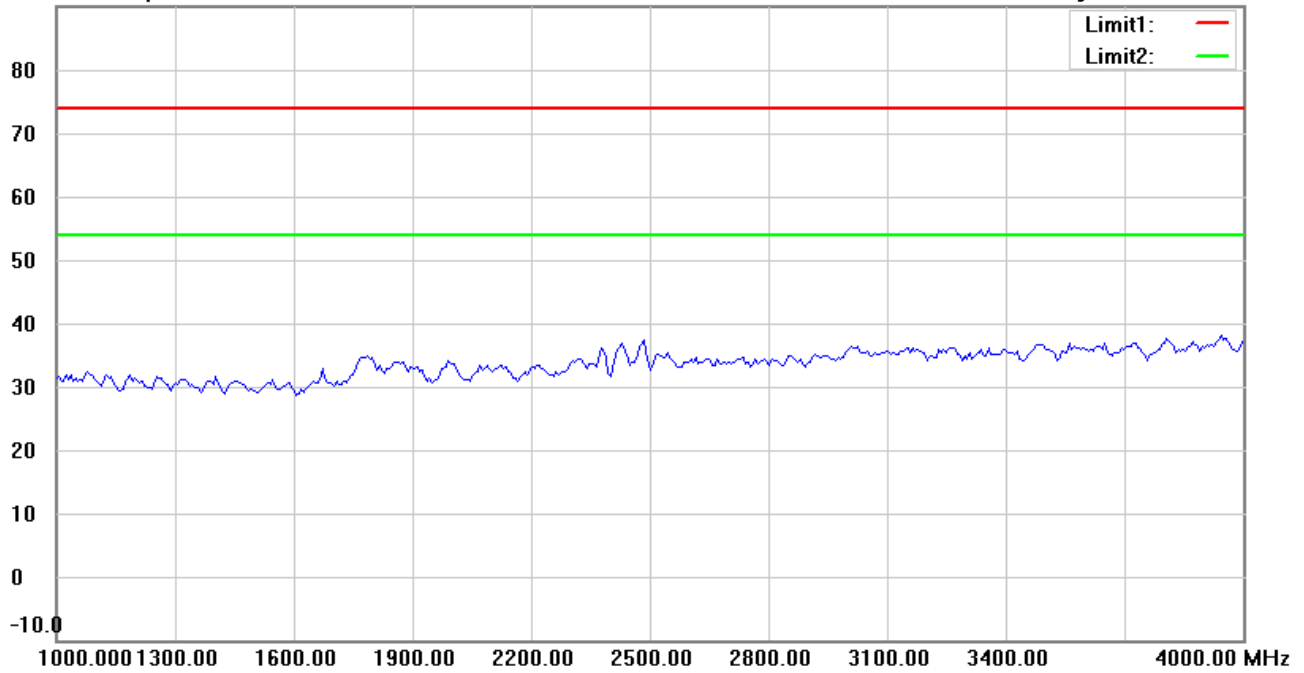
Date: 4/7/2021

Temperature:23.1 °C

90.0 dBuV/m

Time: 5:33:30 AM

Humidity:54.3 %



Site : Chamber

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

Polarization: *Vertical*

EUT : W6M22101-20644

Power : 3 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2457MHz

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: Allen

File :3

Data :#2

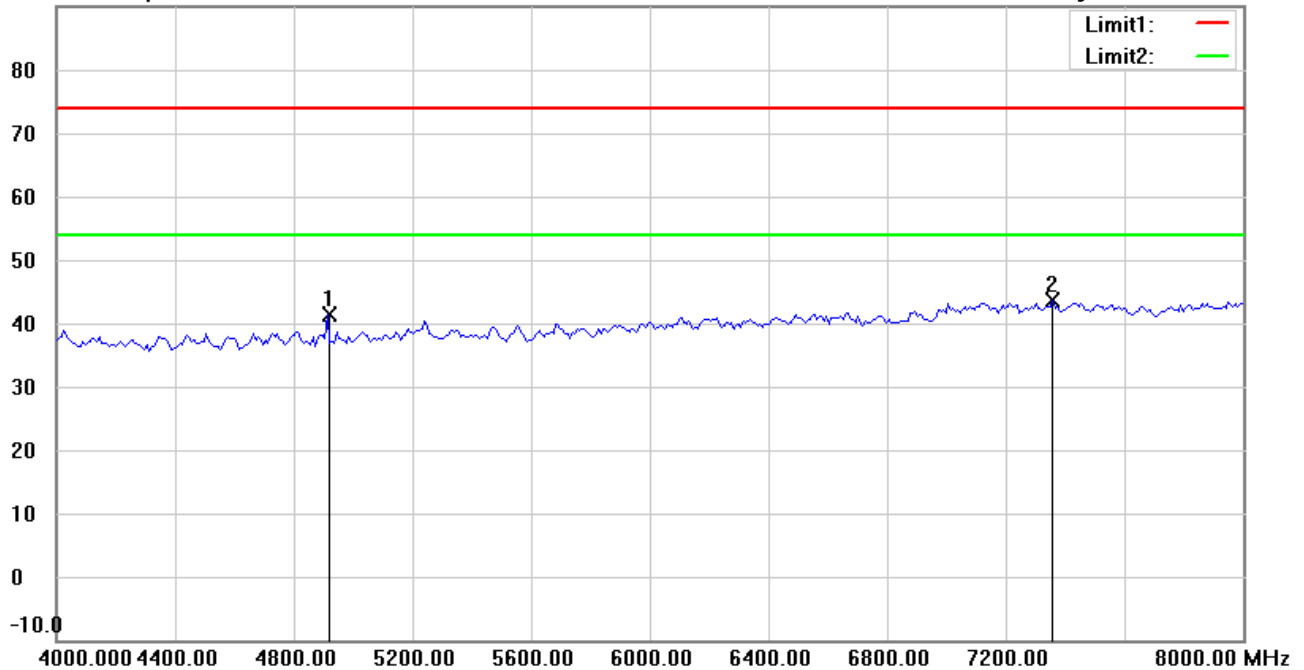
Date: 4/7/2021

Temperature:23.1 °C

90.0 dBuV/m

Time: 5:30:59 AM

Humidity:54.3 %



Site : Chamber

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

Polarization: *Horizontal*

EUT : W6M22101-20644

Power : 3 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2457MHz

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
	4913.828	42.89	peak	-1.51	41.38	74.00	150	300	-32.62	
*	7358.717	40.07	peak	3.68	43.75	74.00	150	154	-30.25	



