4.2 Radio Frequency Exprosure Compliance

4.2.1 Electromagnetic Fields

RESULT: **Passed**

Date of testing	:	2014-08-21
Test standard	:	FCC KDB Publication 447498 D01 General RF Exposure Guidance v05r02 FCC 1.1310

MPE Calculation
According to the formula

$$Pd = \frac{Pout * G}{4\pi R^2}$$

Where
Pd = power density in mW/cm2
Pout = output power to antenna in mW
G = Antenna gain in numeric
π = 3.14159
R = Distance between observation point and the center of radiator in cm

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user. Warning statement to the user for keeping the safety distance from the antenna should be included in the user manual.

The highest measured power including antenna gain is -7.04dBm(0.198mW), hence the Maximum Permissible Exposure (MPE) value:

$$Pd = \frac{Pout * G}{4\pi R^2} = \frac{0.198 \times 1}{4 \times 3.14159 \times 20^2} = 3.939 \times 10^{-5}\, mW/cm^2 < 1 mW/cm^2$$

Therefore the device is exclusion from SAR test, and compliance with MPE limit.