

RF Exposure Evaluation Report

APPLICANT : Locus Solutions LLC
EQUIPMENT : GO Bluetooth Logger
BRAND NAME : Emerson
MODEL NAME : GO BT Logger 1.0
FCC ID : AMH101008
STANDARD : 47 CFR Part 2.1091

We, Sporton International (Shenzhen) 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 (Shenzhen) Inc., the test report shall not be reproduced except in full.



Approved by: Mark Qu / Manager



Sporton International (Shenzhen) Inc.

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Revision History

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FA761611	Rev. 01	Initial issue of report	Oct. 31, 2017



1. Administration Data

1.1 Testing Laboratory

Testing Laboratory	
Test Site	Sporton International (Shenzhen) Inc.
Test Site Location	1/F, 2/F, Bldg 5, Shiling Industrial Zone, Xinwei Village, Xili, Nanshan Shenzhen City Guangdong Province 518055 China TEL: +86-755-8637-9589 FAX: +86-755-8637-9595

Applicant	
Company Name	Locus Solutions LLC
Address	14924 Corporate Road South, Jupiter, FL 33478, USA

Manufacturer	
Company Name	SHENZHEN ANVOX ALARM SYSTEMS CO., LTD
Address	5th Floor West, B3 Building, Yasheng Industrial District, Guangming District, Shenzhen 518107, China



2. General Information

2.1 Description of Device Under Test (DUT)

Product Feature & Specification	
DUT Type	GO Bluetooth Logger
Brand Name	Emerson
Model Name	GO BT Logger 1.0
FCC ID	AMH101008
Wireless Technology and Frequency Range	Bluetooth: 2402 MHz ~ 2480 MHz
Mode	Bluetooth v4.0 LE
Antenna Type	PCB Antenna
HW Version	V 2.0
SW Version	N/A
DUT Stage	Identical Prototype
Remark: The above DUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description	

3. Maximum RF output power among production units

Mode	Maximum Output Power (dBm)
Bluetooth v4.0 LE	-3.0



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)	Maximum EIRP (W)	Average EIRP (mW)	Power Density at 20cm (mW/cm ²)	Limit (mW/cm ²)
Bluetooth	2402.0	4.0	-3.0	1.000	0.0013	1.259	0.0003	1.0000

Note: For conservativeness, the lowest frequency of each band is used to determine the MPE limit of that band.

Conclusion:

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