

47 CFR PART 15 SUBPART C TEST REPORT

for

Digital UHF tour guide system

Model No.: TG-100T(S)

FCC ID: 2ADLG-TG100S

of

Applicant: LINKX ELECTRONICS CO., LTD.

Address: NO.16, Sec. 1, Wenxue Road, Renwu Dist., Kaohsiung Taiwan

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

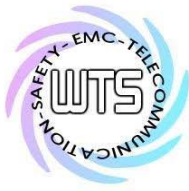


Report No.: W6M22502-24141-C-1



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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:

June 04, 2025

Rick Chen

Rick Chen.

Date

WTS-Lab.

Name

Signature

Technical responsibility for area of testing:

June 04, 2025

Kevin Wang

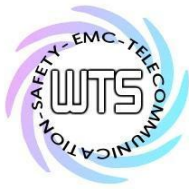
Kevin Wang

Date

WTS-Lab.

Name

Signature



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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/Conducted Emission

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: LINKX ELECTRONICS CO., LTD.

Street: NO.16, Sec. 1, Wenxue Road, Renwu Dist.,

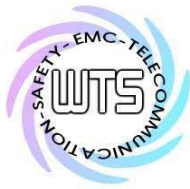
Town: Kaohsiung

Country: Taiwan

1.4 Application details

Date of receipt of test sample: February 25, 2025

Date of test: from February 26, 2025 to May 16, 2025



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1.5 General information of Test item

Type of test item: Digital UHF tour guide system

Model number: TG-100T(S)

Brand name: LINKX

Multi-listing model number: ./.

Sample no.: #04

Technical data

Frequency band : 470-608 MHz

Frequency (ch A): 478 MHz

Frequency (ch B): 540 MHz

Frequency (ch C): 607 MHz

Antenna type: TX: Helical antenna

Antenna gain: 0 dBi

Power supply: USB 5Vd.c.
Battery 3.7Vd.c., 630mAh, 2.33Wh

Operation modes: Duplex

Manufacturer: (if applicable)

Name: ./.

Street: ./.

Town: ./.

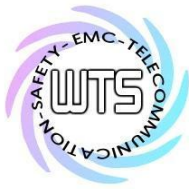
Country: ./.

1.6 Test standards

47 CFR PART 15 SUBPART C § 15.236 (2023-10)

ANSI C63.10-2013

ETSI EN 300 422-1 V2.2.1 (2021-11)



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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

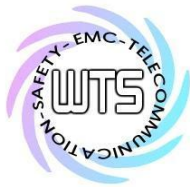
Relative humidity content: 20 ... 75 %

Air pressure: 86-103 KPa

Power supply: USB 5Vd.c.
Battery 3.7Vd.c., 630mAh, 2.33Wh

Test item Name	Uncertainty
Estimation Result of Uncertainty of Conducted Emission (CR) (Line Conducted Emission)	Expanded Uncertainty : AMN : 1.08 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.



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2.3 Test Equipment List

occupied bandwidth & necessary bandwidth (Digital)

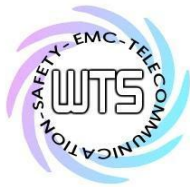
Code No.	Test equipment	Mode No.	Serial No.	Brand	Cal. Date	Next Cal. Date
ETSTW-RE 050	Attenuator 10dB	50HF-010-1	None	JFW	2025/2/14	2026/2/13
ETSTW-RE 099	DC Block	50DB-007-1	None	JFW	2025/2/14	2026/2/13
ETSTW-Cable 030	Microwave Cable	SUCOFLEX 104 (S_Cable 9)	279067	HUBER+SUHNER	2025/2/14	2026/2/13
ETSTW-RE 055	SPECTRUM ANALYZER	FSU 26	200074	R&S	2025/3/5	2026/3/4

Transmitter frequency stability

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	2024/7/23	2025/7/22

TX 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	2024/9/11	2025/9/10
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	2024/7/12	2025/7/11
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	2024/7/12	2025/7/11
ETSTW-Cable 084	SMA type cable (1m)	SF104-11SMA-1000	816477/4	HONOVA	2024/7/12	2025/7/11
ETSTW-Cable 089	SMA type cable (2m)	SF104-11SMA-2000	SN 811889/4	HUBER+SUHNE R	2024/7/12	2025/7/11
WTSTW-SW 002	EMI TEST SOFTWARE	EZ_EMC	None	Farad	Version ETS-03A1 Version EMEC-3A1+	



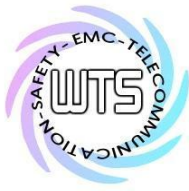
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AC Conducted Emission

Code No.	Test equipment	Mode No.	Serial No.	Brand	Cal. Date	Next Cal. Date
ETSTW-CE 032	EMI Test Receiver	ESR3	102830	R&S	2025/5/5	2026/5/4
ETSTW-CE 035	AC Power Source	AFC-150	A2000386	All power	Function Test	
ETSTW-CE 034	Line-Impedance Stabilisation Network	NSLK8127	01087	SCHWARZBECK	2024/7/18	2025/7/17
ETSTW-Cable 092	BNC Cable (3m)	EMCCFD-300-BM- BM-3000	240108	EMCI	2025/1/9	2026/1/8
WTSTW-SW 002	EMI TEST SOFTWARE	EZ_EMC	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 STANDARD C63.10-2013 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 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 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:

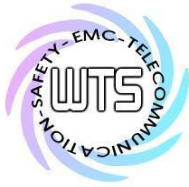
- (1) If the intentional radiator operates below 10 GHz: to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower.
- (2) If the intentional radiator operates at or above 10 GHz and below 30 GHz: to the fifth harmonic of the highest fundamental frequency or to 100 GHz, 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 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.



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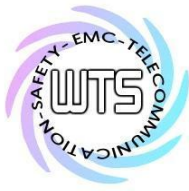
Registration number: W6M22502-24141-C-1

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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 V2.1.2	☒	☒	☐
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.

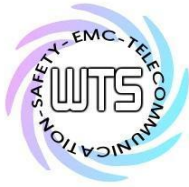
(3) As an alternative to paragraphs (b) (1) and (2) of this section other tones besides those specified may be used as modulating frequencies, upon a sufficient showing of need. However, any tones so chosen must not be harmonically related, the third and fifth order intermodulation products which occur 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.

