



FCC PART 95

MEASUREMENT AND TEST REPORT

For

Global Mei Chuang Co., Limited

FLAT / RM A, 9 /F, SILVERCORP INTERNATIONAL TOWER, 707-713 NATHAN ROAD, MONGKOK, KL, HONGKONG

FCC ID: 2AMEAT899

| Report Type: | | Product Type: | |
|-----------------------|---|---------------|--|
| Original Report | | Walkie Talkie | |
| | | | |
| Report Number: | SZ5210312-06437 | E-00 | |
| Report Date: | 2021-04-17 | | |
| Reviewed By: | Jimmy Xiao RF Engineer | Jimm/ Xiao | |
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Bay Area Compliance Laboratories Corp. (Shenzhen)

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| | ∠+# |

GENERAL INFORMATION

| Product# | Walkie Talkie |
|------------------------|--|
| Tested Model | Т899С |
| Multiple Model | T899 |
| Model Differences | Refer to the DoS letter |
| Frequency Range# | 462.5500~462.7250MHz 467.5625~467.7125MHz |
| Transmit Power (ERP)# | 462.5500~462.7250MHz: 19.95dBm 467.5625~467.7125MHz: 20.65dBm |
| Channel Spacing | 12.5kHz |
| Modulation Technique# | FM |
| Antenna Specification* | -5.09dBi(It is provided by the applicant) |
| Voltage Range# | DC 1.2V*3 from battery (3 *AAA 1.2Vdc/800mAh NI-MH battery) Or DC 1.5V*3 from dry battery |
| Sample serial number | SZ5210312-06437E-RF-S1(Assigned by BACL, Shenzhen) |
| Received date | 2021-03-12 |
| Sample/EUT Status | Good condition |

Product Description for Equipment Under Test (EUT)

Objective

This test report is in accordance with Part 2 and Part 95, Subpart A & Subpart B of the Federal Communication Commissions rules.

Test Methodology

All tests and measurements indicated in this document were performed in accordance with Part 95 Subpart A, Subpart B of the Federal Communication Commissions rules with TIA-603-E, Land Mobile FM or PM-Communications Equipment-Measurement and Performance Standards.

All emissions measurement was performed at Bay Area Compliance Laboratories Corp. (Shenzhen). The radiated testing was performed at an antenna-to-EUT distance of 3 meters.

| Parameter | | Uncertainty | |
|----------------------------------|------------|---------------|--|
| Occupied Channel Bandwidth | | $\pm 5\%$ | |
| RF Output Power with Power meter | | ±0.73dB | |
| RF conducted test with spectrum | | ±1.6dB | |
| Emissions, Below 1GHz | | ±4.75dB | |
| Radiated | Above 1GHz | $\pm 4.88 dB$ | |
| Temperature | | ±1°C | |
| Humidity | | ±6% | |
| Supply voltages | | ±0.4% | |

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.

Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Shenzhen) to collect test data is located on the 5F(B-West), 6F, 7F, the 3rd Phase of Wan Li Industrial Building D, Shihua Rd, FuTian Free Trade Zone, Shenzhen, China.

The test site has been approved by the FCC under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No. : 342867, the FCC Designation No. : CN1221.

The test site has been registered with ISED Canada under ISED Canada Registration Number 3062B.

SYSTEM TEST CONFIGURATION

Description of Test Configuration

The system was configured for testing in a typical fashion (as normally used by a typical user).

| Channel No. | Frequency (MHz) | Channel No. | Frequency (MHz) |
|-------------|--------------------|-------------|--------------------|
| 1 | 462.5625 | 12 | 467.6625 |
| 2 | 462.5875 | 13 | 467.6875 |
| 3 | 462.6125 | 14 | 467.7125 |
| 4 | 462.6375 | 15 | 462.5500 |
| 5 | 462.6625 | 16 | 462.5750 |
| 6 | 462.6875 | 17 | 462.6000 |
| 7 | 462.7125 | 18 | 462.6250 |
| 8 | 467.5625 | 19 | 462.6500 |
| 9 | 467.5875 | 20 | 462.6750 |
| 10 | 467.6125 | 21 | 462.7000 |
| 11 | 467.6375 | 22 | 462.7250 |

FRS Channel List

Equipment Modifications

No modification was made to the EUT tested.

