

FCC Test Report

Report No.: RWAZ202300072A

Applicant: Kiddesigns Inc

Address: 1299 Main Street, Rahway New Jersey, United States, 07065-0901

Product Name: XX-207 Walkie talkies

Product Model: PK-207.EXv24

Multiple Models: SM-207.EXv24, PW-207.EXv24

Trade Mark: eKids

FCC ID: IAJ202C8A

Standards: FCC PART 95

Test Date: 2023-12-15 to 2023-12-26

Test Result: Complied

Report Date: 2024/02/04

Reviewed by:

Approved by:

Frank Yin

Project Engineer

Jacob Kong

Jacob Gong

Manager

Prepared by:

World Alliance Testing and Certification (Shenzhen) Co., Ltd

No. 1002, East Block, Laobing Building, Xingye Road 3012, Xixiang street, Bao'an District, Shenzhen, Guangdong, People's Republic of China



This report may contain data that are not covered by the NVLAP accreditation and shall be marked with an asterisk "★"

Report Template: TR-4-E-029/V1 Page 1 of 24





Announcement

- 1. This test report shall not be reproduced in full or partial, without the written approval of World Alliance Testing and Certification (Shenzhen) Co., Ltd
- 2. The results in this report apply only to the sample tested.
- 3. This sample tested is in compliance with the limits of the above regulation.
- 4. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the U.S. Government.
- 5. The information marked "#" is provided by the applicant, the laboratory is not responsible for its authenticity and this information can affect the validity of the result in the test report. Customer model name, addresses, names, trademarks etc. are included.

Revision History

| Version No. | Issued Date | Description |
|-------------|-------------|-------------|
| 00 | 2024-02-04 | Original |
| | | |
| | | |
| | | |
| | | |

Report Template: TR-4-E-029/V1 Page 2 of 24



Contents

| 1 | Gener | al Information | 4 |
|---|--------|--|------|
| | 1.1 | Client Information | 4 |
| | 1.2 | Product Description of EUT | 4 |
| | 1.3 | Antenna information | 4 |
| | 1.4 | Measurement Uncertainty | 5 |
| | 1.5 | Laboratory Location | 5 |
| | 1.6 | Test Methodology | 5 |
| 2 | Descr | iption of Measurement | 6 |
| | 2.1 | Test Configuration | 6 |
| | 2.2 | Test Auxiliary Equipment | 6 |
| | 2.3 | Test Setup | 7 |
| | 2.4 | Test Procedure | 9 |
| | 2.5 | Measurement Method | 9 |
| | 2.6 | Measurement Equipment | . 10 |
| 3 | Test F | Results | . 11 |
| | 3.1 | Test Summary | 11 |
| | 3.2 | Limit Required | . 12 |
| | 3.3 | RF OUTPUT POWER | . 13 |
| | 3.4 | Modulation Limit | . 14 |
| | 3.5 | Audio Frequency Response | . 16 |
| | 3.6 | Audio Frequency Low Pass Filter Response | . 18 |
| | 3.7 | Authorized bandwidth and emission mask | . 19 |
| | 3.8 | Radiated spurious emission | . 20 |
| | 3.9 | Frequency stability | . 21 |
| 4 | FCC § | 95.587 FRS Additional Requirements | . 22 |
| 5 | Test S | Setup Photo | . 23 |
| ^ | | Dhata | 0.4 |



1 General Information

1.1 Client Information

| Applicant: | Kiddesigns Inc |
|---------------|--|
| Address: | 1299 Main Street, Rahway New Jersey,United States,07065-0901 |
| Manufacturer: | Kiddesigns Inc |
| Address: | 1299 Main Street, Rahway New Jersey, United States, 07065-0901 |

1.2 Product Description of EUT

| Sample Serial Number | 3A-2 for RE test, 3A-1 for RF test conducted test (assigned by WATC) |
|------------------------------------|--|
| Sample Received Date | 2023/12/13 |
| Sample Status | Good Condition |
| Frequency Range | 467.5625 MHz |
| ERP Power | 3.22dBm |
| Modulation Technology | FM |
| Spatial Streams | SISO (1TX, 1RX) |
| Antenna Gain [#] | 0dBi |
| Power Supply | DC 3V from battery |
| Input Voltage Range [#] : | DC 2.6V - DC 3V |
| Operating temperature# | -10 deg.C to +60 deg.C |
| Adapter Information | N/A |
| Modification | Sample No Modification by the test lab |

1.3 Antenna information

95.587 (b) requirement:

- (1)Click to open paragraph tools The antenna must be a non-removable integral part of the FRS transmitter type.
- (2) The gain of the antenna must not exceed that of a half-wave dipole antenna.
- (3) The antenna must be designed such that the electric field of the emitted waves is vertically polarized when the unit is operated in the normal orientation.

