

New!

Model RTR 2755

Two-Channel Ten-Gigabit Ethernet Rugged Rackmount Recorder



Features

- Designed to operate under conditions of shock and vibration
- Records ten-gigabit Ethernet streams
- One or two channels
- TCP and UDP protocols
- Copper or optical 10 GbE interfaces
- Aggregate recording rates to 2 GB/sec
- Removable SSD drives
- 4U short 19-inch rugged rackmount PC server chassis
- Windows® 7 Professional workstation with high-performance Intel® Core™ i7 processor
- Up to 12 terabytes of storage to NTFS RAID solid state disk array
- RAID levels of 0, 1, 5, 6, 10 and 50
- SystemFlow® GUI virtual instrumentation panel for fast, intuitive operation
- C-callable API for integration of recorder into applications
- File headers include time stamping and recording parameters
- Optional GPS time and position stamping

Contact factory for options, number of channels, recording rates, and disk capacity.

General Information

The Talon® RTR 2755 is a complete turn-key recording system for storing one or two ten-gigabit Ethernet (10 GbE) streams. It is ideal for capturing any type of streaming sources including live transfers from sensors or data from other computers and supports both TCP and UDP protocols.

Using highly-optimized disk storage technology, the system guarantees loss-free performance at aggregate recording rates up to 2 GB/sec.

Two rear panel SFP+ LC connectors for 850 nm multi-mode or single-mode fibre cables, or CX4 connectors for copper twinax cables accommodate all popular 10 GbE interfaces.

Optional GPS time and position stamping accurately identifies each record in the file header.

SystemFlow Software

The RTR 2755 includes the SystemFlow Recording Software. SystemFlow features a Windows-based GUI (Graphical User Interface) that provides a simple and intuitive means to configure and control the system.

Custom configurations can be stored as profiles and later loaded as needed, allowing the user to select preconfigured settings with a single click.

Built on a server-class Windows 7 Professional workstation, the RTR 2755 allows the

user to install post-processing and analysis tools to operate on the recorded data.

The RTR 2755 records data to the native NTFS file system, providing immediate access to the recorded data.

Data can be off-loaded via two gigabit Ethernet ports or six USB 2.0 ports. Additionally, data can be copied to optical disk, using the 8X double layer DVD±R/RW drive.

Rugged and Flexible Architecture

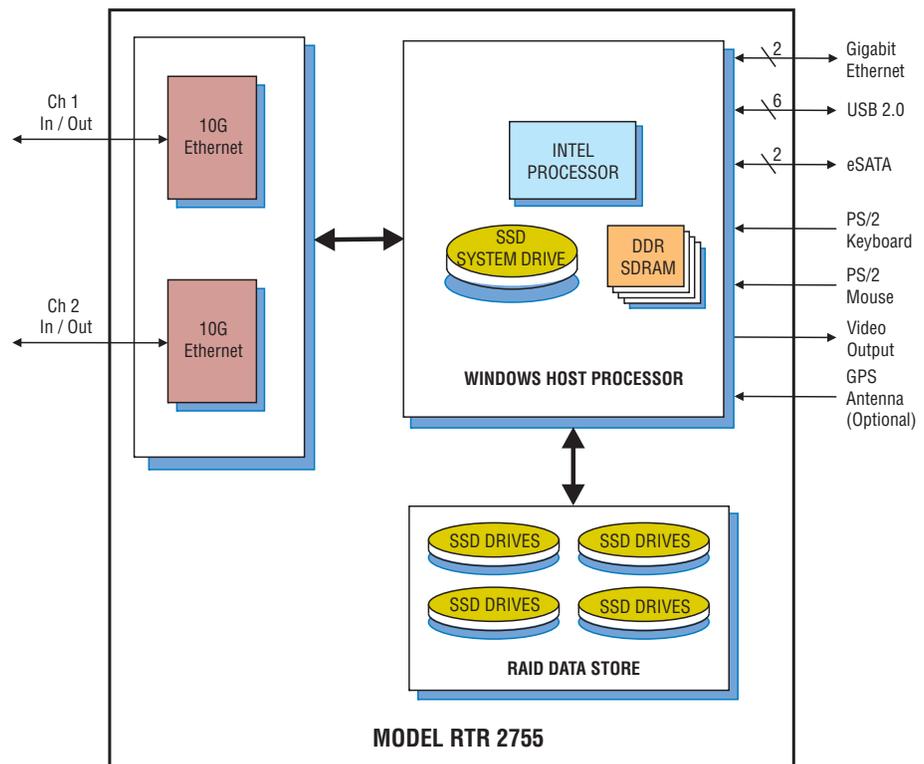
Because SSDs operate reliably under conditions of shock and vibration, the RTR 2755 performs well in ground, shipborne and airborne environments. The 24 hot-swappable SSDs provide storage capacity of up to 12 TB. The drives can be easily removed or exchanged during or after a mission to retrieve recorded data.

