



# 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  
690 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

# 4

EEG electrodes

# 1 kHz

EEG sampling rate



#### Headgear

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



#### Power supply

USB-PD  
Delivered over USB-C



#### Data storage

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



#### Optode style

Modular



#### Power consumption

50W Max



#### Data transfer

USB 2.0



#### Weight

2.5 kg



#### Power and data cable

Up to 10' USB-C



#### Laser classification

Class 1 (FLPPS 21CFR1040.10)