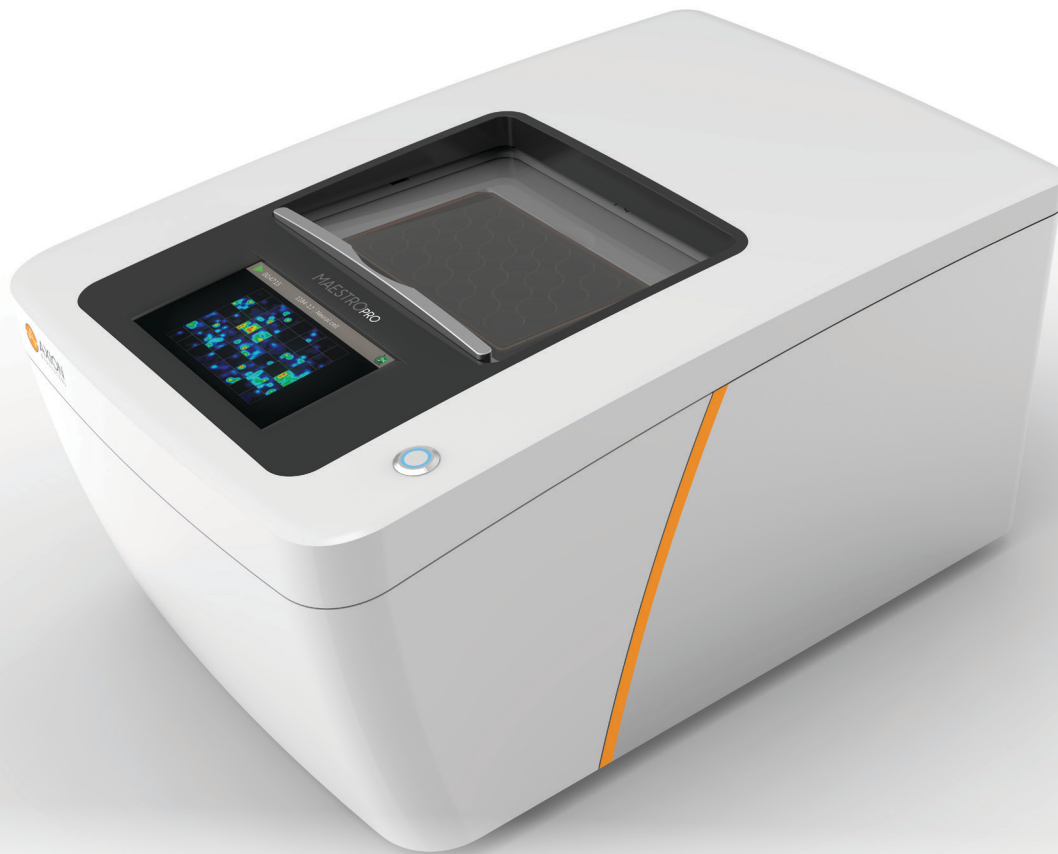




**AXION**  
BIOSYSTEMS  
explore life's circuitry®

# MAESTRO PRO

THE WORLD'S MOST ADVANCED  
MICROELECTRODE ARRAY PLATFORM



explore life's circuitry®

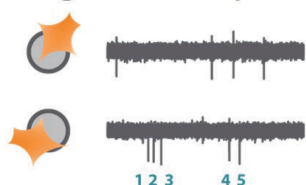
# MAESTRO MEA TECHNOLOGY | UNDERSTAND LIFE'S CIRCUITRY

From heartbeats to brain function, excitable cells play a fundamental role in life. The evaluation of electrically active cells has historically been tedious, requiring months of training to study single cells at low throughput. Using Maestro MEA technology, any scientist can now quickly and easily measure electrical network behavior in live cells at high throughput. Now there is nothing stopping you from exploring life's circuitry.

## MEASURE CELLULAR ACTIVITY LABEL-FREE IN REAL-TIME

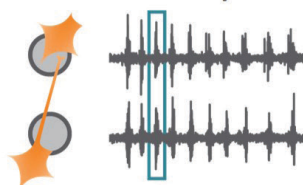
### Neural network recordings

Mean Firing Rate = # of Spikes / Time



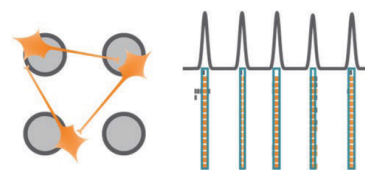
**Activity**

Connectivity



**Synchrony**

Burst of Action Potentials



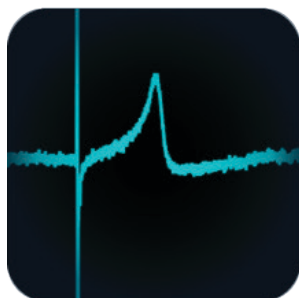
**Oscillation**

Electrical activity is captured from neurons (orange) cultured over electrodes (gray circle). The Maestro Pro MEA system detects key parameters of neural network activity, including activity, synchrony, and oscillation.