Device Antenna information:

An integral antenna which cannot replace by end-user, please see product EUT photos for details.

Report Template: TR-4-E-029/V1 Page 4 of 24



1.4 Measurement Uncertainty

| Parameter | | Expanded Uncertainty (Confidence of 95%(U = 2Uc(y))) |
|--|------------|--|
| - · · · · · · · · · · · · · · · | Below 1GHz | ±4.84dB |
| Emissions, Radiated | Above 1GHz | ±5.44dB |
| Conducted Power | | 0.74dB |
| Frequency Error | | 150 Hz |
| Bandwidth | | 0.34% |
| Audio Frequency Response/Low Pass Filter Response | | 4.04% |

Note: The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval. Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty.

1.5 Laboratory Location

World Alliance Testing and Certification (Shenzhen) Co., Ltd

No. 1002, East Block, Laobing Building, Xingye Road 3012, Xixiang street, Bao'an District, Shenzhen, Guangdong, People's Republic of China

Tel: +86-755-29691511, Email: qa@watc.com.cn

The lab has been recognized as the FCC accredited lab under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No. : 463912, the FCC Designation No. : CN5040.

The lab has been recognized by Innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements, the CAB identifier: CN0160.

1.6 Test Methodology

FCC CFR 47 Part 2, General rules and regulations

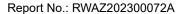
FCC CFR 47 Part 95, Personal Radio Services

ANSI C63.26-2015, American National Standard for Compliance Testing of Transmitters Used in Licensed Radio Services

ANSI/TIA 603-E-2016, Land Mobile FM or PM Communications Equipment Measurement and Performance Standards

KDB 888861 D01, Part 95 GMRS FRS v01

Report Template: TR-4-E-029/V1 Page 5 of 24





2 Description of Measurement

2.1 Test Configuration

| Operating ch | annels: | | | | |
|--------------|--------------------|-------------|--------------------|-------------|--------------------|
| Channel No. | Frequency (MHz) | Channel No. | Frequency (MHz) | Channel No. | Frequency (MHz) |
| 1 | 467.5625 | 1 | 1 | 1 | 1 |

| Test Mode: | | | | |
|---------------------|-----------------|---|----------------|--------------|
| Transmitting mode: | Keep the EUT in | Keep the EUT in continuous transmitting | | |
| Exercise software#: | - | - | | |
| Mode | Data rate | Tested Channel (MHz) | | |
| Wode | Data Tate | Low Channel | Middle Channel | High Channel |
| FRS | <u>-</u> | - | 467.5625 MHz | - |
| - | | | | |

Worst-Case Configuration:

For radiated emissions, EUT was investigated in three orthogonal orientation, the worst-case orientation was recorded in report

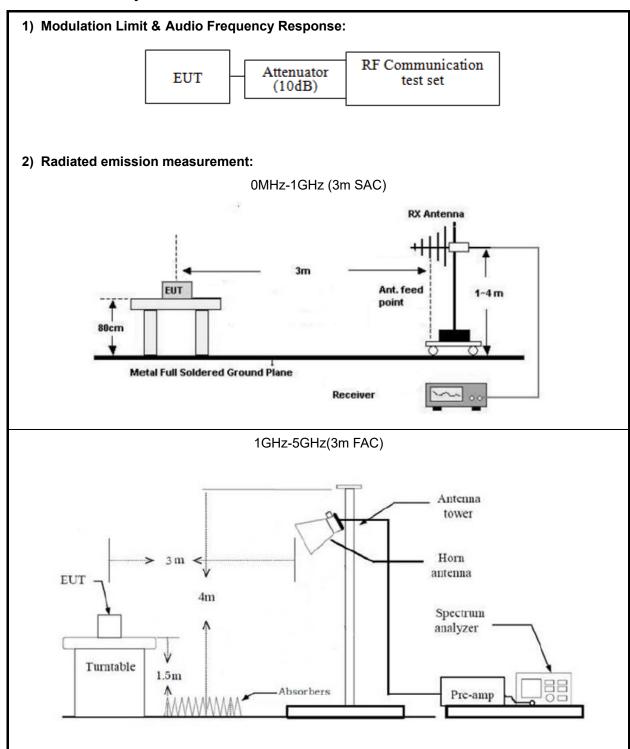
2.2 Test Auxiliary Equipment

| Manufacturer | Description | Model | Serial Number |
|--------------|-----------------|----------|---------------|
| UNI-T | DC power supply | UTP1310S | Unknown |