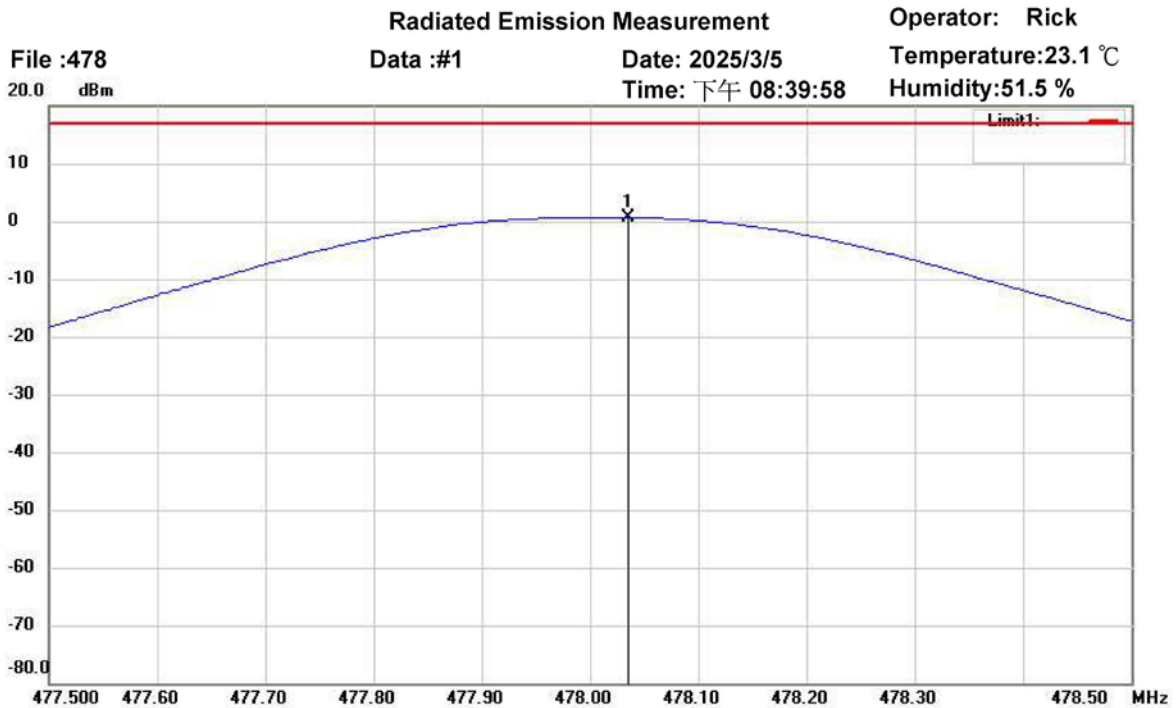
(6) Single-channel controlled-carrier transmitters in the A3 emission mode - by a 2500 Hz tone.

(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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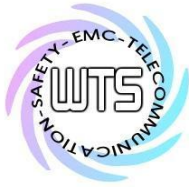
4.2 Test Results



Site : 966A Chamber
Condition : FCC 15.236 POWER
EUT : W6M22502-24141
M/N:
Test Mode : TX 478MHz
Note :

Polarization: *Horizontal*
Power : 3.7Vd.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
*	478.0351	-27.82	peak	28.42	0.60	17.00	150	200	-16.40	



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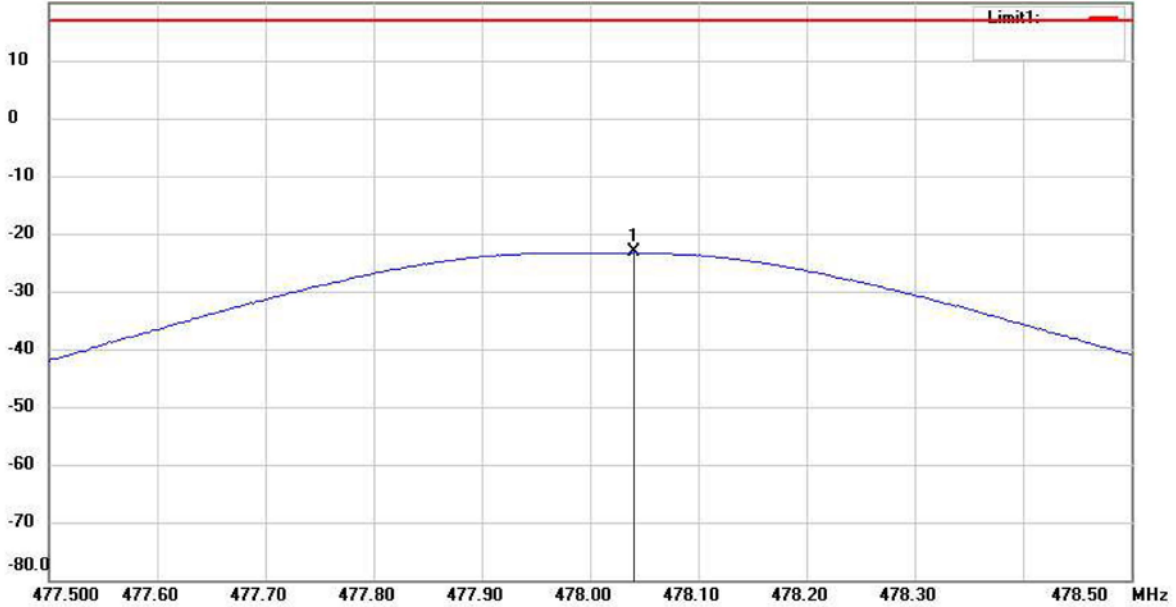
Radiated Emission Measurement

Operator: Rick
Temperature: 23.1 °C
Humidity: 51.5 %

File : 478
20.0 dBm

Data : #2

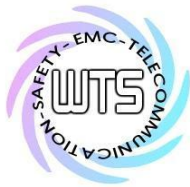
Date: 2025/3/5
Time: 下午 08:41:48



Site : 966A Chamber
Condition : FCC 15.236 POWER
EUT : W6M22502-24141
M/N:
Test Mode : TX 478MHz
Note :

Polarization: *Vertical*
Power : 3.7Vd.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
*	478.0411	-51.55	peak	28.34	-23.21	17.00	150	330	-40.21	



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Radiated Emission Measurement

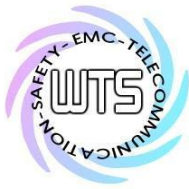
Operator: Rick
Temperature: 23.1 °C
Humidity: 51.5 %



Site : 966A Chamber
Condition : FCC 15.236 POWER
EUT : W6M22502-24141
M/N:
Test Mode : TX 540MHz
Note :

