

## 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=20cm into above equation.

Yields:

$$S=0.000199 \cdot P \cdot G$$

Where  $P$ =Power in mW  $G$ =Numeric

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

Total Power density=0.19+0.13=0.32 mW/cm<sup>2</sup>

(For mobile or fixed location transmitters, the maximum power density is 1.0 mW/cm<sup>2</sup> even if the calculation indicates that the power density would be larger.)