



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.: SZEM120800473902

Page: 1 of 6

SAR Evaluation Report

Application No.: SZEM1208004739RF
Applicant: ARCHOS SA
Manufacturer: ARCHOS SA
Product Name: Child Pad
Model No.(EUT): AN7DG3C
Standard: 47 CFR Part 1.1307(2011)
47 CFR Part 2.1093 (2011)
FCC ID: SOVAN7DG3C
Date of Receipt: 2012-08-22
Date of Test: 2012-08-30 to 2012-09-05
Date of Issue: 2012-09-11

Test Result:	PASS*
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* 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.

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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	Conducted Output Power	6
4.1.4	EUT RF Exposure.....	6



3 General Information

3.1 Client Information

Applicant:	ARCHOS SA
Address of Applicant:	12 rue Ampère 91430 Igny France
Manufacturer:	ARCHOS SA
Address of Manufacturer:	12 rue Ampère 91430 Igny France

3.2 General Description of EUT

Name:	Child Pad	
Model No.:	AN7DG3C	
Operation Frequency:	IEEE 802.11b/g/n(HT20): 2412MHz to 2462MHz IEEE 802.11n(HT40): 2422MHz to 2452MHz	
Channel Numbers:	IEEE 802.11b/g, IEEE 802.11n HT20: 11 Channels IEEE 802.11n HT40: 7 Channels	
Channel Separation:	5MHz	
Type of Modulation:	IEEE for 802.11b: DSSS(CCK,DQPSK,DBPSK) IEEE for 802.11g : OFDM(64QAM, 16QAM, QPSK, BPSK) IEEE for 802.11n(HT20 and HT40) : OFDM (64QAM, 16QAM, QPSK,BPSK)	
Sample Type:	Portable production	
Antenna Type:	Integral	
Antenna Gain:	0.77dBi	
Power Supply:	Adapter:	MODEL: ASUC12a-050150 INPUT: AC 100-240V 50/60Hz 0.3A OUTPUT: DC 5.0V 1500mA
	Battery:	P338792 3000mAh 3.7V HY1229110106
	USB charge	
USB Charging Cable:	<3m	
Test Voltage:	AC 120V 60Hz Full Rechargeable 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 Conducted Output Power

Measurement Data

802.11b mode		
Test channel	Peak Output Power (dBm)	Average Output Power (dBm)
Lowest	14.72	10.93
Middle	15.31	11.03
Highest	15.13	11.42
802.11g mode		
Test channel	Peak Output Power (dBm)	Average Output Power (dBm)
Lowest	15.75	9.87
Middle	16.07	10.09
Highest	16.18	10.25
802.11n(HT20)mode		
Test channel	Peak Output Power (dBm)	Average Output Power (dBm)
Lowest	14.89	9.54
Middle	15.37	9.87
Highest	15.52	10.07
802.11n(HT40)mode		
Test channel	Peak Output Power (dBm)	Average Output Power (dBm)
Lowest	15.23	9.46
Middle	15.58	9.43
Highest	15.48	9.67

4.1.4 EUT RF Exposure

The Max Average Peak Output Power is 11.42dBm(13.868mW) in highest channel;

The best case gain of the antenna is 0.77dBi.

0.77dBi logarithmic terms convert to numeric result is nearly 1.194.

According to the formula. calculate the EIRP test result:

$$\text{EIRP} = P \times G = 13.868 \text{ mW} \times 1.194 = 16.558\text{mW} \text{ ①}$$

SAR requirement:

$$S = 60 / f(\text{GHz}) = 60/2.480 = 24.19\text{mW} \text{ ②} ;$$

$$\text{①} < \text{②}.$$

So the SAR report is not required.