

Report No.: GZCR210402015303 Page: 1 of 8 FCC ID: TG3-ST400

# **RF EXPOSURE EVALUATION REPORT**

Application No.:	GZCR2104020153AT			
Applicant:	FKA Distributing Co., LLC			
Address of Applicant:	3000 N. Pontiac Trail, Commerce Township, Michigan, 48390, United States			
Manufacturer:	FKA Distributing Co., LLC			
Address of Manufacturer:	3000 N. Pontiac Trail, Commerce Township, Michigan, 48390, United States			
Factory:	Electrical Appliance Branch of Zhangzhou Easepal Industrial Corporation			
Address of Factory: No.36 Longkun Road, Hongjian Village, Jiaomei Town, Zhangzhou Taiwanese Investment Zone, Fujian China				
Equipment Under Test (EUT):				
EUT Name: Sand Table				
Model No.:	ST-400			
Standard(s) :	47 CFR Part 1.1310			
	KDB447498D01 General RF Exposure Guidance v06			
Date of Receipt:	2021-04-20			
Date of Test:	2021-04-25 to 2021-04-28			
Date of Issue:	2021-06-25			
Test Result:	Pass*			

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

oke. Jun

Kobe Jian EMC Laboratory Manager



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only. Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443,

No.198 Kezhu Road, Scientech Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 t (86-20) 82155555 f (86-20) 82075058 www.sgsgroup.com.cn 中国・广州・经济技术开发区科学城科珠路198号 邮编: 510663 t (86-20) 82155555 f (86-20) 82075058 sgs.cchina@sgs.com



Report No.: GZCR210402015303 Page: 2 of 8

Revision Record							
Version	Chapter	Date	Modifier	Remark			
01		2021-06-25		Original			

Authorized for issue by:			
Tested By	Jim Li		
	Jim LiProject Engineer	-	
Reviewed By	Ridey Lin		
	Ricky LiuReviewer	-	



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com/en/Terms-and-Conditions/aspx">http://www.sgs.com/en/Terms-and-Conditions/aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-and-Conditions/Terms-eDocument.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-eDocument.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exoeriate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only. Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CNLDoccheck@cgs.com</a> No. 199 Kezhu Road, Scientech Park, Guangzhou Economic & Technology Development District, Guangzhou, China. 510663 t (86–20) 82155555 f (86–20) 82075058 www.sgsgroup.com.cn

中国·广州·经济技术开发区科学城科珠路198号

邮编: 510663 t (86-20) 82155555 f (86-20) 82075058 sgs.china@sgs.com

Member of the SGS Group (SGS SA)



Report No.: GZCR210402015303 Page: 3 of 8

#### 2 Contents

1	Cov	er Page	1
2	Con	tents	3
3	Gen	eral Information	4
	3.1	Details of E.U.T.	
	3.2	Test Location	
	3.3	Test Facility	5
	3.4	Deviation from Standards	5
	3.5	Abnormalities from Standard Conditions	5
4	Tech	nnical Requirements Specification	6
	4.1	General Description of Applied Standards	6
	4.2	RF Exposure Evaluation	6
	4.2.1	1 Limit & Test Method	6
	4.2.2	2 Test Data and Test Result	7
5	EUT	Constructional Details (EUT Photos)	



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limitato Collegations under the transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only. Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 83071443, or email: CN.Doccheck@csac.com</a>

中国·广州·经济技术开发区科学城科珠路198号

No. 199 Kezhu Road, Scientech Park, Guangzhou Economic & Technology Development District, Guangzhou, China. 510663 t (86–20) 82155555 f (86–20) 82075058 www.sgsgroup.com.cn 邮编: 510663 t (86-20) 82155555 f (86-20) 82075058 sgs.china@sgs.com



Report No.: GZCR210402015303 Page: 4 of 8

#### **General Information** 3

# 3.1 Details of E.U.T.

DC 12 V powered by SWITCHING ADAPTER:
Model No.:GQ48-120400-E1
Input:100-240V ~ 50/60Hz, 1.5A Max
Output:12.0V, 4.0A, 48.0W
AC mains input cable:3 wires, 3.6m, unshielded.
DC output cable: 2 wires, 1.2m, unshielded.
Sand Table with BLE function
2402MHz to 2480MHz
GFSK
40
2MHz
Integral Antenna
0dBi declared by applicant.
SV01
HW01
CMOSTEK.exe
KS2103310001
-5dBm cannot be changed by user

# 3.2 Test Location

All tests were performed at: SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen Branch No. 1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, Guangdong, China. 518057.