Support Equipment List and Details

| Manufacturer | Description | Model | Serial Number | |
|--------------|-------------|-------|---------------|--|
| / | / | / | / | |

External I/O Cable

| Manufacturer | Description | Model | Serial Number | |
|--------------|-------------|-------|---------------|--|
| / | / | / | / | |

Block Diagram of Test Setup

| | EUT | | ▲ 1.0 Meter |
|--|-----|------------|-------------|
| Non-Conductive Table 80 cm/150 cm above Ground Plane | | 1.5 Meters | Ţ ↓ |

SUMMARY OF TEST RESULTS

| FCC Rules | Description of Test | Results | |
|---------------------------|--------------------------------------|------------|--|
| §2.1093 | RF Exposure | Compliance | |
| §95.587(b)(1)(2)(3) | Antenna Requirement | Compliance | |
| §2.1046, §95.567 | RF Output Power | Compliance | |
| §2.1047, §95.575 | Modulation Characteristic | 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 | |

Report No.: SZ5210312-06437E-00

TEST EQUIPMENT LIST

| Manufacturer | Description | Model | Serial Number | Calibration Date | Calibration Due Date |
|--------------------|-----------------------------------|-------------------|-------------------|---------------------|-------------------------|
| | ŀ | Radiated Emission | Test | | |
| R&S | EMI Test Receiver | ESR3 | 102455 | 2020/08/04 | 2021/08/03 |
| Sonoma instrument | Pre-amplifier | 310 N | 186238 | 2020/08/04 | 2021/08/03 |
| Sunol Sciences | Broadband Antenna | JB1 | A040904-2 | 2020/12/22 | 2023/12/21 |
| COM-POWER | Dipole Antenna | AD-100 | 721027 | NCR | NCR |
| Unknown | Cable | Chamber Cable 1 | F-03-EM236 | 2020/11/29 | 2021/11/28 |
| Unknown | Cable | Chamber Cable 4 | EC-007 | 2020/11/29 | 2021/11/28 |
| Rohde & Schwarz | Spectrum Analyzer | FSV40-N | 102259 | 2020/08/04 | 2021/08/03 |
| COM-POWER | Pre-amplifier | PA-122 | 181919 | 2020/11/29 | 2021/11/28 |
| Sunol Sciences | Horn Antenna | 3115 | 9107-3694 | 2021/01/15 | 2024/01/14 |
| A.H.System | Horn Antenna | SAS-200/571 | 135 | 2018/09/01 | 2021/08/31 |
| Insulted Wire Inc. | RF Cable | SPS-2503-3150 | 02222010 | 2020/11/29 | 2021/11/28 |
| Unknown | RF Cable | W1101-EQ1 OUT | F-19-EM005 | 2020/11/29 | 2021/11/28 |
| Agilent | Signal Generator | N5183A | MY51040755 | 2020/12/29 | 2021/12/28 |
| | RF Conducted test | | | | |
| WEINSCHEL | 10dB Attenuator | 5324 | AU3842 | 2020/11/29 | 2021/11/28 |
| HP Agilent | RF Communication test set | 8920A | 3325UC0859 | 2020/08/04 | 2021/08/03 |
| Unknown | notch filter | SKU 5G3 | ATR0205-04- 13 | 2020/04/20 | 2021/04/20 |
| Rohde & Schwarz | SPECTRUM ANALYZER | FSU26 | 200120 | 2021/04/02 | 2022/04/01 |
| Unknown | RF Cable | Unknown | DLO J5/W6102 | 2020/11/29 | 2021/11/28 |
| Unknown | RF Cable | Unknown | 8082176/W611 1 | 2020/11/29 | 2021/11/28 |
| Weinschel | Power divider | 1515 | MY628 | 2020/11/29 | 2021/11/28 |
| ESPEC | Temperature & Humidity Chamber | EL-10KA | 9107726 | 2021/01/05 | 2022/01/05 |
| instek | DC Power Supply | GPS-3030DD | EM832096 | NCR | NCR |
| Fluke | Digital Multimeter | 287 | 19000011 | 2020/07/23 | 2021/07/22 |

* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

§2.1093 - RF EXPOSURE INFORMATION

Applicable Standard

§2.1093.

Test Result

Compliance, please refer to the SAR report: RSZ210324802-20.

FCC §95.587(b)(1)(2)(3) – ANTENNA REQUIREMENT

Applicable Standard

According to FCC § 95.587, (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.

Antenna Description

The EUT has an integral vertically ploarized antenna arrangement and the antenna gain is -5.09dBi, fulfill the requirement of this section. Please refer to the EUT photos.

Result: Compliance.

FCC §2.1046 & §95.567 - RF OUTPUT POWER

Applicable Standard

Per FCC §2.1046, and §95.567, 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.

Test Procedure

The transmitter was placed on a wooden turntable, and it was transmitting into a non-radiating load, which was also placed on the turntable.

The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and polarization as well as EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. The test was performed by placing the EUT on 3-orthogonal axis.

Remove the EUT and replace it with substitution antenna. A signal generator was connected to the substitution antenna by a non-radiating cable. The absolute levels of the emissions were measured by the substitution.

Test Data

Environmental Conditions

| Temperature: | 28 °C |
|---------------------------|-----------|
| Relative Humidity: | 58 % |
| ATM Pressure: | 101.0 kPa |

The testing was performed by Black Chen on 2021-03-20.

Test Mode: Transmitting

| Indica | nted | Table | Test | Ant. | Sub | stituted | | Absolute | | Margin (dB) |
|--------------------|---------------------------|-----------------|---------------|----------------|-------------------------------|-----------------------|-----------------------|----------------|----------------|----------------|
| Frequency (MHz) | S.A. Reading (dBµV) | Angle Degree | Height (m) | Polar (H/V) | Substituted level (dBm) | Cable Loss (dB) | Ant. Gain (dBd) | Level (dBm) | Limit (dBm) | |
| | 462.6375MHz | | | | | | | | | |
| 462.6375 | 80.65 | 133 | 2.1 | Н | 6.2 | 1.05 | 0.0 | 5.15 | 33 | 27.85 |
| 462.6375 | 90.74 | 192 | 1.3 | V | 21.0 | 1.05 | 0.0 | 19.95 | 33 | 13.05 |
| | 467.6375MHz | | | | | | | | | |
| 467.6375 | 80.42 | 355 | 2.2 | Н | 5.8 | 1.05 | 0.0 | 4.75 | 27 | 22.25 |
| 467.6375 | 91.64 | 228 | 1.6 | V | 21.7 | 1.05 | 0.0 | 20.65 | 27 | 6.35 |

Test Result: Compliance.

FCC §2.1047 & §95.575 - MODULATION CHARACTERISTIC

Applicable Standard

Per FCC §2.1047 and §95.575: Each FRS transmitter type must be designed such that the peak frequency deviation does not exceed 2.5 kHz, and the highest audio frequency contributing substantially to modulation must not exceed 3.125 kHz.

Test Procedure

Test Method: TIA/EIA-603-E

Test Data

Environmental Conditions

| Temperature: | 25 °C |
|---------------------------|-----------|
| Relative Humidity: | 52 % |
| ATM Pressure: | 101.0 kPa |

The testing was performed by Black Chen on 2021-03-20.

