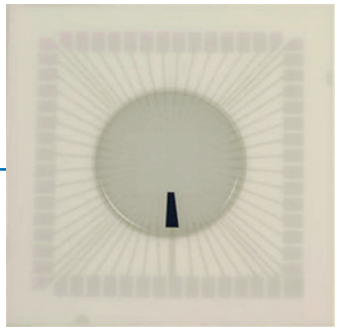
multichannel systems
An Affiliate of Harvard Bioscience, Inc.

60ThinMEA

Microelectrode Array with thin Glass on ceramic Carrier for Use with MEA2100-System

60ThinMEA100/10iR-ITO
60ThinMEA200/30iR-ITO



Technical Specification

General Characteristics	
Temperature compatibility	0 - 125 °C
Dimensions (W x D x H) Thickness of glass part	49 mm x 49 mm x 1 mm 180 µm
120MEA Layout	
Base material	Glass on ceramic carrier
Electrode material	TiN (Titanium nitride)
Electrode height	planar
Track material and contact pads	ITO (Indium tin oxide)
Electrode diameter	10 µm or 30 µm
Interelectrode distance (center to center)	100 µm or 200 µm
Isolation material	Silicon nitride (SiN)
Electrode impedance	< 100 kΩ for 30 µm electrodes , 250 - 400 kΩ for 10 µm electrodes
Electrode layout grid	8 x 8
Number of recording electrodes	59
Number of reference electrodes	1 internal reference electrode (iR)
Software: MC_Rack	MC_Rack: 2 dim. (MEA) or Configuration
Software: Multi Channel Suite	Multi Channel Experimenter: MEA Configuration
MEA Perfusion Chamber	
(w/o) Without ring (gr) Glass ring (pr) Plastic ring without thread (pr-T) Plastic ring with thread	 ID +/- 19 mm, OD +/- 24 mm, height 6 / 12 mm ID +/- 26.5 mm, OD +/- 30 mm, height 6 / 12 mmm ID +/- 26 mm, OD +/- 30 mm, height 6 / 12 mmm
Sterilization	These MEA types are heatstable up to 125 °C! They can be autoclaved and coated with different procedures for cell and tissue cultures.

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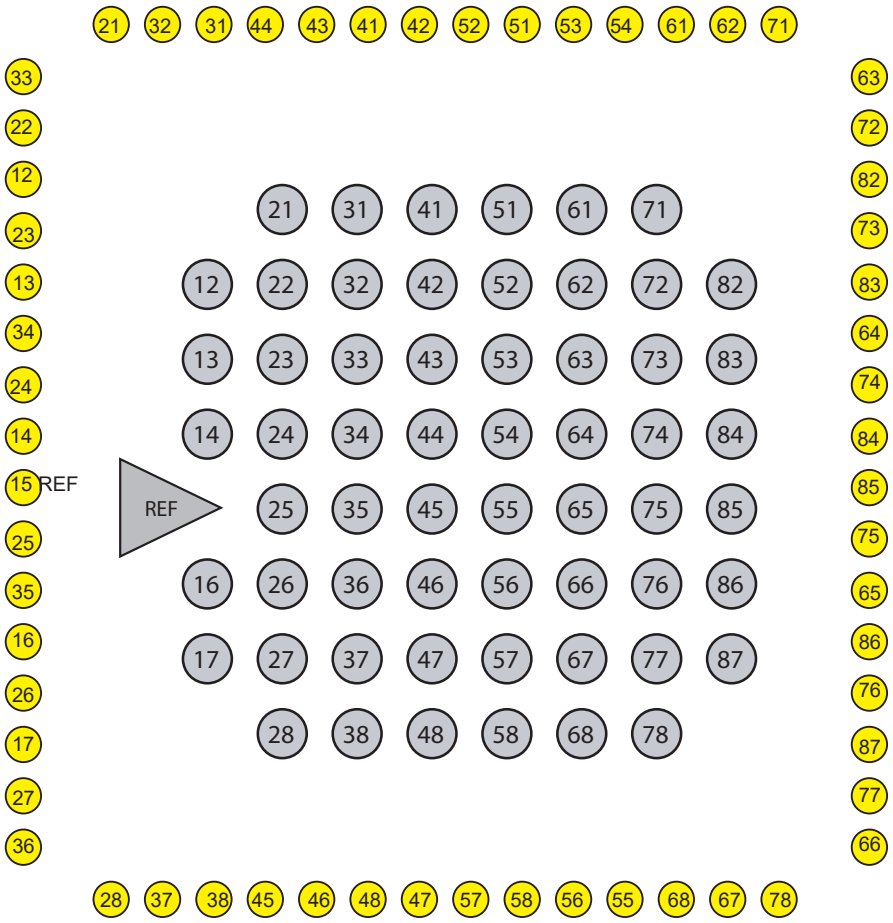
60ThinMEA: Electrode Layout

Electrode Layout



Technical Specifications of the 60ThinMEA

Numbering	The numbering of MEA electrodes in the 8 x 8 grid follows the standard numbering scheme for square grids: The first digit is the column number, and the second digit is the row number. For example, electrode 23 is positioned in the third row of the second column. Electrode 15 is missing in this MEAs. It is replaced by a big internal reference electrode, connected to pin 15 of the amplifier.
MEAs are not symmetrical	MEAs with internal reference electrode should be placed with reference electrode to the left side when looking directly to the opened amplifier.

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