

Ultra-Fast and Scalable Record and Playback System for Playing Back Multiple Wideband Radio Signals

D-TA Systems Inc. has released its 10G Series Record & Playback systems for synchronous (phase-coherent) record and playback of radio signals from multiple antennas. A 10G system is comprised of the DTA-2300, a 10 Gigabit network attached Digital IF Transceiver (software radio, up to 16 Channels), and one or more DTA-5000(s) server based disk storage system.

The DTA-2300 offers 16-bit precision and supports sample rates up to 130 MSPS. In the record mode, the IF signals are digitally down converted to baseband and stored as complex (I & Q) signals. The IF and BW (FIR filter decimation) are programmable. In the playback mode the baseband signals are up converted to desired IF(s). The DTA-2300 provides four (4) 10 Gigabit links, one for each group of 4 channels. One DTA-5000 system is used for each 10 Gigabit link. A 16-channel system can offer a sustained throughput rate close to 3 GBytes/s and a storage capacity of over 38 Terabytes.

The 10G series systems come fully integrated and are typically shipped in a rugged, portable rack for immediate deployment. A comprehensive GUI controls all system components and provides failsafe operation. For data quality check during record and playback, snapshots of Time series, FFT or Waterfall displays of the data are provided.

“The 10G System is scaleable to virtually any number of input and output channels and it is a ready to run unit and the user needs to only connect his/her PC (for running the GUI) and start recording,” said Angsuman Rudra, CEO of D-TA Systems. “There are no added costs for system integration, testing and debugging, which drastically cut down the deployment time and cost.”

Source URL (retrieved on 05/22/2015 - 3:13pm):

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