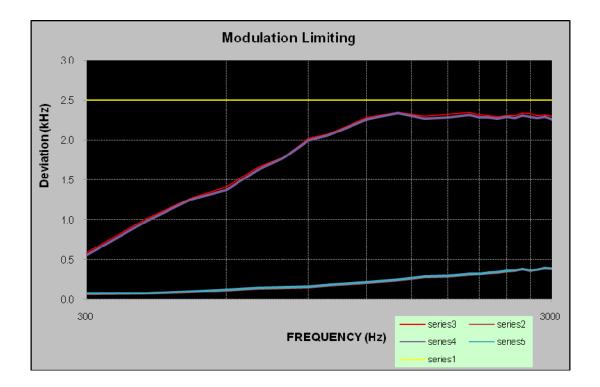
Test Mode: Transmitting

Please refer to the following tables and plots.

MODULATION LIMITING

Carrier Frequency: 467.6375MHz

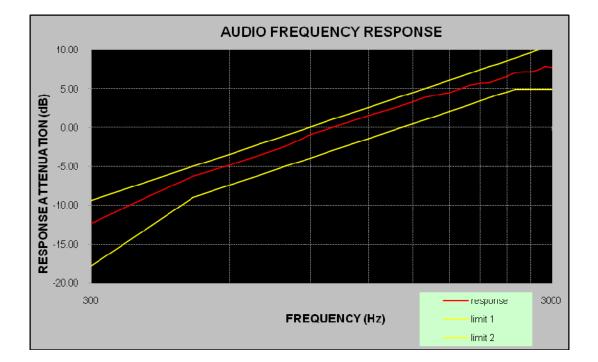
| | Instant | aneous | Steady | | |
|-------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|----------------|
| Audio Frequency (Hz) | DEVIATION (@+20dB) [kHz] | DEVIATION (@-20dB) [kHz] | DEVIATION (@+20dB) [kHz] | DEVIATION (@-20dB) [kHz] | Limit [kHz] |
| 300 | 0.582 | 0.068 | 0.551 | 0.077 | 2.500 |
| 400 | 1.002 | 0.077 | 0.971 | 0.080 | 2.500 |
| 500 | 1.268 | 0.089 | 1.248 | 0.097 | 2.500 |
| 600 | 1.416 | 0.114 | 1.376 | 0.120 | 2.500 |
| 700 | 1.655 | 0.135 | 1.621 | 0.143 | 2.500 |
| 800 | 1.790 | 0.149 | 1.782 | 0.154 | 2.500 |
| 900 | 2.016 | 0.158 | 1.996 | 0.165 | 2.500 |
| 1000 | 2.078 | 0.176 | 2.064 | 0.184 | 2.500 |
| 1200 | 2.283 | 0.212 | 2.262 | 0.218 | 2.500 |
| 1400 | 2.341 | 0.242 | 2.335 | 0.245 | 2.500 |
| 1600 | 2.300 | 0.277 | 2.267 | 0.284 | 2.500 |
| 1800 | 2.318 | 0.289 | 2.285 | 0.293 | 2.500 |
| 2000 | 2.346 | 0.314 | 2.315 | 0.319 | 2.500 |
| 2100 | 2.310 | 0.322 | 2.279 | 0.322 | 2.500 |
| 2200 | 2.302 | 0.328 | 2.278 | 0.334 | 2.500 |
| 2300 | 2.293 | 0.338 | 2.268 | 0.340 | 2.500 |
| 2400 | 2.303 | 0.347 | 2.286 | 0.357 | 2.500 |
| 2500 | 2.307 | 0.358 | 2.271 | 0.363 | 2.500 |
| 2600 | 2.340 | 0.378 | 2.308 | 0.385 | 2.500 |
| 2700 | 2.331 | 0.360 | 2.292 | 0.367 | 2.500 |
| 2800 | 2.305 | 0.370 | 2.275 | 0.372 | 2.500 |
| 2900 | 2.311 | 0.391 | 2.289 | 0.397 | 2.500 |
| 3000 | 2.295 | 0.382 | 2.259 | 0.388 | 2.500 |