Radiated Emission Measurement

Operator: Allen

File :3

Data :#7

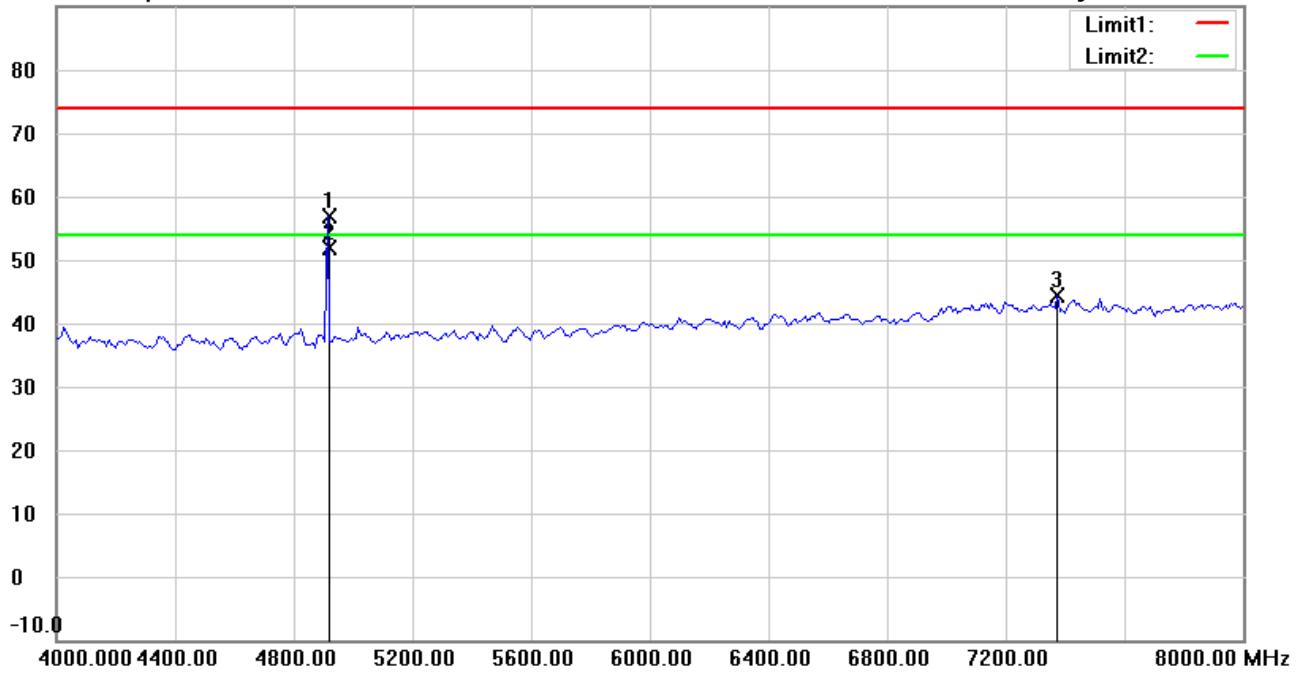
Date: 4/7/2021

Temperature:23.1 °C

90.0 dBuV/m

Time: 5:34:31 AM

Humidity:54.3 %



Site : Chamber

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

EUT : W6M22101-20644

M/N:

Test Mode : TX 2457MHz

Note :

Polarization: *Vertical*

Power : 3 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
	4914.765	58.34	peak	-1.51	56.83	74.00	150	180	-17.17	
*	4914.765	53.39	AVG	-1.51	51.88	54.00	150	180	-2.12	
	7374.749	40.56	peak	3.74	44.30	74.00	150	78	-29.70	