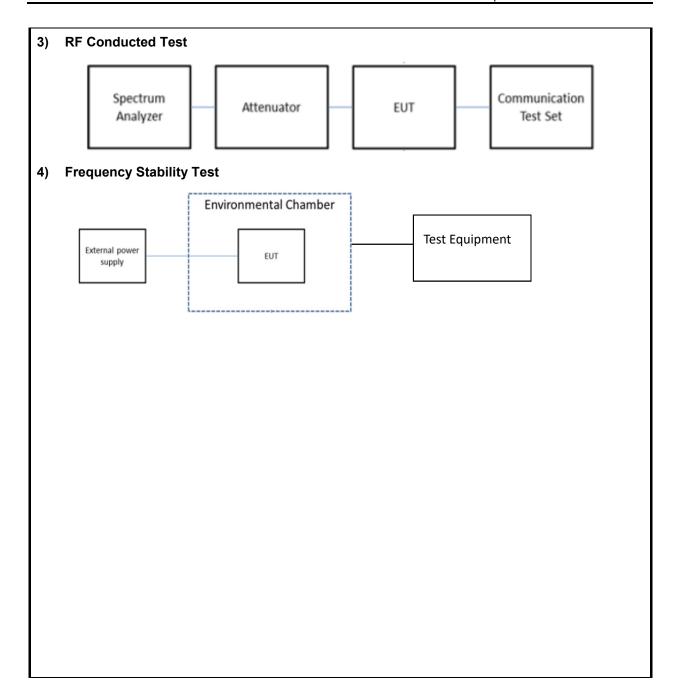
Report Template: TR-4-E-029/V1 Page 6 of 24



2.3 Test Setup









2.4 Test Procedure

Radiated Emission Procedure:

a) For 30MHz-1GHz:

- 1. The EUT was placed on the tabletop of a rotating table 0.8 m the ground at a 3 m semi anechoic chamber. The measurement distance from the EUT to the receiving antenna is 3 m.
- 2. EUT works in each mode of operation that needs to be tested. The highest signal levels relative to the limit shall be determined by rotating the EUT from 0° to 360° and with varying the measurement antenna height between 1 m and 4 m in vertical and horizontal polarizations.

b) For above 1GHz:

- 1. The EUT was placed on the tabletop of a rotating table 1.5 m the ground at a 3 m fully anechoic room. The measurement distance from the EUT to the receiving antenna is 3 m (1-5GHz).
- 2. EUT works in each mode of operation that needs to be tested, and having the EUT continuously working. The highest signal levels relative to the limit shall be determined by rotating the EUT from 0° to 360° and with varying the measurement antenna height between 1 m and 4 m in vertical and horizontal polarizations.
- 3. Open the test software to control the test antenna and test turntable. Perform the test, save the test results, and export the test data.

RF Conducted Test:

- 1. The antenna port of EUT was connected to the RF port of the test equipment through Attenuator and RF cable.
- 2. The cable assembly insertion loss of 10.5dB (including 10dB Attenuator and 0.5dB cable) was entered as an offset in the power meter. Note: Actual cable loss was unavailable at the time of testing, therefore a loss of 0.5dB was assumed as worst case. This was later verified to be true by laboratory. (if the RF cable provided by client, the cable loss declared by client)
- 3. The EUT is keeping in continuous transmission mode.

2.5 Measurement Method

| Description of Test | Measurement Method |
|--------------------------------------|---|
| RF Output Power | Per FCC §2.1046 and ANSI C63.26-2015 §5.2.7 |
| Modulation Limit | Per FCC §2.1047 and ANSI/TIA-603-E-2016 §2.2.3, 2.2.6, 2.2.15 |
| Audio Frequency Response | ANSI/TIA-603-E-2016 §2.2.6 |
| Authorized Bandwidth & Emission Mask | Per FCC §2.1049 and ANSI C63.26-2015 §5.4 |
| Radiated Spurious Emission | Per FCC §2.1053 and ANSI C63.26-2015 §5.5 |
| Frequency Stability | Per FCC §2.1055(d) and ANSI C63.26-2015 §5.6 |

