

Micro Power Oximeter Board



The Micro Power Oximeter Board enables easy OEM integration for fast, reliable SpO2 and pulse rate measurements on any patient, from neonate to adult.

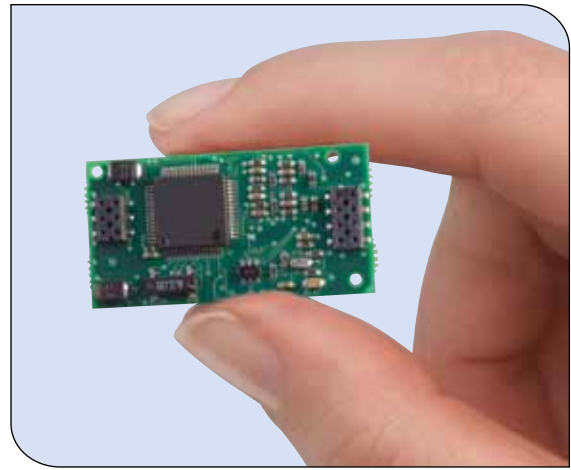
Serial communication at 4800 baud provides the host system with %SpO2, pulse rate, signal strength bargraph, plethysmogram, and status bits data. This pulse oximeter PCB consumes only 22mW of power from a single 3.3V voltage source and has a compact size of 39mm wide by 20mm deep by 5.6mm high. An assortment of compatible oximeter sensors and patient attachments are available through Smiths Medical.

Identical oximetry board used
in the new BCI® SPECTRO2™ oximeter

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The Smiths Medical advantage:

- Extremely low power consumption
- Micro size
- Cost effective
- Low perfusion performance
- Outputs %SpO₂, pulse rate, signal strength bargraph, plethysmogram and status bits data
- BCI® reusable and disposable sensors available



Technical Specifications

SpO₂ <ul style="list-style-type: none">• Range 0-99% functional SpO₂ (1% Increments)• Accuracy Adult: ±2 at 70-99% SpO₂ (less than 70% is undefined); Neonate: ±3 at 70-99% SpO₂ (less than 70% is undefined)• Averaging 8 pulse beat average and instantaneous	BARGRAPH 0-15 segments	POWER REQUIREMENTS 6.6mA at 3.3v electrically isolated (22mW typical power)
PULSE RATE <ul style="list-style-type: none">• Range 30-254 BPM (1 BPM increments)• Accuracy ±2 BPM or ±2% (whichever is greater)• Averaging 8 second average	PLETHYSMOGRAM 0-100, auto-gained for highest resolution	SERIAL COMMUNICATIONS Data is transmitted from the oximeter board to the host at a rate of 60 packages per second. Data is formatted in 4 byte packets. The communication settings are 4800 baud, one start bit, eight data bits, no parity, one stop bit. The micro power oximeter board communicates with the host computer through a single, high-speed asynchronous serial channel at 3.3V CMOS levels. Data provided to the host includes %SpO ₂ (8 pulse beat average as well as instantaneous), pulse rate, signal strength bargraph, plethysmogram and status bit data. The host can synchronize the plethysmogram waveform. Using instantaneous SpO ₂ values supplied by the board, the host can implement it's own averaging algorithm.
SIGNAL STRENGTH 0-8 indicates logarithmic strength of patients pulse	DIMENSIONS <ul style="list-style-type: none">• Length 1.53 inches (39 mm)• Width 0.8 inches (20 mm)• Height 0.22 inches (5.6 mm) FLAGS Pulse beep; no finger in sensor; sensor unplugged; searching for pulse; searching too long; lost pulse	
	SERIAL COMMUNICATION LOGIC LEVELS CMOS 3.3V voltage levels (isolated by / from host)	

Order Information

31392B1 Micro Power Oximeter Board

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