

# BioCapture<sup>TM</sup>

RESEARCH SYSTEM



The **BioCapture Research System** is a lightweight, handheld and fully configurable **wireless** system for recording and analyzing physiological data. BioCapture can be used in a wide range of studies and can record **any combination** of EEG, ECG, respiration, spirometry, oximetry, EMG and more.

BioCapture's **flexible** research platform makes it the ideal option in human or animal studies for cardiopulmonary research, neuromonitoring research, or other pre-clinical or clinical research.

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# Hardware

The BioRadio® 150 is a **wireless** 12-channel monitor designed for viewing and recording **any combination** of physiological signals. Eight of the channels are fully configurable allowing **any physiological signal** to be recorded on **any channel**. The user unit also includes an auxiliary DC input and embedded sensors that can be used to monitor pulse oximetry, pressure based airflow and accelerometry. The wide array of additional transducer options range from nasal oral thermocouples and Piezo-electric respiratory effort belts to hand dynamometers and force plates. Because of the system's wireless and flexible design, the BioCapture system opens up a whole new realm of laboratory opportunities.

## System Specifications

Transmission Range: 100 feet line of sight (approx.)\*

RF Band: 902-928 MHz ISM Band or  
2.4-2.484 GHz ISM Band

## User Unit

Dimensions: 5.25"x 2.5" x 1.1"  
(not including antenna)

Weight: 210 grams (7.4 oz.)  
with batteries

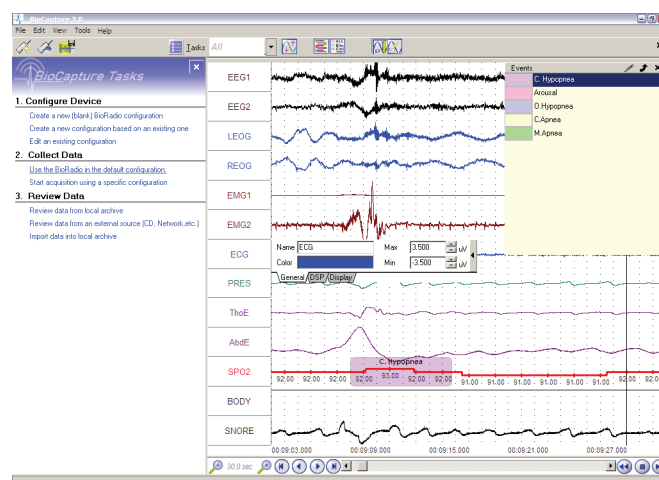
Number of Input Channels: 8 configurable channels  
(external sensors)  
4 embedded channels:  
accelerometry, pulse  
oximetry, pressure based  
airflow and DC auxiliary input

Power: 2 AA alkaline batteries,  
12 hours use



# Software

The BioCapture system is designed to provide researchers with a flexible platform for conducting physiological studies in a wide variety of application areas. To achieve this, BioCapture is equipped with a convenient software package that provides complete control over hardware configuration, data display, analysis and data management.



## Additional Analysis Capabilities:

### Data Export Capability

Data can be exported to ASCII format for further analysis in other software packages such as National Instruments LabVIEW™, MathWorks MATLAB® or Microsoft Excel®.

### Software Development Kit

The BioCapture system comes with a Software Development Kit that includes real-time LabVIEW and MATLAB drivers, which allows flexibility in designing custom software around the BioRadio 150.

*The untethered technology of the BioRadio opens up a whole new realm of research opportunities by eliminating the restrictions typically encountered with traditional monitoring equipment.*

\* Transmission distance varies based on the operating frequency and the building architecture.

This device is intended for scientific and research purposes only. IRB approval must be obtained before using this device in human testing.

BioCapture is a trademark and BioRadio is a registered trademark of Cleveland Medical Devices Inc., Cleveland OH.

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