

**FCC PART 15 SUBPART E TEST REPORT**

**for**

**Transmitter**

**Model No.: ACT-58TC**

**FCC ID: M5X-ACT58TC58T**

**IC: 2978A-ACT58TC58T**

**of**

Applicant: MIPRO Electronics Co., Ltd.

Address: 814 Pei-kang Road Chia-yi 600 Taiwan, R.O.C

Tested and Prepared

by

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

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

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

**A2LA Accredited No.: 2732.01**



**Report No.: W6M21905-19028-C-7**

6F, NO. 58, LANE 188, RUEY-KUANG RD., NEIHU TAIPEI 114, TAIWAN, R.O.C.  
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## **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.

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#### **Specific Conditions:**

Usage of the hereunder tested device in combination with other integrated or external antennas requires at least additional output power measurements, spurious emission measurements, conducted emission measurements (AC supply lines) and radio frequency exposure evaluations for each individual configuration performed, for certification by FCC.

Tester:

August 08, 2019

Rick Chen

*Rick Chen.*

Date

WTS-Lab.

Name

Signature

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

August 08, 2019

Kevin Wang

*Kevin Wang*

Date

WTS

Name

Signature



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

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## **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

A2LA accredited number: 2732.01

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: MIPRO Electronics Co., Ltd.

Street: 814 Pei-kang Road

Town: Chia-yi 600

Country: Taiwan, R.O.C

Telephone: +886-5-238-0809

Fax: +886-5-238-0803



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## **1.4 Application details**

Date of receipt of test item: April 17, 2019  
Date of test: from April 18, 2019 to August 02, 2019

## **1.5 General information of Test item**

Type of test item: Transmitter  
Model Number: ACT-58TC  
Brand Name: MIPRO  
Multi-listing model number: ACT-58T(for FCC, IC)  
ACT-XXXXXXX(X=0~9 , a~z , A~Z or Blank) (only for FCC)  
Photos: see Appendix

### **Technical data**

Frequency band: 5.725 GHz-5.850 GHz  
Operating modes: Simplex  
Type of modulation: GFSK  
Fixed point to point operation: Yes / No  
Antenna: Monopole Antenna  
Antenna gain: 2.5 dBi  
Power supply: Battery: 3.7Vd.c., 1500mAh  
Emission designator: 2M41G1D

Classification:

|                                              |                                     |
|----------------------------------------------|-------------------------------------|
| Mobile Device (Human Body distance > 20cm)   | <input type="checkbox"/>            |
| Portable Device (Human Body distance < 20cm) | <input checked="" type="checkbox"/> |
| Modular Radio Device                         | <input type="checkbox"/>            |

Manufacturer: (if applicable)

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



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## **Transmitter**

## **Unom**

### **Mode A**

Power ( ch A): Conducted: 8.40 dBm

Power ( ch B): Conducted: 7.74 dBm

Power ( ch C): Conducted: 9.45 dBm

## **1.6 Test standards**

Technical standard : 47 CFR FCC Part 15 Subpart E § 15.407 (2018-10), RSS-247 Issue 2: February 2017



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## **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**

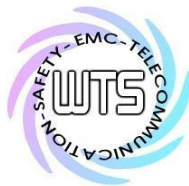
Temperature: 23 °C

Relative humidity content: 20 ... 75 %

Air pressure: 86 ... 103 kPa

Details of power supply: Battery: 3.7Vd.c., 1500mAh

| Test item Name                                                                                                                           | Uncertainty                                                                                                            |
|------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| Estimation Result of Uncertainty of Conducted Emission                                                                                   | Expanded Uncertainty :<br>AMN : 1.30 dB<br>Voltage probe : 1.36 dB                                                     |
| Estimation Result of Uncertainty of Radiated Emission(3M)                                                                                | Expanded Uncertainty :<br>0.009-30 MHz : 2.02 dB<br>30-1000 MHz : 3.49 dB<br>1-18 GHz : 3.01 dB<br>18-40 GHz : 2.43 dB |
| Estimation Result of Uncertainty of Bandwidth Measurement<br>20 dB Bandwidth, Occupied bandwidth, Channel bandwidth, Necessary Bandwidth | Expanded Uncertainty : 0.45 kHz                                                                                        |
| Estimation Result of Uncertainty of Conducted Output Power<br>Measurement<br>Output power                                                | Expanded Uncertainty : 1.72 dB                                                                                         |
| Estimation Result of Uncertainty of Power Density Measurement<br>Power density                                                           | Expanded Uncertainty : 1.73 dB                                                                                         |
| Estimation Result of Uncertainty of Band Edge Measurement                                                                                | Expanded Uncertainty : 0.98 dBc                                                                                        |



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## 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          | 2019/6/4      | 2020/6/3       |
| ETSTW-CE 003 | AC POWER SOURCE                                    | APS-9102        | D161137     | GW           | Function Test |                |
| ETSTW-CE 004 | ZWEILEITER-V-NETZNACHBILDUNG<br>TWO-LINE V-NETWORK | ESH3-Z5         | 840731/011  | R&S          | 2018/11/1     | 2019/10/31     |
| ETSTW-CE 006 | IMPULSBEGRENZER<br>PULSE LIMITER                   | ESH3-Z2         | 100226      | R&S          | 2018/8/21     | 2019/8/20      |
| ETSTW-CE 008 | HF-EICHLITUNG RF<br>STEP ATTENUATOR<br>139dB DPSP  | 334.6010.02     | 844581/024  | R&S          | Function Test |                |
| ETSTW-CE 009 | TEMP.&HUMIDITY<br>CHAMBER                          | GTH-225-40-1P-U | MAA0305-009 | GIANT FORCE  | 2019/7/23     | 2020/7/22      |
| ETSTW-CE 016 | TWO-LINE V-NETWORK                                 | ENV216          | 100050      | R&S          | 2018/9/25     | 2019/9/24      |
| ETSTW-CE 028 | MXE EMI Receiver                                   | N9038A          | MY53220110  | Agilent      | 2019/7/18     | 2020/7/17      |
| ETSTW-RE 003 | EMI TEST RECEIVER                                  | ESI 26          | 831438/001  | R&S          | 2019/6/4      | 2020/6/3       |
| ETSTW-RE 004 | EMI TEST RECEIVER                                  | ESI 40          | 832427/004  | R&S          | 2019/5/29     | 2020/5/28      |
| ETSTW-RE 012 | TUNABLE BANDREJECT<br>FILTER                       | D.C 0309        | 146         | K&L          | Function Test |                |
| ETSTW-RE 013 | TUNABLE BANDREJECT<br>FILTER                       | D.C 0336        | 397         | K&L          | Function Test |                |
| ETSTW-RE 018 | MICROWAVE HORN<br>ANTENNA                          | AT4560          | 27212       | AR           | 2019/7/25     | 2020/7/24      |
| ETSTW-RE 027 | Passive Loop Antenna                               | 6512            | 00034563    | ETS-Lindgren | 2019/7/22     | 2020/7/21      |
| ETSTW-RE 030 | Double-Ridged Guide Horn<br>Antenna                | 3117            | 00035224    | ETS-Lindgren | 2019/4/2      | 2020/4/1       |
| ETSTW-RE 042 | Biconical Antenna                                  | HK116           | 100172      | R&S          | 2019/1/29     | 2020/1/28      |
| ETSTW-RE 043 | Log-Periodic Dipole<br>Antenna                     | HL223           | 100166      | R&S          | 2019/4/23     | 2020/4/22      |
| ETSTW-RE 044 | Log-Periodic Antenna                               | HL050           | 100094      | R&S          | 2019/5/13     | 2020/5/12      |
| ETSTW-RE 045 | ESA-E SERIES<br>SPECTRUM ANALYZER                  | E4404B          | MY45111242  | Agilent      | Pre-test Use  |                |
| ETSTW-RE 050 | Attenuator 10dB                                    | 50HF-010-1      | None        | JFW          | 2019/2/27     | 2020/2/26      |
| ETSTW-RE 051 | Attenuator 6dB                                     | 50HF-006-1      | None        | JFW          | 2019/2/27     | 2020/2/26      |
| ETSTW-RE 053 | Attenuator 3dB                                     | 50HF-003-1      | None        | JFW          | 2019/2/27     | 2020/2/26      |
| ETSTW-RE 055 | SPECTRUM ANALYZER                                  | FSU 26          | 200074      | R&S          | 2019/3/5      | 2020/3/4       |
| ETSTW-RE 060 | Attenuator 30dB                                    | 5015-30         | F651012z-01 | ATM          | 2019/2/27     | 2020/2/26      |
| ETSTW-RE 062 | Amplifier Module                                   | CHC 2           | None        | KMIC         | 2019/5/16     | 2020/5/15      |
| ETSTW-RE 064 | Bluetooth Test Set                                 | MT8852B-042     | 6K00005709  | Anritsu      | Function Test |                |
| ETSTW-RE 069 | Double-Ridged Guide Horn<br>Antenna                | 3117            | 00069377    | ETS-Lindgren | Function Test |                |
| ETSTW-RE 072 | CELL SITE TEST SET                                 | 8921A           | 3339A00375  | HP           | 2018/9/17     | 2019/9/16      |
| ETSTW-RE 088 | SOLID STATE<br>AMPLIFIER                           | KMA180265A01    | 99057       | KMIC         | 2018/9/18     | 2019/9/17      |
| ETSTW-RE 091 | Match Pad                                          | MDCS1500        | None        | WOKEN        | 2019/5/9      | 2020/5/8       |
| ETSTW-RE 099 | DC Block                                           | 50DB-007-1      | None        | JFW          | 2019/2/22     | 2020/2/21      |



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|                 |                                      |                                        |                 |                    |                  |            |
|-----------------|--------------------------------------|----------------------------------------|-----------------|--------------------|------------------|------------|
| ETSTW-RE 112    | AC POWER SOURCE                      | TFC-1005                               | T-0A023536      | T-Power            | Function test    |            |
| ETSTW-RE 115    | 2.4GHz Notch Filter                  | N0124411                               | 473874          | MICROWAVE CIRCUITS | 2019/1/14        | 2020/1/13  |
| ETSTW-RE 120    | RF Player                            | MP9200                                 | MP9210-111022   | ADIVIC             | Function test    |            |
| ETSTW-RE 122    | SIGNAL GENERATOR                     | SMF100A                                | 102149          | R&S                | 2019/6/3         | 2020/6/2   |
| ETSTW-RE 125    | 5GHz Notch filter                    | 5NSL11-5200/E221.3-O/O                 | 1               | K&L Microwave      | 2019/8/7         | 2020/8/6   |
| ETSTW-RE 126    | 5GHz Notch filter                    | 5NSL12-5800/E221.3-O/O                 | 1               | K&L Microwave      | 2019/8/7         | 2020/8/6   |
| ETSTW-RE 127    | RF Switch Box                        | RFS-01                                 | None            | WTS                | 2019/2/26        | 2020/2/25  |
| ETSTW-RE 128    | 5.3GHz Notch filter                  | N0153001                               | SN487233        | Microwave Circuits | 2019/8/7         | 2020/8/6   |
| ETSTW-RE 129    | 5.5GHz Notch filter                  | N0555984                               | SN487234        | Microwave Circuits | 2019/8/7         | 2020/8/6   |
| ETSTW-RE 130    | Handheld RF Spectrum Analyzer        | N9340A                                 | CN0147000204    | Agilent            | Pre-test Use     |            |
| ETSTW-RE 142    | Amplifier                            | 8447D                                  | 2805A03378      | Agilent            | 2019/5/16        | 2020/5/15  |
| ETSTW-RE 147    | Bi-log Hybrid Antenna                | MCTD 2786B                             | BLB16M04005     | ETC                | 2019/4/2         | 2020/4/1   |
| ETSTW-RE 151    | Thermohygrometer                     | 608-h1                                 | 45104376        | TESTO              | 2018/8/17        | 2019/8/16  |
| ETSTW-RF 002    | Electromagnetic field probe          | LF-30                                  | K-0007          | STT                | 2019/5/27        | 2020/5/26  |
| ETSTW-EMI 011   | USB Compact Modulator                | SFC-U                                  | 101689          | R&S                | 2019/5/16        | 2020/5/15  |
| ETSTW-GSM 002   | Universal Radio Communication Tester | CMU 200                                | 109439          | R&S                | 2019/3/5         | 2020/3/4   |
| ETSTW-GSM 003   | Radio Communication Analyzer         | MT8820C                                | 6201342073      | Anritsu            | 2019/3/26        | 2020/3/25  |
| ETSTW-GSM 004   | Wideband Radio Communication Tester  | CMW500                                 | 128092          | R&S                | 2018/10/19       | 2019/10/18 |
| ETSTW-GSM 019   | Band Reject Filter                   | WRCTF824/849-822/851-40 /12+9SS        | 3               | WI                 | 2019/1/14        | 2020/1/13  |
| ETSTW-GSM 020   | Band Reject Filter                   | WRCD1747/1748-1743/1752-32/5SS         | 1               | WI                 | 2019/1/14        | 2020/1/13  |
| ETSTW-GSM 021   | Band Reject Filter                   | WRCD1879.5/1880.5-1875.5/1884.5-32/5SS | 3               | WI                 | 2019/1/14        | 2020/1/13  |
| ETSTW-GSM 022   | Band Reject Filter                   | WRCT901.9/903.1-904.25-50/8SS          | 1               | WI                 | 2019/1/14        | 2020/1/13  |
| ETSTW-GSM 023   | Power Divider                        | 4901.19.A                              | None            | SUHNER             | 2018/9/12        | 2019/9/11  |
| ETSTW-GSM 024   | Radio Communication Analyzer         | MT8821C                                | None            | Anritsu            | 2019/3/5         | 2020/3/4   |
| ETSTW-GSM 025   | Band Reject Filter                   | BRM19835                               | 001             | Micro-Tronics      | 2019/8/7         | 2020/8/6   |
| 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       | 2019/2/21        | 2020/2/20  |
| ETSTW-Cable 017 | BNC Cable                            | X Cable                                | B Cable 2       | Schwarz beck       | 2019/2/21        | 2020/2/20  |
| ETSTW-Cable 018 | BNC Cable                            | Y Cable                                | B Cable 3       | Schwarz beck       | 2019/2/21        | 2020/2/20  |
| ETSTW-Cable 019 | BNC Cable                            | Z Cable                                | B Cable 4       | Schwarz beck       | 2019/2/21        | 2020/2/20  |
| ETSTW-Cable 020 | N TYPE Cable                         | OATS Cable 1                           | N30N30-L335-15M | JYE BAO CO.,LTD.   | 2019/7/1         | 2020/6/30  |
| ETSTW-Cable 026 | Microwave Cable                      | SUCOFLEX 104                           | 279075          | HUBER+SUHNER       | 2019/2/25        | 2020/2/24  |
| ETSTW-Cable 027 | Microwave Cable                      | SUCOFLEX 104                           | 279083          | HUBER+SUHNER       | 2019/5/10        | 2020/5/9   |
| ETSTW-Cable 028 | Microwave Cable                      | FA147A0015M2020                        | 30064-2         | UTIFLEX            | 2018/9/18        | 2019/9/17  |
| ETSTW-Cable 029 | Microwave Cable                      | FA147A0015M2020                        | 30064-3         | UTIFLEX            | 2018/9/18        | 2019/9/17  |
| ETSTW-Cable 030 | Microwave Cable                      | SUCOFLEX 104                           | 279067          | HUBER+SUHNER       | 2019/2/25        | 2020/2/24  |



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|                 |                     | (S_Cable 9)           |          |              |                  |           |
|-----------------|---------------------|-----------------------|----------|--------------|------------------|-----------|
| ETSTW-Cable 043 | Microwave Cable     | SUCOFLEX 104          | 317576   | HUBER+SUHNER | 2019/5/16        | 2020/5/15 |
| ETSTW-Cable 058 | Microwave Cable     | SUCOFLEX 104          | none     | HUBER+SUHNER | 2019/6/6         | 2020/6/5  |
| ETSTW-Cable 064 | Microwave Cable     | SUCOFLEX 104          | MY28891  | HUBER+SUHNER | 2019/5/16        | 2020/5/15 |
| ETSTW-Cable 066 | SMA type cable      | 32022                 | None     | ASTROLAB     | 2019/3/15        | 2020/3/14 |
| ETSTW-Cable 071 | N TYPE CABLE        | EMCCFD400-NM-NM-25000 | 170239   | EMCI         | 2019/6/6         | 2020/6/5  |
| ETSTW-Cable 072 | SMA type cable (8m) | SUCOFLEX 104          | 805800/4 | HUBER+SUHNER | 2019/5/16        | 2020/5/15 |
| ETSTW-Cable 074 | SMA type cable (2m) | SUCOFLEX 104          | 802563/4 | HUBER+SUHNER | 2019/5/16        | 2020/5/15 |
| 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  |           |



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## **2.4 Test Procedure**

The test procedures are performed following the test stands ANSI STANDARD C63.4 and FCC 789033 D02 General UNII Test Procedures New Rules v01.

### ■ Minimum Emission Bandwidth for the band 5.150-5.250 GHz, 5.725-5.850 GHz

Section 15.407(e) specifies the minimum 6 dB emission bandwidth of at least 500 KHz for the band 5.715-5.85 GHz. The following procedure shall be used for measuring this bandwidth:

- a) Set RBW = 100 kHz.
- b) Set the video bandwidth (VBW)  $\geq 3 \times$  RBW.
- c) Detector = Peak.
- d) Trace mode = max hold.
- e) Sweep = auto couple.
- f) Allow the trace to stabilize.
- g) 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.

Note: The automatic bandwidth measurement capability of a spectrum analyzer or EMI receiver may be employed if it implements the functionality described above.

### ■ 99 Percent Occupied Bandwidth

The 99-percent occupied bandwidth is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers are each equal to 0.5 % of the total mean power of the given emission. Measurement of the 99-percent occupied bandwidth is required only as a condition for using the optional band-edge measurement techniques described in section H)3)d). Measurements of 99-percent occupied bandwidth may also optionally be used in lieu of the 6-dB emission bandwidth to define the minimum frequency range over which the spectrum is integrated when measuring maximum conducted output power as described in section E). However, the 6-dB bandwidth must be measured to determine bandwidth dependent limits on maximum conducted output power in accordance with 15.407(a).

The following procedure shall be used for measuring (99 %) power bandwidth.

1. Set center frequency to the nominal EUT channel center frequency.
2. Set span = 1.5 times to 5.0 times the OBW.
3. Set RBW = 1 % to 5 % of the OBW
4. Set VBW  $\geq 3 \cdot$  RBW
5. Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.
6. Use the 99 % power bandwidth function of the instrument (if available).
7. If the instrument does not have a 99 % power bandwidth function, the trace data points are recovered and directly summed in power units. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5 % of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5 % of the total is reached; that frequency is recorded as the upper frequency. The 99% occupied bandwidth is the difference between these two frequencies.



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## ■ Maximum conducted output power

- (i) Set span to encompass the entire emission bandwidth (EBW) (or, alternatively, the entire 99% occupied bandwidth) of the signal.
- (ii) Set RBW = 1 MHz.
- (iii) Set VBW  $\geq$  3 MHz.
- (iv) Number of points in sweep  $\geq$  2 Span / RBW. (This ensures that bin-to-bin spacing is  $\leq$  RBW/2, so that narrowband signals are not lost between frequency bins.)
- (v) Sweep time = auto.
- (vi) Detector = RMS (i.e., power averaging), if available. Otherwise, use sample detector mode.
- (vii) If transmit duty cycle < 98 percent, use a video trigger with the trigger level set to enable triggering only on full power pulses. Transmitter must operate at maximum power control level for the entire duration of every sweep. If the EUT transmits continuously (i.e., with no off intervals) or at duty cycle  $\geq$  98 percent, and if each transmission is entirely at the maximum power control level, then the trigger shall be set to “free run”.
- (viii) Trace average at least 100 traces in power averaging (i.e., RMS) mode.
- (ix) Compute power by integrating the spectrum across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal using the instrument’s band power measurement function with band limits set equal to the EBW (or occupied bandwidth) band edges. If the instrument does not have a band power function, sum the spectrum levels (in power units) at 1 MHz intervals extending across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the spectrum.

## ■ Power Density

The rules requires “maximum power spectral density” measurements where the intent is to measure the maximum value of the time average of the power spectral density measured during a period of continuous transmission.

1. Create an average power spectrum for the EUT operating mode being tested by following the instructions in section II.E.2. for measuring maximum conducted output power using a spectrum analyzer or EMI receiver: select the appropriate test method (SA-1, SA-2, SA-3, or alternatives to each) and apply it up to, but not including, the step labeled, “Compute power...”. (This procedure is required even if the maximum conducted output power measurement was performed using a power meter, method PM.)
2. Use the peak search function on the instrument to find the peak of the spectrum and record its value.
3. Make the following adjustments to the peak value of the spectrum, if applicable:
  - a) If Method SA-2 or SA-2 Alternative was used, add  $10 \log(1/x)$ , where x is the duty cycle, to the peak of the spectrum.
  - b) If Method SA-3 Alternative was used and the linear mode was used in step II.E.2.g)(viii), add 1 dB to the final result to compensate for the difference between linear averaging and power averaging.
4. The result is the Maximum PSD over 1 MHz reference bandwidth.
5. For devices operating in the bands 5.15-5.25 GHz, 5.25-5.35 GHz, and 5.47-5.725 GHz, the above procedures make use of 1 MHz RBW to satisfy directly the 1 MHz reference bandwidth specified in § 15.407(a)(5). For devices operating in the band 5.725-5.85 GHz, the rules specify a



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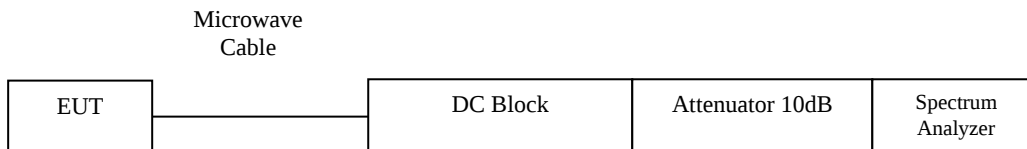
IC: 2978A-ACT58TC58T

measurement bandwidth of 500 kHz. Many spectrum analyzers do not have 500 kHz RBW, thus a narrower RBW may need to be used. The rules permit the use of a RBWs less than 1 MHz, or 500 kHz, “provided that the measured power is integrated over the full reference bandwidth” to show the total power over the specified measurement bandwidth (i.e., 1 MHz, or 500 kHz). If measurements are performed using a reduced resolution bandwidth ( $< 1$  MHz, or  $< 500$  kHz) and integrated over 1 MHz, or 500 KHz bandwidth, the following adjustments to the procedures apply:

- a) Set  $RBW \geq 1/T$ , where T is defined in section II.B.1.a).
- b) Set  $VBW \geq 3 RBW$ .
- c) If measurement bandwidth of Maximum PSD is specified in 500 kHz, add  $10\log(500\text{kHz}/RBW)$  to the measured result, whereas  $RBW (< 500 \text{ KHz})$  is the reduced resolution bandwidth of the spectrum analyzer set during measurement.
- d) If measurement bandwidth of Maximum PSD is specified in 1 MHz, add  $10\log(1\text{MHz}/RBW)$  to the measured result, whereas  $RBW (< 1 \text{ MHz})$  is the reduced resolution bandwidth of spectrum analyzer set during measurement.
- e) Care must be taken to ensure that the measurements are performed during a period of continuous transmission or are corrected upward for duty cycle.

Note: As a practical matter, it is recommended to use reduced RBW of 100 KHz for the sections 5.c) and 5.d) above, since  $RBW=100 \text{ KHz}$  is available on nearly all spectrum analyzers.

## Conducted measurement test setup





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**3 Test results (enclosure)**

| Test case                            | Para. Number                                                    | Required                            | Test passed                         | Test failed              |
|--------------------------------------|-----------------------------------------------------------------|-------------------------------------|-------------------------------------|--------------------------|
| Peak Transmit Power                  | FCC 15.407(a)<br>IC RSS-247 6.2.4                               | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 6-dB emission bandwidth              | FCC 15.407(a)<br>IC RSS-247 6.2.4                               | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 26-dB emission bandwidth             | FCC 15.407(a)<br>IC RSS-247 6.2.1                               | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> |
| 99 % Occupied Bandwidth              | 789033 D02 General<br>U-NII Test Procedures<br>New Rules v02r01 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Peak Power Spectral Density          | FCC 15.407(a)<br>IC RSS-247 6.2.4                               | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Undesirable emission limits          | FCC 15.407(b)                                                   | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Radio Frequency Exposure             | FCC 15.407(f)                                                   | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Radiated Emission from Receiver Part | FCC 15.109<br>IC RSS-247 6.2<br>IC RSS-Gen Table 2              | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> |
| AC Conducted Emissions               | FCC 15.207<br>IC RSS-Gen                                        | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

The following is intentionally left blank.



Registration number: W6M21905-19028-C-7

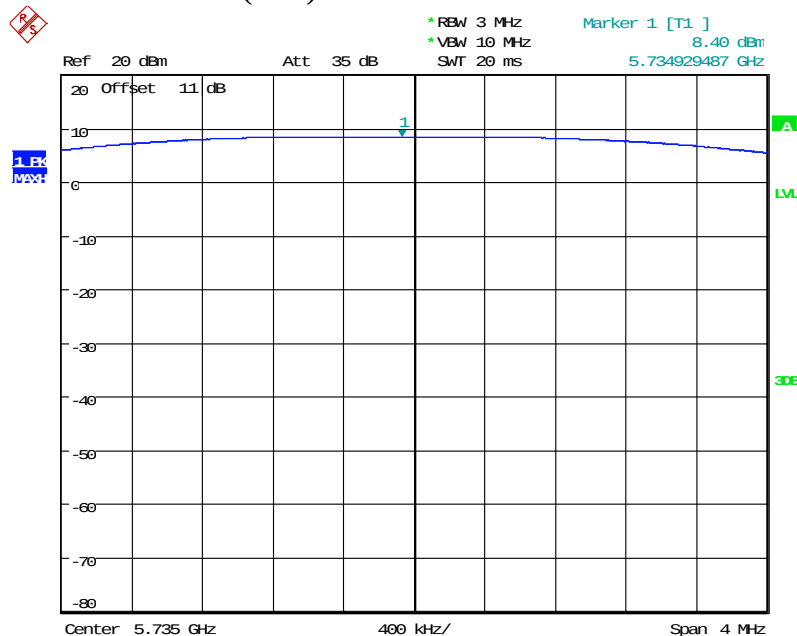
FCC ID: M5X-ACT58TC58T

IC: 2978A-ACT58TC58T

## 3.1 Peak Transmit Power, FCC 15.407 (a)

According to §15.407(a)

1. For the band 5.15-5.25 GHz, the maximum conducted power over the frequency of operation shall not exceed the lesser of 30 dBm (1 W) for master device and 24 dBm (250 mW) for mobile/portable client device.
2. For the band 5.25-5.35 GHz and 5.47-5.725 GHz, the maximum conducted power over the frequency of operation shall not exceed the lesser of 24 dBm (250 mW) or  $11\text{dBm} + 10 \log B$ , whichever is lower ( $B = 26\text{-dB emission BW}$ ).
3. For the band 5.725-5.850 GHz, the maximum conducted power over the frequency of operation shall not exceed the lesser of 30 dBm (1 W).



