

Maximum Permissible Exposure

Applicable Standard According to §1.1307(b)(5), systems operating under the provisions of this section shall be operated in a manner that ensure that the public is not exposed to radio frequency energy level in excess of the Commission's guideline.

For 5G WIFI

- 1) The maximum output power for antenna 0 is 26.81dBm (479.73mW) at 5785MHz, (with 2 numeric antenna gain.)
- 2) The maximum output power for antenna 1 is 25.02dBm (317.69mW) at 5745MHz, (with 2 numeric antenna gain.)

Maximum Permissible Exposure

Antenna 0 output power=479.73mW,

Antenna 1 output power=317.69mW,

Numeric Antenna gain=2 Substituting the MPE safe distance using $d=20\text{cm}$ into above equation.

Yields:

$$S=0.000199*P*G$$

Where P =Power in mW G =Numeric

antenna gain S =Power density in
 $\frac{\text{mW}}{\text{cm}^2}$

Total Power density=0.19+0.13=0.32 mW/cm²

(For mobile or fixed location transmitters, the maximum power density is 1.0 mW/cm² even if the calculation indicates that the power density would be larger.)