

The Electrode Interface Board (EIB-54 Stim) is mounted to microdrive hardware and provides the electronic signal connection between electrode wires and two 27 channel Neuralynx Headstage Pre-amplifiers (HS-27 and HS-27M). The EIB-54 Stim also provides mechanical connection between microdrive hardware and the HS-27 or HS-27M.

The EIB-54 Stim does not contain any active electronics, and can pass signals in either direction. The HS-27 or HS-27M will define the signal direction via its buffer amplifiers.

HS-27/HS-27M Connection

The HS-27 and HS-27M are connected to the EIB-54 Stim with double row header pins. Both headstages have a power LED on one face of the headstage. The power LEDs should face towards the top of the EIB-54 Stim where *leds* is printed on the board.

EIB-54 Stim Mounting

The EIB-54 Stim is designed for mounting on a microdrive. Use the screw holes (between headstage connections) to mount the EIB-54 Stim securely to a microdrive.

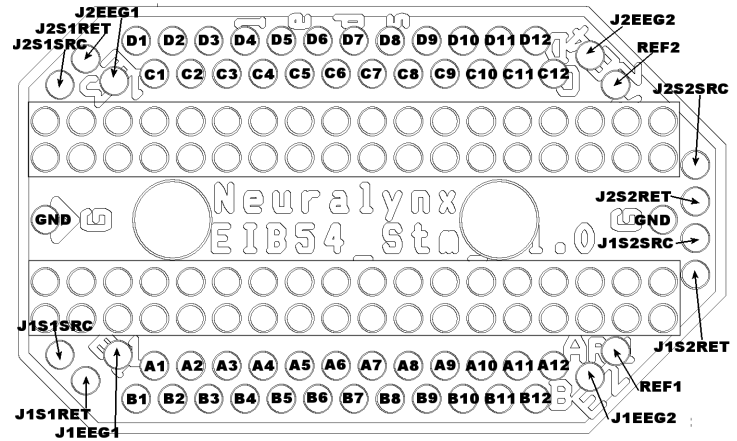
Electrode Connection

Electrode wires will be inserted from the bottom of the board. Insulation does not need to be removed from the wire if using Neuralynx EIB Pins. See the *Electrode Attachment Guide* for more information on using EIB Pins. The EIB-54 Stim uses the Large EIB Pins (0.05cm/0.021").

WARNING: If stimulus lines are connected to electrodes, ensure they are not shorted to +5V before turning on headstage power. Failure to check this may result in paralysis or death of the test subject.

EIB Reuse

Reuse of the EIB-54 Stim is not recommended, but is possible. If reuse of the EIB-54 Stim is required, please contact Neuralynx for assistance.



EIB-54 Stim: Pin Layout (Top View)

Pin Mapping

To accommodate two HS-27 or HS-27Ms, the EIB-54Stim designates the bottom connection as HS1 and the top connection as HS2. A and B map directly to the A and B channels of HS1. C and D map to the A and B channels of HS2, respectively.

Technical Specifications:

Size (LxWxH)	2.2cm x 1.5cm x 0.7cm
Weight	2.07g
Signals	<ul style="list-style-type: none"> • 48 electrodes (A1→A12, B1→B12, C1→C12, D1→D12) • 2 Ground • 2 References • 4 Differential Stimulus (J1S1SRC, J1S1RET, J1S2SRC, J1S2RET, J2S1SRC, J2S1RET, J2S2SRC, J2S2RET) • 4 Extra EEG channels (J1EEG1, J1EEG2, J2EEG1, J2EEG2)
Connections	<ul style="list-style-type: none"> • 64 0.05cm Vias • 2 Milmax 36pin
Mounting Screw Diameter	0.16cm