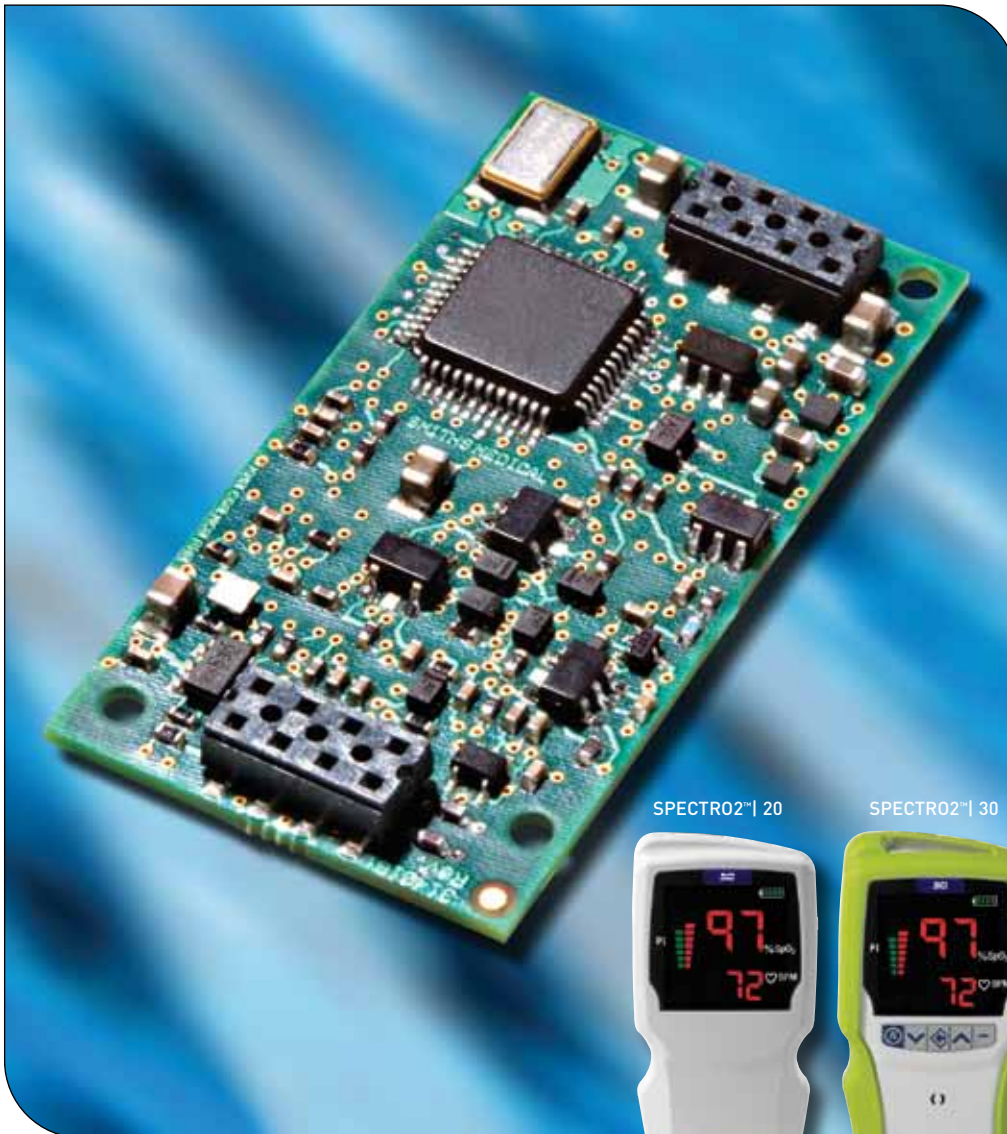


Digital Micro Power Oximeter Board



The Digital Micro Power Oximeter Board is the ideal OEM solution for integrating SpO₂, pulse rate, perfusion index and plethysmogram waveform into any host. The combination of small size, low power and superior performance make it the perfect choice for your OEM needs.

The digital micro power oximeter board design is based on BCI® OEM's industry leading micro power board solution, and patented motion tolerant /low perfusion technology. The digital micro power oximeter board is a RoHS compliant direct drop-in upgrade for the BCI® micro power board to provide incredible performance at a fraction of the size and power of the competition. In addition, the digital micro power OEM board is compatible with BCI® brand pulse oximeter sensors and patient attachments, as well as the Nellcor® DS-100A pulse oximeter sensor.

