

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

**for**

**Panel PC**

**Model No.: TD-107XXXXXX (where "X" may be any alphanumeric, blank "\_" or "-" for marketing purpose only)**

**FCC ID: 2AF82-TD1070H**

**of**

**Applicant: QBIC TECHNOLOGY CO.,LTD**

**Address: 26F.-12,No.99,Sec.1,Xintai 5th Rd.,Xizhi Dist., New Taipei City  
Taiwan**

**Tested and Prepared**

**by**

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

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

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



**Report No.: W6M22203-21702-C-3**

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



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

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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.

Laboratory disclaimer-

1. The test results of this test report relate exclusively to the item tested as specified in 1.5.
2. The test report may only be reproduced or published in full.
3. Reproduction or publication of extracts from the report requires the prior written approval of the Worldwide Testing Services(Taiwan) Co., Ltd.

**Tester:**

June 15, 2022

Sora Kuo

Date

WTS-Lab.

Name

Signature

**Technical responsibility for area of testing:**

June 15, 2022

Kevin Wang

Date

WTS

Name

Signature



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

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## **1.2 Testing laboratory**

### **1.2.1 Location**

10m OATS

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

3 meter semi-anechoic chamber

No.35, Aly. 21, Ln. 228, Ankang Rd., Neihu Dist.,  
Taipei City 114, Taiwan (R.O.C.)  
Tel: 886-2-6613-0228

Worldwide Testing Services (Taiwan) Co., Ltd.

6F., No. 58, Ln. 188, Ruiguang Rd., Neihu Dist.,  
Taipei City 114, Taiwan (R.O.C.)  
Tel: 886-2-6606-8877

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

Accredited testing laboratory

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

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

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

|                    |     |
|--------------------|-----|
| Name:              | ./. |
| Accredited number: | ./. |
| Street:            | ./. |
| Town:              | ./. |
| Country:           | ./. |

## **1.3 Details of approval holder**

|          |                                                 |
|----------|-------------------------------------------------|
| Name:    | QBIC TECHNOLOGY CO.,LTD                         |
| Street:  | 26F.-12,No.99,Sec.1,Xintai 5th Rd.,Xizhi Dist., |
| Town:    | New Taipei City                                 |
| Country: | Taiwan                                          |



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## **1.4 Application details**

Date of receipt of test item: March 29, 2022

Date of test: From March 30, 2022 to June 01, 2022

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

Type of test item: Panel PC

Model number: TD-107XXXXXX (where "X" may be any alphanumeric, blank  
"\_" or "-" for marketing purpose only)

Multi-listing model number: ./.

Brand name: Qbic

Technical data

Transmitting frequency: 125 kHz

Operation modes: Duplex

Modulation type: ASK

Antenna type: Coil antenna

Power supply: Adaptor: (I/P: 100~240Va.c., 50~60Hz, 0.9A Max.  
O/P: 12Vd.c., 2.5A, 30.0W)

Sample no.: #01

### **Manufacturer: (if different from Approval Holder)**

Name: ./.

Street: ./.

Town: ./.

Country: ./.

Additional information: ./.

## **1.6 Test standards**

Technical standard :

47 CFR PART 15 SUBPART C § 15.209 (2020-10)



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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**

Relative humidity content: 20 ... 75 %

Air pressure: 86 ... 103 kPa

Details of power supply                      Adaptor: (I/P: 100~240Va.c., 50~60Hz, 0.9A Max.  
O/P: 12Vd.c., 2.5A, 30.0W)

Extreme conditions parameters:      test voltage : -- extreme  
min : -- V  
max : -- V

| Test item Name                                                                                                                                                                                         | Measurement Uncertainty                                                                                                |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| Estimation Result of Uncertainty of Conducted Emission<br>(Power Line Conducted Emission)                                                                                                              | Expanded Uncertainty :<br>AMN : 1.03 dB<br>Voltage probe : 1.05 dB                                                     |
| Estimation Result of Uncertainty of Radiated Emission(3M)<br>(Peak Output Power, Spurious Emissions radiated – Transmitter<br>operating, Radiated Emissions from Receiver Section of Receiver<br>Part) | Expanded Uncertainty :<br>0.009-30 MHz : 3.48 dB<br>30-1000 MHz : 4.48 dB<br>1-18 GHz : 4.15 dB<br>18-40 GHz : 3.78 dB |
| Estimation Result of Uncertainty of Bandwidth Measurement<br>(Occupied Bandwidth)                                                                                                                      | Expanded Uncertainty: 0.45 kHz                                                                                         |

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



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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          | 2021/6/17     | 2022/6/16      |
| 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          | 2021/11/9     | 2022/11/8      |
| ETSTW-CE 006 | IMPULSBEGRENZER<br>PULSE LIMITER                   | ESH3-Z2         | 100226      | R&S          | 2021/9/22     | 2022/9/21      |
| 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  | 2021/7/29     | 2022/7/28      |
| ETSTW-CE 016 | TWO-LINE V-NETWORK                                 | ENV216          | 100050      | R&S          | 2021/11/8     | 2022/11/7      |
| ETSTW-CE 028 | MXE EMI Receiver                                   | N9038A          | MY53220110  | Agilent      | 2021/7/28     | 2022/7/27      |
| ETSTW-RE 003 | EMI TEST RECEIVER                                  | ESI 26          | 831438/001  | R&S          | 2021/6/17     | 2022/6/16      |
| ETSTW-RE 004 | EMI TEST RECEIVER                                  | ESI 40          | 832427/004  | R&S          | 2021/9/28     | 2022/9/27      |
| 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           | 2021/8/4      | 2022/8/3       |
| ETSTW-RE 019 | MICROWAVE HORN<br>ANTENNA                          | 22240-25        | 121074      | FM           | 2022/5/20     | 2023/5/19      |
| ETSTW-RE 027 | Passive Loop Antenna                               | 6512            | 00034563    | ETS-Lindgren | 2021/6/16     | 2022/6/15      |
| ETSTW-RE 030 | Double-Ridged Guide Horn<br>Antenna                | 3117            | 00035224    | ETS-Lindgren | 2022/5/23     | 2023/5/22      |
| ETSTW-RE 042 | Biconical Antenna                                  | HK116           | 100172      | R&S          | 2022/3/4      | 2023/3/3       |
| ETSTW-RE 043 | Log-Periodic Dipole<br>Antenna                     | HL223           | 100166      | R&S          | 2022/5/20     | 2023/5/19      |
| ETSTW-RE 044 | Log-Periodic Antenna                               | HL050           | 100094      | R&S          | 2021/7/14     | 2022/7/13      |
| 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          | 2022/2/18     | 2023/2/17      |
| ETSTW-RE 051 | Attenuator 6dB                                     | 50HF-006-1      | None        | JFW          | 2022/2/18     | 2023/2/17      |
| ETSTW-RE 053 | Attenuator 3dB                                     | 50HF-003-1      | None        | JFW          | 2022/2/18     | 2023/2/17      |
| ETSTW-RE 055 | SPECTRUM ANALYZER                                  | FSU 26          | 200074      | R&S          | 2022/3/28     | 2023/3/27      |
| ETSTW-RE 060 | Attenuator 30dB                                    | 5015-30         | F651012z-01 | ATM          | 2022/2/18     | 2023/2/17      |
| ETSTW-RE 062 | Amplifier Module                                   | CHC 2           | None        | KMIC         | 2022/5/13     | 2023/5/12      |
| 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           | 2021/10/27    | 2022/10/26     |
| ETSTW-RE 088 | SOLID STATE<br>AMPLIFIER                           | KMA180265A01    | 99057       | KMIC         | 2021/9/17     | 2022/9/16      |
| ETSTW-RE 091 | Match Pad                                          | MDCS1500        | None        | WOKEN        | 2022/5/20     | 2023/5/19      |
| ETSTW-RE 099 | DC Block                                           | 50DB-007-1      | None        | JFW          | 2022/2/18     | 2023/2/17      |
| ETSTW-RE 112 | AC POWER SOURCE                                    | TFC-1005        | T-0A023536  | T-Power      | Function test |                |



