

Report No.: SHCR220500092402

Page: 1 of 11

1 Cover Page

RF Exposure Evaluation Report

Application No.:SHCR2205000924ATFCC ID:2APV2-CSCH110A

Applicant: Hangzhou Ezviz Software Co., Ltd.

Address of Applicant: Room 302, Unit B, Building 2,399 Danfeng Road, Binjiang

District, Hangzhou, Zhejiang

Manufacturer: Hangzhou Ezviz Software Co., Ltd.

Address of Manufacturer: Room 302, Unit B, Building 2,399 Danfeng Road, Binjiang

District, Hangzhou, Zhejiang

Equipment Under Test (EUT):

EUT Name: Smart Wi-Fi Chime

Model No.: CS-CH1, CS-CH1-A0-10AWFK Standard(s): FCC Rules 47 CFR § 2.1091

KDB 447498 D04 interim General RF Exposure Guidance v01

Date of Receipt: 2022-05-10

Date of Test: 2022-05-18 to 2022-05-24

Date of Issue: 2022-06-17

Test Result: Pass*

parlan 2han

Parlam Zhan Laboratory Manager

检验检测专用章

Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions or Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction is suses defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us attelephone: (86-755) 8307 1443, or small: CN Docesheavers.

NO.588 West Jindu Road,Songjiang District,Shanghai,China 201612 t(86-21)61915666 f(86-21)61915678 www.sgsgroup.com.cn 中国・上海・松江区金都西路588号 邮编: 201612 t(86-21)61915666 f(86-21)61915678 e sgs.china@sgs.com

^{*} In the configuration tested, the EUT complied with the standards specified above.



Report No.: SHCR220500092402

Page: 2 of 11

| Revision Record | | | | | | | |
|--------------------------------------|--|------------|--|----------|--|--|--|
| Version Chapter Date Modifier Remark | | | | | | | |
| 01 | | 2022-06-17 | | Original | | | |
| | | | | | | | |
| | | | | | | | |

| Authorized for issue by: | | |
|--------------------------|--------------------------------|--|
| | Michael Mil | |
| | Micheal Niu / Project Engineer | |
| | Darlam Zhan | |
| | Parlam Zhan / Reviewer | |



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction is uses defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@ess.com

邮编: 201612

NO.588 West Jindu Road, Songjiang District, Shanghai, China 201612

中国・上海 ・松江区金都西路588号



Report No.: SHCR220500092402

D - - -

Page: 3 of 11

2 Contents

| | | | raye |
|---|-----|---|------|
| 1 | | OVER PAGE | |
| 2 | С | ONTENTS | 3 |
| 3 | G | SENERAL INFORMATION | 4 |
| | 3.1 | GENERAL DESCRIPTION OF E.U.T. | 4 |
| | 3.2 | TECHNICAL SPECIFICATIONS | 4 |
| | 3.3 | TEST LOCATION | 5 |
| | 3.4 | TEST FACILITY | 5 |
| 4 | F | CC RADIOFREQUENCY RADIATION EXPOSURE LIMITS | 6 |
| | 4.1 | BLANKET 1 MW BLANKET EXEMPTION | 6 |
| | 4.2 | MPE-based Exemption | |
| | 4.3 | SAR-BASED EXEMPTION | 7 |
| 5 | M | MEASUREMENT AND CALCULATION | 10 |
| | 5.1 | MAXIMUM TRANSMIT POWER | 10 |
| | 5.2 | RF Exposure Calculation | 10 |



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction is uses defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@ess.com

NO.588 West Jindu Road, Songjiang District, Shanghai, China 201612

中国・上海 ・松江区金都西路588号

邮编: 201612



Report No.: SHCR220500092402

Page: 4 of 11

3 General Information

3.1 General Description of E.U.T.

| Power supply: | AC 100-240V,50/60Hz,0.1A,5W Max |
|---------------|---------------------------------|

3.2 Technical Specifications

2.4G WiFi

| Operation Frequency: | 802.11b/g/n(HT20): 2412MHz to 2462MHz; |
|----------------------|---|
| M. J. J. C. T | 802.11b: DSSS (CCK, DQPSK, DBPSK);802.11g/n: OFDM (64QAM, |
| Modulation Type: | 16QAM, QPSK, BPSK) |
| Number of Channels: | 802.11b/g/n(HT20):11 |
| Channel Spacing: | 5MHz |
| | Antenna 1:Dipole Antenna |
| Antenna Type: | Antenna 2:Dipole Antenna |
| | Antenna 1:2.69dBi(Provided by manufacturer) |
| Antenna Gain: | Antenna 2:2.69dBi(Provided by manufacturer) |
| | Directional Gain =5.70dBi |



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction is uses defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@ess.com

NO.588 West Jindu Road, Songjiang District, Shanghai, China 201612

中国・上海 ・松江区金都西路588号

邮编: 201612

t(86-21) 61915666 f(86-21) 61915678 www.sgsgroup.com.cn



Report No.: SHCR220500092402

Page: 5 of 11

3.3 Test Location

All tests were performed at:

Compliance Certification Services (Kunshan) Inc.

