

High-Speed Recording Systems

Talon® High-Speed Recording Systems eliminate the time and risk associated with new technology system development. With increasing pressure in both the defense and commercial arenas to get to the market first, today's system engineers are looking for more complete off-the-shelf system offerings. Out of the box, these systems arrive complete with a full-featured virtual operator control panel ready for immediate data recording and/or playback operation.

Ready-to-Run Recording Systems

The Pentek offerings are fully integrated systems featuring a range of A/D and D/A resources or digital I/O with high-speed disk arrays. These systems are built on a Windows workstation. Users can easily install post-processing and analysis tools to operate on the recorded data. The recorded files are stored in the native Windows NTFS format, allowing them to be immediately used without the need for post-recording file conversion.

Systems For All Your Recording Needs

RTS Lab Systems are housed in a 19-in. rack-mountable chassis in a PC server configuration. They are designed for commercial applications in a lab or office environment

RTV Lab Systems are also designed for commercial applications in a lab or office environment. They provide outstanding performance for under \$20,000 US.

RTR Rugged Portable Systems are available in small briefcase-sized enclosures with integral LCD display and keyboard and weigh less than 30 lbs. They are designed for harsh environment field applications where size and weight is of paramount importance.

RTR Rugged Rackmount Systems are built to survive shock and vibration and they target operation in harsh environments and remote locations that may be unsuitable for humans.

RTX Extreme Systems are available in a 1/2 ATR chassis and are designed to operate to military specifications and under extreme environmental conditions.



RTR Rugged Portable System



RTR Rugged Rackmount System



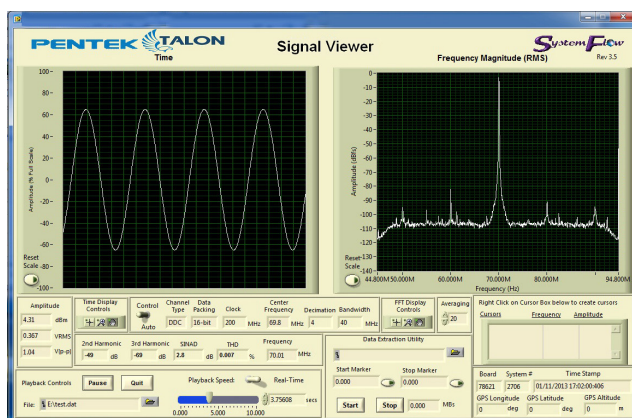
RTX Extreme 1/2 ATR Portable System

SENTINEL

Sentinel™ Recorders add intelligent signal scanning with signal monitoring and detection for Talon real-time recording systems. Users can scan the entire available spectrum or select a region of interest. Selectable-resolution bandwidth allows for the trading of sweep rate for a finer resolution and better dynamic range. RF energy in each band of the scan is detected and presented in a waterfall display. Any RF band can be selected for real-time monitoring or recording. The Sentinel hardware resources are controlled through enhancements to Talon's SystemFlow® software package.



QuickPac Compatible



SystemFlow

SystemFlow Signal Viewer

The SystemFlow Signal Viewer includes a virtual oscilloscope and a virtual spectrum analyzer for signal monitoring in both the time and frequency domains. You can download and install the free SystemFlow Simulator to your desktop or laptop PC.



<https://www.pentek.com/systemflow/systemflow.cfm#SystemFlowSimulator>

ARCHITEK

The Architek™ FPGA Development Suite allows FPGA design engineers to add custom IP to a number of Pentek's Talon recording systems. FPGA IP can be added to the recorder to provide real-time, on-the-fly digital signal processing during the data acquisition process, greatly reducing the time associated with post-processing recorded data. Architek provides a simple development environment that allows engineers to add FPGA IP such as threshold detection, spectral filtering, digital downconversion, demodulation or any other digital signal processing technique required.

PRODUCT FOCUS:

Model 2654 - 26.5 GHz Sentinel Intelligent Signal Scanner

- Search and capture system using Pentek's Sentinel™ Intelligent Signal Scanner
- Captures RF signals from 800 MHz to 26.5 GHz
- Capture and scan bandwidths up to 500 MHz
- Selectable threshold triggered or manual record modes
- 12 bit A/Ds with 57.5 dB SNR & 72 dB SFDR
- Built-in DDC with selectable decimations of 4, 8, and 16
- 4U chassis with front panel removable SSDs
- Storage capacities to 245 TB
- RAID levels 0, 5, and 6
- Windows® workstation with Intel Core™ i7 processor
- SystemFlow® GUI with virtual oscilloscope, spectrum analyzer and spectrogram displays



Model 2684 - 26 GHz Sentinel Intelligent Signal Scanner

- Search and capture system using Pentek's Sentinel™ Intelligent Signal Scanner
- Captures RF signals from 1 GHz to 26 GHz
- Capture and scan bandwidths up to 500 MHz
- Selectable threshold triggered or manual record modes
- 12 bit A/Ds with 57.5 dB SNR & 72 dB SFDR
- Built-in DDC with selectable decimations of 4, 8, and 16
- Rugged 1/2 ATR MIL-spec chassis for harsh mechanical and thermal environments
- Environmentally sealed
- Internally conduction-cooled
- Fully sealed for RF emissions with EMI power line filter
- MIL-STD circular connectors
- Compact and lightweight: about 23 lb (10.4 kg)
- QuickPac® drive packs allow quick removal of all data storage via the front panel
- Ideal for UAVs, military vehicles, aircraft pods and outdoor environments
- Sustained real-time record rates up to 4 GB/s
- 12 to 28 VDC power supply
- Optional GPS receiver for precise time and position stamping
- SystemFlow GUI, SystemFlow API, and Signal Viewer analysis tools
- Optional telnet remote connection to recorder