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|                 |                                      |                                        |                 |                    |                  |            |
|-----------------|--------------------------------------|----------------------------------------|-----------------|--------------------|------------------|------------|
| ETSTW-RE 115    | 2.4GHz Notch Filter                  | N0124411                               | 473874          | MICROWAVE CIRCUITS | 2022/1/5         | 2023/1/4   |
| ETSTW-RE 120    | RF Player                            | MP9200                                 | MP9210-111022   | ADIVIC             | 2021/10/29       | 2022/10/28 |
| ETSTW-RE 122    | SIGNAL GENERATOR                     | SMF100A                                | 102149          | R&S                | 2022/6/3         | 2023/6/2   |
| ETSTW-RE 125    | 5GHz Notch filter                    | 5NSL11-5200/E221.3-O/O                 | 1               | K&L Microwave      | 2021/8/6         | 2022/8/5   |
| ETSTW-RE 126    | 5GHz Notch filter                    | 5NSL12-5800/E221.3-O/O                 | 1               | K&L Microwave      | 2021/8/6         | 2022/8/5   |
| ETSTW-RE 127    | RF Switch Box                        | RFS-01                                 | None            | WTS                | 2022/2/18        | 2023/2/17  |
| ETSTW-RE 128    | 5.3GHz Notch filter                  | N0153001                               | SN487233        | Microwave Circuits | 2021/8/6         | 2022/8/5   |
| ETSTW-RE 129    | 5.5GHz Notch filter                  | N0555984                               | SN487234        | Microwave Circuits | 2021/8/6         | 2022/8/5   |
| ETSTW-RE 130    | Handheld RF Spectrum Analyzer        | N9340A                                 | CN0147000204    | Agilent            | Pre-test Use     |            |
| ETSTW-RE 142    | Amplifier                            | 8447D                                  | 2805A03378      | Agilent            | 2022/5/13        | 2023/5/12  |
| ETSTW-RE 146    | Preamplifier                         | JPA-10MIG                              | 15090004        | JPT                | 2022/5/27        | 2023/5/26  |
| ETSTW-RE 152    | Bi-log Hybrid Antenna                | MCTD 2786B                             | BLB20J04029     | ETC                | 2021/10/5        | 2022/10/4  |
| ETSTW-RE 153    | Signal Analyzer                      | FSV40                                  | 101929          | R&S                | 2021/10/6        | 2022/10/5  |
| ETSTW-RE 159    | Bi-log Hybrid Antenna (30M~1000 MHz) | MCTD 2786B                             | BLB21N04035     | ETC                | 2021/12/06       | 2022/12/05 |
| ETSTW-RF 002    | Electromagnetic field probe          | LF-30                                  | K-0007          | STT                | 2021/7/19        | 2022/7/18  |
| ETSTW-EMI 011   | USB Compact Modulator                | SFC-U                                  | 101689          | R&S                | 2022/5/20        | 2023/5/19  |
| ETSTW-GSM 002   | Universal Radio Communication Tester | CMU 200                                | 109439          | R&S                | 2022/3/28        | 2023/3/27  |
| ETSTW-GSM 003   | Radio Communication Analyzer         | MT8820C                                | 6201342073      | Anritsu            | 2022/5/9         | 2023/5/8   |
| ETSTW-GSM 004   | Wideband Radio Communication Tester  | CMW500                                 | 128092          | R&S                | 2021/10/29       | 2022/10/28 |
| ETSTW-GSM 019   | Band Reject Filter                   | WRCTF824/849-822/851-40 /12+9SS        | 3               | WI                 | 2022/1/5         | 2023/1/4   |
| ETSTW-GSM 020   | Band Reject Filter                   | WRCD1747/1748-1743/1752-32/5SS         | 1               | WI                 | 2022/1/5         | 2023/1/4   |
| ETSTW-GSM 021   | Band Reject Filter                   | WRCD1879.5/1880.5-1875.5/1884.5-32/5SS | 3               | WI                 | 2022/1/5         | 2023/1/4   |
| ETSTW-GSM 022   | Band Reject Filter                   | WRCT901.9/903.1-904.25-50/8SS          | 1               | WI                 | 2022/1/5         | 2023/1/4   |
| ETSTW-GSM 023   | Power Divider                        | 4901.19.A                              | None            | SUHNER             | 2021/9/7         | 2022/9/6   |
| ETSTW-GSM 024   | Radio Communication Analyzer         | MT8821C                                | None            | Anritsu            | 2022/5/3         | 2023/5/2   |
| ETSTW-GSM 025   | Band Reject Filter                   | BRM19835                               | 001             | Micro-Tronics      | 2021/8/6         | 2022/8/5   |
| 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       | 2022/2/18        | 2023/2/17  |
| ETSTW-Cable 017 | BNC Cable                            | X Cable                                | B Cable 2       | Schwarz beck       | 2022/2/18        | 2023/2/17  |
| ETSTW-Cable 018 | BNC Cable                            | Y Cable                                | B Cable 3       | Schwarz beck       | 2022/2/18        | 2023/2/17  |
| ETSTW-Cable 019 | BNC Cable                            | Z Cable                                | B Cable 4       | Schwarz beck       | 2022/2/18        | 2023/2/17  |
| ETSTW-Cable 020 | N TYPE Cable                         | OATS Cable 1                           | N30N30-L335-15M | JYE BAO CO.,LTD.   | 2021/7/1         | 2022/6/30  |
| ETSTW-Cable 027 | Microwave Cable                      | SUCOFLEX 104                           | 279083          | HUBER+SUHNER       | 2022/5/6         | 2023/5/5   |
| ETSTW-Cable 028 | Microwave Cable                      | FA147A0015M2020                        | 30064-2         | UTIFLEX            | 2021/9/17        | 2022/9/16  |
| ETSTW-Cable 029 | Microwave Cable                      | FA147A0015M2020                        | 30064-3         | UTIFLEX            | 2021/9/17        | 2022/9/16  |
| ETSTW-Cable 030 | Microwave Cable                      | SUCOFLEX 104 (S_Cable 9)               | 279067          | HUBER+SUHNER       | 2022/2/18        | 2023/2/17  |



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|                 |                          |                       |          |              |                                       |            |
|-----------------|--------------------------|-----------------------|----------|--------------|---------------------------------------|------------|
| ETSTW-Cable 043 | Microwave Cable          | SUCOFLEX 104          | 317576   | HUBER+SUHNER | 2022/5/13                             | 2023/5/12  |
| ETSTW-Cable 047 | Microwave Cable          | SUCOFLEX 104          | 325518   | HUBER+SUHNER | 2021/7/2                              | 2022/7/1   |
| ETSTW-Cable 058 | Microwave Cable          | SUCOFLEX 104          | none     | HUBER+SUHNER | 2022/5/27                             | 2023/5/26  |
| ETSTW-Cable 064 | Microwave Cable          | SUCOFLEX 104          | MY28891  | HUBER+SUHNER | 2022/5/13                             | 2023/5/12  |
| ETSTW-Cable 071 | N TYPE CABLE             | EMCCFD400-NM-NM-25000 | 170239   | EMCI         | 2022/5/27                             | 2023/5/26  |
| ETSTW-Cable 072 | SMA type cable (8m)      | SUCOFLEX 104          | 805800/4 | HUBER+SUHNER | 2022/5/13                             | 2023/5/12  |
| ETSTW-Cable 074 | SMA type cable (2m)      | SUCOFLEX 104          | 802563/4 | HUBER+SUHNER | 2022/5/13                             | 2023/5/12  |
| WTSTW-SW 002    | EMI TEST SOFTWARE        | EZ EMC                | None     | Farad        | Version ETS-03A1<br>Version EMEC-3A1+ |            |
| WTSTW-SW 006    | EMI TEST SOFTWARE        | e3                    | None     | AUDIX        | Version 9.161014                      |            |
| WTSTW-SW 008    | Signal studio            | Agilent               | None     | AUDIX        | Version 2.0.0.1                       |            |
| ETSTW-TH 002    | Thermohygrometer         | 608-H1                | 45204317 | Testo        | 2021/10/18                            | 2022/10/17 |
| ETSTW-TH 003    | Wireless weather station | GAIA                  | N/A      | TFA          | 2021/10/18                            | 2022/10/17 |



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## **2.4 General Test Procedure**

**POWER LINE CONDUCTED INTERFERENCE:** The procedure used was ANSI STANDARD C63.10-2013 6.2 using a LISN (if necessary). Both lines were observed. The bandwidth of the spectrum analyzer was 10 kHz with an appropriate sweep speed.

**RADIATION INTERFERENCE:** The test procedure used was according to ANSI STANDARD C63.10-2013 6.3 employing a spectrum analyzer. For investigated frequency is equal to or below 1GHz, the RBW and VBW of the spectrum analyzer was 100 kHz and 100kHz respectively with an appropriate sweep speed. For investigated frequency is above 1GHz, both of RBW and VBW of the spectrum analyzer were 1 MHz with an appropriate sweep speed. The analyzer was calibrated in dB above a microvolt at the output of the antenna.

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

Example:

|            |                                                         |
|------------|---------------------------------------------------------|
| Freq (MHz) | METER READING + ACF + CABLE LOSS (to the receiver) = FS |
| 33         | 20 dBμV + 10.36 dB + 6 dB = 36.36 dBμV/m @3m            |

**ANSI STANDARD C63.10-2013 6.2.2 MEASUREMENT PROCEDURES:** The EUT was placed on a table 80 cm height and with dimensions of 1m by 1.5m (non metallic table). The EUT was placed in the centre of the table. The table used for radiated measurements is capable of continuous rotation. The spectrum was scanned from 30 MHz to 10<sup>th</sup> harmonic of the fundamental.

Peak readings were taken in three (3) orthogonal planes and the highest readings.

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

**ANSI STANDARD C63.10-2013 B.2.7:** Any measurements that utilize special test software shall be indicated and referenced in the test report. During testing, test software 'EZ EMC' was used for setting up different operation modes.



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

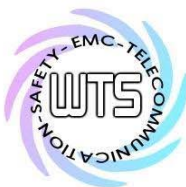
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### **3 Test results (enclosure)**

| Test case                                           | Para. Number | Required                            | Test passed                         | Test failed              |
|-----------------------------------------------------|--------------|-------------------------------------|-------------------------------------|--------------------------|
| Peak Output Power                                   | 15.209       | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Spurious Emissions radiated – Transmitter operating | 15.209       | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Spurious Emissions radiated – Receiver operating    | 15.109       | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Occupied bandwidth                                  | 2.1049       | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Antenna Requirement                                 | 15.203       | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Power Line Conducted Emission                       | 15.207       | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

The following is intentionally left blank.



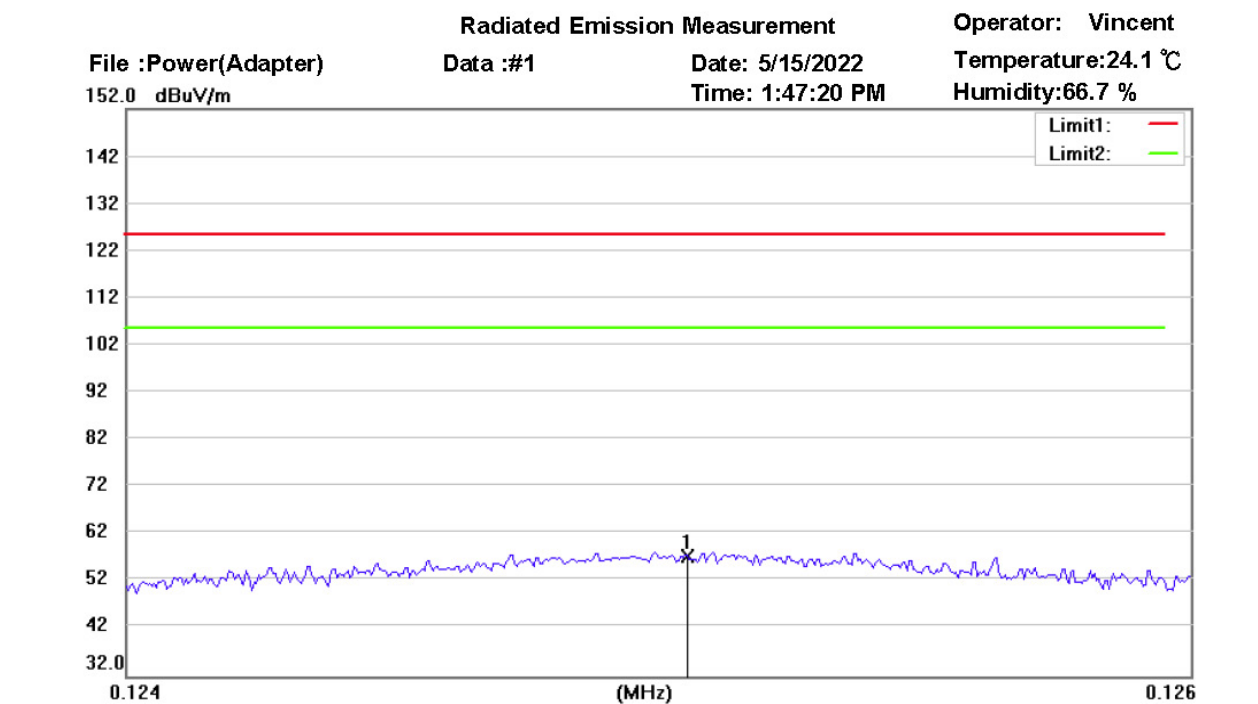
Registration number: W6M22203-21702-C-3

FCC ID: 2AF82-TD1070H

## 3.1 Peak Output Power

FCC Rules: 15.209

The power was measured with modulation (declared by the applicant).



