RF EXPOSURE EVALUATION REPORT

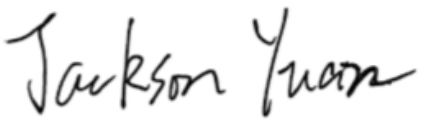
Application No.:	GZCR2109021052HS
Applicant:	Dorel China America
Address of Applicant:	2525 State Street Columbus, Indiana 47201-9914
Manufacturer:	Dorel China America
Address of Manufacturer:	2525 State Street Columbus, Indiana 47201-9914
Factory:	Zhong Shan Sun Luen Chong Commodity Company Limited
Address of Factory:	No. 3, Dongxing Road, Ping Dong Industrial Zone, San Xiang Town
Equipment Under Test (EUT):	
EUT Name:	Tranquility Swing
Model No.:	SW009STRD, SW009PLAD ♣
♣	Please refer to section 2 of this report which indicates which model was actually tested and which were electrically identical.
Trade Mark:	MONBEBE
Standard(s) :	47 CFR Part 1.1307
	KDB447498D01 General RF Exposure Guidance v06
Date of Receipt:	2021-09-08
Date of Evaluation:	2021-10-13
Date of Issue:	2021-10-22
Evaluation Result:	**Pass***

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

This report GZCR210902105208 supersedes the previous report GZCR210902105204, issued on 2021-10-15 which is hereby deemed null and void.

Kobe Jian
EMC Laboratory Manager

Revision Record				
Version	**Chapter**	**Date**	**Modifier**	**Remark**
01		*2021-10-15*		*Original (Null)*
02		*2021-10-22*		*Amendment Report: Revise output voltage of* AC/DC adapter *from DC 5V to DC 6 V for typing error*

Authorized for issue by:				
		 **Jackson Yuan/Project Engineer**		
		 **Ricky Liu/Reviewer**		

2 Evaluation Summary

Note:

E.U.T./EUT means Equipment Under Test.

Pass means the test result passed the test standard requirement, please find the detailed decision rule in the report relative section.

♣ **Model No.:** SW009STRD, SW009PLAD

According to the declaration from the applicant, the electrical circuit design, layout, components used and internal wiring were identical for all models, with only difference on the soft cover color and carton box color.

Therefore, only one model **SW009STRD** was tested in this report.

Remark for report GZCR210902105208

This report GZCR210902105208 supersedes the previous report GZCR210902105204, revise Output Voltage from DC 5V to DC 6 V for typing error.

3 Contents

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4 General Information

4.1 Details of E.U.T.

Power supply:	DC 6V powered by 4*AAA size batter or AC/DC adapter as below for main unit: Input: AC 100-240 V, 50/60 Hz, 0.3 Max Output: DC 6V 1000mA DC 3 V (1*CR2025) for IR remote control
Cable(s):	DC input cables (unshielded, 1.2m) UCB power ports
Antenna Type:	Integral Antenna
Antenna Gain:	-0.68 dBi declared by applicant
Firmware Version:	SV01
Hardware Version:	ZWA RL-V3
Testing Software:	FCC Assist 2.4.exe
Sample NO.:	GZ_SP_20210952042
Power Setting:	0 dBm can not be changed by user
Function:	Tranquility Swing with BT function (BLE and Classic can not transmit at the same time)
For BLE	
Operation Frequency:	2402MHz to 2480MHz
Modulation Type:	GFSK
Number of Channels:	40
Channel Spacing:	2MHz
For Classic	
Operation Frequency:	2402MHz to 2480MHz
Modulation Type:	GFSK, pi/4DQPSK, 8DPSK
Number of Channels:	79
Channel Spacing:	1MHz
Spectrum Spread Technology:	Frequency Hopping Spread Spectrum(FHSS)

4.2 Evaluating Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd., Guangzhou Branch EMC Laboratory,

198 Kezhu Road, Scientech Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663

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

No tests were sub-contracted.

4.3 Facility

The 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/New Zealand Regulatory Compliance Mark (RCM).

- **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 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.

- **ISED (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-20107 and T-11179)**

The 10m Semi-anechoic chamber, 966 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-20107 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 17025:2017, the Basic Rules, IECEE 01 and Rules of procedure IECEE 02, and the relevant IECEE CB-Scheme Operational documents.

4.4 Deviation from Standards

None

4.5 Abnormalities from Standard Conditions

None

5 Technical Requirements Specification

5.1 RF Exposure Evaluation

5.1.1 Limit & Test Method

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/cm^2)
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)

5.1.2 Conclusion

The Max Conducted Peak Output Power is 2.75 dBm on the Highest channel 2.480 GHz
2.75 dBm logarithmic terms convert to numeric result is nearly 1.88 mW
According to the formula. calculate the test exclusion thresholds:
[(max. power of channel, including tune-up tolerance, mW)/
(min. test separation distance, mm)] · [√f(GHz)]
General RF Exposure = (1.88 mW / 5 mm) x √2.480 GHz = 0.593 (1)
SAR requirement:
S = 3.0 (2)
(1) < (2)
So the SAR report is not required.

Note: Refer to report No. GZCR210902105203 for EUT test Max Conducted Peak Output Power value.

6 EUT Constructional Details (EUT Photos)

Refer to Appendix - External and Internal Photos for GZCR2109021052HS

- End of the Report -