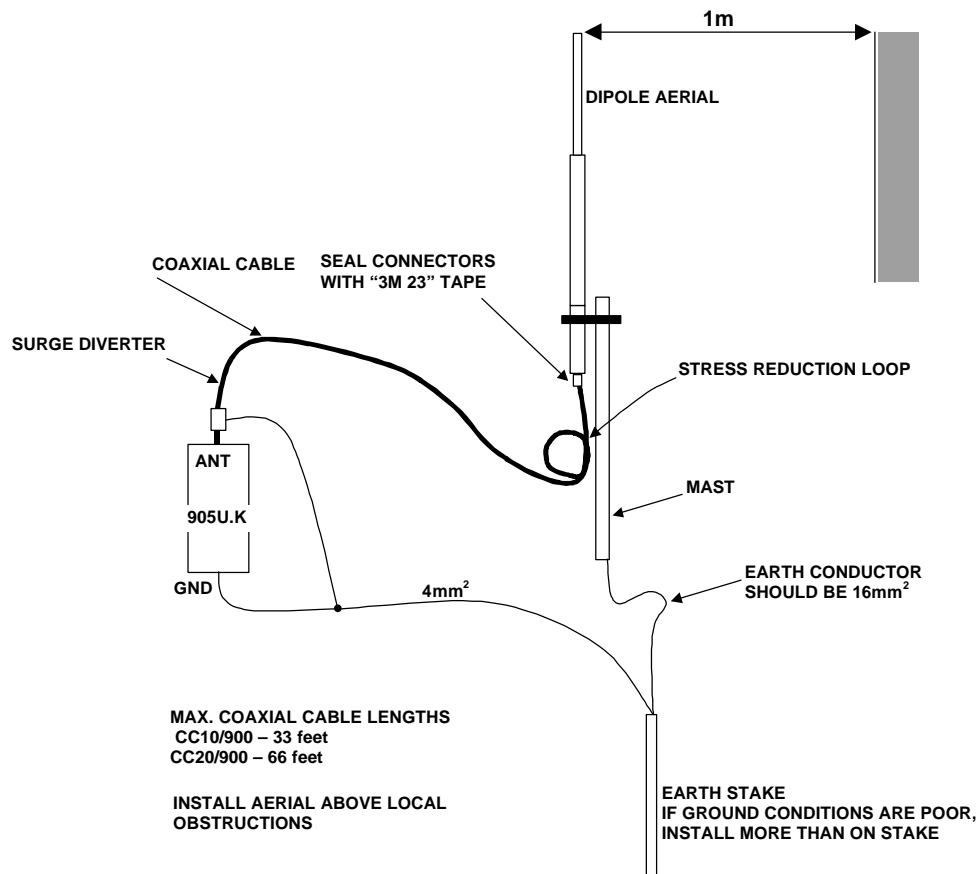


Dipole and Colinear antennas.

A unity gain dipole is the normal antenna for use on unlicensed channels. As it does not provide any gain, then the power transmitted from the antenna will be the same as the power out of the module. Dipole antennas are only available with a 15 feet of coaxial cable and SMA connector for mounting away from the 905U-K module. Dipole antennas should be mounted vertically, at least 1 metre away from a wall or mast.

For longer, more **marginal** radio paths higher gain colinear antennas can be used. These must be used with either CC10/900 or CC20/900 cable.



The 905U-K normally produces 1.0 Watt of radio power when an external DC power supply is used. FCC regulations allow this power may be boosted to a maximum 4.0W by using a higher gain antennas. These higher gain antennas may also be used to compensate for coaxial cable loss. The losses are 3dB for every 10m of RG58 cellfoil. If 10m of RG58 cable is used on a marginal radio path, then a higher gain antenna may be used to cancel the losses in the cable and boost the transmitted power back to the maximum level.

YAGI antenna.

YAGI antennas must only be used with a cable loss of 5dB or greater so the overall system gain is less than 6dB. So they should only be used with a CC20/900 cable.

YAGI antennas are directional. That is, they have positive gain to the front of the antenna, but negative gain in other directions. Hence YAGI antennas are normally installed with the central beam vertical and must be pointed in the direction of transmission to benefit from the