

RF EXPOSURE EVALUATION REPORT

Application No.: GZCR2110021265AT
Applicant: The House of Marley. LLC
Address of Applicant: 3000 Pontiac Trail, Commerce Township, Michigan 48390 United States
Manufacturer: The House of Marley. LLC
Address of Manufacturer: 3000 Pontiac Trail, Commerce Township, Michigan 48390 United States
Factory: Guangdong Leetac Electronics Technology Co., Ltd.
Address of Factory: No.15 Danli Road, South District, Zhongshan, Guangdong, China.
Equipment Under Test (EUT):
FCC ID: PVB-EMJA019L
EUT Name: GET TOGETHER DUO
Model No.: EM-JA019L
Trade Mark:



Standard(s): 47 CFR Part 1.1307, Part 1.1310
Date of Receipt: 2020-09-22
Date of Evaluation: 2020-10-13 to 2020-11-26
Date of Issue: 2020-12-02 (For the original report: GZEM200901523904)
 2021-12-10 (For the copy report: GZEM200901523909)

| | |
|---------------------------|--------------|
| Evaluation Result: | Pass* |
|---------------------------|--------------|

* In the configuration tested, the EUT complied with the standards specified above.



Kobe Jian
EMC Laboratory Manager



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| Revision Record | | | | |
|-----------------|---------|------------|----------|-------------------------|
| Version | Chapter | Date | Modifier | Remark |
| 01 | | 2020-12-02 | | Original |
| 02 | | 2021-12-10 | | Copy report: Changed IC |
| | | | | |
| | | | | |

| | | | | |
|--------------------------|--|-------------------------------|--|--|
| Authorized for issue by: | | | | |
| | | <i>Kevin Zhang</i> | | |
| | | Kevin_Zhang /Project Engineer | | |
| | | <i>Ricky Liu</i> | | |
| | | Ricky_Liu /Reviewer | | |



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2 Evaluation Summary

| Radio Spectrum Technical Requirement | | | | |
|--------------------------------------|------------------------------------|--------------------|--------------------|--------|
| Item | Standard | Method | Requirement | Result |
| RF Exposure | 47 CFR Part 1.1307, Part 1.1310 | CFR 47 Part 1.1310 | CFR 47 Part 1.1310 | Pass |

Remark for copy report GZEM200901523909:

The report GZEM200901523909 was a copy report based on original report GZEM200901523904.

With the follow changes:

1. Changed IC as below for details:

The digital amplifier IC(IC6) was changed from TAS5805M to NTP8849.

Considered the Changed IC did not affect the RF characterize, therefore no need further testing for this change.

Therefore, the original test data was kept in this report GZEM200901523909.



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4 General Information

4.1 Details of E.U.T.

| | |
|-----------------------------|---|
| Power Supply: | DC 15 V powered by AC/DC adapter as below Model: ASSA107W-150080 INPUT: AC 100-240 V, 50/60Hz, 0.45A OUTPUT: DC 15 V, 0.8 A |
| Cable: | DC input ports AUX IN ports LINE IN ports with unshielded cables (1.3 m) For AC/DC adapter: AC plug DC output cables (unshielded, 1.2 m) |
| Antenna Gain: | 0 dBi declared by applicant |
| Antenna Type: | PCB antenna |
| Channel Spacing: | 1MHz |
| Modulation Type: | GFSK, $\pi/4$ DQPSK, 8DPSK |
| Number of Channels: | 79 |
| Operation Frequency: | 2402MHz to 2480MHz |
| Spectrum Spread Technology: | Frequency Hopping Spread Spectrum(FHSS) |
| Hardware: | E-9BA1A-01-01 |
| Software: | SV01 |
| S/N: | GZ_SP_20201156068 |
| Test Software | BT_Tool.exe V1.0.5 |
| Power Setting | 3 dBm can not be changed by user |

4.2 Description of Support Units

The EUT has been tested as an independent unit.

4.3 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd., Guangzhou Branch EMC Laboratory,
 198 Kezhu Road, Sciencetech Park, Guangzhou Economic & Technology Development District,
 Guangzhou, China 510663

Tel: +86 20 82155555 Fax: +86 20 82075059

No tests were sub-contracted.



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4.4 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

● **NVLAP (Lab Code: 200611-0)**

SGS-CSTC Standards Technical Services Co., Ltd., Guangzhou EMC Laboratory is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP/NIST). NVLAP Code: 200611-0.

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.

● **ACMA**

SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory can also perform testing for the Australian C-Tick mark as a result of our NVLAP accreditation.