Tel: +86 755 2601 2053 Fax: +86 755 2671 0594



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limitation to its oils sole responsibility is to its Cilent's and this document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forger or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only. Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@exs.com</a>

中国·广州·经济技术开发区科学城科珠路198号

No. 198 Kezhu Road, Scientech Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 t (86–20) 82155555 f (86–20) 82075058 www.sgsgroup.com.cn 邮编: 510663 t (86-20) 82155555 f (86-20) 82075058 sgs.china@sgs.com



Report No.: GZCR210402015303 Page: 5 of 8

## 3.3 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/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.

### 3.4 Deviation from Standards

None

### 3.5 Abnormalities from Standard Conditions

None



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions of Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Te

中国·广州·经济技术开发区科学城科珠路198号

No.198 Kezhu Road, Scientech Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 t (86–20) 82155555 f (86–20) 82075058 www.sgsgroup.com.cn 邮编: 510663 t (86-20) 82155555 f (86-20) 82075058 sgs.china@sgs.com



Report No.: GZCR210402015303 Page: 6 of 8

#### **Technical Requirements Specification** 4

#### 4.1 **General Description of Applied Standards**

# 4.2 **RF Exposure Evaluation**

### 4.2.1 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)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm <sup>2</sup> )	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 <sup>2</sup>	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 <sup>2</sup>	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 MH	f = frequency in MHz					
* = Plane-wave equ	* = Plane-wave equivalent power density					

TABLE 1—LIMITS FOR N	AXIMUM PERMISSIBLE	<b>EXPOSURE (MPE)</b>
----------------------	--------------------	-----------------------

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)



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions of Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, attration of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only. Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 83071443,

中国·广州·经济技术开发区科学城科珠路198号

No. 198 Kezhu Road, Scientech Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 t (86–20) 82155555 f (86–20) 82075058 www.sgsgroup.com.cn 邮编: 510663 t (86-20) 82155555 f (86-20) 82075058 sgs.china@sgs.com



Report No.: GZCR210402015303 Page: 7 of 8

#### 4.2.2 Test Data and Test Result

Frequency (MHz)Antenna Gain (Numeric)Peak Output Power (dBm)Peak Output Power (mW)Power Density (S) (mW/cm²)Limit of Power Density (S) (mW/cm²)	Normal use condition for Distance between 20cm declared by applicant antenna and body:						
	Frequency (MHz)	, Antenna Gain (Numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
2402   1   -6.38   0.230   0.00005   1   Complies	2402	1	-6.38	0.230	0.00005	1	Complies
2440 1 -7.60 0.174 0.00003 1 Complies	2440	1	-7.60	0.174	0.00003	1	Complies
2480 1 -8.43 0.144 0.00003 1 Complies	2480	1	-8.43	0.144	0.00003	1	Complies

So SAR report is not required.



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com/en/Terms-and-Conditions/aspx">http://www.sgs.com/en/Terms-and-Conditions/aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-and-Conditions/Terms-eDocument.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-eDocument.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exoeriate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only. Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CNLDoccheck@cgs.com</a>

中国·广州·经济技术开发区科学城科珠路198号

No. 199 Kezhu Road, Scientech Park, Guangzhou Economic & Technology Development District, Guangzhou, China. 510663 t (86–20) 82155555 f (86–20) 82075058 www.sgsgroup.com.cn 邮编: 510663 t (86-20) 82155555 f (86-20) 82075058 sgs.china@sgs.com



Report No.: GZCR210402015303 Page: 8 of 8

#### **EUT Constructional Details (EUT Photos)** 5

Refer to Appendix - Photographs of EUT Constructional Details for GZCR2104020153AT

- End of the Report -



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-en-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-en-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limitation to the solitable sole responsibility is to its Cilent's and this document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only. Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 83071443, or email: CN.Doccheck@exas.com</a>

中国·广州·经济技术开发区科学城科珠路198号

No. 199 Kezhu Road, Scientech Park, Guangzhou Economic & Technology Development District, Guangzhou, China. 510663 t (86–20) 82155555 f (86–20) 82075058 www.sgsgroup.com.cn 邮编: 510663 t (86-20) 82155555 f (86-20) 82075058 sgs.china@sgs.com

Member of the SGS Group (SGS SA)