RF Exposure Evaluation Report

APPLICANT	:	**Jorjin Technologies Inc.**
EQUIPMENT	:	**WiFi Module**
BRAND NAME	:	**Jorjin Technologies Inc.**
MODEL NAME	:	**WG1300-B0**
FCC ID	:	**WS2-WG1300B0**
STANDARD	:	**47 CFR Part 2.1091**

We, SPORTON INTERNATIONAL 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 INC., the test report shall not be reproduced except in full.

Reviewed by: Eric Huang / Deputy Manager

Approved by: Jones Tsai / Manager

Testing Laboratory
1190

SPORTON INTERNATIONAL INC.
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Revision History

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FA3N2754	Rev. 01	Initial issue of report	May 14, 2014

1. Administration Data

1.1. Testing Laboratory

Test Site	SPORTON INTERNATIONAL INC.
Test Site Location	No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C. TEL: +886-3-327-3456 FAX: +886-3-328-4978

1.2. Applicant

Company Name	Jorjin Technologies Inc.
Address	17F, No 239, Sec 1, Datong Road, Xizhi District, New Taipei City, Taiwan ROC

1.3. Manufacturer

Company Name	Jorjin Technologies Inc.
Address	17F, No.239, Sec. 1, Datong Rd, Xizhi Dist. New Taipei City 221, Taiwan. R.O.C.

2. Description of Equipment Under Test (EUT)

Product Feature & Specification	
EUT Type	WiFi Module
Brand Name	Jorjin Technologies Inc.
Model Name	WG1300-B0
FCC ID	WS2-WG1300B0
Wireless Technology and Frequency Range	WLAN 2.4GHz Band: 2412 MHz ~ 2462 MHz
Mode	• 802.11b/g
Antenna Type	Chip Antenna
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

Mode	2.4GHz Band
	IEEE 802.11 Average Power (dBm)
11b	17.0
11g	17.0

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/f2)	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/f2)	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. Power Density Calculations

Band	Frequency (MHz)	Antenna Gain (dBi)	Maximum Power (dBm)	Maximum EIRP (dBm)	Maximum EIRP (W)	Average EIRP (mW)	Power Density at 20cm (mW/cm2)	Limit (mW/cm2)
2.4GHz WLAN 802.11b	2412.0	2.5	17.0	19.500	0.089	89.125	0.018	1.000
2.4GHz WLAN 802.11g	2412.0	2.5	17.0	19.500	0.089	89.125	0.018	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.