

## BiStar MR-101 RFID Reader

### Questions about antenna configuration

The basic reader has a built-in antenna which provides a pseudo-circular polarisation with a gain of approximately 5.2dBi. In some applications where it is necessary to read RFID backscatter tags which are in a load of items, for example: on a pallet, and where the tags could be in any orientation, a portal consisting of two antennas is established. The reader then fast switches between the two antennas using a changeover relay. The external antenna is the same antenna used on the reader itself, and is connected to the changeover switch in the reader by means of an RG214/u double screened coaxial cable.

The attached jpeg pictures illustrate a typical installation.

The extension antenna has the same gain and radiation pattern as the internal antenna. The radiated power however will be less due to the losses associated with the extension cable.