



Features

- Housed in a small chassis measuring 5.25" H x 8.5" W x 14" D
- Weighs 17 lb (7.7 kg)
- Shock and vibration-resistant SSDs perform well in vehicles, ships and aircraft
- Records gigabit, 10-gigabit or 40-gigabit Ethernet streams
- TCP and UDP protocols
- Copper or optical interfaces
- Aggregate recording rates to 4.0 GB/sec
- Up to 30 terabytes of storage to NTFS RAIDdisk array
- RAID levels of 0, 5 and 6
- 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
- Windows® 7 Professional workstation with high-performance Intel® Core™ i7 processor

General Information

Optimized for SWaP (size, weight and power) the Pentek Talon® RTR Small Form Factor (SFF) product line provides the performance and storage capacity previously only possible in much larger rackmountable chassis. Measuring 5.25" H x 8.5" W x 14" D and weighing only 17 pounds (7.7 kg), this small package can hold up to 30.6 TB of SSD storage.

The Talon® RTR 2555 is a complete turn-key recording and playback system for storing 1-, 10- and 40-gigabit Ethernet 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.

An ATX power supply accepts 110-240 VAC, drawing under 150 W and typically around 100 W. These models have the option for a 6-30 VDC power supply.

Eight front panel data drives can be easily removed along with a front panel removable OS drive to allow all non-volatile memory to be removed from the system in seconds.

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

SystemFlow Software

The RTR 2555 includes the SystemFlow Recording Software. SystemFlow features a Windows-based GUI (Graphical User Interface) that provides a simple means to configure and control the system.

Custom configurations can be stored as profiles and later loaded when needed,

allowing the user to select preconfigured settings with a single click.

Built on a Windows 7 Professional workstation, the RTR 2555 allows the user to install post-processing and analysis tools to operate on the recorded data.

The RTR 2555 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 ports. Additionally, data can be copied to optical disk using the 8X double layer DVD±R/RW drive.

Rugged and Flexible Architecture

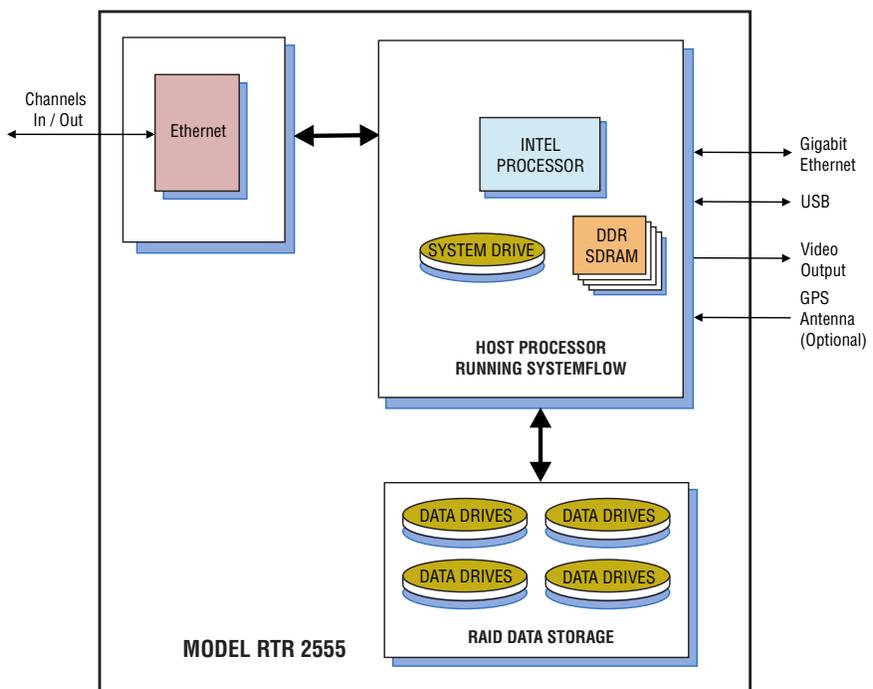
Because SSDs operate reliably under conditions of shock and vibration, the RTR 2555 performs well in ground, shipborne and airborne environments.

Configurable with hot-swappable SSDs, the RTR 2555 can provide storage capacities of up to 30.6 TB in a rugged chassis. Drives can be easily removed or exchanged during or after a mission to retrieve recorded data.

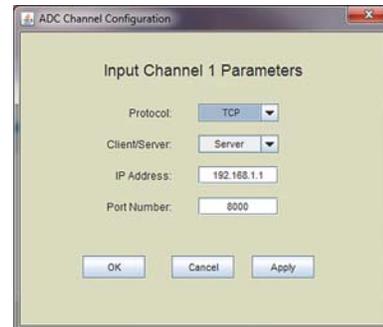
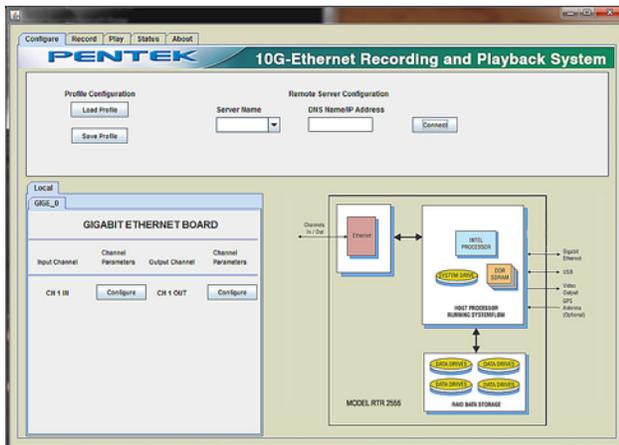
The RTR 2555 is configured with hot-swap data drives, front panel USB ports and I/O connectors on the rear panel. Systems are scalable to accommodate multiple chassis to increase channel counts and aggregate data rates.