### Cardiomyocyte recordings



**Action Potential**



**Field Potential**



**Propagation**



**Contractility**

The Maestro Pro is the next generation of electrophysiology plate reader. Using a single system, record the four key measures of functional cardiac performance, label-free and in real-time in every well of the multiwell plate: 1) Action Potential, 2) Field Potential, 3) Propagation, and 4) Contractility.

# MAESTRO MEA TECHNOLOGY | MAESTRO PRO

The Maestro Pro is built on Axion's latest processor chip technology, BioCore V4, for superior data quality. Featuring a newly designed environmental chamber, onboard status update screen, and the next generation in data acquisition and analysis software, AxIS Navigator, Maestro Pro is the complete platform for excitable cell characterization.

## The World's Most Advanced MEA Platform



### “ONE BUTTON SETUP”

Temperature and CO<sub>2</sub> levels automatically adjust on plate docking. Plate usage is logged via an integrated plate barcode scanner for convenient experiment tracking.

### TAKE CONTROL

Need to recreate a specific pattern of cellular activity? Stimulate your cells with electrical or light pulses.

### CONNECT TO YOUR NETWORK

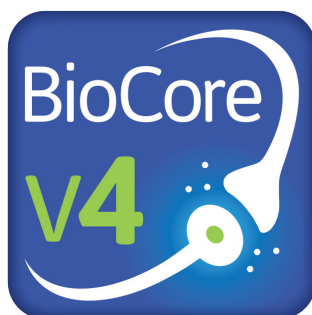
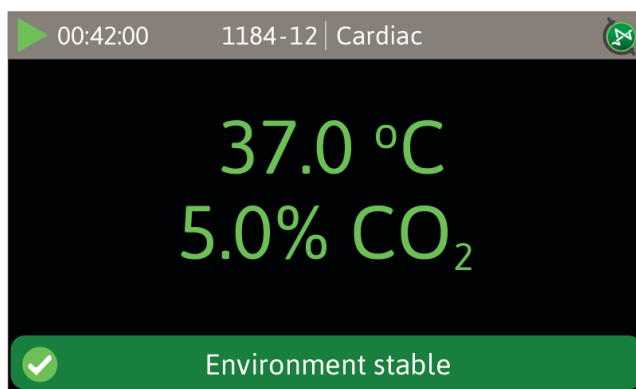
768 simultaneous live recordings from your cells. Now you can understand life's circuitry label-free in real-time.

### PRECISE ENVIRONMENT

The smart environmental chamber finely controls heat and CO<sub>2</sub> while rejecting electrical noise and mechanical vibrations.

### POWERFUL DATA ANALYSIS

AxIS Navigator simplifies the setup, execution and analysis of MEA experiments.



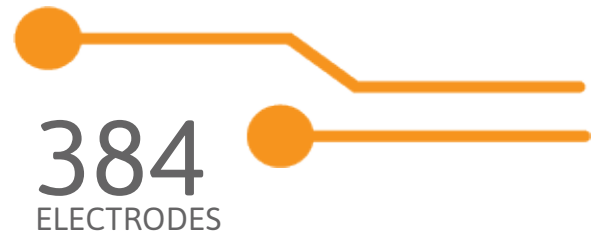
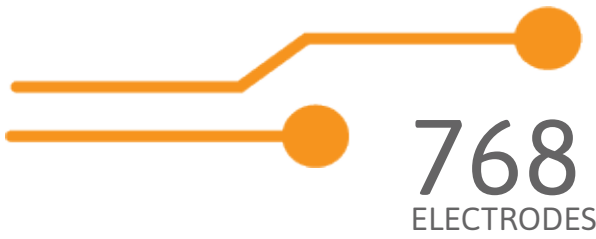
### BRILLIANT DATA

With BioCore v4 experience stronger signals, ultra-low frequency content and boundless flexibility.

# MAESTRO PRO

vs

# MAESTRO EDGE

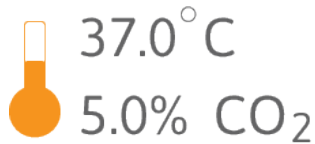


1 TB

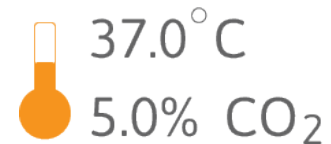
1 TB storage space

0.5 TB

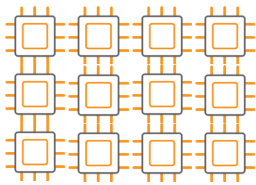
0.5 TB storage space



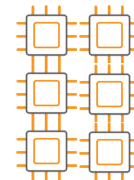
Integrated Environment Chamber



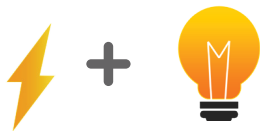
Integrated Environment Chamber



x12 BioCore v4 chips



x6 BioCore v4 chips



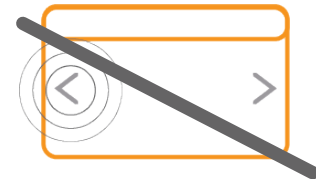
Electrical and Optical Stimulation



Electrical and Optical Stimulation



Touch screen enabled



No Touch screen

6, 12, 24, 48, 96 well

Compatible plates

6, 24 well

Compatible plates