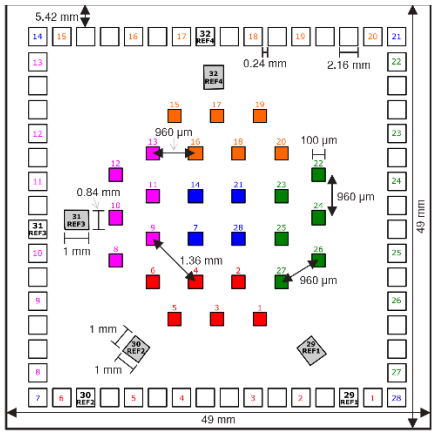
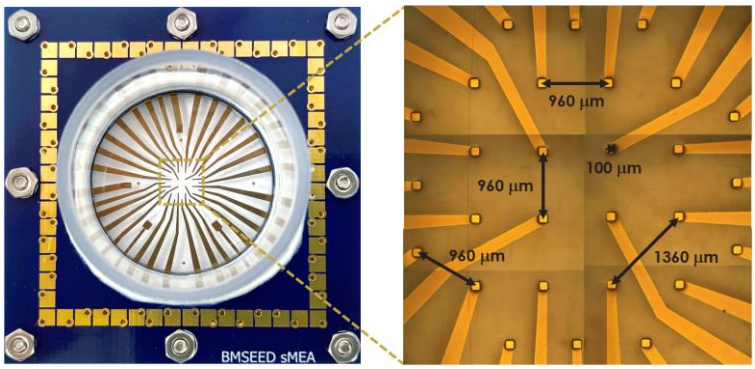
bmseed
BioMedical
Sustainable Elastic Electronic Devices

# Technical Specification Sheet
# 32sMEA-100-960-4iR




## Features and Benefits

- **Recording & stimulation** *of extracellular electrophysiological activity before, during and after stretching*
- **Physiologically relevant cellular environment** *by using soft and elastically stretchable materials*
- **Apply biomechanical cues** *to reproduce in vivo environment*
- **Normalization** *of post-stretch electrophysiology to pre-stretch level*
- **Transparent substrate** *to view specimens under a microscope*
- **Compatibility** *with BMSEED and MultiChannel Systems data acquisition system*

| Technical Specifications | |
|---|---|
| **Temperature Compatibility** | 10-60°C |
| **Overall Dimensions (W × D × H)** | 49 mm × 49 mm × 1.25 mm |
| **Substrate and Encapsulation Material** | Polydimethylsiloxane (PDMS) |
| **Electrode Material** | Gold (Au) coated with platinum black (lead-free) |
| **Contact Pad Material** | Gold coated Nickel |
| **Well Diameter and Material** | 25.4 mm (1 inch), polycarbonate |
| **Young's Modulus of the sMEA** | 2 MPa |
| **Thickness of the sMEA (substrate+encapsulation)** | 270 µm (thinner and thicker samples available) |
| **Electrode Diameter** | 100 µm |
| **Interelectrode Distance (center-to-center)** | 960 µm (adjacent) or 1360 µm (diagonal) |
| **Electrode Impedance** | <400 kΩ |
| **Number of Recording Electrodes** | 28 |
| **Number of Reference Electrodes** | 4 internal reference electrodes |
| **Area of Recording Electrodes** | 5 mm × 5 mm |
| **Maximum Strain and Strain Rate** | 50% at 80/s |

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