RF Exposure Report

FCC ID: 2AC23- WT31M2311A

Product：WIFI Module

Trade Name：GSD

Model Number：WT31M2311A

Issued for

Hui Zhou Gaoshengda Technology Co.,LTD

NO.75 Zhongkai Development Area, Huizhou, Guangdong, China

Issued by

Shenzhen ATL Testing Technology Co., Ltd.

F/4, Building 10, Dayuan Industrial Zone, Xili Town, Nanshan District, Shenzhen, China

Tel.: +86-0755-26909822　Fax.: +86-0755-61605504
Website: www.atllab.org

1. MAXIMUM PERMISSIBLE EXPOSURE (MPE)

1.1 Standard Applicable

According to §1.1307(b)(1), system operating under the provisions of this section shall be operating in a manner that the public is not exposed to radio frequency energy level in excess limit for maximum permissible exposure.

(a) Limits for Occupational / Controlled Exposure

Frequency range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm^2)	Averaging Times $\|E\|^2$, $\|H\|^2$ or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	(900/f)*	6
30-300	61.4	0.163	1.0	6
300-1500	/	/	F/300	6
1500-100000	/	/	5	6

(b) Limits for General Population / Uncontrolled Exposure

Frequency range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm^2)	Averaging Times $\|E\|^2$, $\|H\|^2$ or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f)*	30
30-300	27.5	0.073	0.2	30
300-1500	/	/	F/1500	30
1500-100000	/	/	1	30

Note: f = frequency in MHz: * = Plane-wave equivalents power density

1.2 MPE Calculation Method

$S = (30*P*G) / (377*R^2)$

S = power density (in appropriate units, e.g., mw/cm^2)

P = power input to the antenna (in appropriate units, e.g., mw)

G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor is normally numeric gain.

R = distance to the center of radiation of the antenna (in appropriate units, e.g., cm)

1.3 MPE Calculation Result

Product Name: <u>WIFI Module</u>

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Maximum peak output power: <u>17.45 (dBm)</u>

Maximum peak output power at antenna input terminal: <u>55.6(mW)</u>

Prediction distance: <u>>20(cm)</u>

Prediction frequency: <u>5180 (MHz)</u>

Antenna gain: ANT1:<u>2.54 (dBi)</u>   ANT2:<u>3.91 (dBi)</u>

Directional gain: ANT1:<u>2.54 (dBi)</u>   ANT2:<u>3.91 (dBi)</u>

The worst case is power density at prediction frequency at 20cm: <u>0.043(mw/cm^2)</u>

MPE limit for general population exposure at prediction frequency: <u>1 (mw/cm^2)</u>

0.043 (mw/cm^2) < 1 (mw/cm^2)

Result: Pass