

47 CFR PART 15 SUBPART C TEST REPORT

for

Wireless Microphone Transmitter

Model No.: UTX-16

FCC ID: 2AJMEUTX-16

of

Applicant: Fitness Audio Network P/L
Address: Unit 17 The Bourke Centre, 110 -116 Bourke Road,
ALEXANDRIA, NSW 2015 Australia

Tested and Prepared

By

Worldwide Testing Services (Taiwan) Co., Ltd.

FCC Registration No.: TW1072, TW1140, TW1146, TW1477, TW0037

Industry Canada filed test laboratory Reg. No.: 20037, 31634



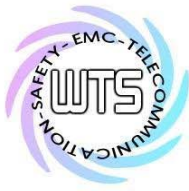
Report No.: W6M22510-24753-C-1

6F., No. 58, Ln. 188, Rueiguang Rd., Neihu Dist., Taipei City, Taiwan (R.O.C.)
TEL: 886-2-66068877 FAX: 886-2-66068879 E-mail: wts@wts-lab.com



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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.
4. Antenna gain is provided by applicant and laboratory issue relevant data and results.

Tester:

December 12, 2025

Sora Kuo

Date

WTS-Lab.

Name

Signature

Technical responsibility for area of testing:

December 12, 2025

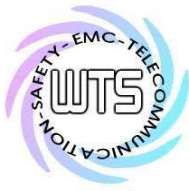
Kevin Wang

Date

WTS

Name

Signature



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M22510-24753-C-1

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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. 99, Sec. 1, Balian Rd., Xizhi Dist.,
New Taipei City 221032, Taiwan (R.O.C.)

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.: TW1072, TW1140, TW1146, TW1477, TW0037

Industry Canada filed test laboratory Reg. No.: 20037, 31634

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

Name: ./.

Accredited number: ./.

Street: ./.

Town: ./.

Country: ./.

1.3 Details of approval holder

Name: Fitness Audio Network P/L

Street: Unit 17 The Bourke Centre, 110-116 Bourke Road,

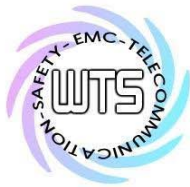
Town: ALEXANDRIA, NSW 2015

Country: Australia

1.4 Application details

Date of receipt of test sample: November 21, 2025

Date of test: from November 24, 2025 to November 27, 2025



Registration number: W6M22510-24753-C-1

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1.5 General information of Test item

Type of test item: Wireless Microphone Transmitter

Model number: UTX-16

Brand name: Fitness Audio

Multi-listing model number: ./.

Sample no.: #01

Technical data

Frequency band : 470-608 MHz

Frequency (ch A): 471.1 MHz

Frequency (ch B): 539 MHz

Frequency (ch C): 607.9 MHz

Antenna type: PCB Antenna

Antenna gain: 0dBi

Power supply: Battery 1.5Vd.c.*2

Operation modes: Simplex

Manufacturer: (if applicable)

Name: CHIAYO ELECTRONICS CO., LTD.

Street: No.88, Chung Hsiao Street 2,

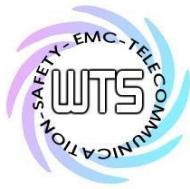
Town: Chiayi,

Country: Taiwan, R.O.C.

1.6 Test standards

47 CFR PART 15 SUBPART C § 15.236 (2024-10)

ANSI C63.10-2020+Cor.1-2023+C63.10a-2024



Registration number: W6M22510-24753-C-1

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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

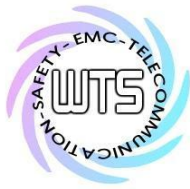
Relative humidity content: 20 ... 75 %

Air pressure: 86-103 KPa

Power supply: Battery 1.5Vd.c.*2

Test item Name	Uncertainty
Estimation Result of Uncertainty of Conducted Emission (Line Conducted Emission)	Expanded Uncertainty : AMN : 0.94 dB Voltage probe : 1.21 dB Include Pulse Limiter : 1.5 dB
Estimation Result of Uncertainty of Bandwidth Measurement (Occupied Bandwidth, Emission Mask)	Expanded Uncertainty : 0.37 kHz
Estimation Result of Uncertainty of Frequency Drift Measurement (Frequency Stability, Modulation)	Expanded Uncertainty : 6.11 Hz
Estimation Result of Uncertainty of EIRP Measurement (RF Power Output, Radiated Spurious Emission)	Expanded Uncertainty : 30-200MHz : 2.05 dB 200-1000MHz : 2.04 dB 1-18GHz : 3.93 dB 18-40GHz : 2.89 dB

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



Worldwide Testing Services(Taiwan) Co., Ltd.

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2.3 Test Equipment List

Occupied bandwidth & necessary bandwidth (analogy)

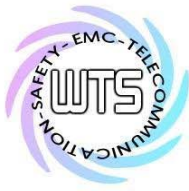
Code No.	Test equipment	Mode No.	Serial No.	Brand	Cal. Date	Next Cal. Date
ETSTW-RE 050	Attenuator 10dB	50HF-010-1	None	JFW	2025/2/14	2026/2/13
ETSTW-RE 099	DC Block	50DB-007-1	None	JFW	2025/2/14	2026/2/13
ETSTW-RE 072	CELL SITE TEST SET	8921A	3339A00375	HP	2025/10/29	2026/10/28
ETSTW-Cable 030	Microwave Cable	SUCOFLEX 104 (S_Cable 9)	279067	HUBER+SUHNER	2025/2/14	2026/2/13
ETSTW-RE 055	SPECTRUM ANALYZER	FSU 26	200074	R&S	2025/3/5	2026/3/4
ETSTW-RS 009	SIGNAL GENERATOR	8648C	3642U01656	HP	2025/2/25	2026/2/24

Frequency tolerance

Code No.	Test equipment	Mode No.	Serial No.	Brand	Cal. Date	Next Cal. Date
ETSTW-RE 050	Attenuator 10dB	50HF-010-1	None	JFW	2025/2/14	2026/2/13
ETSTW-RE 099	DC Block	50DB-007-1	None	JFW	2025/2/14	2026/2/13
ETSTW-RE 055	SPECTRUM ANALYZER	FSU 26	200074	R&S	2025/3/5	2026/3/4
ETSTW-Cable 030	Microwave Cable	SUCOFLEX 104 (S_Cable 9)	279067	HUBER+SUHNER	2025/2/14	2026/2/13
ETSTW-CE 009	TEMP.&HUMIDITY CHAMBER	GTH-225-40-1P-U	MAA0305-009	GIANT FORCE	2025/7/22	2026/7/21

RF POWER & Spurious Emission (966A)

Code No.	Test equipment	Mode No.	Serial No.	Brand	Cal. Date	Next Cal. Date
ETSTW-RE 153	Signal Analyzer	FSV40	101929	R&S	2025/9/10	2026/9/9
ETSTW-RE 154	EMI Test Receiver	ESR3	102829	R&S	2025/4/9	2026/4/8
ETSTW-RE 160	Amplifier Module	CHC 3	None	WTS	2025/7/11	2026/7/10
ETSTW-RE 177	TRILOG Broadband Antenna	VULB 9168& EMCI-N-6-06	01380&AT-06007	SCHWARZBECK&EMC	2025/3/10	2026/3/9
ETSTW-RE 178	Double Ridged Guide Horn Antenna	DRH18-E	210505A18ES	RFSPIN	2025/3/7	2026/3/6
ETSTW-Cable 077	SMA type cable (10m)	EMC104-SM-SM-10000	230511	EMCI	2025/7/11	2026/7/10
ETSTW-Cable 084	SMA type cable (1m)	SF104-11SMA-1000	816477/4	HONOVA	2025/7/11	2026/7/10
ETSTW-Cable 089	SMA type cable (2m)	SF104-11SMA-2000	SN 811889/4	HUBER+SUHNER	2025/7/11	2026/7/10
WTSTW-SW 002	EMI TEST SOFTWARE	EZ_EMCI	None	Farad	Version ETS-03A1 Version EMEC-3A1+	



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2.4 General Test Procedure

POWER LINE CONDUCTED INTERFERENCE: The procedure used was ANSI C63.10-2020+Cor.1-2023+C63.10a-2024 6.2 using a 50 μ H LISN (if necessary). Both lines were observed. The bandwidth of the spectrum analyzer was 10 kHz with an appropriate sweep speed.

RADIATION INTERFERENCE: The test procedure used was according to ANSI C63.10-2020+Cor.1-2023+C63.10a-2024 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 100 kHz 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. The ambient temperature of the UUT was 23°C with a humidity of 40 %.

The table used for radiated measurements is capable of continuous rotation. The spectrum was scanned from 30 MHz to the frequency specified as follows:

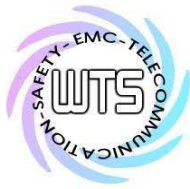
- (1) If the intentional radiator operates below 10 GHz: to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower.
- (2) If the intentional radiator operates at or above 10 GHz and below 30 GHz: to the fifth harmonic of the highest fundamental frequency or to 100 GHz,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

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

Measurements were made by at the registered open field test site located at The Registration Number:

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 C63.10-2020+Cor.1-2023+C63.10a-2024 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.



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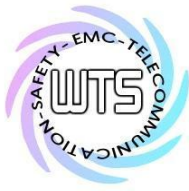
Registration number: W6M22510-24753-C-1

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3 Test results (enclosure)

Test case	Para. Number	Required	Test passed	Test failed
RF Power Output	15.236(d)	☒	☒	☐
Occupied Bandwidth	15.236(f)	☒	☒	☐
Emission Mask	15.236(g) ETSI EN 300 422-1 V2.2.1	☒	☒	☐
Radiated Spurious Emission	15.236(g)	☒	☒	☐
Line Conducted Emissions	15.207	☐	☐	☐
Frequency Stability vs. Temperature Frequency Stability vs. Voltage	15.236(f)(3)	☒	☒	☐

The following is intentionally left blank.



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4 RF Power Output, FCC15.236 (d)

4.1 Test procedure

§ 2.1046 Measurements required: RF power output.

(a) For transmitters other than single sideband, independent sideband and controlled carrier radiotelephone, power output shall be measured at the RF output terminals when the transmitter is adjusted in accordance with the tune-up procedure to give the values of current and voltage on the circuit elements specified in § 2.1033(c)(8). The electrical characteristics of the radio frequency load attached to the output terminals when this test is made shall be stated.

(b) For single sideband, independent sideband, and single channel, controlled carrier radiotelephone transmitters the procedure specified in paragraph (a) of this section shall be employed and, in addition, the transmitter shall be modulated during the test as follows. In all tests, the input level of the modulating signal shall be such as to develop rated peak envelope power or carrier power, as appropriate, for the transmitter.

(1) Single sideband transmitters in the A3A or A3J emission modes - by two tones at frequencies of 400 Hz and 1800 Hz (for 3.0 kHz authorized bandwidth), or 500 Hz and 2100 Hz (3.5 kHz authorized bandwidth), or 500 Hz and 2400 Hz (for 4.0 kHz authorized bandwidth), applied simultaneously, the input levels of the tones so adjusted that the two principal frequency components of the radio frequency signal produced are equal in magnitude.

(2) Single sideband transmitters in the A3H emission mode - by one tone at a frequency of 1500 Hz (for 3.0 kHz authorized bandwidth), or 1700 Hz (for 3.5 kHz authorized bandwidth), or 1900 Hz (for 4.0 kHz authorized bandwidth), the level of which is adjusted to produce a radio frequency signal component equal in magnitude to the magnitude of the carrier in this mode.

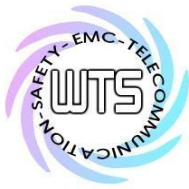
(3) As an alternative to paragraphs (b) (1) and (2) of this section other tones besides those specified may be used as modulating frequencies, upon a sufficient showing of need. However, any tones so chosen must not be harmonically related, the third and fifth order intermodulation products which occur must fall within the -25 dB step of the emission bandwidth limitation curve, the seventh and ninth order intermodulation product must fall within the 35 dB step of the referenced curve and the eleventh and all higher order products must fall beyond the -35 dB step of the referenced curve.