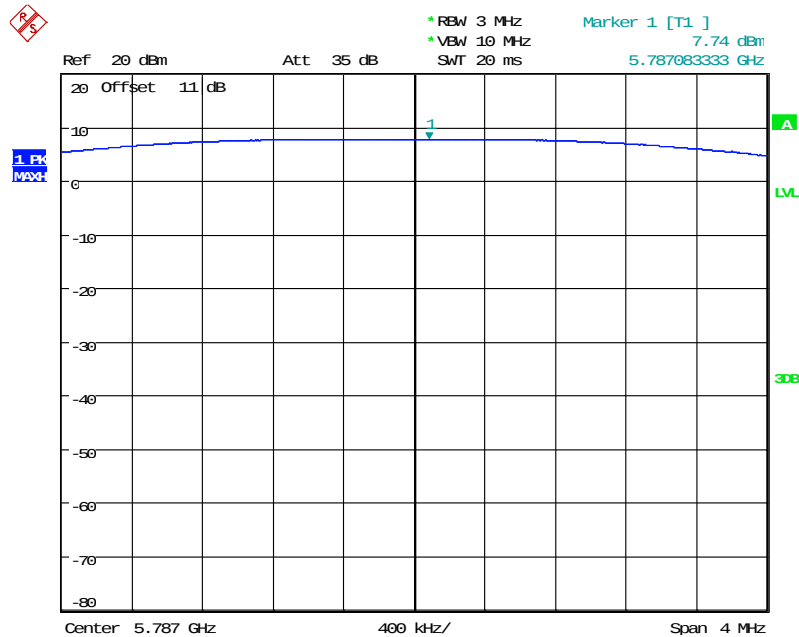
MAX OUTPUT POWER 5735MHZ  
Date: 29.MAY.2019 21:20:36



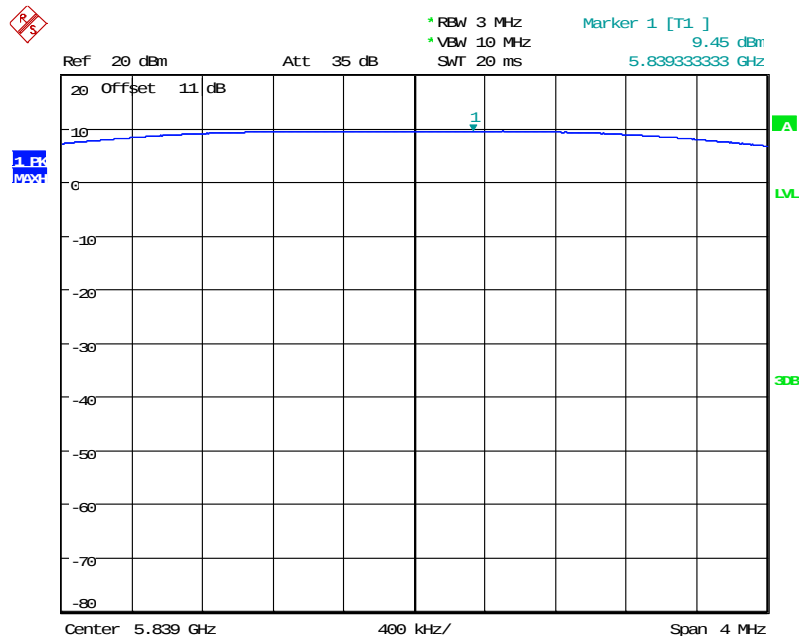
Registration number: W6M21905-19028-C-7

FCC ID: M5X-ACT58TC58T

IC: 2978A-ACT58TC58T



MAX OUTPUT POWER 5787MHz  
Date: 29.MAY.2019 21:18:56



MAX OUTPUT POWER 5839MHz  
Date: 29.MAY.2019 21:19:54

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



### 3.2 26dB emission bandwidth, 99% Occupied Bandwidth, FCC 15.407 (a)

Result: This test is not required.

According to §15.407(a). No Limit required.

Ref 20 dBm Att 15 dB RBW 100 kHz VBW 300 kHz SWT 20 ms Delta 1 [T1 ] -0.88 dB 1.250000000 MHz

20 Offset 11 dB

1 PK MAX

OBW 2.291666667 MHz Marker 1 [T1 ] 2.33 dBm 5.734326923 GHz Marker 2 [T1 ] -7.83 dBm 5.735048077 GHz 1 [T1 OBW] -7.09 dBm 5.733846154 GHz Temp 2 [T2 OBW] -7.29 dBm 5.736137821 GHz

Center 5.735 GHz 500 kHz/ Span 5 MHz

Worldwide Testing Services(Taiwan) Co., Ltd.

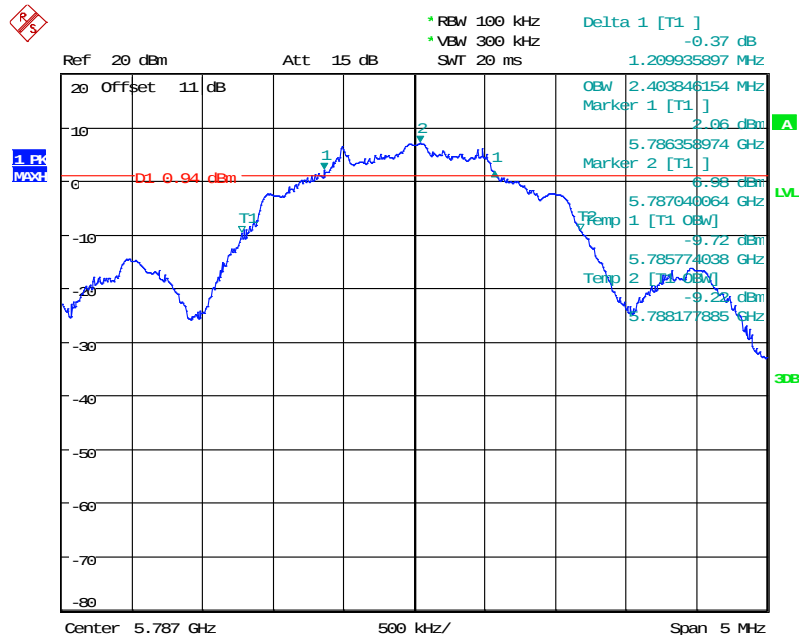


# Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21905-19028-C-7

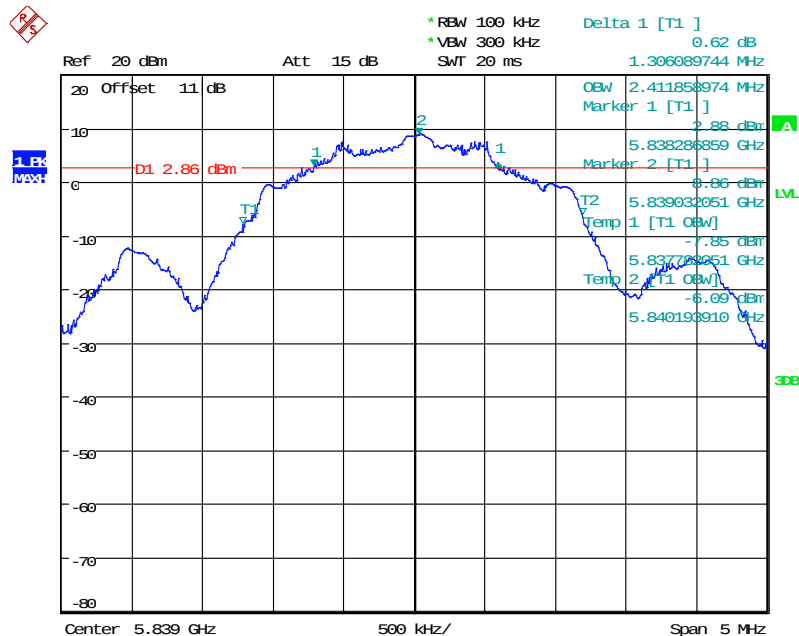
FCC ID: M5X-ACT58TC58T

IC: 2978A-ACT58TC58T



99% OCW & 6DB BANDWIDTH 5787MHz

Date: 29.MAY.2019 20:32:16



99% OCW & 6DB BANDWIDTH 5839MHz

Date: 29.MAY.2019 20:31:09

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



Registration number: W6M21905-19028-C-7

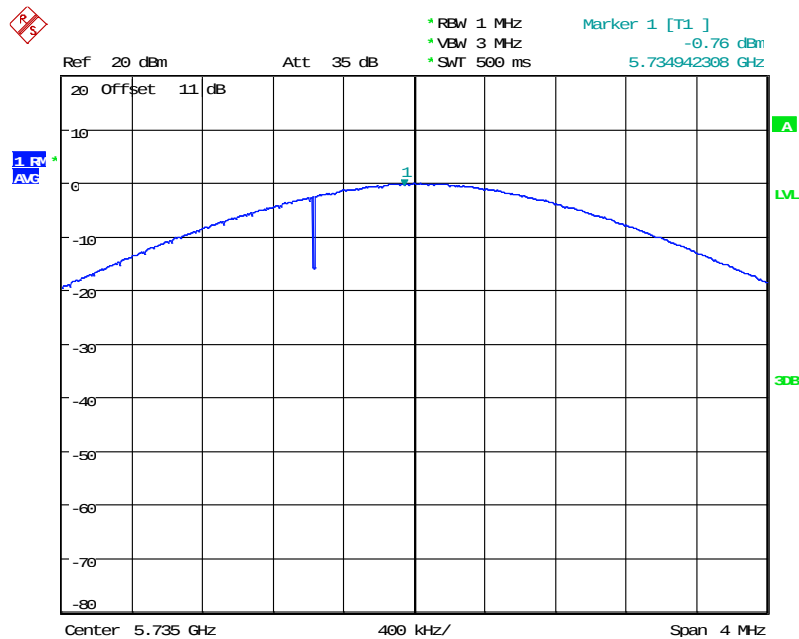
FCC ID: M5X-ACT58TC58T

IC: 2978A-ACT58TC58T

### 3.4 Peak Power Spectral Density, FCC 15.407 (a)

According to §15.407(a)

For the band 5.725-5.850 GHz, the peak power spectral density shall not exceed 30 dBm/500kHz.



POWER DENSITY 5735MHz

Date: 29.MAY.2019 21:06:39

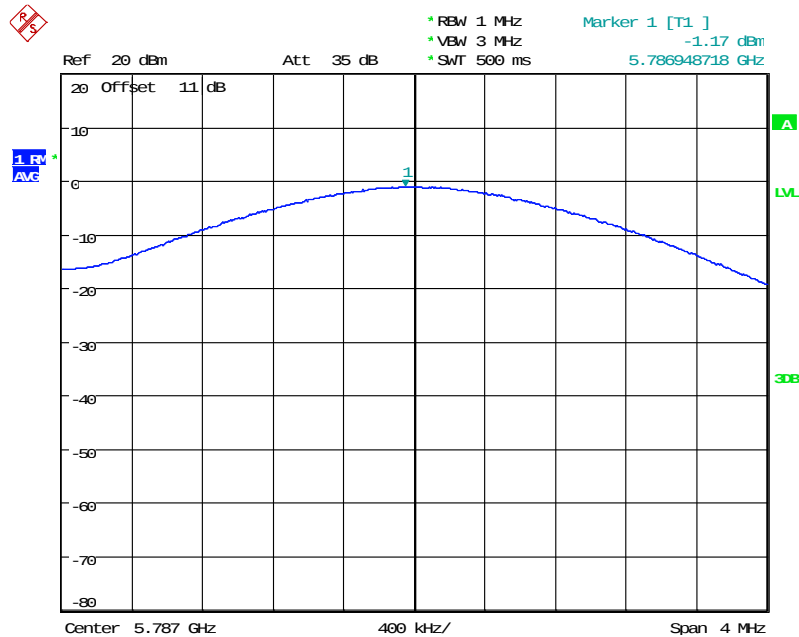


# Worldwide Testing Services(Taiwan) Co., Ltd.

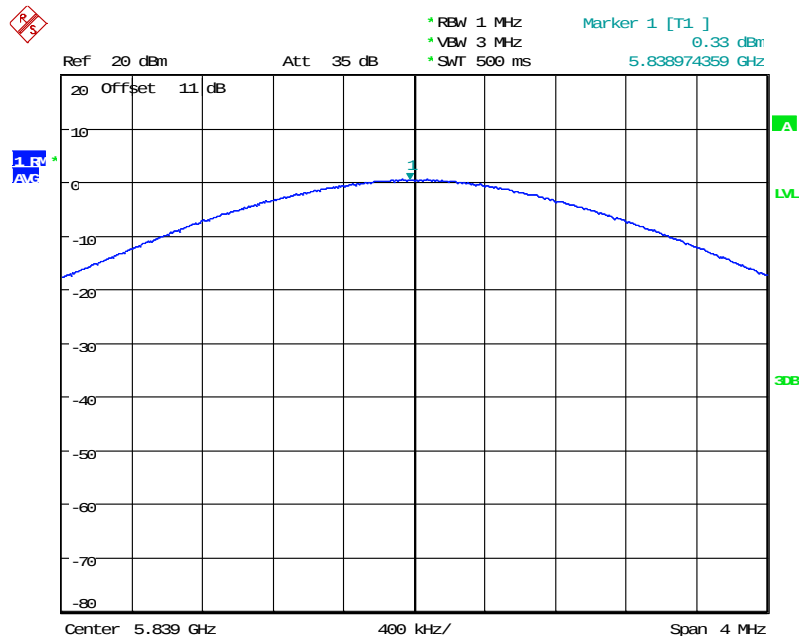
Registration number: W6M21905-19028-C-7

FCC ID: M5X-ACT58TC58T

IC: 2978A-ACT58TC58T



POWER DENSITY 5787MHz  
Date: 29.MAY.2019 21:07:12



POWER DENSITY 5839MHz  
Date: 29.MAY.2019 21:07:43

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



Registration number: W6M21905-19028-C-7

FCC ID: M5X-ACT58TC58T

IC: 2978A-ACT58TC58T

### **3.5 Undesirable emission limits, FCC 15.407 (b)**

1. For transmitters operating in the 5.15–5.25 GHz band: all emissions out-side of the 5.15–5.35 GHz band shall not exceed an EIRP of –27 dBm/MHz.
2. For transmitters operating in the 5.25–5.35 GHz band: all emissions out-side of the 5.15–5.35 GHz band shall not exceed an EIRP of –27 dBm/MHz. De-vices operating in the 5.25–5.35 GHz band that generate emissions in the 5.15–5.25 GHz band must meet all appli-cable technical requirements for operation in the 5.15–5.25 GHz band (including indoor use) or alternatively meet an out-of-band emission EIRP limit of -27 dBm/MHz in the 5.15–5.25 GHz band.
3. For transmitters operating in the 5.47–5.725 GHz band: all emissions out-side of the 5.47–5.725 GHz band shall not exceed an EIRP of -27 dBm/MHz.
4. For transmitters operating in the 5.725–5.850 GHz band: All emissions shall be limited to a level of –27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.
5. The emission measurements shall be performed using a minimum resolution bandwidth of 1 MHz. A lower resolution bandwidth may be employed near the band edge, when necessary, provided the measured energy is integrated to show the total power over 1 MHz.
6. Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in § 15.209.
7. According to According to KDB 789033 D02 General UNII Test Procedures v01, as specified in 15.407(b), emissions above 1000 MHz that are outside of the restricted bands are subject to a peak emission limit of -27 dBm/MHz (or -17 dBm/MHz as specified in 15.407(b)(4)). However, an out-of-band emission that complies with both the average and peak limits of 15.209 is not required to satisfy the -27 dBm/MHz or -17 dBm/MHz peak emission limit.
8. If radiated measurements are performed, field strength is then converted to EIRP as follows:
  - (i)  $EIRP = ((E \cdot d)^2) / 30$ , where: E is the field strength in V/m; d is the measurement distance in meters. EIRP is the equivalent isotropically radiated power in watts.
  - (ii) Working in dB units, the above equation is equivalent to:  $EIRP[dBm] = E[dB\mu V/m] + 20 \log(d[meters]) - 104.77$ .
  - (iii) Or, if d is 3 meters:  $EIRP[dBm] = E[dB\mu V/m] - 95.2$ .

| Applicable to                       | Limit                               |                                                |
|-------------------------------------|-------------------------------------|------------------------------------------------|
| <input checked="" type="checkbox"/> | FIELD STRENGTH at 3m (dB $\mu$ V/m) |                                                |
|                                     | PK                                  | AV                                             |
|                                     | 74                                  | 54                                             |
| <input type="checkbox"/>            | EIRP LIMIT (dBm)                    | EQUIVALENT FIELD STRENGTH at 3m (dB $\mu$ V/m) |
|                                     | PK                                  | PK                                             |
|                                     | -27                                 | 68.3                                           |



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

Registration number: W6M21905-19028-C-7

FCC ID: M5X-ACT58TC58T

IC: 2978A-ACT58TC58T

Model: ACT-58TC

Date: --

Mode: --

Temperature: -- °C Engineer: --

Polarization: Horizontal

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 (cm) |
|-----------------|----------------|------|-------------------|-----------------|------|----------------|------|-------------|---------------------|----------------|
|                 | Peak           | Ave. |                   | Peak            | Ave. | Peak           | Ave. |             |                     |                |
| --              | --             | --   | --                | --              | --   | --             | --   | --          | --                  | --             |
| --              | --             | --   | --                | --              | --   | --             | --   | --          | --                  | --             |

Polarization: Vertical

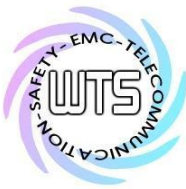
| Frequency (MHz) | Reading (dBuV) | Detector | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Table Degree (Deg.) | Ant. High (cm) |
|-----------------|----------------|----------|-------------|-----------------|----------------|-------------|---------------------|----------------|
|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

| Frequency (MHz) | Reading (dBuV) |      | Factor (dB) Corr. | Result (dBuV/m) |      | Limit (dBuV/m) |      | Margin (dB) | Table Degree (Deg.) | Ant. High (cm) |
|-----------------|----------------|------|-------------------|-----------------|------|----------------|------|-------------|---------------------|----------------|
|                 | 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 equipment used: ETSTW-RE 004, ETSTW-RE 030, ETSTW-RE 111,  
ETSTW-RE 088, ETSTW-RE 018



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**3.6 Automatic Discontinuation of transmission, FCC 15.407 (c)**

The device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure.

This function will be declared by manufacturer.

**3.7 Reserved, FCC 15.407 (d)**

**3.8 Indoor Operation Restriction, FCC 15.407 (e)**



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### **3.9 Equivalent isotropic radiated power, FCC 15.407 (f)**

FCC Rule: 15.407(b)(3)

For systems using digital modulation in the 5.725 GHz-5.850 GHz bands: 1 Watt.

The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

EIRP = max. conducted output power

EIRP = 9.45 dBm

Limit: EIRP = +36 dBm for Antenna gain <6dBi

Test equipment used: ETSTW-RE 055

### **3.10 RF Exposure Compliance Requirements**

#### **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.

The enclosure of the device provides  $\geq 2$  cm separation from the antenna elements to significant metal parts of the enclosure to minimize potential perturbations.

Frequency Band: 5725-5850 MHz

Maximum Power fed to Antenna: 8.8105 mW

Separation distances:

Radiator to user: > 20 mm

Distance prescribed in user manual: > 20 mm

| MHz  | 5 | 10 | 15 | 20 | 25 | mm                                      |
|------|---|----|----|----|----|-----------------------------------------|
| 5800 | 6 | 12 | 19 | 25 | 31 | SAR Test<br>Exclusion<br>Threshold (mW) |

| MHz  | 30 | 35 | 40 | 45 | 50 | mm                                      |
|------|----|----|----|----|----|-----------------------------------------|
| 5800 | 37 | 44 | 50 | 56 | 62 | SAR Test<br>Exclusion<br>Threshold (mW) |

| MHz  | 50 | 60  | 70  | 80  | 90  | 100 | 110 | 120 | 130 | 140 | 150  | 160  | 170  | 180  | 190  | mm |
|------|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|----|
| 5800 | 62 | 162 | 262 | 362 | 462 | 562 | 662 | 762 | 862 | 962 | 1062 | 1162 | 1262 | 1362 | 1462 | mW |



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Test exclusion = max. conducted output power + adjusted for tune-up tolerance

Test exclusion = 9.45 dBm + 2.5 dBi (Claimed by the applicant) = 11.95 dBm

## **RESULT:**

Test standard : RSS-247

According to [Notice 2016-DRS0001](#)

### **2.5.1 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 2 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 1.

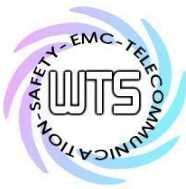
| Frequency<br>(MHz) | Exemption Limits (mW)                 |                                       |                                       |                                       |                                       |
|--------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
|                    | At separation<br>distance of<br>≤5 mm | At separation<br>distance of<br>10 mm | At separation<br>distance of<br>15 mm | At separation<br>distance of<br>20 mm | At separation<br>distance of<br>25 mm |
| ≤300               | 71 mW                                 | 101 mW                                | 132 mW                                | 162 mW                                | 193 mW                                |
| 450                | 52 mW                                 | 70 mW                                 | 88 mW                                 | 106 mW                                | 123 mW                                |
| 835                | 17 mW                                 | 30 mW                                 | 42 mW                                 | 55 mW                                 | 67 mW                                 |
| 1900               | 7 mW                                  | 10 mW                                 | 18 mW                                 | 34 mW                                 | 60 mW                                 |
| 2450               | 4 mW                                  | 7 mW                                  | 15 mW                                 | 30 mW                                 | 52 mW                                 |
| 2462               | 3.98 mW                               | 6.99 mW                               | 15.01 mW                              | 30.02 mW                              | 52.03 mW                              |
| 2480               | 3.94 mW                               | 6.97 mW                               | 15.03 mW                              | 30.06 mW                              | 52.09 mW                              |
| 3500               | 2 mW                                  | 6 mW                                  | 16 mW                                 | 32 mW                                 | 55 mW                                 |
| 5839               | 1 mW                                  | 6 mW                                  | 15 mW                                 | 27 mW                                 | 41 mW                                 |

| Frequency<br>(MHz) | Exemption Limits (mW)                 |                                       |                                       |                                       |                                        |
|--------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|----------------------------------------|
|                    | At separation<br>distance of<br>30 mm | At separation<br>distance of<br>35 mm | At separation<br>distance of<br>40 mm | At separation<br>distance of<br>45 mm | At separation<br>distance of<br>≥50 mm |
| ≤300               | 223 mW                                | 254 mW                                | 284 mW                                | 315 mW                                | 345 mW                                 |
| 450                | 141 mW                                | 159 mW                                | 177 mW                                | 195 mW                                | 213 mW                                 |
| 835                | 80 mW                                 | 92 mW                                 | 105 mW                                | 117 mW                                | 130 mW                                 |
| 1900               | 99 mW                                 | 153 mW                                | 225 mW                                | 316 mW                                | 431 mW                                 |
| 2450               | 83 mW                                 | 123 mW                                | 173 mW                                | 235 mW                                | 309 mW                                 |
| 2462               | 83.03 mW                              | 123.01 mW                             | 172.97 mW                             | 234.89 mW                             | 308.78 mW                              |
| 2480               | 83.09 mW                              | 123.03 mW                             | 172.91 mW                             | 234.71 mW                             | 308.46 mW                              |
| 3500               | 86 mW                                 | 124 mW                                | 170 mW                                | 225 mW                                | 290 mW                                 |
| 5839               | 56 mW                                 | 71 mW                                 | 85 mW                                 | 97 mW                                 | 106 mW                                 |

Frequency Band: 5725-5850 MHz

Maximum Power fed to Antenna: 15.6675 mW

This product does not need to do SAR test because e.i.r.p. is smaller than 27 mW .



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IC: 2978A-ACT58TC58T

### **3.11 Transmit Power Control (TPC)**

Transmit power control (TPC). U-NII devices operating in the 5.25-5.35 GHz band and the 5.47-5.725 GHz band shall employ a TPC mechanism. The U-NII device is required to have the capability to operate at least 6 dB below the mean EIRP value of 30 dBm. A TPC mechanism is not required for systems with an e.i.r.p. of less than 500 mW.

Explanation: The EUT operates 5725 MHz-5850 MHz , so this test item is not required.



