

47 CFR PART 15 SUBPART C TEST REPORT

for

906 Wall Button

Model No.: 906M-WB

FCC ID: XO8-906-WB

of

Applicant: Instant Care, Inc.

Address: 2080 Wineridge Pl. Suite A Escondido California 92029
United States

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.: W6M22306-22782-C-1

6F, NO. 58, LANE 188, RUEY-KUANG RD., NEIHU TAIPEI 114, TAIWAN, R.O.C.
TEL: 886-2-66068877 FAX: 886-2-66068879 E-mail: wtls@wtls-lab.com



TABLE OF CONTENTS

1	GENERAL INFORMATION	2
1.1	NOTES.....	2
1.2	TESTING LABORATORY	3
1.2.1	Location	3
1.2.2	Details of accreditation status	3
1.3	DETAILS OF APPROVAL HOLDER.....	4
1.4	APPLICATION DETAILS	4
1.5	GENERAL INFORMATION OF TEST ITEM	4
1.6	TEST STANDARDS.....	4
2	TECHNICAL TEST	5
2.1	SUMMARY OF TEST RESULTS	5
2.2	TEST ENVIRONMENT	5
2.3	TEST EQUIPMENT LIST	6
2.4	GENERAL TEST PROCEDURE	9
3	TEST RESULTS (ENCLOSURE)	10
3.1	PEAK OUTPUT POWER (TRANSMITTER).....	11
3.2	EQUIVALENT ISOTROPIC RADIATED POWER.....	13
3.3	RF EXPOSURE COMPLIANCE REQUIREMENTS	13
3.4	OUT OF BAND RADIATED EMISSIONS.....	13
3.5	SPURIOUS EMISSION (TX)	14
3.6	RADIATED EMISSIONS FROM RECEIVER PART	15
3.7	RADIATED EMISSION ON THE BAND EDGE	16
3.8	20DB BANDWIDTH	20
3.9	POWER LINE CONDUCTED EMISSION	21
	APPENDIX	22



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M22306-22782-C-1

FCC ID: XO8-906-WB

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:

August 21, 2023

Ken Kang

Date

WTS-Lab.

Name

Signature

Technical responsibility for area of testing:

August 21, 2023

Kevin Wang

Date

WTS

Name

Signature



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M22306-22782-C-1

FCC ID: XO8-906-WB

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: ./.



Registration number: W6M22306-22782-C-1

FCC ID: XO8-906-WB

1.3 Details of approval holder

Name: Instant Care, Inc.
Street: 2080 Wineridge Pl.Suite A
City: Escondido California 92029
Country: United States

1.4 Application details

Date of receipt of test item: June 27, 2023
Date of test: From June 28, 2023 to August 18, 2023

1.5 General information of Test item

Type of test item: 906 Wall Button
Model number: 906M-WB
Multi-listing model number: ./.
Sample no.: #01

Technical data

Frequency band: 902-906 MHz
Operation frequency: 906 MHz
Operation modes: Simplex
Modulation type: FSK
Antenna type: PCB Antenna
Antenna gain: 1.0 dBi
Power supply: Battery 3 Vd.c. (CR123A)

Manufacturer: (if different from applicant)

Name: CLIMAX TECHNOLOGY CO., LTD.
Street: No. 258, Sinhu 2nd Rd., Neihu District,
Town: Taipei City 114,
Country: Taiwan (R.O.C.)

1.6 Test standards

Technical standard : 47 CFR PART 15 SUBPART C § 15.249 (2021-10)



Registration number: W6M22306-22782-C-1

FCC ID: XO8-906-WB

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 Power supply: Battery 3 Vd.c. (CR123A)

Extreme conditions parameters: Not required

Test item Name	Uncertainty
Estimation Result of Uncertainty of Conducted Emission (Power Line Conducted Emission)	Expanded Uncertainty : AMN : 0.94 dB Voltage probe : 0.96 dB Include Pulse Limiter : 1.52 dB
Estimation Result of Uncertainty of Radiated Emission(3M) (Peak Output Power (transmitter), Equivalent isotropic radiated power, RF Exposure Compliance Requirements, Out of Band Radiated Emissions, Spurious emission (tx), Radiated Emissions from Receiver Part)	Expanded Uncertainty : 0.009-30 MHz : 1.92 dB 30-1000 MHz : 3.96 dB 1-18 GHz : 2.46 dB 18-40 GHz : 2.44 dB
Estimation Result of Uncertainty of Band Edge Measurement (Radiated Emission on the band edge)	Expanded Uncertainty : 0.67 dBc
Estimation Result of Uncertainty of Bandwidth Measurement (Occupied Bandwidth)	Expanded Uncertainty : 0.45 kHz

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



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M22306-22782-C-1

FCC ID: XO8-906-WB

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	2023/6/12	2024/6/11
ETSTW-CE 003	AC POWER SOURCE	APS-9102	D161137	GW	Function Test	
ETSTW-CE 004	ZWEILEITER-V-NETZNACHBILDUNG TWO-LINE V-NETWORK	ESH3-Z5	840731/011	R&S	2022/10/24	2023/10/23
ETSTW-CE 006	IMPULSBEGRENZER PULSE LIMITER	ESH3-Z2	100226	R&S	2022/10/24	2023/10/23
ETSTW-CE 008	HF-EICHLITUNG RF STEP ATTENUATOR 139dB DPSP	334.6010.02	844581/024	R&S	Function Test	
ETSTW-CE 009	TEMP.&HUMIDITY CHAMBER	GTH-225-40-1P-U	MAA0305-009	GIANT FORCE	2023/7/28	2024/7/27
ETSTW-CE 016	TWO-LINE V-NETWORK	ENV216	100050	R&S	2022/11/9	2023/11/8
ETSTW-CE 028	MXE EMI Receiver	N9038A	MY53220110	Agilent	2023/7/17	2024/7/16
ETSTW-RE 003	EMI TEST RECEIVER	ESI 26	831438/001	R&S	2023/6/12	2024/6/11
ETSTW-RE 004	EMI TEST RECEIVER	ESI 40	832427/004	R&S	2022/10/17	2023/10/16
ETSTW-RE 012	TUNABLE BANDREJECT FILTER	D.C 0309	146	K&L	Function Test	
ETSTW-RE 013	TUNABLE BANDREJECT FILTER	D.C 0336	397	K&L	Function Test	
ETSTW-RE 018	MICROWAVE HORN ANTENNA	AT4560	27212	AR	2023/7/28	2024/7/27
ETSTW-RE 019	MICROWAVE HORN ANTENNA	22240-25	121074	FM	2023/6/9	2024/6/8
ETSTW-RE 027	Passive Loop Antenna	6512	00034563	ETS-Lindgren	2023/6/28	2024/6/27
ETSTW-RE 030	Double-Ridged Guide Horn Antenna	3117	00035224	ETS-Lindgren	2023/5/5	2024/5/4
ETSTW-RE 042	Biconical Antenna	HK116	100172	R&S	2023/3/2	2024/3/1
ETSTW-RE 043	Log-Periodic Dipole Antenna	HL223	100166	R&S	2023/6/19	2024/6/18
ETSTW-RE 044	Log-Periodic Antenna	HL050	100094	R&S	2023/7/28	2024/7/27
ETSTW-RE 045	ESA-E SERIES SPECTRUM ANALYZER	E4404B	MY45111242	Agilent	Pre-test Use	
ETSTW-RE 050	Attenuator 10dB	50HF-010-1	None	JFW	2023/2/17	2024/2/16
ETSTW-RE 051	Attenuator 6dB	50HF-006-1	None	JFW	2023/2/17	2024/2/16
ETSTW-RE 053	Attenuator 3dB	50HF-003-1	None	JFW	2023/2/17	2024/2/16
ETSTW-RE 055	SPECTRUM ANALYZER	FSU 26	200074	R&S	2023/3/22	2024/3/21
ETSTW-RE 060	Attenuator 30dB	5015-30	F651012z-01	ATM	2023/2/17	2024/2/16
ETSTW-RE 062	Amplifier Module	CHC 2	None	KMIC	2023/2/20	2024/2/19
ETSTW-RE 064	Bluetooth Test Set	MT8852B-042	6K00005709	Anritsu	Function Test	
ETSTW-RE 069	Double-Ridged Guide Horn Antenna	3117	00069377	ETS-Lindgren	Function Test	
ETSTW-RE 072	CELL SITE TEST SET	8921A	3339A00375	HP	2022/11/5	2023/11/4
ETSTW-RE 088	SOLID STATE AMPLIFIER	KMA180265A01	99057	KMIC	2022/9/16	2023/9/15
ETSTW-RE 091	Match Pad	MDCS1500	None	WOKEN	2023/5/25	2024/5/24
ETSTW-RE 099	DC Block	50DB-007-1	None	JFW	2023/2/17	2024/2/16
ETSTW-RE 112	AC POWER SOURCE	TFC-1005	T-0A023536	T-Power	Function test	
ETSTW-RE 115	2.4GHz Notch Filter	N0124411	473874	MICROWAVE CIRCUITS	2023/1/4	2024/1/3