Polarization: *Horizontal*
Power : 3.7Vd.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
*	540.0291	-29.48	peak	29.68	0.20	17.00	150	110	-16.80	



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Radiated Emission Measurement

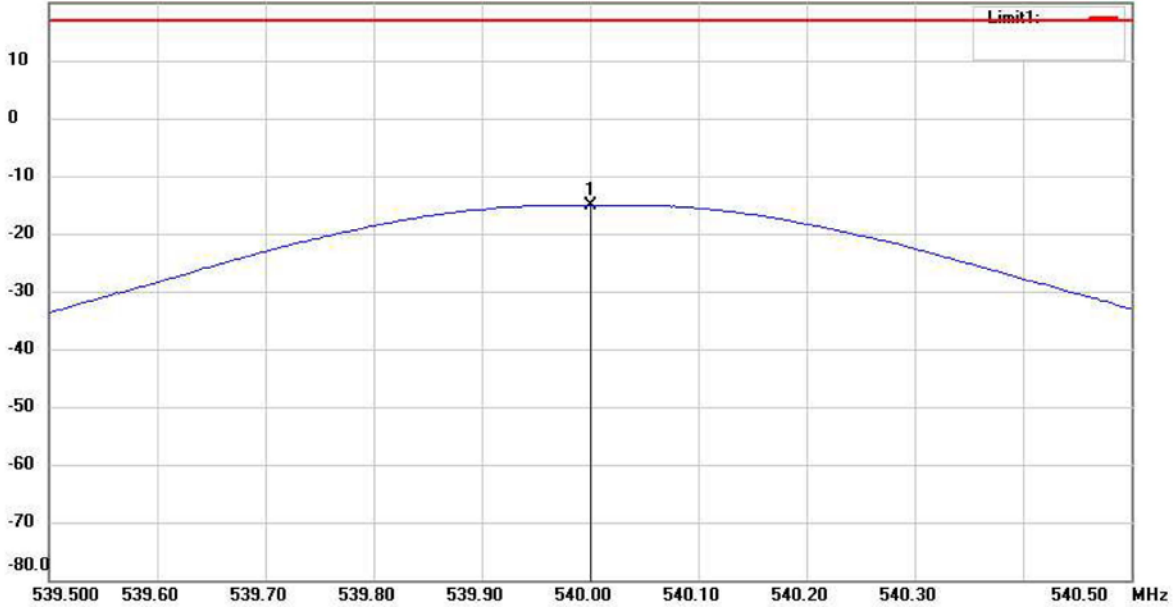
Operator: Rick
Temperature: 23.1 °C
Humidity: 51.5 %

File : 540
20.0 dBm

Data : #2

Date: 2025/3/5

Time: 下午 08:38:11



Site : 966A Chamber

Condition : FCC 15.236 POWER

EUT : W6M22502-24141

M/N:

Test Mode : TX 540MHz

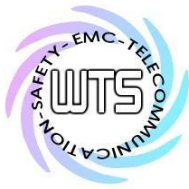
Note :

Polarization: *Vertical*

Power : 3.7Vd.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
*	540.0010	-44.66	peak	29.62	-15.04	17.00	150	310	-32.04	



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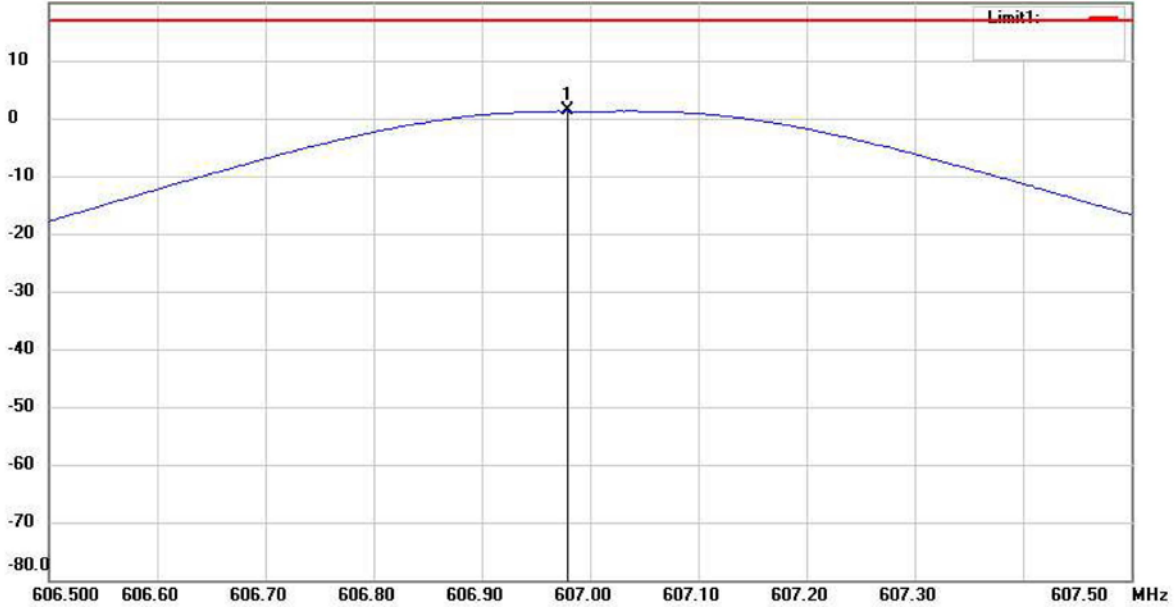
Radiated Emission Measurement

Operator: Rick
Temperature: 23.1 °C
Humidity: 51.5 %

File :607
20.0 dBm

Data :#1

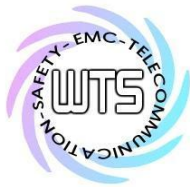
Date: 2025/3/5
Time: 下午 08:30:49



Site : 966A Chamber
Condition : FCC 15.236 POWER
EUT : W6M22502-24141
M/N:
Test Mode : TX 607MHz
Note :

Polarization: *Horizontal*
Power : 3.7Vd.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
*	606.9790	-29.53	peak	30.81	1.28	17.00	150	200	-15.72	



