



SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.

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Report No.: SHEM140200037502
Page: 1 of 7

1 Cover Page

FCC RF Exposure Report

Application No.:	SHEM1402000375RF
Applicant:	Xiamen Foowoo Mobile Telecom Technique Co., Ltd
FCC ID:	2ABZTFOOWOOLK1
Equipment Under Test (EUT): NOTE: The following sample(s) submitted was/were identified on behalf of the client as	
Product Name:	Laser Projection Keyboard
Model No.(EUT):	FWLK1
Standards:	FCC Rules 47 CFR §2.1093 KDB447498 D01 General RF Exposure Guidance
Date of Receipt:	February 25, 2014
Date of Test:	April 16, 2014
Date of Issue:	May 07, 2014
Test Result:	Pass*

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



Tony Wu
E&E Section Manager

SGS-CSTC (Shanghai) Co., Ltd.



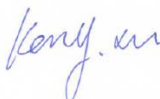
The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards.

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. All test results in this report can be traceable to National or International Standards.

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2 Version

Revision Record				
Version	Chapter	Date	Modifier	Remark
00		May 07, 2014		Original

Authorized for issue by:				
Engineer		Eddy Zong		
		Print Name		
Clerk		Susie Liu		
		Print Name		
Reviewer		Keny Xu		
		Print Name		

3 Contents

	Page
1 COVER PAGE	1
2 VERSION.....	2
3 CONTENTS.....	3
4 GENERAL INFORMATION	4
4.1 CLIENT INFORMATION	4
4.2 GENERAL DESCRIPTION OF E.U.T.	4
4.3 DETAILS OF E.U.T.....	4
4.4 TEST LOCATION	5
4.5 TEST FACILITY	5
5 TEST STANDARDS AND LIMITS	6
6 MEASUREMENT AND CALCULATION	7
6.1 MAXIMUM TRANSMIT POWER	7
6.2 RF EXPOSURE CALCULATION	7
7 EUT CONSTRUCTIONAL DETAILS.....	7

4 General Information

4.1 Client Information

Applicant:	Xiamen Foowoo Mobile Telecom Technique Co., Ltd
Address of Applicant:	No.90.8-3 Zhonghe Avenue High-tech Zone Chengdu, China
Manufacturer:	Xiamen Foowoo Mobile Telecom Technique Co., Ltd
Address of Manufacturer:	No.90.8-3 Zhonghe Avenue High-tech Zone Chengdu, China
Factory:	Xiamen Foowoo Mobile Telecom Technique Co., Ltd
Address of Factory:	No.90.8-3 Zhonghe Avenue High-tech Zone Chengdu, China

4.2 General Description of E.U.T.

Brand Name:	FOOWOO
Product Description:	Portable product

4.3 Details of E.U.T.

Operation Frequency:	2402MHz~2480MHz
Bluetooth Version:	3.0
Modulation Technique:	GFSK
Number of Channel:	79
Antenna Type	Integral
Antenna Gain	0 dBi
Rechargeable Batteries:	DC 3.7V Li-on Rechargeable Battery
	Supply the EUT with fully charged battery during the testing.
Charging Voltage:	5V via PC

4.4 Test Location

All tests were performed at SGS E&E EMC lab

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4.5 Test Facility

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

- **CNAS (No. CNAS L0599)**

CNAS has accredited SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration Laboratories (CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing. Date of expiry: 2014-07-26.

- **FCC – Registration No.: 402683**

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been registered and fully described in a report filed with the Federal Communications Commission (FCC). The acceptance letter from the FCC is maintained in our files. Registration No.: 402683, Expiry Date: 2015-02-22.

- **Industry Canada (IC) – IC Assigned Code: 8617A**

The 3m Semi-anechoic chamber of SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 8617A. Expiry Date: 2014-09-20.

- **VCCI (Member No.: 3061)**

The 3m Semi-anechoic chamber and Shielded Room of SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-3868 and C-4336 respectively. Date of Registration: 2012-05-29. Date of Expiry: 2015-05-28.

5 Test Standards and Limits

Approximate SAR Test Exclusion Power Thresholds at Selected Frequencies and Test Separation Distances are illustrated in the following Table. The equation and threshold in KDB447498 D01 section 4.3.1 must be applied to determine SAR test exclusion.

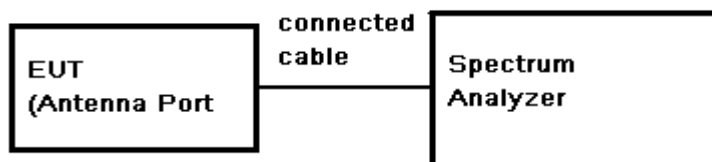
MHz	5	10	15	20	25	30	35	40	45	50	mm
150	39	77	116	155	194	232	271	310	349	387	(mW)
300	27	55	82	110	137	164	192	219	246	274	
450	22	45	67	89	112	134	157	179	201	224	
835	16	33	49	66	82	98	115	131	148	164	
900	16	32	47	63	79	95	111	126	142	158	
1500	12	24	37	49	61	73	86	98	110	122	
1900	11	22	33	44	54	65	76	87	98	109	
2450	10	19	29	38	48	57	67	77	86	96	
3600	8	16	24	32	40	47	55	63	71	79	
5200	7	13	20	26	33	39	46	53	59	66	
5400	6	13	19	26	32	39	45	52	58	65	
5800	6	12	19	25	31	37	44	50	56	62	

6 Measurement and Calculation

6.1 Maximum transmit power

EUT Operation: Test in fixing frequency operating mode at lowest, middle and highest frequency.

Test Configuration:



Test Data:

Test mode	Channel	Reading Peak Power (dBm)	Cable Loss (dB)	Peak Power (dBm)	Peak Power (mW)	Peak Power Limit (dBm)	Result
GFSK	Low	-13.96	0.5	-13.46	0.045	30	PASS
	Mid	-13.34	0.5	-12.84	0.052	30	PASS
	High	-13.55	0.5	-13.05	0.050	30	PASS

6.2 RF exposure Calculation

The Max Conducted Peak Output Power is 0.052mW in middle channel, The best case gain of the antenna is 0dBi. 0dBi logarithmic terms convert to numeric result is nearly 1.00

According to the formula. calculate the EIRP test result:

$$\text{EIRP} = P \times G = 0.052 \text{ mW} \times 1.0 = 0.052\text{mW} < 10\text{mW}$$

So the SAR report is not required.

7 EUT Constructional Details

Refer to the < FWLK1 _External Photos -FCC> & < FWLK1 _Internal Photos-FCC>.

--End of the Report--