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

Registration number: W6M21905-19028-C-7

FCC ID: M5X-ACT58TC58T

IC: 2978A-ACT58TC58T

## **3.12 Radiated Emissions from Receiver Part**

Model: ACT-58TC

Date: --

Mode: --

Temperature: -- °C Engineer: --

Polarization: Horizontal

Humidity: -- %

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

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

Polarization: Vertical

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

| Frequency<br>(MHz) | Reading<br>(dBuV) |      | Factor<br>(dB)<br>Corr. | Result<br>(dBuV/m) |      | Limit<br>(dBuV/m) |      | Margin<br>(dB) | Table<br>Degree<br>(Deg.) | Ant. High<br>(cm) |
|--------------------|-------------------|------|-------------------------|--------------------|------|-------------------|------|----------------|---------------------------|-------------------|
|                    | 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. **Because the EUT is transmitter, RX test is not required.**

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



Registration number: W6M21905-19028-C-7

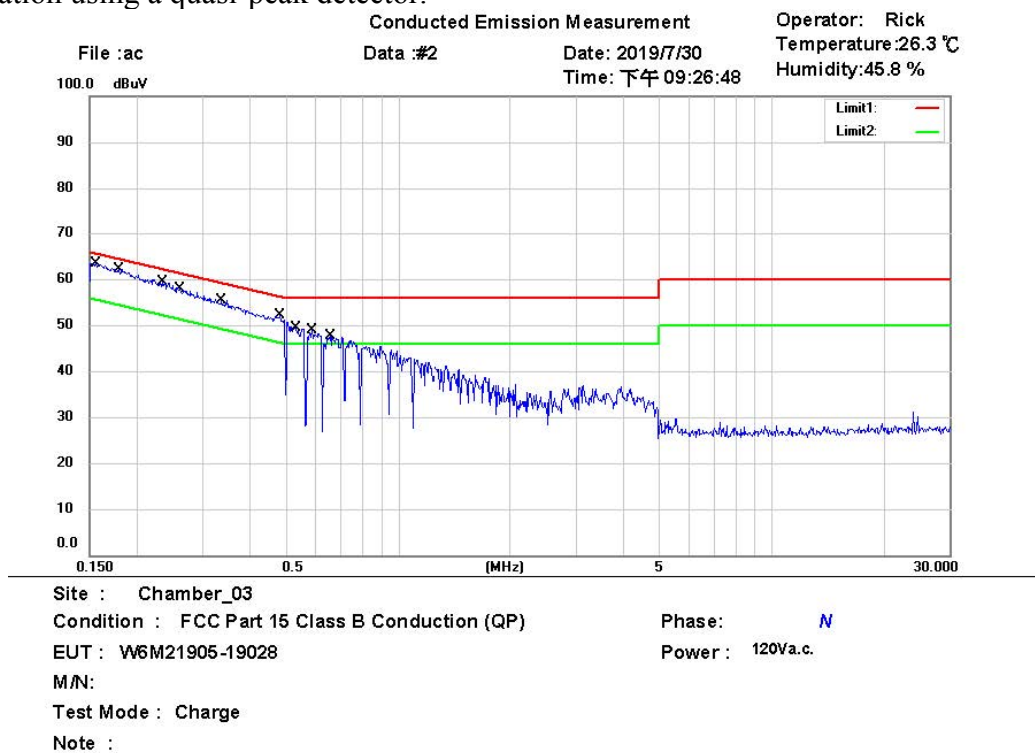
FCC ID: M5X-ACT58TC58T

IC: 2978A-ACT58TC58T

## 3.13 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.



| Mk. | Frequency (MHz) | Reading (dBuV) | Detector | Corrected factor(dB) | Result (dBuV) | Limit (dBuV) | Margin (dB) | Comment |
|-----|-----------------|----------------|----------|----------------------|---------------|--------------|-------------|---------|
|     | 0.1553          | 41.54          | QP       | 9.95                 | 51.49         | 65.71        | -14.22      |         |
|     | 0.1553          | 22.70          | AVG      | 9.95                 | 32.65         | 55.71        | -23.06      |         |
| *   | 0.1790          | 40.81          | QP       | 9.93                 | 50.74         | 64.53        | -13.79      |         |
|     | 0.1790          | 18.47          | AVG      | 9.93                 | 28.40         | 54.53        | -26.13      |         |
|     | 0.2338          | 38.38          | QP       | 9.92                 | 48.30         | 62.31        | -14.01      |         |
|     | 0.2338          | 16.43          | AVG      | 9.92                 | 26.35         | 52.31        | -25.96      |         |
|     | 0.2604          | 37.07          | QP       | 9.91                 | 46.98         | 61.42        | -14.44      |         |
|     | 0.2604          | 8.10           | AVG      | 9.91                 | 18.01         | 51.42        | -33.41      |         |
|     | 0.3362          | 34.17          | QP       | 9.91                 | 44.08         | 59.30        | -15.22      |         |
|     | 0.3362          | 6.06           | AVG      | 9.91                 | 15.97         | 49.30        | -33.33      |         |
|     | 0.4823          | 30.21          | QP       | 9.90                 | 40.11         | 56.30        | -16.19      |         |
|     | 0.4823          | 15.46          | AVG      | 9.90                 | 25.36         | 46.30        | -20.94      |         |
|     | 0.5315          | 28.89          | QP       | 9.90                 | 38.79         | 56.00        | -17.21      |         |
|     | 0.5315          | 3.01           | AVG      | 9.90                 | 12.91         | 46.00        | -33.09      |         |
|     | 0.5877          | 27.70          | QP       | 9.91                 | 37.61         | 56.00        | -18.39      |         |
|     | 0.5877          | 3.90           | AVG      | 9.91                 | 13.81         | 46.00        | -32.19      |         |



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

Registration number: W6M21905-19028-C-7

FCC ID: M5X-ACT58TC58T

IC: 2978A-ACT58TC58T

**Site :** Chamber\_03

**Condition :** FCC Part 15 Class B Conduction (QP)

**Phase:** **N**

**EUT :** W6M21905-19028

**Power :** 120Va.c.

**M/N:**

**Test Mode :** Charge

**Note :**

| Mk. | Frequency<br>(MHz) | Reading<br>(dBuV) | Detector | Corrected<br>factor(dB) | Result<br>(dBuV) | Limit<br>(dBuV) | Margin<br>(dB) | Comment |
|-----|--------------------|-------------------|----------|-------------------------|------------------|-----------------|----------------|---------|
|     | 0.6575             | 27.25             | QP       | 9.91                    | 37.16            | 56.00           | -18.84         |         |
|     | 0.6575             | 2.60              | AVG      | 9.91                    | 12.51            | 46.00           | -33.49         |         |

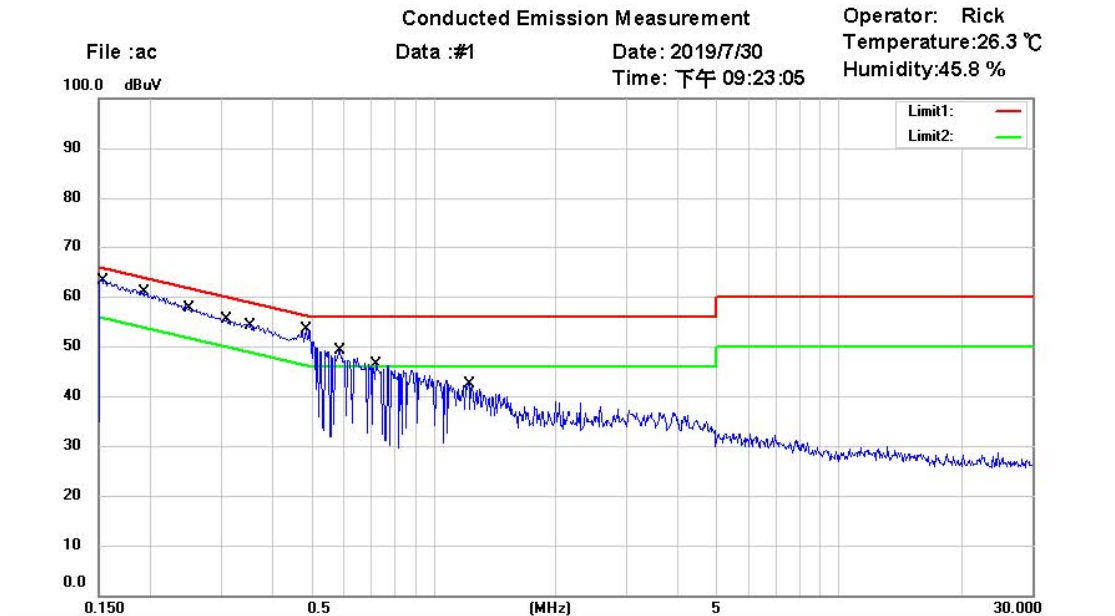


# Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21905-19028-C-7

FCC ID: M5X-ACT58TC58T

IC: 2978A-ACT58TC58T



Site : Chamber\_03

Condition : FCC Part 15 Class B Conduction (QP)

EUT : W6M21905-19028

M/N:

Test Mode : Charge

Note :

Phase: L1

Power : 120V.a.c.

| Mk. | Frequency (MHz) | Reading (dBuV) | Detector | Corrected factor(dB) | Result (dBuV) | Limit (dBuV) | Margin (dB) | Comment |
|-----|-----------------|----------------|----------|----------------------|---------------|--------------|-------------|---------|
|     | 0.1551          | 43.62          | QP       | 9.95                 | 53.57         | 65.72        | -12.15      |         |
|     | 0.1551          | 25.09          | AVG      | 9.95                 | 35.04         | 55.72        | -20.68      |         |
|     | 0.1931          | 41.52          | QP       | 9.92                 | 51.44         | 63.90        | -12.46      |         |
|     | 0.1931          | 16.32          | AVG      | 9.92                 | 26.24         | 53.90        | -27.66      |         |
|     | 0.2506          | 39.01          | QP       | 9.91                 | 48.92         | 61.74        | -12.82      |         |
|     | 0.2506          | 14.27          | AVG      | 9.91                 | 24.18         | 51.74        | -27.56      |         |
|     | 0.3120          | 36.09          | QP       | 9.91                 | 46.00         | 59.92        | -13.92      |         |
|     | 0.3120          | 10.49          | AVG      | 9.91                 | 20.40         | 49.92        | -29.52      |         |
|     | 0.3523          | 34.96          | QP       | 9.90                 | 44.86         | 58.91        | -14.05      |         |
|     | 0.3523          | 19.59          | AVG      | 9.90                 | 29.49         | 48.91        | -19.42      |         |
|     | 0.4840          | 33.13          | QP       | 9.90                 | 43.03         | 56.27        | -13.24      |         |
| *   | 0.4840          | 27.34          | AVG      | 9.90                 | 37.24         | 46.27        | -9.03       |         |
|     | 0.5855          | 29.14          | QP       | 9.90                 | 39.04         | 56.00        | -16.96      |         |
|     | 0.5855          | 18.04          | AVG      | 9.90                 | 27.94         | 46.00        | -18.06      |         |
|     | 0.7205          | 27.03          | QP       | 9.91                 | 36.94         | 56.00        | -19.06      |         |
|     | 0.7205          | 17.14          | AVG      | 9.91                 | 27.05         | 46.00        | -18.95      |         |



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

Registration number: W6M21905-19028-C-7

FCC ID: M5X-ACT58TC58T

IC: 2978A-ACT58TC58T

Site : Chamber\_03

Condition : FCC Part 15 Class B Conduction (QP)

Phase: **L1**

EUT : W6M21905-19028

Power : 120Va.c.

M/N:

Test Mode : Charge

Note :

| Mk. | Frequency (MHz) | Reading (dBuV) | Detector | Corrected factor(dB) | Result (dBuV) | Limit (dBuV) | Margin (dB) | Comment |
|-----|-----------------|----------------|----------|----------------------|---------------|--------------|-------------|---------|
|     | 1.2178          | 21.89          | QP       | 9.91                 | 31.80         | 56.00        | -24.20      |         |
|     | 1.2178          | 15.99          | AVG      | 9.91                 | 25.90         | 46.00        | -20.10      |         |

- 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.

## 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: W6M21905-19028-C-7

FCC ID: M5X-ACT58TC58T

IC: 2978A-ACT58TC58T

## **Appendix**

### **Photos**

1. External Photos
2. Internal Photos
3. Set Up Photo of Conducted Emission
4. Set Up Photo of Radiated Emission

### **Measurement diagrams**

Spurious Emissions radiated



## Radiated Emission Measurement

Operator: Allen

File :1\_TX 5735MHz\_below

Data :#1

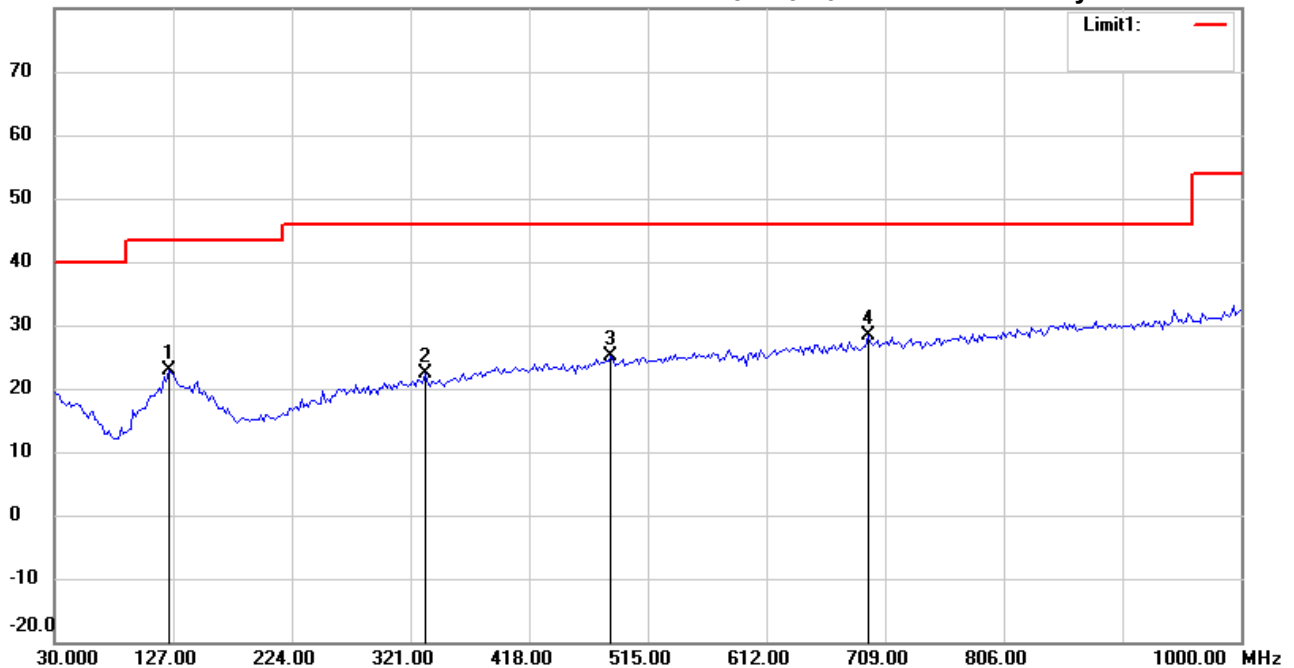
Date: 7/26/2019

Temperature:29.1 °C

80.0 dBuV/m

Time: 4:52:34 AM

Humidity:68.1 %



Site : Chamber

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

Polarization: *Horizontal*

EUT : W6M21905-19028

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 5735MHz

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        | 29.28          | peak     | -6.48               | 22.80           | 43.50          | 100          | 110            | -20.70      |         |
|     | 333.2465        | 27.84          | peak     | -5.43               | 22.41           | 46.00          | 100          | 30             | -23.59      |         |
|     | 484.8697        | 28.25          | peak     | -3.21               | 25.04           | 46.00          | 100          | 255            | -20.96      |         |
| *   | 694.8096        | 28.89          | peak     | -0.50               | 28.39           | 46.00          | 100          | 75             | -17.61      |         |



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# Radiated Emission Measurement

Operator: Allen

File : 1\_TX 5735MHz\_below

Data : #2

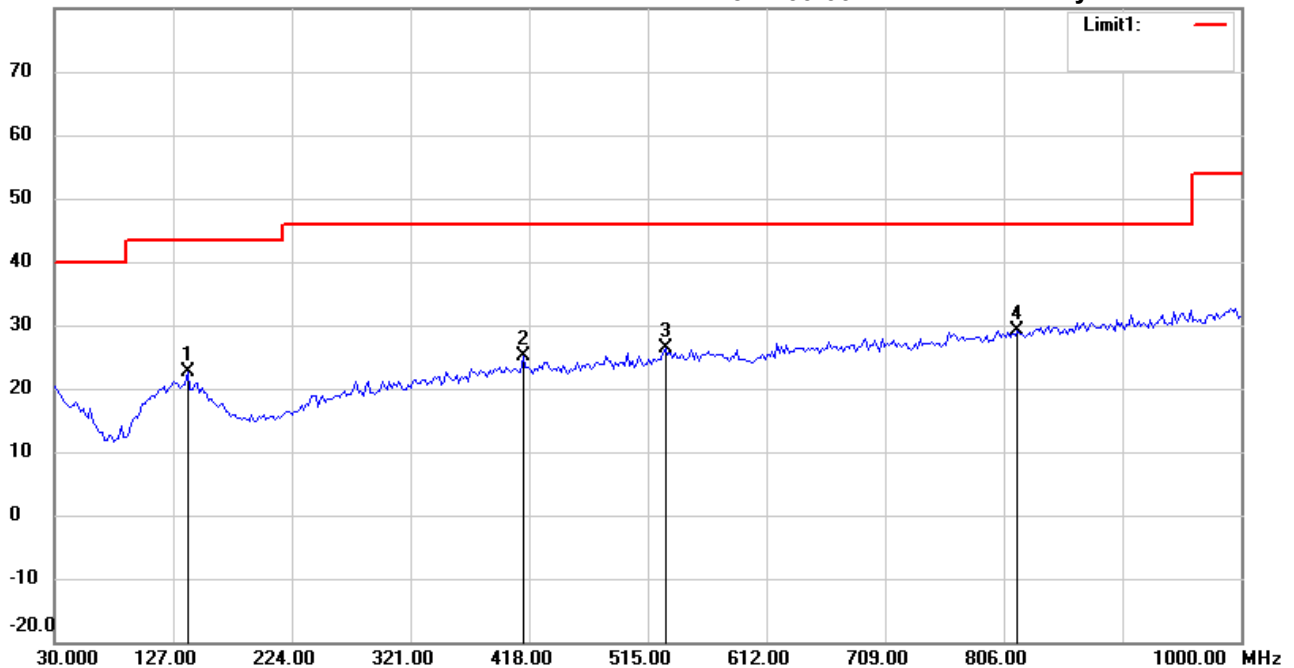
Date: 7/26/2019

Temperature: 29.1 °C

80.0 dBuV/m

Time: 4:53:33 AM

Humidity: 68.1 %



Site : Chamber

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

EUT : W6M21905-19028

M/N:

Test Mode : TX 5735MHz

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 |
|-----|-----------------|----------------|----------|---------------------|-----------------|----------------|--------------|----------------|-------------|---------|
|     | 138.8576        | 29.14          | peak     | -6.48               | 22.66           | 43.50          | 100          | 70             | -20.84      |         |
|     | 412.9458        | 29.03          | peak     | -3.91               | 25.12           | 46.00          | 100          | 95             | -20.88      |         |
|     | 529.5792        | 28.55          | peak     | -2.25               | 26.30           | 46.00          | 100          | 260            | -19.70      |         |
| *   | 817.2744        | 27.36          | peak     | 1.69                | 29.05           | 46.00          | 100          | 145            | -16.95      |         |

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



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## Radiated Emission Measurement

Operator: Allen

File :1\_TX 5735MHz\_below

Data :#1

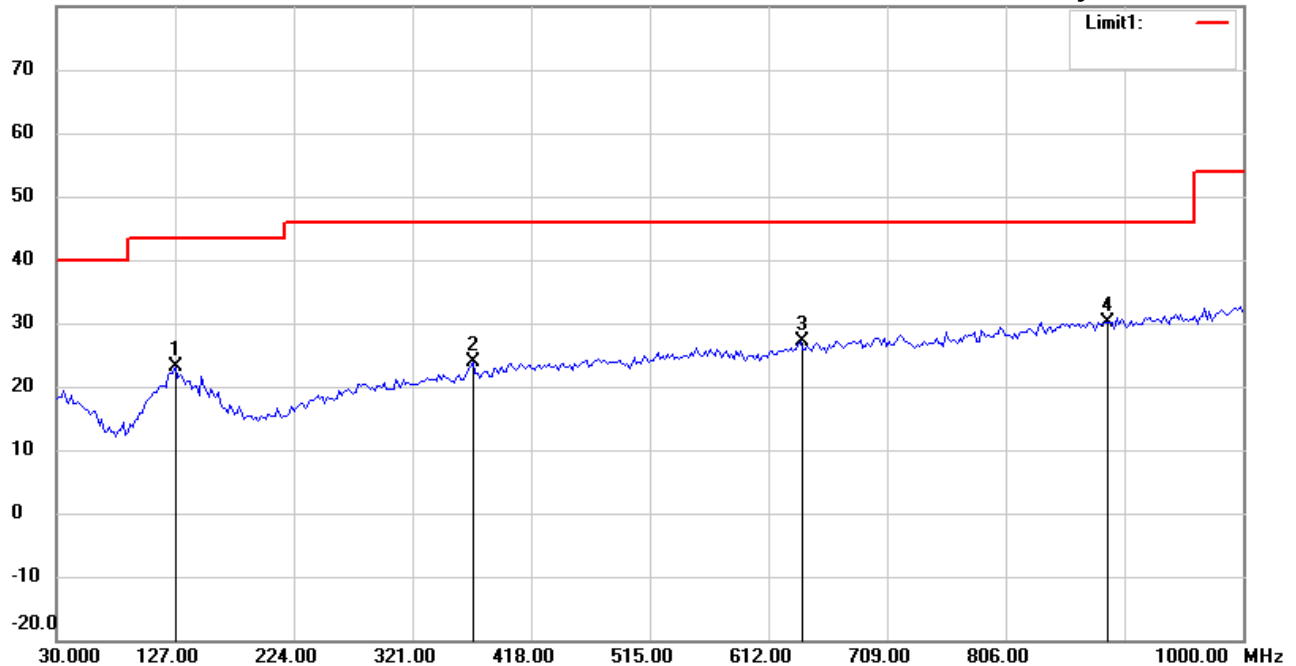
Date: 7/26/2019

Temperature:29.1 °C

80.0 dBuV/m

Time: 4:46:27 AM

Humidity:68.1 %



Site : Chamber

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

Polarization: *Horizontal*

EUT : W6M21905-19028

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 5735MHz

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 |
|-----|-----------------|----------------|----------|---------------------|-----------------|----------------|--------------|----------------|-------------|---------|
|     | 127.1944        | 29.41          | peak     | -6.37               | 23.04           | 43.50          | 100          | 235            | -20.46      |         |
|     | 370.1804        | 28.47          | peak     | -4.63               | 23.84           | 46.00          | 100          | 60             | -22.16      |         |
|     | 638.4370        | 28.28          | peak     | -1.13               | 27.15           | 46.00          | 100          | 185            | -18.85      |         |
| *   | 889.1983        | 27.15          | peak     | 3.09                | 30.24           | 46.00          | 100          | 15             | -15.76      |         |



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# Radiated Emission Measurement

Operator: Allen

File : 1\_TX 5735MHz\_below

Data : #2

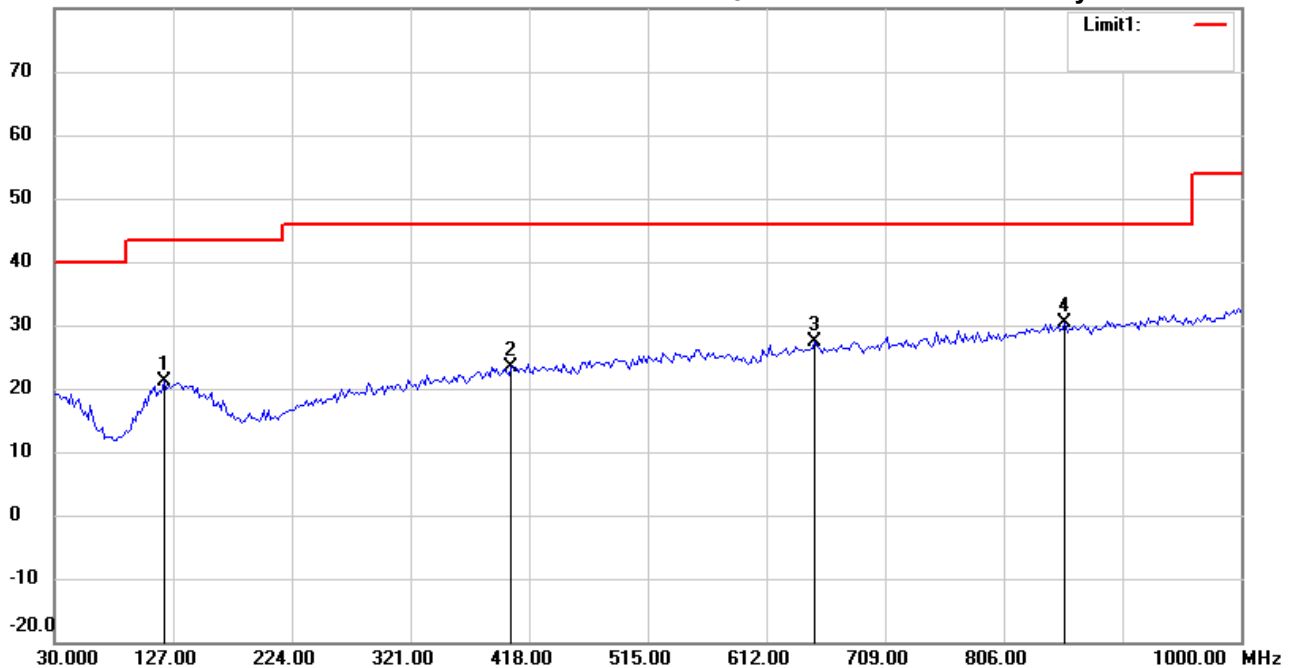
Date: 7/26/2019

Temperature: 29.1 °C

80.0 dBuV/m

Time: 4:47:27 AM

Humidity: 68.1 %



Site : Chamber

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

EUT : W6M21905-19028

M/N:

Test Mode : TX 5735MHz

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 |
|-----|-----------------|----------------|----------|---------------------|-----------------|----------------|--------------|----------------|-------------|---------|
|     | 119.4188        | 27.74          | peak     | -6.65               | 21.09           | 43.50          | 100          | 310            | -22.41      |         |
|     | 403.2264        | 27.32          | peak     | -3.86               | 23.46           | 46.00          | 100          | 220            | -22.54      |         |
|     | 652.0440        | 28.14          | peak     | -0.80               | 27.34           | 46.00          | 100          | 195            | -18.66      |         |
| *   | 856.1522        | 27.59          | peak     | 2.71                | 30.30           | 46.00          | 100          | 100            | -15.70      |         |

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



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## Radiated Emission Measurement

Operator: Allen

File : 3

Data : #1

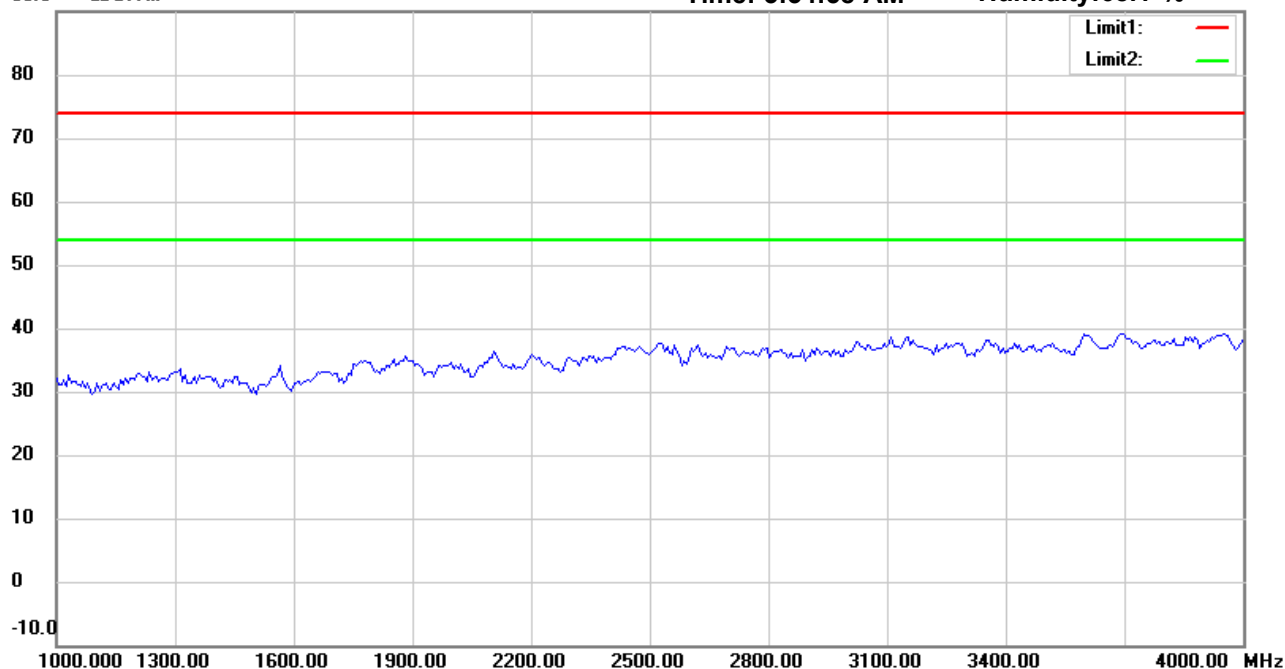
Date: 7/26/2019

Temperature: 29.1 °C

90.0 dBuV/m

Time: 3:34:58 AM

Humidity: 68.1 %



Site : Chamber

Condition : FCC\_part 15E RE\_Above 1GHz\_PK

Polarization: *Horizontal*

EUT : W6M21905-19028

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 5735MHz

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 |
|-----|-----------------|----------------|----------|---------------------|-----------------|----------------|--------------|----------------|-------------|---------|
|-----|-----------------|----------------|----------|---------------------|-----------------|----------------|--------------|----------------|-------------|---------|



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# Radiated Emission Measurement

Operator: Allen

File :3

Data :#7

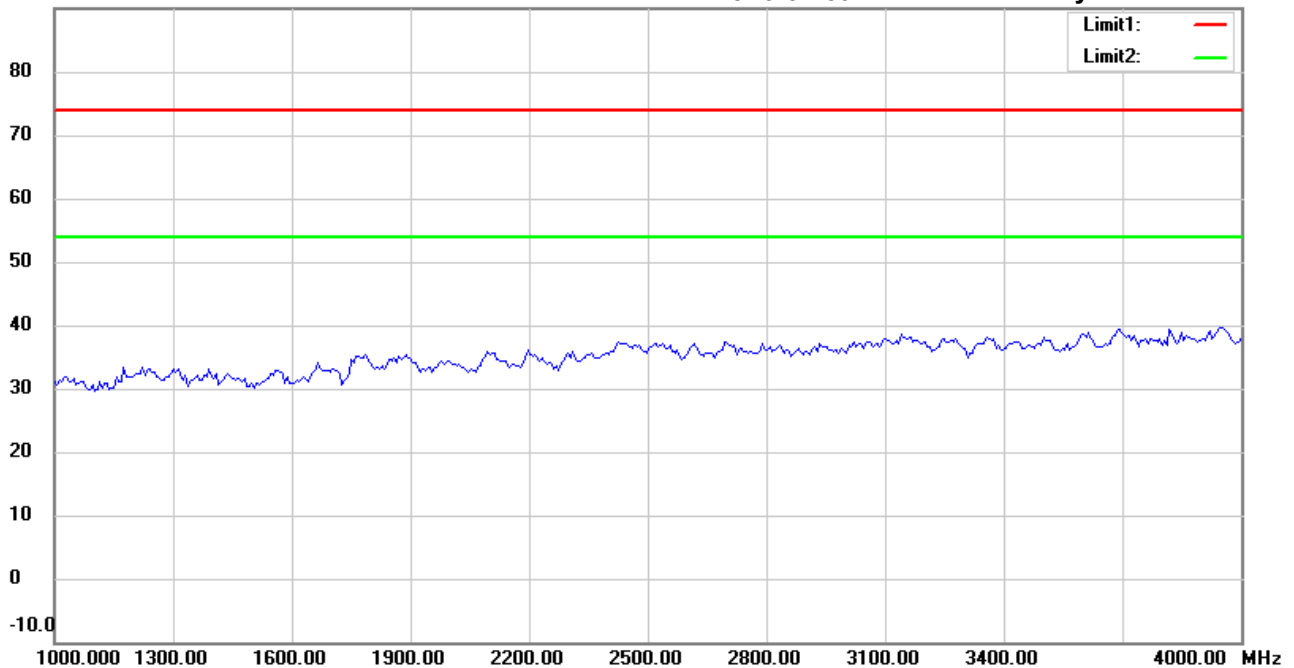
Date: 7/26/2019

Temperature:29.1 °C

90.0 dBuV/m

Time: 3:37:59 AM

Humidity:68.1 %



Site : Chamber

Condition : FCC\_part 15E RE\_Above 1GHz\_PK

EUT : W6M21905-19028

M/N:

Test Mode : TX 5735MHz

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



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# Radiated Emission Measurement

Operator: Allen

File :3

Data :#2

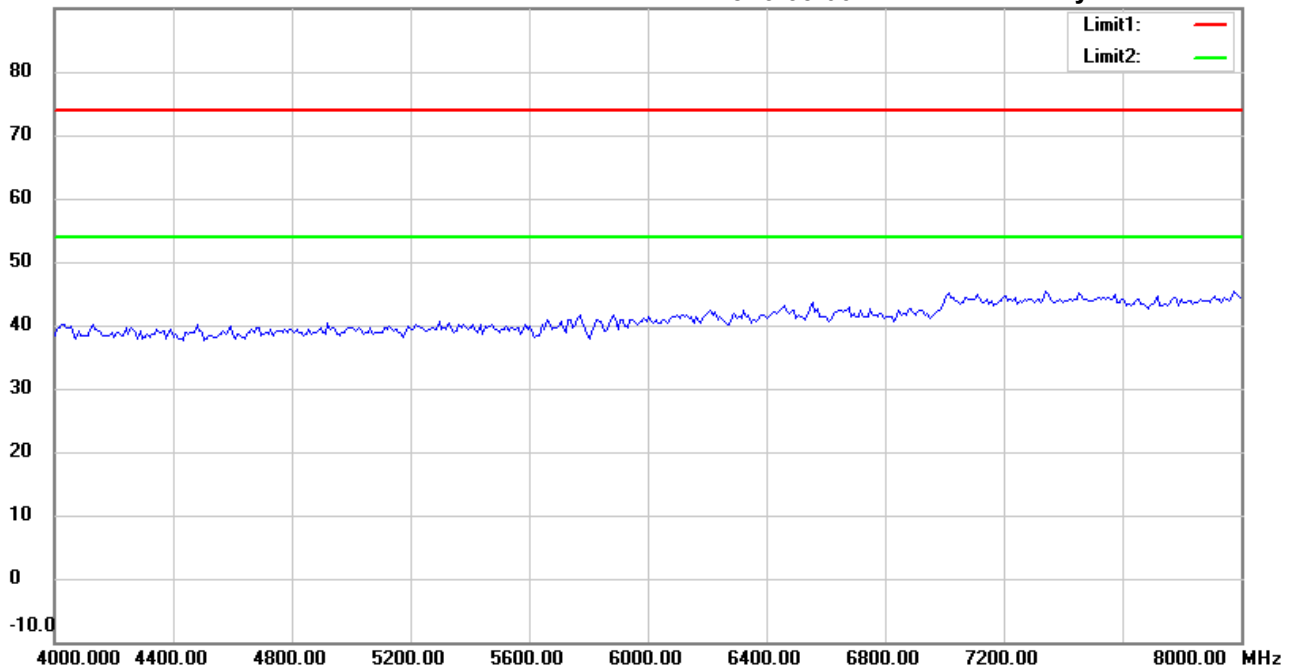
Date: 7/26/2019

Temperature:29.1 °C

90.0 dBuV/m

Time: 3:35:06 AM

Humidity:68.1 %



Site : Chamber

Condition : FCC\_part 15E RE\_Above 1GHz\_PK

EUT : W6M21905-19028

M/N:

Test Mode : TX 5735MHz

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



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### Radiated Emission Measurement

Operator: Allen

File : 3

Data : #8

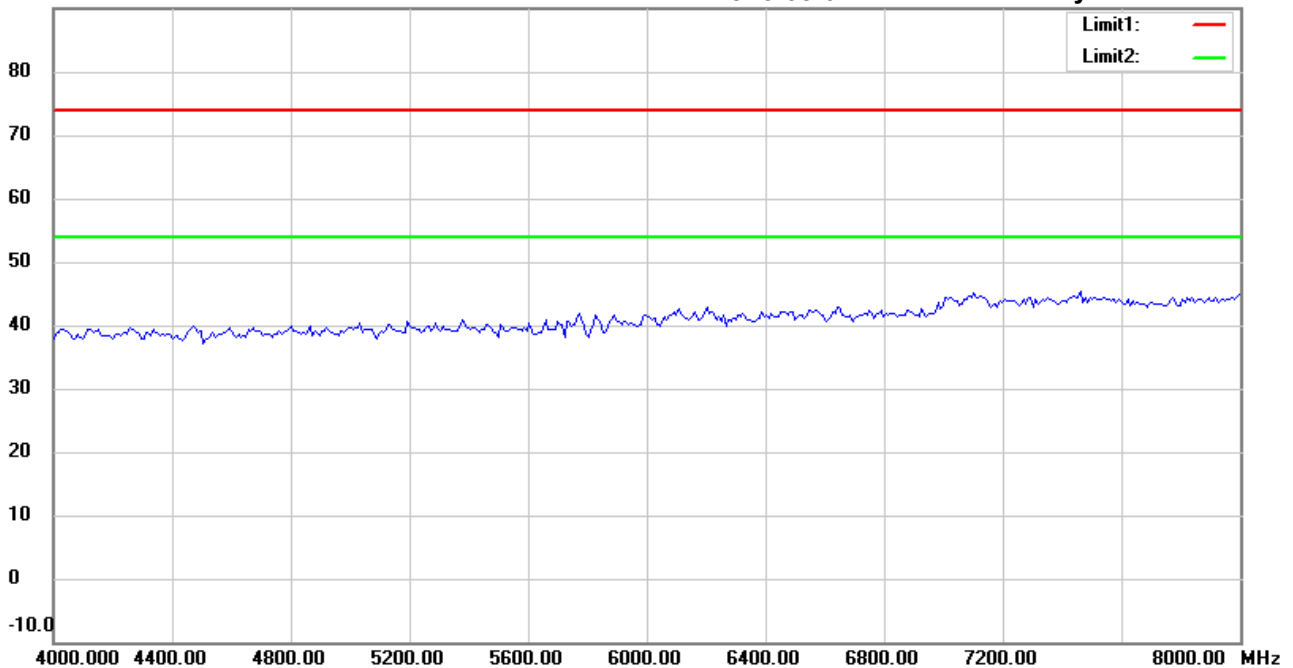
Date: 7/26/2019

Temperature: 29.1 °C

90.0 dBuV/m

Time: 3:38:07 AM

Humidity: 68.1 %



Site : Chamber

Condition : FCC\_part 15E RE\_Above 1GHz\_PK

EUT : W6M21905-19028

M/N:

Test Mode : TX 5735MHz

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



Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei  
Tel:+886-2-6606-8877  
Fax:+886-2-6606-8875

# Radiated Emission Measurement

Operator: Allen

File :3

Data :#3

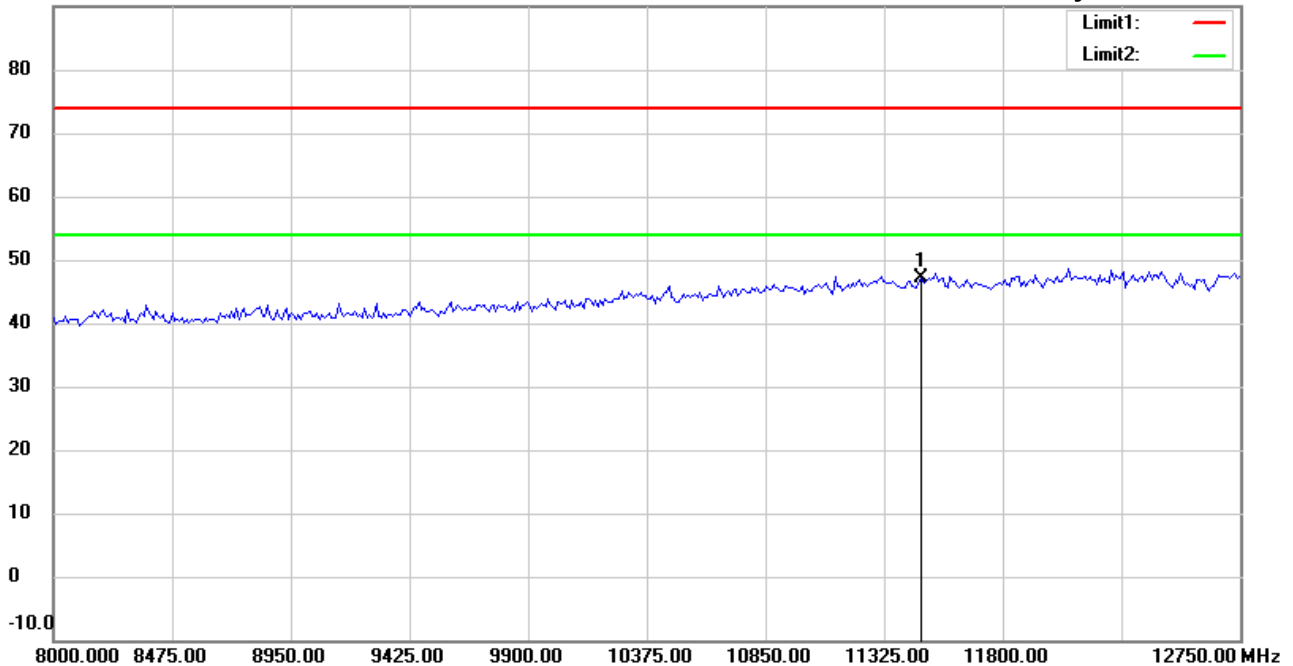
Date: 7/26/2019

Temperature:29.1 °C

90.0 dBuV/m

Time: 3:36:08 AM

Humidity:68.1 %



Site : Chamber

Condition : FCC\_part 15E RE\_Above 1GHz\_PK

EUT : W6M21905-19028

M/N:

Test Mode : TX 5735MHz

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 |
|-----|-----------------|----------------|----------|---------------------|-----------------|----------------|--------------|----------------|-------------|---------|
| *   | 11470.000       | 35.80          | peak     | 11.21               | 47.01           | 74.00          | 150          | 220            | -26.99      |         |

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



Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei  
Tel:+886-2-6606-8877  
Fax:+886-2-6606-8875

# Radiated Emission Measurement

Operator: Allen

File :3

Data :#9

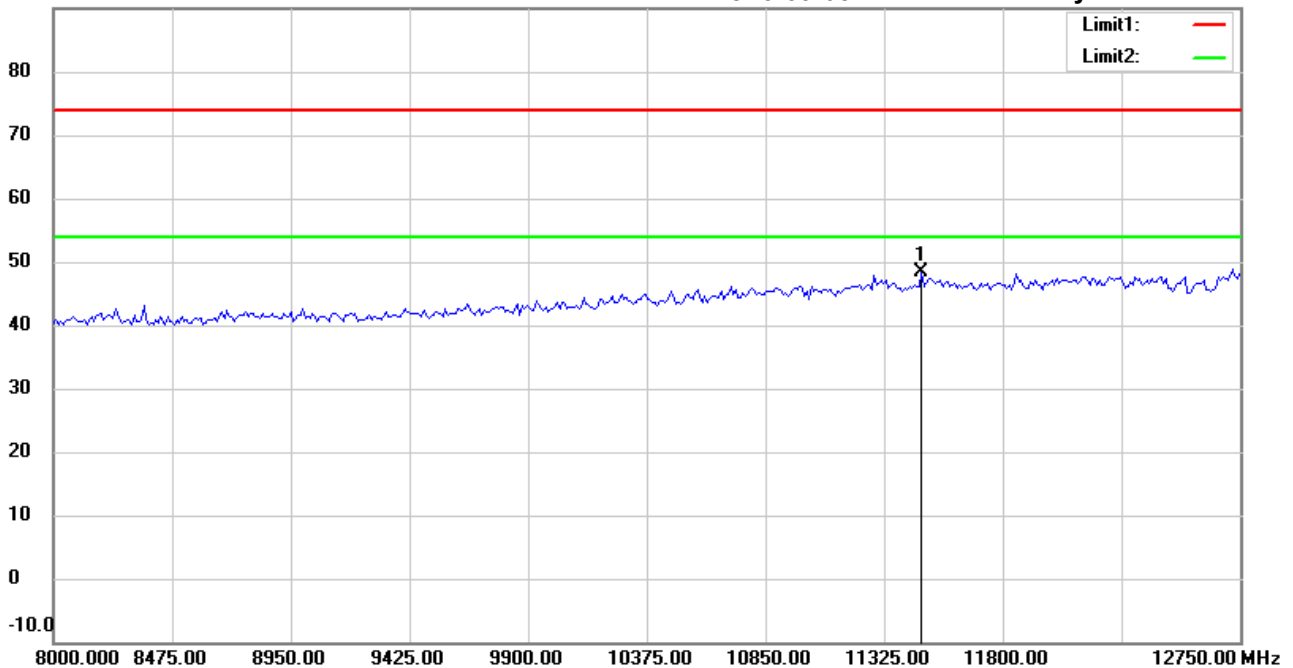
Date: 7/26/2019

Temperature:29.1 °C

90.0 dBuV/m

Time: 3:39:08 AM

Humidity:68.1 %



Site : Chamber

Condition : FCC\_part 15E RE\_Above 1GHz\_PK

EUT : W6M21905-19028

M/N:

Test Mode : TX 5735MHz

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 |
|-----|-----------------|----------------|----------|---------------------|-----------------|----------------|--------------|----------------|-------------|---------|
| *   | 11470.000       | 37.12          | peak     | 11.21               | 48.33           | 74.00          | 150          | 65             | -25.67      |         |

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



Address: 6F., No. 58, Ln 188, Ruey Kuang Rd, NeiHu, Taipei  
Tel: +886-2-6606-8877  
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Radiated Emission Measurement

Operator: Allen

File :3

Data :#4

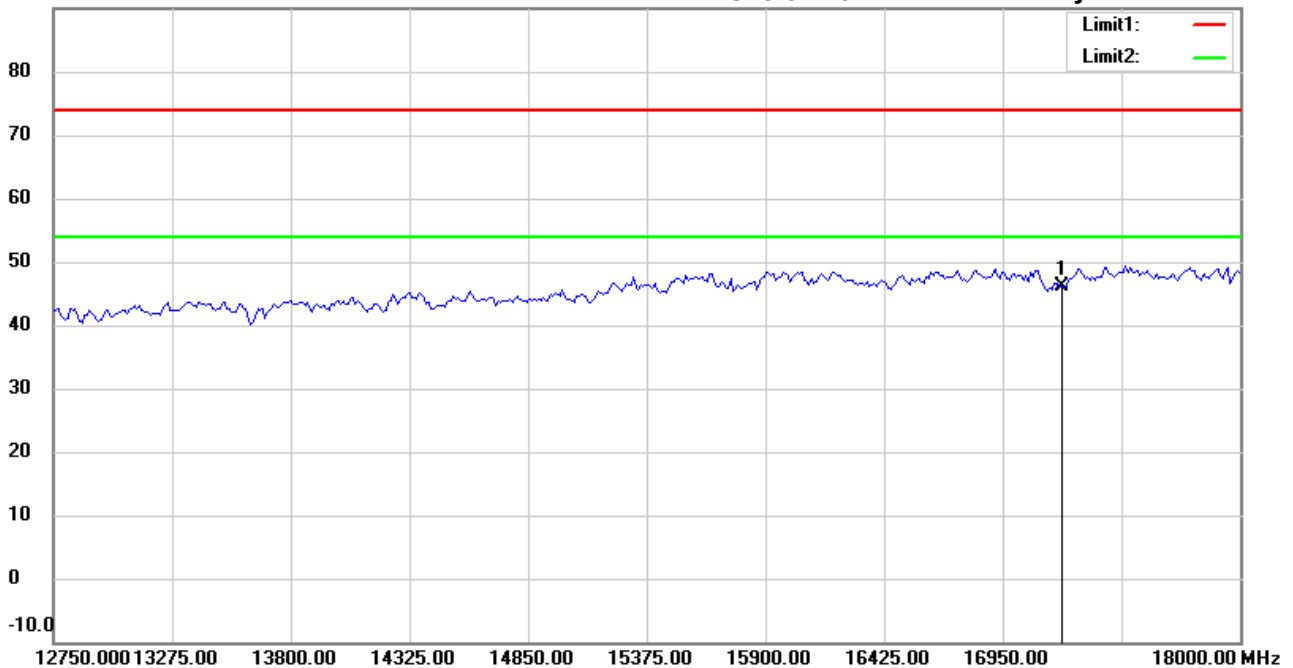
Date: 7/26/2019

Temperature: 29.1 °C

90.0 dBuV/m

Time: 3:37:16 AM

Humidity: 68.1 %



Site : Chamber

Condition : FCC\_part 15E RE\_Above 1GHz\_PK

EUT : W6M21905-19028

M/N:

Test Mode : TX 5735MHz

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 |
|-----|-----------------|----------------|----------|---------------------|-----------------|----------------|--------------|----------------|-------------|---------|
| *   | 17205.000       | 27.63          | peak     | 18.43               | 46.06           | 74.00          | 150          | 0              | -27.94      |         |

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



Address: 6F., No. 58, Ln 188, Ruey Kuang Rd, NeiHu, Taipei  
Tel: +886-2-6606-8877  
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# Radiated Emission Measurement

Operator: Allen

File : 3

Data : #10

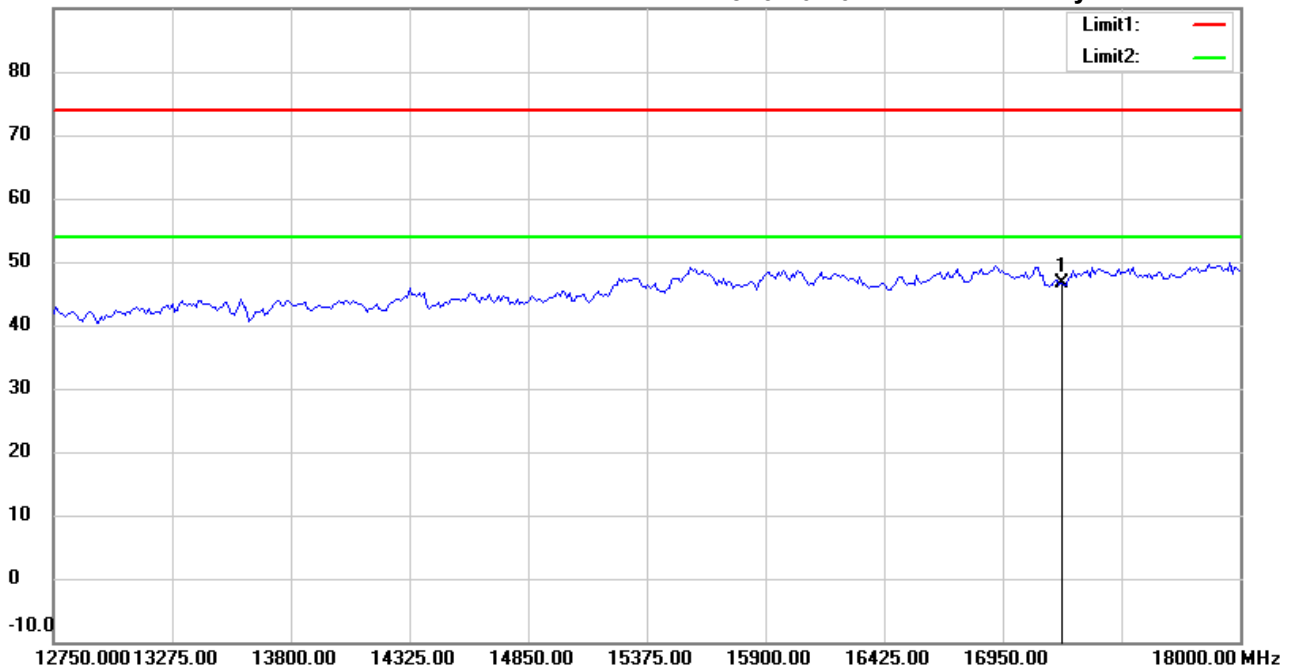
Date: 7/26/2019

Temperature: 29.1 °C

90.0 dBuV/m

Time: 3:40:16 AM

Humidity: 68.1 %



Site : Chamber

Condition : FCC\_part 15E RE\_Above 1GHz\_PK

EUT : W6M21905-19028

M/N:

Test Mode : TX 5735MHz

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 |
|-----|-----------------|----------------|----------|---------------------|-----------------|----------------|--------------|----------------|-------------|---------|
| *   | 17205.000       | 28.10          | peak     | 18.43               | 46.53           | 74.00          | 150          | 170            | -27.47      |         |

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



Address: 6F., No. 58, Ln 188, Ruey Kuang Rd, Nei-hu, Taipei  
Tel: +886-2-6606-8877  
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# Radiated Emission Measurement

Operator: Allen

File : 3

Data : #5

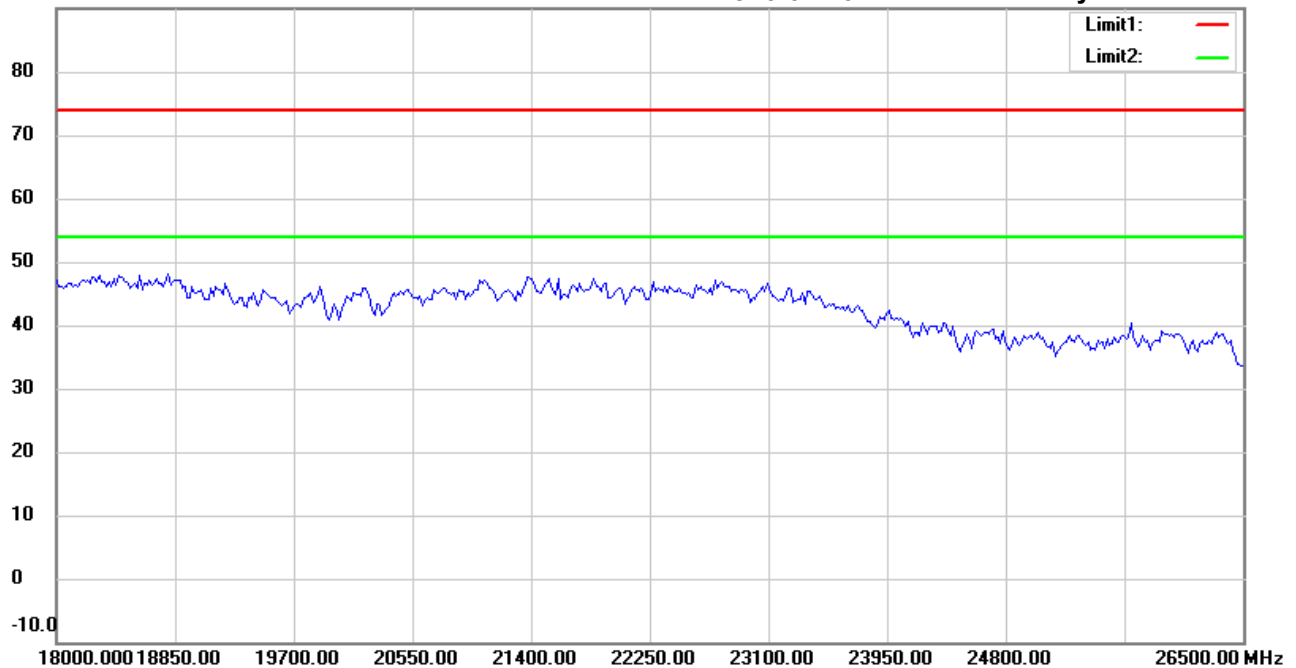
Date: 7/26/2019

Temperature: 29.1 °C

90.0 dBuV/m

Time: 3:37:26 AM

Humidity: 68.1 %



Site : Chamber

Condition : FCC\_part 15E RE\_Above 1GHz\_PK

EUT : W6M21905-19028

M/N:

Test Mode : TX 5735MHz

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  
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Radiated Emission Measurement

Operator: Allen

File : 3

Data : #11

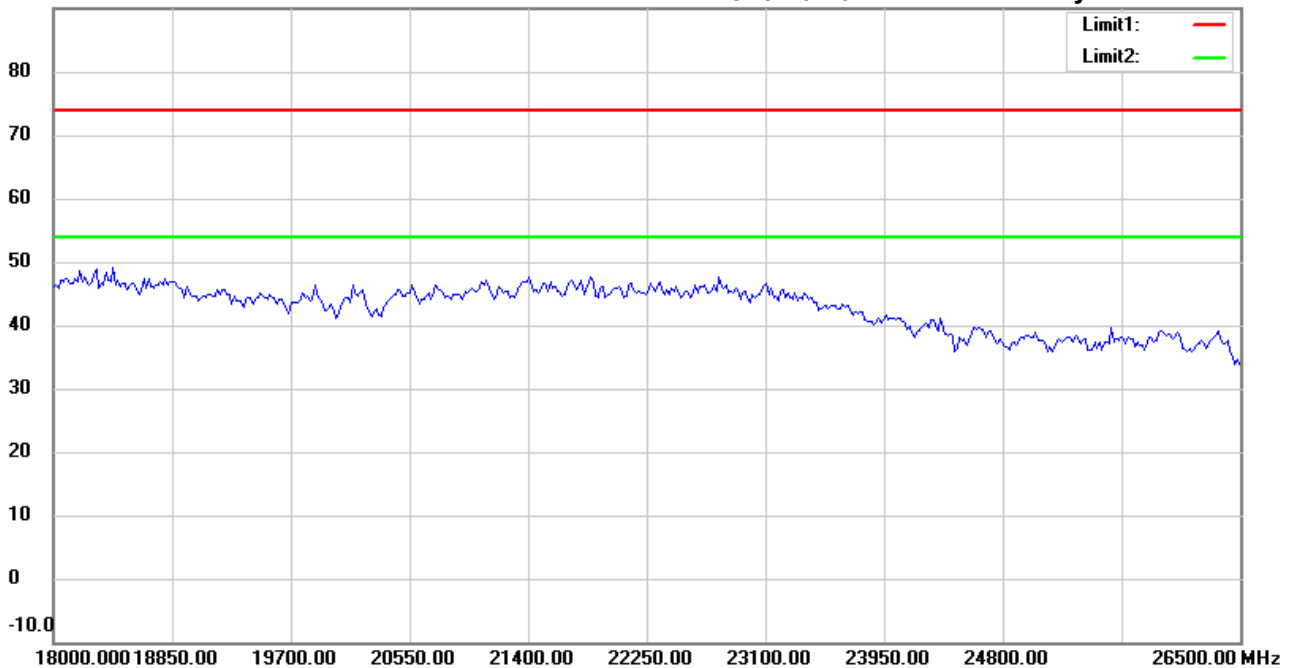
Date: 7/26/2019

Temperature: 29.1 °C

90.0 dBuV/m

Time: 3:40:26 AM

Humidity: 68.1 %



Site : Chamber

Condition : FCC\_part 15E RE\_Above 1GHz\_PK

EUT : W6M21905-19028

M/N:

Test Mode : TX 5735MHz

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



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Radiated Emission Measurement

Operator: Allen

File : 3

Data : #6

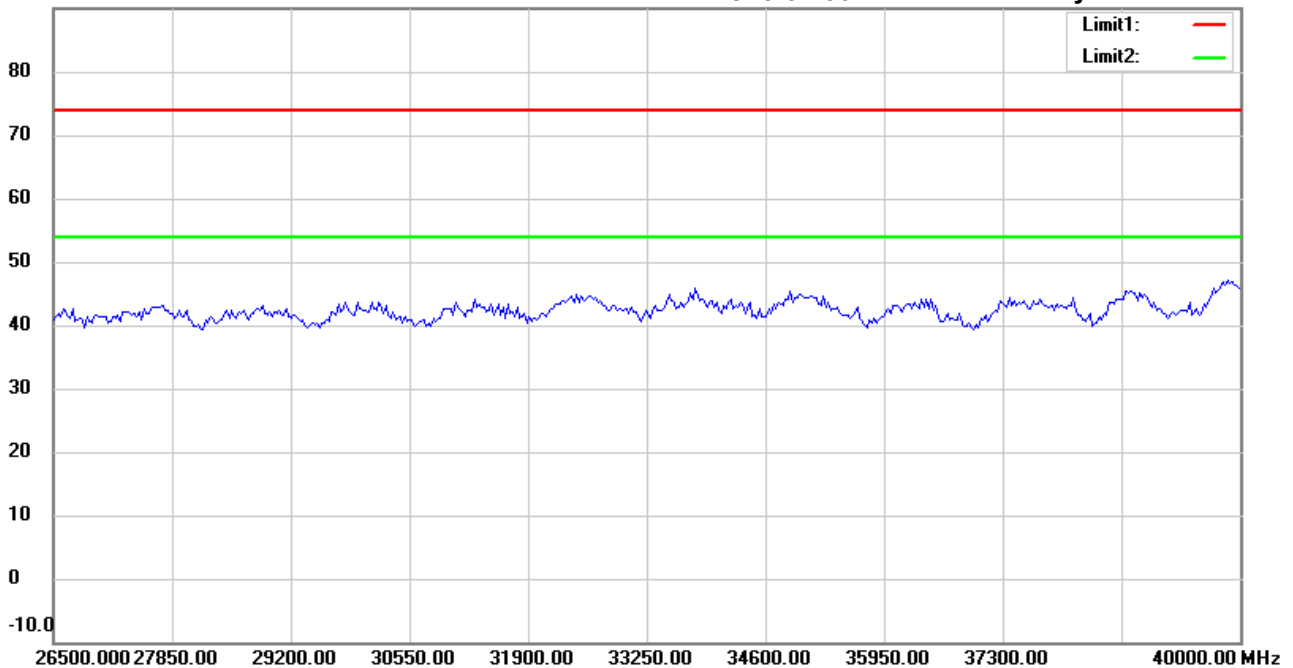
Date: 7/26/2019

Temperature: 29.1 °C

90.0 dBuV/m

Time: 3:37:36 AM

Humidity: 68.1 %



Site : Chamber

Condition : FCC\_part 15E RE\_Above 1GHz\_PK

EUT : W6M21905-19028

M/N:

Test Mode : TX 5735MHz

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



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Tel:+886-2-6606-8877  
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# Radiated Emission Measurement

Operator: Allen

File :3

Data :#12

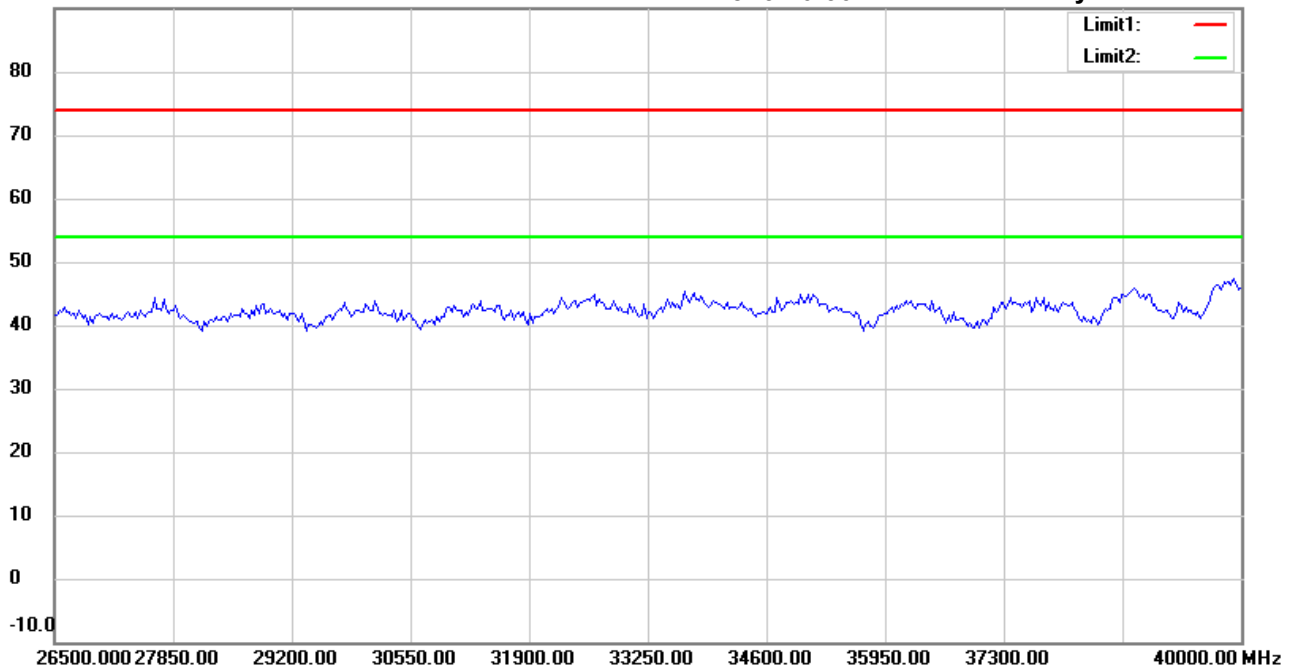
Date: 7/26/2019

Temperature:29.1 °C

90.0 dBuV/m

Time: 3:40:36 AM

Humidity:68.1 %



Site : Chamber

Condition : FCC\_part 15E RE\_Above 1GHz\_PK

EUT : W6M21905-19028

M/N:

Test Mode : TX 5735MHz

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



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Tel: +886-2-6606-8877  
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# Radiated Emission Measurement

Operator: Allen

File : 3

Data : #1

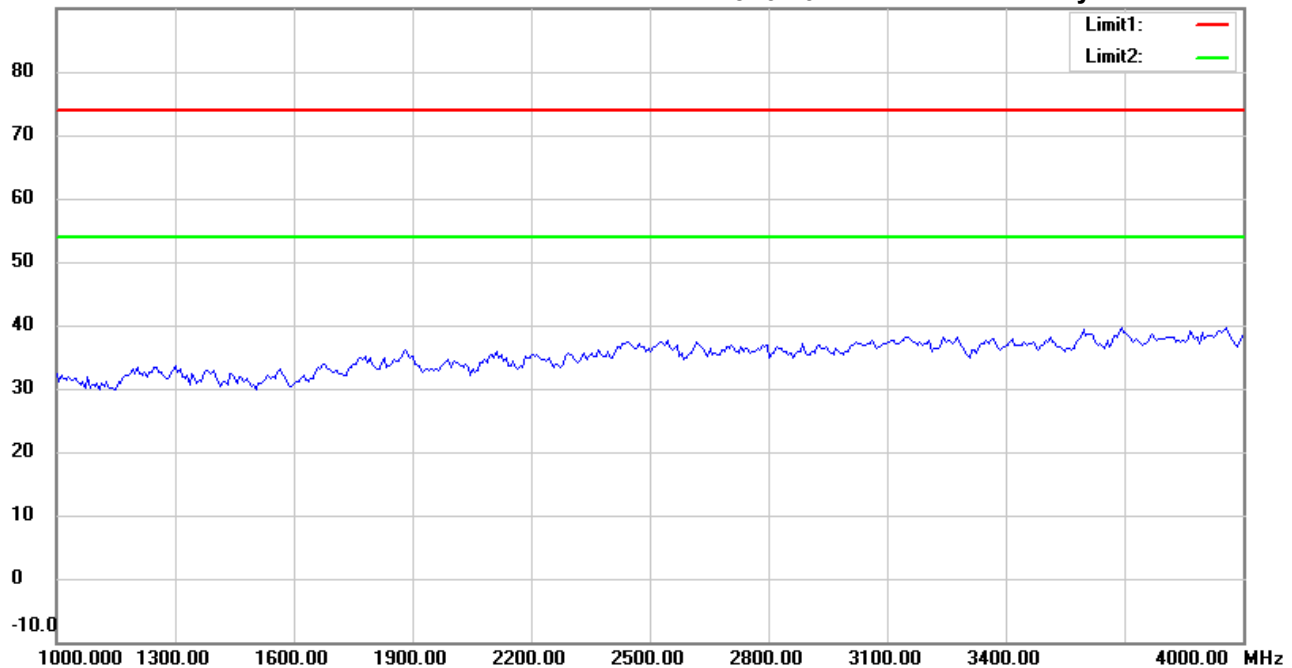
Date: 7/26/2019

Temperature: 29.1 °C

90.0 dBuV/m

Time: 3:43:24 AM

Humidity: 68.1 %



Site : Chamber

Condition : FCC\_part 15E RE\_Above 1GHz\_PK

EUT : W6M21905-19028

M/N:

Test Mode : TX 5787MHz

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



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Tel:+886-2-6606-8877  
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# Radiated Emission Measurement

Operator: Allen

File :3

Data :#7

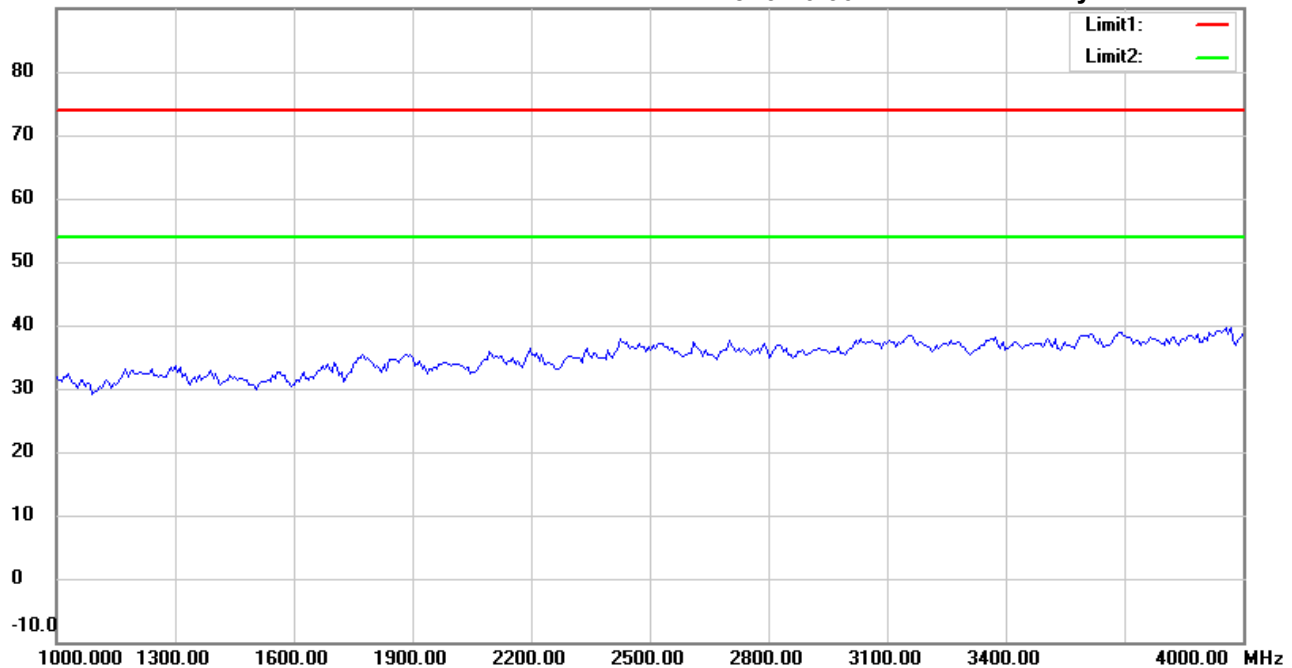
Date: 7/26/2019

Temperature:29.1 °C

90.0 dBuV/m

Time: 3:46:36 AM

Humidity:68.1 %



Site : Chamber

Condition : FCC\_part 15E RE\_Above 1GHz\_PK

EUT : W6M21905-19028

M/N:

Test Mode : TX 5787MHz

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



Address: 6F., No. 58, Ln 188, Ruey Kuang Rd, NeiHu, Taipei  
Tel: +886-2-6606-8877  
Fax: +886-2-6606-8875

Radiated Emission Measurement

Operator: Allen

File : 3

Data : #2

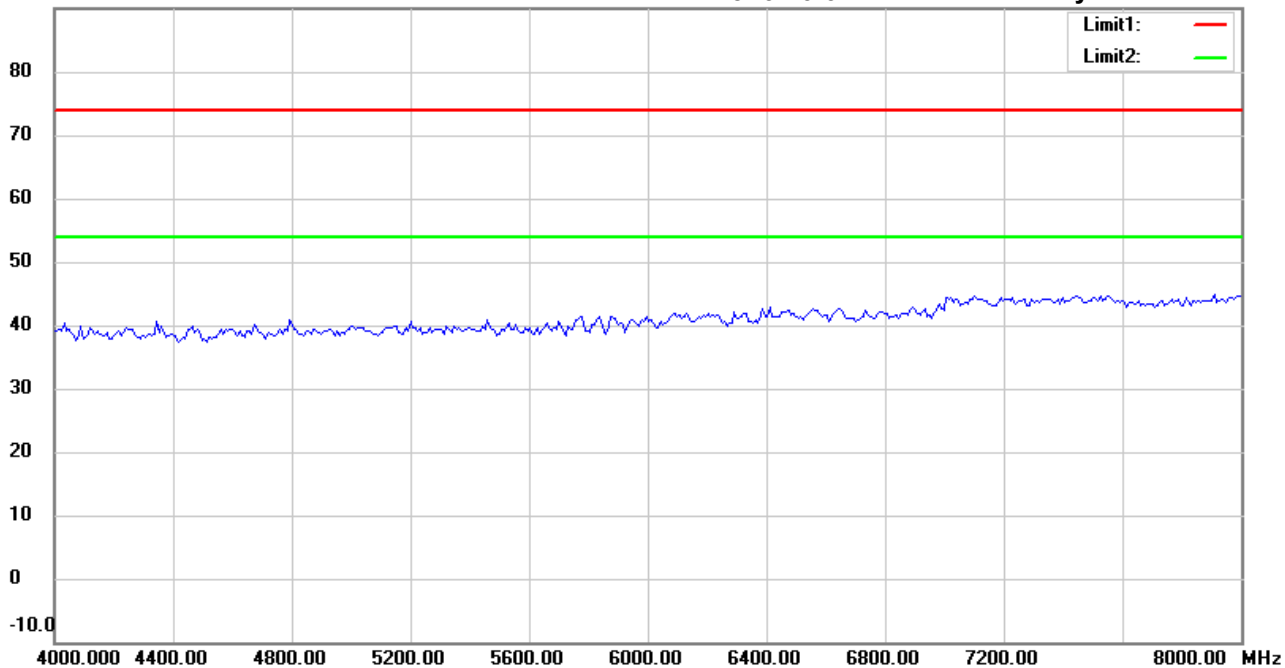
Date: 7/26/2019

Temperature: 29.1 °C

90.0 dBuV/m

Time: 3:43:31 AM

Humidity: 68.1 %



Site : Chamber

Condition : FCC\_part 15E RE\_Above 1GHz\_PK

EUT : W6M21905-19028

M/N:

Test Mode : TX 5787MHz

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: +886-2-6606-8875

Radiated Emission Measurement

Operator: Allen

File : 3

Data : #8

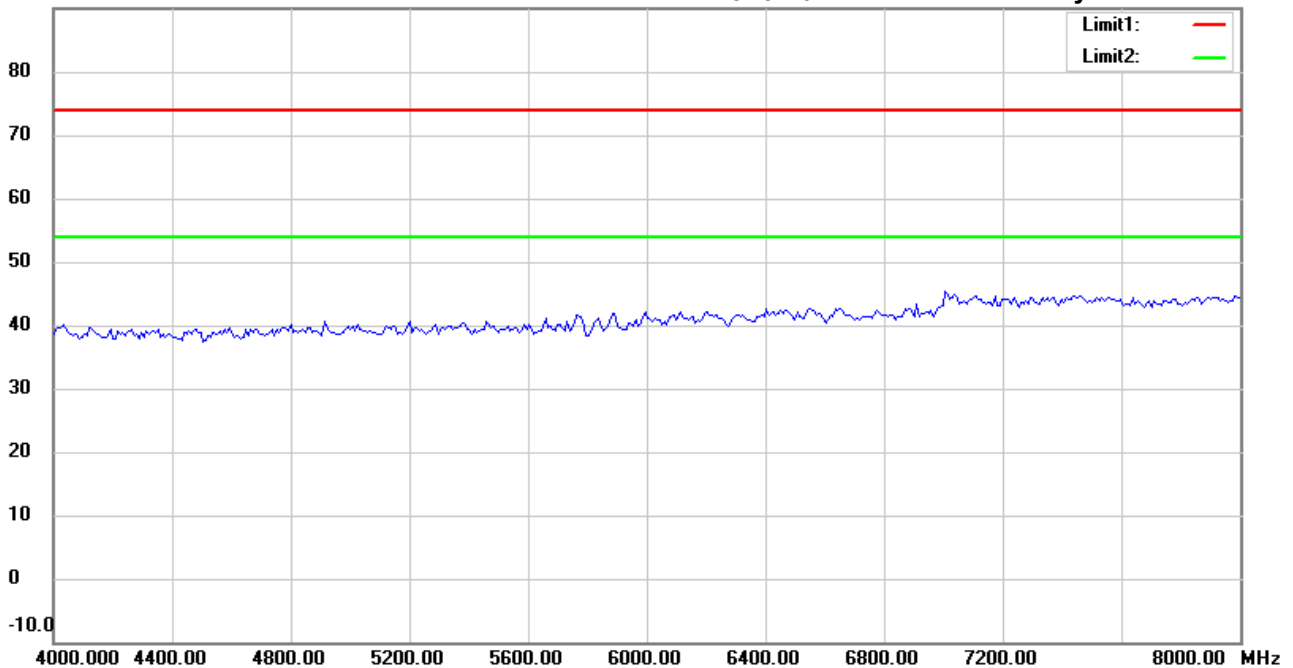
Date: 7/26/2019

Temperature: 29.1 °C

90.0 dBuV/m

Time: 3:46:44 AM

Humidity: 68.1 %



Site : Chamber

Condition : FCC\_part 15E RE\_Above 1GHz\_PK

EUT : W6M21905-19028

M/N:

Test Mode : TX 5787MHz

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



Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei  
Tel:+886-2-6606-8877  
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# Radiated Emission Measurement

Operator: Allen

File :3

Data :#3

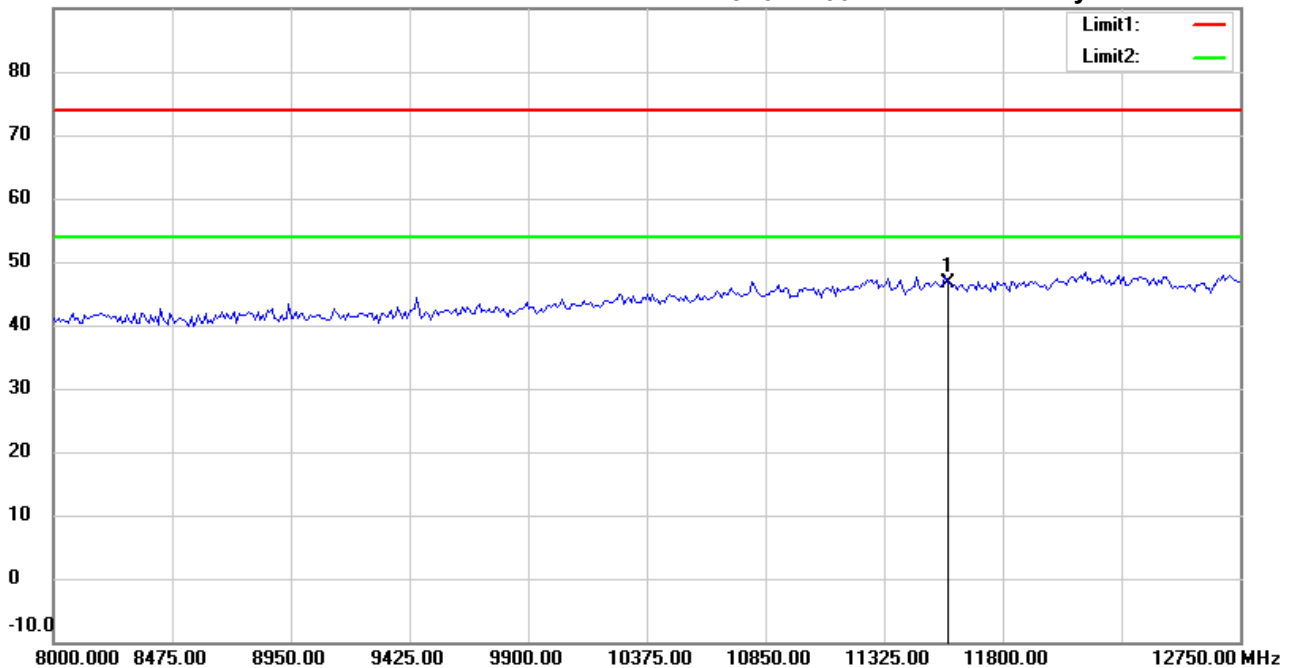
Date: 7/26/2019

Temperature:29.1 °C

90.0 dBuV/m

Time: 3:44:33 AM

Humidity:68.1 %



Site : Chamber

Condition : FCC\_part 15E RE\_Above 1GHz\_PK

EUT : W6M21905-19028

M/N:

Test Mode : TX 5787MHz

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 |
|-----|-----------------|----------------|----------|---------------------|-----------------|----------------|--------------|----------------|-------------|---------|
| *   | 11574.000       | 35.52          | peak     | 11.10               | 46.62           | 74.00          | 150          | 295            | -27.38      |         |

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



Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei  
Tel:+886-2-6606-8877  
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# Radiated Emission Measurement

Operator: Allen

File :3

Data :#9

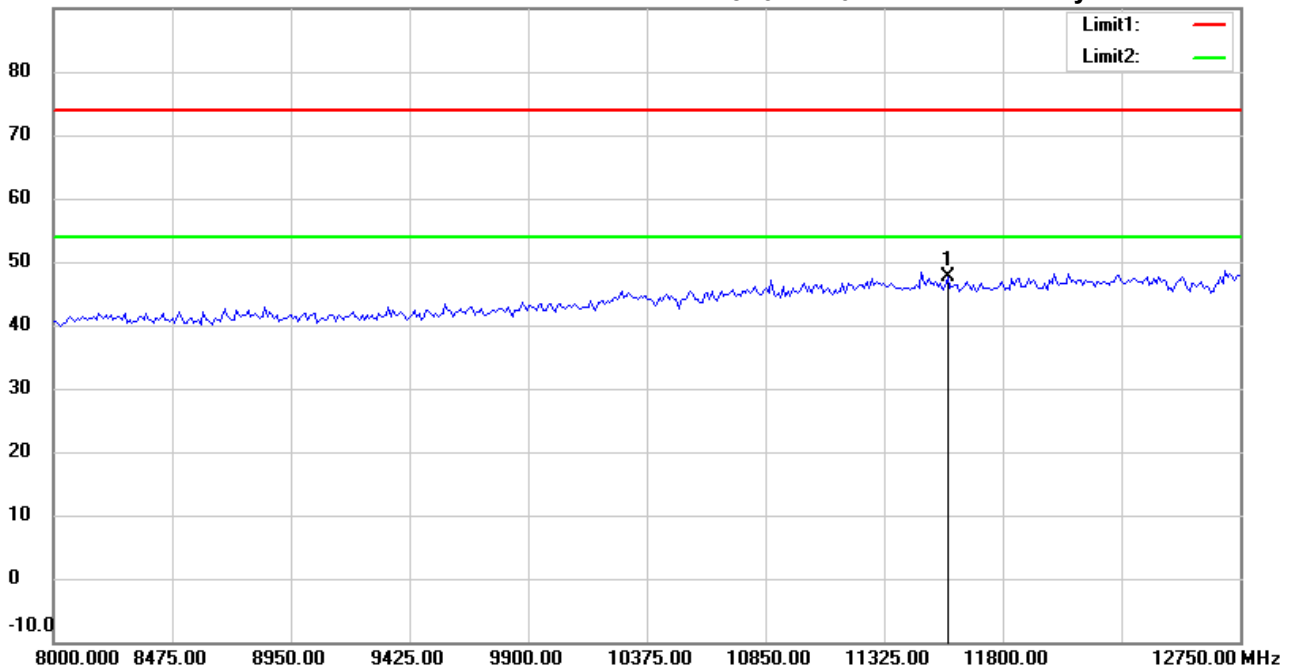
Date: 7/26/2019

Temperature:29.1 °C

90.0 dBuV/m

Time: 3:47:46 AM

Humidity:68.1 %



Site : Chamber

Condition : FCC\_part 15E RE\_Above 1GHz\_PK

EUT : W6M21905-19028

M/N:

Test Mode : TX 5787MHz

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 |
|-----|-----------------|----------------|----------|---------------------|-----------------|----------------|--------------|----------------|-------------|---------|
| *   | 11574.000       | 36.53          | peak     | 11.10               | 47.63           | 74.00          | 150          | 80             | -26.37      |         |

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



Address: 6F., No. 58, Ln 188, Ruey Kuang Rd, NeiHu, Taipei  
Tel: +886-2-6606-8877  
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# Radiated Emission Measurement

Operator: Allen

File : 3

Data : #4

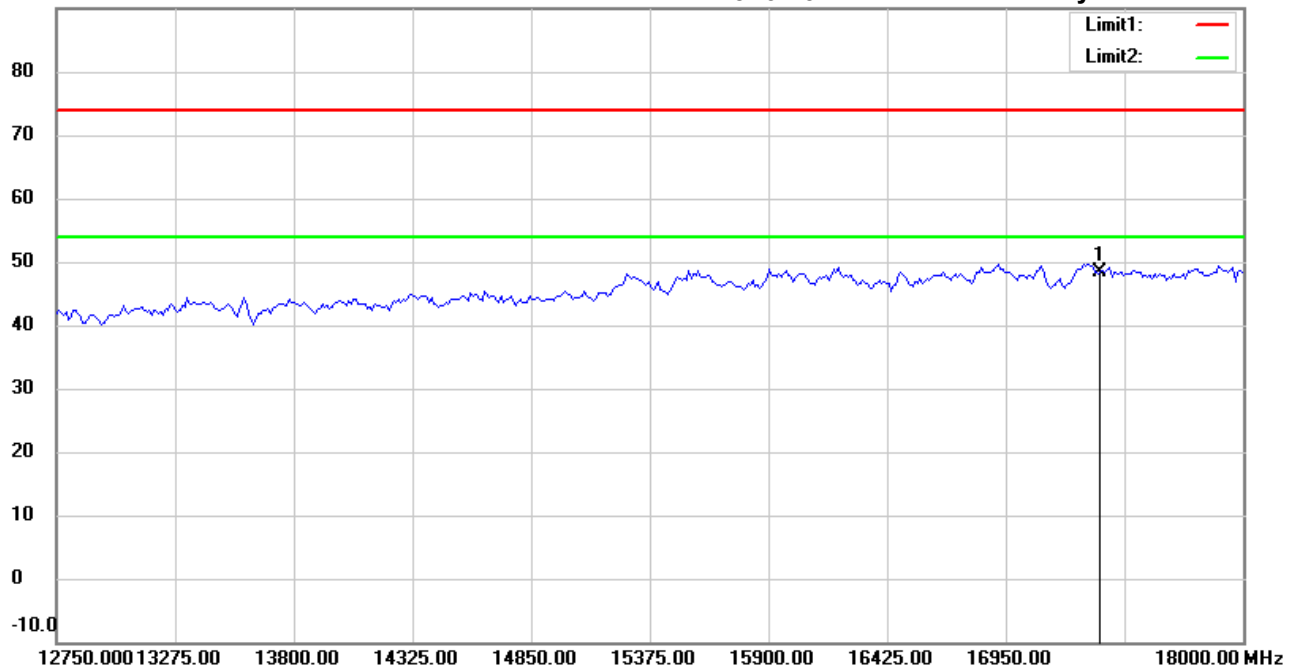
Date: 7/26/2019

Temperature: 29.1 °C

90.0 dBuV/m

Time: 3:45:42 AM

Humidity: 68.1 %



Site : Chamber

Condition : FCC\_part 15E RE\_Above 1GHz\_PK

EUT : W6M21905-19028

M/N:

Test Mode : TX 5787MHz

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 |
|-----|-----------------|----------------|----------|---------------------|-----------------|----------------|--------------|----------------|-------------|---------|
| *   | 17361.000       | 27.89          | peak     | 20.39               | 48.28           | 74.00          | 150          | 355            | -25.72      |         |

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



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Radiated Emission Measurement

Operator: Allen

File : 3

Data : #10

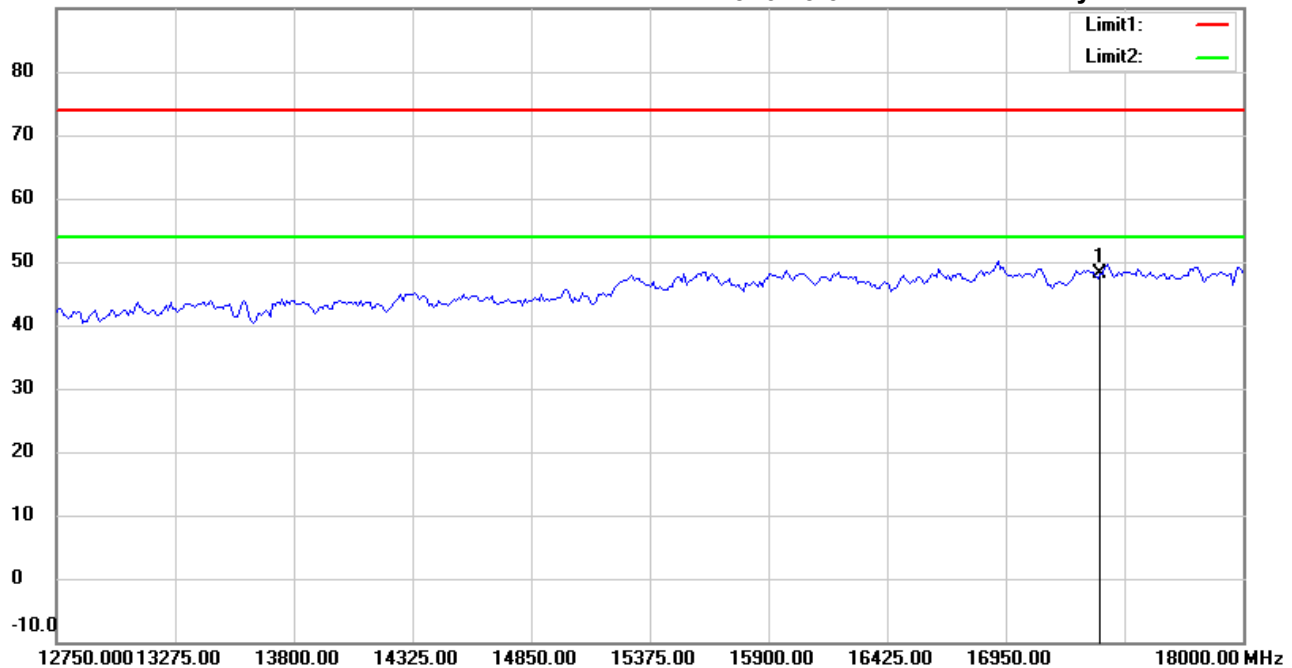
Date: 7/26/2019

Temperature: 29.1 °C

90.0 dBuV/m

Time: 3:48:54 AM

Humidity: 68.1 %



Site : Chamber

Condition : FCC\_part 15E RE\_Above 1GHz\_PK

EUT : W6M21905-19028

M/N:

Test Mode : TX 5787MHz

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 |
|-----|-----------------|----------------|----------|---------------------|-----------------|----------------|--------------|----------------|-------------|---------|
| *   | 17361.000       | 27.86          | peak     | 20.39               | 48.25           | 74.00          | 150          | 15             | -25.75      |         |

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



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# Radiated Emission Measurement

Operator: Allen

File :3

Data :#5

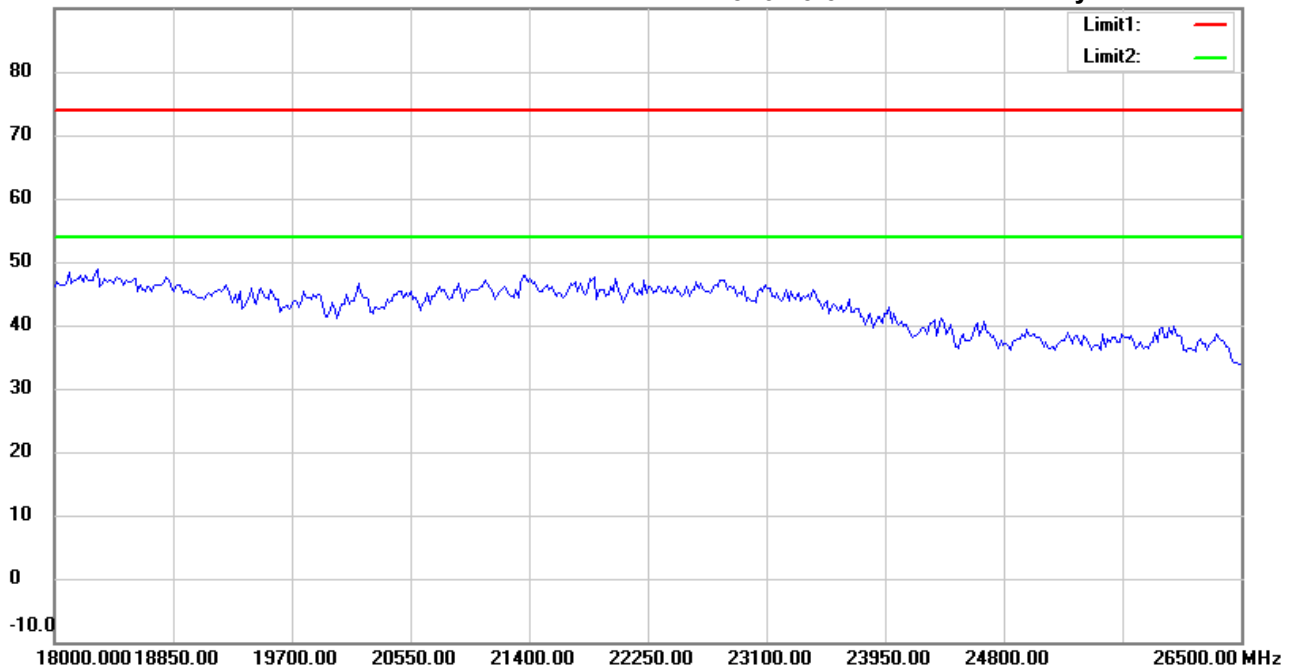
Date: 7/26/2019

Temperature:29.1 °C

90.0 dBuV/m

Time: 3:45:52 AM

Humidity:68.1 %



Site : Chamber

Condition : FCC\_part 15E RE\_Above 1GHz\_PK

EUT : W6M21905-19028

M/N:

Test Mode : TX 5787MHz

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  
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# Radiated Emission Measurement

Operator: Allen

File :3

Data :#11

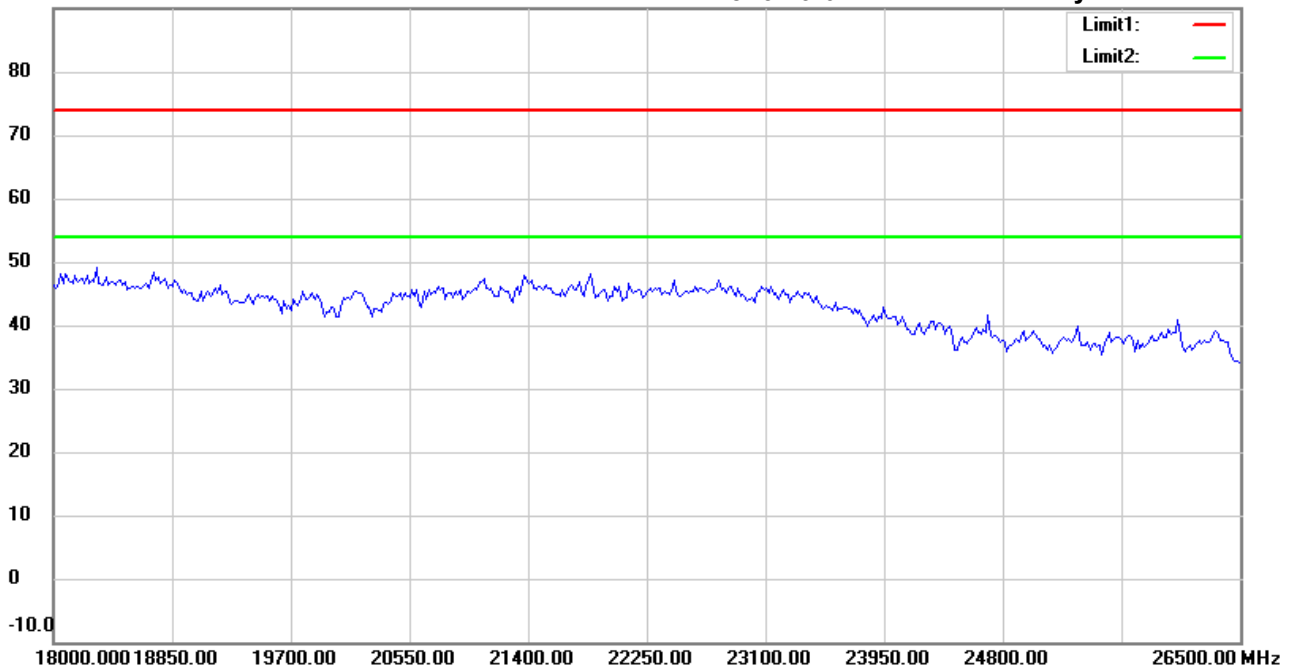
Date: 7/26/2019

Temperature:29.1 °C

90.0 dBuV/m

Time: 3:49:04 AM

Humidity:68.1 %



Site : Chamber

Condition : FCC\_part 15E RE\_Above 1GHz\_PK

EUT : W6M21905-19028

M/N:

Test Mode : TX 5787MHz

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



Address: 6F., No. 58, Ln 188, Ruey Kuang Rd, NeiHu, Taipei  
Tel: +886-2-6606-8877  
Fax: +886-2-6606-8875

### Radiated Emission Measurement

Operator: Allen

File : 3

Data : #6

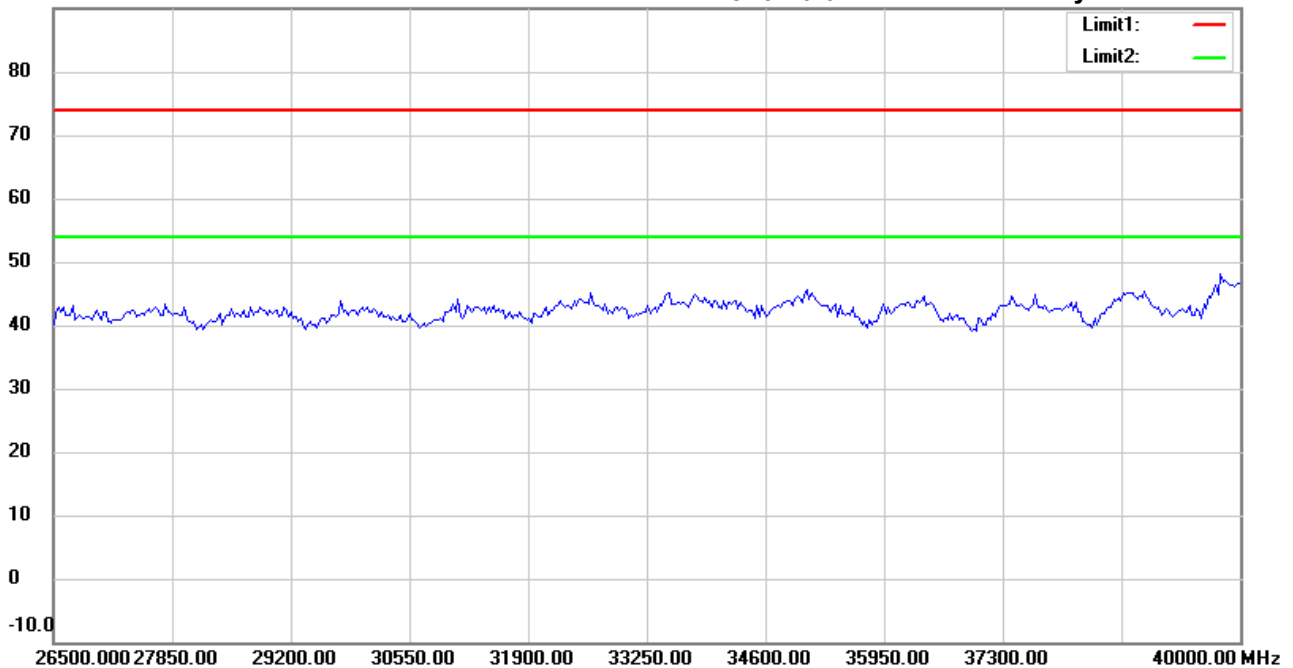
Date: 7/26/2019

Temperature: 29.1 °C

90.0 dBuV/m

Time: 3:46:02 AM

Humidity: 68.1 %



Site : Chamber

Condition : FCC\_part 15E RE\_Above 1GHz\_PK

EUT : W6M21905-19028

M/N:

Test Mode : TX 5787MHz

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



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Radiated Emission Measurement

Operator: Allen

File : 3

Data : #12

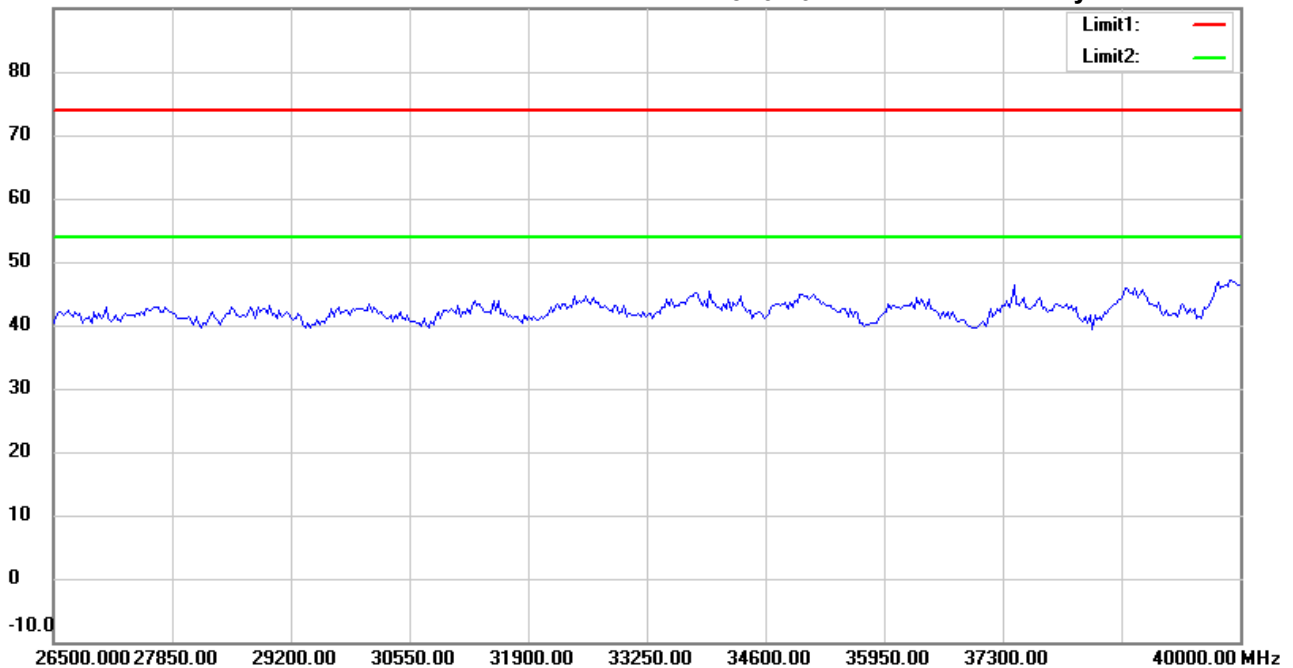
Date: 7/26/2019

Temperature: 29.1 °C

90.0 dBuV/m

Time: 3:49:14 AM

Humidity: 68.1 %



Site : Chamber

Condition : FCC\_part 15E RE\_Above 1GHz\_PK

EUT : W6M21905-19028

M/N:

Test Mode : TX 5787MHz

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



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# Radiated Emission Measurement

Operator: Allen

File :3

Data :#1

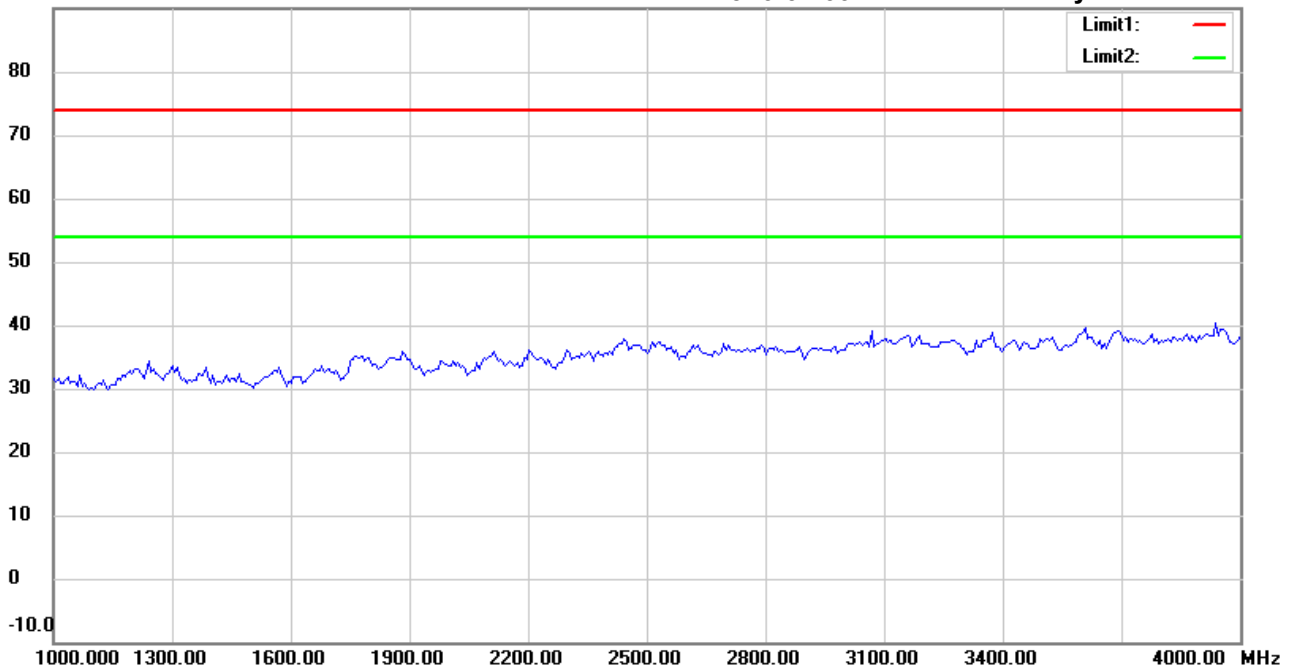
Date: 7/26/2019

Temperature:29.1 °C

90.0 dBuV/m

Time: 3:51:33 AM

Humidity:68.1 %



Site : Chamber

Condition : FCC\_part 15E RE\_Above 1GHz\_PK

EUT : W6M21905-19028

M/N:

Test Mode : TX 5839MHz

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



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# Radiated Emission Measurement

Operator: Allen

File :3

Data :#7

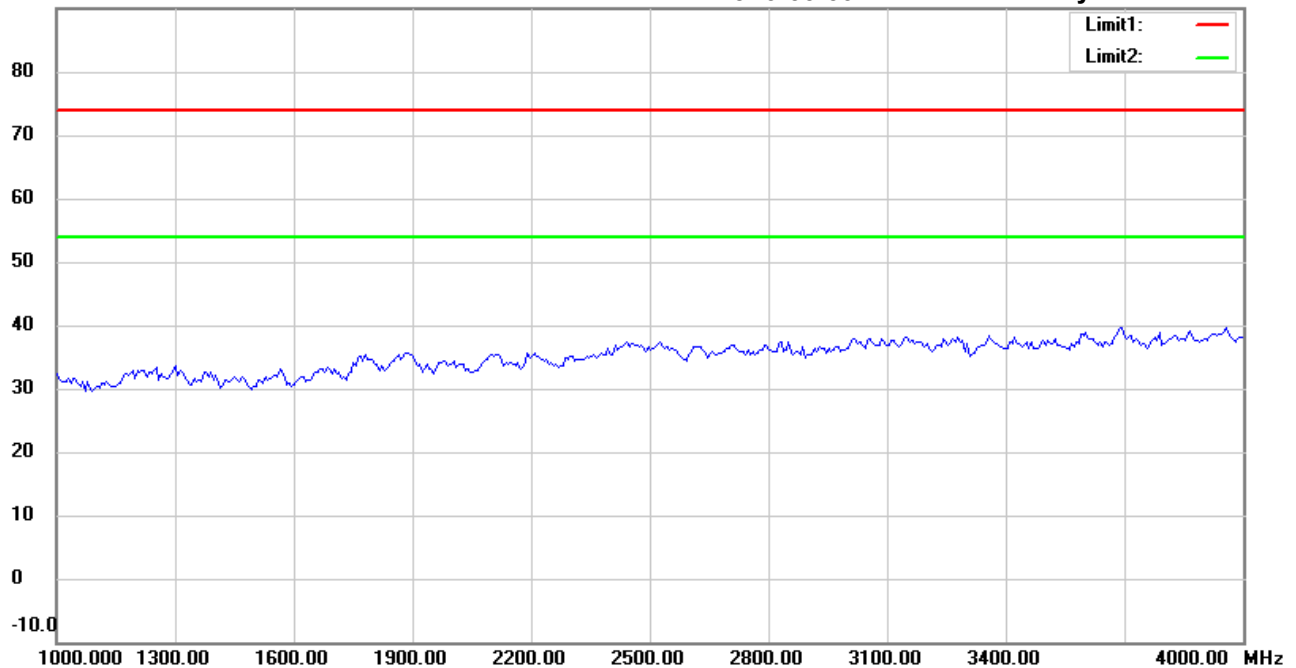
Date: 7/26/2019

Temperature:29.1 °C

90.0 dBuV/m

Time: 3:55:53 AM

Humidity:68.1 %



Site : Chamber

Condition : FCC\_part 15E RE\_Above 1GHz\_PK

EUT : W6M21905-19028

M/N:

Test Mode : TX 5839MHz

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



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# Radiated Emission Measurement

Operator: Allen

File : 3

Data : #2

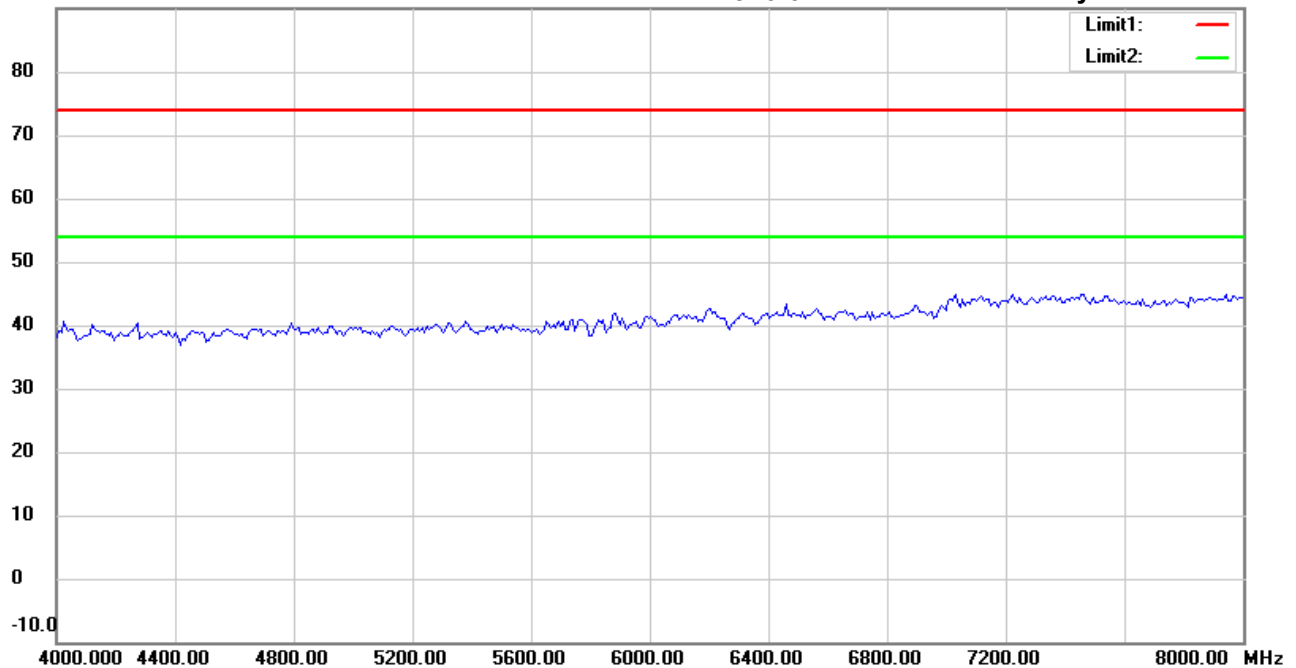
Date: 7/26/2019

Temperature: 29.1 °C

90.0 dBuV/m

Time: 3:51:41 AM

Humidity: 68.1 %



Site : Chamber

Condition : FCC\_part 15E RE\_Above 1GHz\_PK

EUT : W6M21905-19028

M/N:

Test Mode : TX 5839MHz

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



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Radiated Emission Measurement

Operator: Allen

File : 3

Data : #8

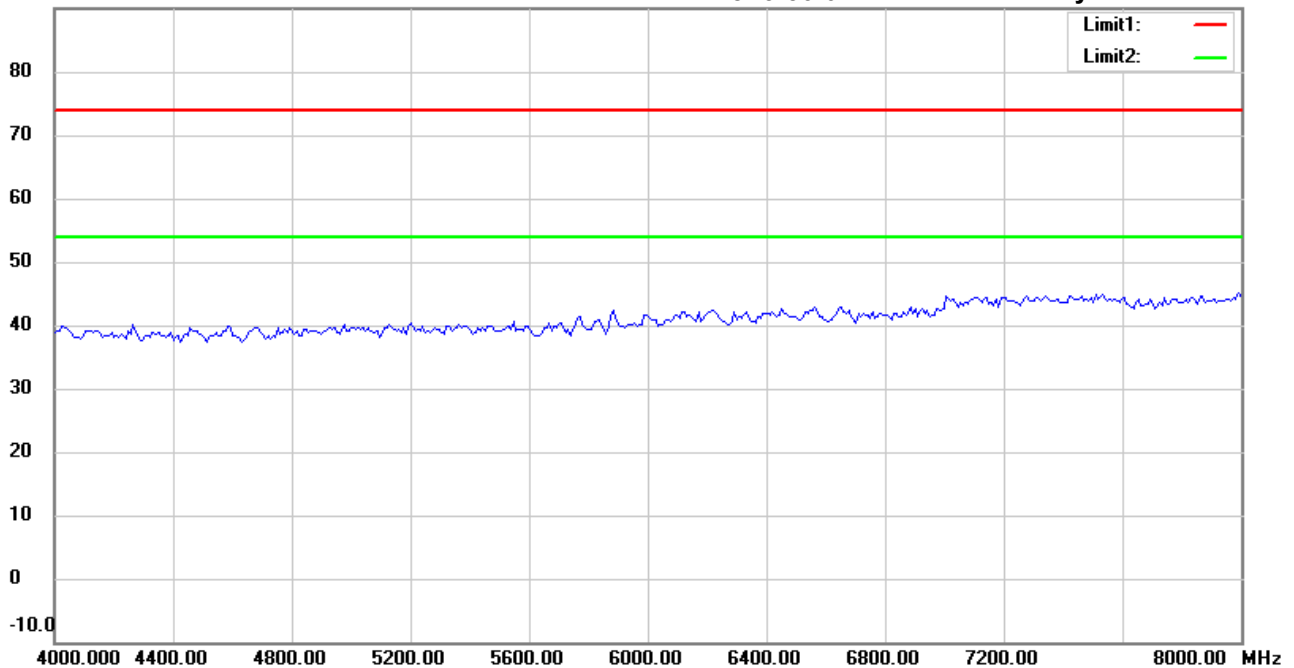
Date: 7/26/2019

Temperature: 29.1 °C

90.0 dBuV/m

Time: 3:56:01 AM

Humidity: 68.1 %



Site : Chamber

Condition : FCC\_part 15E RE\_Above 1GHz\_PK

EUT : W6M21905-19028

M/N:

Test Mode : TX 5839MHz

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



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# Radiated Emission Measurement

Operator: Allen

File : 3

Data : #3

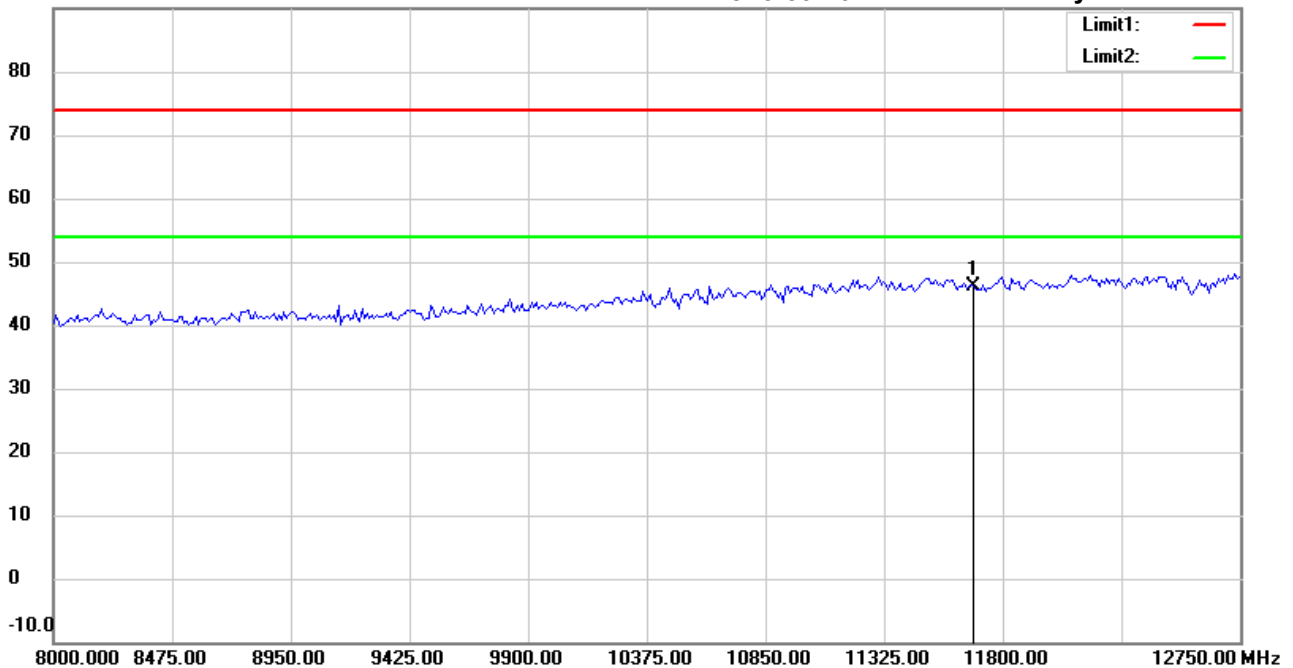
Date: 7/26/2019

Temperature: 29.1 °C

90.0 dBuV/m

Time: 3:53:46 AM

Humidity: 68.1 %



Site : Chamber

Condition : FCC\_part 15E RE\_Above 1GHz\_PK

EUT : W6M21905-19028

M/N:

Test Mode : TX 5839MHz

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 |
|-----|-----------------|----------------|----------|---------------------|-----------------|----------------|--------------|----------------|-------------|---------|
| *   | 11678.000       | 35.18          | peak     | 10.96               | 46.14           | 74.00          | 150          | 5              | -27.86      |         |

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



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# Radiated Emission Measurement

Operator: Allen

File : 3

Data : #9

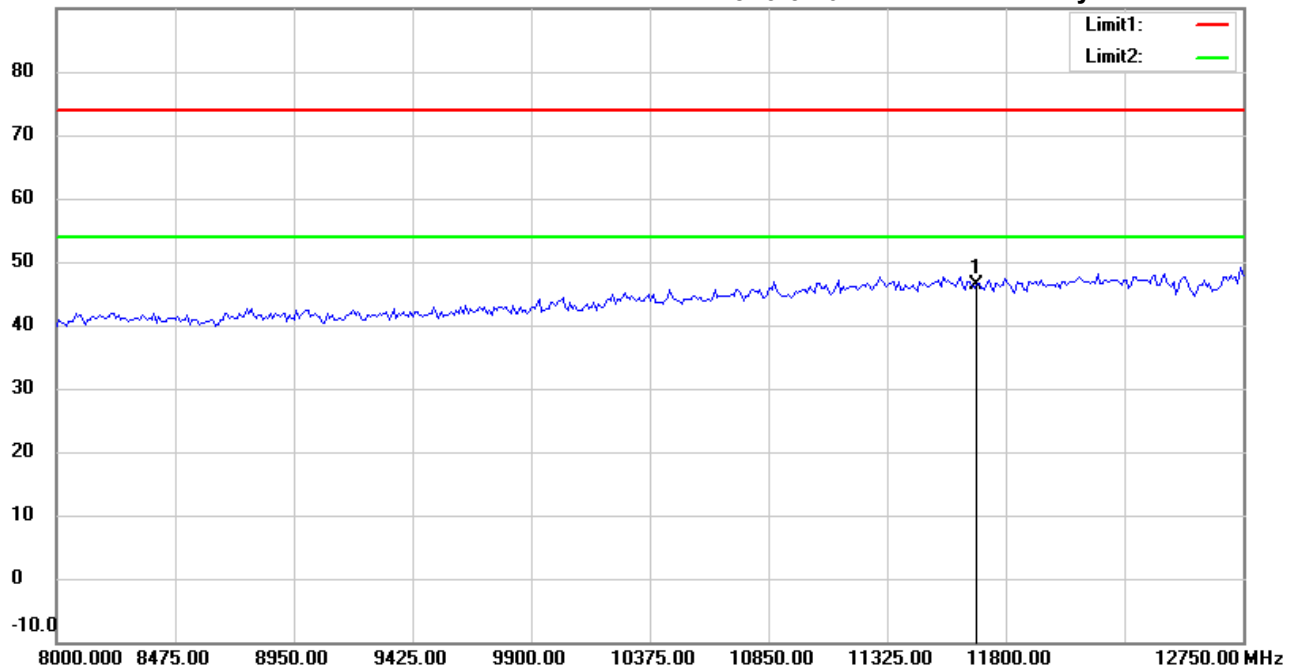
Date: 7/26/2019

Temperature: 29.1 °C

90.0 dBuV/m

Time: 3:57:02 AM

Humidity: 68.1 %



Site : Chamber

Condition : FCC\_part 15E RE\_Above 1GHz\_PK

EUT : W6M21905-19028

M/N:

Test Mode : TX 5839MHz

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 |
|-----|-----------------|----------------|----------|---------------------|-----------------|----------------|--------------|----------------|-------------|---------|
| *   | 11678.000       | 35.50          | peak     | 10.96               | 46.46           | 74.00          | 150          | 195            | -27.54      |         |

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



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# Radiated Emission Measurement

Operator: Allen

File :3

Data :#4

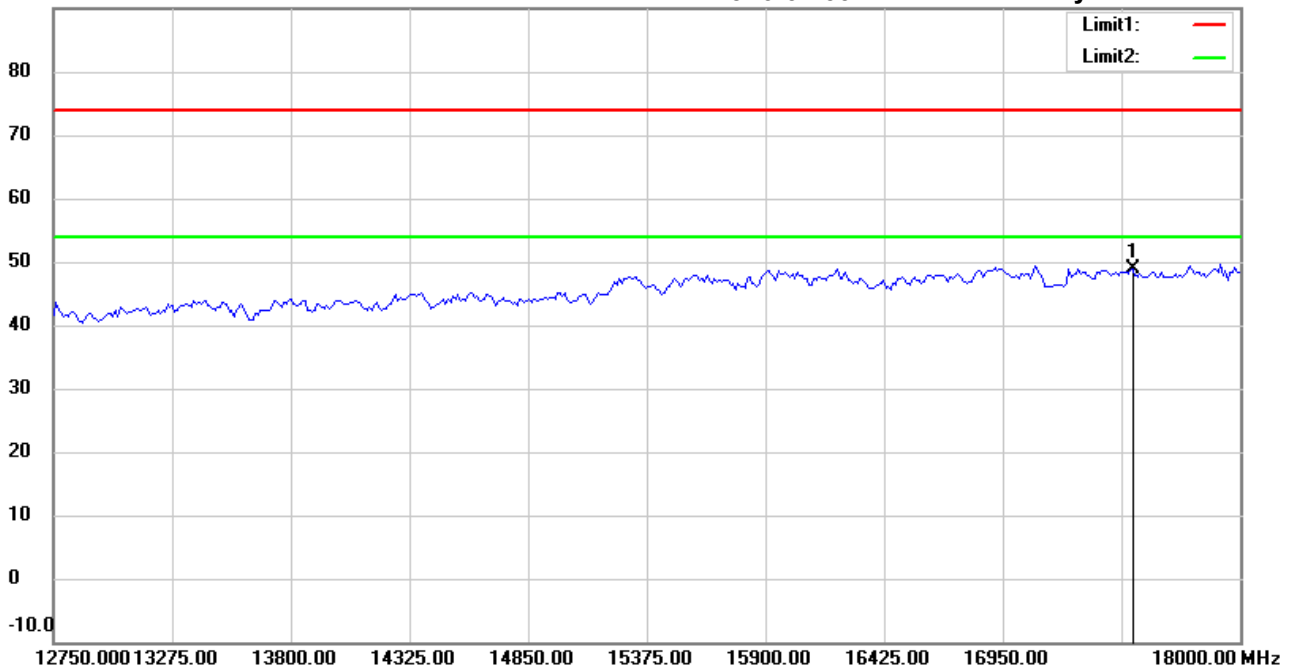
Date: 7/26/2019

Temperature: 29.1 °C

90.0 dBuV/m

Time: 3:54:55 AM

Humidity: 68.1 %



Site : Chamber

Condition : FCC\_part 15E RE\_Above 1GHz\_PK

EUT : W6M21905-19028

M/N:

Test Mode : TX 5839MHz

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 |
|-----|-----------------|----------------|----------|---------------------|-----------------|----------------|--------------|----------------|-------------|---------|
| *   | 17517.000       | 28.60          | peak     | 20.19               | 48.79           | 74.00          | 150          | 345            | -25.21      |         |

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



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Radiated Emission Measurement

Operator: Allen

File : 3

Data : #10

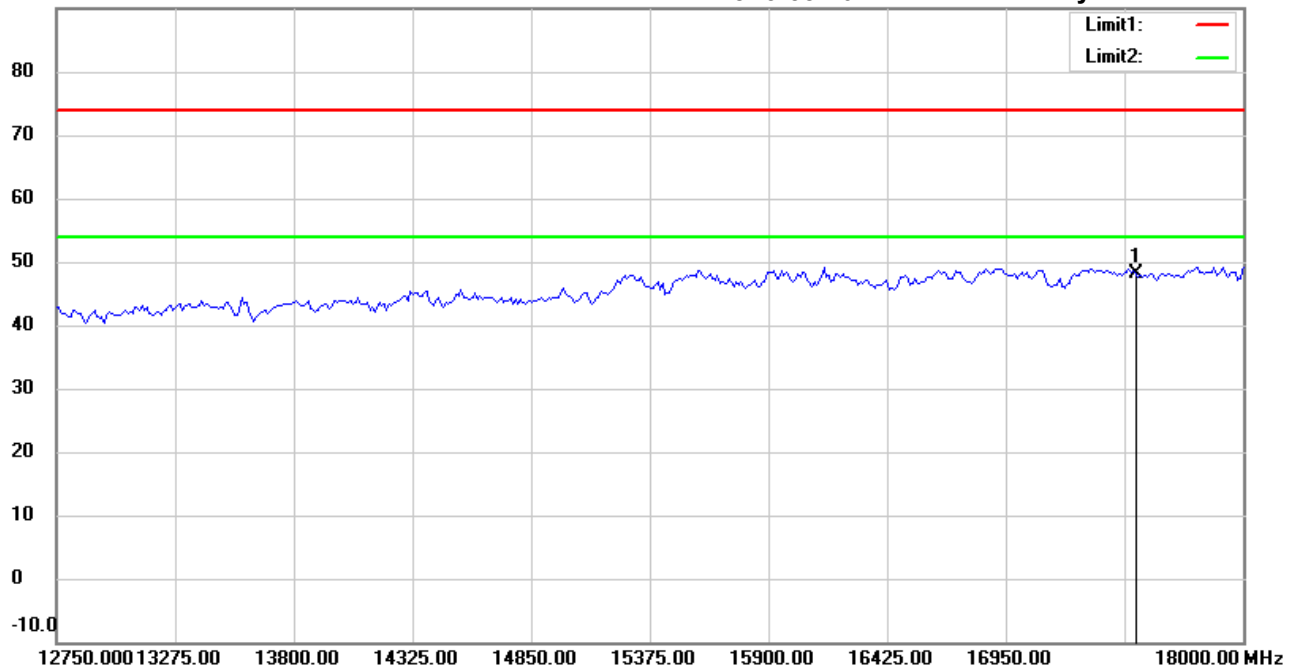
Date: 7/26/2019

Temperature: 29.1 °C

90.0 dBuV/m

Time: 3:58:10 AM

Humidity: 68.1 %



Site : Chamber

Condition : FCC\_part 15E RE\_Above 1GHz\_PK

EUT : W6M21905-19028

M/N:

