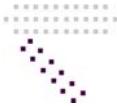


perforated MEA (Microelectrode Array) for MEA2100-32- and USB-MEA32-STIM4-System
**pMEA for use with
MEA2100-32- and
USB-MEA32-STIM4-
System**

 Temperature compatibility
 Dimension (W x D x H)
 Base material

pMEA-32S12 Layout 1

 10 °C – 50 °C
 49 x 25 mm x 180 µm
 Polyimide foil on ceramic carrier with perforation

pMEA-32S12 Layout 2

 10 °C – 50 °C
 49 x 25 mm x 180 µm
 Polyimide foil on ceramic carrier with perforation

pMEA-32S12 Layout 3

 10 °C – 50 °C
 49 x 25 mm x 180 µm
 Polyimide foil on ceramic carrier with perforation

pMEA-32S12 Layout 4

 10 °C – 50 °C
 49 x 25 mm x 180 µm
 Polyimide foil on ceramic carrier with perforation

 Perforation:
 Total area of perforation
 Diameter of the holes

 0.8 mm²
 20, 30, 50, 75 and 90 µm

 0.8 mm²
 20, 30, 50, 75 and 90 µm

 0.8 mm²
 20, 30, 50, 75 and 90 µm

 0.8 mm²
 20, 30, 50, 75 and 90 µm

 Contact pad
 Track material

 Titanium nitride (TiN)
 Titanium (Ti)

 Titanium nitride (TiN)
 Titanium (Ti)

 Titanium nitride (TiN)
 Titanium (Ti)

 Titanium nitride (TiN)
 Titanium (Ti)

Electrode diameter

 30 µm (recording electrode)
 50 µm (stimulation electrode)

 30 µm (recording electrode)
 50 µm (stimulation electrode)

 30 µm (recording electrode)
 50 µm (stimulation electrode)

 30 µm (recording electrode)
 50 µm (stimulation electrode)

Interelectrode distance

 90 and 150 µm (record. electrode)
 100 and 125 µm (stim. electrode)

 90 and 150 µm (record. electrode)
 90 and 150 µm (stim. electrode)

 90 and 150 µm (record. electrode)
 90 and 100 µm (stim. electrode)

 100 and 100 µm (record. electrode)
 100 and 100 µm (stim. electrode)

 Electrode height
 Electrode type

 Planar
 Titanium nitride (TiN)

 Planar
 Titanium nitride (TiN)

 Planar
 Titanium nitride (TiN)

 Planar
 Titanium nitride (TiN)

 Isolation type
 Electrode impedance

 Polyimide foil
 30 – 50 kΩ

 Polyimide foil
 30 – 50 kΩ

 Polyimide foil
 30 – 50 kΩ

 Polyimide foil
 30 – 50 kΩ

Electrode layout grid

 1x10+1x12+1x10 (record. electr.)
 2x6 (stimulation electrodes)

 1x10+1x12+1x10 (record. electr.)
 2x6 (stimulation electrodes)

 1x10+1x12+1x10 (record. electr.)
 3x4 (stimulation electrodes)

 4x8 (recording electrode)
 2x6 (stimulation electrodes)

Number of electrodes

 32 recording electrodes
 12 stimulation electrodes
 1 internal reference electrode

 32 recording electrodes
 12 stimulation electrodes
 1 internal reference electrode

 32 recording electrodes
 12 stimulation electrodes
 1 with internal reference electrode

 32 recording electrodes
 12 stimulation electrodes
 1 internal reference electrode

Ring

 Without ring
 Glass ring

 Without ring
 Glass ring

 Without ring
 Glass ring

 Without ring
 Glass ring