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, 5 and 6 provide a choice for the required level of redundancy. ▶



► SystemFlow Graphical User Interface

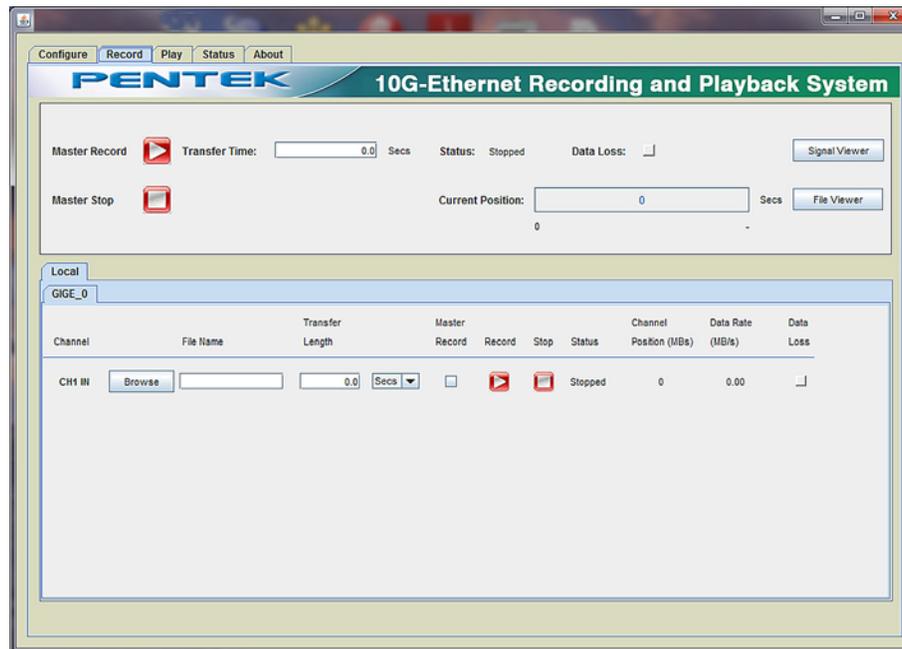


SystemFlow Main Interface

The RTR 2555 GUI shows a block diagram of the system and provides the user with a control interface for the recording system. It includes Configure, Record, Playback, and Status screens, each with intuitive controls and indicators. The user can easily move between screens to configure parameters, control and monitor a recording, and play back a recorded stream.

SystemFlow Hardware Configuration Interface

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



SystemFlow Record Interface

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 2555 from a custom application.

High-level C-language function calls and the supporting device drivers allow users to incorporate the RTR 2555 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 (standard configuration)

Operating System: Windows workstation

Processor: Intel i7 7700K (7th Gen) quad core processor

Clock Speed: 4.2 GHz

Operating System Drive: 250 GB SSD

SDRAM: 8 standard, 16 or 32 GB optional

RAID

Total Storage: 3.8 TB – 30.6 TB

Supported RAID Levels: 0, 5 and 6

Drive Bays: Hot-swap, removable, front panel

Rear Panel I/O

Four USB 3.0 ports

Two Gigabit RJ45 ports

Two HDMI and One DVI ports

Audio and PS2 ports

USB 3.0 Type-C port

Two Wi-Fi antenna ports

Front Panel I/O

Two USB 2.0 ports

Power and recessed RESET buttons

LED indicators for power and HDD access

Physical and Environmental

Size: 5.25" H x 8.5" W x 14.0" D

Weight: 17 lb (7.7 kg)

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, 150 W max.

Model RTR 2555 Ordering Information and Options

Ethernet Interface Options

Option -101	Gigabit Ethernet
Option -102	10-Gigabit Ethernet
Option -103	40-Gigabit Ethernet

Channel Configuration

Option -201	1-Ethernet port
Option -202	2-Ethernet ports
Option -204	4-Ethernet ports

Ethernet Connector Options

Option -280	SFP+ connectors
Option -281	Multi-mode optical, LC connectors
Option -282	Single-mode optical, LC connectors
Option -284	RJ45 connectors

Storage Options

Option -410	3.8 TB SSD storage
Option -415	7.6 TB SSD storage
Option -420	15.3 TB SSD storage
Option -430	30.6 TB SSD storage

General Options

Option -261	GPS Time and Position Stamping
Option -285	Raid 5 Configuration
Option -286	Raid 6 Configuration
Option -309	16 GB System Memory
Option -310	32 GB System Memory
Option -630	6 to 30 VDC Power Supply

Contact Pentek for other configurations

Storage and Channel-count Options may change, contact Pentek for the latest information

Specifications are subject to change without notice