No.10 Weiye Rd, Innovation park, Eco&Tec, Development Zone, Kunshan City, Jiangsu, China.

Tel: +86 512 5735 5888 Fax: +86 512 5737 0818

No tests were sub-contracted.

3.4 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

• CNAS (No. CNAS L4354)

CNAS has accredited Compliance Certification Services (Kunshan) Inc. to ISO/IEC 17025:2017 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. 2541.01)

Compliance Certification Services (Kunshan) Inc. is accredited by the American Association for Laboratory Accreditation (A2LA). Certificate No. 2541.01.

• FCC (Designation Number: CN1172)

Compliance Certification Services Inc. has been recognized as an accredited testing laboratory. Designation Number: CN1172.

• ISED (CAB Identifier: CN0072)

Compliance Certification Services (Kunshan) Inc. has been recognized by Innovation, Science and Economic Development (ISED) Canada as an accredited testing laboratory.

CAB Identifier: CN0072.
• VCCI (Member No.: 1938)

The 3m and 10m Semi-anechoic chamber and Shielded Room of Compliance Certification Services (Kunshan) Inc. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-20134, R-11600, C-11707, T-11499, G-10216 respectively.



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 83071443, or email: CN.Doccheck@egs.com

NO.588 West Jindu Road, Songjiang District, Shanghai, China 201612

中国・上海・松江区金都西路588号 邮编: 201612



Report No.: SHCR220500092402

Page: 6 of 11

4 FCC Radiofrequency radiation exposure limits

Test exemptions apply for devices used in general population/uncontrolled exposure environments, according to the SAR-based, or MPE-based exemption thresholds.

4.1 Blanket 1 mW Blanket Exemption

The 1 mW Blanket Exemption of §1.1307(b)(3)(i)(A) applies for single fixed, mobile, and portable RF sources with available maximum time-averaged power of no more than 1 mW, regardless of separation distance.

The 1-mW blanket exemption applies at separation distances less than 0.5 cm, including where there is no separation. This exemption shall not be used in conjunction with other exemption criteria other than those for multiple RF sources in paragraph §1.1307(b)(3)(ii)(A).

The 1-mW exemption is independent of service type and covers the full range of 100 kHz to 100 GHz, but it shall not be used in conjunction with other exemption criteria or in devices with higher-power transmitters operating in the same time-averaging period. Exposure from such higher-power transmitters would invalidate the underlying assumption that exposure from the lower-power transmitter is the only contributor to SAR in the relevant volume of tissue.

4.2 MPE-based Exemption

General frequency and separation-distance dependent MPE-based effective radiated power (ERP) thresholds are in Table B.1 [Table 1 of §1.1307(b)(1)(i)(C)] to support an exemption from further evaluation from 300 kHz through 100 GHz.

Table B.1—Thresholds For Single RF Sources Subject to Routine Environmental Evaluation

| RF Source Frequency | | | Minimum Distance | | |
|---------------------|------------------|--|--|--|---|
| | <i>f</i> ⊦ MHz | λ∟ / 2π | λ _L / 2π λ _H / 2π | | W |
| - | 1.34 | 159 m | _ | 35.6 m | 1,920 R ² |
| - | 30 | 35.6 m | _ | 1.6 m | 3,450 R ² /f ² |
| - | 300 | 1.6 m | _ | 159 mm | 3.83 R ² |
| - | 1,500 | 159 mm | _ | 31.8 mm | 0.0128 R ² f |
| _ | 100,000 | 31.8 mm | _ | 0.5 mm | 19.2R ² |
| | - - - - | f _H MHz - 1.34 - 30 - 300 - 1,500 - 100,000 | f _H MHz λ _L / 2π - 1.34 159 m - 30 35.6 m - 300 1.6 m - 1,500 159 mm - 100,000 31.8 mm | f _H MHz λ _L / 2π - 1.34 159 m - - 30 35.6 m - - 300 1.6 m - - 1,500 159 mm - - 100,000 31.8 mm - | f _H MHz λ _L / 2π λ _H / 2π - 1.34 159 m - 35.6 m - 30 35.6 m - 1.6 m - 300 1.6 m - 159 mm - 1,500 159 mm - 31.8 mm - 100,000 31.8 mm - 0.5 mm |

Subscripts L and H are low and high; λ is wavelength.

From §1.1307(b)(3)(i)(C), modified by adding Minimum Distance columns.

