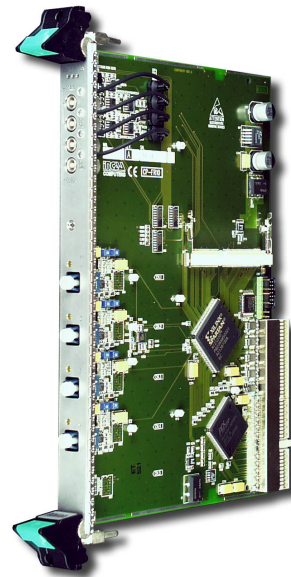


### CP-FR10-5021 Fiber Optic Data Link

#### Features

- 4 fiber inputs.
- Each fiber receives 4 data channels.
- Fiber bitrate : 25 Mbit/s.
- Max. 200 kS/s per data channel.
- 12 bit data words.
- Module acts like transient recorder.
- 2 MS of onboard memory per channel.
- Samples also available via FIFO's
- at selectable subsample speed.
- Selectable trigger options.
- Pre and post trigger recording.
- 6U, single slot CompactPCI form factor.



#### Description

The FR10 module is a 4 channel fiber optic receiver module with onboard memory in a 6U high CompactPCI form factor. Each fiber carries 4 data channels. These data channels are demultiplexed into 4 separate channels resulting in 4 times 4 = 16 channels. The received data is stored in onboard memory on the event of the sample clock. The module is capable of receiving data at 200 kS/s per channel. The memory is organized as a ring buffer. After the event of a trigger a programmable number of post trigger samples will be stored into this ring buffer before sampling stops. The samples in memory can be copied to the PC memory with DMA transfers. In parallel samples are also available through FIFO's at sub sample rates for control applications. The depth of the FIFO's is software selectable, 1, 2, 4, 8 or 16 samples per channel.

Modules may be connected via the frontpanel trigger and clock signals to increase the number of channels.

The plug and play functionality provides easy setup and use. The module includes software drivers for Linux.



## Technical Specifications

### INPUT

- Number of fiber inputs : 4
- Data channels per fiber : 4
- Fiber receiver type : HFBR 2526

### TRANSFER CHARACTERISTICS

- Sample rate : max 200 kS/s per data channel
- # of bits per sample : 12 bits
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### MEMORY

- Record length : max. 2 MS per channel
- FIFO depth : max. 16 samples per channel
- Number of FIFO's : 16, one for each channel

### DMA

- DMA transfer rate : > 100 Mbyte/s sustained

### SAMPLE CLOCK

- Source : internal or external
- Sample rate internal clock : 200 kS/s divided by 1 to 65535, programmable
- Internal sample clock stability : 50 ppm over operating temperature range.
- Sample clock input : TTL, 50 Ohm termination selectable, edge selectable
- Sample clock output : TTL, short circuit protected, 50 Ohm driving capability
- Sample clock connectors : 2 x LEMO 00

### TRIGGER

- Source : internal or external
- Trigger input : TTL, 50 Ohm termination selectable, edge selectable
- Trigger output : TTL, short circuit protected, 50 Ohm driving capability
- Trigger connectors : 2 x LEMO 00

### MECHANICAL

- Size : 6U, single 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 3mT with decay time of 10-20 msec when external shielding is used.

### WARRANTY

: 1 year

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