The RTR 2755 is configured in a 4U 19" rack-mountable chassis, with hot-swap data drives, front panel USB ports and I/O connectors on the rear panel.

Systems are scalable to accommodate multiple chassis to increase channel counts and aggregate data rates.

All recorder chassis are connected via Ethernet and can be controlled from a single GUI either locally or from a remote PC.

Multiple RAID levels, including 0, 1, 5, 6, 10 and 50, provide a choice for the required level of redundancy. ➤



► **SystemFlow Graphical User Interface**

The RTR 2755 GUI provides the user with a control interface for the recording system. It includes Configuration, Record, Playback, and Status screens, each with intuitive controls and indicators.

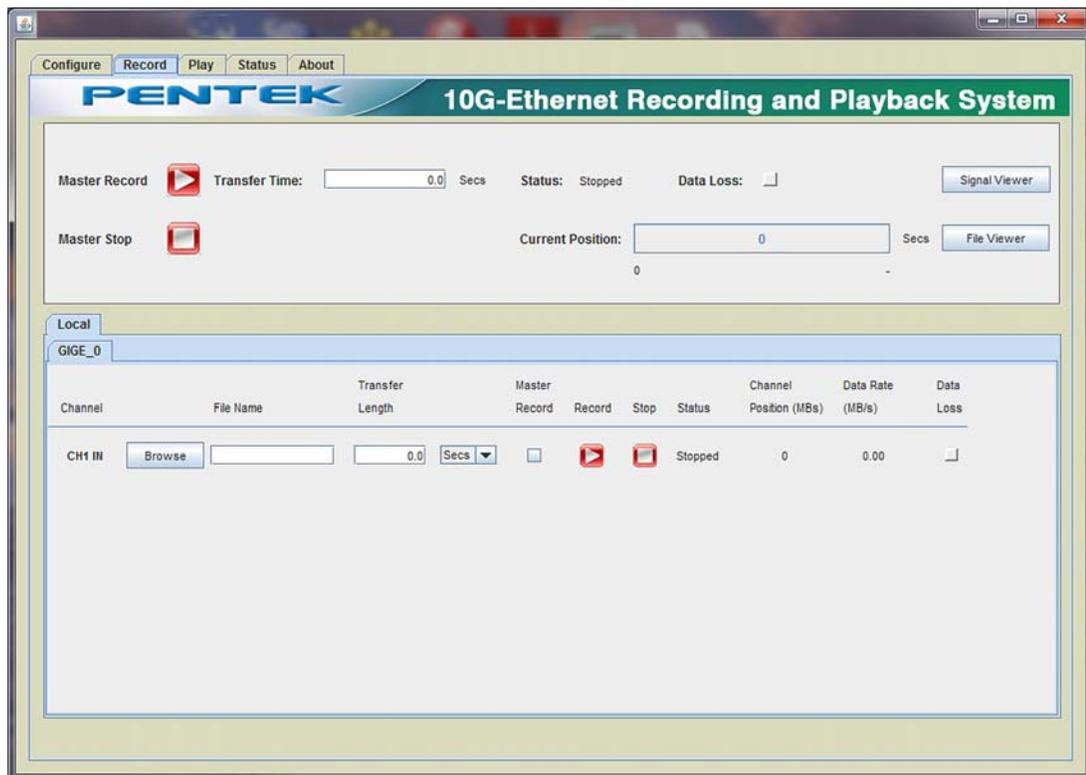
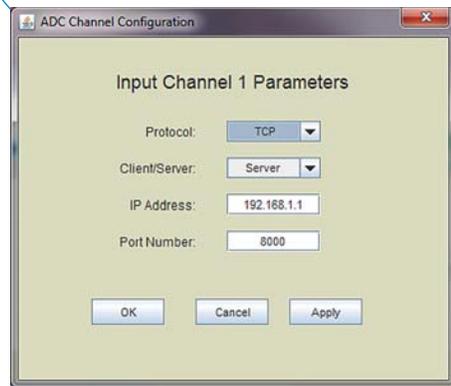
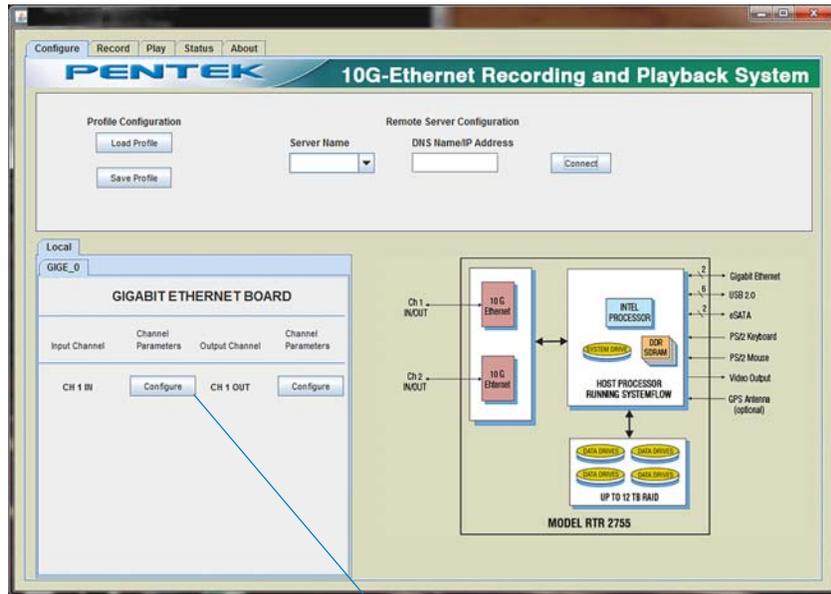
The user can easily move between screens to set configuration parameters, control and monitor a recording, and play back a recorded stream.

