

PMC DAT

IRIG B MASTER/SLAVE AND FAST EXTERNAL EVENT TIME STAMPING



PMC-DAT board is a combination of an IRIG B receiver/generator and a fast external event recorder.

It is able to time-stamp up to one million external signal changes per second and per channel on 16 RS422 channels.

Each channel is independently configurable to capture 0 to 1 changes or 1 to 0 changes.

When both transitions has to be captured, the same signal is connected to 2 inputs.

Timing reference can be an external or a locally generated IRIG B signal. When generated by the board, the IRIG B signal can be distributed to other external devices.

- ◆ IRIG B time code receiver/generator
- ◆ Time stamping of up to 16 independent external events (RS422 interface)
- ◆ Time resolution 1 μ s
- ◆ 2 frequency outputs
- ◆ PMC 32 bits 33 MHz format
- ◆ Drivers for Linux and Windows

All captured events (channel number and date of change) are output in a FIFO or toward system memory through a DMA engine.

PMC-DAT board can also generate 2 periodic signals which frequency is programmable and synchronized on IRIG B source. These signals are typically used as triggers or acquisition clocks on a test bench. They may also generate interrupts.

SPECIFICATIONS*

IRIG SIGNAL AND EVENT INPUTS	
IRIG B interface	Slave or locally generated signal
Input signal characteristics	IRIG B B122 standard Amplitude : 0.5 to 10 Vpp
Local oscillator stability	1 ppm
Time resolution	1 μ s
Number of input signals	16
Input signal interface	RS422
Change of State detection	0 to 1 1 to 0 Each input channel is independently configurable One transition = an 8 bytes descriptor If both transitions has to be captured, use 2 inputs
Maximum throughput	1 M events/s per channel Globally: depend on system activity and PCI bus load
OUTPUTS	
Type	2 RS422 independent signals
Frequency Setting	Any division of 5 MHz synchronized on IRIG B signal from 1 Hz to 1 MHz

APPLICATIONS

SPECIFICATIONS*

PCI BUS	
PMC	Master/slave PCI 32 bits 33 MHz bus
POWER SUPPLY	
	5 V < 1.5 A ; +3.3 V < 0.5 A
CONNECTORS	
	Digital inputs/outputs : MDR 50 female IRIG B : MCX female No P4 (rear I/O) connector
PHYSICAL CHARACTERISTICS	
Format	PMC form factor
ENVIRONMENT	
Operating temperature	- 20°C to + 70°C
Storage temperature	- 25°C to + 85°C
Relative humidity	90 % non condensing
Vibrations	20 Hz – 2000 Hz – 4 g
Shocks	25 g- 6 ms
EUROPEAN STANDARD	
	CE Compliance (EMC - EN 61326 - EN 55011 Class A) ROHS - 2002/95/EC

**Specifications given for 25°C*

ORDERING INFORMATION

PMC-DAT	IRIG B master/slave with fast external event time stamping
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Specifications are subject to change. Please, verify the latest specifications prior order.

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