Test Mode : TX 5839MHz

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 |
|-----|-----------------|----------------|----------|---------------------|-----------------|----------------|--------------|----------------|-------------|---------|
| *   | 17517.000       | 28.05          | peak     | 20.19               | 48.24           | 74.00          | 150          | 150            | -25.76      |         |

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



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Tel: +886-2-6606-8877  
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Radiated Emission Measurement

Operator: Allen

File : 3

Data : #5

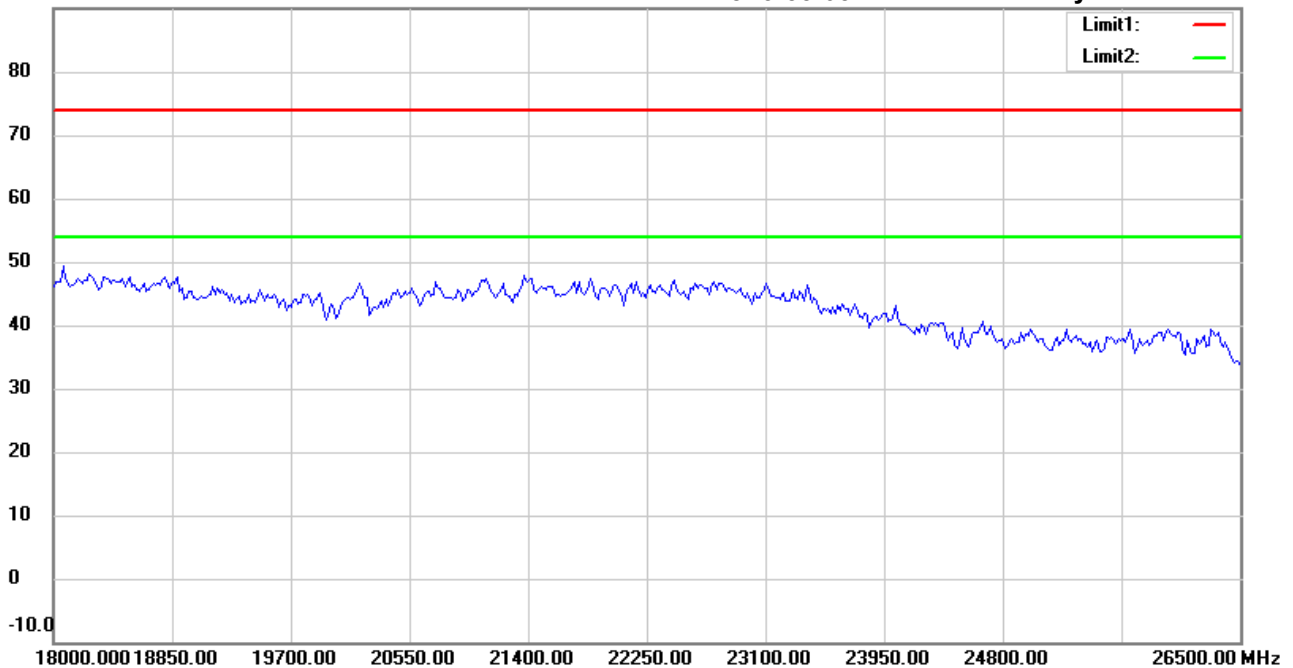
Date: 7/26/2019

Temperature: 29.1 °C

90.0 dBuV/m

Time: 3:55:05 AM

Humidity: 68.1 %



Site : Chamber

Condition : FCC\_part 15E RE\_Above 1GHz\_PK

EUT : W6M21905-19028

M/N:

Test Mode : TX 5839MHz

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



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# Radiated Emission Measurement

Operator: Allen

File :3

Data :#11

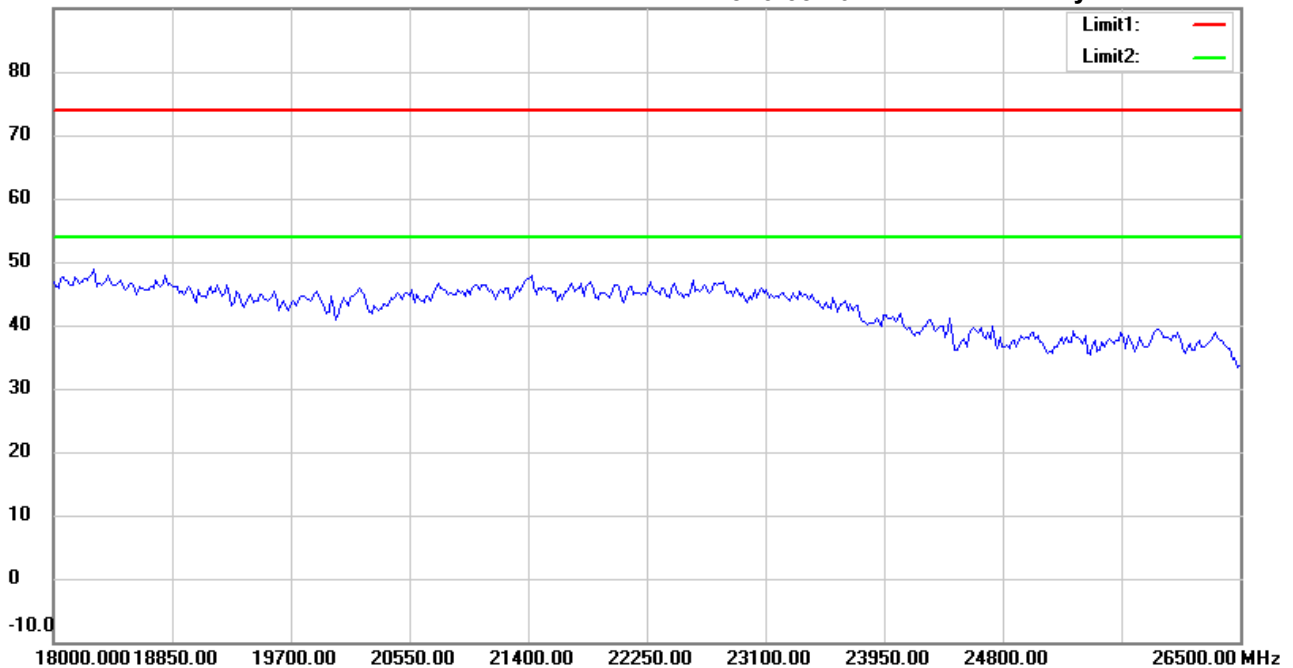
Date: 7/26/2019

Temperature:29.1 °C

90.0 dBuV/m

Time: 3:58:20 AM

Humidity:68.1 %



Site : Chamber

Condition : FCC\_part 15E RE\_Above 1GHz\_PK

EUT : W6M21905-19028

M/N:

Test Mode : TX 5839MHz

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



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# Radiated Emission Measurement

Operator: Allen

File : 3

Data : #6

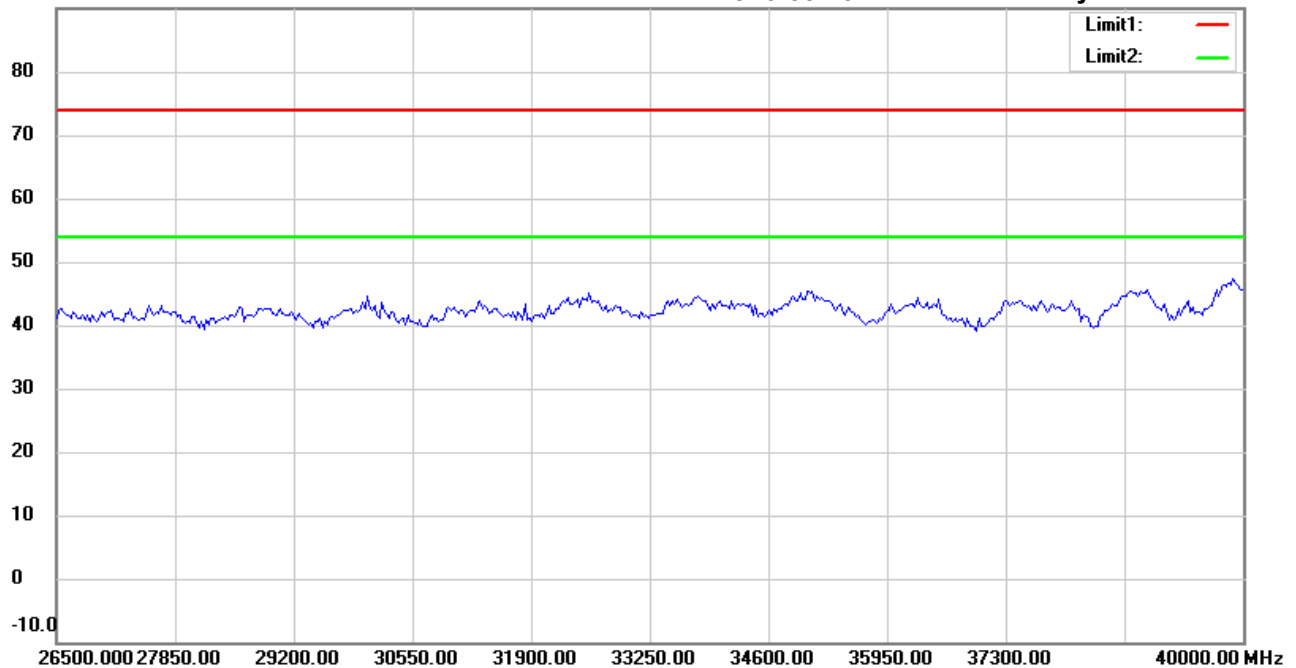
Date: 7/26/2019

Temperature: 29.1 °C

90.0 dBuV/m

Time: 3:55:15 AM

Humidity: 68.1 %



Site : Chamber

Condition : FCC\_part 15E RE\_Above 1GHz\_PK

EUT : W6M21905-19028

M/N:

Test Mode : TX 5839MHz

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



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# Radiated Emission Measurement

Operator: Allen

File :3

Data :#12

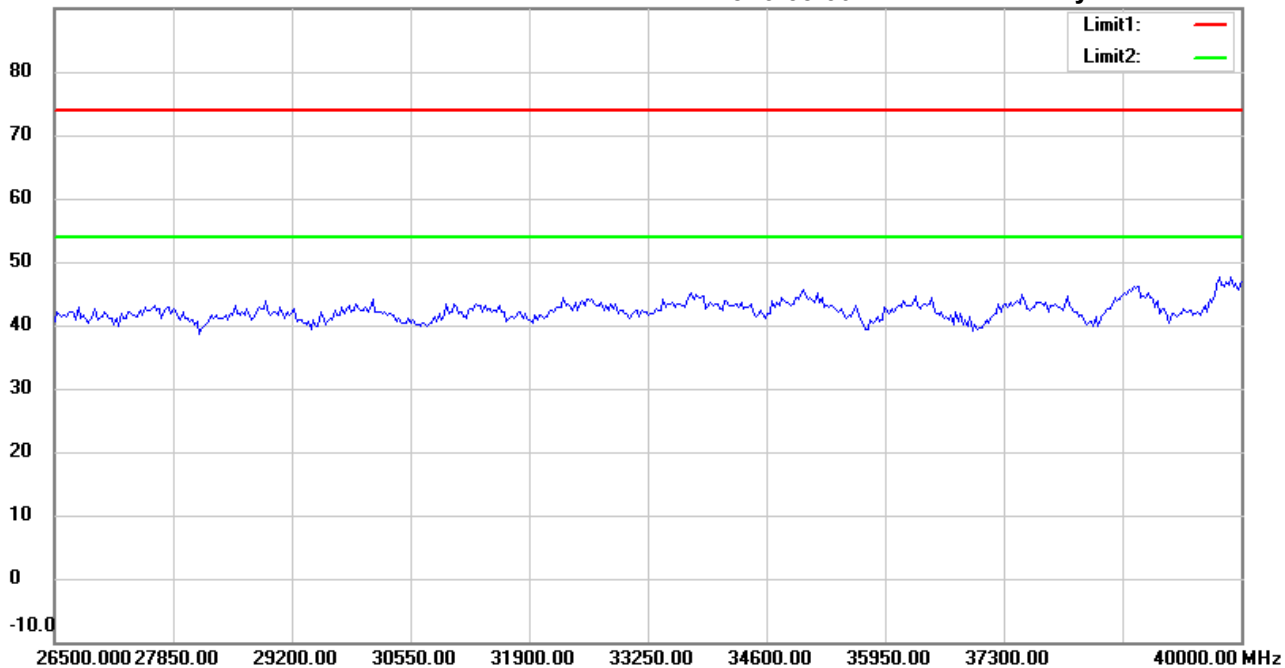
Date: 7/26/2019

Temperature:29.1 °C

90.0 dBuV/m

Time: 3:58:30 AM

Humidity:68.1 %



Site : Chamber

Condition : FCC\_part 15E RE\_Above 1GHz\_PK

EUT : W6M21905-19028

M/N:

Test Mode : TX 5839MHz

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: Rick

File : MASK

Data : #1

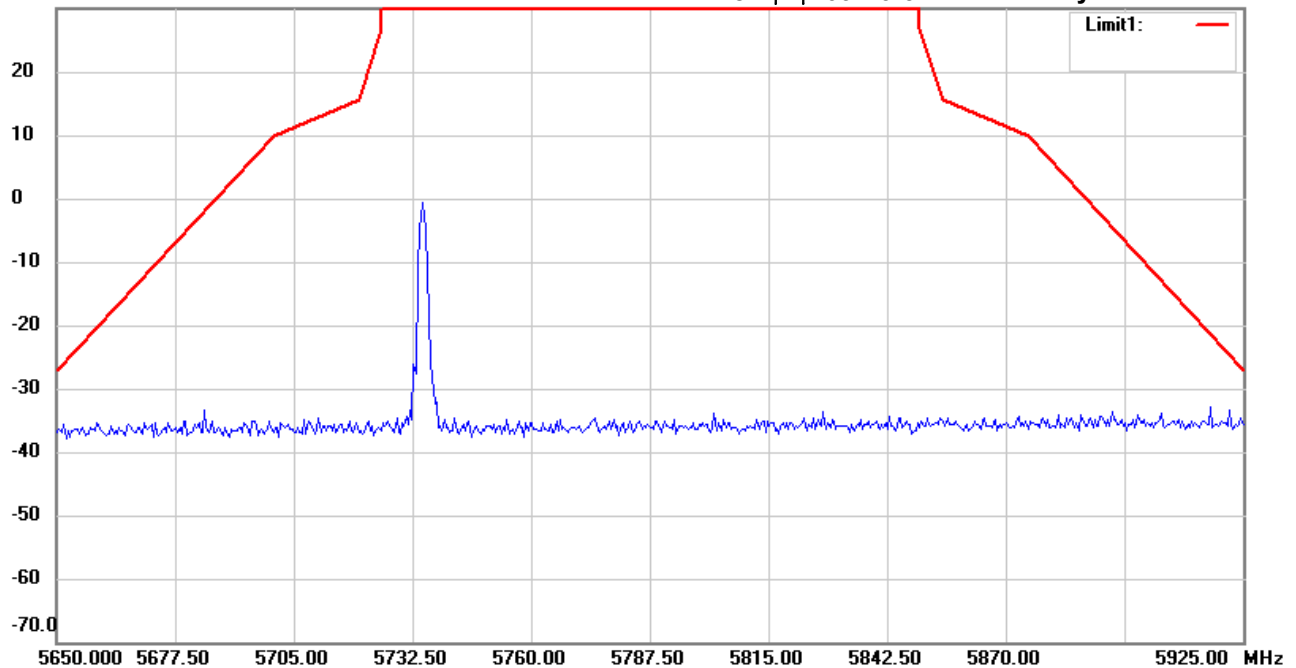
Date: 2019/5/28

Temperature: 24 °C

30.0 dBm

Time: 下午 09:26:32

Humidity: 60 %



Site : Chamber

Condition : FCC\_5G Band4 Mask

EUT : W6M21905-19028

M/N:

Test Mode : TX 5735MHz

Note :

Polarization: *Horizontal*

Power : 3.7 Vd.c.

Distance: 3m

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



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Radiated Emission Measurement

Operator: Rick

File : MASK

Data : #2

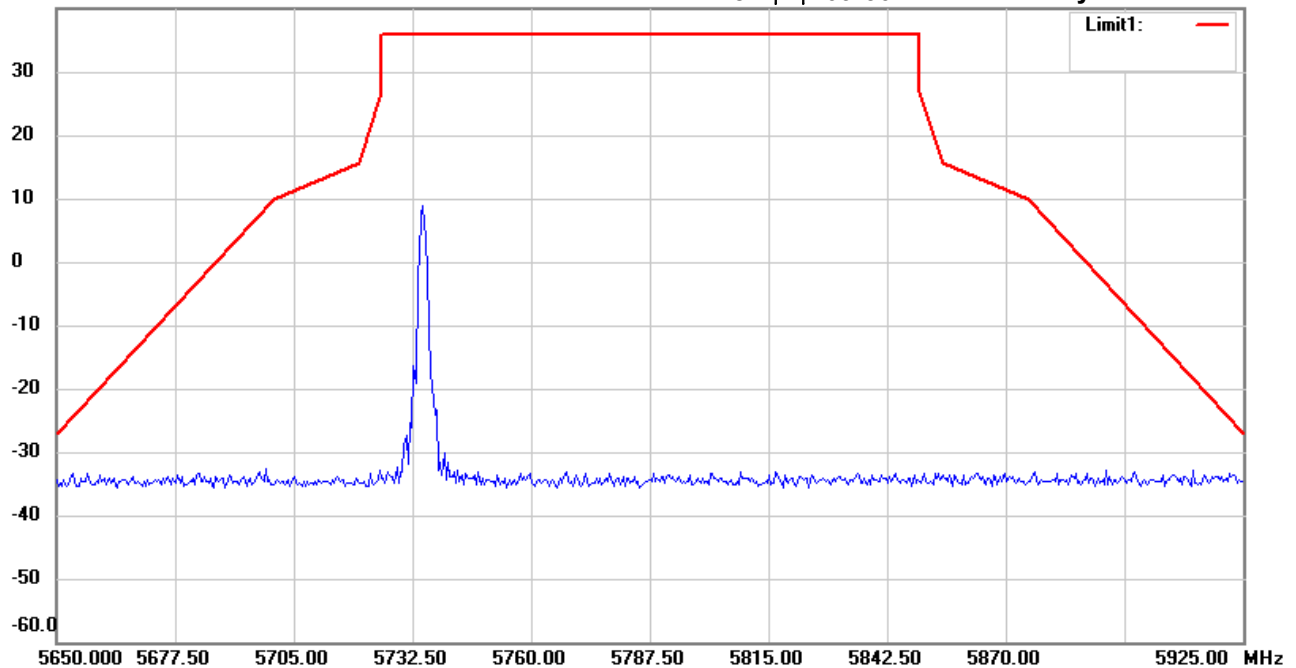
Date: 2019/5/28

Temperature: 24 °C

40.0 dBm

Time: 下午 09:30:22

Humidity: 60 %



Site : Chamber

Condition : FCC\_5G Band4 Mask

EUT : W6M21905-19028

M/N:

Test Mode : TX 5735MHz

Note :

Polarization: *Vertical*

Power : 3.7 Vd.c.

Distance: 3m

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

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



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Radiated Emission Measurement

Operator: Rick

File : MASK

Data : #3

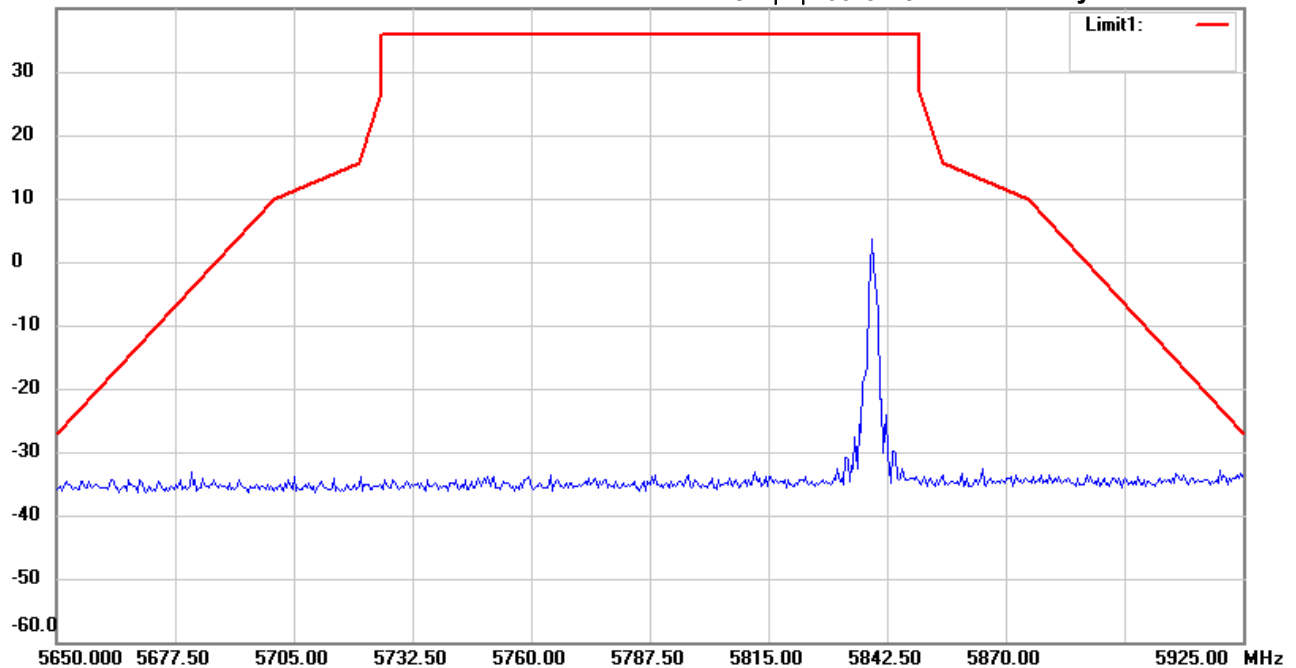
Date: 2019/5/28

Temperature: 24 °C

40.0 dBm

Time: 下午 09:32:32

Humidity: 60 %



Site : Chamber

Condition : FCC\_5G Band4 Mask

EUT : W6M21905-19028

M/N:

Test Mode : TX 5839MHz

Note :

Polarization: *Horizontal*

Power : 3.7 Vd.c.

Distance: 3m

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

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



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Radiated Emission Measurement

Operator: Rick

File : MASK

Data : #4

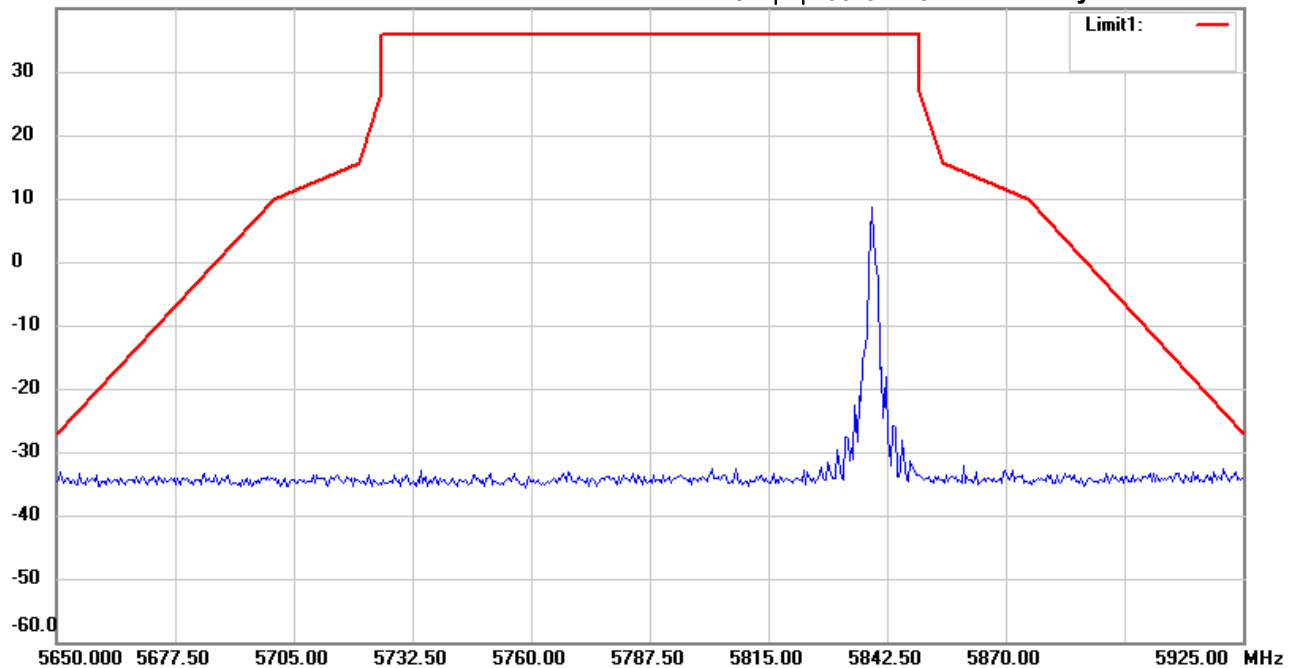
Date: 2019/5/28

Temperature: 24 °C

40.0 dBm

Time: 下午 09:34:18

Humidity: 60 %



Site : Chamber

Condition : FCC\_5G Band4 Mask

EUT : W6M21905-19028

M/N:

Test Mode : TX 5839MHz

Note :

Polarization: *Vertical*

Power : 3.7 Vd.c.

Distance: 3m

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

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