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M22306-22782-C-1

FCC ID: XO8-906-WB

ETSTW-RE 120	RF Player	MP9200	MP9210-111022	ADIVIC	2022/11/8	2023/11/7
ETSTW-RE 122	SIGNAL GENERATOR	SMF100A	102149	R&S	2023/6/7	2024/6/6
ETSTW-RE 125	5GHz Notch filter	5NSL11-5200/E221.3-O/O	1	K&L Microwave	2023/8/4	2024/8/3
ETSTW-RE 126	5GHz Notch filter	5NSL12-5800/E221.3-O/O	1	K&L Microwave	2023/8/4	2024/8/3
ETSTW-RE 127	RF Switch Box	RFS-01	None	WTS	2023/2/17	2024/2/16
ETSTW-RE 128	5.3GHz Notch filter	N0153001	SN487233	Microwave Circuits	2023/8/4	2024/8/3
ETSTW-RE 129	5.5GHz Notch filter	N0555984	SN487234	Microwave Circuits	2023/8/4	2024/8/3
ETSTW-RE 130	Handheld RF Spectrum Analyzer	N9340A	CN0147000204	Agilent	Pre-test Use	
ETSTW-RE 142	Amplifier	8447D	2805A03378	Agilent	2023/2/20	2024/2/19
ETSTW-RE 146	Preamplifier	JPA-10M1G	15090004	JPT	2023/5/26	2024/5/25
ETSTW-RE 152	Bi-log Hybrid Antenna	MCTD 2786B	BLB20J04029	ETC	2023/3/21	2024/3/20
ETSTW-RE 153	Signal Analyzer	FSV40	101929	R&S	2022/10/3	2023/10/2
ETSTW-RE 159	Bi-log Hybrid Antenna (30M~1000 MHz)	MCTD 2786B	BLB21N04035	ETC	2022/12/22	2023/12/21
ETSTW-RE 177	Bi-log Hybrid Antenna with 6dB Attenuator	VULB 9168&EMCI-N-6-06	01380&AT-06007	SCHWARZBECK&EMC	2022/9/1	2023/8/31
ETSTW-RF 002	Electromagnetic field probe	LF-30	K-0007	STT	2023/6/13	2024/6/12
ETSTW-EMI 011	USB Compact Modulator	SFC-U	101689	R&S	2023/5/28	2024/5/27
ETSTW-GSM 002	Universal Radio Communication Tester	CMU 200	109439	R&S	2023/3/22	2024/3/21
ETSTW-GSM 003	Radio Communication Analyzer	MT8820C	6201342073	Anritsu	2023/5/10	2024/5/9
ETSTW-GSM 004	Wideband Radio Communication Tester	CMW500	128092	R&S	2022/10/24	2023/10/23
ETSTW-GSM 019	Band Reject Filter	WRCTF824/849-822/851-40 /12+9SS	3	WI	2023/1/4	2024/1/3
ETSTW-GSM 020	Band Reject Filter	WRCD1747/1748-1743/1752-32/5SS	1	WI	2023/1/4	2024/1/3
ETSTW-GSM 021	Band Reject Filter	WRCD1879.5/1880.5-1875.5/1884.5-32/5SS	3	WI	2023/1/4	2024/1/3
ETSTW-GSM 022	Band Reject Filter	WRCT901.9/903.1-904.25-50/8SS	1	WI	2023/1/4	2024/1/3
ETSTW-GSM 023	Power Divider	4901.19.A	None	SUHNER	2022/9/2	2023/9/1
ETSTW-GSM 024	Radio Communication Analyzer	MT8821C	None	Anritsu	2023/4/24	2024/4/23
ETSTW-GSM 025	Band Reject Filter	BRM19835	001	Micro-Tronics	2023/7/28	2024/7/27
ETSTW-Cable 016	BNC Cable	Switch Box	B Cable 1	Schwarz beck	2023/2/4	2024/2/3
ETSTW-Cable 017	BNC Cable	X Cable	B Cable 2	Schwarz beck	2023/2/4	2024/2/3
ETSTW-Cable 018	BNC Cable	Y Cable	B Cable 3	Schwarz beck	2023/2/4	2024/2/3
ETSTW-Cable 019	BNC Cable	Z Cable	B Cable 4	Schwarz beck	2023/2/4	2024/2/3
ETSTW-Cable 020	N TYPE Cable	OATS Cable 1	N30N30-L335-15M	JYE BAO CO.,LTD.	2023/6/26	2024/6/25
ETSTW-Cable 027	Microwave Cable	SUCOFLEX 104	279083	HUBER+SUHNER	2023/4/27	2024/4/26
ETSTW-Cable 028	Microwave Cable	FA147A0015M2020	30064-2	UTIFLEX	2022/9/16	2023/9/15
ETSTW-Cable 029	Microwave Cable	FA147A0015M2020	30064-3	UTIFLEX	2022/9/16	2023/9/15
ETSTW-Cable 030	Microwave Cable	SUCOFLEX 104 (S Cable 9)	279067	HUBER+SUHNER	2023/02/17	2024/2/16
ETSTW-Cable 045	Microwave Cable	SUCOFLEX 104	325536	HUBER+SUHNER	2022/10/21	2023/10/20



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M22306-22782-C-1

FCC ID: XO8-906-WB

ETSTW-Cable 058	Microwave Cable	SUCOFLEX 104	none	HUBER+SUHNER	2023/5/26	2024/5/25
ETSTW-Cable 064	Microwave Cable	SUCOFLEX 104	MY28891	HUBER+SUHNER	2023/2/20	2024/2/19
ETSTW-Cable 071	N TYPE CABLE	EMCCFD400-NM-NM-25000	170239	EMCI	2022/10/21	2023/10/20
ETSTW-Cable 072	SMA type cable (8m)	SUCOFLEX 104	805800/4	HUBER+SUHNER	2023/2/20	2024/2/19
ETSTW-Cable 074	SMA type cable (2m)	SUCOFLEX 104	802563/4	HUBER+SUHNER	2023/2/20	2024/2/19
ETSTW-Cable 076	SMA type cable (1m)	N/A	812652/4	HUBER+SUHNER	2023/2/20	2024/2/19
WTSTW-SW 002	EMI TEST SOFTWARE	EZ EMC	None	Farad	Version ETS-03A1 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	2022/9/16	2023/9/15
ETSTW-TH 003	Wireless weather station	GAIA	N/A	TFA	2022/10/28	2023/10/27



Registration number: W6M22306-22782-C-1

FCC ID: XO8-906-WB

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 dB μ V) to the antenna correction factor supplied by the antenna manufacturer. The antenna correction factors are stated in terms of dB.

Example:

Freq (MHz)	METER READING + ACF + CABLE LOSS (to the receiver) = FS
33	20 dB μ V + 10.36 dB + 6 dB = 36.36 dB μ V/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 10th 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.

Registration number: W6M22306-22782-C-1

FCC ID: XO8-906-WB

3 Test results (enclosure)

Test case	Para. Number	Required	Test passed	Test failed
Peak Output Power	15.249 (a)	☒	☒	☐
Spurious Emissions radiated – Transmitter operating	15.249 (e)	☒	☒	☐
Spurious Emissions conducted – Transmitter operating	15.249 (e)	☐	☐	☐
Radiated Emission from Receiver Part	15.109	☐	☐	☐
Out of Band Spurious Emission, Band edge-Transmitter operating	15.249 (d)(e) 15.35 (b)	☒	☒	☐
20 dB Bandwidth	15.215 (c)	☒	☒	☐
Power Line Conducted Emission	15.207	☐	☐	☐

The following is intentionally left blank.