Audio Frequency Response

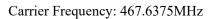
Carrier Frequency: 467.6375MHz

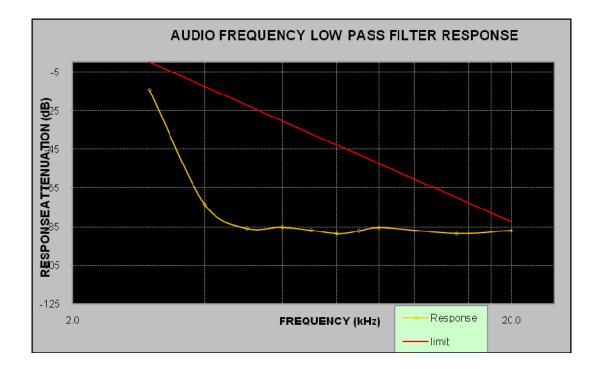
| Audio Frequency (Hz) | Response Attenuation (dB) |
|-------------------------|------------------------------|
| 300 | -12.40 |
| 400 | -8.83 |
| 500 | -6.30 |
| 600 | -4.82 |
| 700 | -3.53 |
| 800 | -2.36 |
| 900 | -0.90 |
| 1000 | 0.00 |
| 1200 | 1.48 |
| 1400 | 2.72 |
| 1600 | 3.95 |
| 1800 | 4.46 |
| 2000 | 5.43 |
| 2100 | 5.71 |
| 2200 | 5.81 |
| 2300 | 6.19 |
| 2400 | 6.58 |
| 2500 | 7.08 |
| 2600 | 7.15 |
| 2700 | 7.16 |
| 2800 | 7.41 |
| 2900 | 7.87 |
| 3000 | 7.70 |



Audio frequency lows pass filter response

| Audio Frequency (kHz) | Response Attenuation (dB) | Limit (dB) |
|--------------------------|------------------------------|---------------|
| 1.0 | 0.0 | / |
| 3.0 | -14.26 | 0.0 |
| 4.0 | -73.48 | -12.5 |
| 5.0 | -85.91 | -22.2 |
| 6.0 | -85.24 | -30.1 |
| 7.0 | -86.75 | -36.8 |
| 8.0 | -88.61 | -42.6 |
| 9.0 | -87.16 | -47.7 |
| 10.0 | -85.38 | -52.3 |
| 15.0 | -88.51 | -69.9 |
| 20.0 | -86.97 | -82.4 |





FCC §2.1049 & §95.573 & §95.579 - AUTHOURIZED BANDWIDTH AND EMISSION MASK

Applicable Standard

According to §95.573. Each FRS transmitter type must be designed such that the occupied bandwidth does not exceed 12.5 kHz.

Each FRS transmitter type must be designed to satisfy the applicable unwanted emissions limits in this paragraph.

(a) Attenuation requirements. The power of unwanted emissions must be attenuated below the carrier power output in Watts (P) by at least:

(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.

(b) Measurement bandwidths. The power of unwanted emissions in the frequency bands specified in paragraphs (a)(1) and (2) of this section is measured with a reference bandwidth of 300 Hz. The power of unwanted emissions in the frequency range specified in paragraph (a)(3) is measured with a reference bandwidth of at least 30 kHz.

Test Procedure

TIA-603-E, section 2.2.11

Test Data

Environmental Conditions

| Temperature: | 25 °C |
|---------------------------|-----------|
| Relative Humidity: | 52 % |
| ATM Pressure: | 101.0 kPa |

The testing was performed by Black Chen on 2021-03-20 and 2021-04-17.

