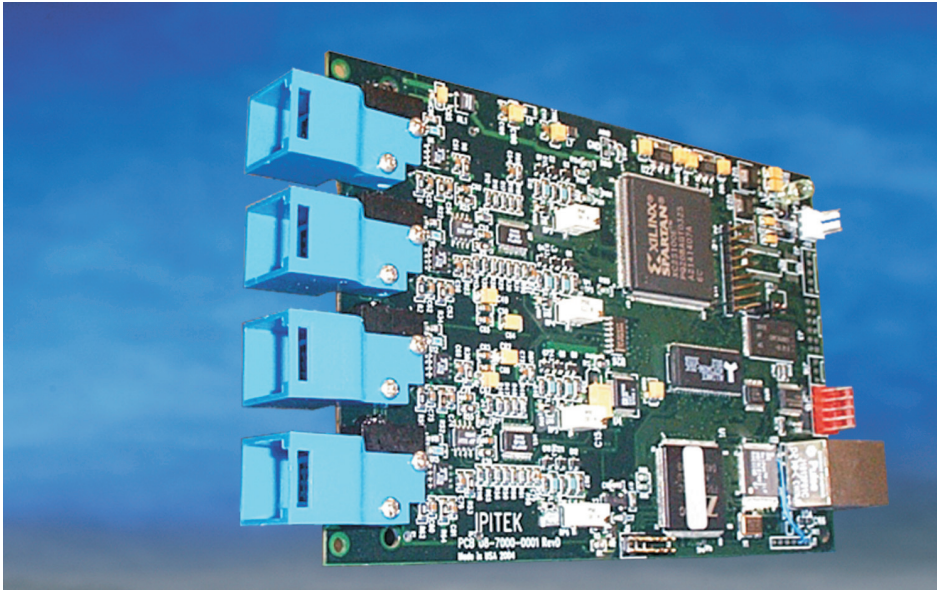


LUMITHERM[®] X7 OEM TEMPERATURE BOARD



Description

The LumiTherm OEM Temperature Board is an opto-electronic signal conditioner designed to be embedded in a host product. This OEM Signal Conditioner works in conjunction with the X5 line of fiber optic temperature Sensors. X5 Sensors provide accurate and reliable measurements in environments where conventional temperature sensors are unreliable or inoperable.

The LT-X7 advances the Lumitherm technology with greater resolution and control than the LT-X5.

HIGHLIGHTS

- **True Accuracy to Better than $\pm 0.2^{\circ}\text{C}$**
- **Range from -40° to 250°C**
- **1 to 4 Channels**
- **Fast Response**
- **Serial Communication Interface, Analog Output & Ethernet**
- **Automatic Self-Diagnosis for Improved Reliability**

Accurate

X7 systems use the recognized fluorescence decay temperature sensing principle to provide Fast, Accurate and Consistent temperature measurement in harsh environments. Our fiber optic temperature sensing systems are the most accurate on the market today.

Versatile

Several versions for OEMs are available, under the LumiTherm X7O designation. Most of these are designed as minimal systems with a range of packaging and integration options to fit nearly any OEM system:

Standalone

Daisy Chained Serial Communication

Ethernet Network

Analog Output

One to Four Channels

SPECIFICATIONS

Temperature Range:	Sensor Dependant
Calibration (NIST traceable):	Standard: $\pm 1^{\circ}\text{C}$
	High: $\pm 0.25^{\circ}\text{C}$
	True: $\pm 0.2^{\circ}\text{C}$ or better
Resolution:	0.01 C
Communication Options:	RS-232 (std), analog, ethernet
Operating Temp:	0 to 50°C
Input Voltage:	$\pm 5\text{V}$ regulated
Power Consumption:	6 W