The table applies to any RF source (i.e. single fixed, mobile, and portable transmitters) and specifies power and distance criteria for each of the five frequency ranges used for the MPE limits. These criteria apply at separation distances from any part of the radiating structure of at least $\lambda/2\pi$. The thresholds are

を を を に SGS-CST O Tasking Services SGS-CST O Taskin

Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 83071443, or email: CN.Doccheck@egs.com

d. NO.588 West Jindu Road, Songjiang District, Shanghai, China 201612

中国・上海 ・松江区金都西路588号

邮编: 201612



Report No.: SHCR220500092402

Page: 7 of 11

based on the general population MPE limits with a single perfect reflection, outside of the reactive nearfield, and in the main beam of the radiator.

For mobile devices that are not exempt per Table B.1 [Table 1 of §1.1307(b)(1)(i)(C)] at distances from 20 cm to 40 cm and in 0.3 GHz to 6 GHz, evaluation of compliance with the exposure limits in §1.1310 is necessary if the ERP of the device is greater than ERP20cm in Formula (B.1) [repeated from §2.1091(c)(1); also in §1.1307(b)(1)(i)(B)].

$$P_{\text{th }}(\text{mW}) = ERP_{20 \text{ cm }}(\text{mW}) = \begin{cases} 2040f & 0.3 \text{ GHz} \le f < 1.5 \text{ GHz} \\ \\ 3060 & 1.5 \text{ GHz} \le f \le 6 \text{ GHz} \end{cases}$$
(B. 1)

If the ERP is not easily obtained, then the available maximum time-averaged power may be used (i.e., without consideration of ERP only if the physical dimensions of the radiating structure(s) do not exceed the electrical length of $\lambda/4$ or if the antenna gain is less than that of a half-wave dipole.

SAR-based exemptions are constant at separation distances between 20 cm and 40 cm to avoid discontinuities in the threshold when transitioning between SAR-based and MPE-based exemption criteria at 40 cm, considering the importance of reflections.

| Limit calculation | | | | | | |
|---|------|--------|-------|--|--|--|
| Frequency range Frequency(MHz) $R(N2\pi)(m)$ Threshold ERP(W) | | | | | | |
| 300~1500MHz | 915 | 0.0522 | 0.032 | | | |
| 1500~100000MHz | 2462 | 0.0194 | 0.007 | | | |

4.3 SAR-based Exemption

SAR-based thresholds are derived based on frequency, power, and separation distance of the RF source. The formula defines the thresholds in general for either available maximum time-averaged power or maximum time-averaged ERP, whichever is greater.

If the ERP of a device is not easily determined, such as for a portable device with a small form factor, the applicant may use the available maximum time-averaged power exclusively if the device antenna or radiating structure does not exceed an electrical length of $\lambda/4$.

As for devices with antennas of length greater than λ/4 where the gain is not well defined, but always less than that of a half-wave dipole (length $\lambda/2$), the available maximum time-averaged power generated by the device may be used in place of the maximum time-averaged ERP, where that value is not known. The separation distance is the smallest distance from any part of the antenna or radiating structure for all persons, during operation at the applicable ERP. In the case of mobile or portable devices, the separation distance is from the outer housing of the device where it is closest to the antenna.



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 83071443, or email: CN.Doccheck@egs.com

NO.588 West Jindu Road, Songjiang District, Shanghai, China 201612 邮编: 201612

中国・上海・松江区金都西路588号



Report No.: SHCR220500092402

Page: 8 of 11

The SAR-based exemption formula of $\S1.1307(b)(3)(i)(B)$, repeated here as Formula (B.2), applies for single fixed, mobile, and portable RF sources with available maximum time-averaged power or effective radiated power (ERP), whichever is greater, of less than or equal to the threshold P_{th} (mW).

This method shall only be used at separation distances from 0.5 cm to 40 cm and at frequencies from 0.3 GHz to 6 GHz (inclusive). P_{th} is given by Formula (B.2).

$$P_{\text{th}} \text{ (mW)} = \begin{cases} ERP_{20 \text{ cm}} (d/20 \text{ cm})^x & d \le 20 \text{ cm} \\ ERP_{20 \text{ cm}} & 20 \text{ cm} < d \le 40 \text{ cm} \end{cases}$$
(B. 2)

where

$$x = -\log_{10}\left(\frac{60}{ERP_{20}\operatorname{cm}\sqrt{f}}\right)$$

and f is in GHz, d is the separation distance (cm), and ERP_{20cm} is per Formula (B.1).



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 83071443, or email: CN.Doccheck@egs.com

NO.588 West Jindu Road, Songjiang District, Shanghai, China 201612

中国・上海 ・松江区金都西路588号

邮编: 201612



Report No.: SHCR220500092402

Page: 9 of 11

Example values shown in Table B.2 are for illustration only.

