

Report No.: KSCR230300045102

1 of 10 Page:

#### 1 Cover Page

RF Exposure Evaluation Report

KSCR2303000451AT **Application No.:** 2AXLB-EAV-BAS30 FCC ID:

SUZHOU EAVISION ROBOTIC TECHNOLOGIES CO., LTD **Applicant: Address of Applicant:** Unit 1-A, No.3 Workshop, 28 Xiasheng Road, SIP, Suzhou, China SUZHOU EAVISION ROBOTIC TECHNOLOGIES CO., LTD Manufacturer: Unit 1-A, No.3 Workshop, 28 Xiasheng Road, SIP, Suzhou, China **Address of Manufacturer:** SUZHOU EAVISION ROBOTIC TECHNOLOGIES CO., LTD **Factory:** 

Address of Factory: Unit 1-A, No.3 Workshop, 28 Xiasheng Road, SIP, Suzhou, China

**Equipment Under Test (EUT):** 

**EUT Name: RTK Base Station** Model No.: EAV-BAS30 Trade Mark: **EAVISION** 

FCC Rules 47 CFR §2.1091 Standard(s):

KDB 447498 D04 interim General RF Exposure Guidance v01

Date of Receipt: 2023-03-14

**Date of Test:** 2023-03-16 to 2023-03-30

Date of Issue: 2023-04-06

**Test Result:** Pass\*

Eric Lin Laboratory Manager

Essa fri



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 <a href="https://www.ags.com/en/Terms-and-Conditions">https://www.ags.com/en/Terms-and-Conditions</a>. 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 foreign-end in full, without prover within 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 refor 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 of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443.

No.10 Weiye Road, Development Zone, Kunshan, Jiangsu, China 215300 t(86-512) 5735 5888 f(86-512) 57370818 www.sgsgroup.com.cn 中国・江苏・昆山开发区伟业路10号 t(86-512) 57355888 f(86-512) 57370818 sgs.china@sgs.com 邮编: 215300

<sup>\*</sup> In the configuration tested, the EUT complied with the standards specified above.



Report No.: KSCR230300045102

Page: 2 of 10

Revision Record						
Version Description Date Remark						
00	Original	2023-04-06	/			

Authorized for issue by:		
	Paun. Liu	
	Pawn.Liu/Project Engineer	
	Eric fri	
	Eric Lin /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 <a href="https://www.sgs.com/en/Terms-and-Conditions">https://www.sgs.com/en/Terms-and-Conditions</a>. 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 sindings at the time of its intervention only and within the limits of Client's fany. 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: CND Doccheck@sgs.com

or email: CR.Doccheck@sgs.com
No.10 Weiye Road, Development Zone, Kunshan, Jiangsu, China 215300 (186-512) 57355888 [186-512) 57370818 www.sgsgroup.com.cn
中国・江苏・昆山开发区伟业路10号 邮编: 215300 (186-512) 57355888 [186-512) 57370818 sgs.china@sgs.com



Report No.: KSCR230300045102

Page: 3 of 10

### 2 Contents

			Page
1	COV	/ER PAGE	1
2	CON	NTENTS	3
3	GEN	NERAL INFORMATION	4
	3.1	GENERAL DESCRIPTION OF E.U.T.	4
	3.2	DETAILS OF E.U.T.	4
	3.3	TEST LOCATION	5
	3.4	TEST FACILITY	5
4	FCC	RADIOFREQUENCY RADIATION EXPOSURE LIMITS	6
	4.1	BLANKET 1 MW BLANKET EXEMPTION	6
	4.2	MPE-BASED EXEMPTION	6
	4.3	SAR-BASED EXEMPTION	7
5	MEA	ASUREMENT 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 <a href="https://www.sgs.com/en/Terms-and-Conditions">https://www.sgs.com/en/Terms-and-Conditions</a>. 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 sindings at the time of its intervention only and within the limits of Client's fany. 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: CND Doccheck@sgs.com

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CMD.Doccheck@sgs.com
No.10 Weiye Road, Development Zone, Kunshan, Jiangsu, China 215300 t(86-512) 57355888 f(86-512) 57370818 www.sgsgroup.com.cn
中国・江苏・昆山开发区伟业路10号 邮编: 215300 t(86-512) 57355888 f(86-512) 57370818 sgs.china@sgs.com