Test Mode: Transmitting

| Modulation | Channel Separation (kHz) | Frequency (MHz) | 99% Occupied Bandwidth (kHz) | 26dB Emissions Bandwidth (kHz) |
|------------|--------------------------------|--------------------|------------------------------------|--------------------------------------|
| Analog | 12.5 | 462.6375 | 10.016 | 10.737 |
| Analog | 12.5 | 467.6375 | 10.016 | 10.657 |

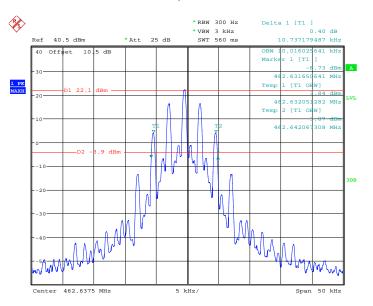
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Bay Area Compliance Laboratories Corp. (Shenzhen)

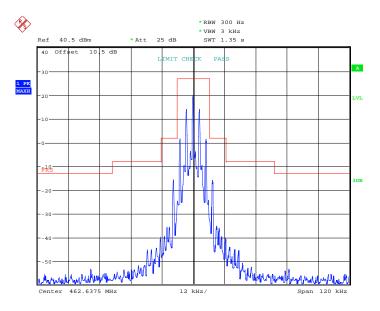
Emission Designator Per CFR 47 2.201& 2.202&, Bn = 2M + 2D :

Emission Designator 11K0F3E In this case, the maximum modulating frequency is 3.0 kHz with a 2.5 kHz deviation. BW = $2(M+D) = 2*(3.0 \text{ kHz} + 2.5 \text{ kHz}) = 11 \text{ kHz} \rightarrow 11K0$ F3E portion of the designator represents an FM voice transmission Therefore, the entire designator for 12.5 kHz channel spacing FM mode is 11K0F3E.



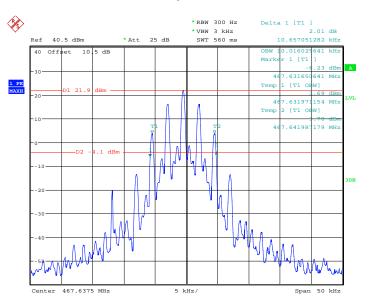
OBW, 462.6375 MHz

Date: 17.APR.2021 15:10:13



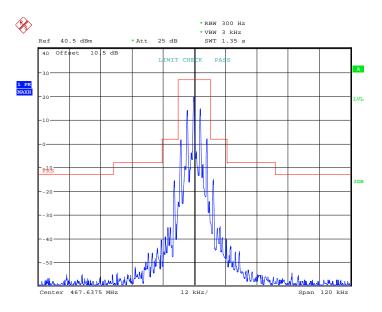
Emission Mask, 462.6375 MHz

Date: 20.MAR.2021 09:28:16



OBW, 467.6375 MHz

Date: 17.APR.2021 15:12:59



Emission Mask, 467.6375 MHz

Date: 20.MAR.2021 09:29:28

FCC §2.1053 & §95.579- RADIATED SPURIOUS EMISSION

Applicable Standard

FCC §2.1053 and §95.579. Each FRS transmitter type must be designed to satisfy the applicable unwanted emissions limits in this paragraph.

(a) *Attenuation requirements*. The power of unwanted emissions must be attenuated below the carrier power output in Watts (P) by at least:

(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.

(b) *Measurement bandwidths*. The power of unwanted emissions in the frequency bands specified in paragraphs (a)(1) and (2) of this section is measured with a reference bandwidth of 300 Hz. The power of unwanted emissions in the frequency range specified in paragraph (a)(3) is measured with a reference bandwidth of at least 30 kHz.

(c) *Measurement conditions*. The requirements in this section apply to each FRS transmitter type both with and without the connection of permitted attachments, such as an external speaker, microphone and/or power cord.

Test Procedure

The transmitter was placed on a wooden turntable.

