

1 Cover Page

FCC MPE REPORT

Application No.:	SHEM1503000514CR
Applicant:	BloomSky, Inc.
FCC ID:	2AD8ESKY1
IC:	12733A-SKY1
Equipment Under Test (EUT):	
NOTE: The following sample(s) was/were submitted and identified by the client as	
Product Name:	SKY
Model No.(EUT):	SKY1
Standards:	FCC Rules 47 CFR §2.1091 KDB447498 D01 General RF Exposure Guidance
Date of Receipt:	March 03, 2015
Date of Test:	March 16, 2015 to March 19, 2015
Date of Issue:	April 02, 2015
Test Result:	Pass*

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



Parlam Zhan
E&E Section Manager
SGS-CSTC (Shanghai) Co., Ltd.

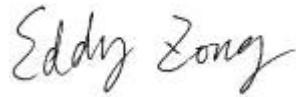
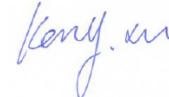
The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant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

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm. 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 90 days only.

2 Version

Revision Record				
Version	Chapter	Date	Modifier	Remark
00	/	April 02, 2015	/	Original

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



3 Contents

	Page
1 COVER PAGE	1
2 VERSION.....	2
3 CONTENTS.....	4
4 GENERAL INFORMATION	5
4.1 CLIENT INFORMATION	5
4.2 GENERAL DESCRIPTION OF E.U.T.	5
4.3 DETAILS OF E.U.T.....	5
4.4 TEST LOCATION.....	6
4.5 TEST FACILITY	6
5 TEST STANDARDS AND LIMITS	7
6 MEASUREMENT AND CALCULATION	8
6.1 MAXIMUM TRANSMIT POWER	8
6.2 MPE CALCULATION	9
7 EUT CONSTRUCTIONAL DETAILS.....	9

4 General Information

4.1 Client Information

Applicant: BloomSky, Inc.
Address of Applicant: 723 N Shoreline Blvd. Mountain View CA 94043
Manufacturer: Andon Health Co., Ltd.
Address of Manufacturer: No. 3 JinPing Street Yaan Road Nankai District, Tianjin, China
Factory: Andon Health Co., Ltd.
Address of Factory: No. 3 JinPing Street Yaan Road Nankai District, Tianjin, China

4.2 General Description of E.U.T.

Brand Name: BLOOMSKY
Product Description: Fixed product
Rechargeable Batteries: DC 12V Li-on Rechargeable Battery
Supply the EUT with fully charged battery during testing.
Manufacturer: ORIENTAL HERO ELE. FTY
Model No.: OH-1024E1202000U
Adapter: Rated Input: AC 100V-240V 50/60Hz 650mA
Rated Output: DC12V 2A
Cable length: AC port: 2 wires
DC port: 150 cm

4.3 Details of E.U.T.

Operation Frequency: 802.11b/g/n20: 2412MHz~2462MHz
Modulation Technique: 802.11 b: DSSS(CCK, DQPSK, DBPSK)
802.11 g/n20: OFDM(64QAM, 16QAM, QPSK, BPSK)
Data Rate: 802.11b: 1/2/5.5/11Mbps,
802.11g: 6/9/12/18/24/36/48/54Mbps
802.11 n20: MCS0 - MCS7
Number of Channel: 802.11 b/g/n20: 11 Channels
Antenna Type: Monopole
Antenna Gain: 2.0dBi

4.4 Test Location

All tests were performed at SGS E&E EMC lab

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

No.588 West Jindu Road, Songjiang District, Shanghai, China. 201612.

Tel: +86 21 6191 5666

Fax: +86 21 6191 5678

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: 2017-07-14.

- 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: 2017-09-16.

- 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-1. Expiry Date: 2017-06-18.

- 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

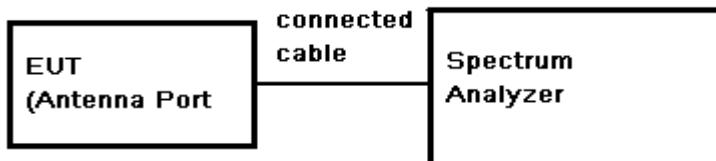
Frequency	Power density(mW/cm ²)	Averaging time(minutes)
300MHz~1.5GHz	f/1500	30
1.5GHz~100GHz	1.0	30

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 Data:

Test mode	Test Channel	Reading Power (dBm)	Cable Loss (dB)	Output Power (dBm)	Output Power (mW)	Power Limit (dBm)	Result
802.11b	Lowest	11.36	0.5	11.86	15.35	30	PASS
	Middle	11.06	0.5	11.56	14.32	30	PASS
	Highest	10.94	0.5	11.44	13.93	30	PASS
802.11g	Lowest	13.99	0.5	14.49	28.12	30	PASS
	Middle	13.86	0.5	14.36	27.29	30	PASS
	Highest	12.74	0.5	13.24	21.09	30	PASS
802.11n20	Lowest	14.02	0.5	14.52	28.31	30	PASS
	Middle	13.99	0.5	14.49	28.12	30	PASS
	Highest	11.34	0.5	11.84	15.28	30	PASS

Remark: Output Peak Power = Reading Peak Power + Cable loss

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) = $10^{\frac{Antenna\ gain\ in\ dBi}{10}}$
- 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 28.31mW in lowest channel of 802.11n20;

The best case gain of the antenna is 2.0dBi. 2.0dB logarithmic terms convert to numeric result is nearly 1.58

$$So, S = \frac{PG}{4R^2\pi} = \frac{28.31 \times 1.58}{4 \times 400 \times 3.14} = 0.00893 \text{ mW/cm}^2$$

The BT and the DTS modules can't simultaneous transmitting at frequency 2.4GHz band, according to the KDB447498 D01 section 7.2 determine the device is exclusion from SAR test.

7 EUT Constructional Details

Refer to the < SKY1 _External Photos > & < SKY1 _Internal Photos >.

--End of the Report--