Report No.: KSCR230300045102

Page: 4 of 10

#### 3 **General Information**

#### 3.1 **General Description of E.U.T.**

Power supply:	DC 5V
---------------	-------

### 3.2 Details of E.U.T.

	Channel	Center	Channel	Center		
	Number	Frequency(MHz)	Number	Frequency(MHz)		
	0	2403.23	10	2443.23		
	1	2406.43	11	2444.83		
	2	2409.63	12	2449.23		
On anotice Francisco	3	2412.43	13	2451.23		
Operation Frequency:	4	2415.63	14	2457.23		
	5	2423.23	15	2461.63		
	6	2424.83	16	2463.23		
	7	2429.23	17	2469.23		
	8	2435.63	18	2475.63		
	9	2440.03	19	2478.43		
Modulation Type:	GFSK					
Spectrum Spread						
Technology:	Frequency Hopping Spread Spectrum(FHSS)					
Number of Channels:	20					
Antenna Type:	nna Type: Dipole Antenna					
Antenna Gain:	2dBi (Provided by the manufacturer)					
Antenna Number:	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 <a href="https://www.sgs.com/en/Terms-and-Conditions">https://www.sgs.com/en/Terms-and-Conditions</a>. 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 sindings at the time of its intervention only and within the limits of Client's fany. 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: CND Doccheck@sgs.com

No.10 Weiye Road, Development Zone, Kunshan, Jiangsu, China 215300 t(86-512) 57355888 f(86-512) 57370818 www.sgsgroup.com.cn 邮编: 215300 t(86-512)57355888 f(86-512)57370818 sgs.china@sgs.com 中国・江苏・昆山开发区伟业路10号



Report No.: KSCR230300045102

Page: 5 of 10

#### 3.3 Test Location

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

Note:

1.SGS is not responsible for wrong test results due to incorrect information (e.g. max. clock frequency, highest internal frequency, antenna gain, cable loss, etc.) is provided by the applicant. (if applicable). 2.SGS is not responsible for the authenticity, integrity and the validity of the conclusion based on results of the data provided by applicant. (if applicable)

### 3.4 Test Facility

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

#### A2LA

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

#### • FCC

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

#### • ISED

Compliance Certification Services (Kunshan) Inc. has been recognized by Innovation, Science and Economic Development Canada (ISED) as an accredited testing laboratory. Company Number: 2324E

### • VCCI

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 <a href="https://www.sgs.com/en/Terms-and-Conditions">https://www.sgs.com/en/Terms-and-Conditions</a>, Attention is dorwn 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 launatful 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: CND Doccheck@sss.com"

<mark>or email: CN.Doccheck@sgs.com</mark> No.10 Weiye Road, Development Zone, Kunshan, Jiangsu, China 215300 t(86-512) 57355888 f(86-512) 57370818 www.sgsgroup.com.cn 中国・江苏・昆山开发区伟业路10号 邮编: 215300 t(86-512) 57355888 f(86-512) 57370818 sgs.china@sgs.com



Report No.: KSCR230300045102

Page: 6 of 10

#### FCC Radiofrequency radiation exposure limits 4

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			Threshold ERP
f∟ MHz		f <sub>H</sub> MHz	λ <sub>L</sub> / 2π		λ <sub>H</sub> / 2π	W
0.3	_	1.34	159 m	-	35.6 m	1,920 R <sup>2</sup>
1.34	_	30	35.6 m	-	1.6 m	3,450 R <sup>2</sup> /f <sup>2</sup>
30	_	300	1.6 m	-	159 mm	3.83 R <sup>2</sup>
300	_	1,500	159 mm	-	31.8 mm	0.0128 R <sup>2</sup> f
1,500	_	100,000	31.8 mm	_	0.5 mm	19.2R <sup>2</sup>

Subscripts L and H are low and high;  $\lambda$  is wavelength.

