



# ME2100-Mini-System

## A small footprint MEA-System — Approach, Understand, and Cure Pathologies Related to Electrical Dysfunction

### Advantages

Part of the Multi Channel Systems 2100 amplifier solution suite, the ME2100-Mini-System delivers innovative technology as part of our ongoing evolution of classic MEA amplifiers.

The small footprint, low-heat emission and ability for simultaneous operation of multiple headstages make the ME2100- Mini-System an ideal solution for continuous, undisturbed recordings and stimulation of samples in the incubator or on a microscope stage for parallel optical data processing.

Your electronics are protected against humidity, so the headstage can be operated from within an incubator for better results. The small footprint also makes it easy to position the headstage on standard microscopic tables, allowing you to merge optical and electrophysiological data (e.g. with our full transparent ITO MEAs).

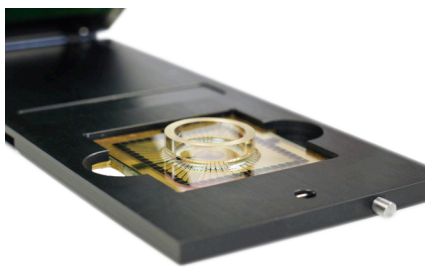
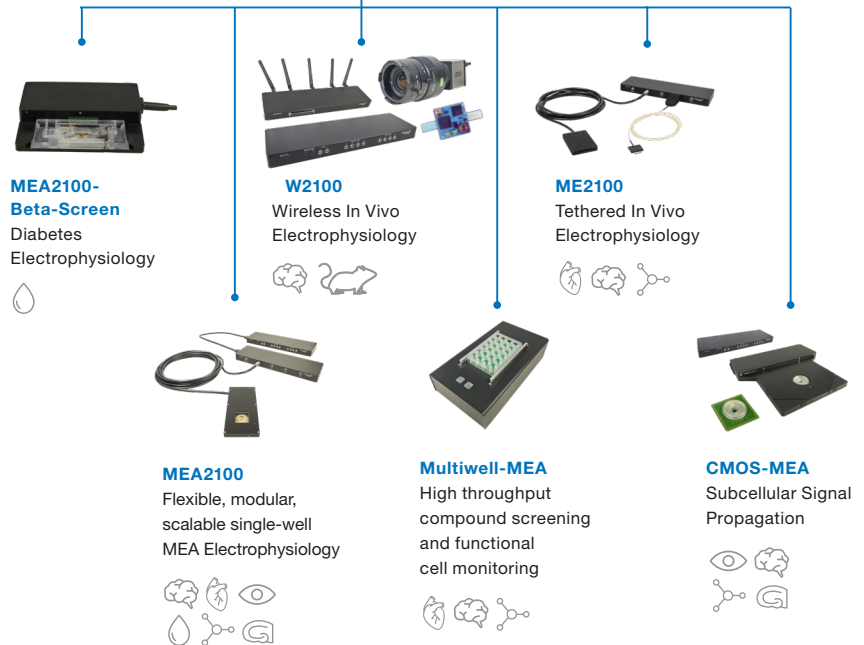
Four mini-headstages can be connected to each Signal Collector Unit (SCU), and two SCUs can be operated in parallel from one Multiboot Interface Board. This allows you to run up to eight experiments simultaneously. Plus, you can easily scale up your modular ME2100-Mini-System with additional headstages to meet your growing experimental needs.

### Key Features

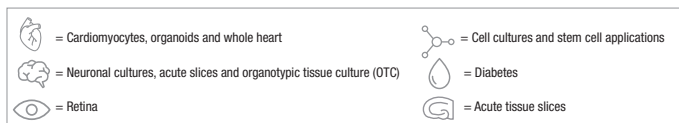
- Scale up to eight headstages for higher throughput in multiple simultaneous experiments
- 60 or 120 recording channels per well — for high spatiotemporal resolution
- Independent electrical stimulation patterns (parallel stimulation pathways) in LTP/LTD experiments
- Up to 50 kHz sampling rate, 24 bit resolution for highest data accuracy in the field
- Allows functional recording from within an incubator — under perfect conditions for your cell cultures

## Multiboot Interface Board

The Multiboot Interface Board facilitates operation of all MCS in vitro and in vivo headstages within the entire 2100 amplifier solution suite. This suite includes: MEA2100-HS, Multiwell-MEA-HS, CMOS-MEA-HS, MEA2100-Beta-Screen-HS, W2100-HS and ME2100-HS. The modular 2100 amplifier solution suite design makes it easy to modify your lab equipment generally with modest hardware upgrade investments.



Closeup of an open MEA-Mini Headstage with transparent microelectrode array



## Specifications

Amplifier	
Data resolution	24 bit
Number of recording channels	8x60 or 8x120
Stimulus Generator	
Current mode	± 1 mA
Voltage mode	± 10 V
Data converter and USB interface	
Sampling rate per channel	up to 50 kHz