Report Template: TR-4-E-029/V1 Page 9 of 24



2.6 Measurement Equipment

| Manufacturer | Description | Model | Management | Calibration | Calibration | |
|-------------------|------------------------|--------------|--------------|-------------|-------------|--|
| | Radiated Emission Test | | | | | |
| R&S | EMI test receiver | ESR3 | 102758 | 2023/7/3 | 2024/7/2 | |
| ROHDE& | SPECTRUM | | | 22221=12 | | |
| SCHWARZ | ANALYZER | FSV40-N | 101608 | 2023/7/3 | 2024/7/2 | |
| SONOMA | Low frequency | 240 | 105011 | 2022/7/42 | 2024/7/44 | |
| INSTRUMENT | amplifier | 310 | 186014 | 2023/7/12 | 2024/7/11 | |
| COM-POWER | preamplifier | PAM-118A | 18040152 | 2023/8/21 | 2024/8/20 | |
| SCHWARZBECK | Log - periodic | VULB 9163 | 0162 972 | 2023/7/7 | 2024/7/6 | |
| SCHWARZBECK | wideband antenna | VOLB 9163 | 9163-872 | | | |
| Astro Antenna Ltd | Horn antenna | AHA-118S | 3015 | 2023/7/6 | 2024/7/5 | |
| N/A | Coaxial Cable | N/A | NO.9 | 2023/8/8 | 2024/8/7 | |
| N/A | Coaxial Cable | N/A | NO.10 | 2023/8/8 | 2024/8/7 | |
| N/A | Coaxial Cable | N/A | NO.11 | 2023/8/8 | 2024/8/7 | |
| | | RF Conducted | Test | | | |
| ROHDE& | SPECTRUM | FSV40-N | 101608 | 2023/7/3 | 2024/7/2 | |
| SCHWARZ | ANALYZER | F3V4U-IN | 101008 | 2023/7/3 | 2024/7/2 | |
| MARCONI | 10dB Attenuator | 1692595 | 2942 | 2023/10/25 | 2024/10/24 | |
| BACL | TEMP&HUMI Test | BTH-150 | 30022 | 2023/7/12 | 2024/7/11 | |
| DACL | Chamber | 0111-130 | 30022 | 2023/7/12 | 2024///11 | |
| FLUKE | Digital Multi-meter | 15B+ | N/A | 2023/7/12 | 2024/7/11 | |
| НР | RF Communication | HP8920A | T-01-EM046 | 2023/7/12 | 2024/7/11 | |
| 1117 | test set | 111 0320A | I OI-LIVIO40 | 2023/1/12 | | |

Note: All equipment is calibrated with valid calibrations. Each measurement data is traceable to the national or International standards.



3 Test Results

3.1 Test Summary

| FCC Rules | Description of Test | Result |
|---------------------------|--------------------------------------|------------|
| §2.1046, §95.567 | RF Output Power | Compliance |
| §2.1047, §95.575 | Modulation Limit | Compliance |
| §2.1047, §95.575 | Audio Frequency Response | Compliance |
| §2.1049, §95.573, §95.579 | Authorized Bandwidth & Emission Mask | Compliance |
| §2.1053, §95.579 | Radiated Spurious Emission | Compliance |
| §2.1055(d), §95.565 | Frequency Stability | Compliance |
| §95.587 | FRS additional requirements | Compliance |



3.2 Limit Required

| Test items | Limit | | |
|----------------------------|---|--|--|
| | See details §95.567 | | |
| RF output power | Each FRS transmitter type must be designed such that the effective radiated power (ERP) on channels 8 through 14 does not exceed 0.5 Watts and the ERP on channels 1 through 7 and 15 through 22 does not exceed 2.0 Watts. | | |
| | See details §95.575 | | |
| Modulation Limit | Each FRS transmitter type must be designed such that the peak frequency | | |
| Audio Frequency Response | deviation does not exceed 2.5 kHz, and the highest audio frequency | | |
| | contributing substantially to modulation must not exceed 3.125 kHz. | | |
| | See details §95.573 | | |
| | Each FRS transmitter type must be designed such that the occupied | | |
| | bandwidth does not exceed 12.5 kHz. | | |
| | See details§95.579 | | |
| | (a)Click to open paragraph tools Attenuation requirements. The power of | | |
| Authorized bandwidth and | unwanted emissions must be attenuated below the carrier power output in Watts (P) by at least: | | |
| emission mask | (1) 25 dB (decibels) in the frequency band 6.25 kHz to 12.5 kHz removed from | | |
| | the channel center frequency. | | |
| | (2) 35 dB in the frequency band 12.5 kHz to 31.25 kHz removed from the | | |
| | channel center frequency. | | |
| | (3) 43 + 10 log (P) dB in any frequency band removed from the channel center | | |
| | frequency by more than 31.25 kHz. | | |
| | See details§95.579 | | |
| | (a)Click to open paragraph tools Attenuation requirements. The power of | | |
| | unwanted emissions must be attenuated below the carrier power output in Watts | | |
| | (P) by at least: | | |
| Radiated Spurious Emission | (1) 25 dB (decibels) in the frequency band 6.25 kHz to 12.5 kHz removed from | | |
| | the channel center frequency. | | |
| | (2) 35 dB in the frequency band 12.5 kHz to 31.25 kHz removed from the channel center frequency. | | |
| | (3) 43 + 10 log (P) dB in any frequency band removed from the channel center | | |
| | frequency by more than 31.25 kHz. | | |
| | See details §95.565 | | |
| Frequency stability | Each FRS transmitter type must be designed such that the carrier frequencies | | |
| Frequency stability | remain within ±2.5 parts-per-million of the channel center frequencies specified | | |
| | in § 95.563 during normal operating conditions. | | |