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: Allen

File :3

Data :#3

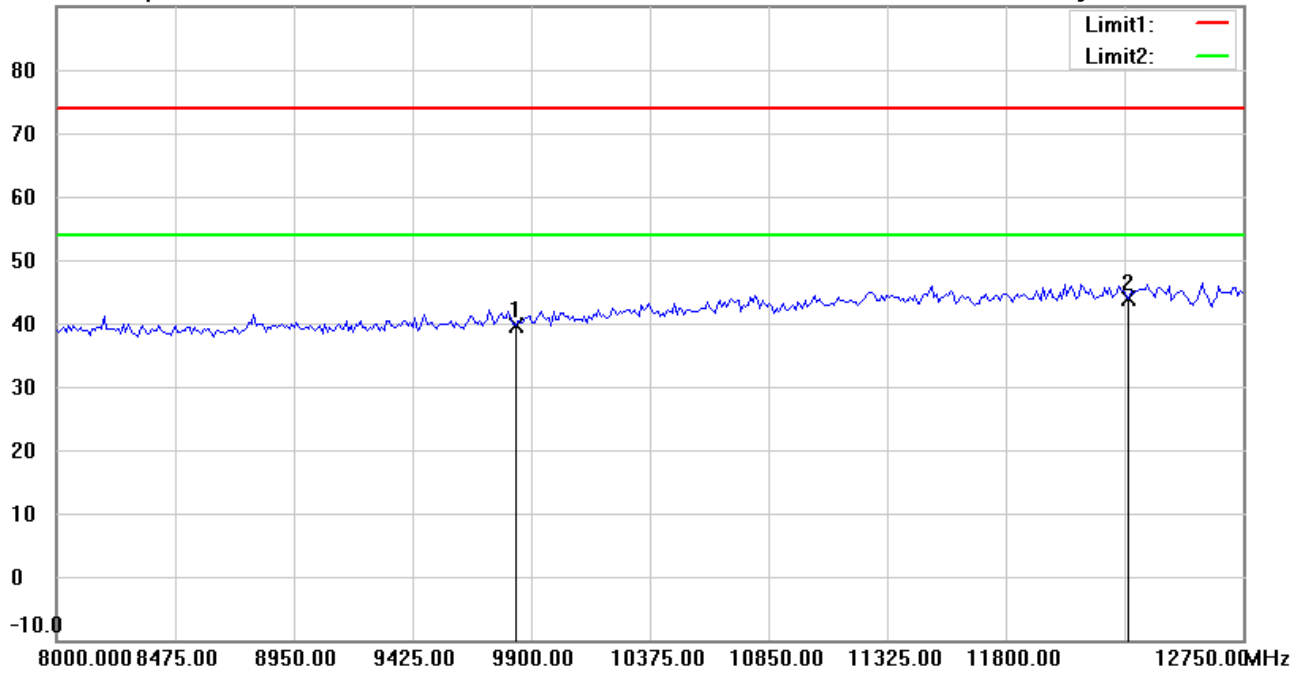
Date: 4/7/2021

Temperature:23.1 °C

90.0 dBuV/m

Time: 5:32:06 AM

Humidity:54.3 %



Site : Chamber

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

Polarization: *Horizontal*

EUT : W6M22101-20644

Power : 3 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2457MHz

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
	9828.000	32.53	peak	6.98	39.51	74.00	150	55	-34.49	
*	12285.000	31.61	peak	12.34	43.95	74.00	150	330	-30.05	

