



1 Cover Page

RF Exposure REPORT

Application No.:	SHEM1804003215CR
Applicant:	TempSen Electronics Company
FCC ID:	2AMMOTEMPOD20B
Equipment Under Test (EUT):	
NOTE: The following sample(s) submitted was/were identified on behalf of the client as	
Product Name:	Tempod 20B Data Logger
Model No.(EUT):	Tempod 20B
Trade mark:	TempSen
Standards:	FCC Rules 47 CFR §2.1093 KDB 447498 D01 General RF Exposure Guidance v06
Date of Receipt:	2018-04-27
Date of Test:	2018-05-09 to 2018-05-16
Date of Issue:	2018-05-23
Test Result:	Pass*

**In the configuration tested, the EUT detailed in this report complied with the standards specified above.



Parlam Zhan
E&E Section 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.

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Revision Record			
Version	Description	Date	Remark
00	Original	2018-05-1123	/

Authorized for issue by:			
			
		<hr/>	
		Vincent Zhu/ Project Engineer	
			
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		Parlam Zhan /Reviewer	



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3 General Information

3.1 Client Information

Applicant:	TempSen Electronics Company
Address of Applicant:	2F, Building C2, ESPACE, No.6000 Shenzhuan Road, Shanghai, China
Manufacturer:	TempSen Electronics Company
Address of Manufacturer:	2F, Building C2, ESPACE, No.6000 Shenzhuan Road, Shanghai, China
Factory:	TempSen Electronics Company
Address of Factory:	2F, Building C2, ESPACE, No.6000 Shenzhuan Road, Shanghai, China

3.2 General Description of E.U.T.

Power supply:	DC 3.0V by CR2450 cell battery AC 120V 60Hz for PC
Test voltage:	DC 3V

3.3 Details of E.U.T.

Antenna Gain	-0.5dBi
Antenna Type	Chip Antenna
Channel Spacing	2MHz
Modulation Type	GFSK



3.4 Test Location

All tests were performed at:

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

588 West Jindu Road, Xinqiao, Songjiang, 201612 Shanghai, China.

Tel: +86 21 6191 5666

Fax: +86 21 6191 5678

3.5 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.

- **NVLAP (Certificate No. 201034-0)**

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP). Certificate No. 201034-0.

- **FCC –Designation Number: CN5033**

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been recognized as an accredited testing laboratory.

Designation Number: CN5033. Test Firm Registration Number: 479755.

- **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-1.

- **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,C-4336,T-12221,G-10830 respectively.

4 Test Standards and Limits

4.1 FCC Radiofrequency radiation exposure limits

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

$[(\text{max power of channel})/(\text{min test separation distance})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, where

- $f(\text{GHz})$ is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm
- The result is rounded to one decimal place for comparison
- 3.0 and 7.5 are referred to as the numeric thresholds

The test exclusions are applicable only when the minimum test separation distance is ≤ 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 according to 4.1 f) is applied to determine SAR test exclusion. For 2.4G band device, the limit of worse case is

$$P_{\text{max}} \leq 3.0 \cdot D_{\text{min}} / \sqrt{f} = 3.0 \cdot 5 / \sqrt{2.480} = 9.525 \text{mW}$$



5 Measurement and Calculation

5.1 Maximum transmit power

The Power Data is based on the RF Test Report SHEM180400321502.

Test Data:

Test Mode	Test Channel	Power[dBm]	Peak Power (mW)
BLE	2402	-1.68	0.68
BLE	2440	-1.40	0.72
BLE	2480	-1.68	0.68

5.2 RF Exposure Calculation

The Max Output Power is 0.72mW.

0.72 mW <9.525mW

So the SAR report is not required.

--End of the Report--