

Finger Probe SpO₂ Sensor (Pulse Oximeter Sensor)

The finger probe SpO₂ sensor shall be a non-invasive optical sensor designed for continuous monitoring of:

- Peripheral Oxygen Saturation (SpO₂)

The probe shall be compatible with hospital-grade pulse oximetry modules and polysomnography systems.

Measurement Specifications

Parameter	Requirement
SpO ₂ Measurement Range	70% – 100%
SpO ₂ Accuracy	±2% (80–100%)
SpO ₂ Accuracy	±3% (70–79%)
Pulse Rate Range	30 – 250 bpm
Pulse Rate Accuracy	±2 bpm or ±2%
Perfusion Range	≥ 0.2% perfusion index detectable
Response Time	≤ 10 seconds

Suitable for: Sleep apnea studies, HRV + PPG research etc

Optical Specifications

- **Light Source:** Dual wavelength LEDs
 - Red: ~660 nm
 - Infrared: ~880–940 nm
- **Photodetector:** Silicon photodiode
- **Technology:** Transmission-type finger sensor

Mechanical Specifications

- **Type:** Clip-type reusable finger probe
- **Patient Type Options:**
 - Adult
 - Pediatric
- **Material:** Medical-grade silicone / ABS
- **Cable Length:** ≥ 1 meter (preferably 2 meters for PSG)
- **Connector Type:** Manufacturer-specific or universal DB-type connector
- **Weight:** Lightweight, < 60 grams