(4) Independent sideband transmitters having two channels by 1700 Hz tones applied simultaneously in both channels, the input levels of the tones so adjusted that the two principal frequency components of the radio frequency signal produced are equal in magnitude.

(5) Independent sideband transmitters having more than two channels by an appropriate signal or signals applied to all channels simultaneously. The input signal or signals shall simulate the input signals specified by the manufacturer for normal operation.

(6) Single-channel controlled-carrier transmitters in the A3 emission mode - by a 2500 Hz tone.

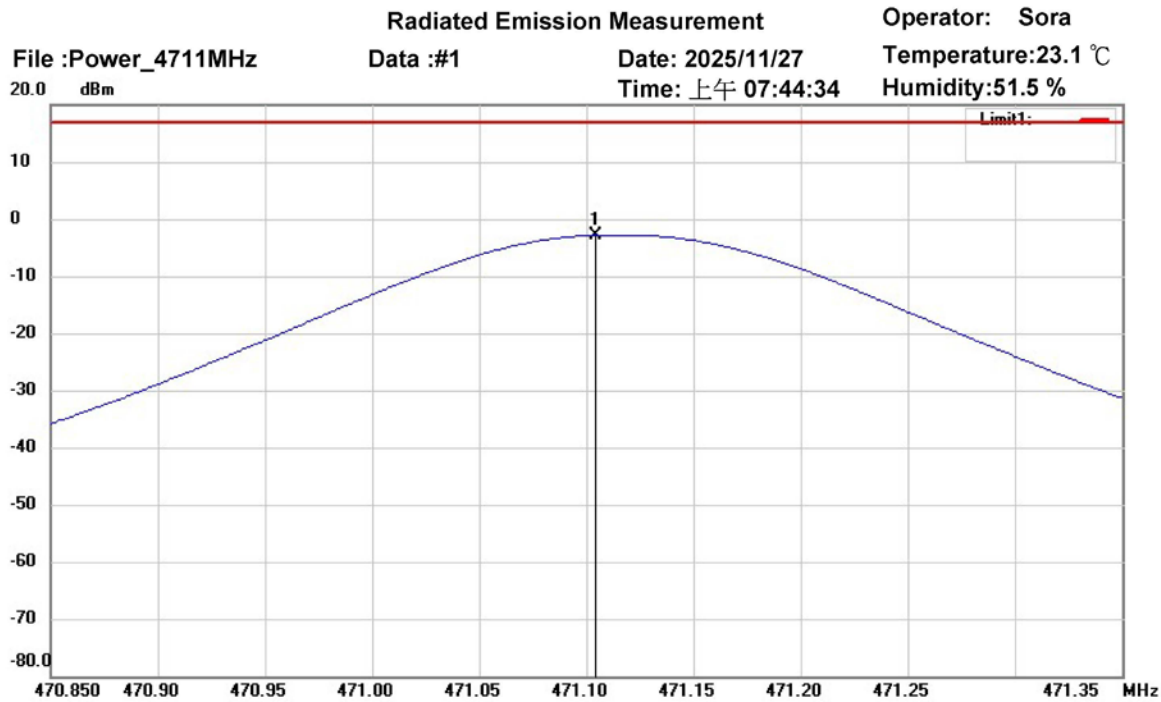
(c) For measurements conducted pursuant to paragraphs (a) and (b) of this section, all calculations and methods used by the applicant for determining carrier power or peak envelope power, as appropriate, on the basis of measured power in the radio frequency load attached to the transmitter output terminals shall be shown. Under the test conditions specified, no components of the emission spectrum shall exceed the limits specified in the applicable rule parts as necessary for meeting occupied bandwidth or emission limitations.



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4.2 Test Results



Site : Chamber 01

Condition : FCC 15.236 POWER

EUT : W6M22510-24753

M/N:

Test Mode : Tx 471.1MHz

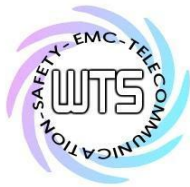
Note :

Polarization: *Horizontal*

Power : 3 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
*	471.1045	-31.07	peak	28.28	-2.79	17.00	150	65	-19.79	



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M22510-24753-C-1
FCC ID: 2AJMEUTX-16

Radiated Emission Measurement

Operator: Sora

File :Power_4711MHz

Data :#2

Date: 2025/11/27

Temperature:23.1 °C

20.0 dBm

Time: 上午 07:45:46

Humidity:51.5 %



Site : Chamber 01

Condition : FCC 15.236 POWER

EUT : W6M22510-24753

M/N:

Test Mode : Tx 471.1MHz

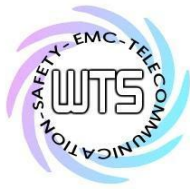
Note :

Polarization: **Vertical**

Power : 3 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
*	471.1095	-37.63	peak	29.27	-8.36	17.00	150	330	-25.36	



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M22510-24753-C-1
FCC ID: 2AJMEUTX-16

Radiated Emission Measurement

Operator: Sora

File :Power_5390MHz

Data :#1

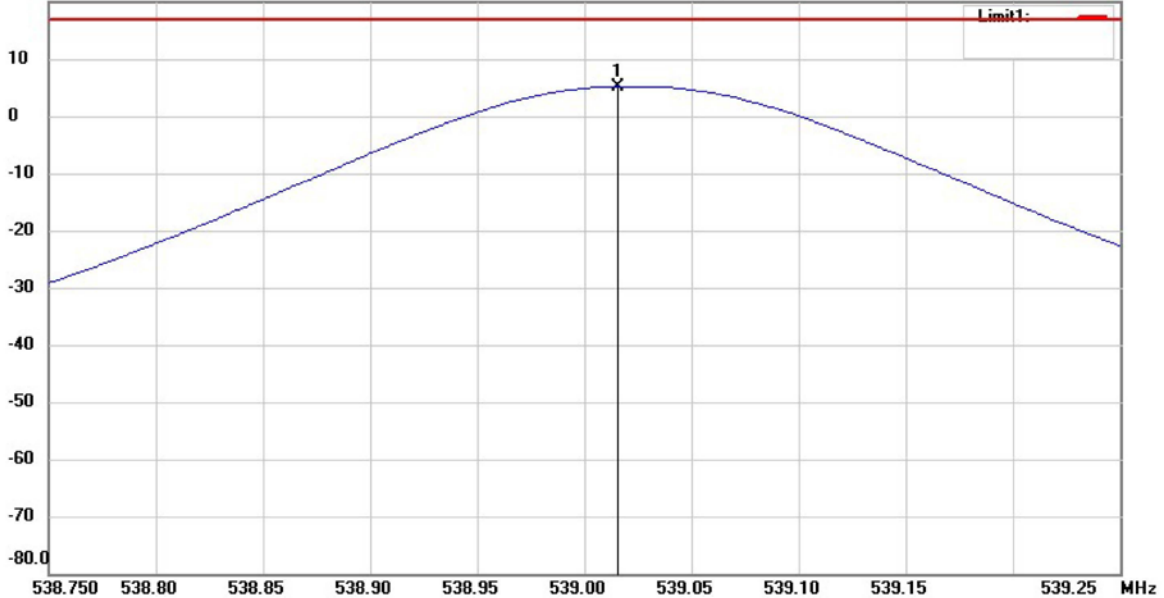
Date: 2025/11/21

Temperature:22.5 °C

20.0 dBm

Time: 上午 08:57:05

Humidity:59.6 %



Site : Chamber 01

Condition : FCC 15.236 POWER

EUT : W6M22510-24753

M/N:

Test Mode : Tx 539MHz

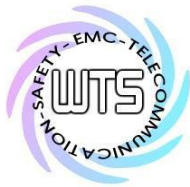
Note :

Polarization: *Horizontal*

Power : 3 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
*	539.0155	-24.13	peak	29.28	5.15	17.00	150	260	-11.85	



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M22510-24753-C-1
FCC ID: 2AJMEUTX-16

Radiated Emission Measurement

Operator: Sora
Temperature: 22.5 °C
Humidity: 59.6 %

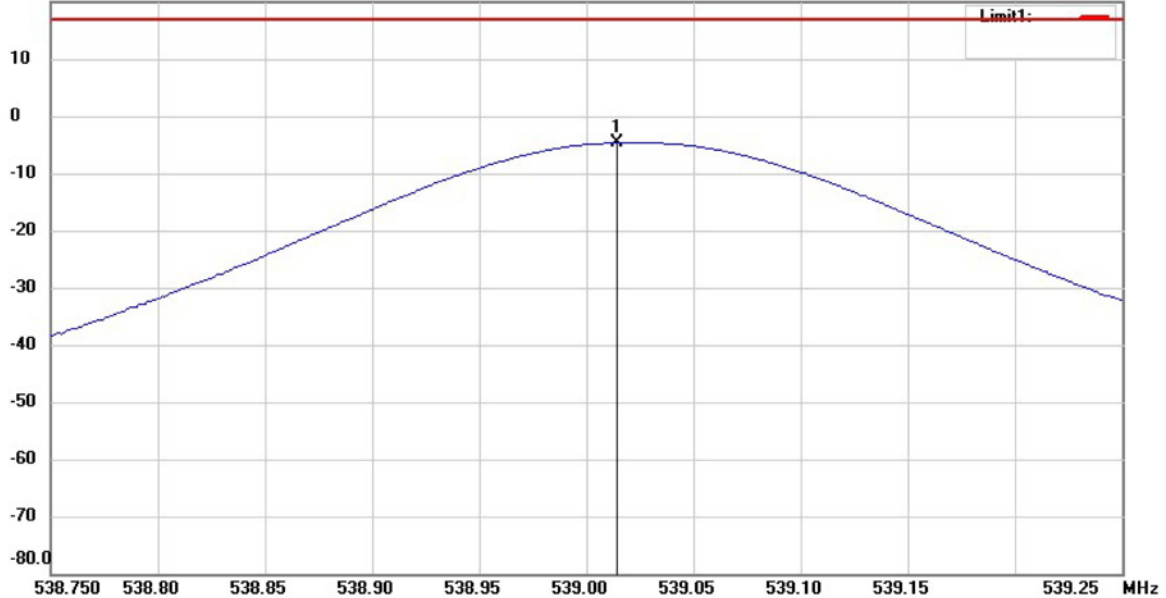
File :Power_5390MHz

Data :#2

Date: 2025/11/21

Time: 上午 08:58:32

dBm



Site : Chamber 01

Condition : FCC 15.236 POWER

EUT : W6M22510-24753

M/N:

Test Mode : Tx 539MHz

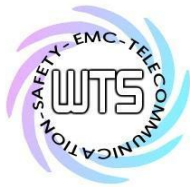
Note :

Polarization: **Vertical**

Power : 3 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
*	539.0145	-35.28	peak	30.62	-4.66	17.00	150	175	-21.66	



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M22510-24753-C-1
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Radiated Emission Measurement

Operator: Sora

File :Power_6079MHz

Data :#1

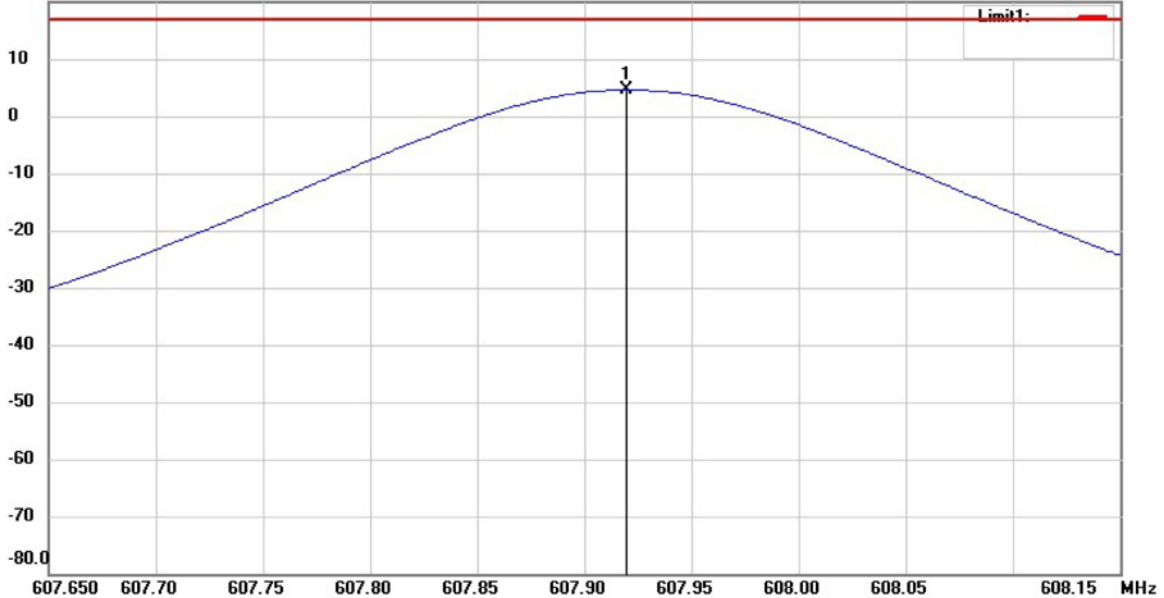
Date: 2025/11/21

Temperature:22.5 °C

Time: 上午 09:18:04

Humidity:59.6 %

20.0 dBm



Site : Chamber 01

Condition : FCC 15.236 POWER

EUT : W6M22510-24753

M/N:

Test Mode : Tx 607.9MHz

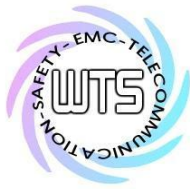
Note :

Polarization: *Horizontal*

Power : 3 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
*	607.9195	-26.34	peak	30.93	4.59	17.00	150	245	-12.41	



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M22510-24753-C-1
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Radiated Emission Measurement

Operator: Sora

File :Power_6079MHz

Data :#2

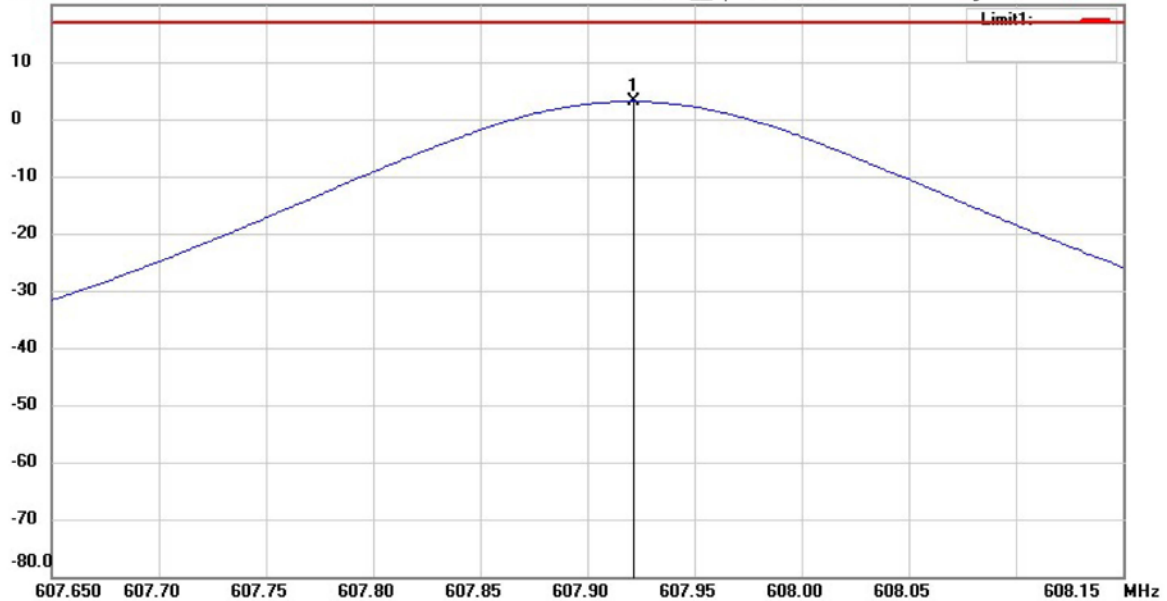
Date: 2025/11/21

Temperature:22.5 °C

20.0 dBm

Time: 上午 09:15:58

Humidity:59.6 %



Site : Chamber 01

Condition : FCC 15.236 POWER

EUT : W6M22510-24753

M/N:

Test Mode : Tx 607.9MHz

Note :

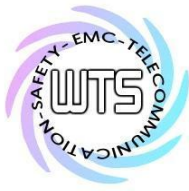
Polarization: **Vertical**

Power : 3 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
*	607.9215	-27.40	peak	30.48	3.08	17.00	150	105	-13.92	

Limit According to FCC PART 15.236(d): The output power limit: 50 mW (17 dBm)



Registration number: W6M22510-24753-C-1

FCC ID: 2AJMEUTX-16

5 Occupied Bandwidth, FCC15.236 (f) / Emission Mask, FCC15.236 (g)

5.1 Test Procedure

Occupied Bandwidth

- (f) The operating frequency within a permissible band of operation as defined in paragraph (c) must comply with the following requirements.
- (1) The frequency selection shall be offset from the upper or lower band limits by 25 kHz or an integral multiple thereof.
 - (2) One or more adjacent 25 kHz segments within the assignable frequencies may be combined to form a channel whose maximum bandwidth shall not exceed 200 kHz. The operating bandwidth shall not exceed 200 kHz.
 - (3) The frequency tolerance of the carrier signal shall be maintained within $\pm 0.005\%$ of the operating frequency over a temperature variation of -20 degrees to +50 degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C. Battery (1) In the bands allocated and assigned for broadcast television and in the 600 MHz service band: 50 mW EIRP
 - (2) In the 600 MHz guard bands including the duplex gap: 20 mW EIRP (e) Operation is limited to locations separated from licensed services by the following distances. (1) Four kilometers outside the following protected service contours of co-channel TV stations. operated equipment shall be tested using a new battery.

5.2 Test results

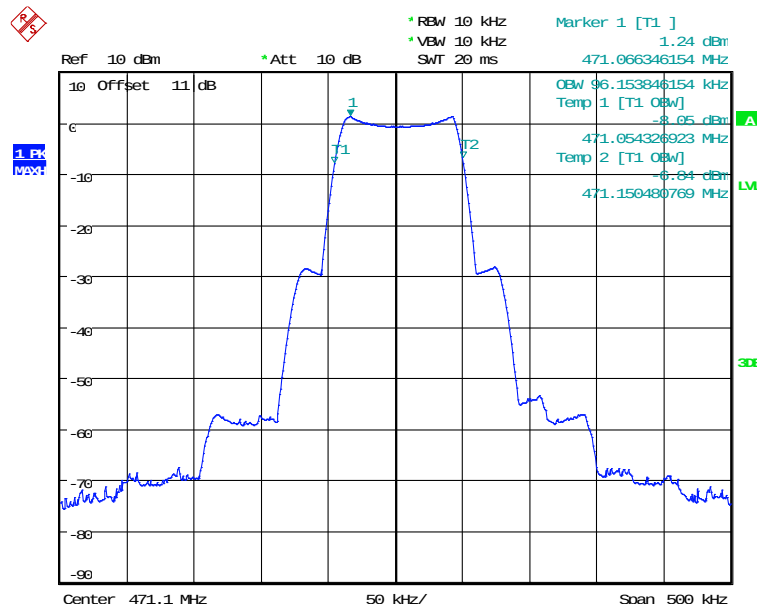
Occupied Bandwidth

Test date: November 23, 2025-November 27, 2025

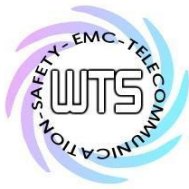
Temperature: 23.3°C

Humidity: 58.6 %

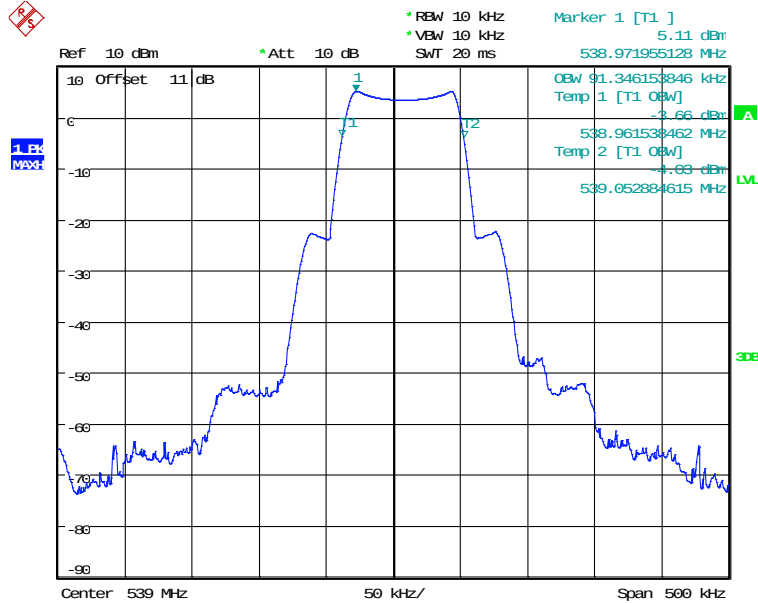
Tester: Sora



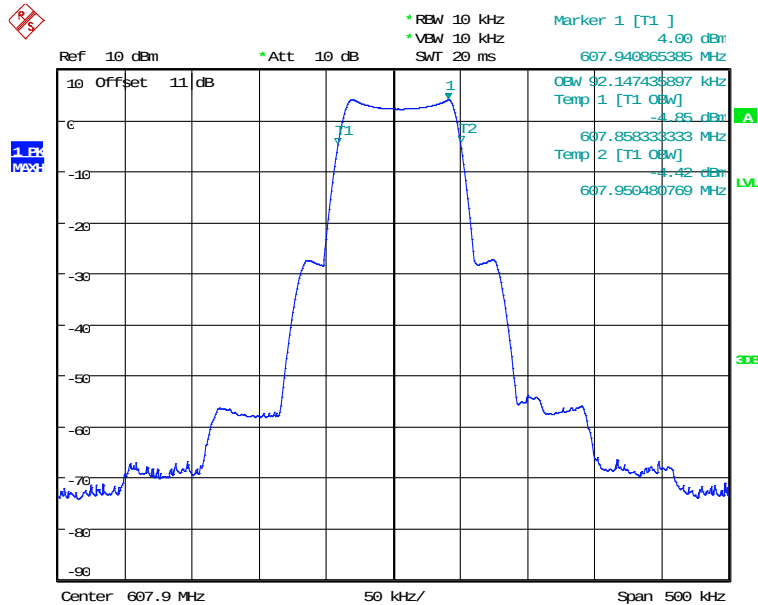
OCCUPIED BANDWIDTH 471.1MHz
Date: 27.NOV.2025 08:08:24



Registration number: W6M22510-24753-C-1
FCC ID: 2AJMEUTX-16



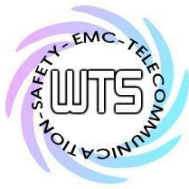
OCCUPIED BANDWIDTH 539MHz
Date: 23.NOV.2025 09:00:34



OCCUPIED BANDWIDTH 607.9MHz
Date: 23.NOV.2025 08:40:45

Limit

The operating bandwidth shall not exceed 200 kHz.