Site : Chamber

Condition : FCC 15.209 power (3m)(125k)(PK)

EUT : W6M22203-21702

M/N:

Test Mode : TX 125kHz

Note :

Polarization:

Power : 120 Va.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 |
|-----|-----------------|----------------|----------|---------------------|-----------------|----------------|--------------|----------------|-------------|---------|
| *   | 0.1251          | -6.53          | peak     | 63.80               | 57.27           | 125.66         | 100          | 0              | -68.39      |         |



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

Registration number: W6M22203-21702-C-3

FCC ID: 2AF82-TD1070H

## Radiated Emission Measurement

Operator: Vincent

File :Power(POE)

Data :#1

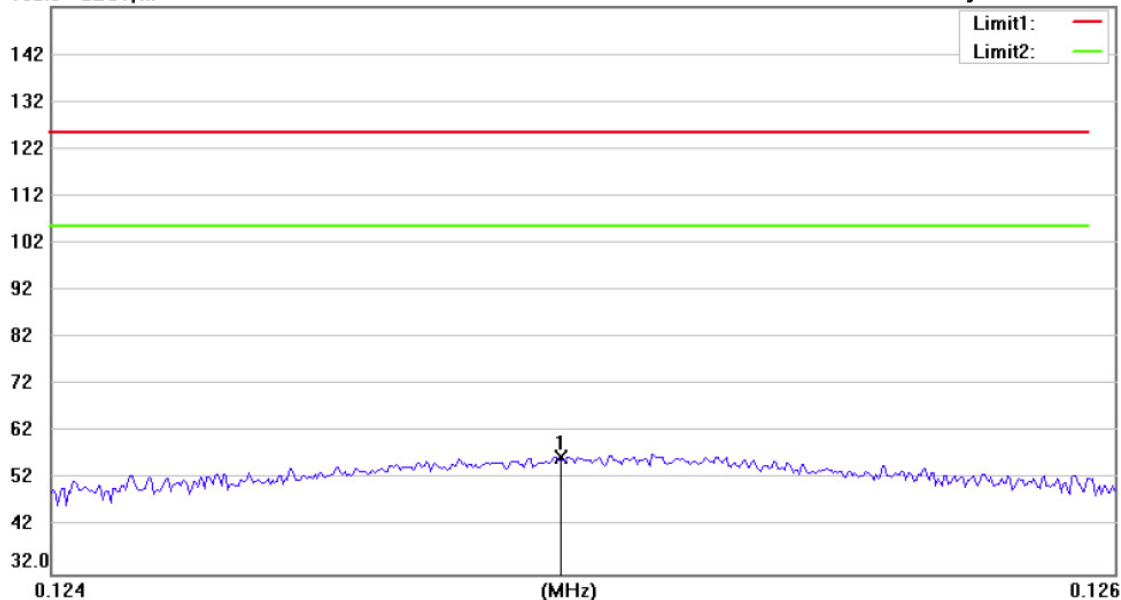
Date: 5/15/2022

Temperature:24.1 °C

152.0 dBuV/m

Time: 2:15:35 PM

Humidity:66.7 %



Site : Chamber

Condition : FCC 15.209 power (3m)(125k)(PK)

Polarization:

EUT : W6M22203-21702

Power : POE

M/N:

Distance: 3m

Test Mode : TX 125kHz

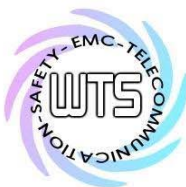
Note :

| 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 |
|-----|-----------------|----------------|----------|---------------------|-----------------|----------------|--------------|----------------|-------------|---------|
| *   | 0.1250          | -7.17          | peak     | 63.81               | 56.64           | 125.66         | 100          | 0              | -69.02      |         |

:

Limits: 15.209

| Frequency of Emission (MHz) | Field Strength of Fundamental Limit uV/m | Measurement distance |
|-----------------------------|------------------------------------------|----------------------|
| 0.009 – 0.490               | 2400 / f (KHz)                           | 300                  |
| 0.49 – 1.705                | 24000 / f (KHz)                          | 30                   |
| 1.705 – 30                  | 30                                       | 30                   |
| 30 – 88                     | 100                                      | 3                    |
| 88 – 216                    | 150                                      | 3                    |
| 216 – 960                   | 200                                      | 3                    |
| Above 960                   | 500                                      | 3                    |



Registration number: W6M22203-21702-C-3

FCC ID: 2AF82-TD1070H

The test was performed in the anechoic OATS at 3 meter test distance, i.e. the distance between measuring antenna and EUT boundary. The results were extrapolated by using the square of an inverse linear distance factor DF:

DF (distance factor) =  $40 \log (D_1/D_2) = 80 \text{ dB}$ , where

D<sub>1</sub> is the 300 meter specified measurement distance,

D<sub>2</sub> is the 3 meter test measurement distance.

For 125 kHz frequency the calculated limit is:

$\text{Limit}_{3\text{m}} = \text{Limit}_{300\text{m}} + \text{DF} = 45.66 \text{ dBuV/m} + 80 \text{ dB} = 125.66 \text{ dBuV/m}$

Test equipment used: ETSTW-RE 004, ETSTW-RE 027, ETSTW-RE 055.



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

Registration number: W6M22203-21702-C-3

FCC ID: 2AF82-TD1070H

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

FCC Rules: 15.209

The field strength of any emission appearing outside of the specific band shall not exceed the general radiated emission limits in 15.209.

Model: TD-107XXXXXX (where "X" may be any alphanumeric, blank " " or "-" for marketing purpose only)

Date: --

Mode: --

Temperature: -- °C

Engineer: --

Polarization: --

Humidity: -- %

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

Polarization: Vertical

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

### **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. **See attached diagrams in the Appendix.**

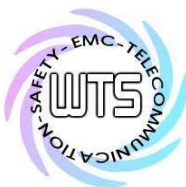
All other not noted test plots do not contain significant test results in relation to the limits.

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

Limits: 15.209

| Frequency of Emission (MHz) | Field Strength of Fundamental Limit uV/m | Measurement distance |
|-----------------------------|------------------------------------------|----------------------|
| 0.009 – 0.490               | 2400 / f (KHz)                           | 300                  |
| 0.49 – 1.705                | 24000 / f (KHz)                          | 30                   |
| 1.705 – 30                  | 30                                       | 30                   |
| 30 – 88                     | 100                                      | 3                    |
| 88 – 216                    | 150                                      | 3                    |
| 216 – 960                   | 200                                      | 3                    |
| Above 960                   | 500                                      | 3                    |

\* In the emission table above, the tighter limit applies at the band edges.



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

Registration number: W6M22203-21702-C-3

FCC ID: 2AF82-TD1070H

The test was performed in the anechoic chamber at 3 meter test distance, i.e. the distance between measuring antenna and EUT boundary. The results were extrapolated by using the square of an inverse linear distance factor DF:

$$DF = 40 \log (D_1/D_2) = 80 \text{ dB, where}$$

For  $D_1$  is the 300 meter specified measurement distance.

$D_2$  is the 3 meter test measurement distance.

The DF = 80 dB was applied for limit calculation at 3 meter test distance measurements.

For  $D_1$  is the 30 meter specified measurement distance.

$D_2$  is the 3 meter test measurement distance.

The DF = 40 dB was applied for limit calculation at 3 meter test distance measurements.

If the frequency between 9 – 490 kHz,

$$\text{Limit} = 20\log(2400/f(\text{kHz})) + 80$$

If the frequency between 490 – 1705 kHz,

$$\text{Limit} = 20\log(2400/f(\text{kHz})) + 40$$

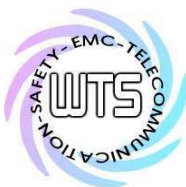
If the frequency between 1705 – 30000 kHz,

$$\text{Limit} = 20\log 30 + 40$$

For 125 kHz frequency the calculated limit is:

$$\text{Limit}_{3\text{m}} = \text{Limit}_{300\text{m}} + DF = 45.66 \text{ dBuV/m} + 80 \text{ dB} = 125.66 \text{ dBuV/m}$$

Test equipment used: ETSTW-RE 004, ETSTW-RE 027, ETSTW-RE 055,  
ETSTW-RE 146, ETSTW-RE 159



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

Registration number: W6M22203-21702-C-3

FCC ID: 2AF82-TD1070H

## **3.3 Occupied Bandwidth**

FCC Rules: 2.1049

The occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated are each equal to 0.5% of the total mean power radiated by a given emission.

