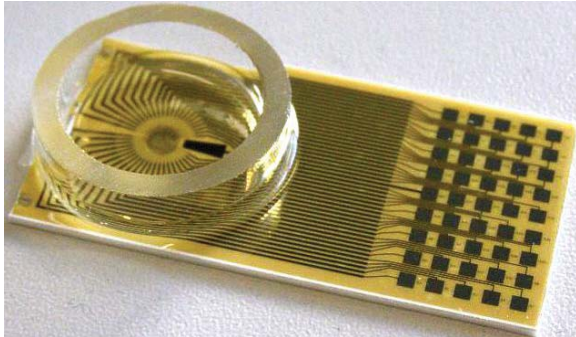


# pMEA32S12 Layout 2

Perforated MEA for use with MEA2100-32- and USB-MEA32-STIM4-System



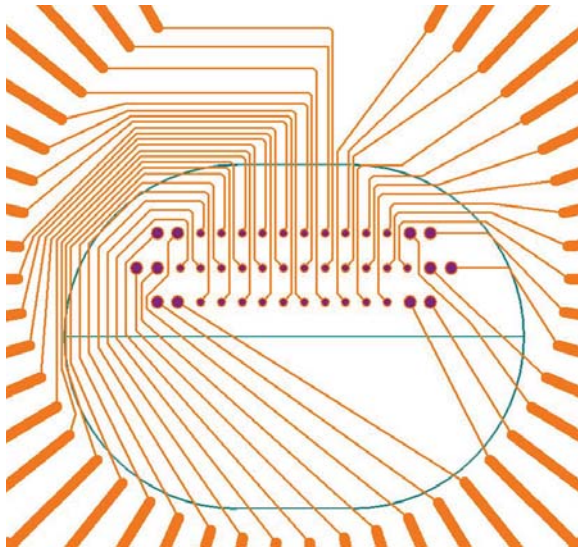
## Technical Specifications pMEA32S12 Layout 2

Temperature compatibility	10 - 50 °C
Dimension (W x D x H)	49 mm x 25 mm x 1.8 mm
Base material	Polyimide foil on ceramic carrier with perforation
Perforation:	
Total area of holes	0.8 mm <sup>2</sup>
Diameter of the holes	90, 75, 50, 30, 20 µm
Track material	Ti (Titanium)
Contact pads	TiN (Titanium nitride)
Electrode diameter	30 µm (recording electrodes) 50 µm (stimulation electrodes)
Interelectrode distance (centre to centre)	90 µm and 150 µm (recording electrodes), 90 µm and 150 µm (stimulation electrodes)
Electrode height	Planar
Electrode type	TiN (Titanium nitride) electrodes
Isolation type	Polyimide foil
Electrode impedance	Approximately 30 - 50 kΩ
Electrode layout grid	1 x 10 + 1 x 12 + 1 x 10 (recording electrodes), 6 x 2 (stimulation electrodes)
Number of recording electrodes	32
Number of stimulation electrodes	12
Number of reference electrodes	1 internal reference electrode
MC_Rack "Source layout" in "Data Source Setup"	Configuration (MEA2100-32)
Channel map	1 dimensional, no digital channel (USB-MEA32-STIM4) pMEA-32S12-L2_12x3.cmp
Cleaning	Rinse with distilled water. Do not use ultrasonic bath! Do not autoclave or sterilize pMEAs by heat. These MEA types are not heat-stable and will be irreversibly damaged!
pMEA perfusion chamber	(w/o) Without ring (gr) Glass ring: ID +/- 19 mm, OD 24 mm, height 6 / 12 mm

