

RF Exposure Evaluation Report

APPLICANT : Acer Incorporated
EQUIPMENT : bike power trainer
BRAND NAME : Xplova
MODEL NAME : NOZA Nx (x : A-Z, 0-9)
FCC ID : HLZDMN1
STANDARD : 47 CFR Part 2.1091
FCC KDB 447498 D01 v06

We, Sporton International (Kunshan) Inc., would like to declare that the device has been evaluated in accordance with 47 CFR Part 2.1091, and pass the limit. Without written approval of Sporton International (Kunshan) Inc., the test report shall not be reproduced except in full.



Approved by: Mark Qu / Manager



Sporton International (Kunshan) Inc.

**No. 1098, Pengxi North Road, Kunshan Economic Development Zone,
Jiangsu Province 215335, China**



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**Revision History**

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FA890507	Rev. 01	Initial issue of report	Nov. 27, 2018

**1. Administration Data****1.1. Testing Laboratory**

Testing Laboratory	
Test Site	Sporton International (Kunshan) Inc.
Test Site Location	No. 1098, Pengxi North Road, Kunshan Economic Development Zone, Jiangsu Province 215335, China TEL : 86-512-57900158 FAX : 86-512-57900958

Applicant	
Company Name	Acer Incorporated
Address	8F., No. 88, Sec. 1, Xintai 5th Rd., Xizhi Dist., New Taipei City 22181, Taiwan (R.O.C)

Manufacturer	
Company Name	Xplova Inc.
Address	6F., No.68, Ruiguang Rd., Neihu Dist., Taipei City 114, Taiwan (R.O.C.)

**2. Description of Equipment Under Test (EUT)**

Product Feature & Specification	
EUT Type	bike power trainer
Brand Name	Xplova
Model Name	NOZA Nx (x : A-Z, 0-9)
FCC ID	HLZDMN1
Wireless Technology and Frequency Range	ANT+: 2457 MHz Bluetooth: 2402 MHz ~ 2480 MHz
Mode	Bluetooth LE: GFSK ANT+ : GFSK
HW Version	V204.2.1
SW Version	V204.3.1
EUT Stage	Identical Prototype
Remark: The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.	



3. Maximum RF average output power among production units

< ANT+ and Bluetooth >

Mode	Maximum Average Power (dBm)
ANT+	-6.5
Bluetooth LE	-13.00



4. RF Exposure Limit Introduction

According to ANSI/IEEE C95.1-1992, the criteria listed in Table 1 shall be used to evaluate the environmental impact of human exposure to radio frequency (RF) radiation as specified in §1.1310.

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 Exposures				
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
300-1500			f/300	6
1500-100,000			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
300-1500			f/1500	30
1500-100,000			1.0	30

The MPE was calculated at 20 cm to show compliance with the power density limit.

The following formula was used to calculate the Power Density:

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

Where:

S = Power Density

P = Output Power at Antenna Terminals

G = Gain of Transmit Antenna (linear gain)

R = Distance from Transmitting Antenna



5. Radio Frequency Radiation Exposure Evaluation

5.1. Standalone Power Density Calculation

Band	Frequency (MHz)	Antenna Gain (dBi)	Maximum Power (dBm)	Maximum EIRP (dBm)	Average EIRP (mW)	Power Density at 20cm (mW/cm ²)	Limit (mW/cm ²)
ANT+	2457	-0.1	-6.50	-6.60	0.219	0.00004	1.000
Bluetooth	2402	-0.1	-13.00	-13.10	0.049	0.00001	1.000

Note:

1. For conservativeness, the lowest frequency of each band is used to determine the MPE limit of that band.
2. ANT+ and Bluetooth share the same antenna, and cannot transmit simultaneously.
3. ANT+ Field Strength of Fundamental Emission is 87.31dBuV/m at 3m test site, so it can be converted to -7.92dBm. The maximum tune up power defined as -6.5dBm by manufacturer.

Conclusion:

According to 47 CFR §2.1091, the RF exposure analysis concludes that the RF Exposure is FCC compliant.