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#### **MPE calculation GNADIA**

Dear Sirs,

The maximum measured power output is 2 W (33 dBm) for GSM850 and 0,332 W (25,21 dBm) for GSM1900. For end products it always has to be ensured that the minimum distance to the human body is 20 cm. The module therefore is specified as a mobile transmitter.

The lowest limit for 850 MHz mobile operations where no routine evaluation is required is 1,5 W ERP in accordance to FCC § 2.1091.

The calculated maximum antenna gain is as follows:

$$S = P \cdot G / 4\pi R^2, G = 10 \log 1500 \text{ mW} - 33 \text{ dBm} = -1,24 \text{ dBi}$$

The lowest limit for 1900 MHz mobile operations where no routine evaluation is required is 2 W EIRP in accordance to FCC § 24.232.

The calculated maximum antenna gain is as follows:

$$S = P \cdot G / 4\pi R^2, G = 10 \log 2000 \text{ mW} - 25,21 \text{ dBm} = 7,8 \text{ dBi}$$

The maximum gain of the antenna path (cable loss + antenna gain) shall not exceed the above mentioned values.

Please contact us if you have any additional questions.

Best Regards