Registration number: W6M22510-24753-C-1

FCC ID: 2AJMEUTX-16

Emission Mask

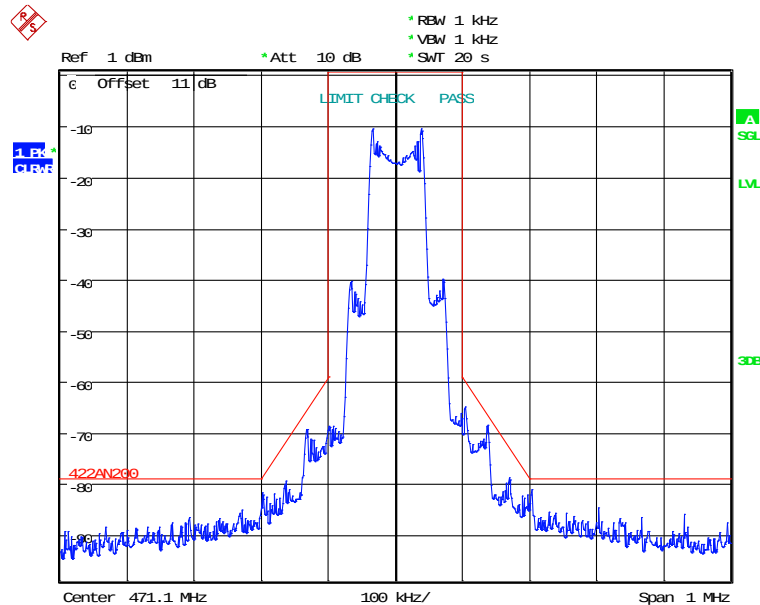
(g) Emissions within the band from one megahertz below to one megahertz above the carrier frequency shall comply with the emission mask in Section 8.3 of ETSI EN 300 422-1 V2.1.2 (2017-01) (incorporated by reference, see § 15.38). Emissions outside this band shall comply with the limit specified at the edges of the ETSI mask.

Test date: November 23, 2025-November 27, 2025

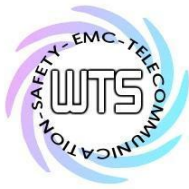
Temperature: 23.3°C

Humidity: 58.6 %

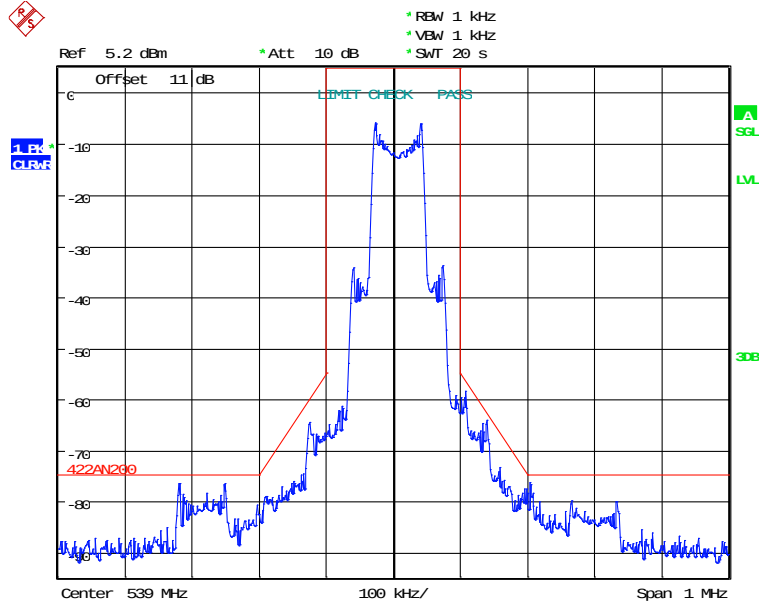
Tester: Sora



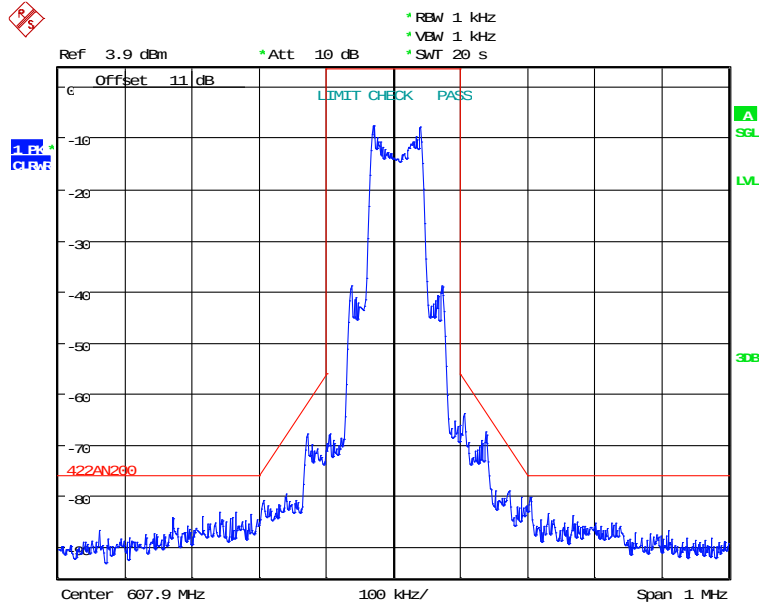
NECESSARY BANDWIDTH 471.1MHz
Date: 27.NOV.2025 08:10:31



Registration number: W6M22510-24753-C-1
FCC ID: 2AJMEUTX-16



NECESSARY BANDWIDTH 539MHz
Date: 23.NOV.2025 09:02:12



NECESSARY BANDWIDTH 607.9MHz
Date: 23.NOV.2025 08:32:32

Registration number: W6M22510-24753-C-1

FCC ID: 2AJMEUTX-16

LIMIT acc. Subclause 8.3.1.2

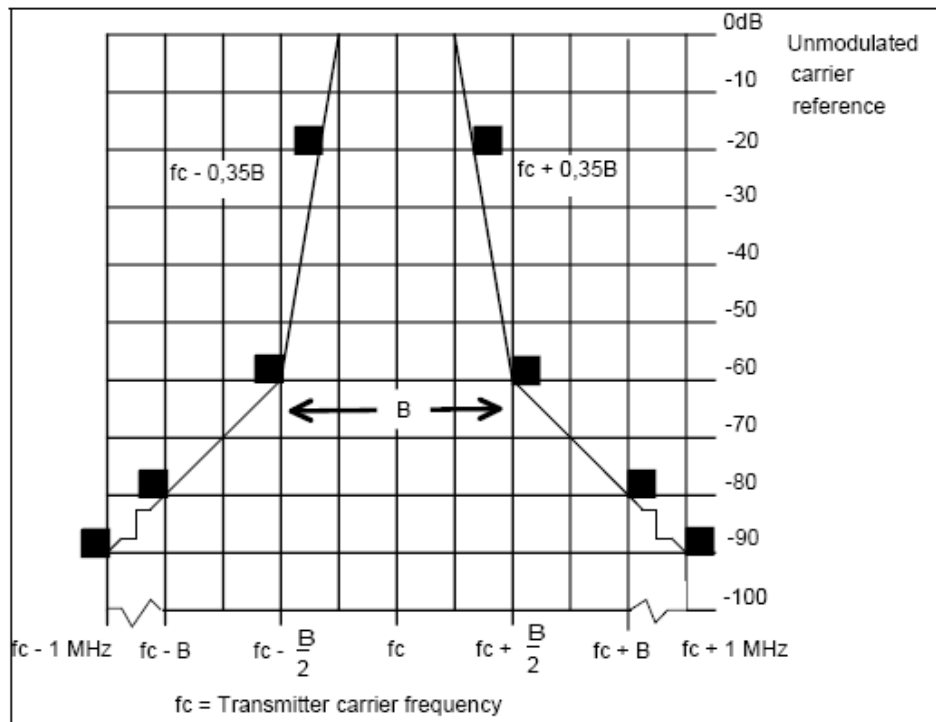


Figure 1: Spectrum mask for analogue systems in all bands

LIMIT acc. Subclause 8.3.2.2

The transmitter output spectrum shall be within the mask defined in figure 2. This mask may also be used for both analogue and digital Assistive Listening Devices.

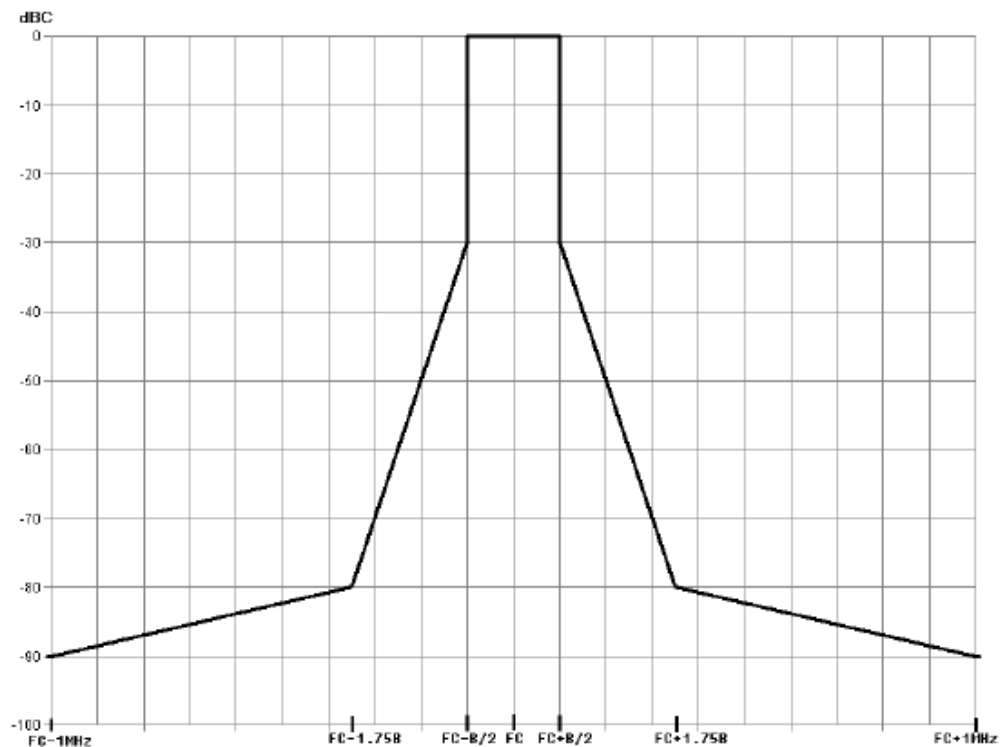
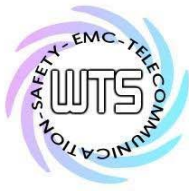


Figure 2: Spectrum mask for digital systems below 1 GHz



Registration number: W6M22510-24753-C-1

FCC ID: 2AJMEUTX-16

6 Radiated Spurious Emission , FCC 15.236(g)

6.1 Test procedure

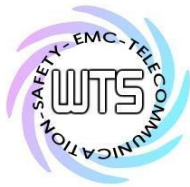
(g) Emissions within the band from one megahertz below to one megahertz above the carrier frequency shall comply with the emission mask in Section 8.3 of ETSI EN 300 422-1 V2.1.2 (2017-01) (incorporated by reference, see § 15.38). Emissions outside this band shall comply with the limit specified at the edges of the ETSI mask.

6.2 Test results

The measurements of the spurious emission at the upper , center and lower channel.
The measurement diagrams show that all significant spurs are well below the limit line.

Note:

- 1. Correction Factor = Antenna Gain + Cable Loss + Amplifier Gain**
- 2. The formula of measured value as: Test Result = Reading + Correction Factor**
- 3. All not in the table noted test results are more than 20 dB below the relevant limits.**
- 4. After evaluated, the test result in this report adopt the worst case to measure, please see attached diagrams in appendix.**



Registration number: W6M22510-24753-C-1

FCC ID: 2AJMEUTX-16

7 Frequency Stability, FCC 15.236(f)(3)

7.1 Test procedure

The frequency tolerance of the carrier signal shall be maintained within $\pm 0.005\%$ of the operating frequency over a temperature variation of -20 degrees to $+50$ degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C. Battery operated equipment shall be tested using a new battery.

