NEUROSPEC
Research Neurosciences

ActiveTwo

State-of-the-Art Active EEG System

Up to 256+8+2 channels in a single box.

24-bitADC per channel, unsurpassed S/N ratio and linearity.

User selectable sample-rate, high sampling available.

www.neurospec.com

Overview

The BioSemi ActiveTwo system is equipped with up to 280 channels, DC amplifier and 24-bit resolution, setting world-leading standards for multi-channel, high resolution, biopotential measurement systems for research applications. The ActiveTwo system is a further development of the successful ActiveOne system, which was the first commercially available system with active electrodes. Advances in technology have allowed BioSemi to significantly increase the number of channels, digital resolution, input range, and sample rate, without any increase in size, power consumption or costs. Second generation active electrodes are smaller in size with less cable weight, while offering even better specs in terms of low-frequency noise and input impedance.

System Features

- Up to 256+8+2 channels in a single box.
- Second generation active electrode: smaller size, less weight and strain-relief.
- Flexible coloured electrode labelling system.
- 24-bitADC per channel, unsurpassed S/N ratio and linearity.
- Improved digital resolution, LSB valueis 31nV.
- Full DC operation, largest input rangein the industry (524mVpp).
- User selectable sample-rate, high sampling available.
- Full range of auxiliary sensor inputs available.

Technical specifications

- Sample-rate options: 2048 Hz, 4096 Hz, 8192 Hz, 16’384 Hz or new 260’000 Hz Hypersampling!
- Max. number of channels at selected sample rate: 256, 128, 64, 32
- Bandwidth (-3dB): DC - 400 Hz, DC - 800 Hz, DC - 1600 Hz, DC - 3’200 Hz and 80’000 Hz in Hypersampling
- Absolute sample rate accuracy (over temp range: 0-70 C):0.1 Hz, 0.2 Hz, 0.4 Hz, 0.8 Hz
- Total input noise (Ze < 10 kOhm): 0.8 uVRMS, 1.0 uVRMS, 1.4 uVRMS, 2.0 uVRMS
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- Full bandwidth: (5 uVpk-pk), (6 uVpk-pk), (8 uVpk-pk), (12 uVpk-pk)