AXION BIOSYSTEMS

MAESTRO MEA

The world's most advanced microelectrode array platform

Why do labs choose Maestro?

The Maestro MEA platform makes it easy to perform complex electrophysiological experiments and gain deep insights into the function of cells. Since launching our first multiwell plate-based Maestro MEA system more than a decade ago, it has become an indispensable tool in academic, biotech, and pharma labs around the world. When you purchase a Maestro, you get the support of our team of experts and join a dedicated community driving research forward.

500+ peer-reviewed publications

700+ Maestros sold

3 million+ cell cultures

The complete multiwell MEA system

Maestro MEA offers the best combination of throughput, resolution, and ease of use. Discover why Maestro MEA is emerging as the new standard for excitable cell function.

Key features

- **Multimodal** configurations
- **Simultaneous** full-plate recording
- **Built-in** environmental controls
- **Powerful,** intuitive software
- **Automation** compatibility
- **Noise-reduction** engineering
- **Barcode** plate tracking

How do you measure activity?

Evaluating electrical activity can give important context to your research. Detailed functional characterization is critical for understanding disease mechanisms, but many researchers avoid it because the techniques can be laborious. But electrophysiology doesn't have to be difficult when Maestro microelectrode array technology makes functional readouts accessible.

Why should you choose MEA?

Detailed functional profiles

Dynamic spatial and temporal functional data reveals how cells fire and interact in culture

Noninvasive cell monitoring

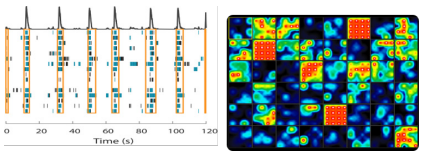
Noninvasive electrodes track activity over time for maximum experimental flexibility

Easy assay technique

Requires only basic culture techniques with no labels, dyes, or complicated steps

The ideal tool for discovery

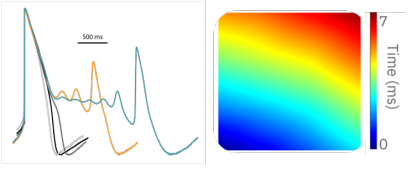
Whether characterizing the development of disease models or screening new therapeutics, quality functional readouts are essential for making informed decisions. The Maestro MEA platform is compatible with most electrically active cell types. **Learn more about our main applications:**



Neural activity

Network analysis, synchrony, LFP, spikes

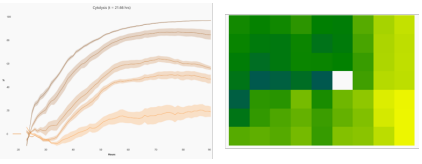
Learn more



Cardiac activity

Excitation, contraction, propagation in one

Learn more



Cellular kinetics

Real-time cell health and function monitoring

Learn more

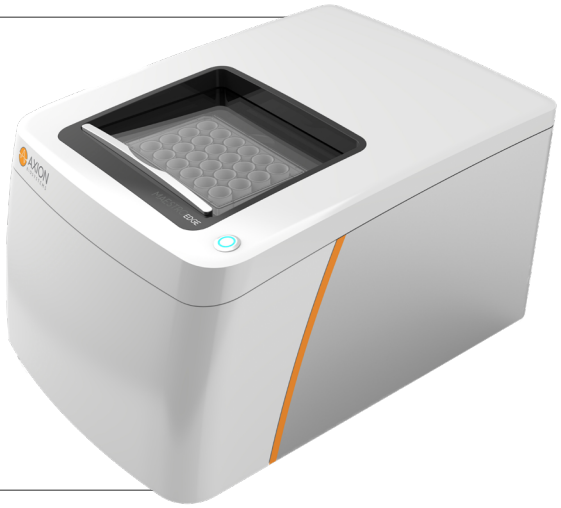
Choose the MAESTRO MEA *for you*

Maestro Pro: *The premier bioelectronic assay system*

The Maestro Pro can do it all. Compatible with all modules and plate types, the Maestro Pro has **maximum flexibility and throughput.** Take electrophysiology to the next level with detailed analysis and up to 96 wells assayed simultaneously.

