

Calculation and sample for Confirmation

The maximum measured power output(ERP) is 485 mW(28.86 dBm), the maximum antenna gain is 2 dBi.

The maximum permissible exposure is defined in 47 CFR 1.1310 with $f/1500$ mW/cm².

The transmitter is using indoor antennas that operate at 20 cm or more from nearby persons.

The maximum permitted level is calculated using the general equation:

$$S = P \cdot G / 4\pi R^2$$

$$\text{EIRP} = 26.86 + 2.15 = 29.01 \text{ dBm} = 796 \text{ mW}$$

$$R = 20 \text{ cm}$$

$$\pi = 3.1416$$

Solving for S, the power density at 20 cm is 0.158 mW/cm².

So The power density limit is $f/1500$ mW/cm² for CDMA800 is kept.