

DTA-5000: Configurable Data Recorder

The DTA-5000 is a powerful network based signal recording and playback system matched to the DTA-2210 and DTA-2300 IF transceivers. Based on a flexible software architecture, the DTA-5000 can be easily configured to match your specific signal recording and playback requirements.

The DTA-5000 offers unsurpassed scalability and performance with speeds of over 800 Mbytes/sec per recorder unit, and storage capacities of 18 to 96 Terabytes per recorder. Multiple recorders can be linked together for synchronous operation from a single command and control interface.



Network Interfaces

The DTA-5000 is capable of transferring data to and from a DTA-2210 or DTA-2300 unit over 10 Gigabit or Gigabit Ethernet Interfaces. Complete command and control of all attached DTA transceiver units is available through the recorder.

Data Recording

Data is recorded to an array of inexpensive SATA-II disks. The DTA-5000 uses a standard file system and data is recorded in files of manageable size. Each file holds 0.5 seconds of contiguous data. Each data file includes a header that contains all information pertaining to the collected data. The DTA-5000 supports MARTES file headers.

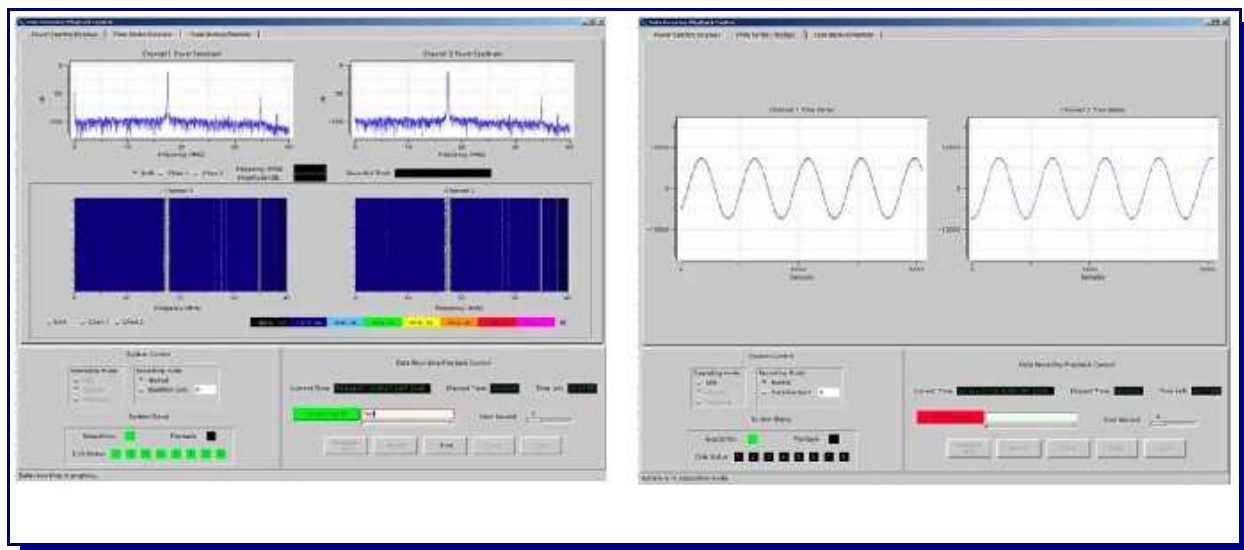
Recordings are identified by a user supplied Run ID. Recorded file names are based on this Run ID. The DTA-5000 system maintains a table of contents of all runs on the disk array and supports the selective erasing of unwanted data. Disk capacity freed up by erasing runs is returned to the available pool.

Recorded data can be accessed over the network using a variety of mechanisms including smb (Windows Workgroup Server), NFS (Network File System), the Unix remote copy or ftp.

System Command and Control

The DTA-5000 supports a powerful, networkable GUI-based command and control interface. The GUI provides complete record and playback control as well as control of the attached D-TA transceiver unit. The GUI also provides complete system status including network connections, signal acquisition or playback status, disk capacity used and available, elapsed times for a given run, a table of contents of runs on disk etc.

The DTA-5000 also provides a periodic power spectrum and time series display of the acquired signals during both recording and playback. This gives the operator the ability to gauge the fidelity of the signals being recorded or played back.



The DTA-5000 also supports a socket-based interface for complete control of all system functions. A well-defined message interface allows the unit to be controlled from a user application running on some other networked machine.

Record and Playback Modes

The DTA-5000 supports a wide range of record and playback modes that allow the system to be adapted to a variety of applications. Recording can be started or the system can be set up to start recording at a pre-programmed time. Recording can be stopped manually or the system can be configured to record for a pre-assigned amount of time.

During playback the DTA-5000 supports start, stop, pause, fast forward and rewind. The DTA-5000 also supports loop mode playback. The user defines the begin and end times and the system will continuously loop over that segment of a run.

System Scalability

A single DTA-5000 can be scaled up to support a total of 48 SATA-II drives for a total capacity of up to 96 TBytes. Additional storage capacity can be added as an extra option. Multiple DTA-5000 recorders can be linked together for synchronous operation from a single command and control interface.

Features:

- 10GbE Network interface
 - 800 MBytes/sec continuous and sustained recording speed
 - 18TB of storage upgradable to 96TB
 - Recording Duration: 5 hours at 800 Mbytes/sec and base-line disk array (18 TB)
 - Unsurpassed scalability and synchronization of multiple recorders
 - Configurable to meet specific user's requirements (contact factory for details)
 - Seamless operation with DTA-2210 or the DTA-2300 for interfacing to digital IF and the DTA-4100 or the DTA-4100L for interfacing to acoustic / sonar signals.
 - Command and Control: Networked or local GUI and socket interface
 - 19" enclosure, 4U high, 20" deep
 - 110V/220V AC power
- Optional**
- GPS or IRIG B time stamping and synchronization
 - Voice annotation
 - Archiving to LTO-3 or LTO-4 Tape
 - Extended Storage Capacity
 - Multiple Unit synchronization
 - Integrated with application coding

Customization

The DTA-5000 is built around a powerful multi-threaded software architecture. This allows for the easy addition of custom functionality, whether it be in terms of recording and playback modes or extra signal processing. You never have to adapt your application to include a DTA-5000. We will adapt the DTA-5000 to suit your applications requirements. Please contact factory (sales@d-ta.com) for more information.

Seamless Integration with RF, IF and Acoustic Platforms

The DTA-5000 is designed to offer seamless operation with the DTA-2300 and the DTA-2210 digital IF transceivers as well as the DTA-4100 and the DTA-4100L acoustic platforms. When combined with the DTA-3200 RF to IF up and downconverter family, sustained and continuous recording and playback of RF signals up to 6GHz is greatly simplified. The DTA-4100 and the DTA-4100L platforms have integrated signal conditioning built in for easily interfacing to real life acoustic and sonar signals.

Ordering Information

DTA-5000-0000: DTA-5000 with standard configuration of 18 TB of storage.

Contact factory for customization options and custom design services.

Contact Information

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