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



Radiated Emission Measurement

Operator: Allen

File :3

Data :#8

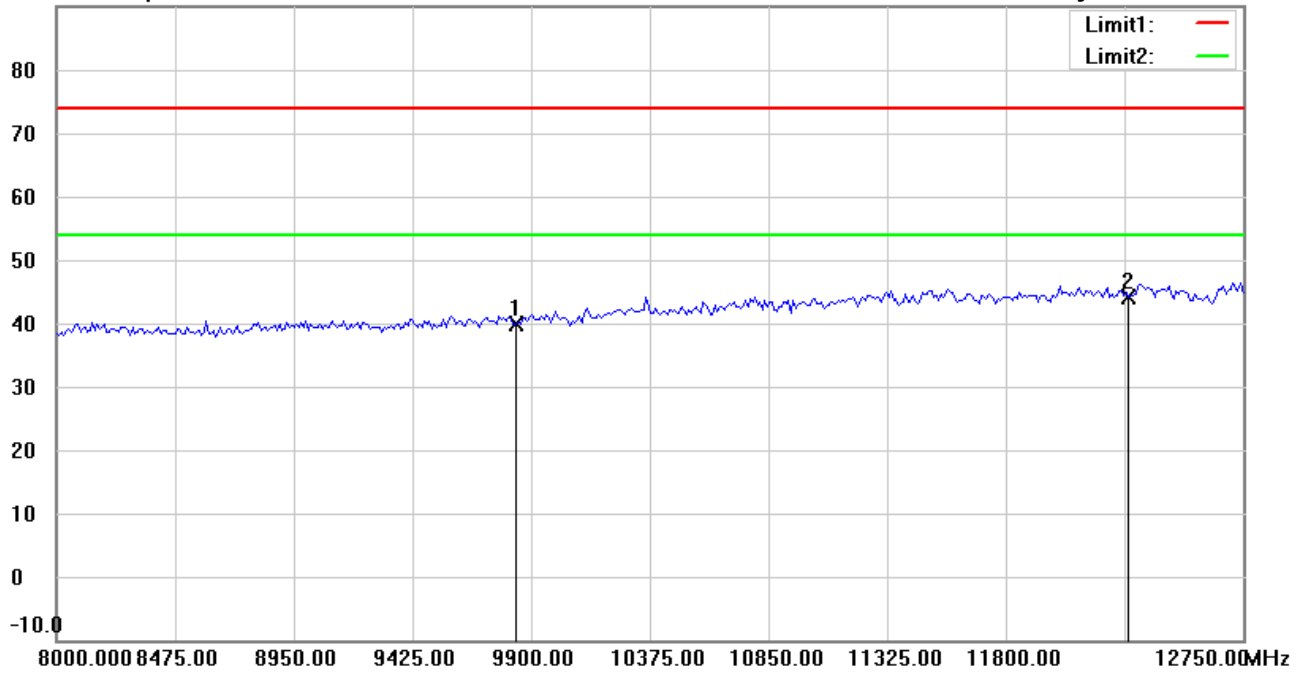
Date: 4/7/2021

Temperature:23.1 °C

90.0 dBuV/m

Time: 5:35:31 AM

Humidity:54.3 %



Site : Chamber

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

Polarization: **Vertical**

EUT : W6M22101-20644

Power : 3 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2457MHz

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
	9828.000	32.97	peak	6.98	39.95	74.00	150	57	-34.05	
*	12285.000	31.90	peak	12.34	44.24	74.00	150	230	-29.76	