Registration number: W6M22306-22782-C-1

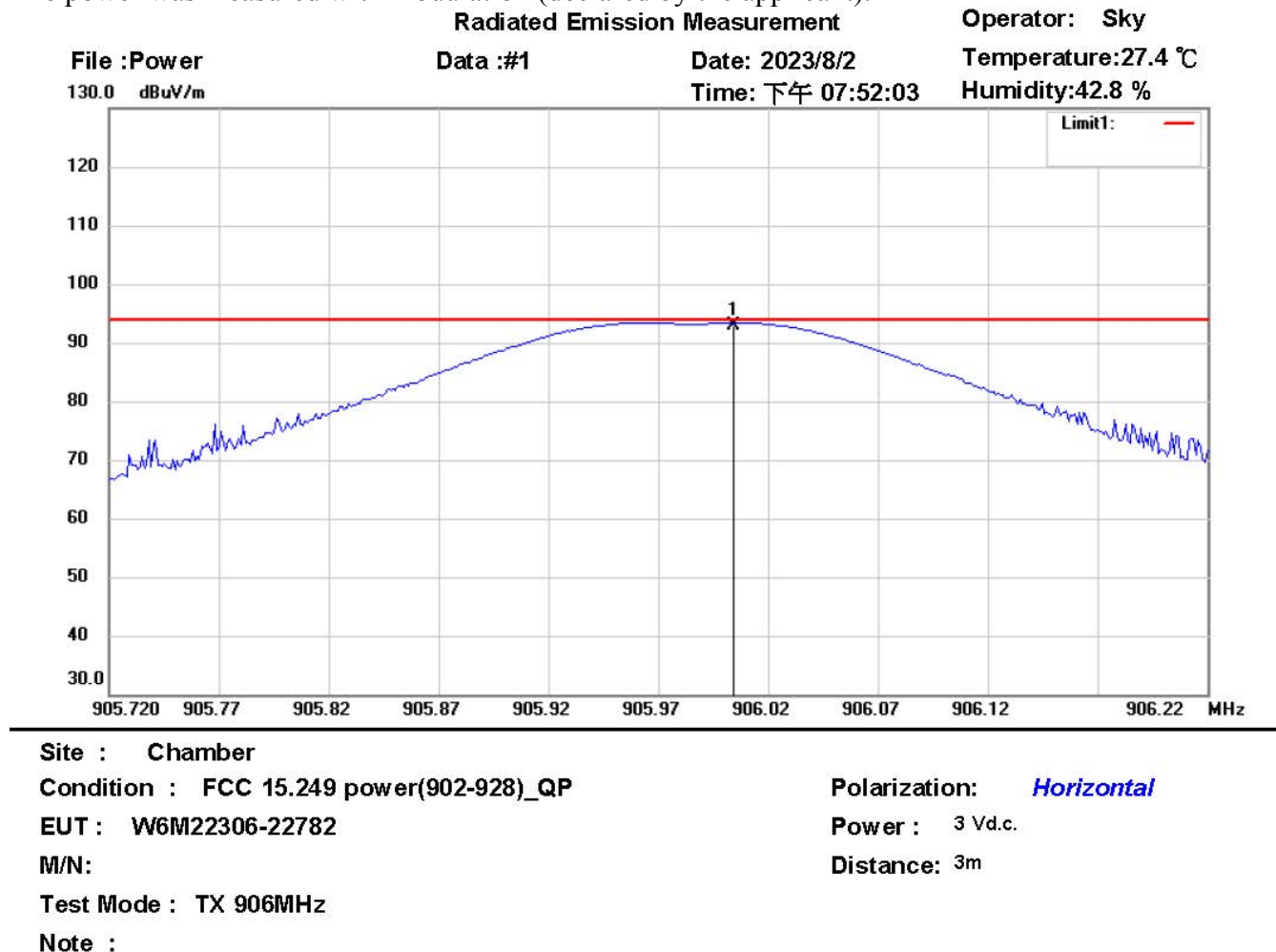
FCC ID: XO8-906-WB

3.1 Peak Output Power (transmitter)

FCC Rule: 15.249 (a)

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

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



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
*	906.0046	61.66	QP	31.17	92.83	94.00	100	100	-1.17	



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M22306-22782-C-1

FCC ID: XO8-906-WB

Radiated Emission Measurement

Operator: Sky

File :Power

Data :#2

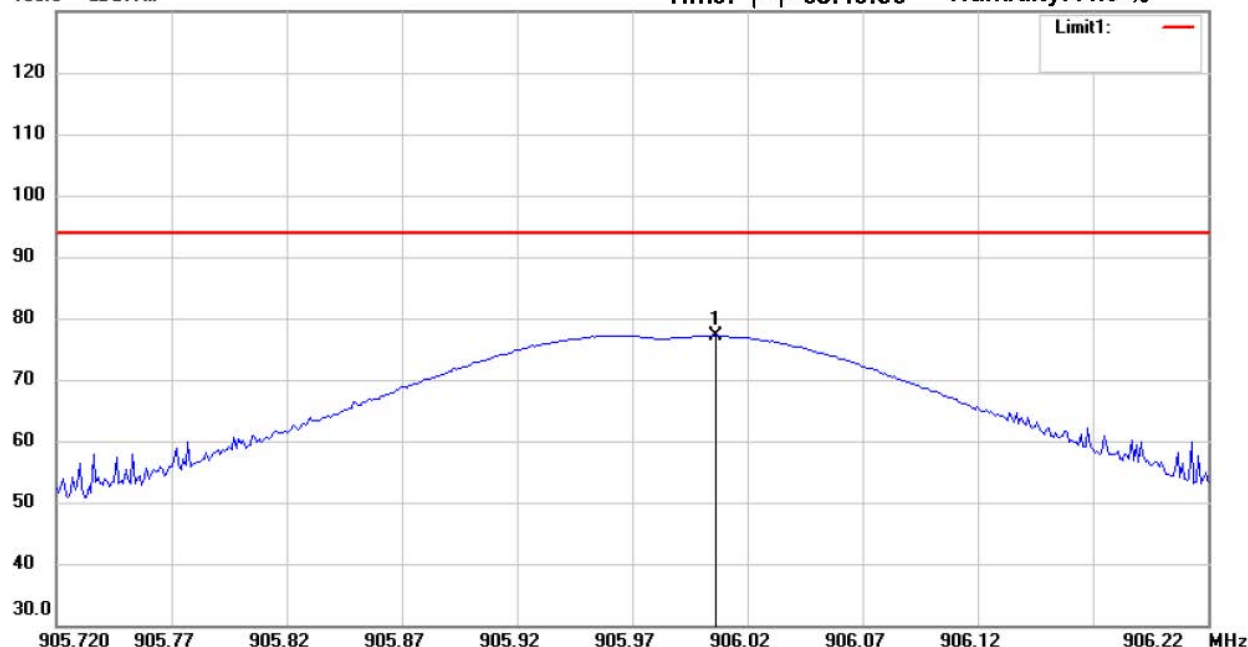
Date: 2023/8/2

Temperature:28.2 °C

130.0 dBuV/m

Time: 下午 08:16:30

Humidity:41.6 %



Site : Chamber

Condition : FCC 15.249 power(902-928)_QP

Polarization: *Vertical*

EUT : W6M22306-22782

Power : 3 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 906MHz

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
*	906.0066	45.94	QP	31.17	77.11	94.00	100	320	-16.89	

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



Registration number: W6M22306-22782-C-1

FCC ID: XO8-906-WB

3.2 Equivalent isotropic radiated power

Because using an permanent antenna there are no deviations from the radiated test results according 3.1.

3.3 RF Exposure Compliance Requirements

Not applicable for this EUT for the low power level.

3.4 Out of Band Radiated Emissions

FCC Rule: 15.249 (d)(e), 15.35 (b)

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in Section 15.209, whichever is the lesser attenuation.

For frequency above 1000 MHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For point-to-point operation, the peak field strength shall not exceed 2500 millivolts/meter at 3 meters along the antenna azimuth.

Limits:

Frequency of Emission (MHz)	Field strength (microvolts/meter)	Field Strength (dB microvolts/meter)
30 - 88	100	40.0
88 – 216	150	43.5
216 – 960	200	46.5
Above 960	500	54.0

For frequencies above 1 GHz (Peak measurements).

Limit + 20 dB $54.0 \text{ dB}\mu\text{V/m} + 20 \text{ dB} = 74 \text{ dB}\mu\text{V/m}$

Or

Must be attenuated at least 50dB below the level of fundament

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

Explanation: ./.



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M22306-22782-C-1

FCC ID: XO8-906-WB

3.5 Spurious emission (tx)

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

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in Section 15.209, whichever is the lesser attenuation.

For frequencies above 1000 MHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For point-to-point operation, the peak field strength shall not exceed 2500 millivolts/meter at 3 meters along the antenna azimuth. Emissions more than 20 dB below the limit do not need to be reported.

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

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

The critical peak value listed in the table agree with the above calculated limits.

