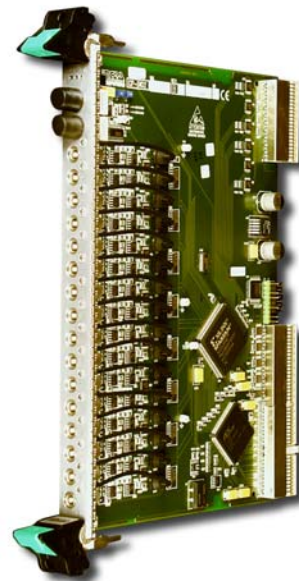


CP-DIO2-5023 Timing generator

Features

- General purpose digital I/O module.
- 16 digital I/O channels and 8 PXI channels
- I/O channels available at front or rear side.
- Software configurable per channel, input or output.
- Front panel outputs are short circuit protected and capable of driving 50 Ohm loads.
- Tri-colour status LED per I/O channel.
- Rear side outputs are open collector.
- Optical link input and output, timing highway.
- Timing highway encoder, decoder and recorder.
- Functionality is highly configurable.
- Up to 8 two phase timing channels.
- I/O channels and PXI channels are software connectable through a connection matrix.
- LEMO 00 connectors at the front panel.
- CompactPCI J5 connector for rear side I/O for use with transition modules.
- 6U, single slot CompactPCI form factor.
- 33 MHz, 32 bit PICMG 2.0 R3.0 compatible.



Description

The DIO2 module is a highly configurable digital I/O module in a 6U high CompactPCI form factor. The 16 channels can be configured individually as in- or output. The function of an output channel is software selectable.

Applications for this module include timing generation, trigger generation, logic functions etc.

The plug and play functionality (not hot swap) provides easy setup and use. The module includes software drivers for Linux.



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Technical Specifications

I/O

- Number of I/O's : 16 at front or rear side and 8 PXI.
- Input type : TTL with hysteresis
- Input impedance : > 3 kOhm, 50 Ohm termination software selectable.
- Output type : TTL, short circuit protected, 50 Ohm drive capability
- Connector : LEMO 00 at front side, J5 at rear side.

OPTICAL LINK

- Input type : HFBR2416 ST style connector.
- Output type : HFBR1414 ST style connector.
- Function : Manchester encoded timing event information.
- Power : The power for the optical link can be derived from an external power supply through J5.

CLOCK GENERATOR

- Source : selectable, internal or external via optical link or PXI or front or rear I/O channel.
- Internal clock frequency : 10 MHz.

MECHANICAL

- Height : 6U
- Width : 1 slot

ENVIRONMENTAL CONDITIONS

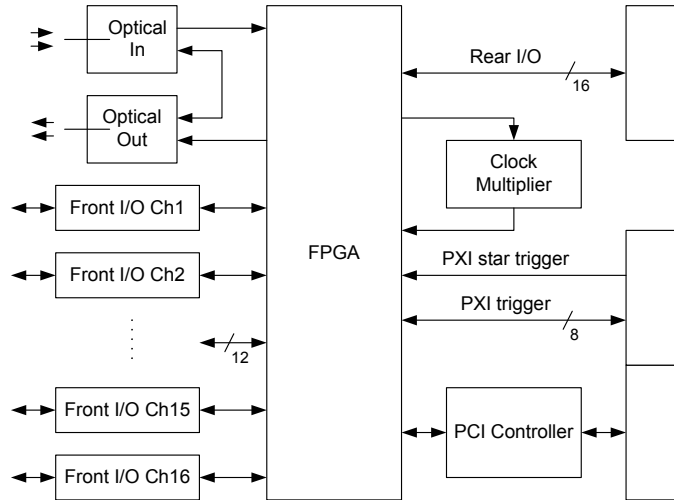
- Max. operating relative humidity : 90 %, no condensation.
- Operating temperature : 15 – 40 °C
- Power supply requirements : + 5 and + 3.3 Volt derived from CompactPCI,
- Magnetic field : up to 3 mT with decay time of 10-20 msec when external shielding is used.

WARRANTY

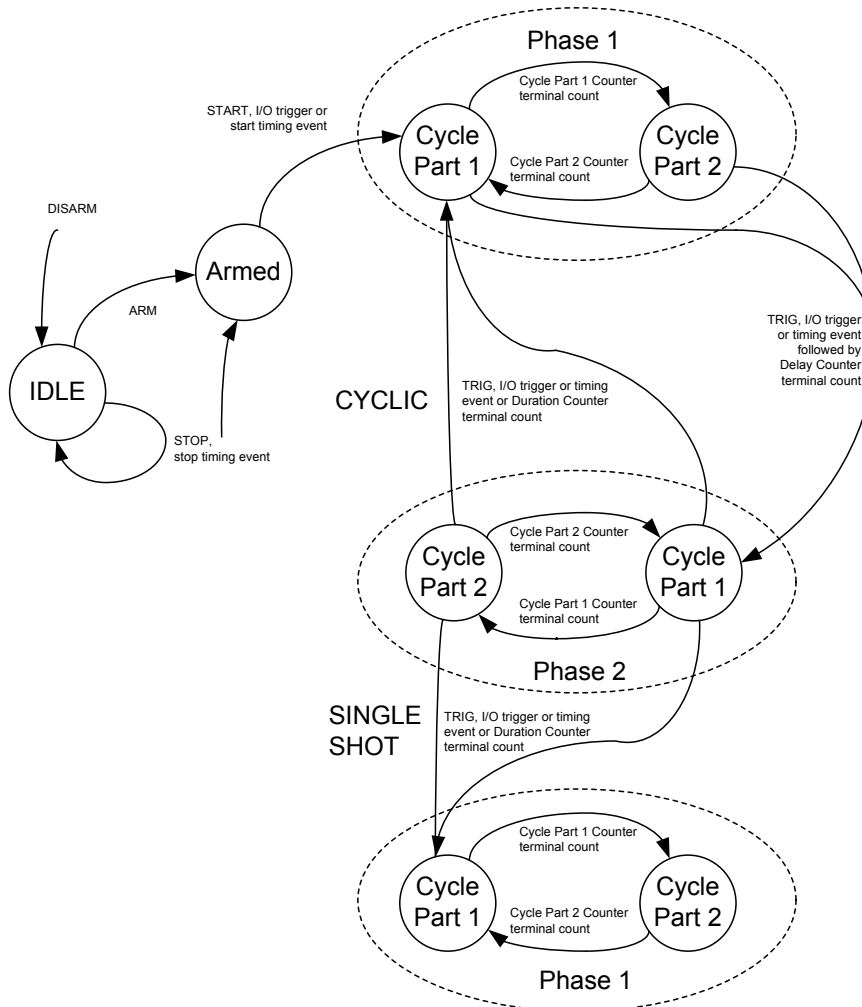
: 1 year

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Block diagram of DIO2



State diagram of a timing channel.



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