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: Allen

File :3

Data :#4

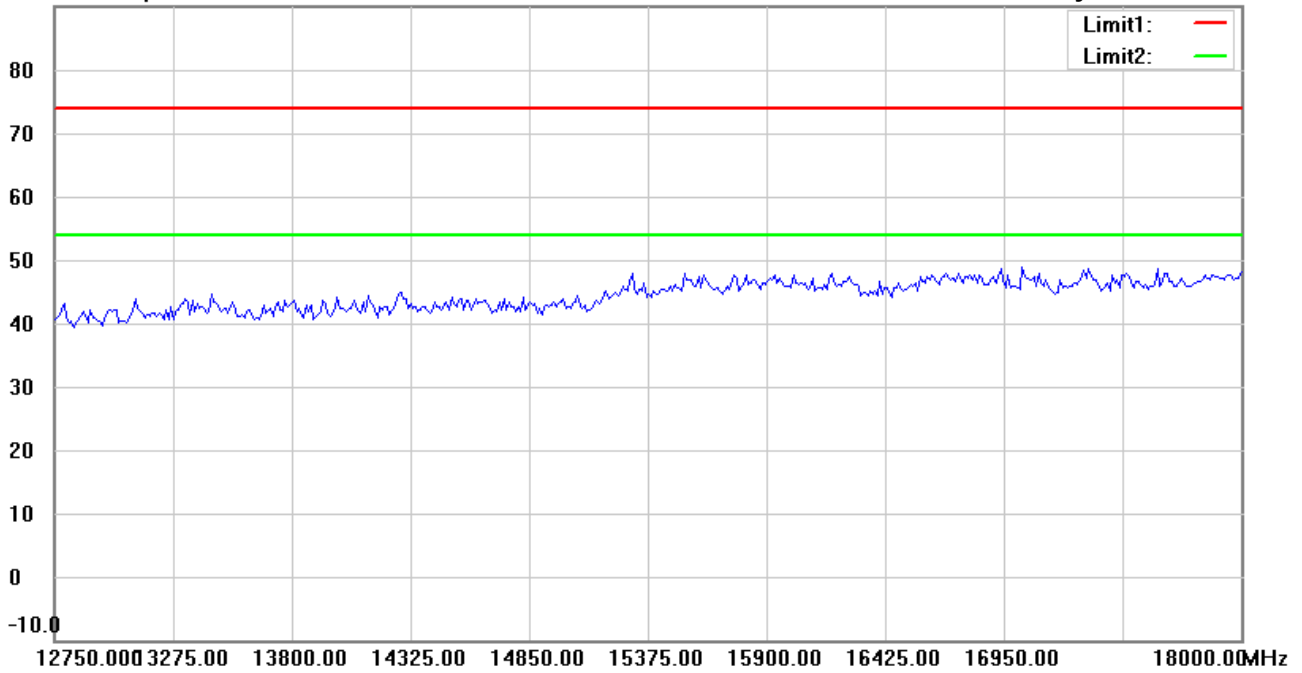
Date: 4/7/2021

Temperature:23.1 °C

90.0 dBuV/m

Time: 5:32:20 AM

Humidity:54.3 %



Site : Chamber

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

Polarization: *Horizontal*

EUT : W6M22101-20644

Power : 3 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2457MHz

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: Allen

File :3

Data :#9

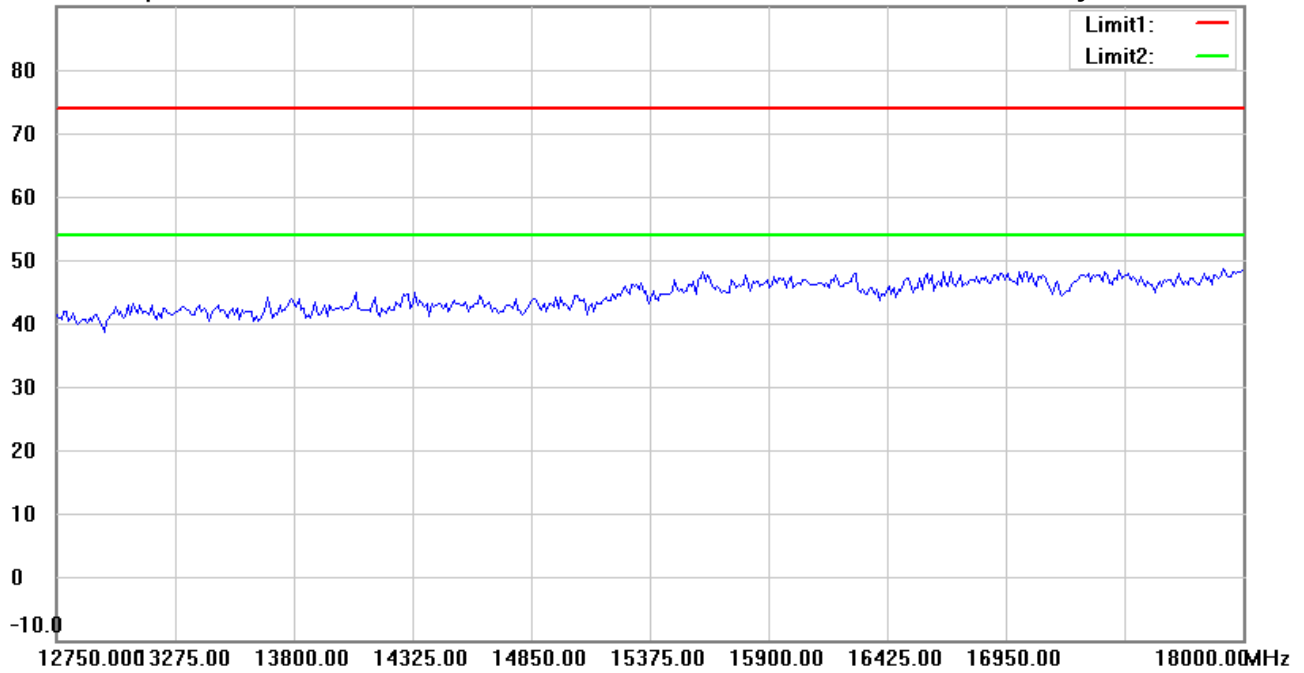
Date: 4/7/2021

Temperature:23.1 °C

