

**System Configuration**

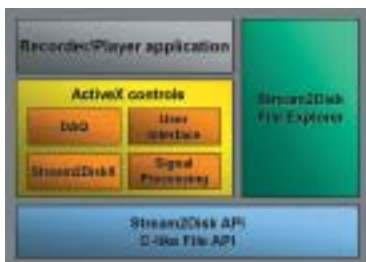
The DAQStreaming high-speed data recorder delivers a highly integrated system in a durable lunchbox-style portable case. It comes with a 14.1" TFT LCD panel and built-in keyboard/touchpad as well as an advanced single board computer providing Pentium 4 1.6GHz computing power. In addition, a variety of peripherals are integrated into this system, including system drive, CD-ROM, 10/100 Mbps Ethernet, USB ports, etc. This makes DAQStreaming an ideal data recording system for both laboratory and field-use.



DAQStreaming for the PXI platform is also available.

**Software Architecture**

Software is the core of DAQStreaming since the 40MB/s data throughput is achieved by programming precise DMA operations and direct access to sectors of SCSI drives. In the DAQStreaming, we define a proprietary file system to avoid the overhead brought by Windows file system and to efficiently handle acquired data. We designed a complete software architecture to allow users to easily record/review data using the recorder/player application, or write a customized application using the provided API and ActiveX controls.



**Stream2Disk API**

The Stream2Disk is a set of C-like file APIs to handle files in the DAQStreaming file system. Names and parameters of functions in the Stream2Disk API are similar to standard ANSI C file I/O functions. With this, users may use functions like fopen, fclose, fread and fwrite to access all the files stored in DAQStreaming file system.

**Associated ActiveX Controls**

DAQStreaming also provides a variety of ActiveX controls to help users build customized applications, including:

- Stream2DiskX - To access files and manage the file system.
- DAQ - To control DAQ devices and perform data acquisition and recording.
- Signal Processing - To provide essential DSP for off-line data processing, such as FFT, windowing, correlation and so on.
- User Interface - To visually present the acquired data.

**Stream2Disk File Explorer**

The Stream2Disk file explorer is useful tool for users to manage the file system. It has a similar user interface with Windows to allow users delete/rename files, check available space, and perform formatting and defragmenting.

**Recorder/Player Application**

The easy-to-use recorder/player application let users record/review the acquired within just few mouse clicks. Even without any programming knowledge, users can record analog or digital data at 40MB/s, as well as review the acquired data and perform essential analysis.

**Applications**

- High-energy physics
- Radar and sonar systems
- Missile tracking
- GPS signal recording
- Satellite communication recording/testing
- High duration vibration/sound monitoring

**Ordering Information**

- **DAQStreaming-A1**  
40MB/s Data recorder for high-speed analog signals
- **DAQStreaming-D1**  
40MB/s Data recorder for high-speed digital patterns with playback capability
- **DAQStreaming-S1**  
40MB/s Data recorder for 8-CH simultaneous analog inputs
- Optional storage space extension

**Specifications**

| Model Number                     | DAQStreaming-A1  | DAQStreaming-D1                      | DAQStreaming-S1                  |
|----------------------------------|--|--------------------------------------|----------------------------------|
| <b>Data Storage</b>              |  |                                      |                                  |
| Data Throughput                  | 40MB/s   | 40MB/s                               | 32MB/s                           |
| Capacity (Default/Max)           | 36.7GB/220GB   | 36.7GB/220GB                         | 36.7GB/220GB                     |
| Recording Duration (Default/Max) | 15Min /1.5Hrs  | 15Mins/1.5Hrs                        | 19Mins/1.9Hrs                    |
| <b>Data Acquisition</b>          |  |                                      |                                  |
| Input Channels                   | 4-CH analog signals  | 32-CH digital signals                | 8-CH simultaneous analog signals |
| Maximum Sampling Rate            | 1-CH @ 20MHz<br>2-CH @ 10MHz<br>4-CH @ 5MHz                  | 16-CH @ 20MHz<br>32-CH @ 10MHz       | 8-CH simultaneously @ 2MHz       |
| Input Range                      | ±1V or ±5V   | TTL level                            | ±1.25V to ±10V                   |
| Signal Playback                  | No   | 16-CH DO @ 20MHz<br>32-CH DO @ 10MHz | No                               |
| <b>System Configuration</b>      |  |                                      |                                  |
| Chassis                          | Lunchbox-style portable chassis with built-in keyboard/mouse |                                      |                                  |
| CPU                              | P4 1.6GHz  |                                      |                                  |
| Memory                           | 512MB DDR  |                                      |                                  |
| Display                          | 14.1" TFT 1024x768   |                                      |                                  |
| System Drive                     | 20GB   |                                      |                                  |
| CD Drive                         | Built-in 52x CD-ROM  |                                      |                                  |
| Network                          | 10/100 Ethernet  |                                      |                                  |
| Power Supply                     | ATX 400W   |                                      |                                  |
| OS                               | Windows 2000   |                                      |                                  |
| <b>Others</b>                    |  |                                      |                                  |
| PXI Platform Available           | No   | Yes                                  | Yes                              |