Table B.2—Example Power Thresholds (mW)

| Frequency | | | | | Distan | ce(mm) | | | | |
|-----------|----|----|----|-----|--------|--------|-----|-----|-----|-----|
| (MHz) | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
| 300 | 39 | 65 | 88 | 110 | 129 | 148 | 166 | 184 | 201 | 217 |
| 450 | 22 | 44 | 67 | 89 | 112 | 135 | 158 | 180 | 203 | 226 |
| 835 | 9 | 25 | 44 | 66 | 90 | 116 | 145 | 175 | 207 | 240 |
| 1900 | 3 | 12 | 26 | 44 | 66 | 92 | 122 | 157 | 195 | 236 |
| 2450 | 3 | 10 | 22 | 38 | 59 | 83 | 111 | 143 | 179 | 219 |
| 3600 | 2 | 8 | 18 | 32 | 49 | 71 | 96 | 125 | 158 | 195 |
| 5800 | 1 | 6 | 14 | 25 | 40 | 58 | 80 | 106 | 136 | 169 |

| Limit calculation | | | | | | | |
|---|-------|-------|----|----------|--|--|--|
| Frequency range(GHz) Frequency(GHz) X Distance(cm) Pth (mW) | | | | | | | |
| 0.3~1.5 | 0.915 | 1.474 | 20 | 1866.600 | | | |
| 1.5~6 | 2.462 | 1.903 | 20 | 3060.000 | | | |



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction is uses defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@ess.com

NO.588 West Jindu Road, Songjiang District, Shanghai, China 201612

中国・上海・松江区金都西路588号

邮编: 201612



Report No.: SHCR220500092402

Page: 10 of 11

5 Measurement and Calculation

5.1 Maximum transmit power

The Power Data is based on the RF Test Report SHCR220500092401.

| Test Mode | Channel | Antenna 1 Power[dBm] | Antenna 2 Power[dBm] | MIMO Power[dBm] | Antenna 1 Power[mW] | Antenna 2 Power[mW] | MIMO Power[mW] |
|------------|---------|-------------------------|-------------------------|--------------------|------------------------|------------------------|-------------------|
| 11B | 2412 | 15.58 | 15.32 | NA | 36.14 | 34.04 | N/A |
| 11B | 2437 | 15.54 | 14.70 | NA | 35.81 | 29.51 | N/A |
| 11B | 2462 | 15.46 | 15.09 | NA | 35.16 | 32.28 | N/A |
| 11G | 2412 | 14.76 | 14.36 | NA | 29.92 | 27.29 | N/A |
| 11G | 2437 | 14.65 | 13.89 | NA | 29.17 | 24.49 | N/A |
| 11G | 2462 | 14.52 | 14.24 | NA | 28.31 | 26.55 | N/A |
| 11N20 MIMO | 2412 | 11.37 | 11.37 | 14.38 | 13.71 | 13.71 | 27.42 |
| 11N20 MIMO | 2437 | 11.26 | 10.83 | 14.06 | 13.37 | 12.11 | 25.47 |
| 11N20 MIMO | 2462 | 11.16 | 11.13 | 14.16 | 13.06 | 12.97 | 26.06 |

5.2 RF Exposure Calculation

For SISO mode:

The Max Conducted Average Power is 36.14mW. The best case gain of the antenna is 2.69dBi.

2.69dBi logarithmic terms convert to numeric result is nearly 1.86.

According to the formula. calculate the EIRP test result:

EIRP= P x G = 36.14 mW x 1.86 = 67.22mW

For MIMO mode:

The Max Conducted Average Power is 27.42mW. The best case gain of the antenna is 5.70dBi.

5.70dBi logarithmic terms convert to numeric result is nearly 3.72

According to the formula. calculate the EIRP test result:

EIRP= P x G = 27.42 mW x 3.72 = 102.00mW

Remark: we used the maximum power between the conducted power and ERP/EIRP to perform RF exposure exemption evaluation.



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN_Doccheck@sgs.com

MO.588 West Jindu Road, Songjiang District, Shanghai, China 201612

中国・上海 ・松江区金都西路588号

邮编: 201612



Report No.: SHCR220500092402

Page: 11 of 11

| Evaluation method | Exempt Limit(mW) | Verdict |
|---------------------------------------|---------------------------|---------|
| Blanket 1 mW Blanket Exemption | 1mW | N/A |
| MPE-based Exemption(ERP) | 7mW(ERP) (2.4GHz Band) | N/A |
| SAR-based Exemption($P_{	ext{th}}$) | 3060mW(ERP) (1.5GHz~6GHz) | Yes |

So, the device is to qualify for SAR test exemption, the exemption report is in lieu of the SAR report.

-- End of the Report--



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction is uses defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@ess.com

NO.588 West Jindu Road, Songjiang District, Shanghai, China 201612

中国・上海 ・松江区金都西路588号

邮编: 201612