

Ayanda Biosystems

Innovative diagnostic and drug discovery tools

MEA1060-Y1 Accessory

User Manual

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1 Before you start

1.1 Warning

The Ayanda™ LTS MEA1060-Y1 accessory is only to be used in combination with the MEA60 inverse data acquisition system from Multi Channel Systems MCS GmbH, Reutlingen, Germany (<http://www.multichannelsystems.com>).

Proper use of the MEA1060-Y1 accessory includes the observance of all instructions presented in this user manual and adherence to the device, inspection and maintenance descriptions.



Any use outside of the scope of the instructions presented in this manual are considered to be improper. Ayanda Biosystems cannot accept liability for any damages which may result or those due to procedural faults.

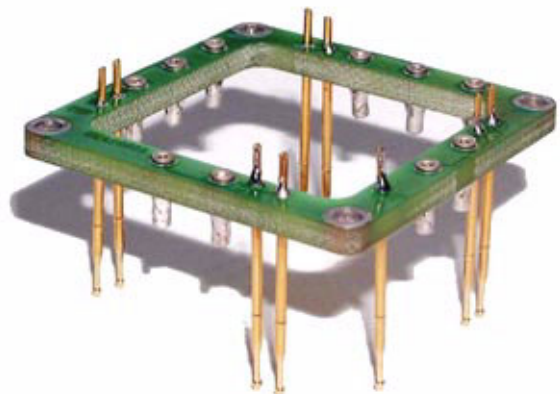
1.2 Short description

Device allowing connection of supplementary stimulation electrodes and ground electrodes of Ayanda™ MEA Biochips. Allows connection of 2 supplementary wires to ground.

It is adapted to MEA1060 inverse amplifier interface from Multi Channel Systems GmbH, Reutlingen, Germany.

It is recommended when using MEA60 4Well, MEA60 200 Pt 21x21, MEA60 4x15 3D (size 1), MEA60 4x15 3D (size 2) or MEA60 4x15 3D (size 3) biochips from Ayanda Biosystems SA.

Picture of the MEA1060-Y1 accessory.



1.3 Scope of delivery

Before the MEA1060-Y1 accessory can be properly installed at the customer's premises, the delivered parts must be checked against the order processing form for completeness.

- **MEA1060-Y1 Specimen**
- **Several Gold Spring Connectors (for replacement if necessary)**
- **MEA1060-Y1 User Manual**

2 Using the MEA1060-Y1 Accessory

2.1 MEA1060-Y1: Installation



WARNING

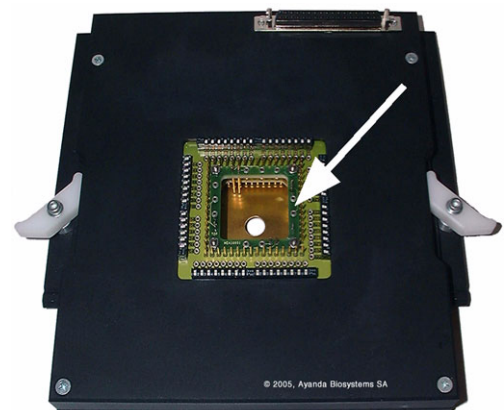
Handle the MEA60-Y1 accessory with care. The gold spring contacts can easily be damaged if bounded.

Find below the installation method that is recommended for use with the Ayanda™ LTS MEA1060-Y1 accessory:

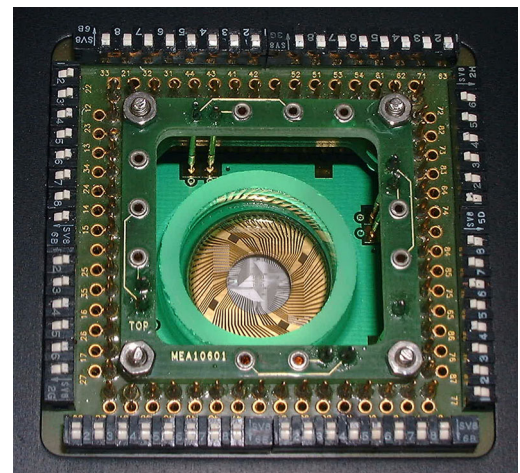
- Unscrew the nuts on top of the screws located at the 4 corners of the MEA60 amplifier.
- Put the MEA1060-Y1 accessory on the MEA60 amplifier interface, the 4 screws of the MEA60 amplifier will pass through the 4 holes located at MEA1060-Y1 corners. The MEA1060-Y1 accessory has to be in direct contact with the printed circuit board of the MEA60 amplifier.
- Screw the nuts on top of the 4 screws located at the 4 corners of the MEA60 amplifier.

The obtained result should be as depicted in the two pictures presented below.

Picture of the MEA60 inverse interface from Multi Channel Systems with the MEA1060-Y1 accessory installed correctly.



Enlarged picture showing the MEA1060-Y1 accessory on the MEA60 inverse interface.



2.2 MEA1060-Y1: Use

Use your MEA60 inverse amplifier as usual. There will be no need for an external ground electrode as it is integrated in the MEA biochips and contacted via the MEA1060-Y1 accessory.



RECOMMENDATION

Insert only multi-electrode arrays integrating 8 supplementary stimulation and 4 ground electrodes, (i.e. MEA60 4Well, MEA60 200 Pt 21x21, MEA60 4x15 3D (size 1), MEA60 4x15 3D (size 2), MEA60 4x15 3D (size 3) biochips) into the MEA60 amplifier while using the MEA1060-Y1 accessory.

For using the supplementary stimulation electrodes for cell/tissue stimulation, contact small cables to the MEA1060-Y1 connectors corresponding to the stimulation electrodes.

Two connectors can be used to contact a cable to ground. this could be used to connect a supplementary external ground electrode or to connect other devices located on top of the MEA60 amplifier to ground.

2.3 MEA1060-Y1: Maintenance

If there is a bad contact between the MEA1060-Y1 accessory and the MEA biochip connections, clean the gold spring contacts using ethanol or isopropanol.