





# SAR Exemption Evaluation Report

Product Name: SCALE700

Model No. : 2013795

FCC ID : 2AH2P-S70018

Applicant: DECATHLON USA LLC

Address : 2415 3rd Street, Suite 231 San

Francisco 94107, California, USA

Date of Receipt: Sep. 13, 2018

Test Date Sep. 14, 2018~ Nov. 07, 2018

Issued Date : Nov. 23, 2018

Report No. : 1892085R-RF-US-P20V02

Report Version: V1.0

The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standard through the calibration of the equipment and evaluated measurement uncertainty herein.

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## **Test Report Certification**

Issued Date: Nov. 23, 2018

Report No.: 1892085R-RF-US-P20V02



Product Name : SCALE700

Applicant : DECATHLON USA LLC

Address : 2415 3rd Street, Suite 231 San Francisco 94107,

California, USA

Manufacturer : DECATHLON SA

Address : 4 Boulevard de Mons - 59650 Villeneuve d' Ascq -

**FRANCE** 

Model No. : 2013795

FCC ID : 2AH2P-S70018 EUT Voltage : DC 2.4~ 3.3V

Applicable Standard : KDB 447498 D01v06

Test Result : Complied

Performed Location : DEKRA Testing & Certification (Suzhou) Co., Ltd.

No.99 Hongye Rd., Suzhou Industrial Park, Suzhou,

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FCC Registration Number: 800392;

Documented By : (Adm. Specialist: Kitty Li )

Reviewed By : Frank he

(Senior Project Manager: Frank He)

Approved By : Jack zhang

(Engineering Supervisor: Jack Zhang)



#### 1. RF Exposure Evaluation

#### 1.1. Limits

#### According to KDB 447498 D01 General RF Exposure Guidance v06

#### 4.3.1 Standalone SAR test exclusion considerations

1) 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:

[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)]  $\cdot$  [ f(GHz)]  $\leq$  3.0 for 1-g SAR and  $\leq$  7.5 for 10-g extremity SAR,where

f(GHz) is the RF channel transmit frequency in GHz

Power and distance are rounded to the nearest mW and mm before calculation

The result is rounded to one decimal place for comparison

3.0 and 7.5 are referred to as the numeric thresholds in the step 2 below

The test exclusions are applicable only when the minimum test separation distance is  $\leq$  50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is  $\leq$  5 mm, a distance of 5 mm according to 5) in section 4.1 is applied to determine SAR test exclusion.

- 2) At 100 MHz to 6 GHz and for test separation distances > 50 mm, the SAR test exclusion threshold is determined according to the following, and as illustrated in Appendix B:
- a) [Power allowed at numeric threshold for 50 mm in step 1) + (test separation distance 50 mm)·( f(MHz)/150)] mW, at 100 MHz to 1500 MHz
- b) [Power allowed at numeric threshold for 50 mm in step 1) + (test separation distance 50 mm)·10] mW at > 1500 MHz and  $\leq$  6 GHz
- 3) The 1-g and 10-g SAR test exclusion thresholds for below 100 MHz at test separation distances ≤ 50 mm are determined by:
- a) The power threshold at the corresponding test separation distance at 100 MHz in step 2) is multiplied by [1 + log(100/f(MHz))] for test separation distances > 50 mm and < 200 mm
- b) The power threshold determined by the equation in a) for 50 mm and 100 MHz is multiplied by  $\frac{1}{2}$  for test separation distances  $\leq$  50 mm
- c) SAR measurement procedures are not established below 100 MHz. When SAR test exclusion cannot be applied, a KDB inquiry is required to determine SAR evaluation requirements for any test results to be acceptable. Note: when the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.



#### 1.2. Test Procedure

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.

The temperature and related humidity: 18 and 78% RH.

### 1.3. Test Result of RF Exposure Evaluation

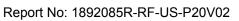
Product	:	SCALE700
Test Item	:	RF Exposure Evaluation
Test Site	:	AC-6

#### Antenna Gain:

Model No.	N/A							
Antenna manufacturer	N/A							
Antenna Delivery		1*TX+1*RX		☐ 2*TX+2*RX ☐ 3*TX+3*RX				
Antenna technology		SISO						
		MIMO		Basic				
	_			CDD				
				Sectorized				
				Beam-forming				
Antenna Type		External		Dipole				
	┞╙			Sectorized				
		Internal		PIFA				
			$\boxtimes$	PCB				
				Ceramic Chip Antenna				
				Dipole Antenna				
Antonio Tarbandoni	Ant Gain							
Antenna Technology	(dBi)							
⊠siso	0							

Based on The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm and the formula below:

Estimated SAR=
$$\sqrt{f(GHz)} * \frac{\text{(Max Power of channel, mW)}}{\text{Min. Separation Distance, mm}}$$



Conclusion: 2.4GHz SAR was not required.



Band	Exposure Condition	Pmax	Pmax	Distance	f(GHz)		Stand-alone	
						calculation	Test	SAR Test
		(dBm)	(mu)	(mm)		result	exclusion	SAR TEST
		(ubiii)	(mw)				threshold	
ВТ	Body	-0.07	0.98	5	2.44	0.31	3.00	No

———— The End	