



No. 1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan
District, Shenzhen, China 518057

Telephone: +86 (0) 755 2601 2053
Fax: +86 (0) 755 2671 0594
Email: ee.shenzhen@sgs.com

Report No.: SZEM121000572902

Page: 1 of 5

SAR Evaluation Report

Application No.: SZEM1210005729RF
Applicant: Liquid Image Co., LLC
Manufacturer: Foxda Technology Industrial(Shenzhen) co., Ltd.
Factory: Foxda Technology Industrial(Shenzhen) co., Ltd.
Product Name: Apex+ Series Snow Goggle 339
Model No.(EUT): 339
Standard: 47 CFR Part 1.1307(2011)
47 CFR Part 2.1093 (2011)
KDB447498D01
FCC ID: WGI-XSC-339
Date of Receipt: 2012-10-22
Date of Test: 2012-10-28 to 2012-10-31
Date of Issue: 2012-12-14

Test Result:	PASS*
---------------------	--------------

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

Authorized Signature:



Jack Zhang
EMC Laboratory Manager

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. Any mention of SGS International Electrical Approvals or testing done by SGS International Electrical Approvals in connection with, distribution or use of the product described in this report must be approved by SGS International Electrical Approvals in writing.

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 Contents

1	COVER PAGE	1
2	CONTENTS	2
3	GENERAL INFORMATION	3
3.1	CLIENT INFORMATION	3
3.2	GENERAL DESCRIPTION OF EUT	3
3.3	TEST LOCATION	3
3.4	TEST FACILITY	4
3.5	DEVIATION FROM STANDARDS	4
3.6	ABNORMALITIES FROM STANDARD CONDITIONS	4
3.7	OTHER INFORMATION REQUESTED BY THE CUSTOMER	4
4	SAR EVALUATION	5
4.1	RF EXPOSURE COMPLIANCE REQUIREMENT	5
4.1.1	Standard Requirement	5
4.1.2	Limits	5
4.1.3	EUT RF Exposure	5

3 General Information

3.1 Client Information

Applicant:	Liquid Image Co., LLC
Address of Applicant:	7909 Walerga Road, Suite112-206 Antelope, California, 95843, United States
Manufacturer:	Foxda Technology Industrial(Shenzhen) co., Ltd.
Address of Manufacturer:	1F-3F of 2 nd Building, Foxda Industrial Zone, Pingshan New District, Shenzhen China
Factory:	Foxda Technology Industrial(Shenzhen) co., Ltd.
Address of Factory:	1F-3F of 2 nd Building, Foxda Industrial Zone, Pingshan New District, Shenzhen China

3.2 General Description of EUT

Name:	Apex+ Series Snow Goggle 339
Model No.	339
Trade Mark:	Xtreme Sport Cams
Operation Frequency:	IEEE 802.11b/g: 2412MHz to 2462MHz
Modulation Type:	IEEE for 802.11b: DSSS(CCK,DQPSK,DBPSK) IEEE for 802.11g : OFDM(64QAM, 16QAM, QPSK, BPSK)
Sample Type:	Portable production
Test Power Grade:	Set wifi_pwr value 2 (manufacturer declare)
Test Software of EUT:	Provided by manufacturer
Antenna Type:	Integral
Antenna Gain:	0.34dBi
Power Supply:	Model 55 Li-ion Battery 3.7V 1150mAh 4.3Wh
USB Cable:	45 cm with one ferrite core
HDMI Cable:	55 cm with two ferrite core
Test Voltage:	DC 3.7 Li-ion Battery

3.3 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch E&E Lab No. 1 Workshop, M-10, Middle section, Science & Technology Park, Shenzhen, Guangdong, China 518057

Telephone: +86 (0) 755 2601 2053 Fax: +86 (0) 755 2671 0594

No tests were sub-contracted.

3.4 Test Facility

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

- **CNAS (No. CNAS L2929)**
CNAS has accredited SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch EMC Lab 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.
- **VCCI**
The 3m Semi-anechoic chamber, Full-anechoic Chamber and Shielded Room (7.5m x 4.0m x 3.0m) of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-2197, G-416, T-1153 and C-2383 respectively.
- **FCC – Registration No.: 556682**
SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen 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 No.: 556682.
- **Industry Canada (IC)**
The 3m Semi-anechoic chamber of SGS-CSTC Standards Technical Services Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 4620C-1.

3.5 Deviation from Standards

None.

3.6 Abnormalities from Standard Conditions

None.

3.7 Other Information Requested by the Customer

None.

4 SAR Evaluation

4.1 RF Exposure Compliance Requirement

4.1.1 Standard Requirement

15.247(b)(4) requirement:

The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6dBi.

4.1.2 Limits

According to KDB447498 D01, SAR evaluation is typically not required when the maximum transmitter and antenna output power are $\leq 60/f(\text{GHz})$ mW.

4.1.3 EUT RF Exposure

The Max Conducted Peak Output Power is 11.61dBm(14.4877mW) in lowest channel;

The best case gain of the antenna is 0.34dBi.

0.34dBi logarithmic terms convert to numeric result is nearly 1.0814.

According to the formula, calculate the EIRP test result:

$$\text{EIRP} = P \times G = 14.4877 \text{ mW} \times 1.0814 = 15.6670 \text{ mW} \text{ ①}$$

SAR requirement:

$$S = 60 / f(\text{GHz}) = 60 / 2.412 = 24.88 \text{ mW} \text{ ②} ;$$

$$\text{①} < \text{②}.$$

So the SAR report is not required.