The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and polarization as well as EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. The test was performed by placing the EUT on 3-orthogonal axis.

The frequency range up to tenth harmonic of the fundamental frequency was investigated.

Remove the EUT and replace it with substitution antenna. A signal generator was connected to the substitution antenna by a non-radiating cable. The absolute levels of the spurious emissions were measured by the substitution.

Spurious emissions in dB =10 1g (TXpwr in Watts/0.001)-the absolute level Spurious attenuation limit in dB = $43+10 \text{ Log}_{10}$ (power out in Watts)

Test Data

Environmental Conditions

| Temperature: | 28~25.2 °C |
|---------------------------|-----------------|
| Relative Humidity: | 50~58 % |
| ATM Pressure: | 101.0~101.1 kPa |

The testing was performed by Andy Yu on 2021-03-22 for below 1GHz and Alan He on 2021-04-02.

Test Mode: Transmitting (Model: T899C was worst case)

Bay Area Compliance Laboratories Corp. (Shenzhen)

Report No.: SZ5210312-06437E-00

| Indicat | Indicated | | Test A | ntenna | , | Substituted | 1 | Absolute | | |
|--------------------|-------------------------------|--------------------------|---------------|----------------|----------------|-----------------------|------------------------------|----------------|----------------|----------------|
| Frequency (MHz) | Receiver Reading (dBuV) | Table Angle Degree | Height (m) | Polar (H/V) | Level (dBm) | Cable Loss (dB) | Antenna Gain (dBd/dBi) | Level (dBm) | Limit (dBm) | Margin (dB) |
| | | | | | 462.6375M | Hz | | | | |
| 925.2750 | 53.82 | 27 | 1.1 | Н | -42.7 | 1.33 | 0.0 | -44.03 | -13 | 31.03 |
| 925.2750 | 60.39 | 212 | 1.4 | V | -33.7 | 1.33 | 0.0 | -35.03 | -13 | 22.03 |
| 2313.19 | 49.82 | 258 | 1.9 | Н | -56.2 | 1.30 | 10.00 | -47.50 | -13 | 34.50 |
| 2313.19 | 52.48 | 273 | 1.4 | V | -53.4 | 1.30 | 10.00 | -44.70 | -13 | 31.70 |
| 3701.10 | 52.40 | 29 | 2.4 | Н | -50.4 | 1.60 | 11.90 | -40.10 | -13 | 27.10 |
| 3701.10 | 55.26 | 116 | 1.3 | V | -46.9 | 1.60 | 11.90 | -36.60 | -13 | 23.60 |
| | | | | | 467.6375 M | Hz | | | | |
| 935.2750 | 55.36 | 332 | 1.3 | Н | -41.1 | 1.36 | 0.0 | -42.46 | -13 | 29.46 |
| 935.2750 | 61.42 | 140 | 1.7 | V | -32.6 | 1.36 | 0.0 | -33.96 | -13 | 20.96 |
| 3741.10 | 51.29 | 185 | 1.8 | Н | -51.5 | 1.60 | 11.90 | -41.20 | -13 | 28.20 |
| 3741.10 | 54.64 | 226 | 2.1 | V | -47.5 | 1.60 | 11.90 | -37.20 | -13 | 24.20 |

Note 1: The unit of antenna gain is dBd for frequency below 1GHz and is dBi for frequency above 1GHz.

Note 2: Absolute Level = SG Level - Cable loss + Antenna Gain Margin = Limit- Absolute Level

FCC§2.1055 (d) & §95.565 - FREQUENCY STABILITY

Applicable Standard

According to FCC 2.1055(a) (1), the frequency stability shall be measured with variation of ambient temperature from -30 °C to +50 °C, and according to FCC 2.1055(d) (2), the frequency stability shall be measured with reducing primary supply voltage to the battery operating end point which is specified by the manufacturer.

