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| |

Report No.: SZEM170100034202 Page: 1 of 6

SAR Evaluation Report

| Application No.: | SZEM1701000342CR(GZEM1701000289CR) |
|------------------|---|
| Applicant: | Gibson Innovations Limited |
| Manufacturer: | Gibson Innovations Limited |
| Factory: | Minami Acoustics Limited |
| EUT Name: | Bluetooth Headphones |
| Model No.: | SHB4205, SHB4205/XX, SHB4205YY/XX, (YY=AA to ZZ; XX=00 to 99) ♣ |
| * | Please refer to section 2 of this report which indicates which model was actually tested and which were electrically identical. |
| Trade mark: | Philips |
| FCC ID: | 2AANUSHB4205 |
| Standards: | 47 CFR Part 1.1307 (2016) |
| | 47 CFR Part 2.1093 (2016) |
| | KDB447498D01 General RF Exposure Guidance v06 |
| Date of Receipt: | 2017-01-12 |
| Date of Test: | 2017-01-17 to 2017-01-23 |
| Date of Issue: | 2017-01-25 |
| 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.

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Report No.: SZEM170100034202 Page: 2 of 6

2 Version

| | Revision Record | | | |
|---------|-----------------|------------|----------|----------|
| Version | Chapter | Date | Modifier | Remark |
| 00 | | 2017-01-25 | | Original |
| | | | | |
| | | | | |

| Authorized for issue by: | | |
|--------------------------|-----------------------------|------------|
| Tested By | Brir chen | 2017-01-23 |
| | Bill Chen /Project Engineer | Date |
| Checked By | Eric Fu | 2017-01-25 |
| | Eric Fu /Reviewer | Date |

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Report No.: SZEM170100034202 Page: 3 of 6

3 Contents

Page

| 1 | С | OVER PAGE1 | L |
|---|-----|---|----------|
| 2 | V | /ERSION | 2 |
| 3 | С | CONTENTS | 5 |
| 4 | G | ENERAL INFORMATION4 | ŀ |
| | 4.1 | CLIENT INFORMATION4 | ł |
| | 4.2 | GENERAL DESCRIPTION OF EUT4 | Ļ |
| | 4.3 | Test Location | 5 |
| | 4.4 | Test Facility | 5 |
| | 4.5 | DEVIATION FROM STANDARDS | 5 |
| | 4.6 | ABNORMALITIES FROM STANDARD CONDITIONS | 5 |
| | 4.7 | OTHER INFORMATION REQUESTED BY THE CUSTOMER | į |
| 5 | S | AR EVALUATION | í |
| | 5.1 | RF Exposure Compliance Requirement | <i>,</i> |
| | 5 | 5.1.1 Standard Requirement. | í |
| | 5 | i.1.2 Limits | 5 |
| | 5 | 6.1.3 EUT RF Exposure | ĩ |



Report No.: SZEM170100034202 Page: 4 of 6

4 General Information

4.1 Client Information

| Applicant: | Gibson Innovations Limited |
|--------------------------|---|
| Address of Applicant: | 5/F, Philips Electronics Building, 5 Science Part East Venusue.Hong Kong Science Park,Shatin,n.ThONG kONG |
| Manufacturer: | Gibson Innovations Limited |
| Address of Manufacturer: | 5/F, Philips Electronics Building, 5 Science Part East Venusue.Hong Kong Science Park,Shatin,n.ThONG kONG |
| Factory: | Minami Acoustics Limited |
| Address of Factory: | NO.13, Maonan Road, Torch Development District, Zhongshan City, Guangdong Province, China. |

4.2 General Description of EUT

| Product Name: | Bluetooth Headphones |
|-----------------------|---|
| Model No.: | SHB4205 |
| Trade Mark: | Philips |
| Operation Frequency: | 2402MHz~2480MHz |
| Bluetooth Version: | V4.1 Classic mode |
| Modulation Technique: | Frequency Hopping Spread Spectrum(FHSS) |
| Modulation Type: | GFSK, π/4DQPSK, 8DPSK |
| Number of Channel: | 79 |
| Hopping Channel Type: | Adaptive Frequency Hopping systems |
| Sample Type: | Portable production |
| Antenna Type: | Integral |
| Antenna Gain: | 0dBi |
| Power Supply | Internal rechargeable battery: DC 3.7V 120mAh |
| | Battery: Charge by USB DC 5V |
| Cable: | USB cable: 30cm unshielded |

Remark:

Model No.: SHB4205, SHB4205/XX, SHB4205YY/XX, (YY=AA to ZZ; XX=00 to 99)

Only the model SHB4205 was tested, since the electrical circuit design, layout, components used, internal wiring and functions were identical for all the above models, only different on model number and outer color.

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Report No.: SZEM170100034202 Page: 5 of 6

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)

Two 3m Semi-anechoic chambers and the 10m Semi-anechoic chamber 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-1, 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.



> Report No.: SZEM170100034202 Page: 6 of 6

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

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

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

f(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 \leq 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

5.1.3 EUT RF Exposure

The Max Conducted Peak Output Power is 0.69dBm in lowest channel(2.402GHz);

0.69dBm logarithmic terms convert to numeric result is nearly 1.17mW

According to the formula. calculate the test exclusion thresholds:

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

General RF Exposure = (1.17mW / 5 mm) x $\sqrt{2.402GHz}$ = 0.36 ①

SAR requirement:

S= 3.0 ① < ②. 2;

So the SAR report is not required.