

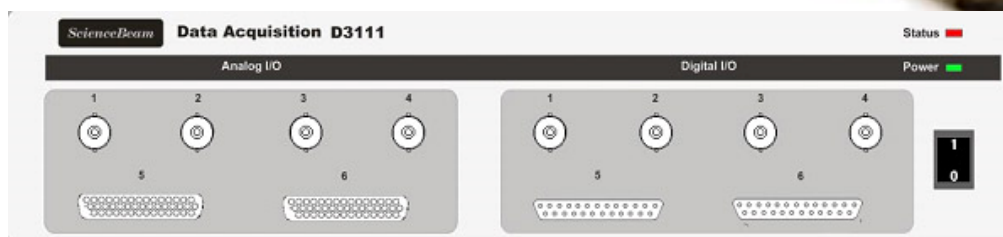


### Electromodule Data Acquisition System

Electromodule is a General purpose data acquisition system for recording action potential (Spikes), Field Potential, EEG and ERP signals, and signal modulation by external digital events. Electromodule is usable for Rat, Monkey and Primates and some version is usable for human recording. Electromodule is your best option for vision Science, and Brain Machine interface researches.

Electromodule Device is designed at least a combination of twenty-five different devices in one package. They are microelectrode amplifier, stimulator isolator, impedance meter pulse generator, digital and analog scope, digital window discriminator, data acquisition and powerful online spike sorting for signal Clustering. And Whatever is necessary for a good recording of one single or array electrode. Design of Microelectrode amplifier is optimized for low noise, high dynamic range, and low power dissipation. The novel aspect the amplifier is its ability to record EEG, LFP and single-unit signals simultaneously from the stream of one electrode by one ADC channel with 24 bit precision, Another novel aspect is noise-resistant properties of designed circuits. We designed a specific digital impedance meter(1 To 64 channel) only one click is enough to see electrode impedance inside the tissue. Also you can Design The best possible stimulus protocol by a digital pulse generator. (one protocol or malty protocol)

Electromodule has to channel DAC(digital to analog converters) and to channel mechanical stimulator.



pecification

Up to 32 analog input channels (24bits, 50KS/S) on front panel

Four analog input channels (24bits, 50KS/S) on front panel

Four digital Input channels and outputs on front panel

24 digital input channels and outputs on back panel

Up to 32 channels bioamplifier for recording of EEG/LFP/ single unit/EOG/ECG/...

Pulse generator, 10 $\mu$ s pulse duration resolution

Isolated constant current simulator (4mA/20mA)

Optional mechanical stimulus controller

Plug and Play (USB2 connector)

Operating voltage: 24V DC

Dimensions (w x h x d): 366 x 116 x 350 mm

Net weight 3.7 kg