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

Digital Micro Power Oximeter Board

The Smiths Medical advantage:

- Low perfusion performance
- Motion tolerance performance
- Ultra compact size
- Low power consumption

Technical Specifications*

SATURATION – 70-100% SpO₂

- **No Motion**
Adult/Pediatric: ± 2 Arms¹
Neonates: ± 3 Arms^{1,4}
- **Motion**²
Adult/Pediatric: ± 3 Arms¹
- **Low Perfusion**³
Adult/Pediatric: ± 2 Arms¹
Neonates: ± 3 Arms¹

SATURATION – Below 70% SpO₂

Unspecified

NELLCOR⁶ SATURATION – 70-100% SpO₂

Adult/Pediatric: ± 2.5 Arms¹

NELLCOR⁶ SATURATION – Below 70% SpO₂

Unspecified

PULSE RATE

- **30-254 bpm with Extended Micro Power Mode**
- **20-300 bpm with Digital Micro Power Mode**
- **No Motion**
Adult/Pediatric: ± 1 Arms¹
Neonates⁴: ± 1 Arms¹
- **Low Perfusion**³
Adult/Pediatric: ± 1.5 Arms¹
Neonates⁴: ± 1.5 Arms¹
- **Motion**
Unspecified

NELLCOR⁶ PULSE RATE

- **25-300 bpm**
Adult/Pediatric: ± 1 Arms^{1,6}

FLAGS

- **Pulse Beep**
- **No Finger in Sensor**
- **Sensor Unplugged**
- **Searching for Pulse**
 - *Searching Too Long*: Flag set after no valid pulse and no greater than 20 seconds of searching for a valid pulse
 - *Lost Pulse*: Flag set after at least one valid pulse and no greater than 20 seconds of searching for a valid pulse.

ADDITIONAL FLAGS

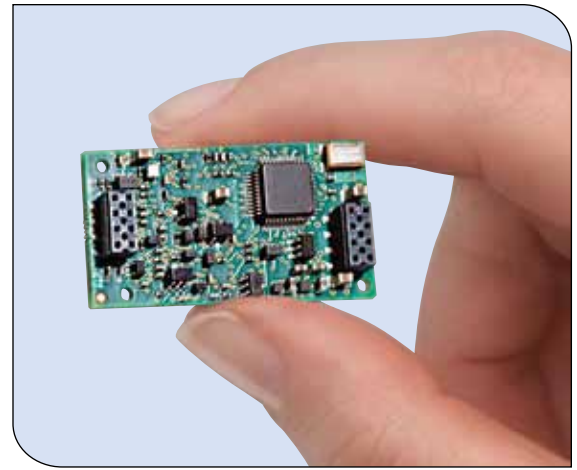
- **Low Pulse**
Flag set if the difference between the max and min of the IR pulsatile signal is below a threshold level.

SERIAL COMMUNICATION LOGIC LEVELS

3.3V CMOS voltage levels

ENVIRONMENTAL SPECIFICATIONS

- **Operating Temperature**
0 - 55°C
- **Storage Temperature**
-40° - 75°C
- **Relative Humidity**
15 - 95% (operating, non-condensing)
10 - 90% (storage, non-condensing)



POWER REQUIREMENTS

- **Power Supply Input Voltage**
+3.3V, electrically isolated
- **Typical Current Draw**
14mA @ 3.3V (average) [46 mW]

DIMENSIONS

- **Length**
1.53 inches (39 mm)
- **Width**
0.8 inches (20 mm)
- **Height**
0.24 inches (6.1 mm)

NOTES

- ¹ Arms - Average Root Mean Square.
- ² Rubbing and tapping motion – subject initiated variation max amplitude lateral or vertical of approximately 2.5 cm and max frequency of 5 Hz.
- ³ Pulse amplitude <1% (high sensitivity mode not enabled). Tested using industry standard simulator.
- ⁴ Tested on adult healthy subjects.
- ⁵ High sensitivity mode has unspecified SpO₂ and pulse rate accuracy.
- ⁶ Testing was done with DS100A sensor.

Order Information

WW3711 Digital Micro Power Oximeter Board

*Motion specification valid with BCI[®] 1300 sensor. All other specifications are valid with BCI[®] 3044 sensor. Specification for additional sensors available upon request.

THE DETAILS GIVEN IN THIS LEAFLET ARE CORRECT AT THE TIME OF GOING TO PRESS. THE COMPANY RESERVES THE RIGHT TO IMPROVE THE EQUIPMENT SHOWN.

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