

RF EXPOSURE EVALUATION REPORT

Application No.: GZCR2403000309ME
Applicant: Guangdong Transtek Medical Electronics Co., Ltd.
Address of Applicant: Zone A, No.105, Dongli Road, Torch Development District, 528437 Zhongshan, Guangdong, China
Manufacturer: Guangdong Transtek Medical Electronics Co., Ltd.
Address of Manufacturer: Zone A, No.105, Dongli Road, Torch Development District, 528437 Zhongshan, Guangdong, China
Factory: Guangdong Transtek Medical Electronics Co., Ltd.
Address of Factory: Zone A, No.105, Dongli Road, Torch Development District, 528437 Zhongshan, Guangdong, China
Product Name: Blood pressure monitor
Model No.: LS802-Ga, LS802-Gb
Standard(s) : 47 CFR Part 2.1091
47 CFR Part 1.1310
47 CFR Part 1.1307
Date of Receipt: 2024-03-29
Date of Evaluation: 2024-04-27
Date of Issue: 2024-04-28

Evaluation Result:	Pass*
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* In the configuration evaluated, the EUT complied with the standards specified above.



Jerry Chan
Manager



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Revision Record			
Version	Report No.	Date	Remark
01	GZCR240300030902	2024-04-28	Original

Authorized for issue by:			
		<i>Jim Li</i>	
		Jim Li/Project Engineer	
		<i>Ricky Liu</i>	
		Ricky Liu/Reviewer	



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2 Evaluation Summary

Item	Standard	Method	Requirement	Result
RF Exposure	47 CFR Part 2.1091 47 CFR Part 1.1307	47 CFR Part 2.1091 47 CFR Part 1.1307	47 CFR Part 1.1310	Pass

Note:

E.U.T./EUT means Equipment Under Test.

Pass means the test result passed the test standard requirement, please find the detailed decision rule in the report relative section.



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3 Contents

	Page
1 Cover Page	1
2 Evaluation Summary.....	3
3 Contents.....	4
4 General Information	5
4.1 Details of E.U.T.	5
4.2 Evaluating Location	5
4.3 Facility	6
4.4 Deviation from Standards.....	6
4.5 Abnormalities from Standard Conditions	6
5 Technical Requirements Specification	7
5.1 RF Exposure Evaluation.....	7
5.1.1 Requirement.....	7
5.1.2 Method	7
5.1.3 Conclusion	8
6 EUT Constructional Details (EUT Photos).....	9



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4 General Information

4.1 Details of E.U.T.

Power supply: AC Adapter
Model: BLJ06L060100P-U
Input: 100-240V, 50/60Hz, 0.2A Max
Output: 6.0V, 1.0A
DC 6 V = Size "AA" battery 1.5V x 4pcs

Cable(s): Adapter DC output cable, 2 wires, 1.5m, unshielded.

Operation Frequency: LTE CatM1 Band 2, 4, 12

Modulation Type: QPSK, 16QAM

Antenna Type: PIFA Antenna
CatM1 Band 2: 2.81 dBi
CatM1 Band 4: 0.66 dBi
CatM1 Band 12: -1.89 dBi
(Declared by antenna specifications)

Antenna Gain:

Extreme temp. Tolerance: -30°C to +50°C

Sample Type: Fixed device.

Remark: The information in this section is provided by the applicant or manufacturer, SGS is not liable to the accuracy, suitability, reliability or/and integrity of the information.

4.2 Evaluating Location

All tests were performed at:
SGS-CSTC Standards Technical Services Co., Ltd., Guangzhou Branch EMC Laboratory,
No.198, Kezhu Road, Science City, Economic & Technological Development Area, Guangzhou,
Guangdong, China 510663
Tel: +86 20 82155555
No tests were sub-contracted.



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4.3 Facility

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

- **ACMA**

SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory can also perform testing for the Australian/New Zealand Regulatory Compliance Mark (RCM).

- **SGS UK(Certificate No.: 32), SGS-TUV SAARLAND and SGS-FIMKO**

Have approved SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory as a supplier of EMC TESTING SERVICES and SAFETY TESTING SERVICES.

- **FCC Recognized Accredited Test Firm(Registration No.: 486818)**

SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory has been accredited and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Designation Number: CN5016, Test Firm Registration Number: 486818.

- **ISED (Registration No.: 4620B, CAB identifier: CN0052)**

SGS-CSTC Standards Technical Services Co., Ltd., has been registered by Innovation Science and Economic Development Canada for Wireless Device Testing laboratories to test to Canadian radio equipment requirements. Registration No. 4620B, CAB identifier: CN0052.

- **VCCI (Registration No.: R-12460, C-12584, G-20107 and T-11179)**

The 10m Semi-anechoic chamber, 966 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.: R-12460, C-12584, G-20107 and T-11179 respectively.

- **CBTL (Lab Code: TL129)**

SGS-CSTC Standards Technical Services Co., Ltd., E&E Laboratory has been assessed and fully comply with the requirements of ISO/IEC 17025:2017, the Basic Rules, IECEE 01 and Rules of procedure IECEE 02, and the relevant IECEE CB-Scheme Operational documents.

4.4 Deviation from Standards

None

4.5 Abnormalities from Standard Conditions

None



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5 Technical Requirements Specification

5.1 RF Exposure Evaluation

5.1.1 Requirement

In accordance with 47 CFR FCC Part 2.1091, this device has been defined as a mobile device whereby a distance of 0.2m normally can be maintained between the user and the device.

According to 47 CFR FCC Part 1310, the criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in Part1.1307(b).

TABLE 1 TO §1.1310(E)(1)—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(i) Limits for Occupational/Controlled Exposure				
3-3.0	614	1.63	*(100)	≤6
3.0-30	1842/f	4.89/f	*(900/f ²)	<6
30-300	61.4	0.163	1.0	<6
300-1,500			f/300	<6
1,500-100,000			5	<6
(ii) Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*(100)	<30
1.34-30	824/f	2.19/f	*(180/f ²)	<30
30-300	27.5	0.073	0.2	<30
300-1,500			f/1500	<30
1,500-100,000			1.0	<30
f = frequency in MHz. * = Plane-wave equivalent power density				

5.1.2 Method

According to IEEE C95.3:2002 section 5.5.1.1, the power density S at a point on the axis at a distance d from a transmitting antenna is given by the Friis free-space transmission formula:

$$S = \frac{PG}{4\pi d^2}$$

S = power density (mW/cm²)
P = the net power delivered to the antenna (mW)
G = gain of the antenna in linear scale
d = distance between observation point and center of the radiator (cm)

From the maximum EUT RF output power, as well as the gain of the used antenna, according to the RF power density limit stated in above table, the minimum distance between the antenna and human body will be calculated.



5.1.3 Conclusion

Band	Frequency (MHz)	Distance (m)	Max tune-up tolerance power (dBm)	Max tune-up tolerance power to antenna (mW)	Ant. Gain (dBi)	Ant. Gain (Numeric)	Power Density (S) (mW/cm ²)	Limit (mW/cm ²)	Result
CatM1 Band2	1850.7	0.2	22	0.1585	2.81	1.91	0.06022	1	Pass
CatM1 Band4	1710.7	0.2	22	0.1585	0.66	1.16	0.03670	1	Pass
CatM1 Band12	699.7	0.2	22	0.1585	-1.89	0.65	0.02040	0.4665	Pass



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6 EUT Constructional Details (EUT Photos)

Refer to Appendix - External and Internal Photos for GZCR2403000309ME

- End of the Report -



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