

RF Exposure Evaluation Report

Product : ALTRA IQ
Trade mark : ALTRA
Model/Type reference : AIQ18
Serial Number : N/A
Report Number : EED32J00216902
FCC ID : OMCAIQ18
Date of Issue : Nov. 09, 2017
Test Standards : 47 CFR Part 1.1307 (2015)
47 CFR Part 2.1093 (2015)
KDB447498D01 v06
Test result : PASS

Prepared for:

Icon Health and Fitness, Inc.

1500 South 1000 West Logan, Utah, United State, 84321

Prepared by:

Centre Testing International Group Co., Ltd.

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Date:

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2 Version

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4 General Information

4.1 Client Information

Applicant:	Icon Health and Fitness, Inc.
Address of Applicant:	1500 South 1000 West Logan, Utah, United State, 84321
Manufacturer:	FENDA TECHNOLOGY CO., LTD
Address of Manufacturer:	Fenda hi-tech park, zhoushi road shiyan, baoan, shenzhen china
Factory:	FENDA TECHNOLOGY CO., LTD
Address of Factory:	Fenda hi-tech park, zhoushi road shiyan, baoan, shenzhen china

4.2 General Description of EUT

Product Name:	ALTRA IQ
Model No.(EUT):	AIQ18
Trade Mark:	ALTRA
EUT Supports Radios application:	BT4.2

4.3 Product Specification subjective to this standard

Frequency Range:	2402MHz-2480MHz
Modulation Type:	GFSK
Number of Channels:	40
Test Power Grade:	N/A
Test Software of EUT:	nRFgo studio V1.20.0.2 (manufacturer declare)
Antenna Type:	Chip Antenna
Antenna Gain:	1.3dBi
Power Supply:	AIQ18(Right): Button battery DC 3V AIQ18(Left): Button battery DC 3V
Conduct Peak Power:	-0.769dBm The Conduct Peak Power data refer to the report EED32J00216901
Sample Received Date:	Sep. 26, 2017
Sample tested Date:	Sep. 26, 2017 to Nov. 08, 2017
The tested sample(s) and the sample information are provided by the client.	

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4.4 Test Location

All tests were performed at:

Centre Testing International Group Co., Ltd.

Hongwei Industrial Zone, Bao'an 70 District, Shenzhen, Guangdong, China 518101

Telephone: +86 (0) 755 3368 3668 Fax:+86 (0) 755 3368 3385

No tests were sub-contracted.

4.5 Deviation from Standards

None.

4.6 Abnormalities from Standard Conditions

None.

4.7 Other Information Requested by the Customer

None.

5 SAR Evaluation

5.1 RF Exposure Compliance Requirement

5.1.1 Standard Requirement

According to EED32J00216901 General RF Exposure Guidance v05
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.

5.1.2 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:

$$\left[\frac{\text{max. power of channel, including tune-up tolerance, mW}}{(\text{min. test separation distance, mm})} \right] \cdot \sqrt{f(\text{GHz})} \leq 3.0$$
 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 before calculation¹⁷

The result is rounded to one decimal place for comparison

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 is applied to determine SAR test exclusion

5.1.3 EUT RF Exposure

The Max Conducted Peak Output Power is -0.769dBm in highest channel(2.402GHz);

The best case gain of the antenna is 1.3dBi.

$EIRP = -0.769\text{dBm} + 1.3\text{dBi} = 0.531\text{dBm}$

0.531dBm logarithmic terms convert to numeric result is nearly 1.13mW

According to the formula. calculate the EIRP test result:

$$\left[\frac{\text{max. power of channel, including tune-up tolerance, mW}}{(\text{min. test separation distance, mm})} \right] \cdot \sqrt{f(\text{GHz})}$$

General RF Exposure = $(1.13\text{mW} / 5 \text{ mm}) \times \sqrt{2.402\text{GHz}} = 0.35$ ①

SAR requirement:

S = 3.0

② ;

① < ②.

So the SAR report is not required.

PHOTOGRAPHS OF EUT Constructional Details

Refer to Report No. EED32J00216901 for EUT external and internal photos.

*** End of Report ***

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