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

中国・江苏・昆山开发区伟业路10号

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



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 <a href="https://www.sgs.com/en/Terms-and-Conditions">https://www.sgs.com/en/Terms-and-Conditions</a>, Attention is dorwn 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 launatful 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: CND Doccheck@sss.com"

No.10 Weiye Road, Development Zone, Kunshan, Jiangsu, China 215300 t(86-512) 5735 5888 f(86-512) 57370818 www.sgsgroup.com.cn 邮编: 215300

t(86-512) 57355888

f(86-512) 57370818 sgs.china@sgs.com



Report No.: KSCR230300045102

Page: 7 of 10

based on the general population MPE limits with a single perfect reflection, outside of the reactive near-field, 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 *ERP*<sub>20cm</sub> 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(λ/2π)(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  $\lambda/4$  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 <a href="https://www.sgs.com/en/Terms-and-Conditions">https://www.sgs.com/en/Terms-and-Conditions</a>. 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 one one exonerate parties to a transaction forexercising 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 landwill 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@sss.com"

or email: CN\_Doccheck@sgs.com No.10 Weipe Road, Development Zone, Kunshan, Jiangsu, China 215300 ((86-512) 57355888 f(86-512) 57370818 www.sgsgroup.com.cn 中国・江苏・昆山开发区伟业路10号 邮编: 215300 ((86-512) 57355888 f(86-512) 57370818 sgs.china@sgs.com



Report No.: KSCR230300045102

Page: 8 of 10

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 <a href="https://www.sgs.com/en/Terms-and-Conditions">https://www.sgs.com/en/Terms-and-Conditions</a>. 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 sindings 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: CND Doccheck@gs.com"

<mark>or email: CN.Doccheck@sgs.com</mark> No.10 Weiye Road, Development Zone, Kunshan, Jiangsu, China 215300 t(86-512) 57355888 f(86-512) 57370818 www.sgsgroup.com.cn 中国・江苏・昆山开发区伟业路10号 邮编: 215300 t(86-512) 57355888 f(86-512) 57370818 sgs.china@sgs.com



Report No.: KSCR230300045102

Page: 9 of 10

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

Table B.2—Example Power Thresholds (mW)

Table B.2—Example Fower Thresholds (Inw)										
Frequency					Distanc	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)						
1.5~6	2.79	1.930	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 <a href="https://www.sgs.com/en/Terms-and-Conditions">https://www.sgs.com/en/Terms-and-Conditions</a>. 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 sindings at the time of its intervention only and within the limits of Client's fany. 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: CND Doccheck@sgs.com

Attention: 1o check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-75) 830/1443, or email: CM,Doccheck@sgs.com

No.10 Weiye Road, Development Zone, Kunshan, Jiangsu, China 215300 t(86-512) 57355888 f(86-512) 57370818 www.sgsgroup.com.cn
中国・江苏・昆山开发区伟业路10号 邮编: 215300 t(86-512) 57355888 f(86-512) 57370818 sgs.china@sgs.com



Report No.: KSCR230300045102

Page: 10 of 10

### 5 Measurement and Calculation

### 5.1 Maximum transmit power

The Power Data is based on the RF Test Report KSCR230300045101.

Test Mode	Test Channel	Ant	Power [dBm]	Power [mW]
GFSK	2403.23	Ant1	5.06	3.21
GFSK	2440.03	Ant1	5.90	3.89
GFSK	2478.43	Ant1	5.49	3.54

## 5.2 RF Exposure Calculation

The Max Conducted Peak Output Power is 3.89mW. The best case gain of the antenna is 2dBi.

2dBi logarithmic terms convert to numeric result is nearly 1.58.

According to the formula. calculate the EIRP test result:

EIRP= P x G =  $3.89 \text{ mW} \times 1.58 = 2.462 \text{mW}$ 

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

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( $P_{\mathrm{th}}$ )	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 <a href="https://www.sgs.com/en/Terms-and-Conditions">https://www.sgs.com/en/Terms-and-Conditions</a>. 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 sindings 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: CND Doccheck@gs.com"

Artenino: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-75) 830/1443, or email: CN\_Doccheck@sgs.com
| No.10 Weiye Road, Development Zone, Kunshan, Jiangsu, China 215300 t(86-512) 57355888 (86-512) 57370818 www.sgsgroup.com.cn
中国・江苏・昆山开发区伟业路10号 邮編: 215300 t(86-512) 57355888 (86-512) 57370818 sgs.china@sgs.com