



## Memory Type System Overview

*Telemetry that Supercharges Your Research!*



Introducing the **Stellar Memory Telemetry System** – our flagship solution now celebrating its 15th year of excellence. Trusted by a **global community of researchers**, it has consistently proven to be a **highly functional, reliable, and robust** telemetry system, empowering studies across the world.

Just like its name, **Stellar** delivers **outstanding performance** for researchers who demand precision and simplicity. With its user-friendly design and **cost-effective** features, the Stellar system lets you focus on your research while we take care of the tech.

Why choose Stellar?

- **Proven Reliability:** Over 15 years of global success in the field.
- **Versatility:** Whether you're in preclinical or basic research, it's the system for you.
- **User-Focused:** Simple to install, easy to use, and integrates seamlessly into your existing workflow.

Ready to make your research *shine*? The Stellar Telemetry System is built for researchers who want results without the hassle.

Feature	Benefit
One receiver, multiple implants	Simple installation, reduced costs, system portability
Long-range digital transmission (up to 5 meters)	Simplified antenna placement, one antenna per cage rack, easy system integration
High-fidelity signals, transducer-tipped catheters	Optimal signal quality, high frequency-response, no fluid head pressure offsets, easy surgical placement
Open platform, seamless software integration	The Stellar platform is integrated with Notocord-hem and Biopac AcqKnowledge software. CED Spike2 software supports real-time streaming from the memory-type system. Hardware/protocol documentation is available on request.
Scheduled sampling, memory storage	<b>Long battery life, no data loss</b>
Full group housing capabilities	Animal well-being, regulatory compliance, and advanced behavioral assessment.
<b>Sealed titanium housings</b>	Long-term reliability and reusability of Stellar implants
Compact and flexible	Limited system infrastructure, cost-effective, and easy to use.

Recent upgrades and improvements are:

- Implementation of sealed titanium housings for mouse implants, improving the long-term reliability and reusability. The size is reduced to 1.9cc and the weight is reduced by 15% to 3.4 grams.
- Significantly reduced power consumption for temperature, battery voltage, and activity recording.
- Ability to resume downloads when download connection is lost, providing robust support for large downloads from memory.
- Real-time recording (used mostly in large animals) improved to reduce data loss.
- 3x faster USB communication, providing improved download times and throughput.
- Other minor improvements in battery life and communication reliability.

Due to the innovative design of the Stellar system, all the enhancements are available to both new and existing Stellar users at minimal or no cost. *Receiver and implant firmware can be updated in the field, even while implants are physically placed in animals.* Software maintenance/updates may incur a modest fee from the 3<sup>rd</sup>-party software provider.

### Memory Implant Physical Specifications

Model/ Size	Shape	Volume (cc)	Dimensions (mm)	Weight (g)	Catheter length/ OD (cm/mm) *	Biopotential Leads (cm)
XST (XS titanium)	Flat rectangle	1.9	25x12x7.5	3.4	6/.425 (1.3f)	10
M (medium)	Cylinder	6.0	30x16(OD)	16	15/.55 (1.7f)	20
L1 (large)	Cylinder	8.0	40x16(OD)	20	15/.55 (1.7f)	20
L2 (large)	Cylinder	8.0	40x16(OD)	20	35/1.25 (3.8f)	65
XL (extra-large)	Cylinder	14.0	65x16(OD)	30	35/1.25 (3.8f)	65
XXL (XX large)	Flat rectangle	54.0	75x40x20	90	35/1.25 (3.8f)	65

*Note: Pressure catheters and biopotential leads can be made to custom lengths. An external temperature probe is also available on request.*



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