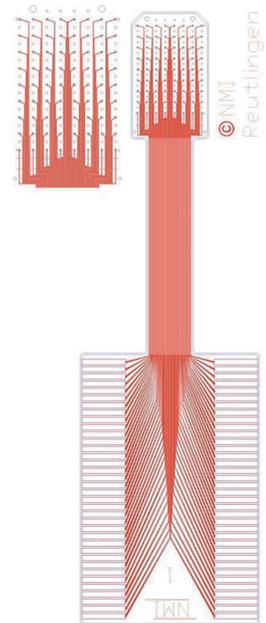


FlexMEA72

Flexible Microelectrode Array with 72 electrodes for use via ADPT-FM-72 adapter with two 32-Channel Miniature Preamplifier MPA321 for *in vivo* and *in vitro* applications.

Layout



Technical Specifications

Temperature compatibility	0 - 125 °C
Dimensions (W x D x H)	42 mm x 12 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	100 µm
Interelectrode distance (center to center)	625 to 750 µm
Diameters of the holes	100 µm
Electrode height	Planar
Electrode material	TiN electrodes (Titanium nitride)
Isolation material	Polyimide 2611 foil
Electrode impedance	< 150 kΩ
Electrode layout grid	8 x 9
Number of recording electrodes	64
Number of reference electrodes	4 internal reference electrode (iR)
Ground electrodes	4 ground electrodes
Software	
Multi Channel Experimenter	MEA Configuration
MC_Rack	1 dimensional or Configuration
Channel map	FlexMEA72.cmp

Advantages

- FlexMEAs 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 100 µm, and the distance between the electrodes is 625 to 750 µm.
- The polyimide foil is perforated with holes of 100 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 FlexMEA will not be exposed to the moisture. The FlexMEA itself must be dry and additionally sealed in a sterile package.

FlexMEA72

Flexible Microelectrode Array with 72 electrodes for use via ADPT-FM-72 adapter with two 32-Channel Miniature Preamplifier MPA32I for *in vivo* and *in vitro* applications.

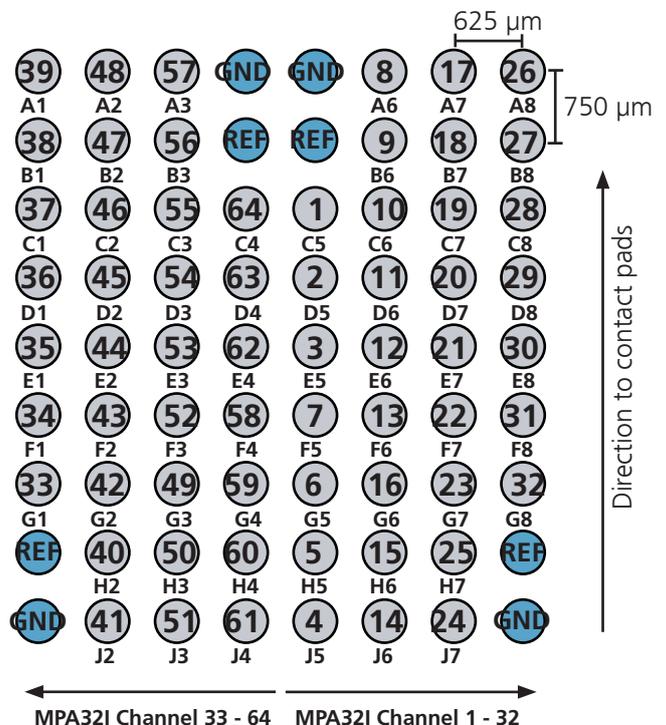
Layout

The side with the writing NMI 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 FlexMEA72 into the light, you see that the pads have a 3-dimensional appearance only from the correct side.

The numbers in the electrodes are the recording channel numbers that refer to the channel numbers in the MC_Rack program. Please make sure that you have selected the linear (1 dimensional) channel layout or Configuration under "Data Source Setup" with a total number of 64 channels. Deselect the check box "Digital input channel" if you do not need it, otherwise one recording channel is missing! See the MC_Rack manual or help for details. The letter digit code below is the electrode identifier and refers to the position of the electrode in the grid.

Important: The MC_Rack channel map is constructed by looking on the back side of the electrodes, because the FlexMEA72 electrodes are placed on the preparation upside down!

Please make sure to connect the left hand side of the Flex-MEA72 contact pads (electrode side on top) via ADPT-FM-72 adapter to the first MPA32I (channels 33 to 64), and the right hand side to the second MPA32I (channels 1 to 32). Read the SC2x32 data sheet when using a signal collector.



Warning: The device may only be used together with the MPA32I (-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.