

RF Exposure

Test Requirement: FCC 47CFR 15.247(i)
Test Date: 2020-12-10
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.

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 Tolerance Power =1.294 mW

$$\begin{aligned} P_d &= P_G / 4\pi R^2 = (1.294 \times 1) / 12.566 \times (20)^2 \\ &= (1.294) / 12.566 \times 400 = 1.294 / 5026.4 \\ &= 0.000257 \text{ mW/cm}^2 \end{aligned}$$

where:

* P_d = power density in mW/cm²

* G = Antenna numeric gain (1); $\text{Log } G = g/10$ ($g = 0\text{dBi}$).

*Tolerance Range(-0.5, 0.5)dB

* P = Conducted RF power to antenna (1.294mW).

* R = Minimum allowable distance.(20 cm)

*The power density $P_d = 0.000257 \text{ mW/cm}^2$ 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.