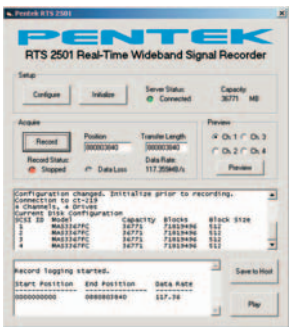
System RTS 2501

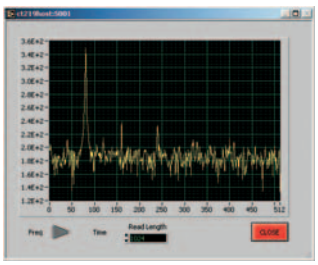
105 MHz A/D, Real-Time Signal Processor and Recorder Development Platform

SystemFlow API and Development Libraries

Features

- Highly scalable platform from 1 to 80 A/D Channels
- 14-bit, 105 MHz sampling
- Real-time recording to RAID or JBOD arrays up to 160 MBytes/sec
- 1 GHz G4 PowerPC
- Multiple Xilinx Virtex-II FPGAs
- Digital downconverters & optimized GateFlow FPGA DSP functions available
- Ethernet link to popular hosts: Linux or Windows
- Custom FPGA algorithm development platform
- High-speed interfaces available: FPDP, RACE++, Gigabit Ethernet
- 64-bit/66 MHz PMC site and VIM site
- Ideal for radar, wireless, SIGINT, telecom and satcom





For more information and a demo of the RTS 2501 system visit www.pentek.com.

General Information

The Pentek RTS 2501 is a highly-scalable real-time platform for acquiring, down-converting, processing, analyzing and recording radar signals. Integrating recently-introduced A/D converters, digital downconverters, FPGAs and signal processors, this system allows the design engineer to take advantage of the latest technology for signal processing.

Scalable from 1 to 80 channels in a single 6U VMEbus chassis, RTS 2501 serves equally well as a development platform for advanced research projects and proof-of-concept prototypes, or as a cost-effective strategy for deploying high-performance, multichannel embedded systems.

The RTS2501 is equipped with Model 4990 SystemFlow™ API and Development Libraries for an out-of-the-box, GUI-enabled recording system. This software can also be used as a system example for building new applications.

Scalable Subsystem

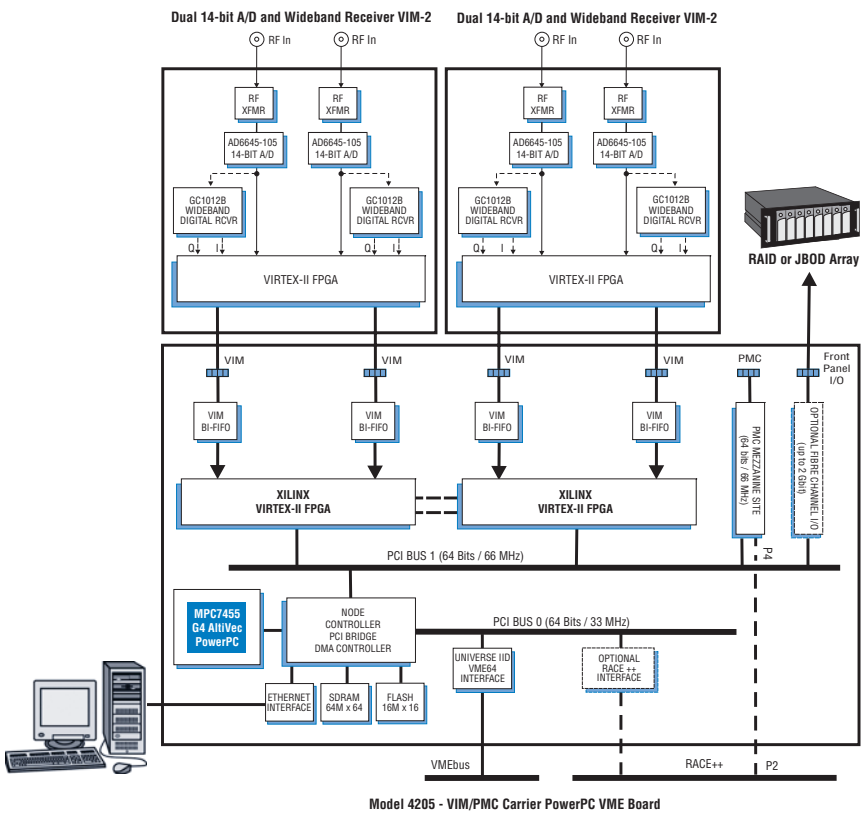
The heart of the RTS 2501 is the Pentek Model 4205 I/O Processor featuring a 1 GHz MPC7457 G4 PowerPC and two Xilinx Virtex-II FPGAs.

The PowerPC acts both as an executive for managing data transfer tasks and performing signal processing or formatting functions.

Built-in Fibre Channel and optional RACE++ interfaces provide excellent I/O connectivity without sacrificing any of the mezzanine sites. Standard RS-232 and 100 BaseT Ethernet ports allow the PowerPC to communicate with a wide range of host workstations for control and software development applications.

Attached to the 4205 I/O Processor are two Model 6236 Dual Channel A/D and Wideband Receiver VIM modules, each with two 14-bit 105 MHz A/D converters, two GC1012B wideband digital down-converters and a Virtex-II FPGA.

System RTS 2501: Scalable Modular Data Acquisition and Processing System



Model 4205 - VIM/PMC Carrier PowerPC VME Board

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