Summary table with radiated data of the test plots

Model:	906M-WB	Date:	--					
Mode:	--	Temperature:	--	°C	Engineer:	--		
Polarization:	Horizontal	Humidity:	--	%				
Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--

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. **Up Line: PK Limit Line, Down Line: Ave Limit Line.**
6. **Please see attached diagrams in appendix.**

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

Test equipment used: ETSTW-RE 004, ETSTW-RE 062, ETSTW-RE 142, ETSTW-RE 152, ETSTW-RE 030, ETSTW-RE 088, ETSTW-RE 018



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M22306-22782-C-1

FCC ID: XO8-906-WB

3.6 Radiated Emissions from Receiver Part

Summary table with radiated data of the test plots

Model: 906M-WB Date: --
Mode: -- Temperature: -- °C Engineer: --
Polarization: Horizontal Humidity: -- %

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

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. This test is not required because EUT is transmitter only.**

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

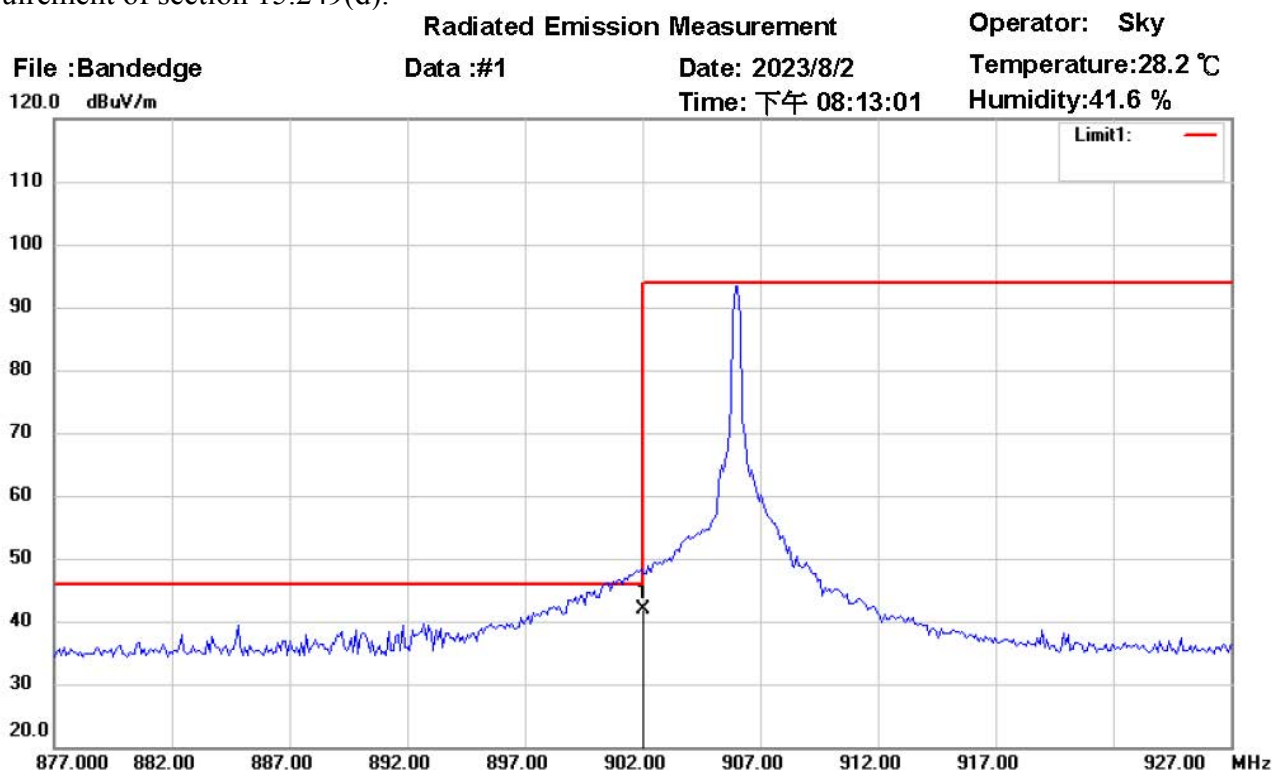


Registration number: W6M22306-22782-C-1

FCC ID: XO8-906-WB

3.7 Radiated Emission on the band edge

From the following plots, they show that the fundamental emissions are confined in the specified band and they are at least 50 dB below the carrier level at band edge (2400 and 2483.5 MHz). It meets the requirement of section 15.249(d).



Site : Chamber

Condition : FCC 15.249 Bandedge(902-928)_QP

EUT : W6M22306-22782

M/N:

Test Mode : TX 906MHz

Note :

Polarization: *Horizontal*

Power : 3 Vd.c.

Distance: 3m

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
*	902.0000	10.68	QP	31.10	41.78	46.00	100	100	-4.22	



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M22306-22782-C-1
FCC ID: XO8-906-WB

Radiated Emission Measurement

Operator: Sky

File :Bandedge

Data :#2

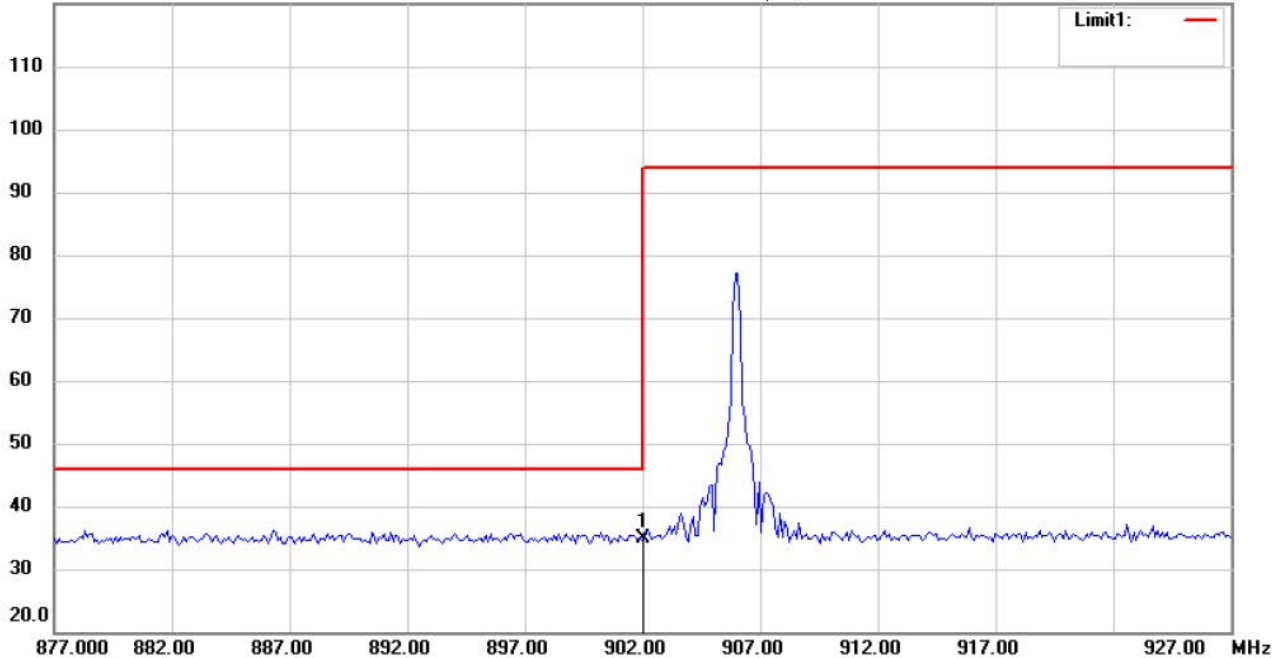
Date: 2023/8/2

Temperature:28.2 °C

120.0 dBuV/m

Time: 下午 08:21:32

Humidity:41.6 %



Site : Chamber

Condition : FCC 15.249 Bandedge(902-928)_QP

Polarization: **Vertical**

EUT : W6M22306-22782

Power : 3 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 906MHz

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
*	902.0000	3.87	QP	31.10	34.97	46.00	100	320	-11.03	



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M22306-22782-C-1

FCC ID: XO8-906-WB

Radiated Emission Measurement

Operator: Sky

File :Bandedge

Data :#3

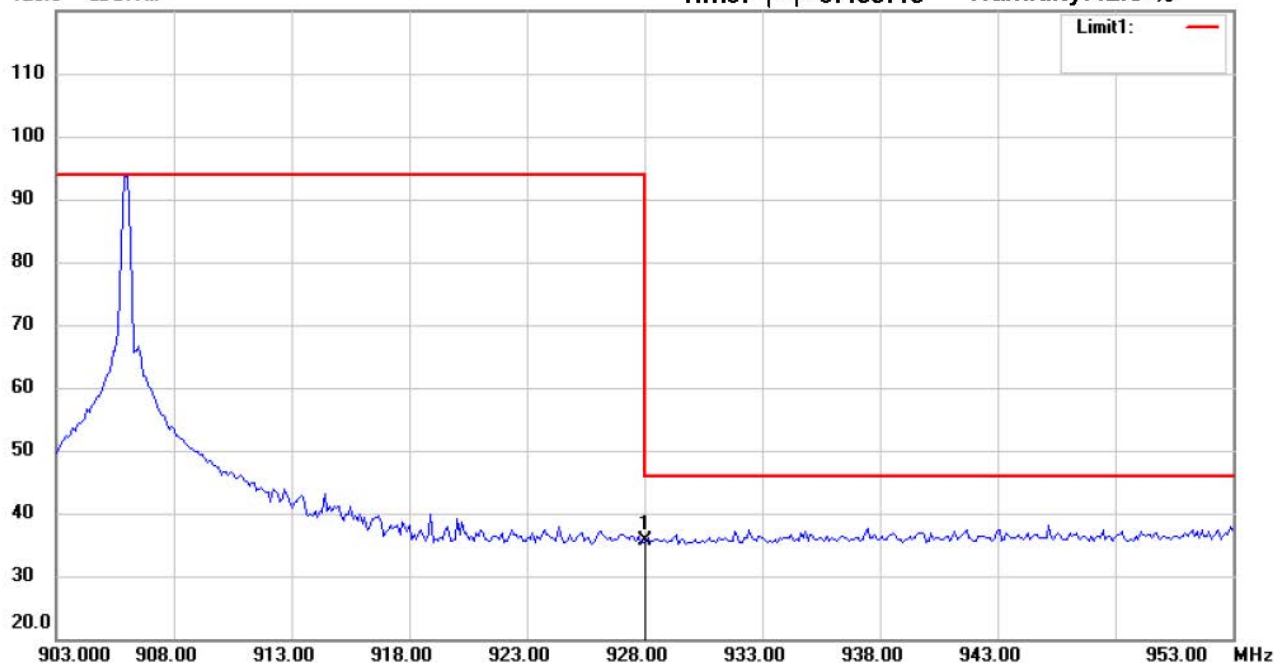
Date: 2023/8/2

Temperature:27.4 °C

120.0 dBuV/m

Time: 下午 07:55:43

Humidity:42.8 %



Site : Chamber

Condition : FCC 15.249 Bandedge(902-928)_QP

Polarization: *Horizontal*

EUT : W6M22306-22782

Power : 3 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 906MHz

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
*	928.0000	4.05	peak	31.58	35.63	46.00	100	255	-10.37	