7.2 Test results

Test date: November 27, 2025

Temperature: 23.3°C

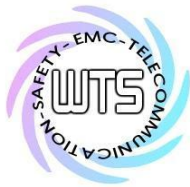
Humidity: 58.6 %

Tester: Sora

471.1MHz			
Test Volt	Carrier Freq.(MHz)	Result(ppm)	limit(ppm)
Vmin = 2.55Vd.c.	471.102885	6.123148	50
Vnom = 3Vd.c.	471.102885	6.123148	50
Vmax = 3.45Vd.c.	471.102885	6.123148	50

471.1MHz			
Test Temp	Carrier Freq.(MHz)	Result(ppm)	limit(ppm)
-20	471.108654	18.369446	50
-10	471.106010	12.756559	50
0	471.104407	9.354810	50
10	471.103606	7.653935	50
20	471.102885	6.123148	50
30	471.102003	4.252186	50
40	471.101522	3.231662	50
50	471.100881	1.870962	50

539MHz			
Test Volt	Carrier Freq.(MHz)	Result(ppm)	limit(ppm)
Vmin = 2.55Vd.c.	539.007131	13.230816	50
Vnom = 3Vd.c.	539.007131	13.230816	50
Vmax = 3.45Vd.c.	539.007131	13.230816	50



Registration number: W6M22510-24753-C-1

FCC ID: 2AJMEUTX-16

539MHz			
Test Temp	Carrier Freq.(MHz)	Result(ppm)	limit(ppm)
-20	539.009615	17.839304	50
-10	539.008814	16.352696	50
0	539.007853	14.568764	50
10	539.007292	13.528139	50
20	539.007131	13.230816	50
30	539.005528	10.256883	50
40	539.004407	8.176347	50
50	539.003045	5.649113	50

607.9MHz			
Test Volt	Carrier Freq.(MHz)	Result(ppm)	limit(ppm)
Vmin = 2.55Vd.c.	607.907692	12.653904	50
Vnom = 3Vd.c.	607.907692	12.653904	50
Vmax = 3.45Vd.c.	607.907692	12.653904	50

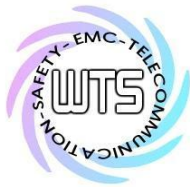
607.9MHz			
Test Temp	Carrier Freq.(MHz)	Result(ppm)	limit(ppm)
-20	607.914984	24.648748	50
-10	607.913702	22.539765	50
0	607.912260	20.167157	50
10	607.910577	17.399117	50
20	607.907692	12.653904	50
30	607.906571	10.808543	50
40	607.904327	7.117820	50
50	607.903045	5.008837	50

Limit According to FCC 15.236(f)(3)

The frequency tolerance of the transmitter shall be 0.005 percent.

Limit According to FCC 15.236(f)(3)

The frequency tolerance of the transmitter shall be 0.005 percent.



Registration number: W6M22510-24753-C-1

FCC ID: 2AJMEUTX-16

8 Power Line Conducted Emission , FCC 15.207

8.1 Test procedure

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.

8.2 Test Results

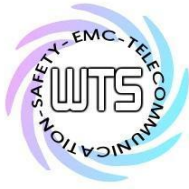
Model: UTX-16 Date: --
Mode: -- Temperature: -- °C Engineer: --
Polarization: -- Humidity: -- %

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

Polarization: L1

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

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



Registration number: W6M22510-24753-C-1
FCC ID: 2AJMEUTX-16

Appendix

Measurement diagrams

Radiation Spurious Emission



Address: No. 99, Sec. 1, Balian Rd., Xizhi Dist., New Taipei City
Tel: +886-2-2646-1508
Fax: +886-2-2646-1533

Radiated Emission Measurement

Operator: Sora

File : 1

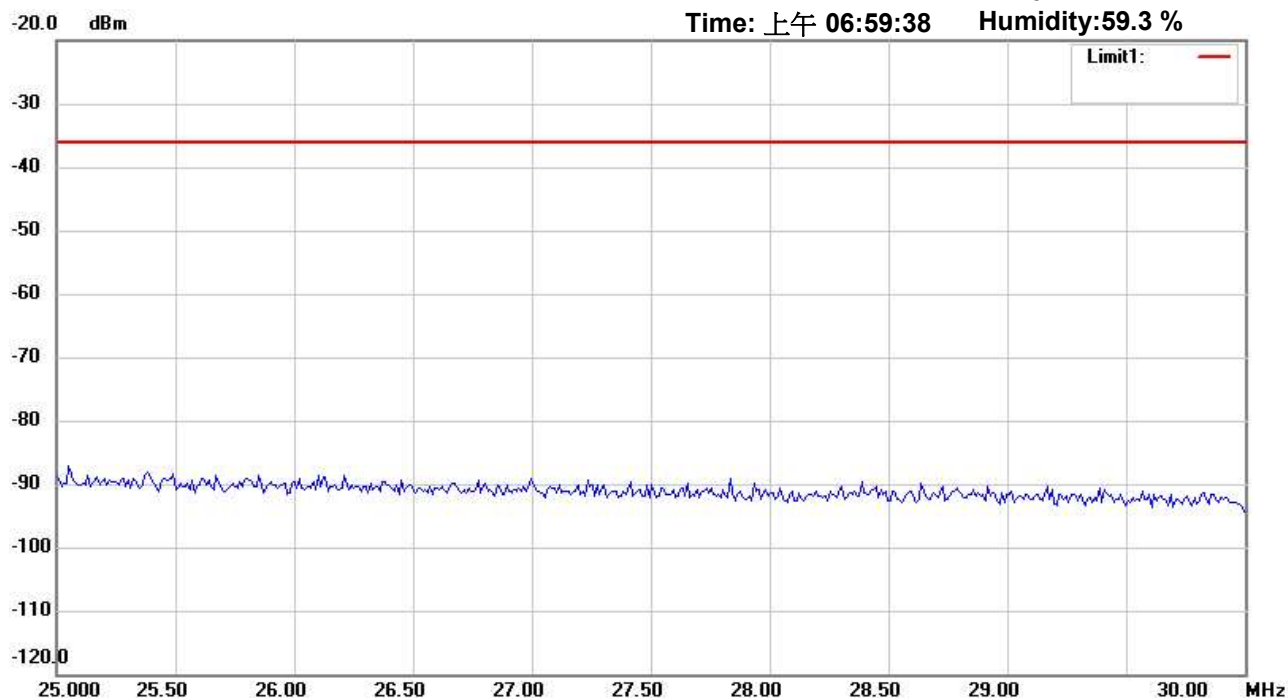
Data : #1

Date: 2025/11/23

Temperature: 22.5 °C

Time: 上午 06:59:38

Humidity: 59.3 %



Site : 966A Chamber

Condition : ETSI EN300_422 V2.2.1-TX_Spurious_OP

EUT : W6M22510-24753

M/N:

Test Mode : Tx 471.1MHz

Note :

Polarization: **Horizontal**

Power : 3 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



Address: No. 99, Sec. 1, Balian Rd., Xizhi Dist., New Taipei City
Tel: +886-2-2646-1508
Fax: +886-2-2646-1533

Radiated Emission Measurement

Operator: Sora

File : 1

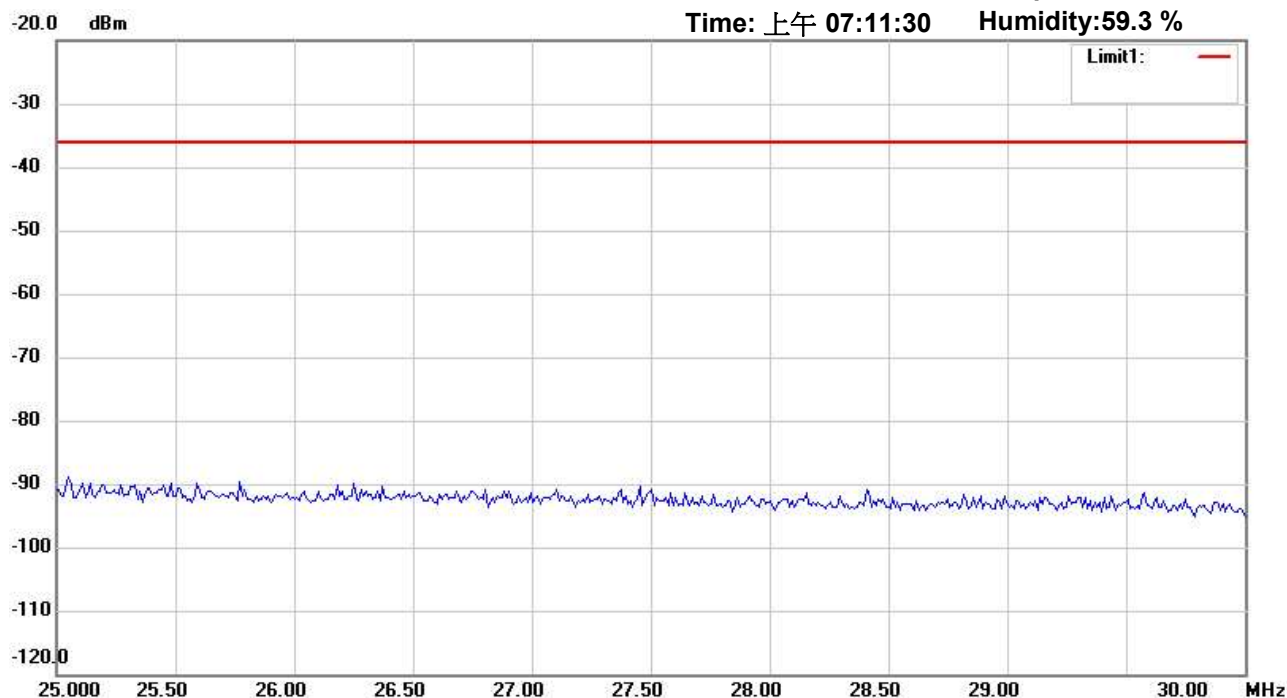
Data : #3

Date: 2025/11/23

Temperature: 22.5 °C

Time: 上午 07:11:30

Humidity: 59.3 %



Site : 966A Chamber

Condition : ETSI EN300_422 V2.2.1-TX_Spurious_OP

EUT : W6M22510-24753

M/N:

Test Mode : Tx 471.1MHz

Note :

Polarization: Vertical

Power : 3 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



Address: No.99, Sec.1, Balian Rd., Xizhi Dist., New Taipei City
Tel: +886-2-2646-1508
Fax: +886-2-2646-1533

Radiated Emission Measurement

Operator: Sora

File :1

Data :#2

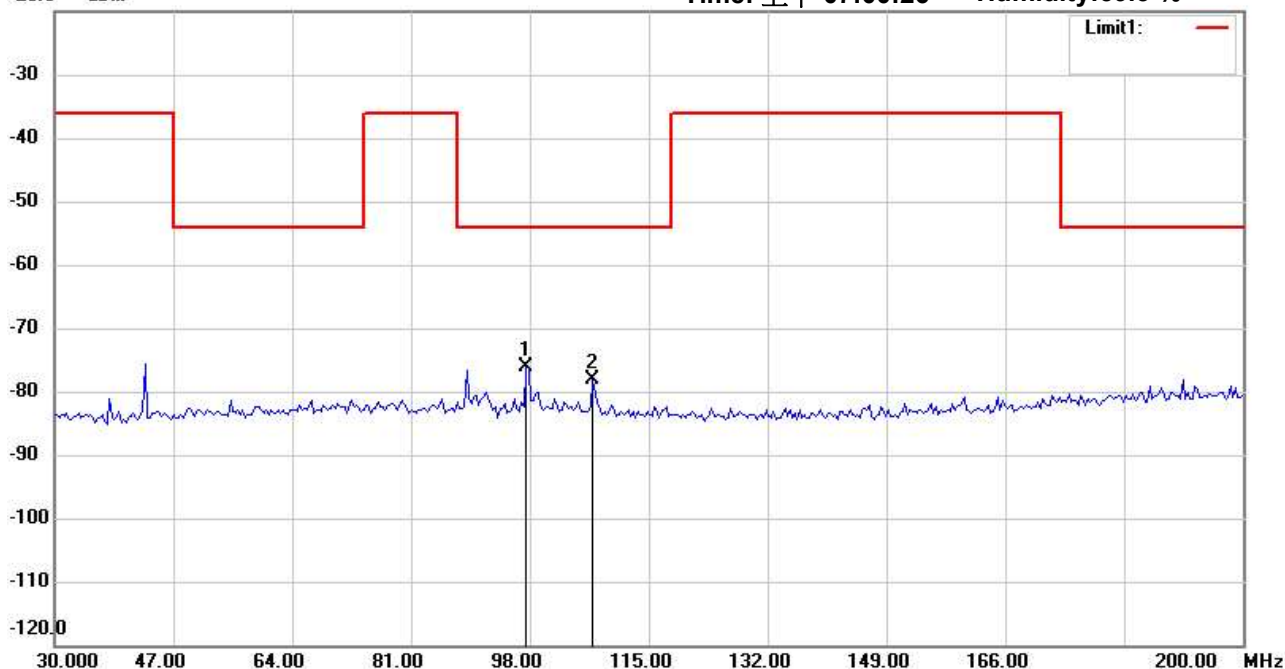
Date: 2025/11/23

Temperature: 22.5 °C

Time: 上午 07:00:26

Humidity: 59.3 %

-20.0 dBm



Site : 966A Chamber

Condition : ETSI EN300_422 V2.2.1-TX_Spurious_OP

EUT : W6M22510-24753

M/N:

Test Mode : Tx 471.1MHz

Note :

Polarization: **Horizontal**

Power : 3 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
*	97.4548	-97.36	peak	21.21	-76.15	-54.00	150	165	-22.15	
	106.9940	-99.01	peak	20.83	-78.18	-54.00	150	105	-24.18	

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



Address: No. 99, Sec. 1, Balian Rd., Xizhi Dist., New Taipei City
Tel: +886-2-2646-1508
Fax: +886-2-2646-1533

Radiated Emission Measurement

Operator: Sora

File :1

Data :#4

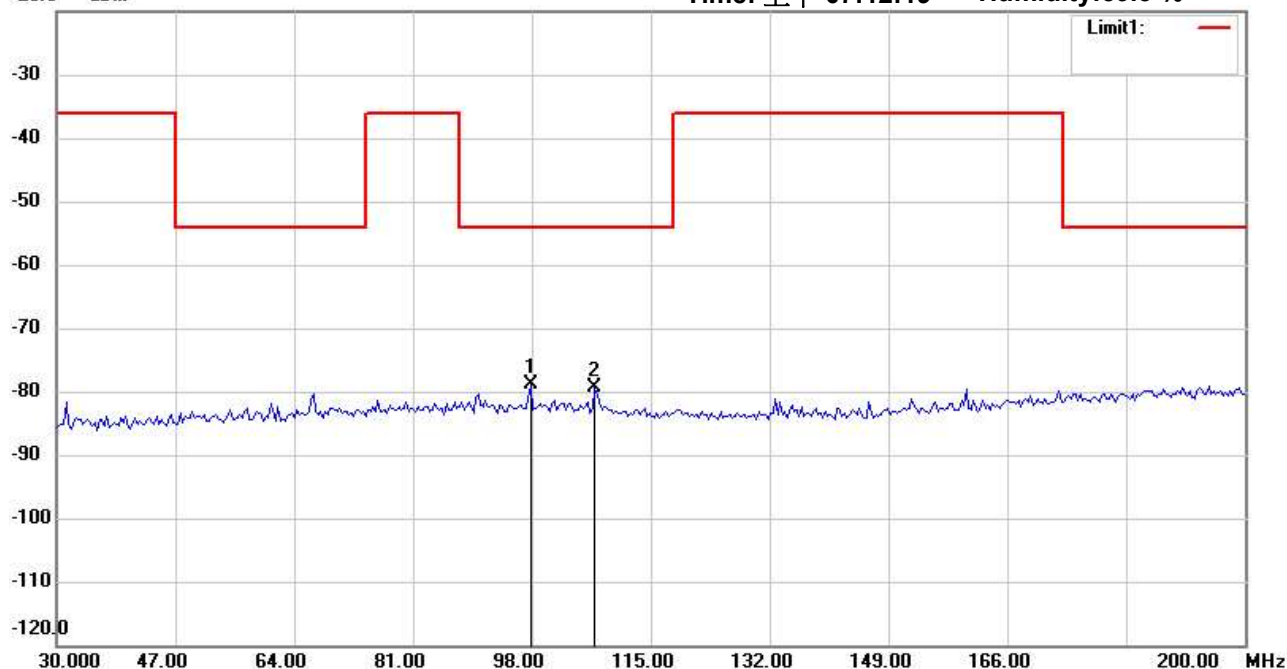
Date: 2025/11/23

Temperature: 22.5 °C

Time: 上午 07:12:19

Humidity: 59.3 %

-20.0 dBm



Site : 966A Chamber

Condition : ETSI EN300_422 V2.2.1-TX_Spurious_OP

EUT : W6M22510-24753

M/N:

Test Mode : Tx 471.1MHz

Note :

Polarization: Vertical

Power : 3 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
*	97.7956	-100.56	peak	21.70	-78.86	-54.00	150	350	-24.86	
	106.9940	-100.54	peak	21.25	-79.29	-54.00	150	255	-25.29	

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



Address: No. 99, Sec. 1, Balian Rd., Xizhi Dist., New Taipei City
Tel: +886-2-2646-1508
Fax: +886-2-2646-1533

Radiated Emission Measurement

Operator: Sora

File : 2

Data : #1

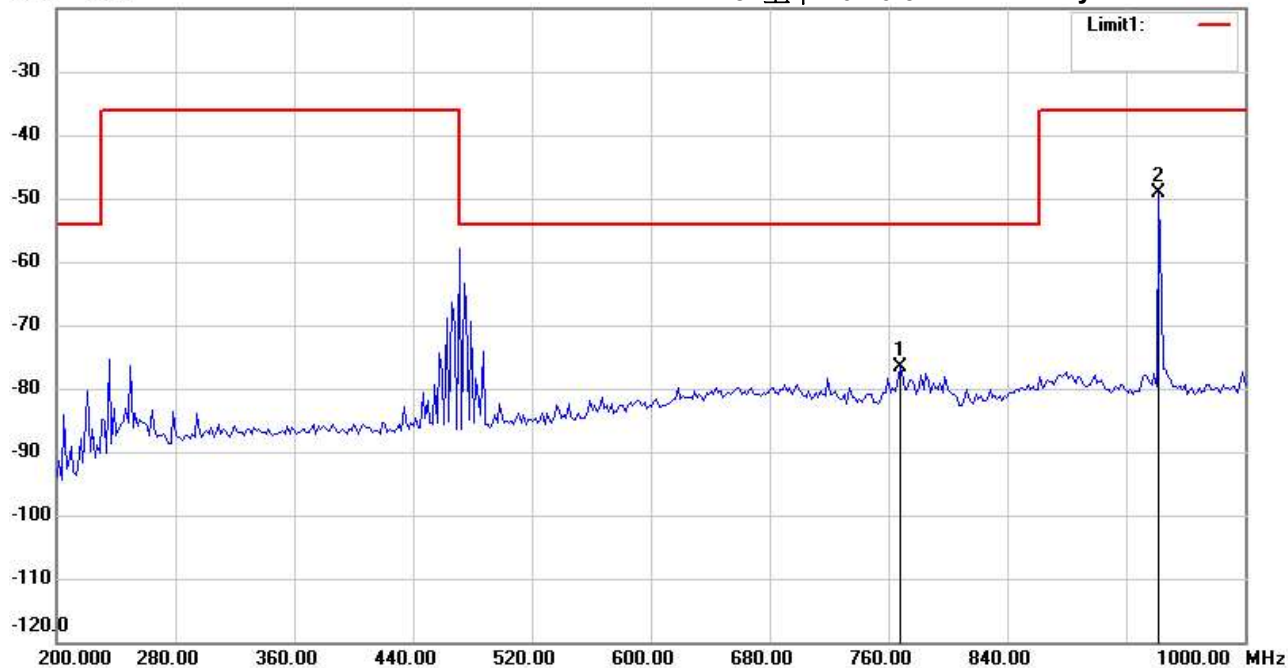
Date: 2025/11/21

Temperature: 22.5 °C

-20.0 dBm

Time: 上午 10:46:54

Humidity: 59.6 %



Site : 966A Chamber

Condition : ETSI EN300_422 V2.2.1-TX_Spurious_OP

EUT : W6M22510-24753

M/N:

Test Mode : Tx 471.1MHz

Note :

Polarization: Horizontal

Power : 3 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
	767.5351	-71.48	peak	-5.18	-76.66	-54.00	150	325	-22.66	
*	942.2846	-46.04	peak	-3.00	-49.04	-36.00	150	135	-13.04	

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



Address: No. 99, Sec. 1, Balian Rd., Xizhi Dist., New Taipei City
Tel: +886-2-2646-1508
Fax: +886-2-2646-1533

Radiated Emission Measurement

Operator: Sora

File : 2

Data : #2

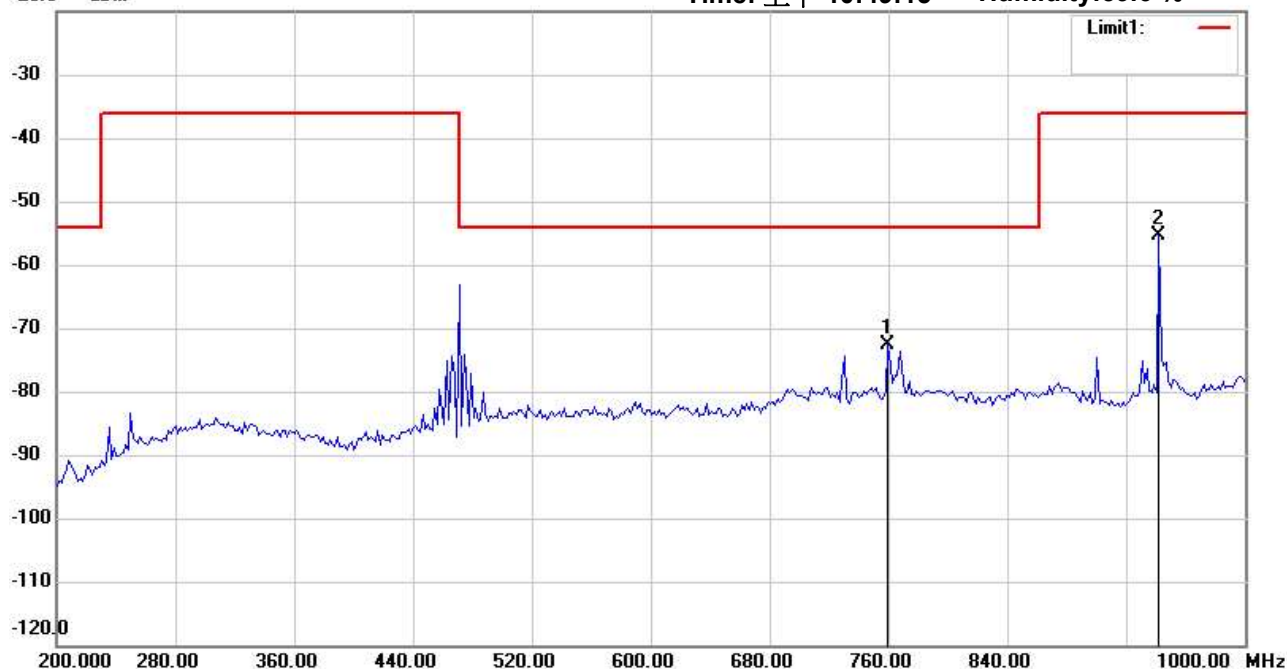
Date: 2025/11/21

Temperature: 22.5 °C

-20.0 dBm

Time: 上午 10:49:15

Humidity: 59.6 %



Site : 966A Chamber

Condition : ETSI EN300_422 V2.2.1-TX_Spurious_OP

EUT : W6M22510-24753

M/N:

Test Mode : Tx 471.1MHz

Note :

Polarization: Vertical

Power : 3 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
*	759.5190	-69.30	peak	-3.44	-72.74	-54.00	150	195	-18.74	
	942.2846	-51.78	peak	-3.68	-55.46	-36.00	150	265	-19.46	

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



Address: No. 99, Sec. 1, Balian Rd., Xizhi Dist., New Taipei City
Tel: +886-2-2646-1508
Fax: +886-2-2646-1533