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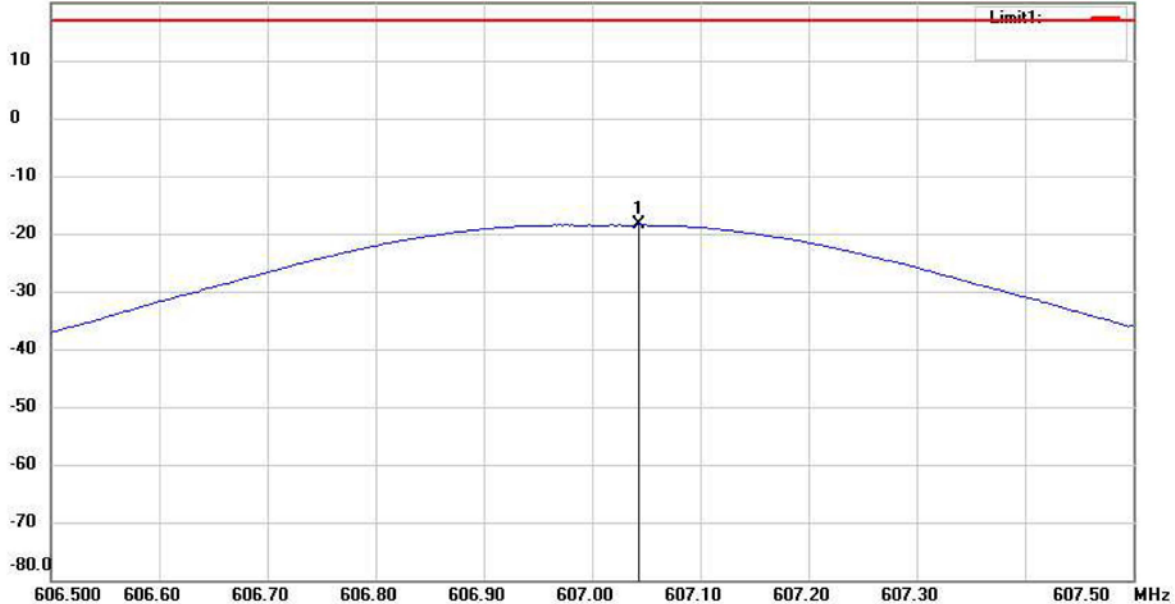
Radiated Emission Measurement

Operator: Rick
Temperature: 23.1 °C
Humidity: 51.5 %

File : 607
20.0 dBm

Data : #2

Date: 2025/3/5
Time: 下午 08:29:33

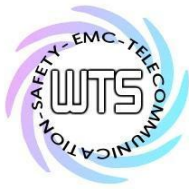


Site : 966A Chamber
Condition : FCC 15.236 POWER
EUT : W6M22502-24141
M/N:
Test Mode : TX 607MHz
Note :

Polarization: *Vertical*
Power : 3.7Vd.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
*	607.0431	-48.18	peak	29.72	-18.46	17.00	150	120	-35.46	

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



Registration number: W6M22502-24141-C-1

FCC ID: 2ADLG-TG100S

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.