Maestro Edge: *Benchtop versatility and performance*

The Maestro Edge has mid-level throughput and top-tier flexibility. Compatible with all modules, the **Maestro Edge is a multimodal MEA and impedance system** adaptable to a wide range of experiments.



Maestro Volt: *Quality data at an affordable price*

The Maestro Volt makes quality MEA data accessible to any lab. The introductory MEA-only system is available with the Neural or Cardiac Module.

Maestro features comparison

There's a Maestro MEA system for every lab. Pick the throughput you need and select the software, plates, and peripherals for your desired functionality.

Maestro Pro Maestro Edge Maestro Volt

Features	*Maestro Pro*	*Maestro Edge*	*Maestro Volt*
Throughput (well format)	6, 24, 48, 96, 384**	6, 24, 96**	6
MEA mode	✓	✓	✓
MEA viability	✓	✓	
Impedance mode	✓	✓	
Environmental control	✓	✓	✓
Automation API	✓	✓	
Stimulation	Electrical & Optical	Electrical & Optical	Electrical
Omni compatible	✓	✓	✓

***Well format available in impedance only*

Softwares modules

To expand your capabilities

The Maestro MEA platform has seven software modules available. Select the software modules to expand your system's functionality and match your research needs:

System and modules	*Neural*	*Cardiac*	*MEA Viability*	*Impedance*	*Impedance Gxp*	*MEA Automation*	*Impedance Automation*
Maestro Pro	✓	✓	✓	✓	✓	✓	✓
Maestro Edge	✓	✓	✓	✓	✓	✓	✓
Maestro Volt	✓	✓					

Neural: Measure electrical network behavior of neurons, including: activity, synchrony, and network oscillations, label-free.

Cardiac: Record the four key measures of functional cardiac performance: action potential, field potential, propagation, and contractility.

MEA Viability: Measure cell viability and coverage on MEA plates for a complete structure-function assay.

MEA Automation: Automate cardiac and neural MEA assays with this API for interfacing with liquid handling platforms.

Impedance: Track cell proliferation, viability, barrier function, immune cell-mediated killing, viral cytopathic effects, and more.

GxP Impedance: Achieve FDA 21 CFR Part 11 compliance in GMP/GLP labs with this version of the Impedance Software Module.

Impedance Automation: Automate impedance assays with this API for interfacing with liquid handling platforms.

Plates and peripherals

In a range of formats

Our high-quality multiwell plates feature a range of throughputs and electrode counts. Select the multiwell plates to match your assay needs:

					
Name	*CytoView MEA*	*BioCircuit MEA*	*SpheroGuide MEA*	*Lumos MEA*	*CytoView-Z*
Description	*For MEA & imaging*	*Lowest cost per well*	*Organoid placement*	*Optical stimulation*	*Impedance assays*
Throughput	*6, 24, 48, 96*	*24, 48, 96*	*48*	*24, 48, 96*	*96, 384*
Transparent bottom	✓		✓	✓	✓
Field potential	✓	✓	✓	✓	
LEAP	✓	✓	✓	✓	
Propagation	✓	✓	✓	✓	
Contractility	✓		✓	✓	
Viability (MEA)	✓		✓	✓	
Electrical stimulation	✓	✓	✓	✓	
Optical stimulation				✓	
Impedance					✓

Lumos optical stimulation

Incorporate cutting-edge optical techniques into your research and control your cells with light using Lumos.

Format	*# Color*	*System compatibility*
24		**Pro/Edge**
48		**Pro**
96		**Pro**

Learn more:

axionbiosystems.com/products/mea

Contact us:

axionbiosystems.com/contact

Office locations:

North America - Europe - Asia Pacific

For pricing and ordering:

sales@axionbio.com or scan the QR code

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