



DELTA

Multiparametric vital signs monitoring system

:: csem



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What is DELTA?

The DELTA is a research technology platform that offers real-time data acquisition of physiological data, enabling researchers to conduct in-depth analysis and visualization. The DELTA can be worn at multiple body locations (e.g., wrist, upper arm) and allows for cloud connectivity for easy deployment in clinical studies.

Vital signs

- Arrhythmia classification (incl. AF detection)
- Blood pressure
- Energy expenditure (kcal, MET)
- Fall detection
- Heart rate and heart rate variability
- Oxygen saturation (SpO₂)
- Physical activity profiling
- Respiratory rate
- Sleep profiling
- Stress
- Walk/run, cadence, speed, and distance



Why DELTA?

The DELTA reunites CSEM's expertise in hardware, firmware, and algorithm development in a single platform to further target new opportunities and new future product concepts.

The DELTA is the culmination of a history of firsts: the first optical heart rate monitor (EP1297784B1), the first wearable fertility tracker, and the first FDA approved continuous blood pressure monitor.

Hardware

- Biocompatible materials
- BLE, USB
- Sensors (depending on the model)
- Accelerometer
- Electrodermal activity (EDA)
- Reflective photoplethysmography (PPG)
- Ambient temperature
- Ambient light
- Barometer

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