SoHo™ Telemetry System

Revolutionize Your Research with Cutting-Edge Implantable Telemetry

Capture clean, reliable physiological data 24/7 with precision and ease.

Advance animal welfare through socially housed, freely moving animals, minimizing stress and maximizing data integrity.

Leverage industry-leading Ponemah software to confidently collect, accurately analyze, and efficiently summarize your telemetry data.

DSI™

An Affiliate of Harvard Bioscience, Inc.

Why SoHo Telemetry System?

Transform your studies with an advanced implantable telemetry system designed to break free from traditional constraints with the quality you trust. The SoHo telemetry system empowers you to design and execute studies on your terms.

Versatility to Inspire Innovation

Ignite innovation with a versatile system designed to fuel creativity and adapt to your evolving research needs. Seamlessly integrates physiological monitoring in high-density setups, such as ventilated racks and environmental chambers, while also supporting behavioral endpoints like mazes, treadmills, and behavioral boxes. Optimized for extra-small to medium-sized animal models, it empowers researchers to push boundaries, gain deeper insights, and achieve breakthroughs.

Efficient Design, Unmatched Convenience

Streamline your research with user-controlled implant power management to extend battery life and operate on your terms. Remote power management and real-time status notifications minimize physical interactions, reducing stress artifacts while enhancing animal welfare and researcher safety. Combined with a compact system design that maximizes lab space, this solution accelerates your workflow, making it faster, safer, and more effective.

Advancing the 3Rs for Ethical Research

Promote animal welfare with a system that reduces stress, supports social housing, and minimizes the number of animals required per study—all while adhering to the highest ethical and regulatory standards.

Implant Specifications

Model	Biopotential	Temperature	Activity	Warranted Battery Life	Implant Weight (g)	Implant Volume (cc)	Minimum Animal Weight (g)*
SoHo-X00		2*	1	3.5 Months	2.6 g	1.5 cc	25 g (IP) 17 g (Sub Q)
SoHo-X01	1	2*	1	1 Month			
SoHo-X02	2	2*	1				
SoHo-S00		2*	1	12 Months	6.0 g	4.2 cc	175 g
SoHo-S01	1	2*	1	4.5 Months			
SoHo-S02	2	2*	1				

*Includes two internal temperature sensors: one with a 32-43°C range and another with an extended 0-50°C range.

The SoHo System

SoHo Implants

- Collect real-time, 24/7 physiologic data collection without disturbing the animal.
- Deliver clean, reliable data with higher statistical power.
- Support high-density and socially housed setups for natural animal behavior.
- Optimize implant battery life with user-managed remote power modes.

SoHub Transceiver

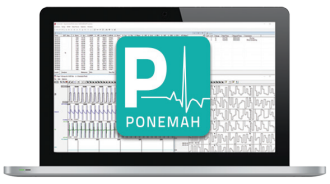
- Collect data from up to 16 implants per SoHub and 96 implants per lab environment.
- Simple setup with fewer components using USB communication & power.
- Quick SoHub identification with matching color-coded labels on the device and in Ponemah.
- Save space with a compact design and versatile mounting options.

SoHo Rolling Rack

- Wherever your experiments take you, the mobile Ponemah acquisition station can follow.
- Lab ready, corrosive resistant materials.
- No-mess cable management and integrated power cord for simplified mobility.

Software

- Data acquisition from many subjects and signal types simultaneously, from hours to weeks with Ponemah.
- Comply with GLP and 21 CFR Part 11 regulations with data security & electronic record features.
- Fast, consistent data analysis and reporting for chronic data sets common to sleep and seizure studies with NeuroScore.



A Solution for multiple cases

EEG + EMG: Analyze Neurological and Cognitive Conditions

- Real-time brain activity monitoring in longitudinal studies with the same subject, allowing for quantification of behavioral and physiologic change over time.
- Diagnosis of neurological disorders, including epilepsy, sleep, and brain tumors.
- Cognitive and behavioral studies, including attention, memory, and decision-making.
- Emotional and stress responses for mental health conditions, including anxiety and depression.

ECG: Evaluate Cardiovascular Function

- Monitoring heart rate and rhythm to detect arrhythmia, ischemia, and other cardiac conditions.
- Analyzing variations in heart rate variability (HRV) to assess autonomic nervous system function and its impact on cardiovascular health.
- Heart rate and ECG are used as biomarkers of ischemia and myocardial infarction (MI).

Core Body Temperature + Locomotor Activity: Assess Thermoregulation and Changes in Activity Levels

- Critical to circadian rhythm and infectious disease studies including onset and trigger to treat.
- Confidently acquire real-time data from challenging Biological Safety Level (BSL) environments with a miniature hardware footprint.
- Accurate temperature measures over a wide range for hibernation studies.
- Precise movement detection via 3 axis accelerometer environments with a miniature hardware footprint.

Combined Applications

- Integrate with behavioral and metabolic equipment to study the connection between physiological and behavioral responses in various disease models; valuable for research in areas such as sleep, stress, anxiety, learning, memory, social interaction, drug effects, pain, neurological disorders, and exercise.
- Add telemetry to respiratory solutions to investigate the link between cardiovascular or neurological function and respiratory function in studies on cardiovascular interactions, sleep apnea, neural control of breathing, and stress or anxiety.

HBio

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