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Report No.: SZEM140900503802

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SAR Evaluation Report

Application No.:	SZEM1409005038RF
Applicant:	Shenzhen XinHongyu E-Commerce Co., Ltd.
Manufacturer:	Shenzhen XinHongyu E-Commerce Co., Ltd.
Factory:	Shenzhen Netcom Electronics CO., Ltd
Product Name:	Portable cloud storage
Model No.(EUT):	NW73
Trade Mark:	XNY
FCC ID:	2AC9BNW73
Standards:	47 CFR Part 1.1307(2012) 47 CFR Part 2.1093 (2012) KDB447498D01 General RF Exposure Guidance v05
Date of Receipt:	2013-07-19 (for original report SZEM130600340301)
Date of Test:	2013-08-05 to 2013-09-16 (for original report SZEM130600340301)
Date of Issue:	2013-10-15 (for original report SZEM130600340301) 2014-09-18 (for new report SZEM140900503801)

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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3 General Information

3.1 Client Information

Applicant:	Shenzhen XinHongyu E-Commerce Co., Ltd.
Address of Applicant:	1004 JiLong Building, No. 96 LongYuan Road, Longgang District Shenzhen
Manufacturer:	Shenzhen XinHongyu E-Commerce Co., Ltd.
Address of Manufacturer:	1004 JiLong Building, No. 96 LongYuan Road, Longgang District Shenzhen
Factory:	Shenzhen Netcom Electronics CO., Ltd
Address of Factory:	8/F, 1 Building, Finance Base, No.8, Kefa Road, High-Tech Park, Shenzhen, China

3.2 General Description of EUT

Product Name:	Portable cloud storage
Model No.:	NW73
Trade Mark:	XNY
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
Antenna Gain:	2.0dBi
Power Supply:	Adapter:5V Supply by adapter Battery: Lipo 3.7V 5600mAh
Test Voltage:	DC 3.7V Battery fully charged AC 120V 60Hz

Remark:

The EUT passed the all tests after modification.

Original model No. in report SZEM130600340302: NW73 128GB, NW73 16GB, NW73 32GB, NW73 64GB, NW73 256GB

Only the model NW73 128GB was tested in report SZEM130600340302, since the circuit design, PCB layout, electrical components used, internal wiring and functions were identical for the above models, with difference being capacity, color and model name.

New model No. in report SZEM140900503802: NW73

This report was an additional report copied from the report SZEM130600340302, just changed the information of the applicant, manufacturer and factory, the name of product and model number, added the trade mark. Since the circuitry design, PCB layout, electrical components used, internal wiring and functions for the models “NW73 128GB, NW73 16GB, NW73 32GB, NW73 64GB, NW73 256GB” in the report SZEM130600340302 were exactly the same as the model “NW73” in this report, only the appearance color is different.

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)**

Two 3m Semi-anechoic chambers of SGS-CSTC Standards Technical Services Co., Ltd. have been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 4620C-1 & 4620C-2.

3.5 Deviation from Standards

None.

3.6 Abnormalities from Standard Conditions

The EUT passed the all tests after modification.

3.7 Other Information Requested by the Customer

None.

4 SAR Evaluation

4.1 RF Exposure Compliance Requirement

4.1.1 Standard Requirement

According to KDB447498D01 General RF Exposure Guidance v05

4.3.1. Standalone SAR test exclusion considerations

Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Exclusion Threshold condition, listed below, is satisfied.

4.1.2 Limits

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

$$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0 \text{ for 1-g SAR and } \leq 7.5 \text{ for 10-g extremity SAR, where}$$

$f(\text{GHz})$ is the RF channel transmit frequency in GHz

Power and distance are rounded to the nearest mW and mm before calculation¹⁷

The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is ≤ 50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion

4.1.3 EUT RF Exposure

The max. power of channel, including tune-up tolerance is 8dBm in highest channel(2.462GHz);

8dBm logarithmic terms convert to numeric result is nearly 6.3095mW

According to the formula. calculate the EIRP test result:

$$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}]$$

$$\text{General RF Exposure} = (6.3095\text{mW} / 5 \text{ mm}) \times \sqrt{2.462\text{GHz}} = 2.0 \quad ①$$

SAR requirement:

$$S = 3.0 \quad ② ;$$

$$① < ②.$$

So the SAR report is not required.