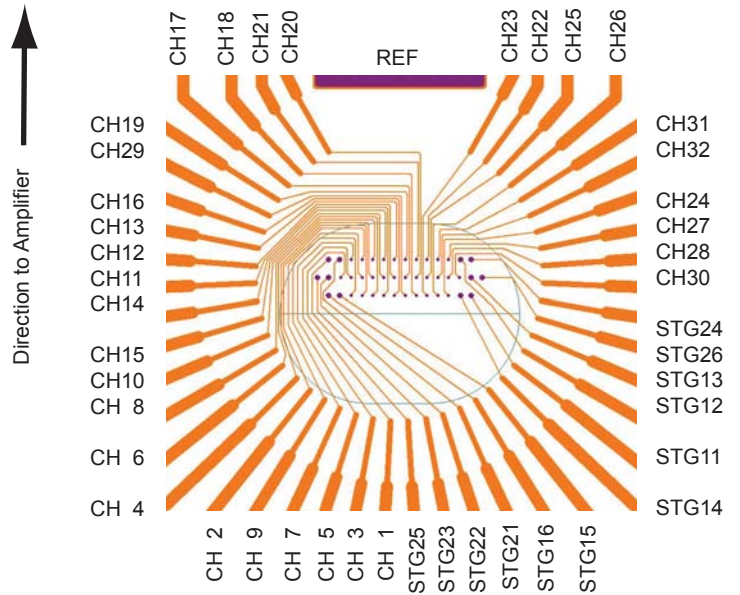


# pMEA32S12 Layout 2

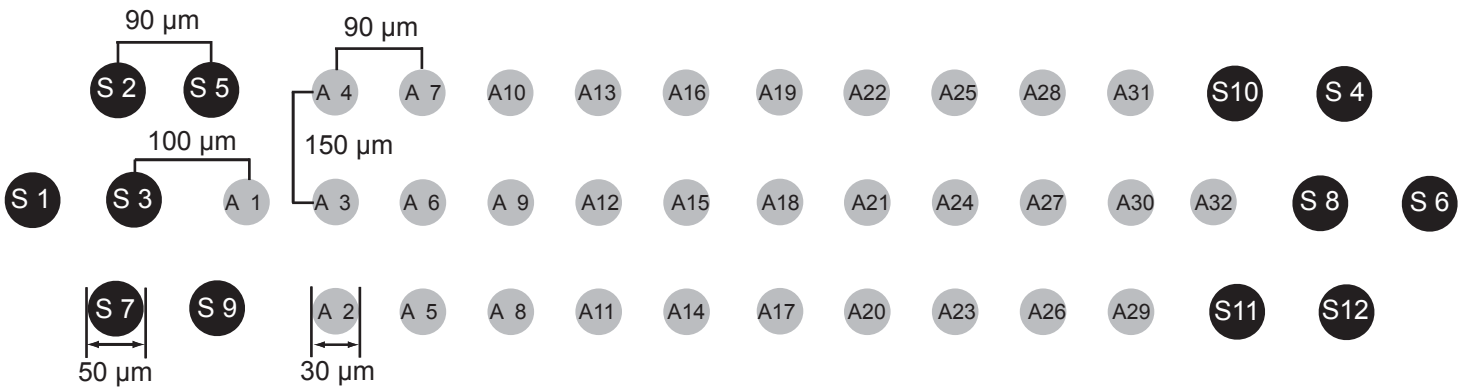
Perforated MEA for use with MEA2100-32- and USB-MEA32-STIM4-System



The oval area of the pMEA chip is perforated



## Electrode layout in the grid



A = recording electrode

S = stimulation electrode

# pMEA32S12 Layout 2

Perforated MEA for use with MEA2100-32- and USB-MEA32-STIM4-System

MC\_Rack channel map: pMEA-32S12-L2\_12x3.cmp

	5	2	8	14	13	19	21	22	31	27	
1	3	9	6	15	12	17	20	25	32	28	30
	7	4	10	11	16	29	18	23	26	24	

The MC\_Rack channel map is build analog to the layout of the recording electrodes in the grid.

	A 4	A 7	A 10	A 13	A 16	A 19	A 22	A 25	A 28	A 31	
A 1	A 3	A 6	A 9	A 12	A 15	A 18	A 21	A 24	A 27	A 30	A 32
	A 2	A 5	A 8	A 11	A 14	A 17	A 20	A 23	A 26	A 29	

Table:

Correlation of MC\_Rack channels and recording electrodes

A = Number of recording electrode, CH = Channel number in MC\_Rack  
 S = Number of stimulation electrode, STG = Internal stimulus generator connection,  
 REF = Reference electrode

S 1	STG 23	REF	STG 16	S 7
S 2	STG 25		STG 13	S 8
S 3	STG 22		STG 15	S 9
S 4	STG 24		STG 12	S 10
S 5	STG 21		STG 14	S 11
S 6	STG 26		STG 11	S 12
A 9	CH 6		CH 30	A 32
A 6	CH 9		CH 31	A 28
A 10	CH 8		CH 29	A 17
A 12	CH 15		CH 28	A 30
A 2	CH 7		CH 19	A 19
A 8	CH 10		CH 17	A 18
A 13	CH 14		CH 27	A 31
A 4	CH 5		CH 26	A 26
A 5	CH 4		CH 18	A 20
A 11	CH 11		CH 24	A 29
A 3	CH 3		CH 23	A 23
A 16	CH 13		CH 21	A 22
A 15	CH 12		CH 32	A 27
A 1	CH 1		CH 22	A 25
A 7	CH 2		CH 20	A 21
A 14	CH 16		CH 25	A 24