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M22306-22782-C-1

FCC ID: XO8-906-WB

Radiated Emission Measurement

Operator: Sky

File :Bandedge

Data :#4

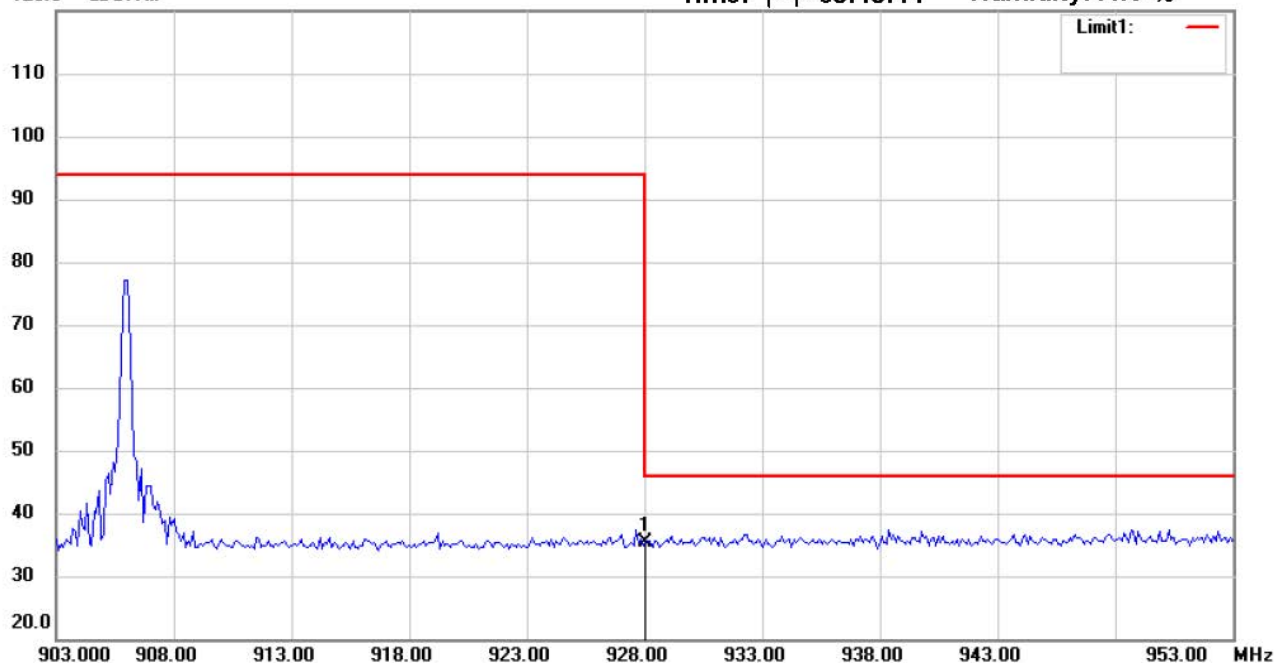
Date: 2023/8/2

Temperature:28.2 °C

120.0 dBuV/m

Time: 下午 08:18:44

Humidity:41.6 %



Site : Chamber

Condition : FCC 15.249 Bandedge(902-928)_QP

Polarization: **Vertical**

EUT : W6M22306-22782

Power : 3 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 906MHz

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
*	928.0000	3.84	peak	31.58	35.42	46.00	100	100	-10.58	

Limit:

Frequency Range (MHz)	Limit (dBμV/m)	
	Peak	Average
902 – 928	46	94

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



Registration number: W6M22306-22782-C-1

FCC ID: XO8-906-WB

3.8 20dB Bandwidth

Frequency hopping systems operating in the 5725-5850 MHz bands shall use a maximum 20dB bandwidth of 1 MHz.

The 20dB bandwidth is measured on the lowest, middle and highest hopping channel.

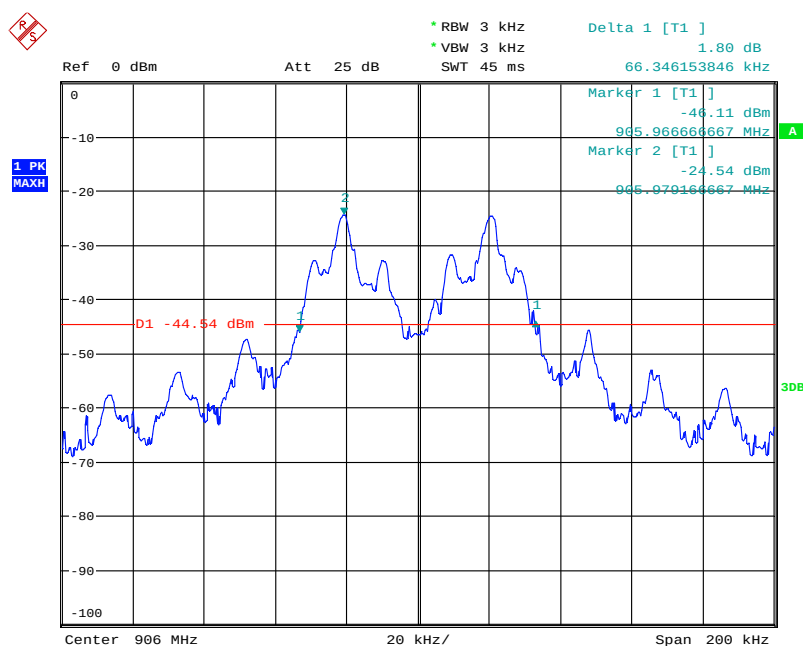
For frequency hopping systems operating in the 902-928 MHz band the maximum 20dB bandwidth of the hopping channel is 500 kHz.

Test date: August 18, 2023

Temperature: 24.4 °C

Humidity: 54.0 %

Tester: Ken



Date: 18.AUG.2023 18:17:01

Limits:

Frequency Range / MHz	Limit
906	≤ 500 kHz
2400-2483.5	not defined
5725-5850	≤ 1 MHz

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

3.8.1 System Receiver Input Bandwidth

It is determined in the Bluetooth core specification. The value matches to the bandwidth of transmitter signal.



Registration number: W6M22306-22782-C-1

FCC ID: XO8-906-WB

3.9 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.

Frequency	Level (dB μ V)	
	quasi-peak	average
150 kHz	lower limit line	Lower limit line

- Note:**
1. The formula of measured value as: Test Result = Reading + Correction Factor
 2. The Correction Factor = Cable Loss + LISN Insertion Loss
 3. Detector function in the form : PK = Peak, QP = Qusai 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 EUT is battery-used.

Limits:

Frequency of Emission (MHz)	Conducted Limit (dB μ V)	
	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.



