# High-Speed, Real-Time Recording Instrument for Extremely Wide Bandwidth Signals

Pentek's new Model RTS 2711 Real-Time Data Recording Instrument is a ready-to-run, PC-based recorder which includes a complete PC workstation running Windows XP, housed in a rack-mount 4U chassis. It's extremely high-speed architecture allows simultaneous digitizing and recording of two signals at sampling rates of 500 Megasamples/sec.

Since the system handles input signal frequencies up to 750 MHz, it is well suited for development and field testing in a broad range of wideband signal applications including UAVs, telemetry, communication and radar.

The RTS 2711 is the fastest and widest bandwidth recording instrument ever offered by Pentek, doubling the aggregate recording rate and quadrupling the attainable bandwidth of previous RTS systems.

"The fact that we have two channels running simultaneously and synchronously at this speed in a single housing is quite remarkable," said Rodger Hosking, vice president of Pentek.

"These two 500 Megasamples/sec channels deliver an aggregate, sustained real-time rate of 1 Gigasample/sec to disk--from the time the recording starts until the disks are full."

In addition to its unusually high data rates, the Model RTS 2711 has exceptional storage capacity with a total of 4 terabytes of RAID storage to record arriving signals. The storage is actually configured as two 2-terabyte arrays with each of the arrays assigned to one of the A/D channels. All data is stored on high-performance, removable hot-swap SATA drives, accessible from the front panel.

"With regard to recording time, with each of the two channels running at its full rate of 500 Megasamples/sec, our customers can record signals continuously for an hour," said Chris Tojeira, product manager, Pentek. "And because the Model 2711 is a complete turn-key instrument, customers don't need to do any programming or write any software--they can start recording immediately."

What sets the Pentek RTS 2711 apart from competing recording instruments is that it records data directly in NTFS (new technology file system) format. This means that as soon as recordings are laid down on the RAID array hard disks, they are immediately available to any Windows application for analysis or post-processing.

**Source URL (retrieved on *03/11/2014 - 10:58am*):**
http://www.wirelessdesignmag.com/product-releases/2010/03/high-speed-real-time-recording-instrument-extremely-wide-bandwidth-signals?qt-most_popular=0