According to FCC §95.565, Each FRS transmitter type must be designed such that the carrier frequencies remain within ± 2.5 parts-per-million of the channel center frequencies specified in §95.563 during normal operating conditions.

Test Procedure

Frequency Stability vs. Temperature: The equipment under test was connected to an external DC power supply and the RF output was connected to a Frequency Counter via feed-through attenuators. The EUT was placed inside the temperature chamber. The DC leads and RF output cable exited the chamber through an opening made for the purpose.

After the temperature stabilized for approximately 20 minutes, the frequency output was recorded from the Frequency Counter.

Frequency Stability vs. Voltage (item 1or item 2 will be chosen according to different condition) :

□1) Vary primary supply voltage from 85 to 115 percent of the nominal value for other than hand carried battery equipment.

 \boxtimes 2) For hand carried, battery powered equipment, reduce primary supply voltage to the battery operating end point which shall be specified by the manufacturer.

The output frequency was recorded for each voltage.

Test Data

Environmental Conditions

| Temperature: | 20 °C | | |
|---------------------------|-----------|--|--|
| Relative Humidity: | 52 % | | |
| ATM Pressure: | 101.0 kPa | | |

The testing was performed by Black Chen on 2021-03-20.

Test Mode: Transmitting

| Referenc | Reference Frequency:462.6375MHz, Limit:2.5 ppm, 12.5kHz | | | | | | | |
|-----------------------------------|---|-----------------------------------|--------------------------|--|--|--|--|--|
| Environment Temperature (℃) | Power Supplied (V _{DC}) | Measurement Frequency (MHz) | Frequency Error (ppm) | | | | | |
| | Frequency Stabili | ty Ver. Temperature | | | | | | |
| 50 | 4.5 | 462.637048 | -0.977 | | | | | |
| 40 | 4.5 | 462.637041 | -0.992 | | | | | |
| 30 | 4.5 | 462.637033 | -1.009 | | | | | |
| 20 | 4.5 | 462.637035 | -1.005 | | | | | |
| 10 | 4.5 | 462.637039 | -0.996 | | | | | |
| 0 | 4.5 | 462.637036 | -1.003 | | | | | |
| -10 | 4.5 | 462.637039 | -0.996 | | | | | |
| -20 | 4.5 | 462.637042 | -0.990 | | | | | |
| -30 | 4.5 | 462.637038 | -0.999 | | | | | |
| | Frequency Stabilit | y Ver. Input Voltage | | | | | | |
| 20 | 3.3 | 462.637033 | -1.009 | | | | | |

| Referen | Reference Frequency:467.6375 MHz, Limit:2.5 ppm, 12.5kHz | | | | | | | |
|-----------------------------------|--|-----------------------------------|--------------------------|--|--|--|--|--|
| Environment Temperature (℃) | Power Supplied (V _{DC}) | Measurement Frequency (MHz) | Frequency Error (ppm) | | | | | |
| | Frequency Stabili | ty Ver. Temperature | | | | | | |
| 50 | 4.5 | 467.637022 | -1.022 | | | | | |
| 40 | 4.5 | 467.637023 | -1.020 | | | | | |
| 30 | 4.5 | 467.637026 | -1.014 | | | | | |
| 20 | 4.5 | 467.637021 | -1.024 | | | | | |
| 10 | 4.5 | 467.637029 | -1.007 | | | | | |
| 0 | 4.5 | 467.637024 | -1.018 | | | | | |
| -10 | 4.5 | 467.637021 | -1.024 | | | | | |
| -20 | 4.5 | 467.637028 | -1.009 | | | | | |
| -30 | 4.5 | 467.637020 | -1.026 | | | | | |
| | Frequency Stability Ver. Input Voltage | | | | | | | |
| 20 | 3.3 | 467.637023 | -1.020 | | | | | |

Note: the battery operating end point voltage is 3.3V which was provided by the applicant.

***** END OF REPORT *****