90.0 dBuV/m

Time: 5:35:45 AM

Humidity:54.3 %



Site : Chamber

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

Polarization: *Vertical*

EUT : W6M22101-20644

Power : 3 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2457MHz

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: Allen

File :3

Data :#5

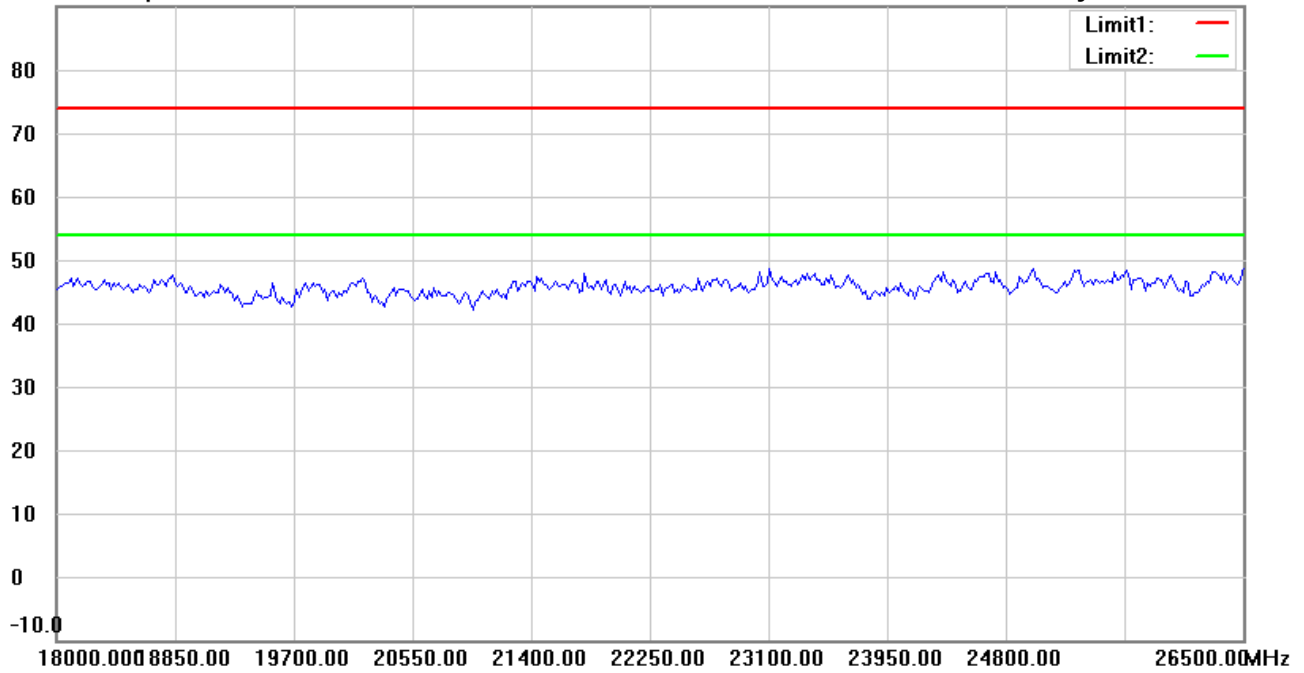
Date: 4/7/2021

Temperature:23.1 °C

90.0 dBuV/m

Time: 5:32:30 AM

Humidity:54.3 %



Site : Chamber

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

Polarization: *Horizontal*

