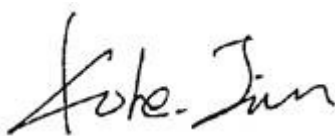


RF Exposure Evaluation Report

Application No.: GZEM2007013989CR
Applicant: R.F.E ASIA PACIFIC LTD..
Address of Applicant: ROOM 2608-2609, 1 Hung To Road, Kwun Tong, Hong Kong, China
Manufacturer: RFE EUROPA LTD.
Address of Manufacturer: 8 Clarendon Drive, Wymbush, Milton Keynes MK8 8ED, England, United Kingdom
Factory: Xiamen Mydo Sports Equipment Co., Ltd
Address of Factory: 30, Bannan Road, Dongfu street, Haicang District, Xiamen, Co., Ltd
Equipment Under Test (EUT):
FCC ID: 2API3-TD2151C
EUT Name: Motorized Treadmill
Model No.: TD2151C, RVFR-10421BK-120, FR30 Floatride Treadmill-Black-120, RVFR-10421BL-120, FR30 Floatride Treadmill-Blue-120, RVFR-10421GR-120, FR30 Floatride Treadmill-Green-120, RVFR-10421RD-120, FR30 Floatride Treadmill-Red-120, RVFR-10421YL-120, FR30 Floatride Treadmill-Yellow-120 ☐
☐ Please refer to section 2 of this report which indicates which model was actually tested and which were electrically identical.
Standard(s): 47 CFR Part 1.1307, Part 1.1310
Date of Receipt: 2020-07-27
Date of Evaluation: 2020-08-15 to 2020-09-07
Date of Issue: 2021-01-06

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



Kobe Jian
EMC Laboratory Manager



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Revision Record				
Version	Chapter	Date	Modifier	Remark
01		2021-01-06		Original

Authorized for issue by:			
Evaluated By			2020-08-15 to 2020-09-07
	Curry_Wu /Project Engineer		Date
Checked By			2021-01-06
	Ricky_Liu /Reviewer		Date



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2 Evaluation Summary

Radio Spectrum Technical Requirement				
Item	Standard	Method	Requirement	Result
RF Exposure	47 CFR Part 1.1307, Part 2.1093, KDB 447498	CFR 47 Part 2.1093	CFR 47 Part 2.1093	Pass

☒ **Declaration of EUT Family Grouping:**

Model No.:

TD2151C, RVFR-10421BK-120, FR30 Floatride Treadmill-Black-120, RVFR-10421BL-120, FR30 Floatride Treadmill-Blue-120, RVFR-10421GR-120, FR30 Floatride Treadmill-Green-120, RVFR-10421RD-120, FR30 Floatride Treadmill-Red-120, RVFR-10421YL-120, FR30 Floatride Treadmill-Yellow-120

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 in the outer decoration, model name.

Therefore only one model TD2151C was evaluated in this report.



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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 Description of Support Units.....	5
4.3 Evaluation Location.....	5
4.4 Test Facility.....	6
4.5 Deviation from Standards.....	7
4.6 Abnormalities from Standard Conditions.....	7
5 Radio Spectrum Technical Requirement.....	8
5.1 RF Exposure.....	8
5.1.1 Test Requirement:.....	8
5.1.2 Conclusion.....	9
6 Photographs.....	10
6.1 EUT Constructional Details.....	10



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4 General Information

4.1 Details of E.U.T.

Power Supply:	AC120-127V 60Hz 1500W
Test Voltage:	AC 120V 60Hz
Cable:	about 1.2m unscreened AC mains cable
Antenna Gain:	0dBi
Antenna Type:	PCB antenna
Channel Spacing:	1MHz
Modulation Type:	GFSK, $\pi/4$ DQPSK, 8DPSK
Number of Channels:	79
Operation Frequency:	2402MHz to 2480MHz
Spectrum Spread Technology:	Frequency Hopping Spread Spectrum(FHSS)

4.2 Description of Support Units

The EUT has been tested as an independent unit.

4.3 Evaluation Location

All evaluation were performed at:

SGS-CSTC Standards Technical Services Co., Ltd., Guangzhou Branch EMC Laboratory,
 198 Kezhu Road, Sciencetech Park, Guangzhou Economic & Technology Development District,
 Guangzhou, China 510663

Tel: +86 20 82155555 Fax: +86 20 82075059

No tests were sub-contracted.



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4.4 Test Facility

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

● **NVLAP (Lab Code: 200611-0)**

SGS-CSTC Standards Technical Services Co., Ltd., Guangzhou EMC Laboratory is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP/NIST). NVLAP Code: 200611-0.

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.

● **ACMA**

SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory can also perform testing for the Australian C-Tick mark as a result of our NVLAP accreditation.

● **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.

● **CNAS (Lab Code: L0167)**

SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory has been assessed and in compliance with CNAS-CL01:2018 accreditation criteria for testing laboratories (identical to ISO/IEC 17025:2017 General Requirements) for the Competence of Testing Laboratories.

● **FCC Recognized 2.948 Listed Test Firm(Registration No.: 282399)**

SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration 282399, May 31, 2002.

● **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, Jul 13, 2017.

● **Industry Canada (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-10449 and T-11179)**

The 10m Semi-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-10449 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 17025:2005, the Basic Rules, IECEE 01 and Rules of procedure IECEE 02, and the relevant IECEE CB-Scheme Operational documents.



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4.5 Deviation from Standards

None

4.6 Abnormalities from Standard Conditions

None



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5 Radio Spectrum Technical Requirement

5.1 RF Exposure

5.1.1 Test Requirement:

CFR 47 Part 1.1310

Limit:

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 ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposure				
0.3-3.0	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
(B) 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				

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)



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5.1.2 Conclusion

Antenna Gain: 0dBi

Antenna Gain: The maximum Gain measured in fully anechoic chamber is 1.00 in linear scale.

Output Power Into Antenna & RF Exposure Evaluation Distance:

Channel	Frequency (MHz)	Max Conducted Peak Output Power (dBm)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm ²)	Limit	Result
Lowest	2402	5.41	3.48	0.00069	1.0	PASS

Note: Refer to report No. GZEM200701398202 for EUT test Max Conducted Peak Output Power value.

The distance r (4th column) calculated from the Fries transmission formula is far greater than 20 cm separation requirement.



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6 Photographs

6.1 EUT Constructional Details

Refer to Appendix A - Photographs of EUT Constructional Details for GZEM2007013989CR

--End of Report--



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