Appendix

A Measurement diagrams

Spurious Emissions radiated



Address: 6F., No. 58, Ln 188, Ruey Kuang Rd, Neihu, Taipei
Tel: +886-2-6606-8877
Fax: +886-2-6606-8879

Radiated Emission Measurement

Operator: Sky

File :1

Data :#1

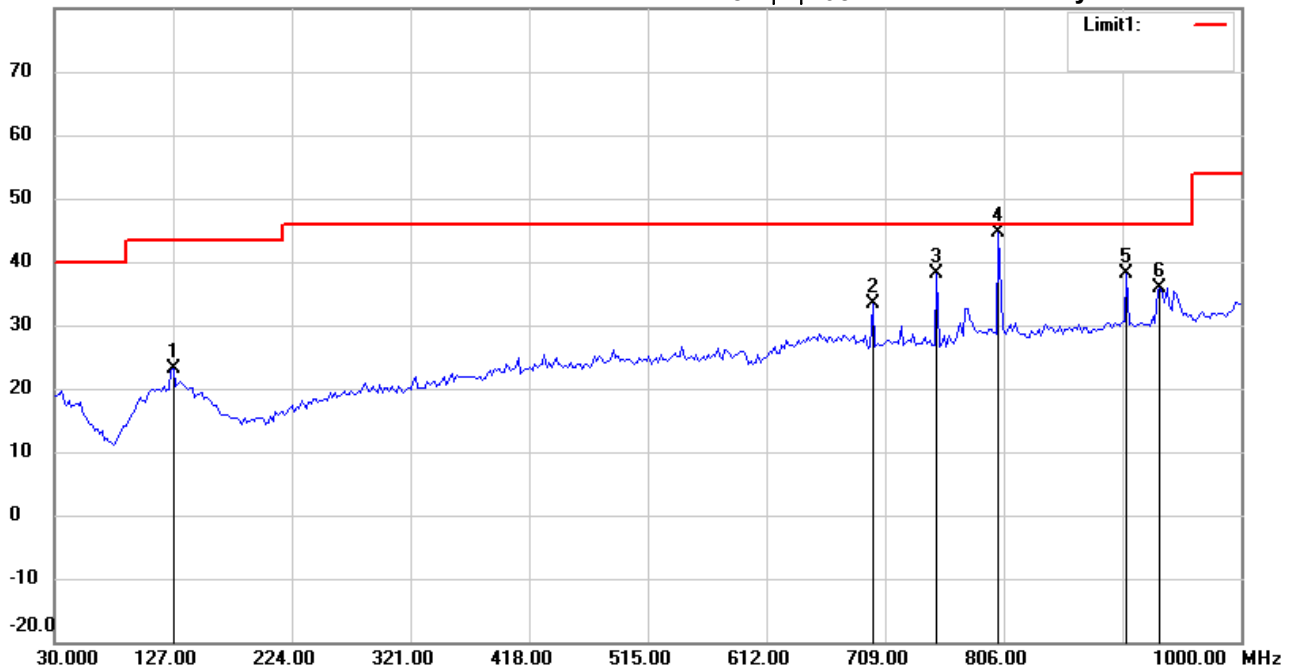
Date: 2023/8/8

Temperature: 26.9 °C

80.0 dBuV/m

Time: 下午 08:27:12

Humidity: 41.8 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_30-1000MHz

EUT : W6M22306-22782

M/N:

Test Mode : TX 906MHz

Note :

Polarization: Horizontal

Power : 3 Vd.c.

Distance: 3m

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	127.1944	29.18	QP	-6.00	23.18	43.50	108	25	-20.32	
	698.6974	33.50	QP	-0.09	33.41	46.00	100	31	-12.59	
	751.1824	37.67	QP	0.54	38.21	46.00	113	228	-7.79	
*	801.7232	43.29	QP	1.38	44.67	46.00	102	70	-1.33	
	906.6933	34.36	QP	3.72	38.08	46.00	104	40	-7.92	
	933.9076	31.62	QP	4.23	35.85	46.00	119	228	-10.15	

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



Address: 6F., No. 58, Ln 188, Ruey Kuang Rd, Neihu, Taipei
Tel: +886-2-6606-8877
Fax: +886-2-6606-8879

Radiated Emission Measurement

Operator: Sky

File :1

Data :#2

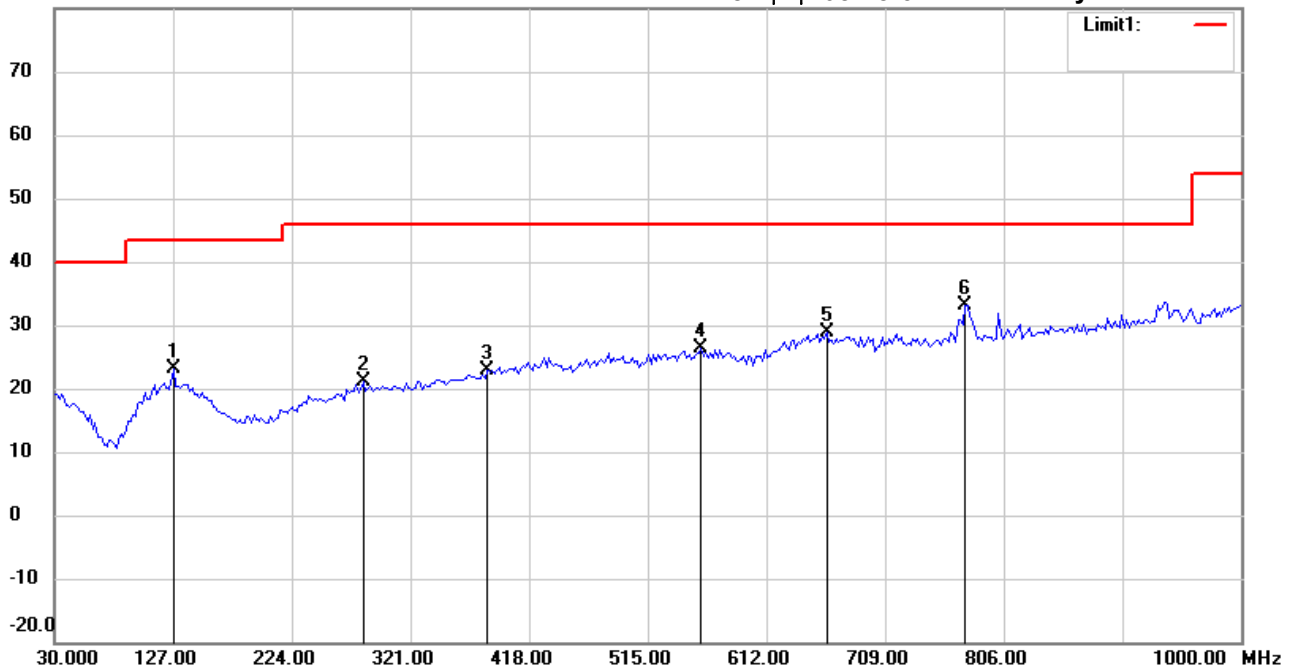
Date: 2023/8/8

Temperature: 26.9 °C

80.0 dBuV/m

Time: 下午 08:28:34

Humidity: 41.8 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_30-1000MHz

EUT : W6M22306-22782

M/N:

Test Mode : TX 906MHz

Note :

Polarization: Vertical

Power : 3 Vd.c.

Distance: 3m

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	127.1944	29.25	QP	-6.00	23.25	43.50	119	6	-20.25	
	282.7054	27.24	QP	-6.20	21.04	46.00	124	26	-24.96	
	383.7876	27.02	QP	-4.20	22.82	46.00	107	330	-23.18	
	558.7375	28.45	QP	-2.18	26.27	46.00	104	281	-19.73	
	661.7635	28.18	QP	0.73	28.91	46.00	110	4	-17.09	
*	774.5090	32.17	QP	0.92	33.09	46.00	121	71	-12.91	

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



Address: 6F., No. 58, Ln 188, Ruey Kuang Rd, NeiHu, Taipei
Tel: +886-2-6606-8877
Fax: +886-2-6606-8879

Radiated Emission Measurement

Operator: Sky

File : 3

Data : #1

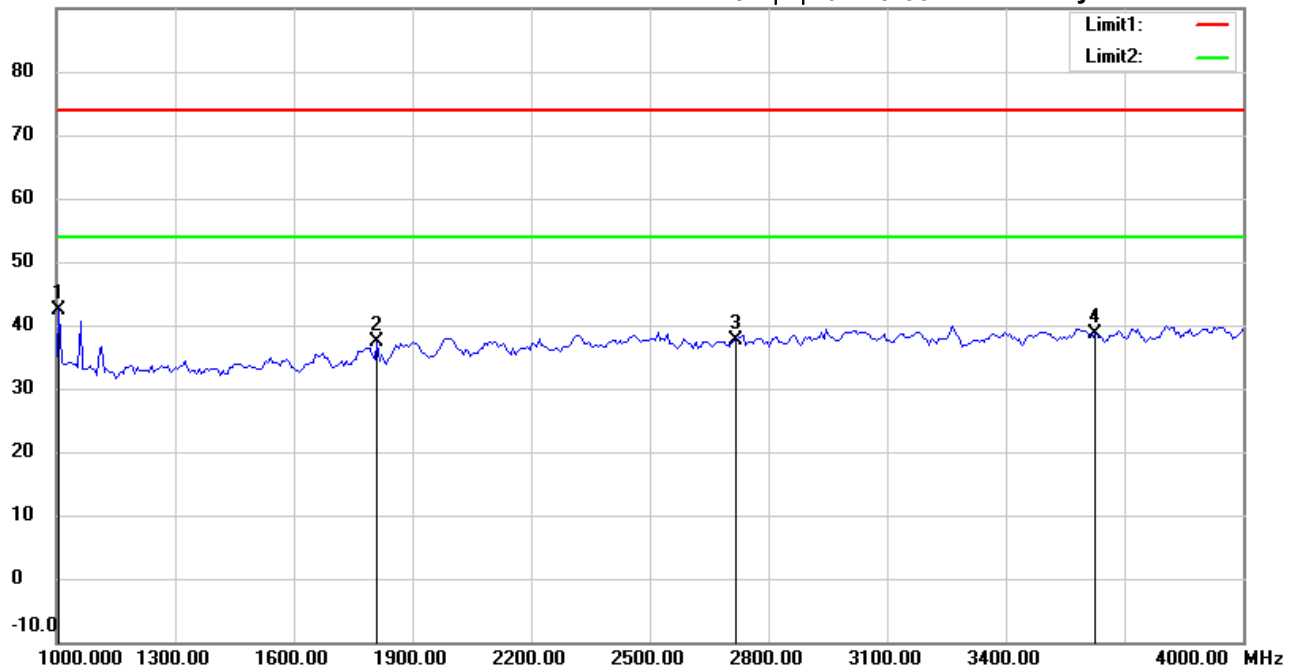
Date: 2023/8/7

Temperature: 30.0 °C

90.0 dBuV/m

Time: 下午 07:29:00

Humidity: 63.5 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

EUT : W6M22306-22782

M/N:

Test Mode : TX 906MHz

Note :

Polarization: *Horizontal*

Power : 3 Vd.c.

