SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch

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SAR Evaluation Report

Application No.:	SZEM1611009719CR
Applicant:	BRAGI GMBH
Manufacturer:	BRAGI GMBH
Factory:	VTech (Dongguan) Communications Ltd.
Product Name:	The Headphone
Model No.(EUT):	H1001-01
FCC ID:	2AF5TH1001L
Standards:	47 CFR Part 1.1307 (2015) 47 CFR Part 2.1093 (2015) KDB447498D01 General RF Exposure Guidance v06
Date of Receipt:	2016-11-17
Date of Test:	2016-11-21
Date of Issue:	2016-12-08
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.

2 Version

Revision Record				
Version	**Chapter**	**Date**	**Modifier**	**Remark**
00		*2016-12-08*		*Original*

Authorized for issue by:				
Tested By		Peter Geng **(Peter Geng) /Project Engineer**		2016-11-21 **Date**
Checked By		Eric Fu **(Eric Fu) /Reviewer**		2016-12-08 **Date**

3 Contents

4 General Information

4.1 Client Information

Applicant:	BRAGI GMBH
Address of Applicant:	Sendlinger Strasse 7 / Angerblock 2. OG, 80331 München, Germany
Manufacturer:	BRAGI GMBH
Address of Manufacturer:	Sendlinger Strasse 7 / Angerblock 2. OG, 80331 München, Germany
Factory:	VTech (Dongguan) Communications Ltd.
Address of Factory:	Xia Ling Bei Management Zone, Liaobu Town, Dongguan City, Guangdong Province, China

4.2 General Description of EUT

Name:	The Headphone
Model No.:	H1001-01
Trade Mark:	Bragi
Operation Frequency:	10.579MHz
Antenna Type:	Loop Antenna
Power Supply:	Left headphone: DC 3.7V, 50mAh rechargeable battery; Right headphone: DC 3.7V, 100mAh rechargeable battery Which both charged by the docking(Charged from Adapter via USB cable)
Test Voltage:	AC 120V/50Hz
Cable:	USB charging line: 18.5cm, shielded
Product details:	H1001-01 consists of a left earplug, a right earplug, a USB charging line and a charging case.

4.3 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch

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.

4.4 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.

• **A2LA (Certificate No. 3816.01)**

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 3816.01.

• **VCCI**

The 10m Semi-anechoic chamber and Shielded Room of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: G-823, R-4188, 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 chambers and the 10m Semi-anechoic chambers of SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch EMC Lab have been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 4620C-2, 4620C-3.

4.5 Deviation from Standards

None.

4.6 Abnormalities from Standard Conditions

None.

4.7 Other Information Requested by the Customer

None.

5 SAR Evaluation

5.1 RF Exposure Compliance Requirement

5.1.1 Standard Requirement

According to KDB447498D01 General RF Exposure Guidance v06

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.

5.1.2 Limits

At frequencies below 100 MHz, the following may be considered for SAR test exclusion:

a) The power threshold at the corresponding test separation distance at 100 MHz in below step 1) is multiplied by [1 + log(100/f(MHz))] for test separation distances > 50 mm and < 200 mm

- b) The power threshold determined by the equation in a) for 50 mm and 100 MHz is multiplied by ½ for test separation distances ≤ 50 mm.

1) [Power allowed at numeric threshold for 50 mm in step 1) + (test separation distance - 50 mm)·(f(MHz)/150)] mW, at 100 MHz to 1500 MHz

5.1.3 EUT RF Exposure

The maximum conducted output power specified is -36.99dBm = 0.0002mW

The SAR Exclusion Threshold Level for 10.579MHz when the minimum test separation distance is < 50mm:

= 474 * [1 + log(100/f(MHz)]/2

= 468.2 mW

Since the source-based time-averaging conducted output power is well below the SAR low threshold level, so the EUT is considered to comply with SAR requirement without testing.