All parameters contain limit-checking and integrated help to provide an easier-to-use out-of-the-box experience.

The **Configure Screen** shows a block diagram of the system, and presents operational system parameters including temperature and voltages. Parameters are entered for each input or output channel specifying UDP or TCP protocol, client or server connection, the IP address and port number.

The **Record Screen** allows you to browse a folder and enter a file name for the recording. The length of the recording for each channel can be specified in megabytes or in seconds. Intuitive buttons for Record, Pause and Stop simplify operation. Status indicators for each channel display the mode, the number of recorded bytes, and the average data rate. A Data Loss indicator alerts the user to any problem, such as a disk full condition.

By checking the Master Record boxes, any combination of channels in the lower screen can be grouped for synchronous recording via the upper Master Record screen. The recording time can be specified, and monitoring functions inform the operator of recording progress. ►



► SystemFlow API

SystemFlow includes a complete API (Application Programming Interface) supporting control and status queries of all operations of the RTR 2755 from a custom application.

High-level C-language function calls and the supporting device drivers allow users to incorporate the RTR 2755 as a high-performance server front end to a larger system. This is supported using a socket interface through the Ethernet port, either to a local host or through an internet link for remote, stand-alone acquisition. Recorded NTFS files can be easily retrieved through the same connection.

Specifications

PC Workstation

Operating System: Windows 7 Professional

Processor: Intel Core i7 processor

Clock Speed: 2.0 GHz or higher

SDRAM: 6 GB

RAID

Storage: 6–12 TB

Drive Type: Solid state drive

Number of Drives: 12–24

Supported Levels: 0, 1, 5, 6, 10 and 50

Ten-Gigabit Ethernet Interface

Copper - Option 280

Quantity: 2 ports

Cable: Twinax copper

Connector Type: CX4

Max. Cable Length: 15 m

Multi-mode Fibre Optical - Option 281

Quantity: 2 ports

Cable: Multi-mode fibre, 850 nm

Connector Type: LC

Max. Cable Length: Up to 300 m

Single-mode Fibre Optical - Option 282

Quantity: 2 ports

Cable: Single-mode fibre

Connector Type: LC

Max Cable Length: Up to 10 km

Physical and Environmental

Dimensions

4U Short Chassis: 19" W x 21" D x 7" H

Weight: 50 lb, approx.

Operating Temp: 0° to +50° C

Storage Temp: -40° to +85° C

Relative Humidity: 5 to 95%, non-condensing

Operating Shock: 15 g max. (11 msec, half sine wave)

Operating Vibration: 10 to 20 Hz: 0.02 inch peak,

20 to 500 Hz: 1.4 g peak acceleration

Power Requirements: 100 to 240 VAC, 50 to 60 Hz, 500 W max.

Model RTR 2755 Ordering Information and Options

Option 201 - Single Channel 10 GbE Recorders

Option 201-240 Storage capacity: 6 TB
12 ea. 512 GB, 2.5" solid state drives
4U short chassis



Option 202 - Dual Channel 10 GbE Recorders

Option 202-241 Storage capacity: 12 TB
24 ea. 512 GB, 2.5" solid state drives
4U short chassis

10 GbE Interface (append to all previous options)

Option 280 Copper, CX4 connectors
Option 281 Multi-mode optical, LC connectors
Option 282 Single-mode optical, LC connectors

General Options (append to all previous options)

Option 261 GPS time & position stamping

Contact Pentek for other configurations

Specifications are subject to change without notice