The RS4 Data Streamer

System 3

Overview. The RS4 Data Streamer is a high performance data storage array designed to store data streamed from the RZ2, our most powerful processor for high channel count data acquisition. Off-loading data streaming tasks from an RZ2 to the RS4 improves real-time performance and allows you to acquire continuous data over several days or weeks. Access to the RS4 storage array can be provided through a network connection, direct connection to a PC or data transfer to a USB storage device.

The RS4 allows streaming of up to 1024 16-bit channels at rates up to ~25 kHz and fewer channels at rates up to ~50 kHz. Streamed data is stored as individual channels and can be stored in different numeric formats (Short, Float, etc.). Stored data can be easily reincorporated into the OpenEx data tank format for post processing. The RS4 is available with either 4 terabytes or 8 terabytes of storage and features 1 or 4 streaming ports.

Technical Specifications
for the RS4 Data Streamer

The RS4 is rack mountable in a standard 19" rack and is 3 U (5 1/4") tall.

Processing Cores:	4
Storage Array Size:	4 Terabytes or 8 Terabytes
Streaming Ports:	
Number of Ports:	1 or 4
Port Speed:	12.5 MB/sec (per port)

Software Control. Software control is implemented with circuit files developed using TDT's RP Visual Design Studio (RPvdsEx). Circuits are loaded to an RZ processor through TDT run-time applications, such as OpenEx or custom applications via ActiveX controls.

Power and Communication. Data is transferred to the RS4 through its streaming ports located on the back panel of the device. A suitably configured version of the RZ2 provides matching ports used to connect and stream data to the RS4. These ports ensure fast and reliable data transfer from the RZ2. Communication to the RS4 is provided through a touch screen user interface independent from the TDT system.

The RS4 contains an integrated switched-mode power supply. The power supply auto-detects your region's voltage setting and no further configuration is needed. A switch located on the back panel of the RS4 is used to enable/disable the power supply.

RS4 Data Streamer Part Numbers:
RS4-1, One input port and four terabyte storage (requires 1-RZDSP-S)
RS4-4, Four input ports and eight terabyte storage (requires 4-RZDSP-S)
RZDSP-S, Special DSP required in the RZ, to connect to the RS4