Radiated Emission Measurement

Operator: Sora

File : 3

Data : #1

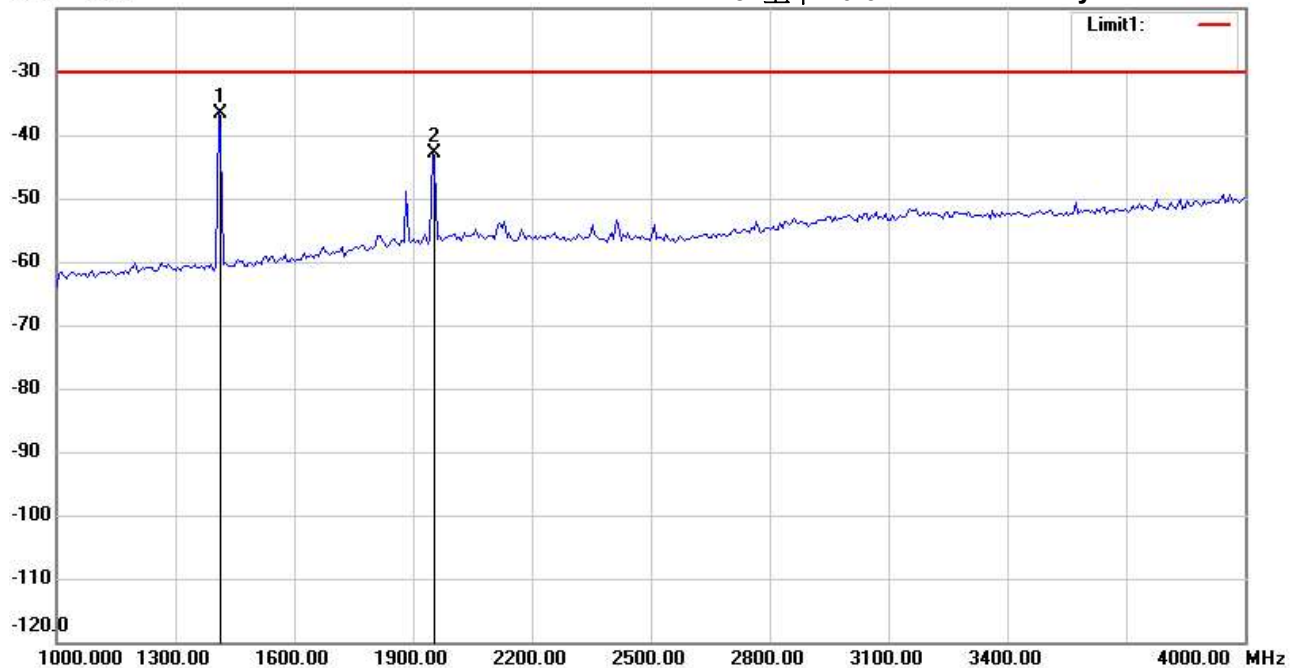
Date: 2025/11/21

Temperature: 22.5 °C

-20.0 dBm

Time: 上午 10:37:14

Humidity: 59.6 %



Site : 966A Chamber

Condition : ETSI EN300_422 V2.2.1-TX_Spurious_OP

EUT : W6M22510-24753

M/N:

Test Mode : Tx 471.1MHz

Note :

Polarization: **Horizontal**

Power : 3 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
*	1408.818	-36.38	peak	-0.17	-36.55	-30.00	150	305	-6.55	
	1949.900	-46.88	peak	4.04	-42.84	-30.00	150	165	-12.84	

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



Address: No. 99, Sec. 1, Balian Rd., Xizhi Dist., New Taipei City
Tel: +886-2-2646-1508
Fax: +886-2-2646-1533

Radiated Emission Measurement

Operator: Sora

File : 3

Data : #2

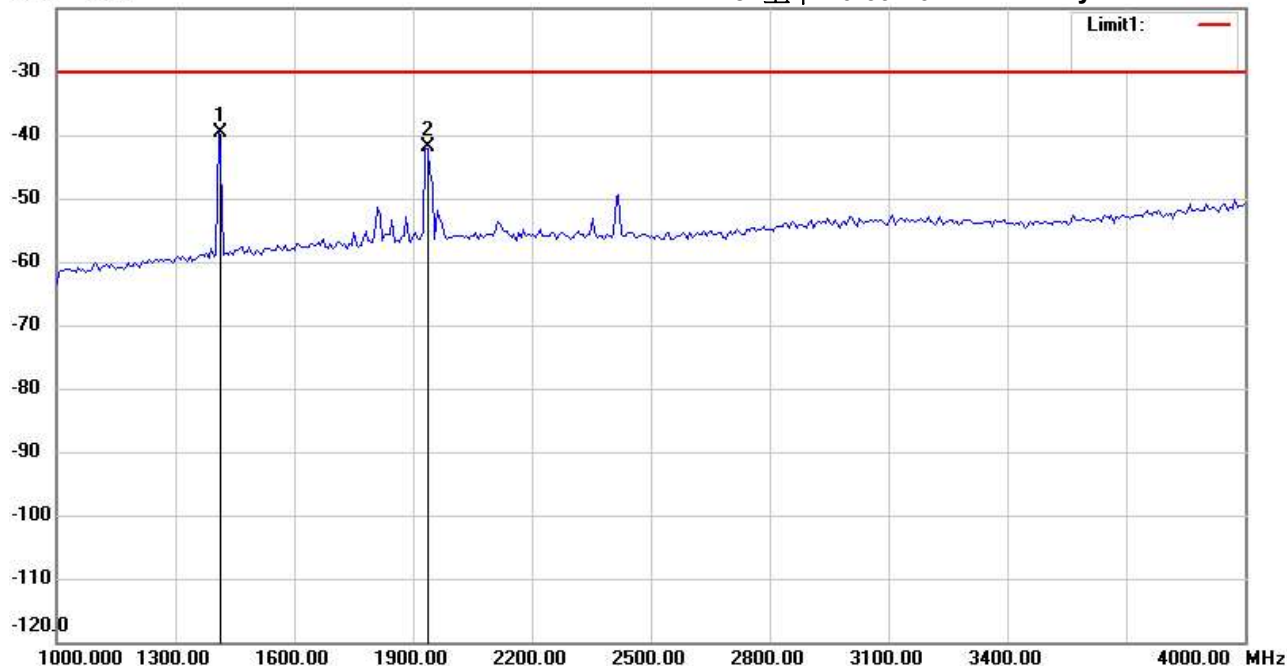
Date: 2025/11/21

Temperature: 22.5 °C

-20.0 dBm

Time: 上午 10:39:46

Humidity: 59.6 %



Site : 966A Chamber

Condition : ETSI EN300_422 V2.2.1-TX_Spurious_OP

EUT : W6M22510-24753

M/N:

Test Mode : Tx 471.1MHz

Note :

Polarization: Vertical

Power : 3 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
*	1408.818	-41.02	peak	1.50	-39.52	-30.00	150	135	-9.52	
	1931.864	-46.26	peak	4.28	-41.98	-30.00	150	225	-11.98	

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



Address: No. 99, Sec. 1, Balian Rd., Xizhi Dist., New Taipei City
Tel: +886-2-2646-1508
Fax: +886-2-2646-1533

Radiated Emission Measurement

Operator: Sora

File : 1

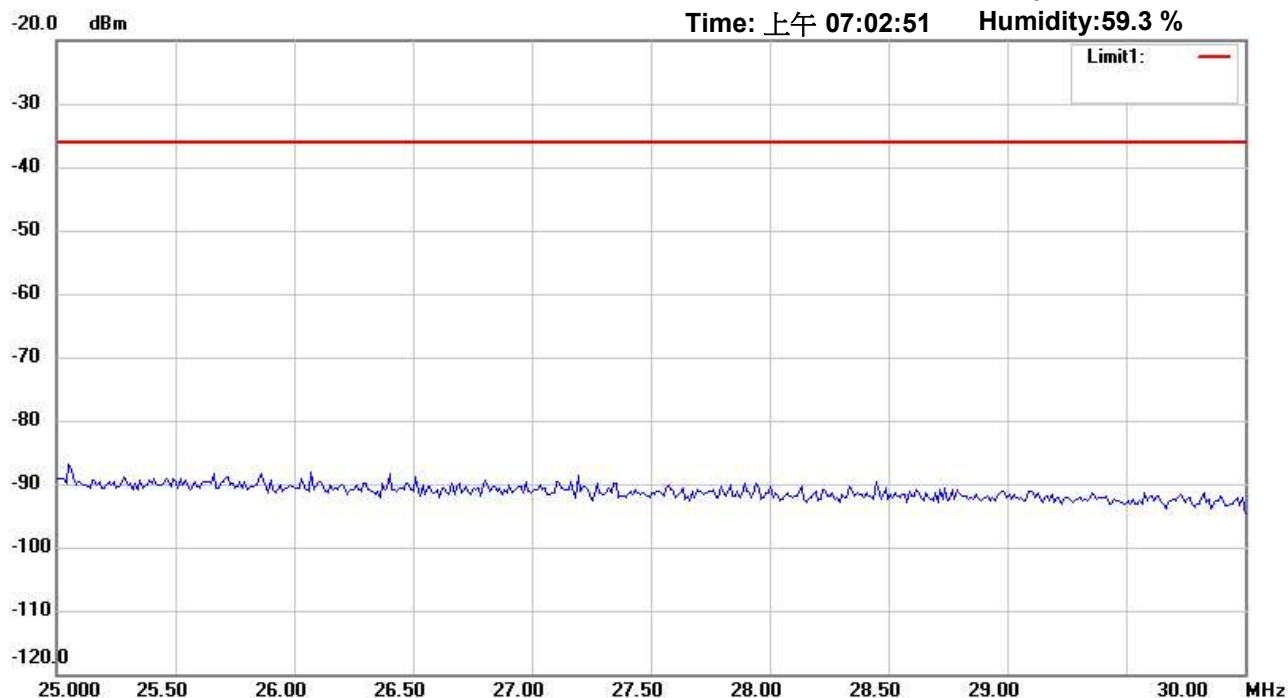
Data : #1

Date: 2025/11/23

Temperature: 22.5 °C

Time: 上午 07:02:51

Humidity: 59.3 %



Site : 966A Chamber

Condition : ETSI EN300_422 V2.2.1-TX_Spurious_OP

EUT : W6M22510-24753

M/N:

Test Mode : Tx 539MHz

Note :

Polarization: **Horizontal**

Power : 3 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



Address: No. 99, Sec. 1, Balian Rd., Xizhi Dist., New Taipei City
Tel: +886-2-2646-1508
Fax: +886-2-2646-1533

Radiated Emission Measurement

Operator: Sora

File : 1

Data : #3

Date: 2025/11/23

Temperature: 22.5 °C

Time: 上午 07:14:54

Humidity: 59.3 %



Site : 966A Chamber

Condition : ETSI EN300_422 V2.2.1-TX_Spurious_OP

EUT : W6M22510-24753

M/N:

Test Mode : Tx 539MHz

Note :

Polarization: Vertical

Power : 3 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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*:Maximum data x:Over limit !:over margin



Address: No. 99, Sec. 1, Balian Rd., Xizhi Dist., New Taipei City
Tel: +886-2-2646-1508
Fax: +886-2-2646-1533

