kernel

Flow2
Technical Specifications

Time-Domain fNIRS

Time-Domain measurements have improved depth sensitivity and reduced susceptibility to artifacts compared to traditional CW-fNIRS.

Sampling Rate

With our industry-leading 3.5ms integration time, we are able to image over the whole cortex at a rate of 3.76Hz and sample the heart rate at 7.5Hz.

Output Format and Metrics

Standard Analyses for Included Reference Tasks

With all Kernel tasks that ship with the system, simple behavioral and brain analyses reports are available.

Automated Quality Control

We offer both a basic and a detailed report on the signal quality of each collected dataset.

Data Download

Data can be downloaded at various stages of preprocessing as SNIRF files (Shared Near-Infrared Spectroscopy Format, see specification). Learn more about how to use Flow2 data here.

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Optical Modules

Each with   and

3   **6**

Dual-Wavelength Sources   Time Resolved
(690nm/905nm)   Detectors

Up to

3,500
Measurement Channels

8.5mm - 60mm
Source-Detector Separartion

> 100dB
Dynamic Range

4   **1kHz**

EEG Electrodes   EEG Sampling Rate

👤 Headgear

Fits heads of 52cm - 62cm circumference and 32cm - 37cm Bitragion Coronal Arc

◎ Optode Style

Modular

Weight

2.5 kg

⏻ Power Supply

USB-PD

Delivered over USB-C

⚡ Power Consumption

50W Max

🔗 Cable

Up to 10' USB-C

🗂 Data Storage

Data streamed to acquisition PC at rate of 1GB/min of recording

↓↑ Data Transfer

USB 2.0

⚠ Laser Classification

Class 1 (FLPPS 21CFR1040.10)