

# RF EXPOSURE EVALUATION REPORT

**Application No.:** GZCR2406000760HS  
**Applicant:** Echelon Fitness Multimedia, LLC  
**Address of Applicant:** 605 Chestnut Street, Suite 700, Chattanooga, TN 37450  
**Manufacturer:** Echelon Fitness Multimedia, LLC  
**Address of Manufacturer:** 605 Chestnut Street, Suite 700, Chattanooga, TN 37450  
**Factory:** OMA Fitness Equipment Co., Ltd  
**Address of Factory:** 93 Tai An Road South, Yang'e Village, Lunjiao Town, Shunde, Foshan, 528000, Guangdong, China  
**Product Name:** Summit Stairmill Pro s-22  
**Model No.:** ECH-SC-PRS-22, ECH-SC-PRS-XX (X=0~9, X=A~Z) ♣  
♣ Please refer to section 2 of this report which indicates which item was actually tested and which were electrically identical.  
**Trade Mark:** Echelon  
**Standard(s) :** KDB 447498 D01 V06  
47 CFR Part 1.1310  
**Date of Receipt:** 2024-11-07  
**Date of Evaluation:** 2025-04-29 to 2025-04-29  
**Date of Issue:** 2025-05-15

<b>Evaluation Result:</b>	<b>Pass*</b>
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\* In the configuration evaluated, the EUT complied with the standards specified above.



Ricky Liu  
Manager



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Revision Record			
Version	Report No.	Date	Remark
01	GZCR240600076008	2025-05-15	Original

<b>Authorized for issue by:</b>			
		Luke Lin	
		Luke Lin/Project Engineer	
		Vico Cui	
		Vico Cui/Reviewer	



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## 2 Evaluation Summary

Item	Standard	Method	Requirement	Result
RF Exposure	KDB 447498 D01 V06	KDB 447498 D01 V06	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.

♣ Declaration of EUT Family Grouping:

Model No.: ECH-SC-PRS-22, ECH-SC-PRS-XX (X=0~9, X=A~Z)

According to the declaration from the applicant, the electrical circuit design, layout, components used and internal wiring were identical for all models, with only difference on the model name and appearance.

Therefore only one model ECH-SC-PRS-22 was tested in this report.



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## 4 General Information

### 4.1 Details of E.U.T.

Power supply:	AC 120V 60Hz
Cable(s):	AC mains, 3 wires, 2.0m, unshielded. Refer to report GZCR240600076003 for BLE detail.
RF characters:	Refer to report GZCR240600076004 for BT classic detail. Refer to report GZCR240600076005 for 2.4G Wi-Fi detail. Refer to report GZCR240600076006 for 5G Wi-Fi detail.

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



## 5 Technical Requirements Specification

### 5.1 General Description of Applied Standards

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.

### 5.2 RF Exposure Evaluation

#### 5.2.1 Limit & Test Method

According to FCC Part1.1310: 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—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm <sup>2</sup> )	Averaging time (minutes)
<b>(A) Limits for Occupational/Controlled Exposures</b>				
0.3–3.0 .....	614	1.63	*(100)	6
3.0–30 .....	1842/f	4.89/f	*(900/f <sup>2</sup> )	6
30–300 .....	61.4	0.163	1.0	6
300–1500 .....	.....	.....	f/300	6
1500–100,000 .....	.....	.....	5	6
<b>(B) Limits for General Population/Uncontrolled Exposure</b>				
0.3–1.34 .....	614	1.63	*(100)	30
1.34–30 .....	824/f	2.19/f	*(180/f <sup>2</sup> )	30
30–300 .....	27.5	0.073	0.2	30
300–1500 .....	.....	.....	f/1500	30
1500–100,000 .....	.....	.....	1.0	30

F= Frequency in MHz

Friis Formula

$$P_d = (P_{out} * G) / (4 * P_i * R^2)$$

Where

P<sub>d</sub> = power density in mW/cm<sup>2</sup>

P<sub>out</sub> = output power to antenna in mW

G = gain of antenna in linear scale

P<sub>i</sub> = 3.1416

R = distance between observation point and center of the radiator in cm

P<sub>d</sub> is the limit of MPE, 1 mW/cm<sup>2</sup>. If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance r where the MPE limit is reached.



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**5.2.2 Conclusion**

Normal use condition for Distance 20cm declared by applicant  
between antenna and body:

For Bluetooth BLE Max power

Antenna Gain: 2.68 dBi for module VS1761U

Frequency (MHz)	Antenna Gain (Numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm <sup>2</sup> )	Limit of Power Density (S)	Test Result
					(mW/cm <sup>2</sup> )	
2402	1.853531623	1.91	1.55	0.00057	1	Complies

Antenna Gain: -3.03 dBi for module LE003

Frequency (MHz)	Antenna Gain (Numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm <sup>2</sup> )	Limit of Power Density (S)	Test Result
					(mW/cm <sup>2</sup> )	
2402	0.497737085	2.18	1.65	0.00016	1	Complies

For Bluetooth Classic Max power

Antenna Gain: 2.68 dBi

Frequency (MHz)	Antenna Gain (Numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm <sup>2</sup> )	Limit of Power Density (S)	Test Result
					(mW/cm <sup>2</sup> )	
2441	1.853531623	1.14	1.30	0.00048	1	Complies

For 2.4 GHz Wi-Fi Max power

Antenna Gain: 2.68 dBi

Frequency (MHz)	Antenna Gain (Numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm <sup>2</sup> )	Limit of Power Density (S)	Test Result
					(mW/cm <sup>2</sup> )	
11N40						
2422	1.853531623	20.42	110.15	0.04062	1	Complies

For 5 GHz Wi-Fi Max power

Antenna Gain: 2.84 dBi

Frequency (MHz)	Antenna Gain (Numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm <sup>2</sup> )	Limit of Power Density (S)	Test Result
					(mW/cm <sup>2</sup> )	
5785	1.853531623	15.88	38.73	0.01428	1	Complies

The 2.4G/5G Wi-Fi, BT and BLE can be transmitted simultaneously, so the result is  $0.00057/1+0.00016/1+0.00048/1+0.04062/1+0.01428/1=0.0562<1$ , so the device meets the RF exposure and without further test.

**Note:**

Refer to report GZCR240600076003 for BLE test Max Conducted Peak Output Power value.

Refer to report GZCR240600076004 for BT classic test Max Conducted Peak Output Power value.

Refer to report GZCR240600076005 for 2.4G Wi-Fi test Max Conducted Peak Output Power value.

Refer to report GZCR240600076006 for 5G Wi-Fi test Max Conducted Peak Output Power value.



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## 6 EUT Constructional Details (EUT Photos)

Refer to External and Internal Photos for GZCR2406000760HS

- End of the Report -



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