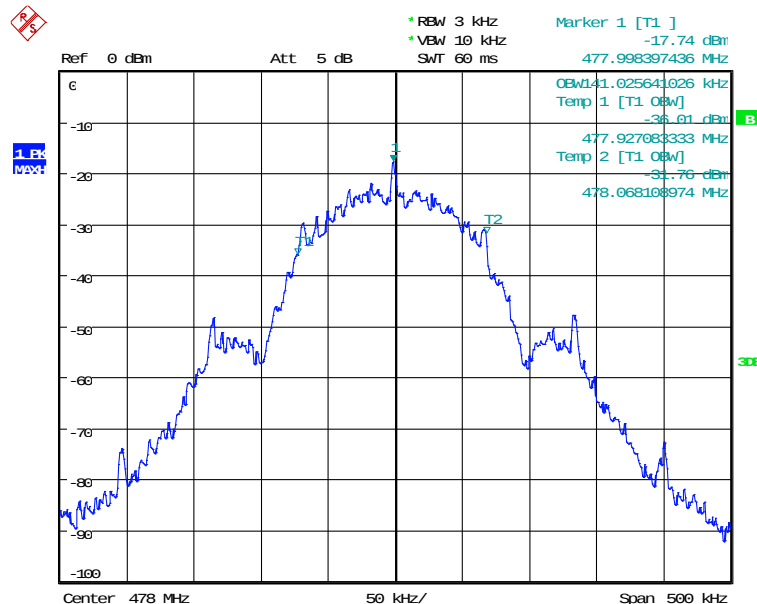
5.2 Test results

Test date: March 03, 2025

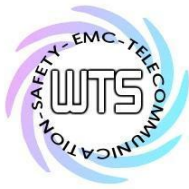
Temperature: 23.1°C

Humidity: 51.5%

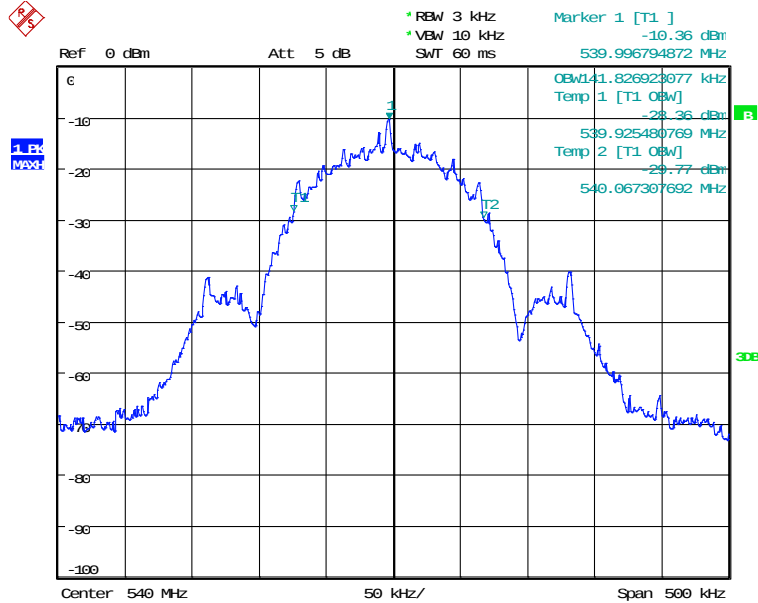
Tester: Rick



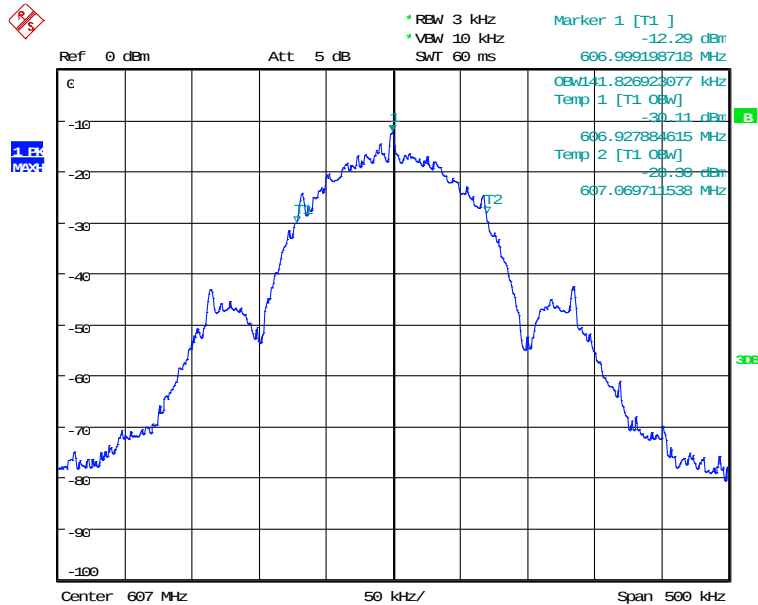
OCCUPIED BANDWIDTH 478MHz
Date: 3.MAR.2025 19:14:43



Registration number: W6M22502-24141-C-1
FCC ID: 2ADLG-TG100S



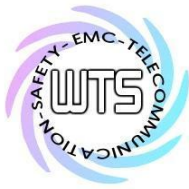
OCCUPIED BANDWIDTH 540MHz
Date: 3.MAR.2025 19:13:13



OCCUPIED BANDWIDTH 607MHz
Date: 3.MAR.2025 19:13:59

Limit

The operating bandwidth shall not exceed 200 kHz.



Registration number: W6M22502-24141-C-1

FCC ID: 2ADLG-TG100S

Emission Mask

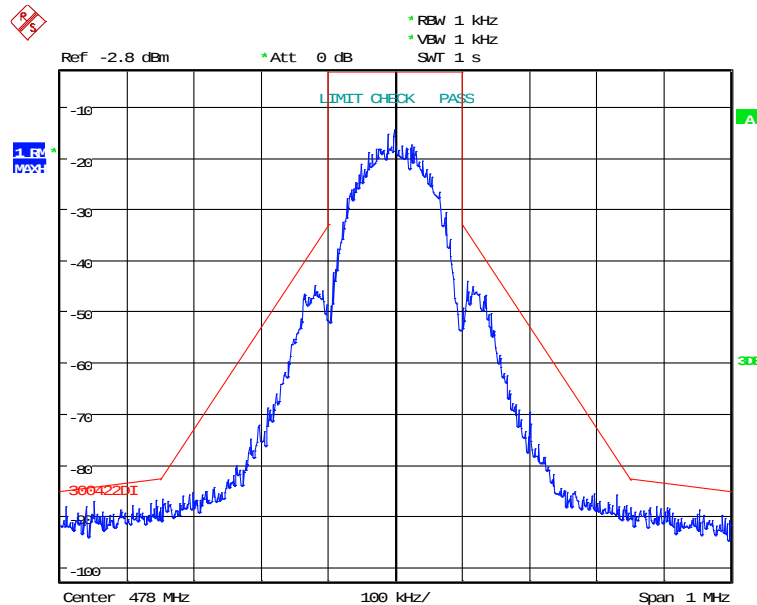
(g) Emissions within the band from one megahertz below to one megahertz above the carrier frequency shall comply with the emission mask in Section 8.3 of ETSI EN 300 422-1 V2.1.2 (2017-01) (incorporated by reference, see § 15.38). Emissions outside this band shall comply with the limit specified at the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

Test date: March 03, 2025

Temperature: 23.1°C

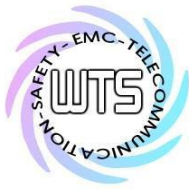
Humidity: 51.5%

Tester: Rick

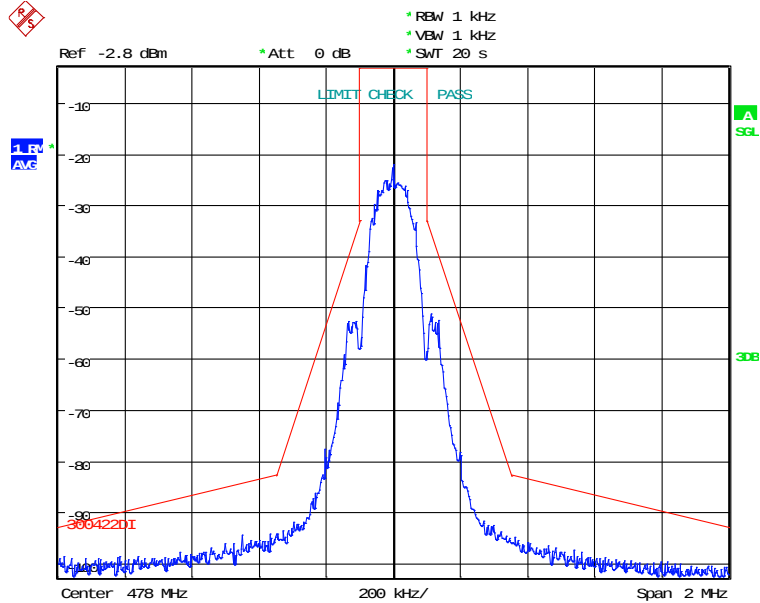


NECESSARY BANDWIDTH 478MHz

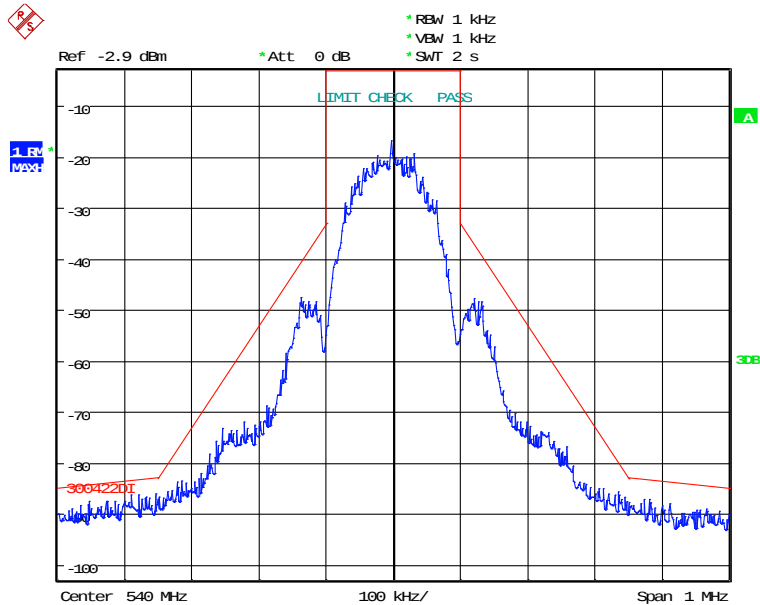
Date: 3.MAR.2025 18:09:48



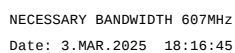
Registration number: W6M22502-24141-C-1
FCC ID: 2ADLG-TG100S