The resolution bandwidth of the spectrum analyzer shall be set to a value greater than 5.0% of the allowed bandwidth specifications are given, the following guidelines are used:

| Fundamental frequency | Minimum resolution bandwidth |
|-----------------------|------------------------------|
| 9 kHz to 30 MHz       | 1 kHz                        |
| 30 MHz to 1000 MHz    | 10 kHz                       |
| 1000 MHz to 40 GHz    | 100 kHz                      |

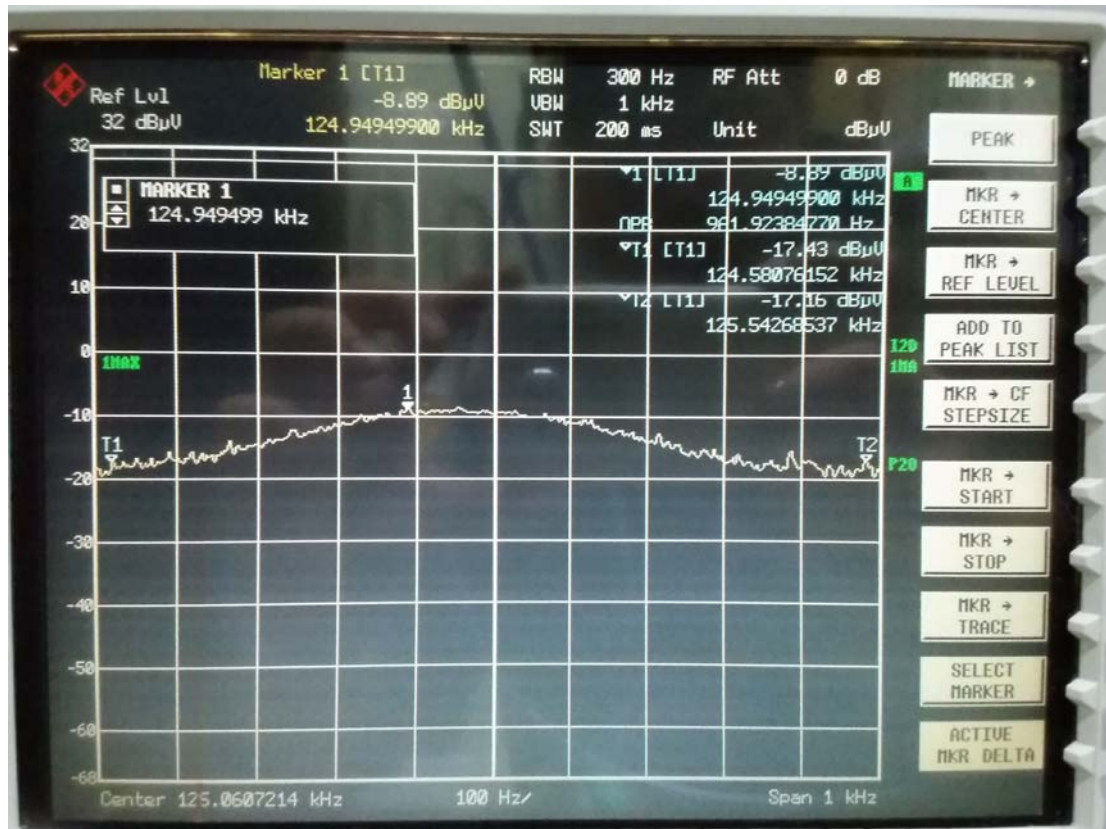
Test date: May 20, 2022

Temperature: 24.6 °C

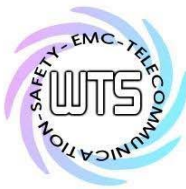
Humidity: 56.0 %

Tester: Sora

## **Test result:**



Test equipment: ETSTW-RE 055



Registration number: W6M22203-21702-C-3

FCC ID: 2AF82-TD1070H

### **3.4 Antenna requirement**

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of Sections 15.211, 15.213, 15.217, 15.219, or 15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with Section 15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this Part are not exceeded.

Explanation: This antenna is Coil antenna which passes antenna requirement.

|                                      |                                            |                                |
|--------------------------------------|--------------------------------------------|--------------------------------|
| The equipment meets the requirements | yes<br><input checked="" type="checkbox"/> | no<br><input type="checkbox"/> |
|--------------------------------------|--------------------------------------------|--------------------------------|



Registration number: W6M22203-21702-C-3

FCC ID: 2AF82-TD1070H

## **3.5 Radiated Emissions from Receiver Section of Receiver Part**

**For the frequency from 9 kHz to 30 MHz:**

FCC Rule: 15.209

The field strength of any emission appearing outside of the specific band shall not exceed the general radiated emission limits in 15.209.

| Frequency of Emission (MHz) | Field Strength of Fundamental Limit uV/m | Measurement distance |
|-----------------------------|------------------------------------------|----------------------|
| 0.009 – 0.490               | 2400 / f (KHz)                           | 300                  |
| 0.49 – 1.705                | 24000 / f (KHz)                          | 30                   |
| 1.705 – 30                  | 30                                       | 30                   |
| 30 – 88                     | 100                                      | 3                    |
| 88 – 216                    | 150                                      | 3                    |
| 216 – 960                   | 200                                      | 3                    |
| Above 960                   | 500                                      | 3                    |

\* In the emission table above, the tighter limit applies at the band edges.

Note: The above field strength limits are specified at a distance of 3 meters.

The test was performed in the anechoic chamber at 3 meter test distance, i.e. the distance between measuring antenna and EUT boundary. The results were extrapolated by using the square of an inverse linear distance factor DF:

$DF = 40 \log (D_1/D_2) = 80 \text{ dB}$ , where

For  $D_1$  is the 300 meter specified measurement distance.

$D_2$  is the 3 meter test measurement distance.

The  $DF = 80 \text{ dB}$  was applied for limit calculation at 3 meter test distance measurements.

For  $D_1$  is the 30 meter specified measurement distance.

$D_2$  is the 3 meter test measurement distance.

The  $DF = 40 \text{ dB}$  was applied for limit calculation at 3 meter test distance measurements.

If the frequency between 9 – 490 kHz,  $\text{limit} = 20\log(2400/f(\text{kHz})) + 80$

If the frequency between 490 – 1705 kHz,  $\text{limit} = 20\log(2400/f(\text{kHz})) + 40$

If the frequency between 1705 – 30000 kHz,  $\text{limit} = 20\log 30 + 40$

For 125 kHz frequency the calculated limit is:

$\text{Limit}_{3m} = \text{Limit}_{300m} + DF = 35.5\text{dBuV/m} + 80 \text{ dB} = 115.5 \text{ dBuV/m}$

Test equipment used: ETSTW-RE 004, ETSTW-RE 027, ETSTW-RE 055, ETSTW-RE 146,  
ETSTW-RE 159



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

Registration number: W6M22203-21702-C-3

FCC ID: 2AF82-TD1070H

**For the frequency from 30 MHz to 1000 MHz.:**

FCC Rule: 15.109

Except for Class A digital devices, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:

| Frequency of Emission<br>(MHz) | Field Strength<br>(microvolts/meter) | Field Strength<br>(dBmicrovolts/meter) |
|--------------------------------|--------------------------------------|----------------------------------------|
| 30 – 88                        | 100                                  | 40.0                                   |
| 88 – 216                       | 150                                  | 43.5                                   |
| 216 – 960                      | 200                                  | 46.0                                   |
| Above 960                      | 500                                  | 54.0                                   |

TD-107XXXXXX (where "X"

Model: may be any alphanumeric,  
blank " " or "-" for marketing  
purpose only)

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) |
|--------------------|-------------------|----------|----------------|--------------------|-------------------|----------------|---------------------------|----------------------|
| --                 | --                | --       | --             | --                 | --                | --             | --                        | --                   |
| --                 | --                | --       | --             | --                 | --                | --             | --                        | --                   |

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) |
|--------------------|-------------------|----------|----------------|--------------------|-------------------|----------------|---------------------------|----------------------|
| --                 | --                | --       | --             | --                 | --                | --             | --                        | --                   |
| --                 | --                | --       | --             | --                 | --                | --             | --                        | --                   |

Test equipment used: ETSTW-RE 004, ETSTW-RE 030, ETSTW-RE 062, ETSTW-RE 064,  
ETSTW-RE 142, ETSTW-RE 152

## **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. See attached diagrams in appendix.**



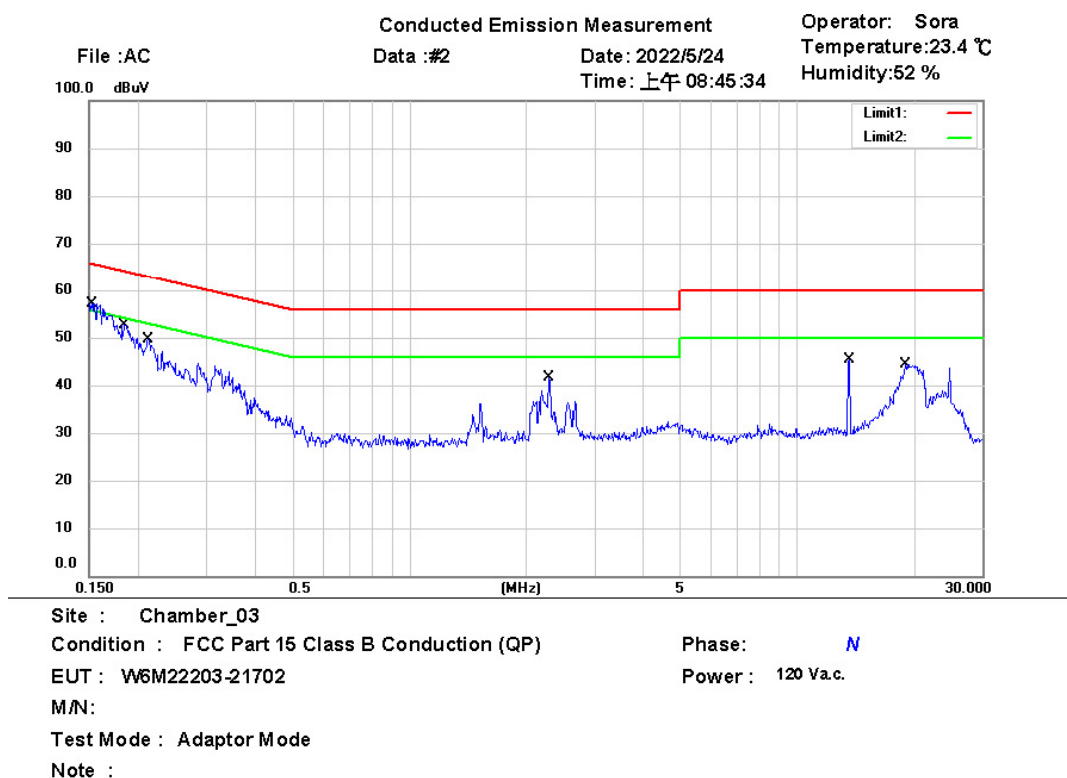
Registration number: W6M22203-21702-C-3

FCC ID: 2AF82-TD1070H

## 3.6 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 |
|-----|-----------------|----------------|----------|----------------------|---------------|--------------|-------------|---------|
|     | 0.1520          | 39.11          | QP       | 9.61                 | 48.72         | 65.89        | -17.17      |         |
|     | 0.1520          | 21.15          | AVG      | 9.61                 | 30.76         | 55.89        | -25.13      |         |
|     | 0.1840          | 36.89          | QP       | 9.61                 | 46.50         | 64.30        | -17.80      |         |
|     | 0.1840          | 20.94          | AVG      | 9.61                 | 30.55         | 54.30        | -23.75      |         |
|     | 0.2120          | 32.31          | QP       | 9.60                 | 41.91         | 63.13        | -21.22      |         |
|     | 0.2120          | 17.54          | AVG      | 9.60                 | 27.14         | 53.13        | -25.99      |         |
| *   | 2.2820          | 29.84          | QP       | 9.78                 | 39.62         | 56.00        | -16.38      |         |
|     | 2.2820          | 19.65          | AVG      | 9.78                 | 29.43         | 46.00        | -16.57      |         |
|     | 13.5750         | 11.51          | QP       | 10.15                | 21.66         | 60.00        | -38.34      |         |
|     | 13.5750         | 3.24           | AVG      | 10.15                | 13.39         | 50.00        | -36.61      |         |
|     | 19.0162         | 26.64          | QP       | 10.27                | 36.91         | 60.00        | -23.09      |         |
|     | 19.0162         | 19.18          | AVG      | 10.27                | 29.45         | 50.00        | -20.55      |         |