3.3 RF OUTPUT POWER

| Test Date: | 2023-12-15 | Test By: | Bard Huang |
|------------------------|--|----------|------------------|
| Environment condition: | Temperature: 26.1C; Relative Humidity:51%; ATM Pressure: | | essure: 101.0kPa |

| Frequency (MHz) | Reading level (dBµV) | Polar (H/V) | Corrected Factor (dB/m) | Corrected Amplitude (dBµV/m) | EIRP CF | EIRP (dBm) | ERP (dBm) | Limit (dBm) | Margin (dB) | Remar k |
|--------------------|----------------------------|----------------|-------------------------------|------------------------------------|------------|---------------|--------------|----------------|----------------|------------|
| 467.5625 | 94.46 | Horizontal | -8.09 | 86.37 | -95.2 | -8.83 | -10.98 | 27 | -37.98 | Peak |
| 467.5625 | 108.66 | Vertical | -8.09 | 100.57 | -95.2 | 5.37 | 3.22 | 27 | -23.78 | Peak |

Remark:

Corrected Amplitude= Reading level + corrected Factor

Corrected Factor = Antenna factor + Cable loss – Amplifier gain

Margin = ERP – Limit

ERP=EIRP-2.15

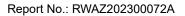
According to ANSI C63.26-2.15 section 5.2.7:

EIRP (dBm) = E (dB μ V/m) + 20log(D) - 104.8; where D is the measurement distance (in the far field region) in m.

Test was performed on 3meters distance, so

Result = Corrected Amplitude + 20log(3) - 104.8

= Corrected Amplitude - 95.2





3.4 Modulation Limit

| Test Date: | 2023-12-26 | Test By: | Baylor Li | | |
|------------------------|--|----------|-----------|--|--|
| Environment condition: | Temperature: 24.4°C; Relative Humidity:40%; ATM Pressure: 101.0kPa | | | | |

MODULATION LIMITING

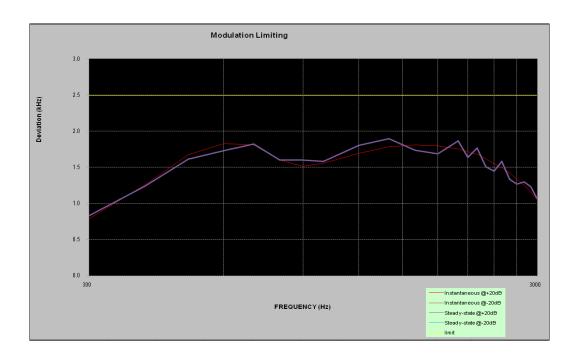
Carrier Frequency: 467.5625MHz

| | Instant | aneous | Stead | y-state | |
|-------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|----------------|
| Audio Frequency (Hz) | DEVIATION (@+20dB) [kHz] | DEVIATION (@-20dB) [kHz] | DEVIATION (@+20dB) [kHz] | DEVIATION (@-20dB) [kHz] | Limit [kHz] |
| 300 | 0.791 | - | 0.835 | - | 2.500 |
| 400 | 1.262 | - | 1.240 | - | 2.500 |
| 500 | 1.680 | - | 1.614 | - | 2.500 |
| 600 | 1.835 | - | 1.736 | - | 2.500 |
| 700 | 1.815 | - | 1.826 | - | 2.500 |
| 800 | 1.602 | - | 1.602 | - | 2.500 |
| 900 | 1.516 | - | 1.604 | - | 2.500 |
| 1000 | 1.561 | - | 1.583 | - | 2.500 |
| 1200 | 1.697 | - | 1.807 | - | 2.500 |
| 1400 | 1.788 | - | 1.898 | - | 2.500 |
| 1600 | 1.816 | - | 1.739 | - | 2.500 |
| 1800 | 1.802 | - | 1.692 | - | 2.500 |
| 2000 | 1.756 | - | 1.866 | - | 2.500 |
| 2100 | 1.720 | - | 1.643 | - | 2.500 |
| 2200 | 1.683 | - | 1.771 | - | 2.500 |
| 2300 | 1.624 | - | 1.514 | - | 2.500 |
| 2400 | 1.557 | - | 1.447 | - | 2.500 |
| 2500 | 1.498 | - | 1.586 | - | 2.500 |
| 2600 | 1.425 | - | 1.337 | - | 2.500 |
| 2700 | 1.337 | - | 1.271 | - | 2.500 |
| 2800 | 1.257 | - | 1.301 | - | 2.500 |
| 2900 | 1.158 | - | 1.235 | - | 2.500 |
| 3000 | 1.056 | - | 1.067 | - | 2.500 |

Note: DEVIATION (@-20dB)[kHz] signal is too low, the prototype cannot respond to the audio.

