

P-MIO

P-DIS

# P-MIO and P-DIS

## PMC Interfaces with Multi-I/O and Discrete Capability

### Features

- Storage of input data into buffer only when a change is detected
- Very accurate, automatic time-stamping of buffered input data
- Precise time synchronization between all input ports
- Flexible triggering on input conditions
- Automatic measurement of input frequency, duty cycle, and edges
- Automatic watchdog timer timeout detection on inputs
- Output data samples are time-stamped - therefore only one buffer entry per change
- Precise time synchronization between all buffered output ports
- Automatic generation of single, repetitive, or continuous pulses/patterns on digital outputs
- Automatic pulse generation in response to trigger
- Automatic level-shifting between digital port types

The P-MIO and P-DIS boards are different than most currently available data acquisition boards. They provide multiple I/O types on a single module and the functionality to work with high-speed digital I/O signaling. With very accurate time-stamping of input data and synchronization to an external IRIG-B source, they provide the capability to precisely synchronize all output ports.

The modules support high input and output sample rates. Digital ports are sampled at 50 MHz. Providing high resolution time-stamping of inputs and precise timing control of outputs, these sample rates also provide the capability to capture and generate high speed signals. While not intended to support continuous buffering of fast-changing input and/or output data at the maximum sample rate, the module has a modest amount of buffering and includes a feature set which is intended to provide the functionality of a typical high-speed data acquisition board while reducing host throughput and response requirements.

### Applications

- Test Stands
- Avionics Box Test and Check-out
- Embedded Avionics
- INU connectivity
- Actuator/Eletroneumatic IU
- DCU boxes
- Data/Event Recording and Simulation applications

### P-DIS

The P-DIS is a direct expansion of discrete I/O ports on the P-MIO, expanding the P-MIO 16 discrete I/O's to 40 ports. Also included are provisions for IRIG, TTL, and PECL ports.

### Specifications

#### Physical

- PMC Mezzanine Card (74 mm x 149 mm without bezel)
- Standard configuration has front panel I/O

#### Environmental

- Standard operating temperature range: 0 to +70°C
- Relative humidity: 5 to 90% (non-condensing)

#### Software

- API - High-level libraries with source code for Windows® XP, 2000, 2003, NT, 98, 95, Linux®, Integrity, LynxOS® and Solaris®

#### Power (4 channels at 75% duty cycles)

- +5 VDC
- +3.3 VDC

#### PCI Signal Compatibility

- Universal (5 V or 3.3 V)
- Supports 66 or 33 MHz PCI bus operation

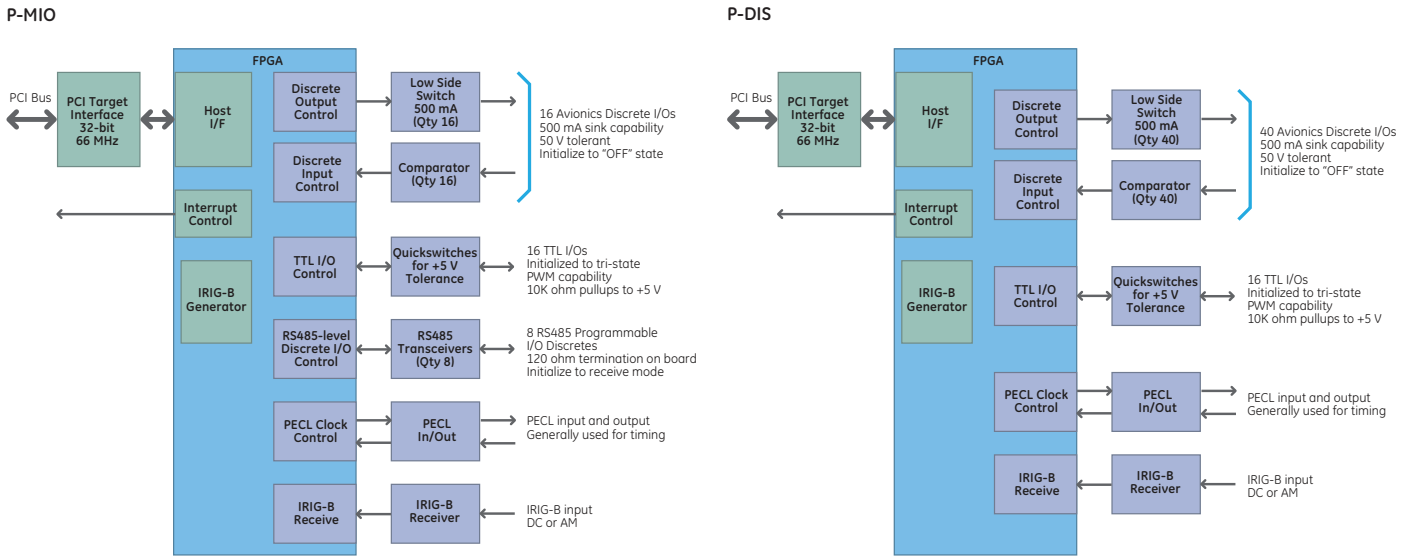
#### Optional Configurations

- Optional P14 I/O
- Optional ruggedized, -40 to +85°C operating temperature range
- Optional ruggedized, VITA compliant conductive cooling (max -71°C rail temp)
- Optional conformal coating
- Optional IRIG-B Receiver (AM or DC/TTL) and Generator (DC/TTL)



# P-MIO and P-DIS PMC Data Acquisition Boards

## Block Diagram



## Ordering Information

- P-MIO** PMC Digital Interface with 16 ports of 28 volt I/O discretes, 8 ports of differential RS-485 I/O discretes, 1 PECL input output, 4 virtual ports
- P-DIS** PMC Digital Interface with 40 ports of 5-50 volt I/O discretes, 4 TTL I/O, 1 PECL input and 1 PECL output, 4 virtual ports
- R Ruggedized, ext temp (not available on carriers)
  - K Conformal coating (not available on carriers)
  - C Conduction cooled, conformal coating, extended temp, no front I/O (not available on carriers)
  - X PCI Carrier
  - 3 cCPCI 3U carrier
  - F cCPCI 6U carrier
  - U PCI Express carrier

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## Additional Resources

For more information, please visit the GE Fanuc Intelligent Platforms web site at:

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