

MAXIMUM PERMISSIBLE EXPOSURE CALCULATIONS

Test Procedure for Maximum Permissible Exposure: Using the power measurements reported, the power density at a distance of 20 cm from the EUT must be calculated.

The power density at a distance d from an antenna can be calculated from the following equation:

$$s = \frac{P_{inc} G}{4\pi d^2}$$

where P_{inc} is the power incident to the antenna and G is the gain of the antenna. From the conducted power measurements previously reported, the maximum for all modes of operation is 26.23 dBm (419.76 mW). Given the gain of the antenna to be -1 dBi (0.794), the power density at a distance of 20 cm from the EUT is given by:

$$s = \frac{(419.76mW)(0.794)}{4\pi(20cm)^2} = \frac{0.0663mW}{cm^2}$$

It is expected that due to the nature of the EUT, the user will be located at least 20 cm from the EUT.

Criteria for Maximum Permissible Exposure: Per §1.1310 of the FCC Rules, the limit of radiation exposure for a device operating in the frequency range of 902 - 928 MHz under the Limits for General Population/Uncontrolled Exposure, the maximum power density is 0.61 mW/cm². The EUT was well below this value for separation distances of 20 cm or greater.