Report Template: TR-4-E-029/V1 Page 14 of 24







3.5 Audio Frequency Response

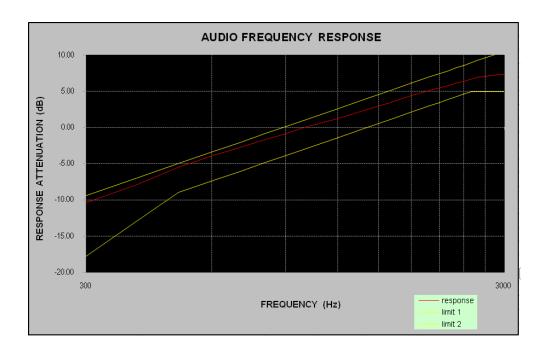
| Test Date: | 2023-12-26 | Test By: | Baylor Li |
|------------------------|-------------------------------|----------------------|------------------|
| Environment condition: | Temperature: 24.4°C; Relative | Humidity:40%; ATM Pr | essure: 101.0kPa |

Carrier Frequency: 467.5625MHz

| | Page and Attenuation |
|-----------------|----------------------|
| Audio Frequency | Response Attenuation |
| (Hz) | (dB) |
| 300 | -10.40 |
| 400 | -7.83 |
| 500 | -5.48 |
| 600 | -3.93 |
| 700 | -2.83 |
| 800 | -1.72 |
| 900 | -0.90 |
| 1000 | 0.00 |
| 1200 | 1.18 |
| 1400 | 2.42 |
| 1600 | 3.42 |
| 1800 | 4.37 |
| 2000 | 5.12 |
| 2100 | 5.46 |
| 2200 | 5.77 |
| 2300 | 6.09 |
| 2400 | 6.37 |
| 2500 | 6.66 |
| 2600 | 6.92 |
| 2700 | 7.05 |
| 2800 | 7.17 |
| 2900 | 7.28 |
| 3000 | 7.37 |

Report Template: TR-4-E-029/V1 Page 16 of 24





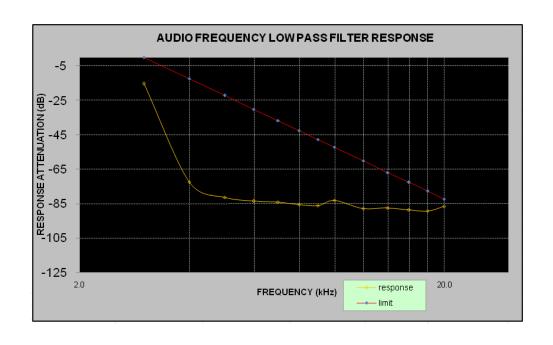


3.6 Audio Frequency Low Pass Filter Response

| Test Date: | 2023-12-26 | Test By: | Baylor Li |
|------------------------|-------------------------------|---------------------|-------------------|
| Environment condition: | Temperature: 24.4°C; Relative | Humidity:40%; ATM P | ressure: 101.0kPa |

Carrier Frequency: 467.5625MHz

| Audio Frequency | Response Attenuation | Limit |
|-----------------|----------------------|-------|
| (kHz) | (dB) | (dB) |
| 1.0 | 0.0 | 1 |
| 3.0 | -15.25 | 0.0 |
| 4.0 | -72.64 | -12.5 |
| 5.0 | -81.36 | -22.2 |
| 6.0 | -83.72 | -30.1 |
| 7.0 | -84.15 | -36.8 |
| 8.0 | -85.62 | -42.6 |
| 9.0 | -86.18 | -47.7 |
| 10.0 | -83.29 | -52.3 |
| 12.0 | -87.91 | -60.2 |
| 14.0 | -87.60 | -66.9 |
| 16.0 | -88.6 | -72.7 |
| 18.0 | -89.4 | -77.8 |
| 20.0 | -86.6 | -82.4 |



Report Template: TR-4-E-029/V1 Page 18 of 24



3.7 Authorized bandwidth and emission mask

| Test Date: | 2023-12-26 | Test By: | Baylor Li |
|------------------------|---|----------|------------------|
| Environment condition: | Temperature: 24.4°C; Relative Humidity:40%; ATM | | essure: 101.0kPa |

| Test Frequency (MHz) | 99% Occupied Bandwidth (kHz) | 20 dB Bandwidth (kHz) | Limit (kHz) |
|-------------------------|------------------------------------|-----------------------------|----------------|
| 467.5625 | 5.28 | 5.43 | ≤12.5 |

Note:

Emission bandwidth was based on calculation method instead of measurement.