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

Registration number: W6M22203-21702-C-3

FCC ID: 2AF82-TD1070H

Conducted Emission Measurement

Data :#1

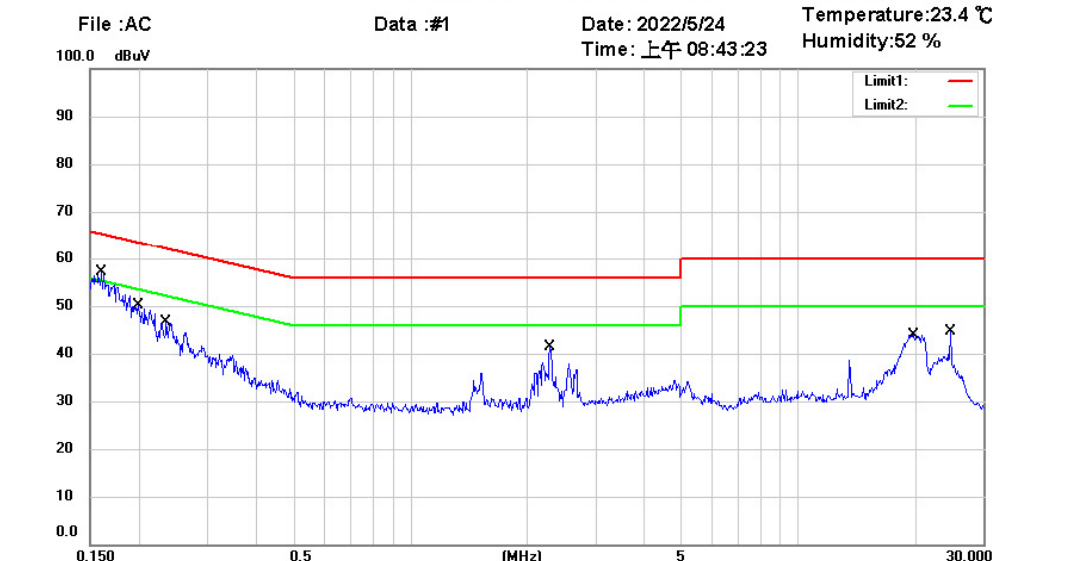
Date: 2022/5/24

Time: 上午 08:43:23

Operator: Sora

Temperature:23.4 °C

Humidity:52 %



Site : Chamber\_03

Condition : FCC Part 15 Class B Conduction (QP)

EUT : W6M22203-21702

M/N:

Test Mode : Adaptor Mode

Note :

Phase: L1

Power : 120 V.a.c.

| Mk. | Frequency (MHz) | Reading (dBuV) | Detector | Corrected factor(dB) | Result (dBuV) | Limit (dBuV) | Margin (dB) | Comment |
|-----|-----------------|----------------|----------|----------------------|---------------|--------------|-------------|---------|
|     | 0.1602          | 41.49          | QP       | 9.62                 | 51.11         | 65.45        | -14.34      |         |
|     | 0.1602          | 24.05          | AVG      | 9.62                 | 33.67         | 55.45        | -21.78      |         |
|     | 0.1995          | 31.04          | QP       | 9.62                 | 40.66         | 63.63        | -22.97      |         |
|     | 0.1995          | 10.89          | AVG      | 9.62                 | 20.51         | 53.63        | -33.12      |         |
|     | 0.2352          | 27.60          | QP       | 9.59                 | 37.19         | 62.26        | -25.07      |         |
|     | 0.2352          | 10.52          | AVG      | 9.59                 | 20.11         | 52.26        | -32.15      |         |
|     | 2.2843          | 28.19          | QP       | 9.76                 | 37.95         | 56.00        | -18.05      |         |
|     | 2.2843          | 18.13          | AVG      | 9.76                 | 27.89         | 46.00        | -18.11      |         |
|     | 19.8011         | 26.80          | QP       | 10.11                | 36.91         | 60.00        | -23.09      |         |
|     | 19.8011         | 18.87          | AVG      | 10.11                | 28.98         | 50.00        | -21.02      |         |
|     | 24.5750         | 32.52          | QP       | 10.16                | 42.68         | 60.00        | -17.32      |         |
| *   | 24.5750         | 26.57          | AVG      | 10.16                | 36.73         | 50.00        | -13.27      |         |



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

Registration number: W6M22203-21702-C-3

FCC ID: 2AF82-TD1070H

Conducted Emission Measurement

Data :#8

Date: 2022/5/24

Time: 上午 09:49:56

Operator: Sora

Temperature: 23.4 °C

Humidity: 52 %



Site : Chamber\_03

Condition : FCC Part 15 Class B Conduction (QP)

EUT : W6M22203-21702

M/N:

Test Mode : POE Mode

Note :

Phase: N

Power : 120 V.a.c.

| Mk. | Frequency (MHz) | Reading (dBuV) | Detector | Corrected factor(dB) | Result (dBuV) | Limit (dBuV) | Margin (dB) | Comment |
|-----|-----------------|----------------|----------|----------------------|---------------|--------------|-------------|---------|
|     | 0.1586          | 34.61          | QP       | 9.61                 | 44.22         | 65.54        | -21.32      |         |
|     | 0.1586          | 27.74          | AVG      | 9.61                 | 37.35         | 55.54        | -18.19      |         |
|     | 0.4150          | 34.83          | QP       | 9.45                 | 44.28         | 57.55        | -13.27      |         |
|     | 0.4150          | 13.81          | AVG      | 9.45                 | 23.26         | 47.55        | -24.29      |         |
|     | 0.5225          | 33.06          | QP       | 9.49                 | 42.55         | 56.00        | -13.45      |         |
|     | 0.5225          | 22.86          | AVG      | 9.49                 | 32.35         | 46.00        | -13.65      |         |
|     | 0.8667          | 31.47          | QP       | 9.63                 | 41.10         | 56.00        | -14.90      |         |
|     | 0.8667          | 19.21          | AVG      | 9.63                 | 28.84         | 46.00        | -17.16      |         |
|     | 12.1942         | 38.41          | QP       | 10.11                | 48.52         | 60.00        | -11.48      |         |
| *   | 12.1942         | 36.59          | AVG      | 10.11                | 46.70         | 50.00        | -3.30       |         |
|     | 13.4430         | 38.16          | QP       | 10.14                | 48.30         | 60.00        | -11.70      |         |
|     | 13.4430         | 35.57          | AVG      | 10.14                | 45.71         | 50.00        | -4.29       |         |



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

Registration number: W6M22203-21702-C-3  
FCC ID: 2AF82-TD1070H

Conducted Emission Measurement

Data :#7

Date: 2022/5/24

Time: 上午 09:46:32

Operator: Sora

Temperature:23.4 °C

Humidity:52 %



Site : Chamber\_03

Condition : FCC Part 15 Class B Conduction (QP)

EUT : W6M22203-21702

M/N:

Test Mode : POE Mode

Note :

Phase: L1

Power : 120 V.a.c.

| Mk. | Frequency (MHz) | Reading (dBuV) | Detector | Corrected factor(dB) | Result (dBuV) | Limit (dBuV) | Margin (dB) | Comment |
|-----|-----------------|----------------|----------|----------------------|---------------|--------------|-------------|---------|
|     | 0.1668          | 43.21          | QP       | 9.62                 | 52.83         | 65.12        | -12.29      |         |
|     | 0.1668          | 23.45          | AVG      | 9.62                 | 33.07         | 55.12        | -22.05      |         |
|     | 0.1908          | 35.37          | QP       | 9.62                 | 44.99         | 64.00        | -19.01      |         |
|     | 0.1908          | 22.87          | AVG      | 9.62                 | 32.49         | 54.00        | -21.51      |         |
|     | 0.2170          | 40.27          | QP       | 9.61                 | 49.88         | 62.93        | -13.05      |         |
|     | 0.2170          | 26.87          | AVG      | 9.61                 | 36.48         | 52.93        | -16.45      |         |
|     | 0.2386          | 28.74          | QP       | 9.59                 | 38.33         | 62.14        | -23.81      |         |
|     | 0.2386          | 13.45          | AVG      | 9.59                 | 23.04         | 52.14        | -29.10      |         |
|     | 0.4237          | 37.13          | QP       | 9.46                 | 46.59         | 57.38        | -10.79      |         |
|     | 0.4237          | 18.47          | AVG      | 9.46                 | 27.93         | 47.38        | -19.45      |         |
|     | 12.1928         | 37.87          | QP       | 10.01                | 47.88         | 60.00        | -12.12      |         |
| *   | 12.1928         | 36.86          | AVG      | 10.01                | 46.87         | 50.00        | -3.13       |         |

