SYSTEM DESCRIPTION M5580M-FSU

The M5580M-FSU remote unit (RU) is a wireless point to point digital data transceiver which, when setup in a cell having at least one master unit (MU), functions as a wireless MAC layer Ethernet access solution.

Each RU communicates with a unique MU using 5.8 GHz spread spectrum or OFDM technology. Each unit accepts full or half duplex Ethernet IEE 802.3 data packets from a 10/100 Base T-port, breaks the packets into smaller packets and transmits them at 6 to 54 Mbits/sec rate using the ISL3692 Zero-IF modem. The modem formats the raw data into Orthogonal Frequency Division Multiplex (OFDM) symbols or spread spectrum CCK and sends the symbols to the power amplifier through a band-pass filter. The radio operates in a Time Division Duplex (TDD) mode.

The CPU and RF sections are clocked by the same 40 MHz oscillator. A 25 MHz oscillator clocks the Ethernet port. The switching regulator oscillators are about 1MHz. The entire PCB is shielded. The unit acts as a bridge and will transmit all packets it receives on its port.

The RU utilizes a dish antenna to achieve long range and a narrow radio beam-width or an internal antenna. The RF power level is fixed inside the unit but can be reduced by a remote web or telnet interface.

Firmware running on the RU manages the flow of information out to the Ethernet port. The firmware is loaded into the FLASH memory on the unit and runs when the unit is powered on.

Sincerely,

Achim Soelter

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