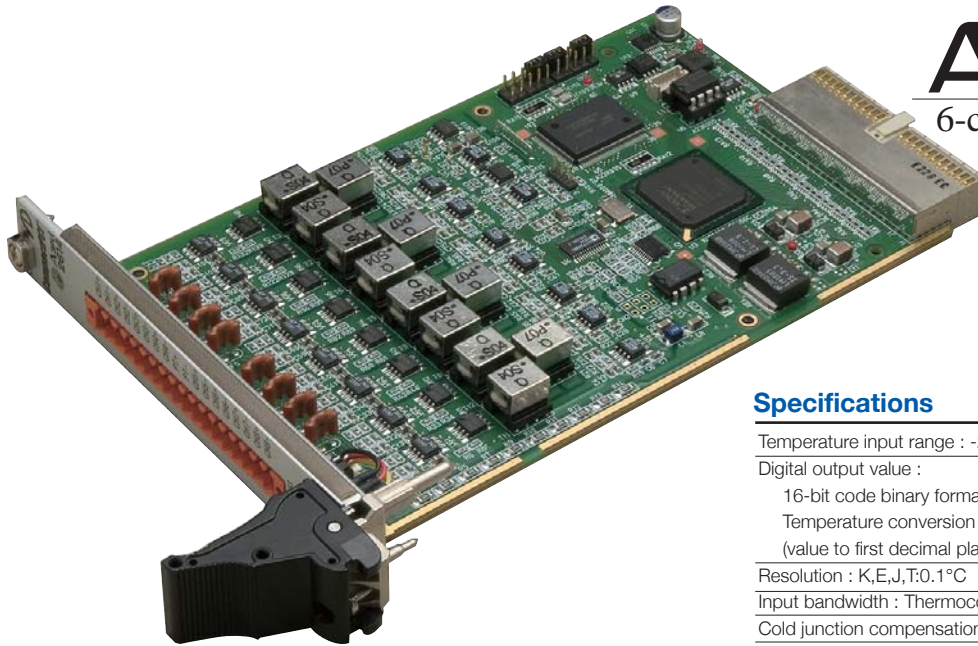


A3pci2614

6-ch Pt100 Measurement Board



Features

- 1) 8-channel thermocouple input is possible. As soon as the power is turned on and/or as soon as the hardware is reset, default settings start temperature measurement.
- 2) K, E, J or T (JIS) type thermocouple can be directly connected to the terminal block on the front panel. Because a terminal block type two-piece connector is used, it is possible to remove just the terminal block and change the board without removing each of the thermocouple screw clamps from the terminal block. The terminal block does not prevent the removal of the adjacent board.
- 3) Arbitrary thermocouple type can be selected for each input channel.
- 4) Can be set to take the moving average of the last four lots of A/D conversion values and calculate the temperature conversion values. Because it is the moving average, the most recent temperature conversion values, averaged for each sampling, can be obtained.
- 5) Disconnection of cables including thermocouples can be detected for each input channel. When disconnection is detected, an interrupt can be issued to the CompactPCI bus.
- 6) Dedicated cold junction compensator equipped with a Pt100Ω sensor performs cold junction compensation.

Specifications

Temperature input range	: -200 to 1200°C
Digital output value	: 16-bit code binary format (minus numbers: two's complement) Temperature conversion values: -2000 or less to 12000 or more (value to first decimal place x 10)
Resolution	: K,E,J,T:0.1°C
Input bandwidth	: Thermocouple input: Approx.25Hz(-3dB)
Cold junction compensation accuracy	: ±1°C
Cold junction compensation temperature range	: -20 to 80°C
Conversion rate Thermocouple input	: Approx. 100Hz for each channel
Sampling rate Thermocouple input	: Approx. 100Hz for all channels *2
No. of temperature input points	: 8 thermocouple temperature input points and 1 cold junction compensation temperature input point
Absolute maximum input	: ±5V (not convertible input)
Isolation method	: Between thermocouple input and CompactPCI bus system : Transformer isolation Between thermocouple input channels : Transformer isolation Between cold junction input (Pt100) and CompactPCI bus system : No isolation
Disconnection detection	: Yes (independent for each channel)
Connection terminal	: 18-point terminal block (2 points for cold junction compensator)
Recommended wire size	: 1.5mm ² or less
Power requirements	: DC5V ±5%, Typ. 0.30A
Board size	: Single height (3U), Single width (4HP)
Weight	: 175g
Environmental specifications	: Operating temperature range: 0 to 50°C Storage temperature range: -10 to 60°C Operating humidity range: 10 to 90% RH (non-condensing) Storage humidity range: 10 to 90% RH (non-condensing) Operating atmosphere: Minimum dust, must be free of corrosive gases
*1: Accuracy and Temperature characteristics	do not include accuracy and temperature characteristics of external components (thermocouple, compensating lead wires, etc.) not included on this board.
*2: Equipped with one A/D converter	for eight thermocouple input channels. (Equipped with a separate A/D converter for cold junction compensation input.)
CompactPCI bus specifications	
CompactPCI Standards	: PCI Local Bus Specification Revision 2.3 compliant PICMG2.0 R3.0 Compact PCI Specification compliant PICMG2.1 R2.0 Compact PCI Hot Swap Specification
Full HotSwap support	
Signaling level	: 3.3/5 V(TTL)
Bit width	: 32 Bits
Address width	: 32 Bits
Clock	: 33 MHz

Thermocouple Measured temperature range Accuracy Temperature characteristics

Thermocouple	Measured temperature range	Accuracy*1 (Ambient temperature:25°C)	Temperature characteristics*1 (per 1°C change in ambient temperature)
K	0 to 1200°C	±1°C or ±0.3%*2	
E	0 to 800°C	±1°C or ±0.5%*2	±0.06°C or ± 0.02%*2
J	0 to 750°C		
T	0 to 200°C		
K	-200 to 0°C	±1°C	±0.06°C or ± 0.3%*2
T	-50 to 0°C		

*1: Arbitrary thermocouple type can be selected for each channel.

*2: measured temperature (whichever is larger)



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Note: The following specifications and product appearance are subject to change for enhancement without notice.

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