

Calculation and sample for Confirmation

The maximum measured power output is 1330 mW (1900MHz) /412mW (850MHz) , the maximum antenna gain is 2 dBi.

The maximum permissible exposure is defined in 47 CFR 1.1310 with 1 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:

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

$$P = 1330\text{mW (1900MHz) } 412 \text{ mW (850MHz)}$$

$$G = 2 \text{ dBi}$$

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

$$\pi = 3.1416$$

Solving for S, the power density at 20 cm is 0.569 mW/cm². (1900MHz) , the power density at 20 cm is 0.163 mW/cm². (850MHz)

So The power density limit is 1 mW/cm² for GSM1900 and f/1500 mW/cm² for GSM850 is kept.

Please contact us if you have any additional questions.

Best Regards

Morlab

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