Emission Designator

BW = 2M + 2D

For FM Mode (Channel Spacing: 12.5 kHz)

Emission Designator 11K0F3E

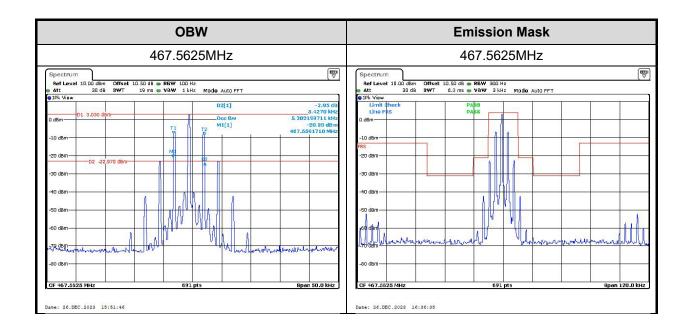
In this case, the maximum modulating frequency is 3.0 kHz with a 2.5 kHz deviation.

BW = 2(M+D) = 2*(3.0 kHz + 2.5 kHz) = 11 kHz = 11KO

F3E portion of the designator represents an FM voice transmission

Therefore, the entire designator for 12.5 kHz channel spacing FM mode is 11K0F3E.

Test Plots



Report Template: TR-4-E-029/V1 Page 19 of 24



3.8 Radiated spurious emission

| Test Date: | 2023-12-15 | Test By: | Bard Huang |
|------------------------|--------------------------------|----------------------|------------------|
| Environment condition: | Temperature: 26.1C; Relative H | Humidity:51%; ATM Pr | essure: 101.0kPa |

30MHz-5 GHz:

| Frequency (MHz) | Reading level (dBµV) | Polar (H/V) | Correcte d Factor (dB/m) | Corrected Amplitude (dBµV/m) | EIRP CF | Corrected Reading (dBm) | Limit (dBm) | Margin (dB) | Remark |
|--------------------|----------------------------|----------------|--------------------------------|------------------------------------|------------|-------------------------------|----------------|----------------|--------|
| | | | Em | ission(467.5 | 625MHz) | | | | |
| 935.125 | 62.80 | Horizontal | -0.23 | 62.57 | -95.20 | -32.63 | -13.00 | -19.63 | Peak |
| 935.125 | 68.00 | Vertical | -0.23 | 67.77 | -95.20 | -27.43 | -13.00 | -14.43 | Peak |
| 1402.69 | 82.11 | Horizontal | -4.01 | 78.10 | -95.20 | -17.10 | -13.00 | -4.10 | Peak |
| 1402.69 | 73.01 | Vertical | -4.01 | 69.00 | -95.20 | -26.20 | -13.00 | -13.20 | Peak |
| 1870.25 | 68.55 | Horizontal | -2.25 | 66.30 | -95.20 | -28.90 | -13.00 | -15.90 | Peak |
| 1870.25 | 57.45 | Vertical | -2.25 | 55.20 | -95.20 | -40.00 | -13.00 | -27.00 | Peak |
| 2337.81 | 82.10 | Horizontal | -1.80 | 80.30 | -95.20 | -14.90 | -13.00 | -1.90 | Peak |
| 2337.81 | 74.40 | Vertical | -1.80 | 72.60 | -95.20 | -22.60 | -13.00 | -9.60 | Peak |
| 2805.38 | 59.57 | Horizontal | -1.37 | 58.20 | -95.20 | -37.00 | -13.00 | -24.00 | Peak |
| 2805.38 | 57.37 | Vertical | -1.37 | 56.00 | -95.20 | -39.20 | -13.00 | -26.20 | Peak |
| 3272.94 | 68.51 | Horizontal | -1.81 | 66.70 | -95.20 | -28.50 | -13.00 | -15.50 | Peak |
| 3272.94 | 66.81 | Vertical | -1.81 | 65.00 | -95.20 | -30.20 | -13.00 | -17.20 | Peak |
| 3740.50 | 54.39 | Horizontal | -1.59 | 52.80 | -95.20 | -42.40 | -13.00 | -29.40 | Peak |
| 3740.50 | 52.79 | Vertical | -1.59 | 51.20 | -95.20 | -44.00 | -13.00 | -31.00 | Peak |
| 4208.06 | 56.06 | Horizontal | -1.86 | 54.20 | -95.20 | -41.00 | -13.00 | -28.00 | Peak |
| 4208.06 | 57.56 | Vertical | -1.86 | 55.70 | -95.20 | -39.50 | -13.00 | -26.50 | Peak |

Remark:

Corrected Amplitude= Reading level + corrected Factor

Corrected Factor = Antenna factor + Cable loss – Amplifier gain

Margin = Result - Limit

According to ANSI C63.26-2.15 section 5.2.7:

EIRP (dBm) = E (dB μ V/m) + 20log(D) – 104.8; where D is the measurement distance (in the far field region) in m.

