Center for Applied and Interdisciplinary innovations in Cognitive Neurosciences and Artificial intelligence



# Wearable lightweight EEG amplifier



- Available with 8, 16 or 32 channels
- **Outstanding signal quality**
- Ultra-lightweight and compact
- Integrated accelerometer



## **EEG** support

Up to 32 channels: configurable (1 to 32)

Available data: raw EEG and frequency band-separated data (delta,

theta,...).

### **EEG** signals

Sampling method: simultaneous sampling from all channels

Sampling rate: Up to 128 kSPS.

Resolution: 24 bits ADC

Dynamic range: 107 dB dynamic range at 32 kSPS

Amplification: Up to 8x programmable gain amplification

## **EEG sensors and Cap**

Gel free electrodes for easy and fast setup Electrode count: 34 recording electrodes Sensor material: Coated Ag/AgCl electrodes Conducting Medium: Saline (3.5% NaCl solution) Size: 46-50cm, 50-54cm, 54-58cm, 58-62cm

Standard: International standard 10-20 electrode placement system

#### Motion sensors\*

IMU: accelerometer support for basic movement tracking when

head-mounted.

Accelerometer: 3-axis +/-8g

Magnetometer: 3-axis +/112 gauss

\* Software support for motion data coming soon

#### Connectivity

Proprietary USB receiver (included): 2.4GHz band

USB: Built in TTL for wired connections to PC.

Micro USB cable (included): for batteryless applications

#### **Power**

**Battery:** Internal Lithium Polymer battery 500mAh to 1800mAh (configurable) **Battery life:** up to 9 hours

#### Other features

- SD card slot for offline data collection
- Non-EEG bio-signal acquisition and imaging: ECG, EKG, EMG, FNIRS, etc
- Separate USB ports isolate power and logic to meet safety standards
- Ultra-low-noise (<0.22 μV measured)