



Flow 2

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 4.75Hz and sample the heart rate at 9.5Hz.

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 Flow 2 data [here](#).



40

Optical modules

Each with

3

Dual-wavelength sources
753 nm / 905 nm

and

6

Time-resolved
detectors

Up to

3,500

Measurement channels

8.5 mm - 60 mm

Source-detector separation

> 100 dB

Dynamic range

6

EEG electrodes

500 Hz

EEG sampling rate



Headgear

Fits heads of 52-62cm circumference and 32-37cm Bitrignon coronal arc



Real-time SDK

Enables edge inference, neurofeedback, and custom visualizations



Data storage

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



Optode style

Modular



Power supply

USB-PD
Delivered over USB-C



Data transfer

USB 2.0



Weight

2.5 kg



Power and data

10' cable for data transfer and up to 60W of power



Laser classification

Class 1 (FLPPS 21CFR1040.10)