

New!

System RTS 2504

Real-Time Development Platform: 105 MHz A/Ds, Multiband Transceiver with FPGA Processing, Recording and Playback



Features

- Highly scalable platform from 2 to 40 transceiver channels
- 14-bit, 105 MHz A/Ds
- 16-bit, 500 MHz D/As
- Real-time recording and playback to JBOD arrays up to 160 Mbytes/sec
- 1 GHz G4 PowerPC
- Multiple Xilinx Virtex-II and Virtex-II Pro FPGAs
- Digital downconverters & optimized GateFlow FPGA DSP functions available
- Multiband decimation range from 2 to 1,048,576
- Ethernet link to popular Windows hosts
- Custom FPGA algorithm development platform
- SystemFlow™ API and development libraries
- SystemFlow File Manager
- Ideal for radar, wireless, SIGINT, telecom and satcom

Ordering Information

Model

RTS2504-001

Description

Real-Time Development Platform: 105 MHz A/Ds, Multiband Transceiver with FPGA Processing, Recording and Playback

Option Description

- 430 GateFlow 256-Channel Narrowband DDC Installed Core
- 421 GateFlow Wideband DDC Installed Core

More information on pentek.com

General Information

The Pentek RTS 2504 is a highly-scalable real-time platform for acquiring, downconverting, processing, analyzing, recording, playback and upconverting wideband signals. Integrating recently introduced A/D and D/A converters, digital downconverters and upconverters, FPGAs and signal processors, this system allows the design engineer to take advantage of the latest technology for signal processing.

Scalable from 2 to 40 transceiver channels in a single 6U VMEbus chassis, the RTS 2504 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 RTS 2504, when used with the Model 4990 SystemFlow™ API and Development Libraries, creates an out-of-the-box, GUI-enabled recording system. This software can also be used as a system example for building new applications. Included in SystemFlow is a File Manager for simplified storage and transfer of recorded data between the JBODs and the host computer.

Scalable Subsystem

The heart of the RTS 2504 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 interface provides 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 is a Model 7140 Dual Digital Up/Downconverter PMC/XMC Module with two 14-bit 105 MHz A/D converters, one GC4016 quad multiband digital downconverter, one DAC5686 dual D/A and upconverter, and a Virtex-II Pro FPGA. The Model 7140 provides a complete transceiver path for recording and playback of analog signals or for real-time processing and transmission of signals received by the A/Ds.

