

ScienceBeam ERP Sestem

(Event-Related Brain Potentials)

Produced by ScienceBeam Institute

ScienceBeam Electromodule

ScienceBeam BioAmplifier (32 or 64 Ch)

ScienceBeam Digitizer(32 or 64 Ch)

ScienceBeam Impedance meter

(32 or 64 Ch)



Electromodule 13

General purpose data acquisition system for detection, sorting, recording and processing 32 or 64 Channel EEG and ERP signals simultaneously



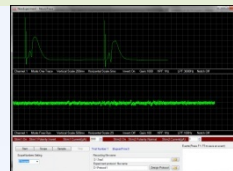
EEG CAP (8- 16-32- 64 Channel)

Cap and wires is Shield



NeuroTrace

Program for recording, visualization and analysis of LFP and EEG signals.



specification

ScienceBeam BioAmplifier (U3040)

Preamplifier Type: Differential
Number of channels: 32
High pass filter setting: 0.1, 1 Hz
Low pass filter setting: 30, 40, 50 ,100,200 Hz
Peak-to-peak equivalent input noise:
 freq = 0.1 Hz to 10 Hz: 1.4 μ v
Hardware Gain : 50 or 100
Digital Gain: 1 to10000
Input voltage range: \pm 5V
Input Impedance: $10^{12}\Omega$, common mode and differential
Input leakage current: 60pA
Input capacitance: 8pF
Common mode rejection ratio: 75dB @ 50/60Hz

ScienceBeam Digitizer (U3040)

Analog to Digital Converter
Number of channels: 32
Type: Differential, Isolated
ADC resolution: 24bits
Sampling rates: 1 kHz, each channel
Analog input range: \pm 2.5V
Linearity error: \pm 7.6ppm (maximum)
Signal to Noise Ratio: 113.5 dB
Isolation type: Optical
Isolation voltage: 2500V
Isolation resistance: $10^{12}\Omega$

ScienceBeam Impedance meter (U3040)

Number of channels: 32
Range: 100Ω to $500K\Omega$
Measurement frequency:5Hz

ScienceBeam Electromodule

60 digital inputs & outputs
FPGA technology
Embedded dual core CPU
Serial and parallel processing
Online digital filter
4 channel Pulse generator, 10 μ s pulse duration resolution
6 channel pulse mixer
Connection :USB 2
Input & output Connectors: 2 x 44pin, 3x 25pin connector, 8 x BNC connector, USB connector