

RF500 General Description.

Control Board:

The RF module is mounted on the control PCB that provides the module with power and a coms interface the ITX small form factor motherboard COM port. The control board itself is designed to be the backup power supply for the PC in the event of a power cut, using the batteries it can keep the PC running for 5 hours before initiating the shutdown sequence.

The control board monitors the batteries, case temperature and detects whether mains is present or not and relays this information to a host application that runs on the PC via the USB port. In addition to this it controls the relay outputs, which in turn are controlled via the host application running on the PC.

The modem is connected to the internal COM port on the PC motherboard and is only supplied power via the control board and a coms interface. The modem is controlled by the host application running on the PC, and allows dial-up access

This board is all controlled by the Atmel Mega329 microprocessor that is battery backed up by a 3.6V Lithium Thionyl Chloride ½AA size cell.

PC:

The PC comprises of the ITX ML6000 motherboard running a 600MHz Eden processor and 256MB of 266MHZ RAM. It is supplied power via an off the shelf ITX power supply, which in turn is supplied power by the control PCB. Data is stored in a 40GB 2.5 inch hard disk.

This is used to run the host application which interprets the data and provides the website front end.

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SEE RF MODULE GENERAL DESCRIPTION.DOC