

RF Exposure

Test Requirement: FCC 47CFR 15.247(i)
Test Date: 2017-3-14
Mode of Operation: Tx mode

Test Method:

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 levels in excess of the Commission's guidelines. This evaluation used FCC 47CFR 2.1091 to perform.

Test Results:

The EUT complied with the requirement(s) of this section.
EUT meets the requirements of these sections as proven through MPE calculation
The MPE calculation for EUT @ 20cm
Based on the highest P = 0.711 mW

The power tune up tolerance is -2.48 ± 1.0 dBm
Max. duty factor is 100%

$$\begin{aligned} P_d &= PG / 4\pi R^2 = (0.711 \times 1.0) / 12.566 \times (20)^2 \\ &= (0.711) / 12.566 \times 400 = 0.711 / 5026.4 \\ &= 0.000141 \text{ mW/cm}^2 \end{aligned}$$

where:

- *Pd = power density in mW/cm²
- * G = Antenna numeric gain (1.0); Log G = g/10 (g = 0dBi).
- * P = Conducted RF power to antenna (0.793 mW).
- * R = Minimum allowable distance.(20 cm)

- *The power density $P_d = 0.000141 \text{ mW/cm}^2$ is less than 1 mW/cm^2 (listed MPE limit)
- *The SAR evaluation is not needed (this is a desk top device, $R > 20 \text{ cm}$)
- * The EUT(antenna) must be 0.2 meters away from the General Population.