The Payload Interface Board provides a single 3U cPCI card solution to interface to spacecraft payload subsystems, with configurable real-time and high-rate interfaces and 1GByte of mass memory SDRAM.

**FEATURES**

- 33 MHz, 32bit cPCI v2.1 Bus Interface with DMA Controller
- 4 Synchronous Receive Interfaces 100 kbps to 2 Mbps
  (Note: These four interfaces can each alternatively be configured as asynchronous interfaces for high-rate data input)
- 4 Asynchronous Receive Interfaces
- 4 Asynchronous Transmit Interfaces
- 32 Differential Analog Voltage Inputs (+/-10 Volt)
  (Or up to 24 AD590 Sensor Inputs)
- 32 Discrete (5V) Inputs
- 32 Discrete (5V) Outputs
- 16 Open-collector Outputs
- 4 Differential 1PPS Outputs
- 1 GBytes SDRAM with EDAC
- Actel RTAX FPGA with Bus Interface, Customer and Mission Specific Logic
- Conduction Cooled
- 256-Pin Micro-D Front Panel Connector
PIB™ BOARD SERIES

MASS, POWER, DIMENSIONS

- <0.28 kg
- <4.5 Watts Peak
- 100 mm x 175 mm x 30 mm (3U cPCI)

RELIABILITY FEATURES

- All Parts SEL Immune
- SEU Mitigated Design
- 30 kRad Standard (100kRad Option)

The Moog Broad Reach Payload Interface Board (PIB) provides configurable Customer and Mission specific data interfaces and mass storage. A typical board delivers 1Gbyte of EDAC SDRAM for mass storage, 4 configurable high-rate synchronous/asynchronous payload receive interfaces, 4 configurable real-time asynchronous receive interfaces, 4 configurable asynchronous command interfaces, 32 Bi-level inputs, 32 Bi-level outputs, 16 open-collector outputs, and 32 differential analog channel inputs. Radiation hardened and fault tolerant components make the PIB a robust I/O connection. The board utilizes the radiation hardened Actel RTAX2000 FPGA for its 32-bit 33MHz PCI target, SDRAM controller, and all customer-defined payload interface functions.