Test was performed on 3meters distance, so

Result = Corrected Amplitude + 20log(3) - 104.8

= Corrected Amplitude - 95.2

The emission levels of other frequencies that were lower than the limit 20dB, not show in test report.

Report Template: TR-4-E-029/V1 Page 20 of 24



3.9 Frequency stability

| Test Date: | 2023-12-26 | Test By: | Baylor Li |
|------------------------|-------------------------------|------------------|-----------|
| Environment condition: | Temperature: 24.4°C; Relative | essure: 101.0kPa | |

| Test Frequency (MHz) | Temperature (°C) | Voltage (V _{DC}) | Measured Frequency (MHz) | Frequency Error (ppm) | Limit (ppm) |
|-------------------------|---------------------|-------------------------------|--------------------------------|-----------------------------|----------------|
| 467.5625 | -30 | 3.0 | 467.5632 | 1.4971 | ±2.5 |
| | -20 | 3.0 | 467.5622 | -0.6416 | ±2.5 |
| | -10 | 3.0 | 467.5617 | -1.7110 | ±2.5 |
| | 0 | 3.0 | 467.5624 | -0.2139 | ±2.5 |
| | 10 | 3.0 | 467.5621 | -0.8555 | ±2.5 |
| | 20 | 3.0 | 467.5620 | -1.0694 | ±2.5 |
| | 30 | 3.0 | 467.5626 | 0.2139 | ±2.5 |
| | 40 | 3.0 | 467.5619 | -1.2833 | ±2.5 |
| | 50 | 3.0 | 467.562 | -1.0694 | ±2.5 |
| | 20 | 2.6 | 467.5622 | -0.6416 | ±2.5 |
| | 20 | 3.0 | 467.5622 | -0.6416 | ±2.5 |

Report Template: TR-4-E-029/V1 Page 21 of 24



4 FCC §95.587 FRS Additional Requirements

Each FRS transmitter type must be designed to meet the following additional requirements.

(a) Transmit frequency capability. FRS transmitter types must not be capable of transmitting on any frequency or channel other than those listed in § 95.563.

Judgment: Compliance, please refer user manual

- (b) Antenna. The antenna of each FRS transmitter type must meet the following requirements.
- (1) The antenna must be a non-removable integral part of the FRS transmitter type.
- (2) The gain of the antenna must not exceed that of a half-wave dipole antenna.
- (3) The antenna must be designed such that the electric field of the emitted waves is vertically polarized when the unit is operated in the normal orientation.

Judgment: Compliance, please refer section 1.2 of report and EUT photo

- (c) Digital data transmissions. FRS transmitter types having the capability to transmit digital data must be designed to meet the following requirements.
- (1) FRS units may transmit digital data containing location information, or requesting location information from one or more other FRS or GMRS units, or containing a brief text message to another specific FRS or GMRS unit or units.
- (2) Digital data transmissions may be initiated by a manual action or command of the operator or on an automatic or periodic basis, and FRS units may be designed to automatically respond with location data upon receiving an interrogation request from another
- (3) Digital data transmissions must not exceed one second in duration.
- (4) Digital data transmissions must not be sent more frequently than one digital data transmission within a thirty-second period, except that an FRS unit may automatically respond to more than one interrogation request received within a thirty-second period.

Judgment: Not Applicable, no digital modulation function.

(d) Packet mode. FRS transmitter types must not be capable of transmitting data in the store-and-forward packet operation mode.

Judgment: Not Applicable, no digital modulation function.

(e) Effective September 30, 2019, no person shall manufacture or import hand-held portable radio equipment capable of operating under this subpart (FRS) and other licensed or licensed-by-rule services in this chapter (part 15 unlicensed equipment authorizations are permitted if consistent with part 15 rules).

Judgment: Compliance, the devices are not include transmitter(s) (or transmitting modes) operating in other licence and licence-exempt services.



5 Test Setup Photo

Please refer to the attachment RWAZ202300072 Test Setup photo.



6 E.U.T Photo

Please refer to the attachment RWAZ202300072 External Photo and RWAZ202300072 Internal Photo.

---End of Report---