



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

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Report No.: SHEM131100222902
Page: 1 of 8

1 Cover Page

FCC MPE REPORT

Application No.:	SHEM1311002229RF
Applicant:	KOKKIA, INC
Manufacturer:	KOKKIA, INC
FCC ID:	XWA-IADAPTER-X
Equipment Under Test (EUT): NOTE: The following sample(s) submitted was/were identified on behalf of the client as	
Product Name:	Bluetooth Universal Adapter
Model No.(EUT):	iAdapter
Add Model No.:	iAdapter_black, iAdapter_white
Standards:	FCC Rules 47 CFR §2.1093 KDB447498 D01 General RF Exposure Guidance
Date of Receipt:	November 12, 2013
Date of Test:	November 19, 2013 to November 21, 2013
Date of Issue:	December 02, 2013
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.



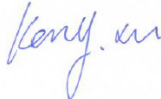
The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant 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	/	December 02, 2013	/	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 MPE CALCULATION.....	8
7 EUT CONSTRUCTIONAL DETAILS.....	8

4 General Information

4.1 Client Information

Applicant: KOKKIA, INC
Address of Applicant: 43575 Mission Blvd #302, Fremont, CA 94539. USA
Manufacturer: KOKKIA, INC
Address of Manufacturer: 43575 Mission Blvd #302, Fremont, CA 94539. USA
Factory: DONGGUAN CITY GREENTECH ELECTRONIC TECHNOLOGY CO., LTD.
Address of Factory: 2-3 Floor, 68 Wen Zeng Road, Wentang, Dongguan city, Guangdong, China.

4.2 General Description of E.U.T.

Product Name: Bluetooth Universal Adapter
Model No.(EUT): iAdapter
Add Model No.: iAdapter_black, iAdapter_white
Brand Name: KOKKIA
Product Description: Portable product

4.3 Details of E.U.T.

Operation Frequency: 2402MHz~2480MHz
Bluetooth Version: 2.1+EDR
Modulation Technique: FHSS (GFSK, $\pi/4$ DQPSK, 8DPSK)
Number of Channel: 79
Power Supply: Charging voltage: DC 5.0V by USB port
Rechargeable battery: DC4.2V
Antenna Type: Integral Chip Antenna
Antenna Gain: 0.5dBi
Engineering mode: Using test software to control EUT working in continuous transmitting, and select channel and modulation type.

4.4 Test Location

All tests were performed at SGS E&E EMC lab

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

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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

According to §1.1310 Radiofrequency radiation exposure limits:

The limit for general population/uncontrolled exposures

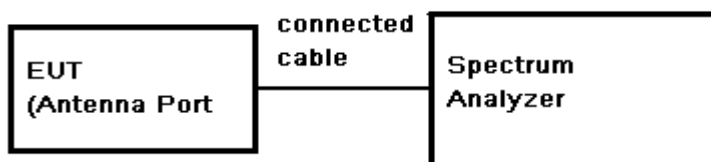
Frequency	Power density(mW/cm^2)	Averaging time(minutes)
300MHz~1.5GHz	f/1500	30
1.5GHz~100GHz	1.0	30

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 Results record:

For BT:

Test mode	Channel	Reading Peak Power (dBm)	Cable Loss (dB)	Output Peak Power (dBm)	Output Peak Power (mW)	Peak Power Limit (dBm)	Result
GFSK	Low	0.44	0.5	0.94	1.24	30	PASS
	Mid	1.02	0.5	1.52	1.42	30	PASS
	High	1.28	0.5	1.78	1.51	30	PASS
$\pi/4$ DQPSK	Low	-0.43	0.5	0.07	1.02	30	PASS
	Mid	1.05	0.5	1.55	1.43	30	PASS
	High	-0.24	0.5	0.26	1.06	30	PASS
8DPSK	Low	-0.01	0.5	0.49	1.12	30	PASS
	Mid	-0.02	0.5	0.48	1.12	30	PASS
	High	-0.10	0.5	0.40	1.10	30	PASS

6.2 MPE Calculation

According to the formula $S = \frac{PG}{4R^2\pi}$, we can calculate S which is MPE.

Note:

- 1) P (Watts) = Power Input to antenna = $10^{\frac{dBm}{10}} / 1000$
- 2) G (Antenna gain in numeric) = $10^{(Antenna\ gain\ in\ dBi / 10)}$
- 3) R = distance to the center of radiation of antenna (in meter) = 20cm
- 4) MPE limit = 1mW/cm²

The Max Conducted Peak Output Power is 1.51mW in High channel of GFSK;

The best case gain of the antenna is 0.5dBi. 3dB logarithmic terms convert to numeric result is nearly 1.12

$$\text{So, } S = \frac{PG}{4R^2\pi} = \frac{1.51 \times 1.12}{4 \times 400 \times 3.14} = 0.0003 \text{ mW/cm}^2 < 1 \text{ mW/cm}^2$$

So the device is exclusion from SAR test.

7 EUT Constructional Details

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

--End of the Report--