

Operational description.

## Product overview

This product is a Ethernet to RF transceiver.

The product consists of a custom IBM compatible computer with a network interface controller card(NIC) and a Agere ORINOCO radio transceiver installed in a PCMCIA port card. Attached to the RF output port is a up/down converter module to allow conversion to and from 5.6 GHz.

The RF card:

The unit uses multiple chipping codes and other special processes to achieve its high-speed rate. 1 Mb/s uses DBPSK, 2 Mb/s uses DQPSK, 5.5 Mb/s and 11Mb/s uses complementary code keying (CCK).

The oscillators employed are a VCO from 2060 to 2100MHz controlled by software, 704 MHz, and which when divided by 2 gives the 352 MHz an IF local oscillator.

The computer:

The CPU uses a 33MHz oscillator.

This unit contains all the necessary electronics to up/down convert the 5.6 GHz band to 2.4 GHz for use by the base unit. It is powered thru the coaxial cable using a mating DC inserter. The up/down converter uses a 3.3 GHz oscillator.