Distance: 3m

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
*	1006.012	49.60	peak	-7.14	42.46	74.00	150	24	-31.54	
	1811.623	45.14	peak	-7.66	37.48	74.00	150	77	-36.52	
	2718.000	42.56	peak	-4.91	37.65	74.00	150	188	-36.35	
	3624.000	41.17	peak	-2.66	38.51	74.00	150	101	-35.49	

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



Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8879

Radiated Emission Measurement

Operator: Sky

File :3

Data :#4

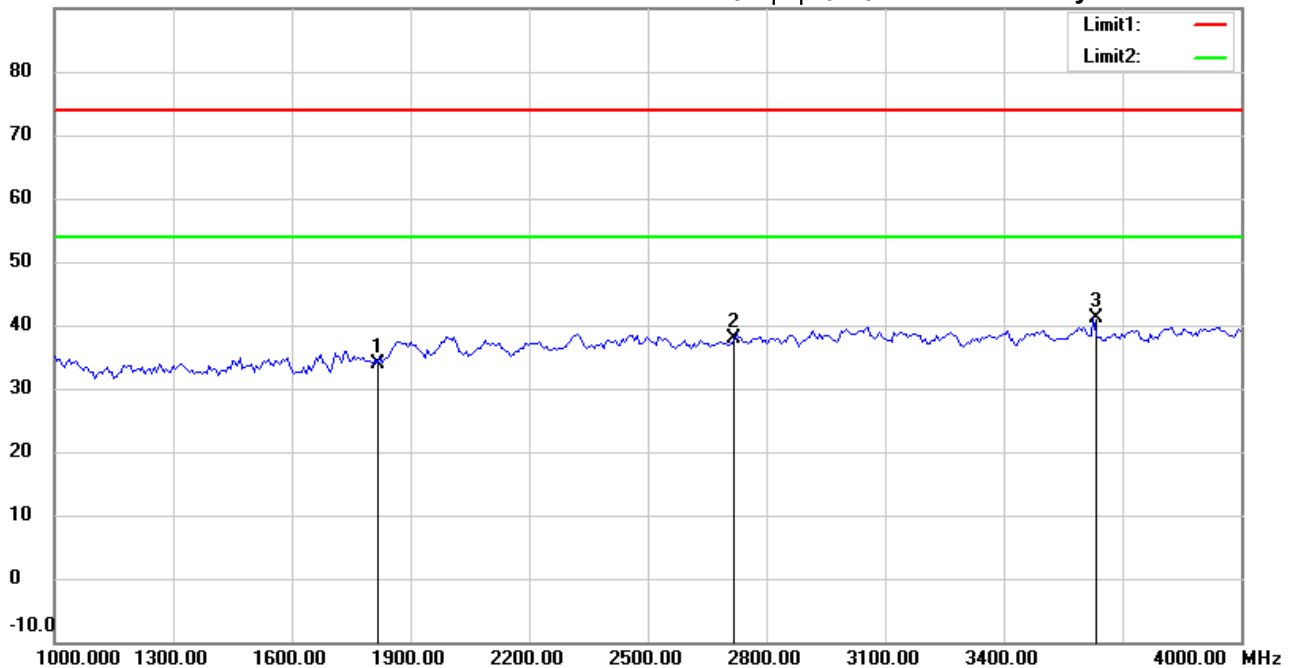
Date: 2023/8/7

Temperature:30.0 °C

90.0 dBuV/m

Time: 下午 07:32:44

Humidity:63.5 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

EUT : W6M22306-22782

M/N:

Test Mode : TX 906MHz

Note :

Polarization: Vertical

Power : 3 Vd.c.

Distance: 3m

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	1812.000	41.55	peak	-7.65	33.90	74.00	150	104	-40.10	
	2718.000	42.88	peak	-4.91	37.97	74.00	150	133	-36.03	
*	3627.255	43.91	peak	-2.67	41.24	74.00	150	225	-32.76	

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



Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8879

Radiated Emission Measurement

Operator: Sky

File :3

Data :#2

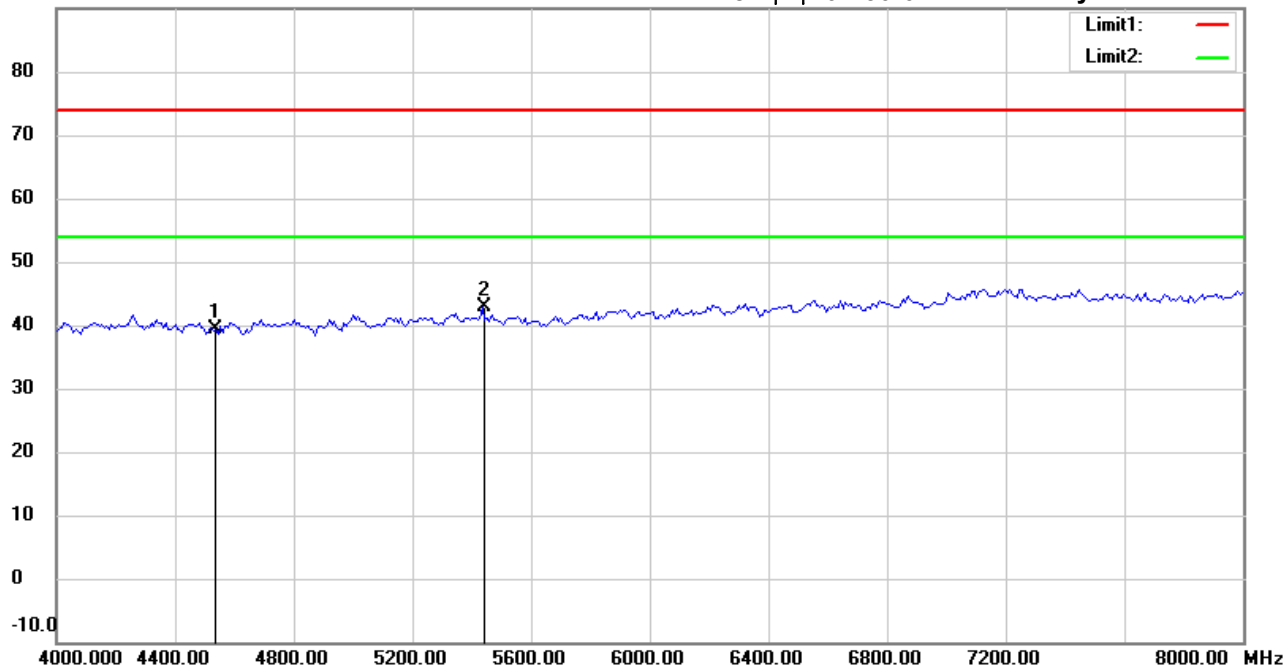
Date: 2023/8/7

Temperature:30.0 °C

90.0 dBuV/m

Time: 下午 07:30:02

Humidity:63.5 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

EUT : W6M22306-22782

M/N:

Test Mode : TX 906MHz

Note :

Polarization: **Horizontal**

Power : 3 Vd.c.

