# **RF** Exposure Report

# FCC ID: 2AC23- WC0HR2601

**Product:** WIFI Module

Trade Name: GSD

**Model Number:** WC0HR2601

#### Issued for

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# 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 <sup>2</sup> )	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 <sup>2</sup> )	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<sup>2</sup>)

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

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Maximum peak output power: 18.74 (dBm)

Maximum peak output power. 18.74 (dbiii)

Maximum peak output power at antenna input terminal: 74.82 (mW)

Prediction distance: >20(cm)
Prediction frequency: 2412 (MHz)

Antenna gain: Ant1: 3 (dBi) Ant1: 3 (dBi)

Directional gain: Ant1: 3 (numeric) Ant2: 3 (numeric)

The worst case is power density at prediction frequency at 20cm: <u>0.0297(mw/cm<sup>2</sup>)</u> MPE limit for general population exposure at prediction frequency: <u>1 (mw/cm<sup>2</sup>)</u>

 $0.0297 \text{ (mw/cm}^2) < 1 \text{ (mw/cm}^2)$ 

Result: Pass