

## GPRS radiated power:

From GSM antenna Manufacturer:

"GSM antenna FXP-07 is a 0dBi gain omni-directional antenna.

It's an mono-pole antenna so the ground plane and surrounding material play important parts on its performance.

Please see the data sheet for more information.

Looking from the radiation pattern on the data sheet, the maximum gain in our test is 2dBi."

## Highest conducted power of Sierra GPRS card is:

824.2-848.8 MHz	31.96 dBm = 1.57 Watts (conducted)
1850.2-1909.8 MHz	29.54 dBm = 0.9 Watts (conducted)

Taking into account the maximum antenna gain 2 dBi = -0.15dBd

Part 22 ERP power at 824.2-848.8 MHz is:

$31.96 \text{ dBm} + (-0.15 \text{ dBd}) = 31.81 \text{ dBm} = 1.5 \text{ Watts ERP}$  (< part 22 ERP Limit: 38.5 dBm )

Part 24 EIRP power at 1850.2-1909.8 MHz is:

$29.54 \text{ dBm} + 2.0 \text{ dBi} = 31.54 \text{ dBm} = 1.4 \text{ Watts EIRP}$  (< part 24 EIRP Limit: 33 dBm )