Radiated Emission Measurement

Operator: Sora

File : 1

Data : #2

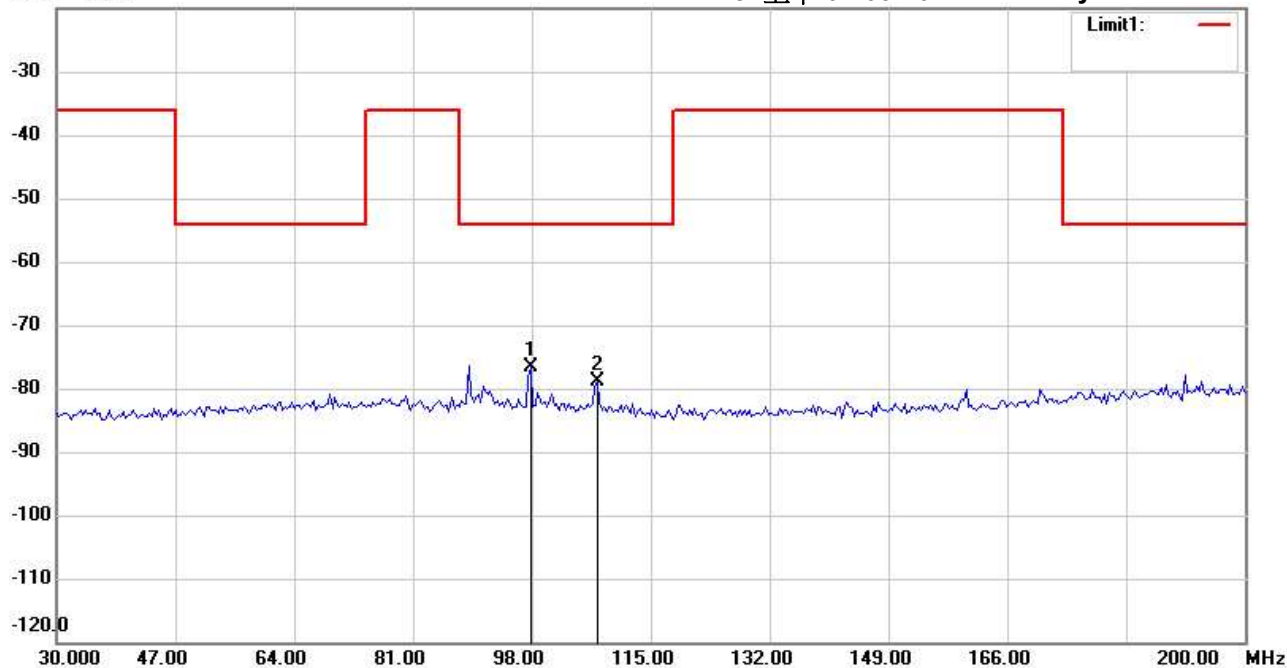
Date: 2025/11/23

Temperature: 22.5 °C

Time: 上午 07:03:40

Humidity: 59.3 %

-20.0 dBm



Site : 966A Chamber

Condition : ETSI EN300_422 V2.2.1-TX_Spurious_OP

EUT : W6M22510-24753

M/N:

Test Mode : Tx 539MHz

Note :

Polarization: Horizontal

Power : 3 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
*	97.7955	-97.90	peak	21.20	-76.70	-54.00	150	155	-22.70	
	107.3346	-99.75	peak	20.81	-78.94	-54.00	150	110	-24.94	

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



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Radiated Emission Measurement

Operator: Sora

File : 1

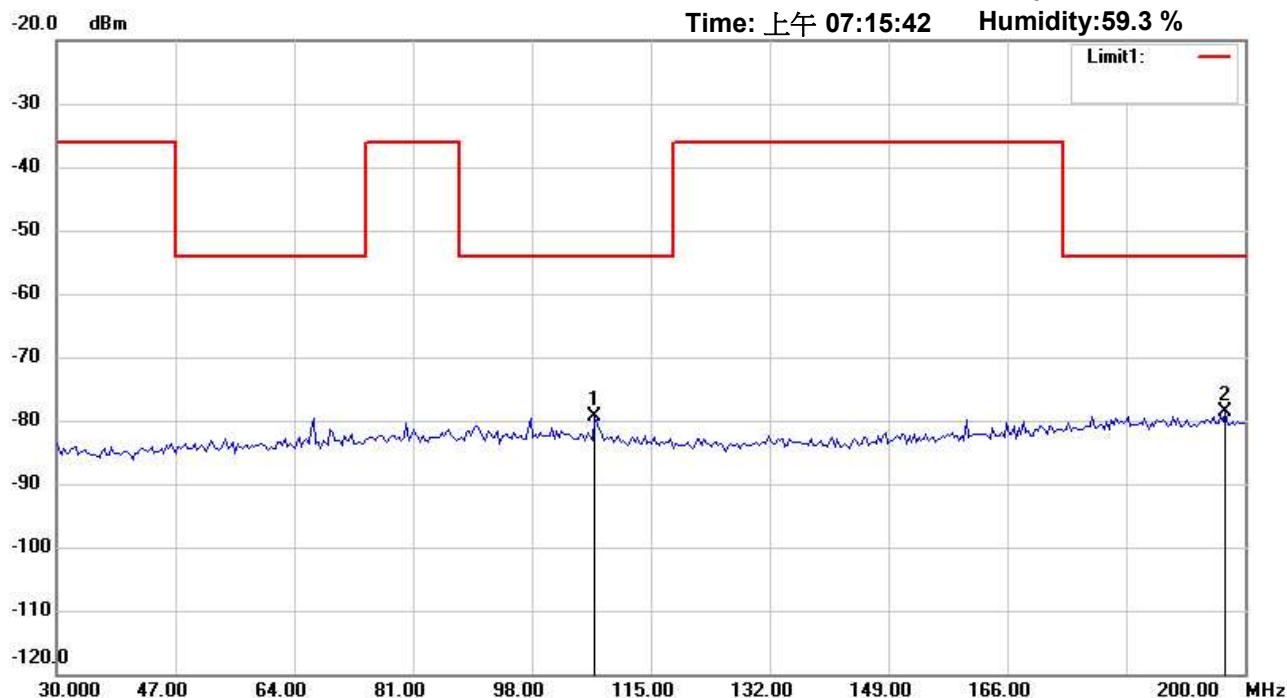
Data : #4

Date: 2025/11/23

Temperature: 22.5 °C

Time: 上午 07:15:42

Humidity: 59.3 %



Site : 966A Chamber

Condition : ETSI EN300_422 V2.2.1-TX_Spurious_OP

EUT : W6M22510-24753

M/N:

Test Mode : Tx 539MHz

Note :

Polarization: Vertical

Power : 3 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
	106.9940	-100.63	peak	21.25	-79.38	-54.00	150	65	-25.38	
*	197.2744	-101.67	peak	22.97	-78.70	-54.00	150	240	-24.70	

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



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Radiated Emission Measurement

Operator: Sora

File : 2

Data : #1

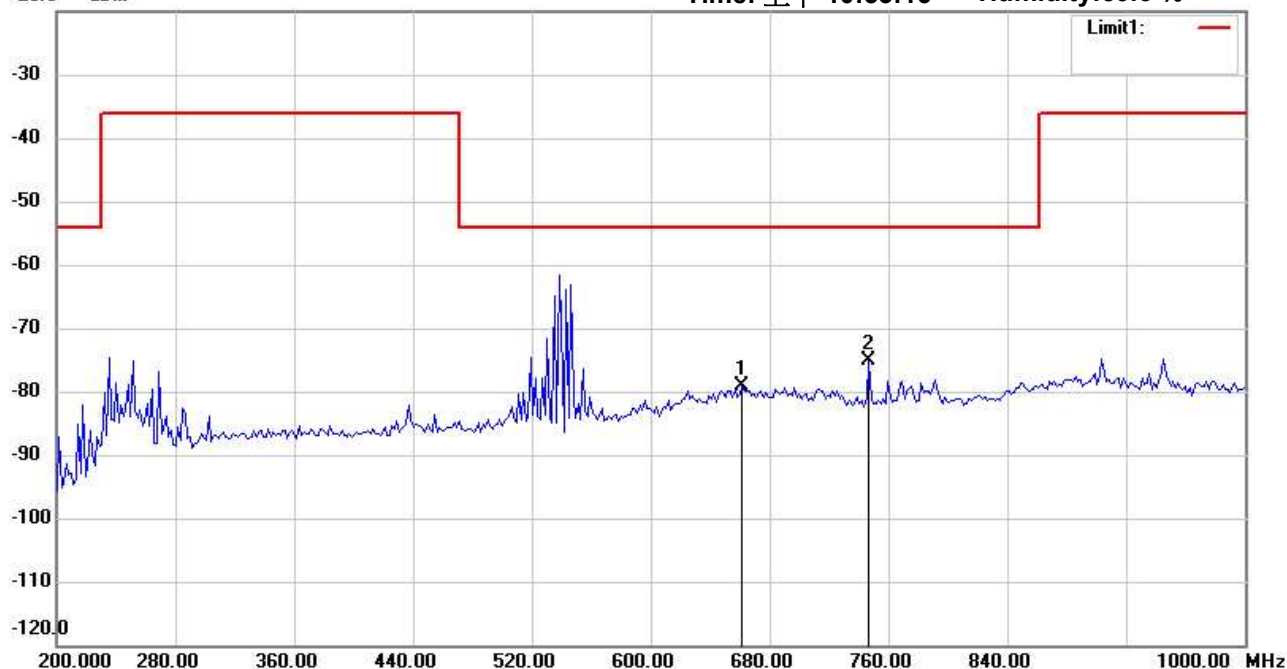
Date: 2025/11/21

Temperature: 22.5 °C

-20.0 dBm

Time: 上午 10:53:16

Humidity: 59.6 %



Site : 966A Chamber

Condition : ETSI EN300_422 V2.2.1-TX_Spurious_OP

EUT : W6M22510-24753

M/N:

Test Mode : Tx 539MHz

Note :

Polarization: **Horizontal**

Power : 3 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
	661.7234	-75.80	peak	-3.37	-79.17	-54.00	150	185	-25.17	
*	746.6934	-70.24	peak	-4.89	-75.13	-54.00	150	135	-21.13	

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



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Radiated Emission Measurement

Operator: Sora

File : 2

Data : #2

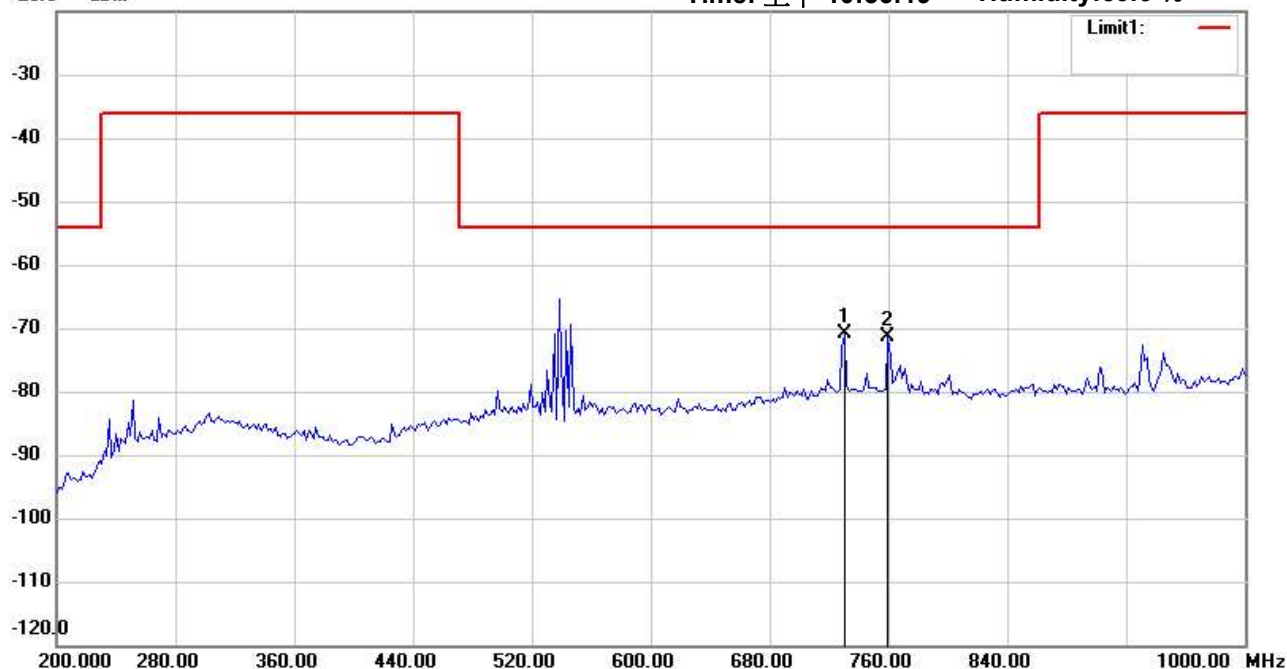
Date: 2025/11/21

Temperature: 22.5 °C

-20.0 dBm

Time: 上午 10:56:19

Humidity: 59.6 %



Site : 966A Chamber

Condition : ETSI EN300_422 V2.2.1-TX_Spurious_OP

EUT : W6M22510-24753

M/N:

Test Mode : Tx 539MHz

Note :

Polarization: Vertical

Power : 3 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
*	730.6613	-67.43	peak	-3.47	-70.90	-54.00	150	330	-16.90	
	759.5190	-68.03	peak	-3.44	-71.47	-54.00	150	295	-17.47	

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