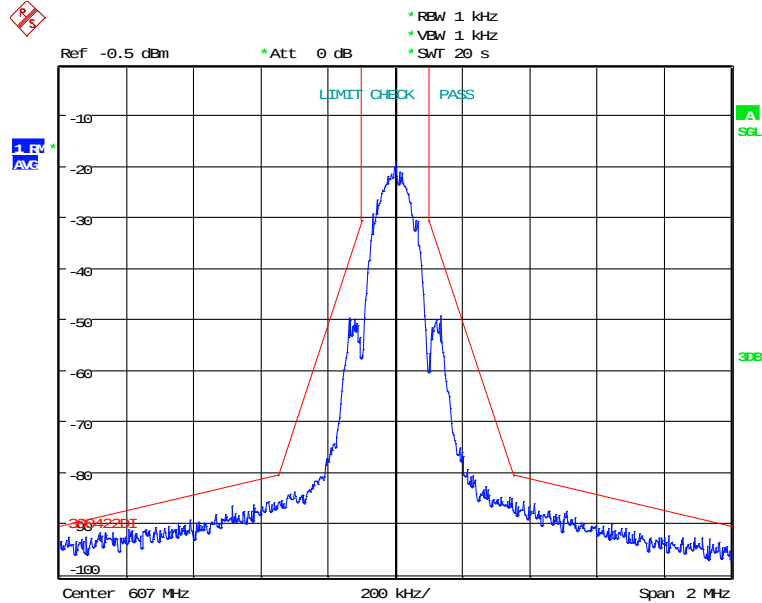
NECESSARY BANDWIDTH 478MHz
Date: 3.MAR.2025 18:10:40



NECESSARY BANDWIDTH 540MHz
Date: 3.MAR.2025 18:12:32



Registration number: W6M22502-24141-C-1
FCC ID: 2ADLG-TG100S



NECESSARY BANDWIDTH 607MHz
Date: 3.MAR.2025 18:18:02

LIMIT acc. Subclause 8.3.1.2

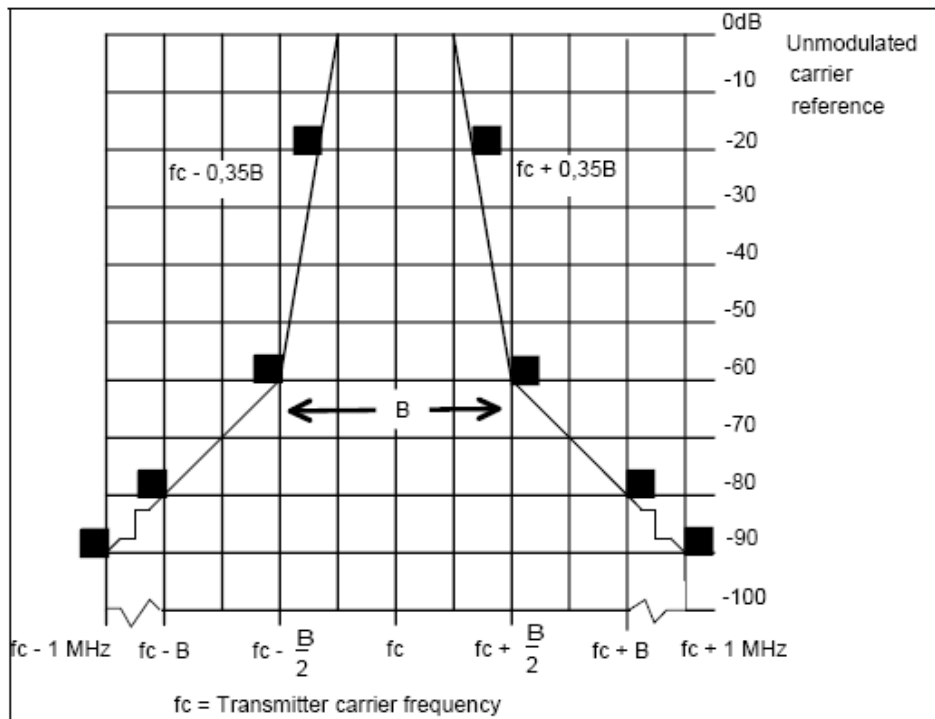


Figure 1: Spectrum mask for analogue systems in all bands

Registration number: W6M22502-24141-C-1

FCC ID: 2ADLG-TG100S

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.

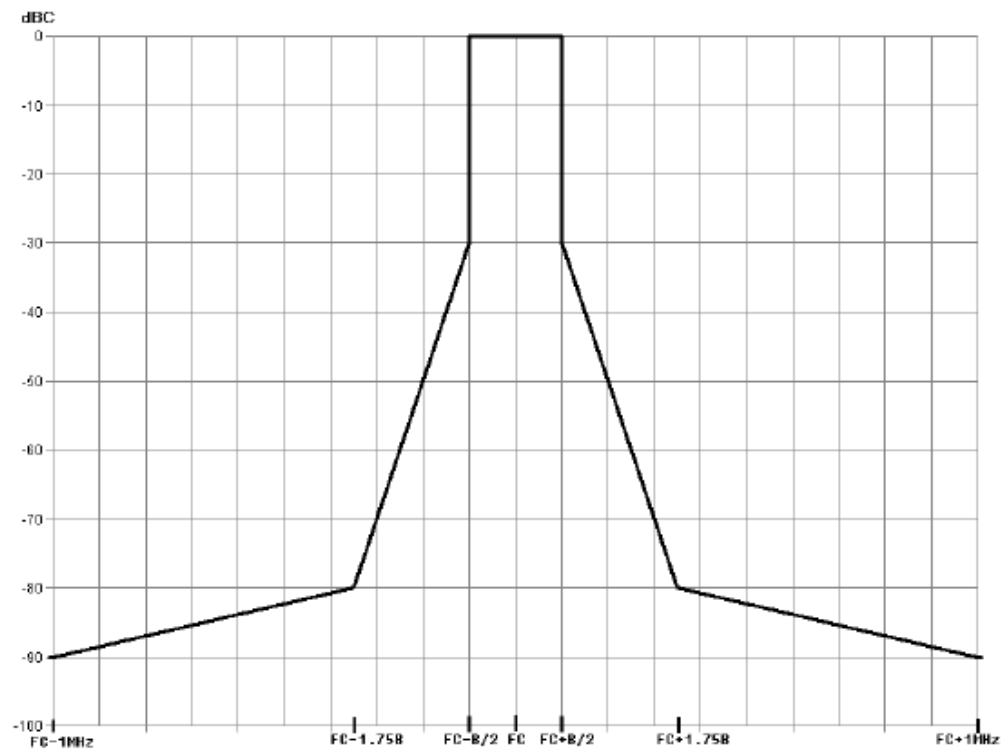
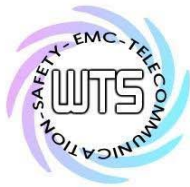


