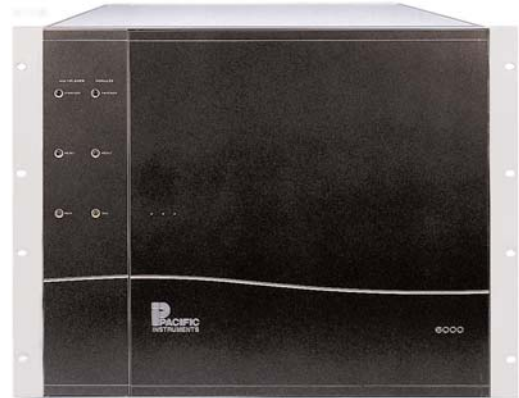


The 6000 Mainframe has an IEEE-488 interface, digital data selector (DDS) and 16 input/output module slots. Additional input/output modules mount in 6001 Slave enclosures. All enclosures are for mounting in 19-inch, EIA-310C type cabinets.

The 6000 Mainframe supports up to 31 Slave enclosures or up to 4096 channels of transducer signal conditioning or digital I/O. All enclosures have fans providing air circulation and an integral cable tray that routes the input and output cables from the front of the modules to exit the rear of the enclosure.

The digital data selector (DDS) inserts digitized data acquired by Series 6000 input modules in the output data stream according to a user-defined scan table. It also adds a header containing a 32-bit synchronization word, sample counter and start and trigger flags. A 1 Million word FIFO provides data output buffering during periods when the interface or computer is unavailable to receive data. This assures a continuous stream of uninterrupted data to the computer or other data recording device.

The mainframe includes a ring buffer that stores up to 2 million data samples. It may be triggered by an alarm or external TTL input to save specified amounts of pre and post-trigger data. Optional data outputs include PCM telemetry and SCRAMNet. SCRAMNet provides the lowest latency for control applications.



## FEATURES

- Mounting for 16 input/output modules providing up to 128 channels expandable to 4096 channels
- High-speed IEEE-488 interface for control and data
- Optional PCM telemetry and SCRAMNet data output
- Fast hardware-based alarms with digital outputs
- 2M Sample ring buffer for event capture
- Built-in fans and cable tray

## SPECIFICATIONS

### DATA FORMAT

Data Word .....16-bits, 2's complement binary, formatted in two bytes, low-byte followed by high-byte.  
 Scan Table .....Maximum format length is 65,536 samples.  
 Sample Rate .....Programmable with 1 $\mu$ S resolution.  
 Buffer (FIFO).....A 1 Million word data buffer insures continuous data to computer or storage.

### EVENT MEMORY

Size .....2 Million data words.  
 Operation .....Overwrites the oldest data until triggered. Trigger stores a specified amount of new data then freezes the memory. Any data not overwritten is pre-trigger.  
 Trigger.....Event memory may be triggered by soft-ware instruction, alarms, digital inputs, or external TTL input.

### GPIB DATA OUTPUT

Protocol.....IEEE-488.2 with high speed handshake.  
 Output Rate .....Up to 1M 16-bit data words/second, with PCI GPIB interface.

### PCM DATA OUTPUT (OPTIONAL)

Data.....Two independently buffered PCM data outputs. IRIG 106, NRZL-L, Class II.  
 Clock.....Two independently buffered PCM data clocks.  
 Output.....RS422, differential line drivers.  
 Bit Rate .....Up to 6.85 Mb/second.

### SCRAMNET DATA OUTPUT (OPTIONAL)

Connection .....Any Systran supported physical media.  
 Throughput.....16.7 MB/s maximum.  
 Memory.....1 MB, up to 8 MB is available.  
 Latency .....0.8  $\mu$ S per node typical. Plus two sample periods of the highest sample rate for loading data into SCRAMNet memory.

### CONNECTORS

Calibration.....Type DB-15 (plug) mounted on rear panel. Supplied mate is DB-15 (Socket) with strain relief.  
 Control .....BNCs.  
 PCM (Option) .....DB-15 for data and clock.  
 SCRAMNet .....62.5/125 micron multi-node with ST connector.

### GENERAL

Power.....115 or 230 VAC,  $\pm$ 10%, 47 to 63 Hz, 400 Watts.  
 Temperature .....0°C to +50°C operating.  
 Humidity .....95% without condensation.  
 Shock/Vibration.....Normal shipping and handling of laboratory instruments.  
 Size .....19 inches wide, 14 inches high, 23 inches deep (including connectors).  
 Weight.....Approximately 60 pounds with all channel modules.

### ORDERING INFORMATION

6000 .....Mainframe, 16-slot, IEEE-488 data and control interface.  
 6000P .....Mainframe, 16-slot, IEEE-488 control and IRIG 106 data interfaces.  
 6001 .....Slave enclosure, 16-slot.

### OPTIONS

9000-154 .....PCMCIA IEEE-488 Interface, Windows 98/NT/2000/XP. Includes 2 Meter IEEE-488 Cable.  
 9000-156 .....PCI IEEE-488 Interface, Windows 98/NT/2000/XP. Includes 2 Meter IEEE-488 Cable.  
 PS1 .....Auxiliary power supply for 6014 Add -115 for 115 VAC operation or -230 for 230 VAC operation.  
 6000-S .....SCRAMNet Rehostable Adapter I/O module with 1M memory.