1 Safety Human Exposure

1.1 Radio Frequency Exposure Compliance

1.1.1 Electromagnetic Fields

RESULT: **Pass**

Test Specification

Test standard   :   CFR47 FCC Part 2: Section 2.1091
                                                CFR47 FCC Part 1: Section 1.1310
                                                FCC KDB Publication 447498 v06, section 7

> ➤ **FCC requirements**

FCC requirement: Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess limit for maximum permissible exposure. In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as a mobile device whereby a distance of 20cm normally can be maintained between the user and the device.

MPE Calculation Method according to KDB 447498 v06

Power Density: $S_{(mW/cm^2)} = PG/4\pi R^2$ or $EIRP/4\pi R^2$

Where:

S = power density (mW/cm^2)

P = power input to the antenna (mW)

G = power gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the center of radiation of the antenna (cm)

From the peak RF output power, the minimum mobile separation distance, d=20 cm, as well as the antenna gain (Max. 7dBi), the RF power density can be calculated as below:

$$S_{(mW/cm^2)} = PG/4\pi R^2$$

a) **EUT RF Exposure Evaluation operations, Worst Case mode**

Test Mode	Measured Peak Power (dBm)	Antenna Gain (dBi)	Measured e.i.r.p (dBm)	$S_{(mW/cm^2)} = PG/4\pi R^2$	Limit (mW/cm^2)
5GHz band Wi-Fi	21.26	7.0	28.26	0.133	1.0
2.4GHz band Wi-Fi	27.74	7.0	34.74	0.593	