Figure 2: Spectrum mask for digital systems below 1 GHz



Registration number: W6M22502-24141-C-1

FCC ID: 2ADLG-TG100S

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.

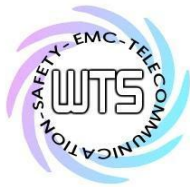
Summary table with radiated data of the test plots for Carrier Test Frequency

Model:	TG-100T(S)	Date:	--				
Mode:	--	Temperature:	--	°C	Engineer:	--	
Polarization:	Horizontal	Humidity:	--	%			
Frequency (MHz)	Reading (dBm) Peak	Factor (dB) Corr.	Result (dBm)	Limit (dBm)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--

Polarization:	Vertical						
Frequency (MHz)	Reading (dBm) Peak	Factor (dB) Corr.	Result (dBm)	Limit (dBm)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--

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: W6M22502-24141-C-1

FCC ID: 2ADLG-TG100S

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: March 25, 2025

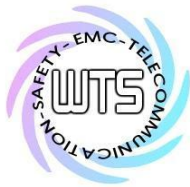
Temperature: 23.5°C

Humidity: 55.0%

Tester: Rick

478MHz			
Test Volt	Carrier Freq.(MHz)	Result(ppm)	limit(ppm)
Vmin = 3.145Vd.c.	477.998397	-3.352644	50
Vnom = 3.7Vd.c.	477.998397	-3.352644	50
Vmax = 4.255Vd.c.	477.998397	-3.352644	50

478MHz			
Test Temp	Carrier Freq.(MHz)	Result(ppm)	limit(ppm)
-20	477.999359	-1.341059	50
-10	477.999679	-0.670529	50
0	477.999519	-1.005793	50
10	477.998718	-2.682115	50
20	477.998397	-3.352644	50
30	477.998718	-2.682115	50
40	477.997276	-5.699496	50
50	477.997115	-6.034759	50



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M22502-24141-C-1

FCC ID: 2ADLG-TG100S

540MHz			
Test Volt	Carrier Freq.(MHz)	Result(ppm)	limit(ppm)
Vmin = 3.145Vd.c.	539.996635	-6.232194	50
Vnom = 3.7Vd.c.	539.996635	-6.232194	50
Vmax = 4.255Vd.c.	539.996635	-6.232194	50

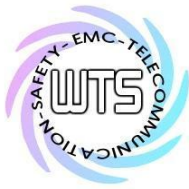
540MHz			
Test Temp	Carrier Freq.(MHz)	Result(ppm)	limit(ppm)
-20	539.998077	-3.561254	50
-10	539.997596	-4.451567	50
0	539.997276	-5.045109	50
10	539.996474	-6.528965	50
20	539.996635	-6.232194	50
30	539.996955	-5.638652	50
40	539.995513	-8.309591	50
50	539.994872	-9.496676	50

607MHz			
Test Volt	Carrier Freq.(MHz)	Result(ppm)	limit(ppm)
Vmin = 3.145Vd.c.	606.998878	-1.848097	50
Vnom = 3.7Vd.c.	606.998878	-1.848097	50
Vmax = 4.255Vd.c.	606.998878	-1.848097	50

607MHz			
Test Temp	Carrier Freq.(MHz)	Result(ppm)	limit(ppm)
-20	607.001603	2.640138	50
-10	607.001282	2.112110	50
0	607.000962	1.584082	50
10	606.999840	-0.264013	50
20	606.998878	-1.848097	50
30	607.000321	0.528028	50
40	606.997756	-3.696194	50
50	606.997115	-4.752249	50

Limit According to FCC 15.236(f)(3)

The frequency tolerance of the transmitter shall be 0.005 percent.