● **SGS UK(Certificate No.: 32), SGS-TUV SAARLAND and SGS-FIMKO**

Have approved SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory as a supplier of EMC TESTING SERVICES and SAFETY TESTING SERVICES.

● **CNAS (Lab Code: L0167)**

SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory has been assessed and in compliance with CNAS-CL01:2018 accreditation criteria for testing laboratories (identical to ISO/IEC 17025:2017 General Requirements) for the Competence of Testing Laboratories.

● **FCC Recognized 2.948 Listed Test Firm(Registration No.: 282399)**

SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration 282399, May 31, 2002.

● **FCC Recognized Accredited Test Firm(Registration No.: 486818)**

SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory has been accredited and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Designation Number: CN5016, Test Firm Registration Number: 486818, Jul 13, 2017.

● **Industry Canada (Registration No.: 4620B, CAB identifier: CN0052)**

SGS-CSTC Standards Technical Services Co., Ltd., has been registered by Innovation Science and Economic Development Canada for Wireless Device Testing laboratories to test to Canadian radio equipment requirements. Registration No. 4620B, CAB identifier: CN0052.

● **VCCI (Registration No.: R-12460, C-12584, G-10449 and T-11179)**

The 10m Semi-anechoic chamber and Shielded Room of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-12460, C-12584, G-10449 and T-11179 respectively.

● **CBTL (Lab Code: TL129)**

SGS-CSTC Standards Technical Services Co., Ltd., E&E Laboratory has been assessed and fully comply with the requirements of ISO/IEC 17025:2005, the Basic Rules, IECEE 01 and Rules of procedure IECEE 02, and the relevant IECEE CB-Scheme Operational documents.



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4.5 Deviation from Standards

None

4.6 Abnormalities from Standard Conditions

None



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5 Radio Spectrum Technical Requirement

5.1 RF Exposure

5.1.1 Test Requirement:

CFR 47 Part 1.1310

Limit:

According to FCC Part1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in Part1.1307(b)

TABLE 1—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

| Frequency range (MHz) | Electric field strength (V/m) | Magnetic field strength (A/m) | Power density (mW/cm ²) | Averaging time (minutes) |
|--|-------------------------------|-------------------------------|-------------------------------------|--------------------------|
| (A) Limits for Occupational/Controlled Exposure | | | | |
| 0.3-3.0 | 614 | 1.63 | *100 | 6 |
| 3.0-30 | 1842/f | 4.89/f | *900/f ² | 6 |
| 30-300 | 61.4 | 0.163 | 1.0 | 6 |
| 300-1,500 | | | f/300 | 6 |
| 1,500-100,000 | | | 5 | 6 |
| (B) Limits for General Population/Uncontrolled Exposure | | | | |
| 0.3-1.34 | 614 | 1.63 | *100 | 30 |
| 1.34-30 | 824/f | 2.19/f | *180/f ² | 30 |
| 30-300 | 27.5 | 0.073 | 0.2 | 30 |
| 300-1,500 | | | f/1500 | 30 |
| 1,500-100,000 | | | 1.0 | 30 |
| f = frequency in MHz | | | | |
| * = Plane-wave equivalent power density | | | | |

According to IEEE C95.3:2002 section 5.5.1.1, The power density S at a point on the axis at a distance d from a transmitting antenna is given by the Friis free-space transmission formula

$$S = \frac{PG}{4\pi d^2}$$

S = power density (mW/cm²)

P = the net power delivered to the antenna (mW)

G = gain of the antenna in linear scale

d = distance between observation point and center of the radiator (cm)



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5.1.2 Conclusion

Antenna Gain: 0dBi

Antenna Gain: The maximum Gain measured in fully anechoic chamber is 1.00 in linear scale.

Output Power Into Antenna & RF Exposure Evaluation Distance:

| Channel | Frequency (MHz) | Max Conducted Peak Output Power (dBm) | Output Power to Antenna (mW) | Power Density at R = 20 cm (mW/cm ²) | Limit | Result |
|---------|--------------------|---|------------------------------------|--|-------|--------|
| Lowest | 2402 | 2.98 | 1.986 | 0.00040 | 1.0 | PASS |

Note: Refer to report No. GZEM200901523902 for EUT test Max Conducted Peak Output Power value.

The distance R (4th column) calculated from the Fries transmission formula is far greater than 20 cm separation requirement.



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6 Photographs

6.1 EUT Constructional Details

Refer to Appendix – External and Internal Photo for GZCR2110021265AT

--End of Report--



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