## 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: W6M22203-21702-C-3  
FCC ID: 2AF82-TD1070H

## **Appendix**

### **Measurement diagrams**

Spurious Emissions Radiated



Radiated Emission Measurement

Operator: Vincent

File :1

Data :#1

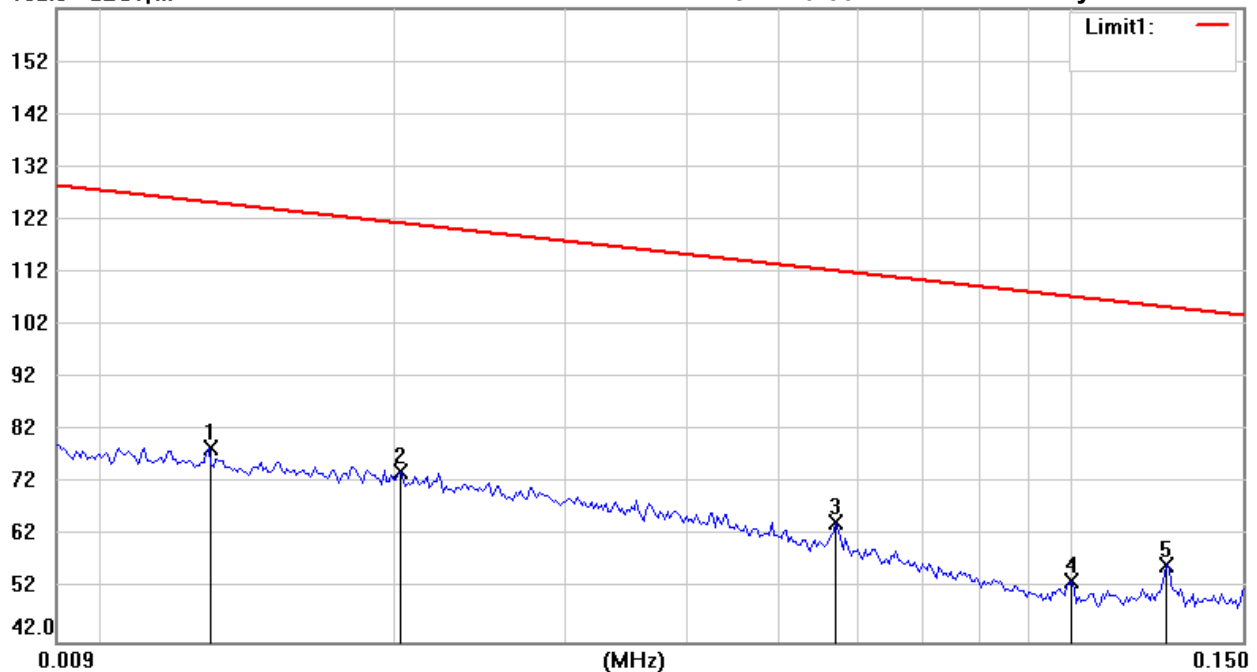
Date: 5/15/2022

Temperature:24.1 °C

162.0 dBuV/m

Time: 2:20:56 PM

Humidity:66.7 %



Site : Chamber

Condition : FCC 15.209 (3m)(<30MHz)

EUT : W6M22203-21702

M/N:

Test Mode : TX 125kHz

Note :

Polarization:

Power : 120 Va.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  |
|-----|-----------------|----------------|----------|---------------------|-----------------|----------------|--------------|----------------|-------------|----------|
| *   | 0.0130          | -4.04          | peak     | 82.79               | 78.75           | 125.32         | 100          | 211            | -46.57      |          |
|     | 0.0204          | -5.85          | peak     | 79.97               | 74.12           | 121.40         | 100          | 60             | -47.28      |          |
|     | 0.0572          | -6.24          | peak     | 70.75               | 64.51           | 112.45         | 100          | 92             | -47.94      |          |
|     | 0.1000          | -11.42         | peak     | 64.92               | 53.50           | 107.60         | 100          | 0              | -54.10      |          |
|     | 0.1252          | -7.30          | peak     | 63.80               | 56.50           | 105.65         |              |                | -49.15      | RF Power |



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# Radiated Emission Measurement

Operator: Vincent

File : 2

Data : #1

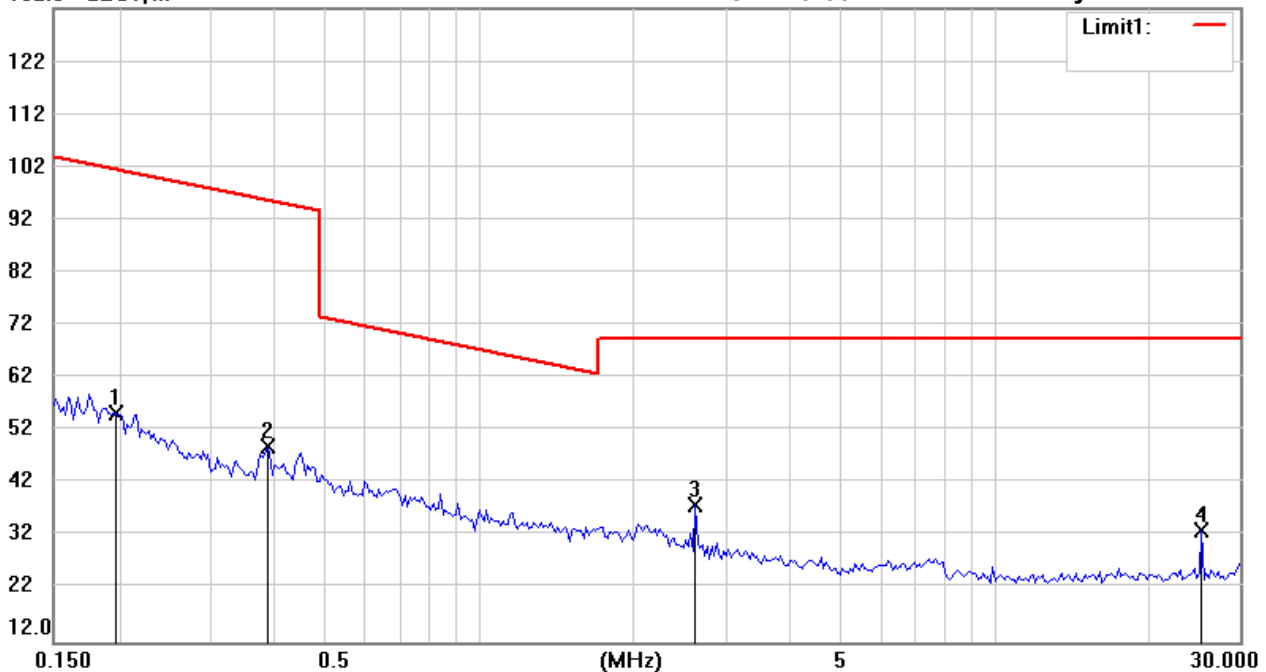
Date: 5/15/2022

Temperature: 24.1 °C

132.0 dBuV/m

Time: 2:29:00 PM

Humidity: 66.7 %



Site : Chamber

Condition : FCC 15.209 (3m)(<30MHz)

EUT : W6M22203-21702

M/N:

Test Mode : TX 125kHz

Note :

Polarization:

Power : 120 Va.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 |
|-----|-----------------|----------------|----------|---------------------|-----------------|----------------|--------------|----------------|-------------|---------|
|     | 0.1977          | -5.23          | peak     | 60.57               | 55.34           | 101.68         | 100          | 116            | -46.34      |         |
|     | 0.3900          | -5.21          | peak     | 54.17               | 48.96           | 95.78          | 100          | 0              | -46.82      |         |
| *   | 2.6371          | -1.81          | peak     | 39.71               | 37.90           | 69.54          | 100          | 258            | -31.64      |         |
|     | 25.3128         | 0.51           | peak     | 32.77               | 33.28           | 69.54          | 100          | 90             | -36.26      |         |

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



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# Radiated Emission Measurement

Operator: Vincent

File : 3

Data : #1

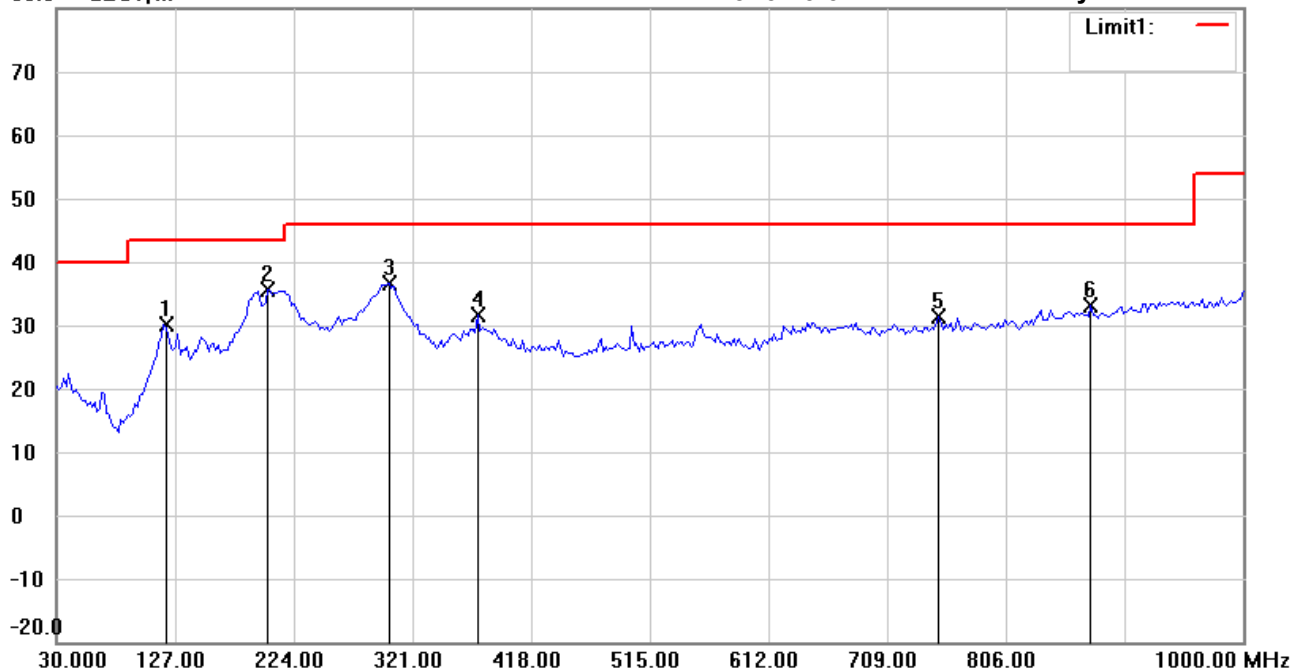
Date: 5/15/2022

Temperature: 24.1 °C

80.0 dBuV/m

Time: 5:15:52 PM

Humidity: 66.7 %



Site : Chamber

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

EUT : W6M22203-21702

M/N:

Test Mode : TX 125kHz

Note :

