



## **RF Exposure Evaluation Report**

**APPLICANT** : Gosafe Company Limited  
**EQUIPMENT** : GPS Tracker  
**BRAND NAME** : Gosafe  
**MODEL NAME** : G6S  
**FCC ID** : RSRG-6S-3S  
**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.

**Reviewed by: Eric Huang / Deputy Manager**

**Approved by: Jones Tsai / Manager**

### **SPORTON INTERNATIONAL (SHENZHEN) INC.**

**No. 3 Building, the third floor of south, Shahe River west, Fengzeyuan warehouse, Nanshan District, Shenzhen, Guangdong, P. R. C.**



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**Revision History**

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FA411001	Rev. 01	Initial issue of report	Jun. 12, 2014



## **1. Administration Data**

### **1.1. Testing Laboratory**

Testing Laboratory	
Test Site	SPORTON INTERNATIONAL (SHENZHEN) INC.
Test Site Location	No. 3 Building, the third floor of south, Shahe River west, Fengzeyuan warehouse, Nanshan District, Shenzhen, Guangdong, P. R. C. TEL: +86-755- 3320-2398

Applicant	
Company Name	Gosafe Company Limited
Address	B301, No. 69 Guangpu West Road, Science City, Guangzhou

Manufacturer	
Company Name	Gosafe Company Limited
Address	B301, No. 69 Guangpu West Road, Science City, Guangzhou

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

Product Feature & Specification	
EUT Type	GPS Tracker
Brand Name	Gosafe
Model Name	G6S
FCC ID	RSRG-6S-3S
IMEI Code	351535054742432
Wireless Technology and Frequency Range	GSM850: 824.2 MHz ~ 848.8 MHz GSM1900: 1850.2 MHz ~ 1909.8 MHz
Mode	• GPRS
Antenna Type	Fixed Internal Antenna
HW Version	V1.0.6
SW Version	V2.04
EUT Stage	Identical Prototype

**Remark:**

1. The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.
2. The device supports GPRS Class 10.

**3. Maximum RF average output power among production units**

Mode	Average power(dBm)	
	GSM850	GSM1900
GPRS (GMSK, 1 Tx slot)	33	29
GPRS (GMSK, 2 Tx slots)	33	29

## 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 <sup>2</sup> )	Averaging time (minutes)
<b>(A) Limits for Occupational/Controlled Exposures</b>				
0.3-3.0	614	1.63	*(100)	6
3.0-30	1842/f	4.89/f	*(900/f <sup>2</sup> )	6
30-300	61.4	0.163	1.0	6
300-1500			f/300	6
1500-100,000			5	6
<b>(B) Limits for General Population/Uncontrolled Exposure</b>				
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f <sup>2</sup> )	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 Calculations**

Band	Frequency (MHz)	Antenna Gain (dBi)	Maximum Power (dBm)	Maximum ERP/EIRP (W)	Maximum output power Limit (W)	Average EIRP (mW)	Power Density at 20cm (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )
GPRS 850 (1 Tx slots)	824.2	1.32	33.00	2.704	7.0	340.408	0.068	0.549
GPRS 850 (2 Tx slots)	824.2	1.32	33.00	2.704	7.0	679.204	0.135	0.549
GPRS 1900 (1 Tx slot)	1850.2	3.05	29.00	1.603	2.0	201.837	0.040	1.000
GPRS 1900 (2 Tx slots)	1850.2	3.05	29.00	1.603	2.0	402.717	0.080	1.000

**Note:** For conservativeness, the lowest uplink 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.