



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

588 West Jindu Road, Songjiang District, Shanghai, China
Telephone: +86 (0) 21 6191 5666
Fax: +86 (0) 21 6191 5678
ee.shanghai@sgs.com

Report No.: SHEM140100007503
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1 Cover Page

FCC MPE REPORT

Application No.:	SHEM1401000075RF
Applicant:	NINGBO CHANGQING HOME DECOR CO., LTD
Manufacturer:	NINGBO CHANGQING HOME DECOR CO., LTD
FCC ID:	2AB2WBTS01
Equipment Under Test (EUT): NOTE: The following sample(s) submitted was/were identified on behalf of the client as	
Product Name:	BLUETOOTH SPEAKER
Model No.(EUT):	BTS-01
Add Model No.:	BTS01ANGEL1, BTS01CAT1, BTS01DOG1, BTS01DOG2, BTS01DWARFS1, BTS01FOX1, BTS01FROG1, BTS01GIRL1, BTS01RABBIT1, BTS01SQUIRREL1, BTS01SQUIRREL2, BTS01TURTLE1
Standards:	FCC Rules 47 CFR §2.1091 KDB447498 D01 General RF Exposure Guidance
Date of Receipt:	January 10, 2014
Date of Test:	March 25, 2014 to March 26, 2014
Date of Issue:	March 31, 2014
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.

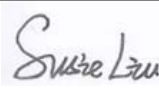
The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant 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		March 31, 2014		Original

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

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4 General Information

4.1 Client Information

Applicant:	NINGBO CHANGQING HOME DECOR CO., LTD
Address of Applicant:	218, HUANGSHAN WEST ROAD, BEILUN, NINGBO, Zhejiang CHINA
Manufacturer:	NINGBO CHANGQING HOME DECOR CO., LTD
Address of Manufacturer:	218, HUANGSHAN WEST ROAD, BEILUN, NINGBO, Zhejiang CHINA
Factory:	NINGBO CHANGQING HOME DECOR CO., LTD
Address of Factory:	218, HUANGSHAN WEST ROAD, BEILUN, NINGBO, Zhejiang CHINA

4.2 General Description of E.U.T.

Brand Name:	EVERGREEN
Product Description:	Mobile product

4.3 Details of E.U.T.

Operation Frequency:	2402MHz~2480MHz
Bluetooth Version:	3.0+EDR
Modulation Technique:	FHSS(GFSK, $\pi/4$ DQPSK, 8DPSK)
Number of Channel:	79
Antenna Type	Integral
Antenna Gain	2 dBi
Power Supply:	DC 3.7V

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: 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

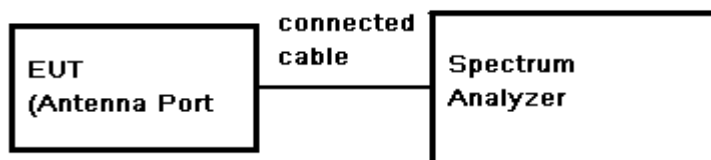
Frequency	Power density(mW/cm ²)	Averaging time(minutes)
300MHz~1.5GHz	f/1500	30
1.5GHz~100GHz	1.0	30

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 data:

Test Channel	Modulation	Reading Power (dBm)	Cable Loss (dB)	Output Power (dBm)	Output Power (mW)	Power Limit (dBm)	Result
Lowest	GFSK	2.28	0.5	4.78	3.01	30	PASS
Middle	GFSK	2.21	0.5	4.71	2.96	30	PASS
Highest	GFSK	1.72	0.5	4.22	2.64	30	PASS
Lowest	$\pi/4$ DQPSK	0.95	0.5	3.45	2.21	30	PASS
Middle	$\pi/4$ DQPSK	1.05	0.5	3.55	2.26	30	PASS
Highest	$\pi/4$ DQPSK	0.73	0.5	3.23	2.10	30	PASS
Lowest	8DPSK	1.20	0.5	3.70	2.34	30	PASS
Middle	8DPSK	1.27	0.5	3.77	2.38	30	PASS
Highest	8DPSK	0.94	0.5	3.44	2.21	30	PASS

6.2 MPE Calculation

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

Note:

$$P \text{ (Watts)} = \text{Power Input to antenna} = 10^{\frac{dBm}{10}} / 1000$$

- 1) G (Antenna gain in numeric) = $10^{\text{(Antenna gain in dBi / 10)}}$
- 2) R = distance to the center of radiation of antenna (in meter) = 20cm
- 3) MPE limit = 1mW/cm²

The Max Conducted Peak Output Power is 3.01mW in lowest channel of GFSK;

The best case gain of the antenna is 2dBi. 2dB logarithmic terms convert to numeric result is nearly 1.58

$$\text{So, } S = \frac{PG}{4R^2\pi} = \frac{3.01 \times 1.58}{4 \times 400 \times 3.14} = 0.00095 \text{ mW/cm}^2 < 1 \text{ mW/cm}^2$$

So the device is exclusion from SAR test.

7 EUT Constructional Details

Refer to the < BTS-01_External Photos-FCC > & < BTS-01_Internal Photos-FCC>.

--End of the Report--