EC/IO

The **EC/IO** is a measure of the quality/cleanliness of the signal from the tower to the modem and indicates the signal-to noise ratio (the ratio of the received/good energy to the interference/bad energy). It is measured in decibels (dB). In a perfect world, where there is no true interference, the interference level is equal to the noise level resulting in an EC/IO = 0 dB. Once the EC/IO is above ~ -7.0 dB, your connection is going to suffer.

There are several factors that can contribute to a higher EC/IO value, including florescent lighting, electric motors, equipment, power supplies, bad/poor cabling, trees, hills, buildings, walls, shorted connectors, inaccurate antenna alignment, wrong antenna polarization, congestion at the tower, etc.

More information on EC/IO values can be found in the 3G section of the Mobile Signal Strength Recommendations page.

EC/IO

EC/IO	Signal quality	Description
0 to -6	**Excellent**	Strong signal with maximum data speeds
-7 to -10	**Good**	Strong signal with good data speeds
-11 to -20	**Fair to poor**	Reliable data speeds may be attained, but marginal data with drop-outs is possible. When this value gets close to -20, performance will drop drastically