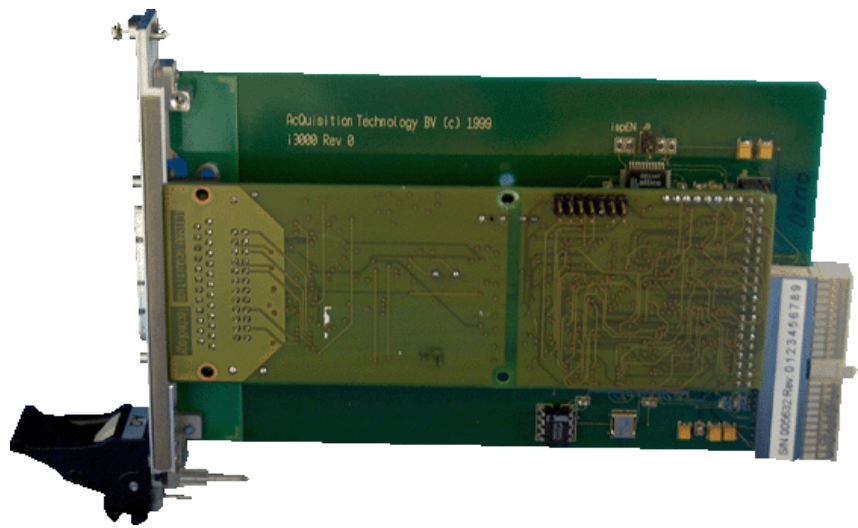


CPCI390

RTD Measurement for CompactPCI



The CPCI390 has a 3U form factor and features six 2-, 3-, or 4-wire high-accuracy RTD measurement channels. Each channel has programmable alarm limits on which an interrupt can be issued. The local DSP (TMS320C203) performs linearization, auto-calibration and alarm limit checking. Sensor data is available in $\frac{1}{2}C$, $\frac{1}{2}F$, K and Ohm. All inputs are optically isolated from the system.

This CompactPCI card is available in a 3U and a 6U form factor.

Features:

- > Sigma/Delta ADC with 16-bit resolution
- > PT100 linearization (IEC751-1983, DIN43760-1980, JIS C1604-1989)
- > Programmable minimum/maximum value alarms
- > Auto calibration
- > No potentiometers
- > Analog front-end is optically isolated
- > On-board DC/DC converter for isolated power supply
- > Data acquisition handled by TMS320C203 DSP, transparent for user
- > Measurement range: -200°C .. +850°C
- > Excitation current: 1mA

Controller

- * The CPCI390 is based on a TMS320C203 processor and has a sigma-delta ADC converter onboard.
- * The CPCI390 has autonomous scanning and auto calibration.
- * The acquisition time for a single channel is 133 ms, each additional channel adds 66 ms.
- * Alarm limits are programmable with optional interrupt.

Input Characteristics

- * The inputs are optical isolated and support 2-, 3-, and 4- wire PT100, PT200, PT500 or PT1000 devices.

Supported RTD Types

- * RTD type: Excitation Current
- * PT100: 1000uA
- * PT200: 500uA
- * PT500: 200uA
- * PT1000: 100uA

Supported Data Formats

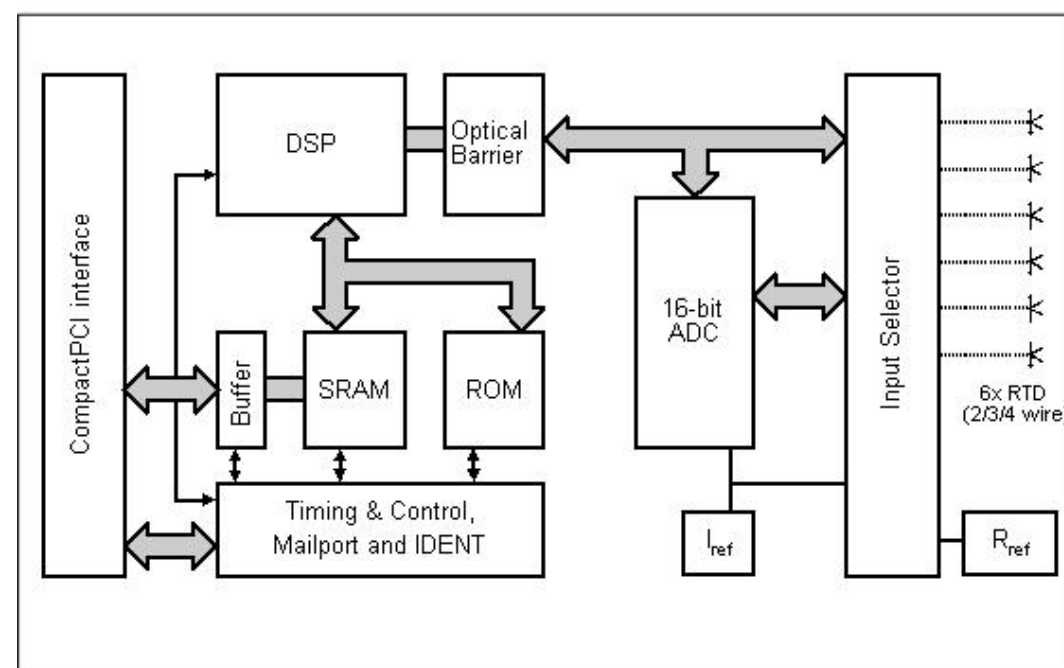
- * Kelvin range: 73.2 to 1123.2, with a resolution of 0.1
- * Celsius range: -200.0 to + 850.0 with a resolution of 0.1
- * Fahrenheit range: -328.0 to + 1562.0 with a resolution of 0.1
- * Ohm range: 50.0 to 500.0 with a resolution of 0.01

PCI Interface

- * The CPCI390 has a PCI Specification 2.1 compliant target interface and uses a PCI9050 PCI Bus Target Interface Chip by PLX Technology Inc.

Ordering Information

- * **CPCI390/T01** (3U) 6-channel PT100 precision measurement
- * **CPCI390/T02** (3U) 6-channel PT200 precision measurement
- * **CPCI390/T03** (3U) 6-channel PT500 precision measurement
- * **CPCI390/T04** (3U) 6-channel PT1000 precision measurement
- * **CPCI4390/T01** (6U) 24-channel PT100 precision measurement
- * **CPCI4390/T02** (6U) 24-channel PT200 precision measurement
- * **CPCI4390/T03** (6U) 24-channel PT500 precision measurement
- * **CPCI4390/T04** (6U) 24-channel PT1000 precision measurement
- * **CPCI(4)390/SW** APIS based software
- * **CPCI(4)390/MAN** manual on paper



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