The NCAR PIRAQ card provides a digital IF and two Digital Signal Processors on a PCI card.

Each PIRAQ contains a flexible timing signal generator for generating arbitrary system timing sequences.

The four PIRAQ cards are housed in a PCI backplane extender chassis.

The NCAR Multiple Antenna Profiler Radar (MAPR) utilizes recent technology for improved system performance.

The 400W transmitter has been upgraded to 4KW.

The NCAR PIRAQ radar processing card, in a quad configuration, provides ideally matched IF filters, improved SNR and enhanced throughput.

Increased host processing power improves real-time data reduction and data product generation. MAPR computes and stores complete time-series and all cross-correlation functions at 100% throughput. Winds are computed in near real-time.

A component oriented software design facilitates system robustness and maintainability.