EUT : W6M22101-20644

Power : 3 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2457MHz

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: Allen

File :3

Data :#10

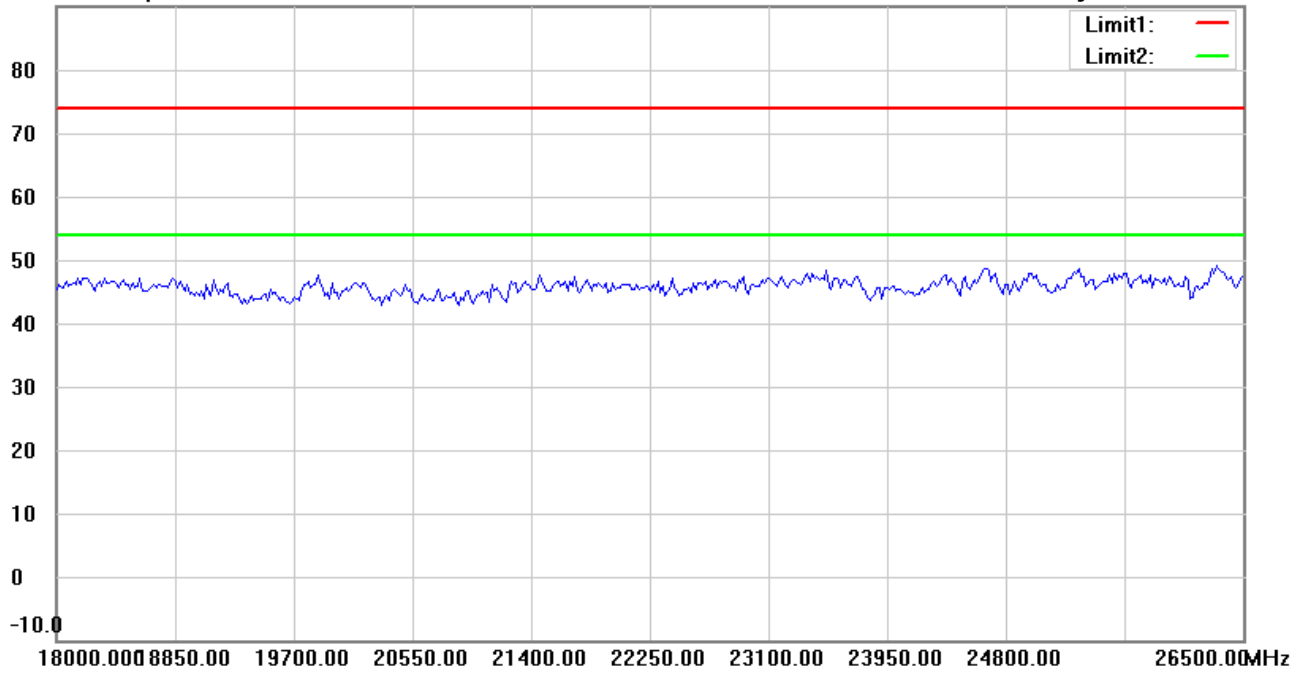
Date: 4/7/2021

Temperature:23.1 °C

90.0 dBuV/m

Time: 5:35:55 AM

Humidity:54.3 %



Site : Chamber

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

Polarization: *Vertical*

EUT : W6M22101-20644

Power : 3 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2457MHz

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