

P-DIS

PMC Interfaces with 40 Bidirectional Discrete

The P-DIS board is different than most currently available data acquisition boards. It provides 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. The P-DIS provides the capability to precisely synchronize all output ports.

The module supports 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/Electropneumatic IU
- DCU boxes
- Data/Event Recording and Simulation applications

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 digitalport types

P-DIS PMC Interfaces with 40 Bidirectional Discrete

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 Microsoft® Windows® XP, 2000, 2003, NT, 98, 95, Linux®, Integrity, LynxOS® and Solaris®

Power (4 channels at 75% duty cycles)

- +5 VDC
- +3.3 VDC

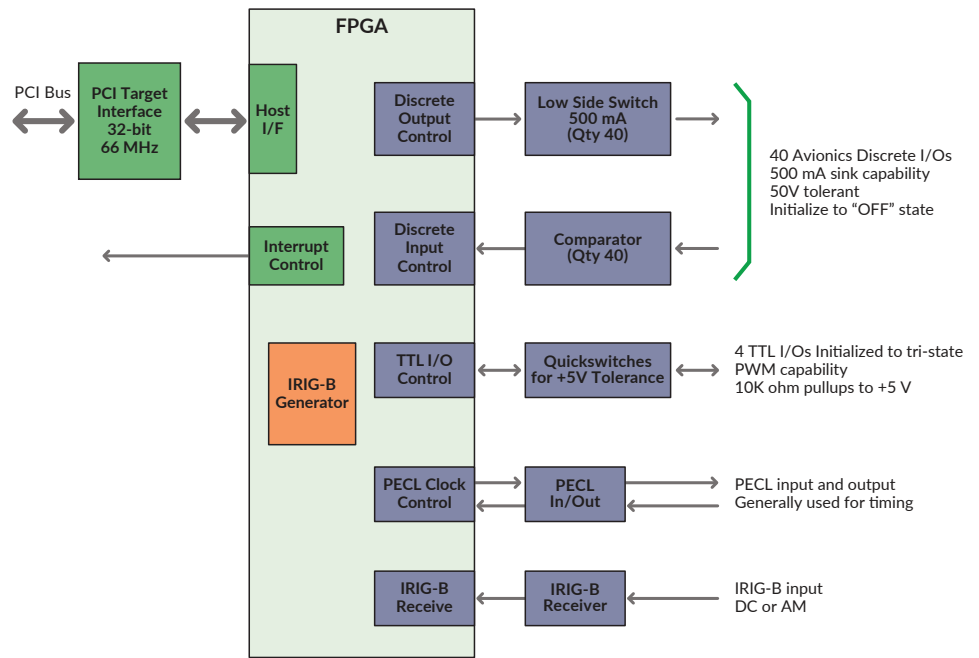
PCI Signal Compatibility

- 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)

Block diagram



Ordering information

P-DIS	PMC multiple I/O interface with 40 bidirectional discrettes, 1 PECL In/Out, IRIG In/Out, IRIG-Receiver (AM or DC/TTL)/Generator (DC/TTL)
P-DIS-C	PMC multiple I/O interface with 40 bidirectional discrettes, 1 PECL In/Out, IRIG-B Receiver (AM or DC/TTL)/Generator (DC/TTL) Conductively Cooled, P14/Rear I/O, No front panel, Extended Temp (71°C RAIL), Conformal Coated
P-DIS-U	PCI Express (PMC on one lane PCI Express Carrier) Multiple I/O interface with 40 bidirectional discrettes, 1 PECL In/Out, IRIG In/Out, IRIG-B Receiver (AM or DC/TTL)/Generator (DC/TTL)
P-DIS-X	PCI (PMC on PCI Carrier) Multiple I/O interface with 40 bidirectional discrettes, 1 PECL In/Out, In/Out, IRIG-B Receiver (AM or DC/TTL)/Generator (DC/TTL)
P-DIS-3	CPCI (PMC on 3U cPCI Carrier) Multiple I/O interface with 40 bidirectional discrettes, 1 PECL In/Out, IRIG In/Out, IRIG-B Receiver (AM or DC/TTL)/Generator (DC/TTL)
-R	Ruggedized, ext temp (not available on carriers)
-K	Conformal coating (not available on carriers)

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