

RF Exposure

Test Requirement: FCC 47CFR 15.247(i)
Test Date: 2018-06-15
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 = 0.778 mW

The power tune up tolerance is -2.09±1.0dBm
Max. duty factor is 100%

$$\begin{aligned} P_d &= PG / 4\pi R^2 = (0.778 \times 0.63) / 12.566 \times (20)^2 \\ &= (0.49014) / 12.566 \times 400 = 0.19014 / 5026.4 \\ &= 0.0000975 \text{ mW/cm}^2 \end{aligned}$$

where:

- *Pd = power density in mW/cm²
- * G = Antenna numeric gain (0.63); Log G = g/10 (g = -2dBi).
- * P = Conducted RF power to antenna (0.778mW).
- * R = Minimum allowable distance.(20 cm)

- *The power density Pd = 0.0000975 mW/cm² is less than 1 mW/cm² (listed MPE limit)
- *The SAR evaluation is not needed (this is a desk top device, R> 20 cm)
- * The EUT(antenna) must be 0.2 meters away from the General Population.