Distance: 3m

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	4530.000	41.42	peak	-2.16	39.26	74.00	150	204	-34.74	
*	5434.870	42.43	peak	0.50	42.93	74.00	150	18	-31.07	

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



Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8879

Radiated Emission Measurement

Operator: Sky

File :3

Data :#5

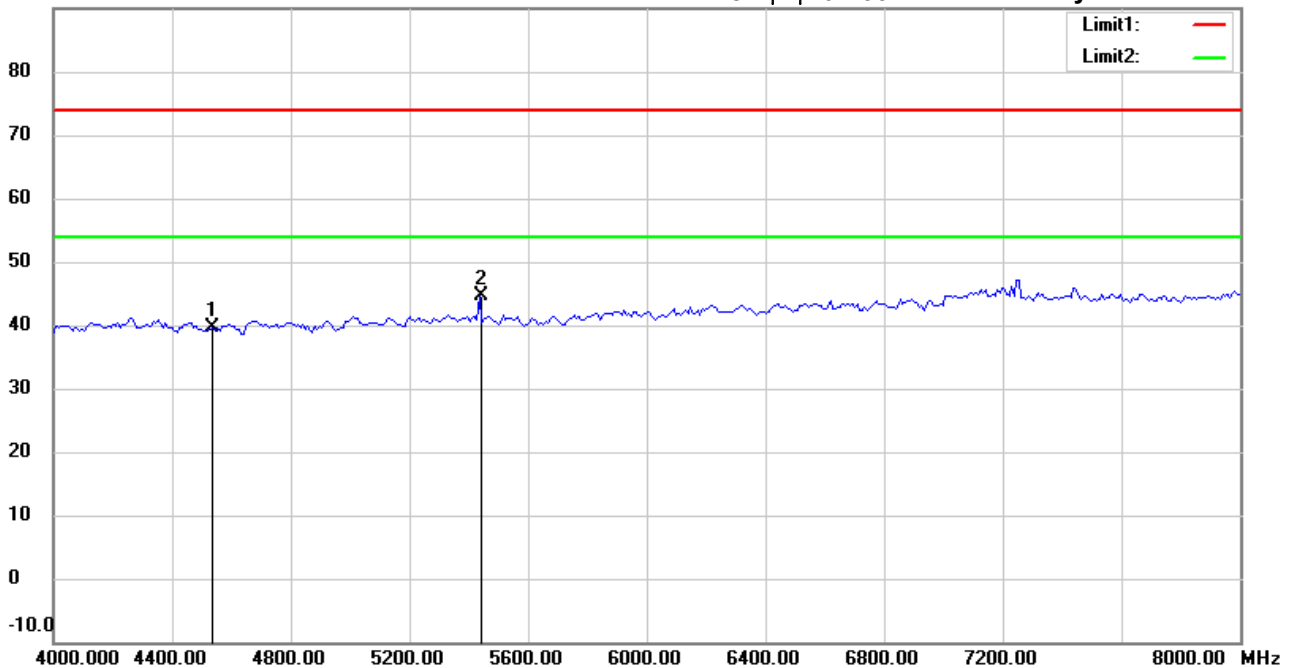
Date: 2023/8/7

Temperature:30.0 °C

90.0 dBuV/m

Time: 下午 07:33:47

Humidity:63.5 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

EUT : W6M22306-22782

M/N:

Test Mode : TX 906MHz

Note :

Polarization: **Vertical**

Power : 3 Vd.c.

Distance: 3m

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	4530.000	41.69	peak	-2.16	39.53	74.00	150	3	-34.47	
*	5434.870	44.09	peak	0.50	44.59	74.00	150	229	-29.41	

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



Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8879

Radiated Emission Measurement

Operator: Sky

File :3

Data :#3

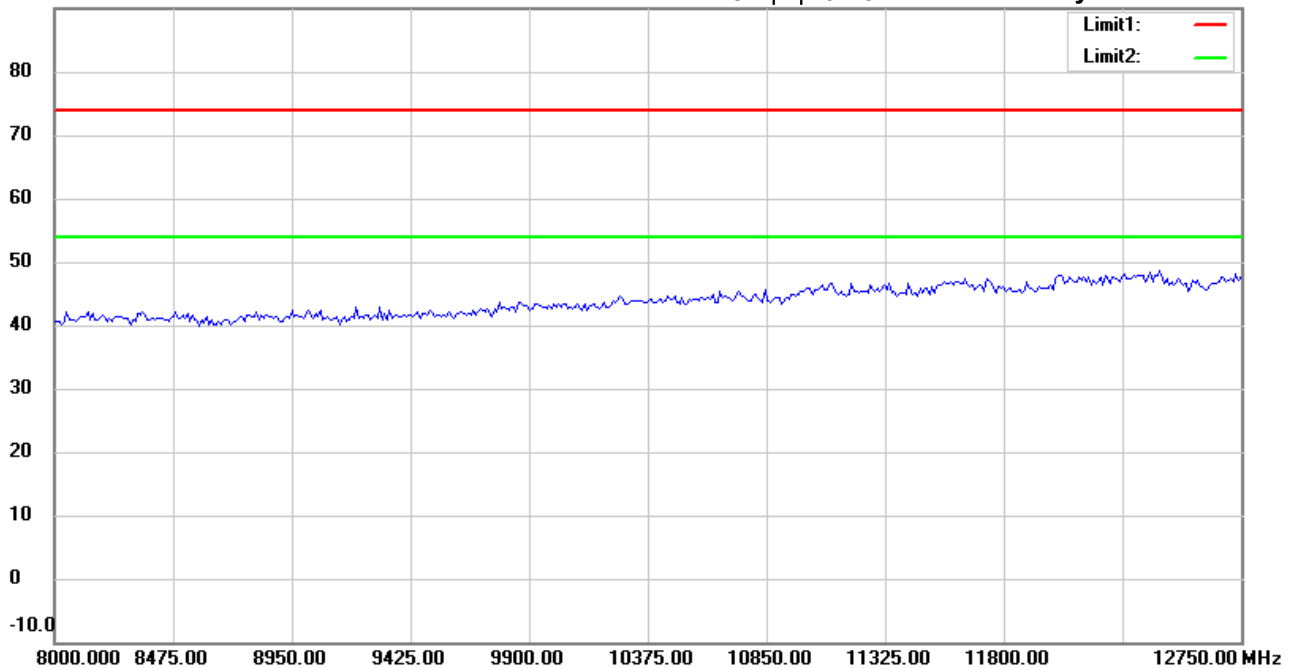
Date: 2023/8/7

Temperature:30.0 °C

90.0 dBuV/m

Time: 下午 07:31:17

Humidity:63.5 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

EUT : W6M22306-22782

M/N:

Test Mode : TX 906MHz

Note :

Polarization: *Horizontal*

Power : 3 Vd.c.

Distance: 3m

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

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



Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8879

Radiated Emission Measurement

Operator: Sky

File :3

Data :#6

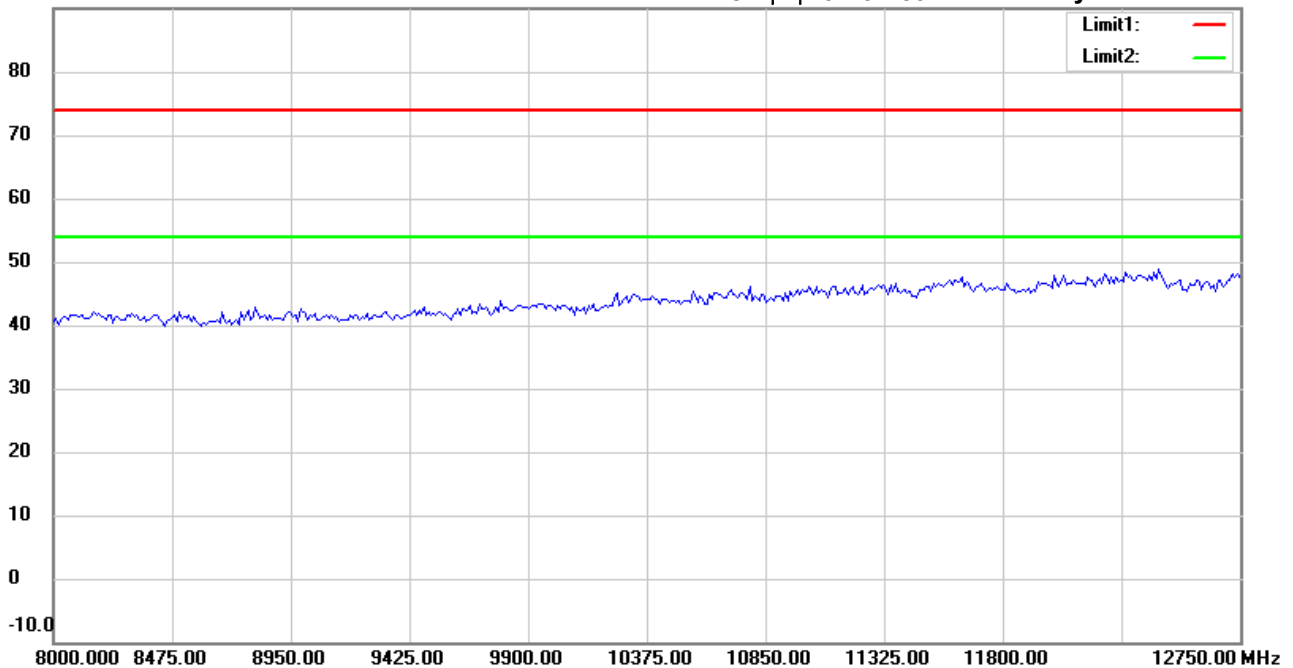
Date: 2023/8/7

Temperature:30.0 °C

90.0 dBuV/m

Time: 下午 07:34:59

Humidity:63.5 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

EUT : W6M22306-22782

M/N:

Test Mode : TX 906MHz

Note :

Polarization: Vertical

Power : 3 Vd.c.

Distance: 3m

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

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