Polarization: Horizontal

Power : 120 Va.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 |
|-----|-----------------|----------------|----------|---------------------|-----------------|----------------|--------------|----------------|-------------|---------|
|     | 117.4750        | 36.57          | peak     | -6.46               | 30.11           | 43.50          | 100          | 326            | -13.39      |         |
| *   | 203.0060        | 46.13          | peak     | -10.43              | 35.70           | 43.50          | 102          | 90             | -7.80       |         |
|     | 302.1442        | 42.01          | peak     | -5.47               | 36.54           | 46.00          | 100          | 225            | -9.46       |         |
|     | 374.0681        | 35.59          | peak     | -3.99               | 31.60           | 46.00          | 101          | 70             | -14.40      |         |
|     | 751.1824        | 30.11          | peak     | 1.33                | 31.44           | 46.00          | 100          | 142            | -14.56      |         |
|     | 875.5911        | 29.00          | peak     | 4.12                | 33.12           | 46.00          | 100          | 215            | -12.88      |         |

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



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Radiated Emission Measurement

Operator: Vincent

File :3

Data :#2

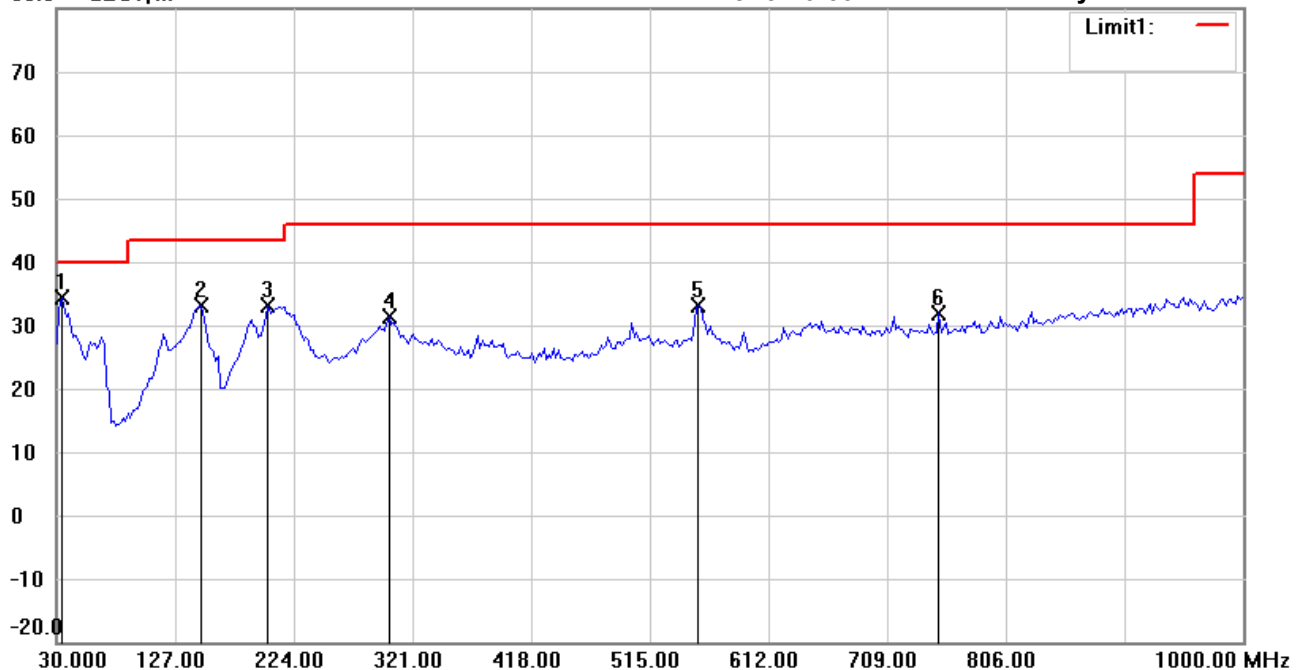
Date: 5/15/2022

Temperature: 24.1 °C

80.0 dBuV/m

Time: 5:16:53 PM

Humidity: 66.7 %



Site : Chamber

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

EUT : W6M22203-21702

M/N:

Test Mode : TX 125kHz

Note :

Polarization: **Vertical**

Power : 120 Va.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 |
|-----|-----------------|----------------|----------|---------------------|-----------------|----------------|--------------|----------------|-------------|---------|
| *   | 33.8877         | 42.58          | peak     | -8.19               | 34.39           | 40.00          | 100          | 116            | -5.61       |         |
|     | 148.5772        | 40.66          | peak     | -7.47               | 33.19           | 43.50          | 100          | 90             | -10.31      |         |
|     | 203.0060        | 43.52          | peak     | -10.43              | 33.09           | 43.50          | 102          | 325            | -10.41      |         |
|     | 302.1442        | 36.77          | peak     | -5.47               | 31.30           | 46.00          | 100          | 224            | -14.70      |         |
|     | 554.8496        | 34.50          | peak     | -1.28               | 33.22           | 46.00          | 101          | 170            | -12.78      |         |
|     | 751.1824        | 30.52          | peak     | 1.33                | 31.85           | 46.00          | 100          | 246            | -14.15      |         |

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



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# Radiated Emission Measurement

Operator: Vincent

File : 1

Data : #1

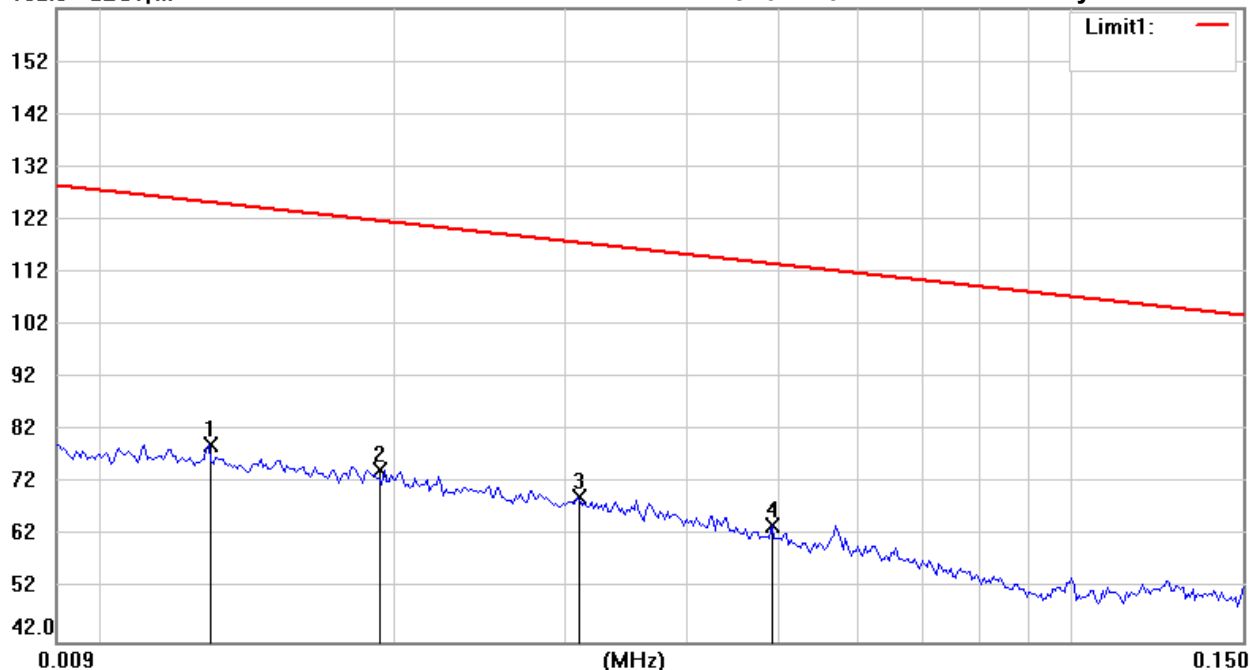
Date: 5/15/2022

Temperature: 24.1 °C

162.0 dBuV/m

Time: 3:22:51 PM

Humidity: 66.7 %



Site : Chamber

Condition : FCC 15.209 (3m)(<30MHz)

EUT : W6M22203-21702

M/N:

Test Mode : RX 125kHz

Note :

Polarization:

Power : 120 Va.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 |
|-----|-----------------|----------------|----------|---------------------|-----------------|----------------|--------------|----------------|-------------|---------|
| *   | 0.0130          | -3.54          | peak     | 82.79               | 79.25           | 125.32         | 100          | 69             | -46.07      |         |
|     | 0.0194          | -5.66          | peak     | 80.35               | 74.69           | 121.84         | 100          | 217            | -47.15      |         |
|     | 0.0310          | -6.62          | peak     | 76.09               | 69.47           | 117.77         | 100          | 220            | -48.30      |         |
|     | 0.0490          | -7.90          | peak     | 71.96               | 64.06           | 113.79         | 100          | 132            | -49.73      |         |

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



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# Radiated Emission Measurement

Operator: Vincent

File :2

Data :#1

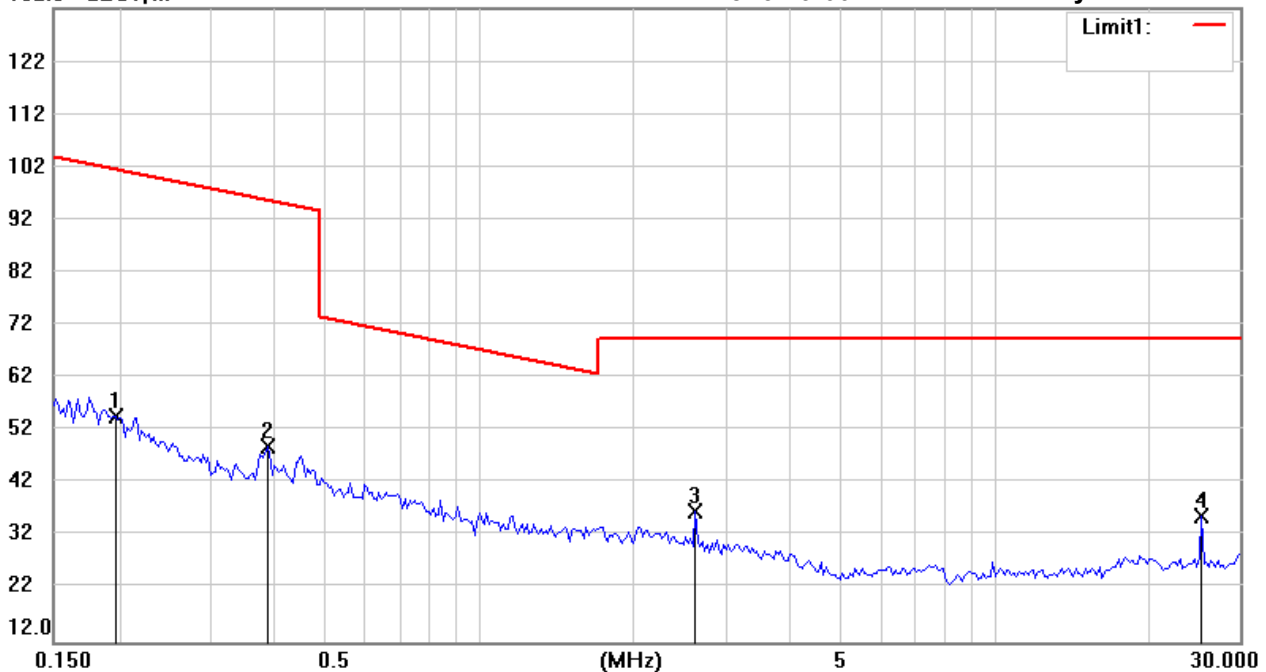
Date: 5/15/2022

Temperature:24.1 °C

132.0 dBuV/m

Time: 3:29:00 PM

Humidity:66.7 %



Site : Chamber

Condition : FCC 15.209 (3m)(<30MHz)