Registration number: W6M22502-24141-C-1

FCC ID: 2ADLG-TG100S

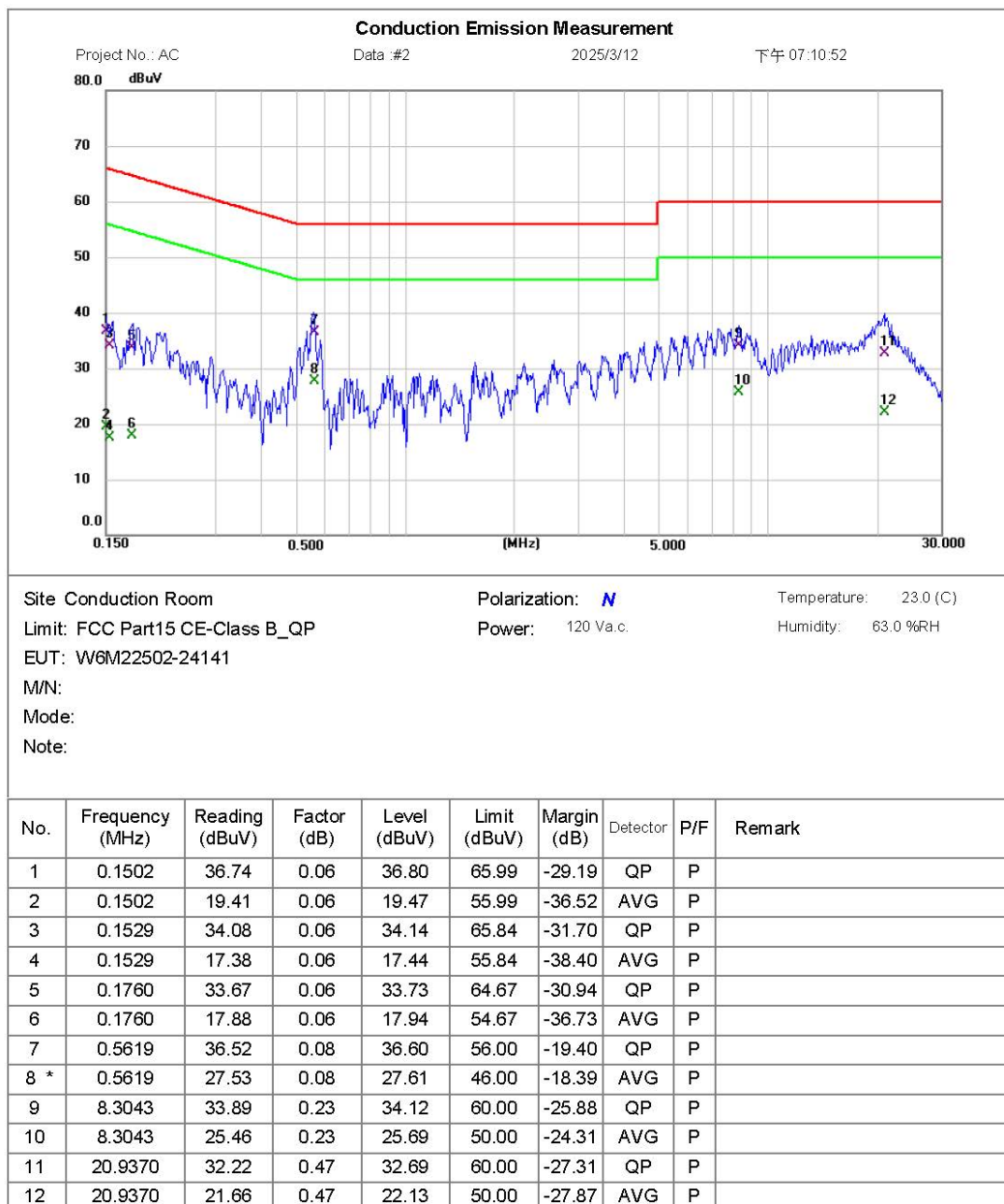
8 Power Line Conducted Emission , FCC 15.207

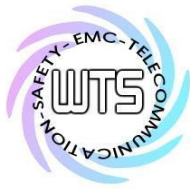
8.1 Test procedure

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.

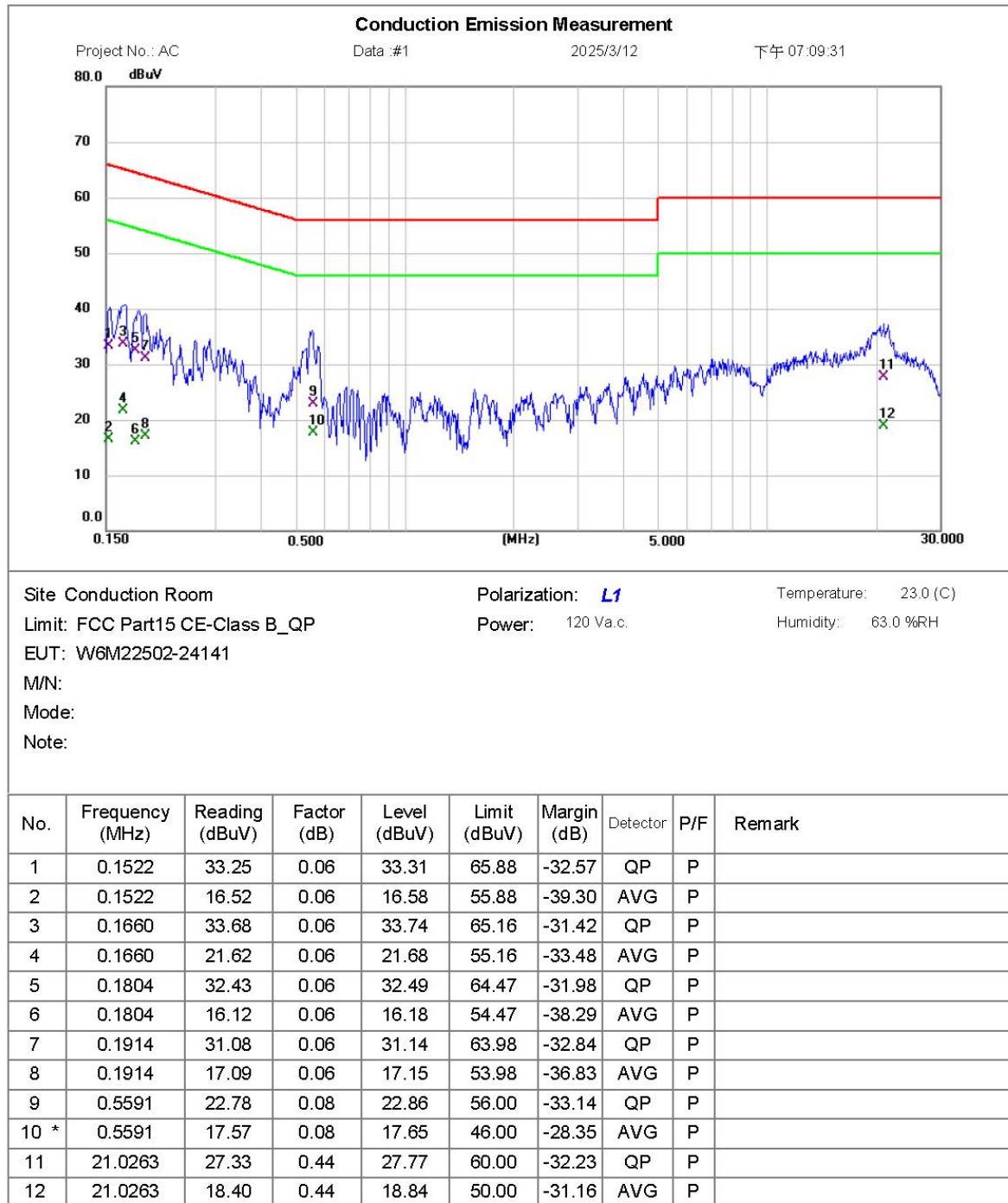
8.2 Test Results



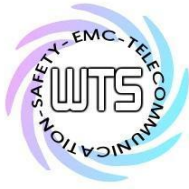


Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M22502-24141-C-1
FCC ID: 2ADLG-TG100S



- 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.



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Appendix

Measurement diagrams

Radiation Spurious Emission