For Use With X5 Sensors

X5-BLUE
Simple Measurement

X5-RED
High Temperature

X5-TRUE
High Accuracy

X7 TECHNOLOGY

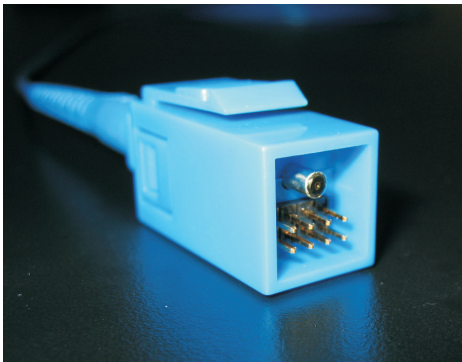
LumiTherm X7 Technology uses a fluorescence-decay process. Since fluorescence decay is a fundamental atomic property of phosphors, it can accurately determine temperature and remains ultra-stable for years.

OTHER READOUTS

(click button to view data sheet)

X7B Benchtop
1 to 4 Channels

X7R Rackmount
4 to 28 Channels

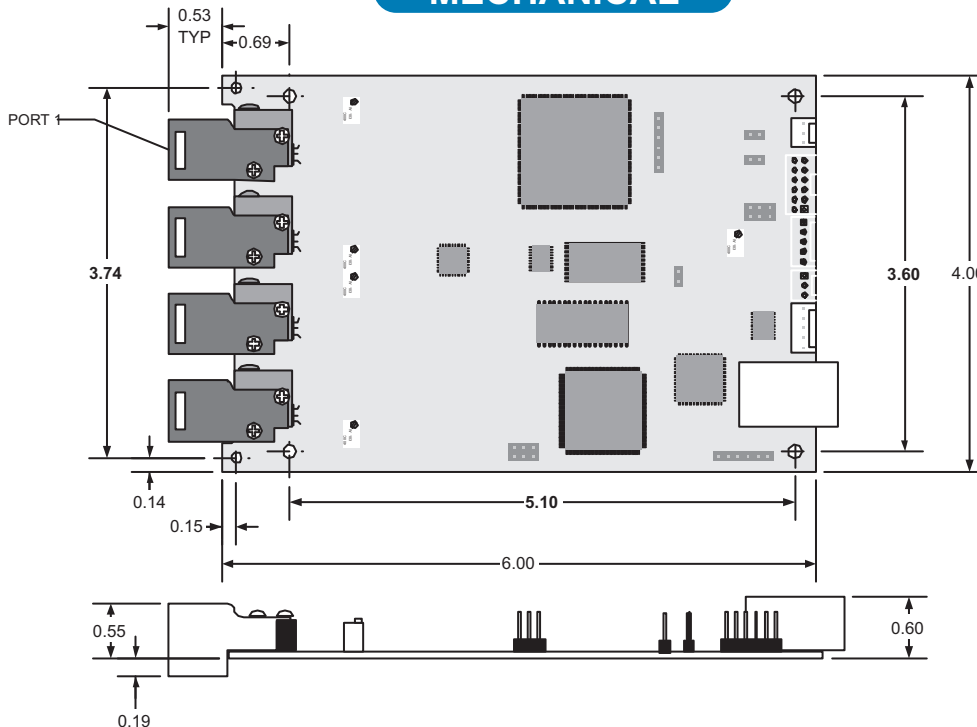


LumiSmart CONNECTOR

The LumiSmart connector contains an embedded microchip that stores the sensor's calibration data. This way, you never have to worry about identifying the sensor to the signal conditioner.

For improved accuracy, the in-situ one point calibration feature can be used to achieve accuracy of $\pm 0.2^{\circ}\text{C}$ or better.

MECHANICAL



2330 Faraday Avenue • Carlsbad • CA • 92008
(760) 438-1010 • Toll Free (888) 4-IPITEK (447-4835)

IPITEK reserves the right to modify product specifications without prior notification.

DAT-LT-X7O Rev. A Copyright © IPITEK 2011

FAX (760) 438-2412 • sales@ipitek.com • www.ipitek.com

IPITEK is ISO 9001 Registered