EUT : W6M22203-21702

M/N:

Test Mode : RX 125kHz

Note :

Polarization:

Power : 120 Va.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 |
|-----|-----------------|----------------|----------|---------------------|-----------------|----------------|--------------|----------------|-------------|---------|
|     | 0.1975          | -5.74          | peak     | 60.58               | 54.84           | 101.69         | 100          | 223            | -46.85      |         |
|     | 0.3900          | -5.21          | peak     | 54.17               | 48.96           | 95.78          | 100          | 85             | -46.82      |         |
| *   | 2.6371          | -2.81          | peak     | 39.71               | 36.90           | 69.54          | 100          | 162            | -32.64      |         |
|     | 25.3125         | 3.01           | peak     | 32.77               | 35.78           | 69.54          | 100          | 44             | -33.76      |         |

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



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Radiated Emission Measurement

Operator: Vincent

File :3

Data :#1

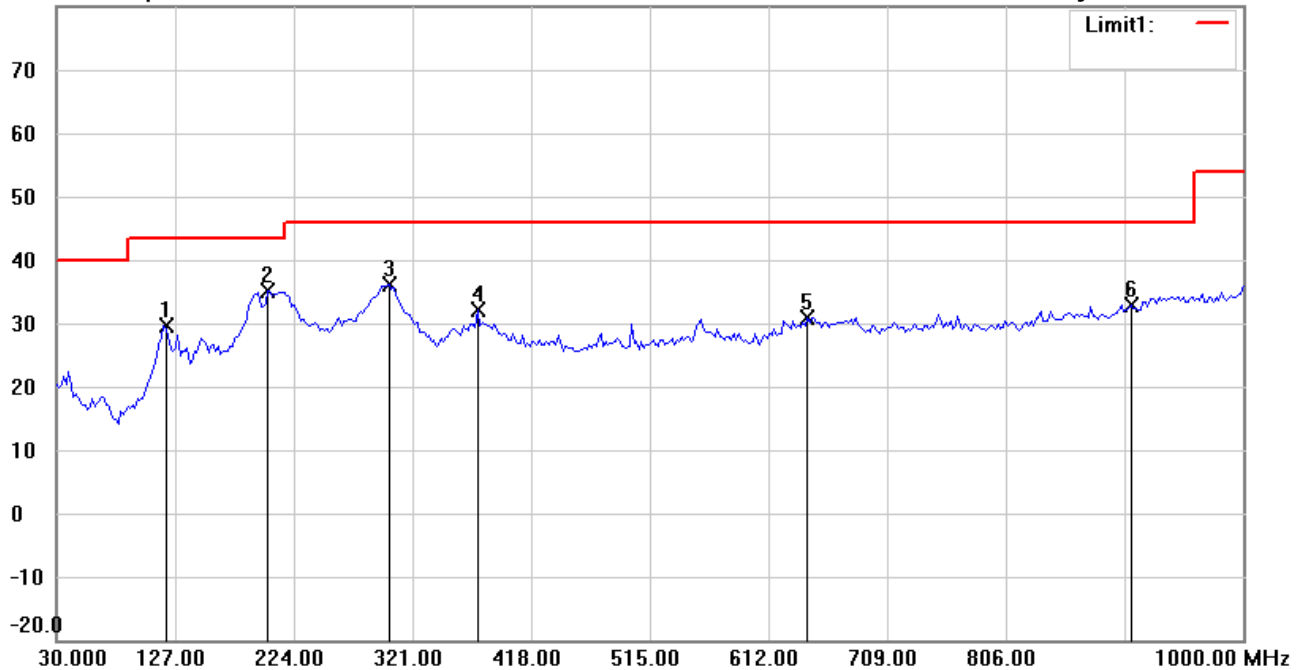
Date: 5/15/2022

Temperature: 24.1 °C

80.0 dBuV/m

Time: 5:30:27 PM

Humidity: 66.7 %



Site : Chamber

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

EUT : W6M22203-21702

M/N:

Test Mode : RX 125kHz

Note :

Polarization: *Horizontal*

Power : 120 Va.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 |
|-----|-----------------|----------------|----------|---------------------|-----------------|----------------|--------------|----------------|-------------|---------|
|     | 117.4750        | 36.07          | peak     | -6.46               | 29.61           | 43.50          | 100          | 92             | -13.89      |         |
| *   | 203.0060        | 45.63          | peak     | -10.43              | 35.20           | 43.50          | 100          | 60             | -8.30       |         |
|     | 302.1442        | 41.51          | peak     | -5.47               | 36.04           | 46.00          | 102          | 133            | -9.96       |         |
|     | 374.0681        | 36.09          | peak     | -3.99               | 32.10           | 46.00          | 101          | 225            | -13.90      |         |
|     | 644.2685        | 29.94          | peak     | 1.06                | 31.00           | 46.00          | 100          | 248            | -15.00      |         |
|     | 908.6372        | 28.13          | peak     | 4.75                | 32.88           | 46.00          | 100          | 70             | -13.12      |         |

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



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Radiated Emission Measurement

Operator: Vincent

File :3

Data :#2

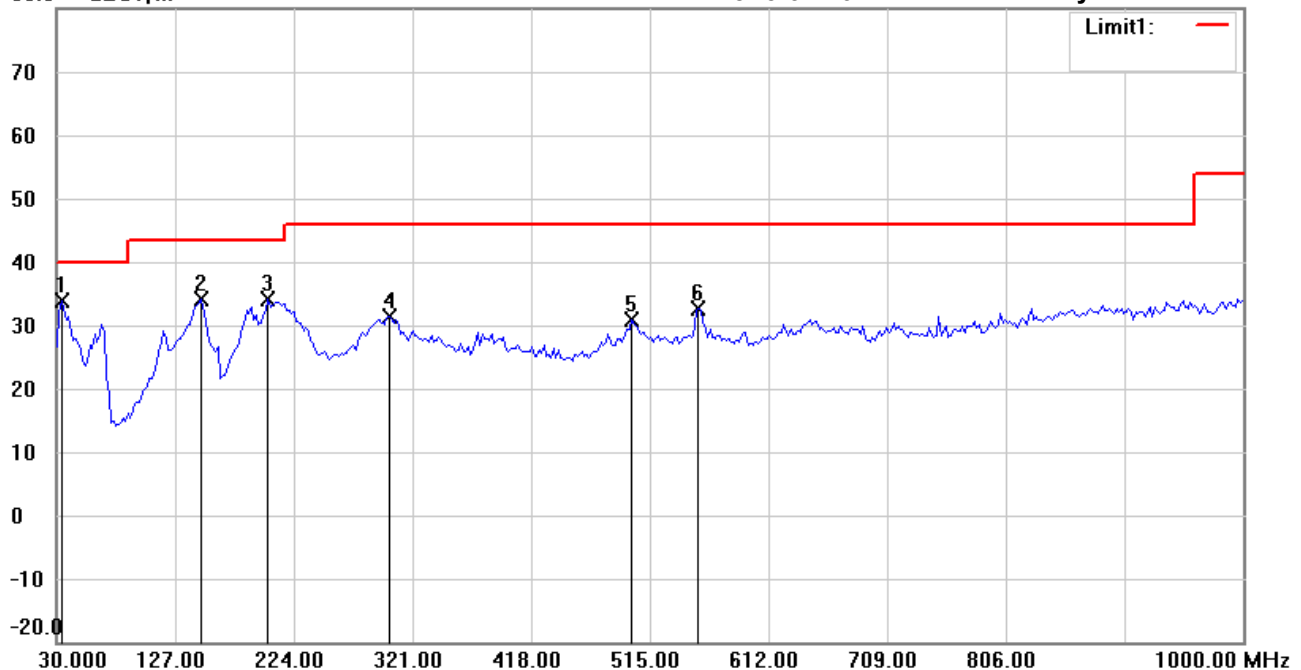
Date: 5/15/2022

Temperature: 24.1 °C

80.0 dBuV/m

Time: 5:31:49 PM

Humidity: 66.7 %



Site : Chamber

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

EUT : W6M22203-21702

M/N:

Test Mode : RX 125kHz

Note :

Polarization: Vertical

Power : 120 Va.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 |
|-----|-----------------|----------------|----------|---------------------|-----------------|----------------|--------------|----------------|-------------|---------|
| *   | 33.8877         | 42.08          | peak     | -8.19               | 33.89           | 40.00          | 100          | 90             | -6.11       |         |
|     | 148.5772        | 41.66          | peak     | -7.47               | 34.19           | 43.50          | 100          | 258            | -9.31       |         |
|     | 203.0060        | 44.52          | peak     | -10.43              | 34.09           | 43.50          | 103          | 116            | -9.41       |         |
|     | 302.1442        | 36.77          | peak     | -5.47               | 31.30           | 46.00          | 101          | 213            | -14.70      |         |
|     | 500.4207        | 33.18          | peak     | -2.30               | 30.88           | 46.00          | 100          | 57             | -15.12      |         |
|     | 554.8496        | 34.00          | peak     | -1.28               | 32.72           | 46.00          | 102          | 322            | -13.28      |         |

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