

Report No.: GZEM200701361903

Page: 1 of 10 FCC ID: P4LMK700020

RF Exposure Evaluation Report

Application No.: GZEM2007013619CR

Applicant: Foshan Lanchiya Digital Technology Co., Ltd

Address of Applicant: Hongtu Rd., Songxia Ind. Park, Songgang, Shishan Town, Nanhai Dist., Foshan

Manufacturer:The same as applicantAddress of Manufacturer:The same as applicantFactory:The same as applicantAddress of Factory:The same as applicant

Equipment Under Test (EUT):

EUT Name: Bluetooth Speaker

Model No.: MK70

FCC ID: P4LMK700020

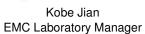
Standard(s): 47 CFR Part 1.1307, Part 1.1310

Date of Receipt: 2020-07-09

Date of Evaluate: 2020-07-14 to 2020-10-26

Date of Issue: 2020-10-27

Test Result: Pass*





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



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Revision Record					
Version	Chapter	Date	Modifier	Remark	
01		2020-10-27		Original	

Authorized for issue by:		
Evaluated By	Kevin zhang	
		2020-07-14 to 2020-10-26
	Kevin_Zhang /Project Engineer	Date
Checked By	Riday Liu	2020-10-27
	Ricky_Liu /Reviewer	Date



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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	



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4 General Information

4.1 Details of E.U.T.

Power Supply: AC 100-240V, 56/60Hz by AC/DC adapter

Model: KA3601A-1203000US Input: 100-240V, 50/60Hz Output: 12.0V-3.0A, 36.0W

Cable: Adapter output cable (unshielded, 1.5m)

Aux in cable (unshielded, 1.5m)

DC Jack PC-USB port AUX port

Earphone port

Antenna Gain: -0.68dBi declared by applicant

Antenna Type: Integrated Antenna

Channel Spacing: 1MHz

Modulation Type: GFSK, π/4DQPSK, 8DPSK

Number of Channels: 79

Operation Frequency: 2402MHz to 2480MHz

Spectrum Spread

Technology:

Frequency Hopping Spread Spectrum(FHSS)

BT Version: V5.0 BT classical only
Test Software: MV FrequencyTool v0.2.5

Level Setting: Lv 9 (1dBm) can not be changed by user

S/N GZ_SP_20200730916 Hardware Version MK70-V3-20200303

Firmware Version SV01

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, Scientech 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/cm²)	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/f²	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

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)



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^{* =} Plane-wave equivalent power density



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5.1.2 Conclusion

The Max conducted output power is 0.788 dBm in High channel (2480 MHz);

The best case gain of the antenna is -0.68 dBi.

Channel (MHz)	Max. Conducted Peak Output Power (dBm)	Output Power to Antenna (mW)	Power Density at R=20cm (mW/cm²)	Limit	Result
2480	0.788	1.199	0.00020	1	PASS

So the SAR report is not required.



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6 Photographs

6.1 EUT Constructional Details

Refer to Appendix A - Photographs of EUT Constructional Details for GZEM2007013619CR.

--End of Report--



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