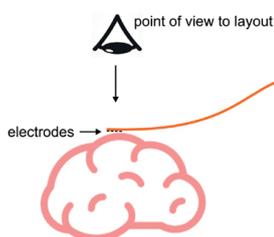


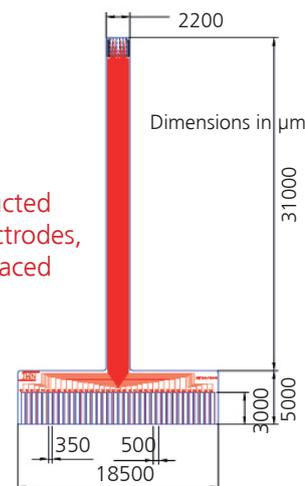
FlexMEA36

Flexible Microelectrode Array with 36 Electrodes for Use with ME2100-HS32 Headstage or 32-Channel Miniature Preamplifier via Adapter ADPT-FM-32.

Layout



Important: The channel map is constructed by looking on the back side of the electrodes, because the FlexMEA electrodes are placed on the preparation upside down!



Technical Specifications

Temperature compatibility	0 - 125 °C
Dimensions (W x D x H)	41 mm x 11 mm
Thickness of the electrode field	12 µm
Base material	Polyimide 2611 foil
Weight	< 1 g
Track material and contact pads	Gold (Au)
Electrode diameter	30 µm
Interelectrode distance (center to center)	300 µm
Diameters of the holes	50 µm
Electrode height	Planar
Electrode material	TiN electrodes (Titanium nitride)
Isolation material	Polyimide 2611 foil
Electrode impedance	< 150 kΩ
Electrode layout grid	6 x 6
Number of recording electrodes	36
Number of reference electrodes	2 internal reference electrode (iR)
Ground electrodes	2 ground electrodes
Software	
Multi Channel Experimenter	MEA Configuration
MC_Rack	1 dimensional or Configuration
Channel map	FlexMEA36.cmp

Advantages

- The FlexMEA36 is made of flexible polyimide 2611 foil, perfect for in vivo and specific in vitro applications, for example, whole-heart preparations.
- The titanium nitride electrodes have a diameter of 30 µm, and the distance between the electrodes is 300 µm.
- The polyimide foil is perforated with holes of 30 µm diameter, ensuring optimal tissue contact.

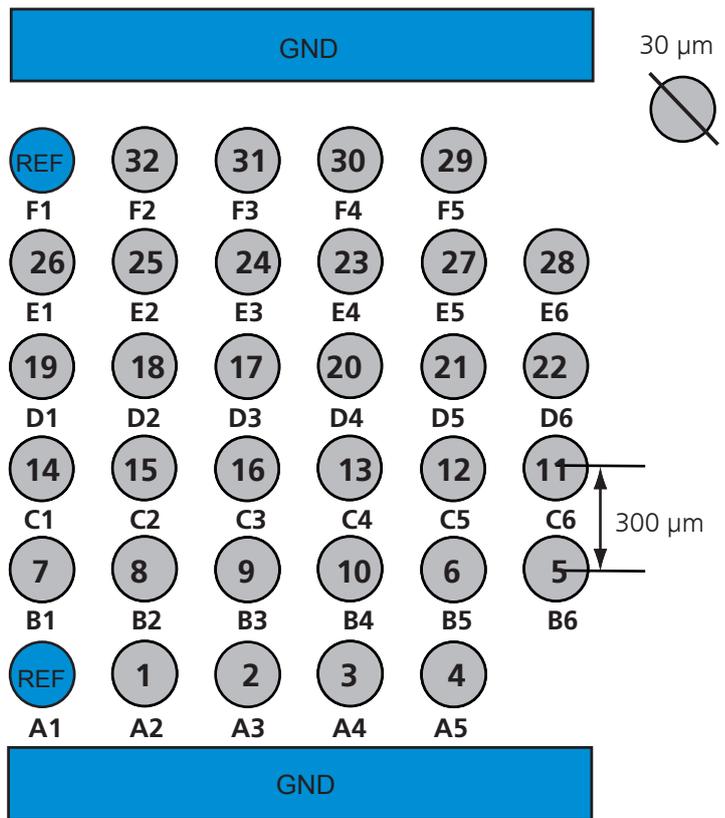
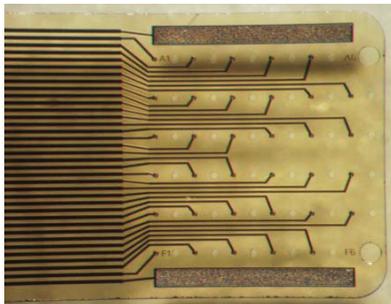
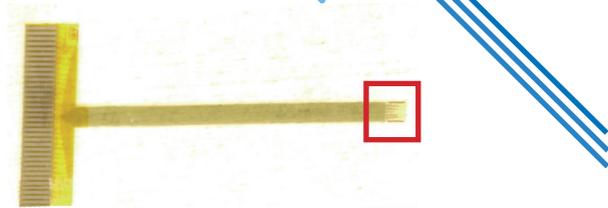
Cleaning and Sterilization

Rinse with distilled water, optional with ethanol 70 %. Please do not use an ultrasonic bath! When using an autoclave at 121 °C, please make sure that the FlexMEA36 will not be exposed to the moisture. The FlexMEA36 itself must be dry and additionally sealed in a sterile package.

FlexMEA36

Flexible Microelectrode Array with 36 Electrodes for Use with ME2100-HS32 Headstage or 32-Channel Miniature Preamplifier via Adapter ADPT-FM-32.

Layout



Setup

The labelled side with NMI / A1 / A6 / F1 / F6 is the correct side with the contact pads and electrodes. It might be a bit confusing that the pads look stronger from the wrong side, but if you hold the FlexMEA36 into the light, you see that the pads have a 3-dimensional appearance only from the correct side. Please insert the FlexMEA upside down into the ADPT-FM-32 and connect the adapter to the MPA321 or to the ME2100-HS32

If you use more than one MPA321 and a MEA64-System, the signal collector SC2x32 leads the output channels of the second amplifier to channel number 33 - 64. Please see datasheet SC2x32 for details.

The numbers in the electrodes are the recording channel numbers that refer to the channel numbers in the Multi Channel Experimenter or MC_Rack program. The letter digit code below is the electrode identifier and refers to the position of the electrode in the grid. Please consider the orientation! For MC_Rack, please make sure that you have selected the linear (1 dimensional) channel layout under "Data Source Setup" with a total number of 32 channels. Deselect the check box "Digital input channel" if you do not need it, otherwise one recording channel is missing! See the MC_Rack or Multi Channel Experimenter manual or help for details.



Warning: The device may only be used together with the ME2100-HS32 or the MPA321 (-Flex) from Multi Channel Systems MCS GmbH, and only for the specified purpose. Damage of the device and even injuries can result from improper use.