

Enobio[®] technical specifications

| HARDWARE | Enobio 32 | Enobio 20 | Enobio 8 |
|---|-------------------------------------|-------------|------------|
| Number of channels | 32 Channels | 20 Channels | 8 Channels |
| Bandwidth | 0 to 125 Hz (DC coupled) | | |
| Sampling rate | 500 SPS | | |
| Dynamic range | 24 bits – 0,05 microvolt (μ V) | | |
| Measurement noise | < 1 μ V RMS | | |
| Input impedance | >1 G Ω | | |
| CMRR | -115 dB | | |
| Communication | Wi-Fi IEEE 802.11 g or USB | | |
| 3 axes accelerometer | Yes (100 S/s) | | |
| MicroSD card for offline recording | ✓ | ✓ | ✓ |
| Rechargeable system using Li-Ion battery | ✓ | ✓ | ✓ |
| Device dimensions | 89.1 mm x 61.1 mm x 23.8 mm | | |
| Device weight | 96 g | 86 g | 78 g |
| Operating time — WiFi communication | 5.5 hours | 5.5 hours | 6.5 hours |
| Operating time — MicroSD recording | 16.5 hours | 17.0 hours | 20.0 hours |
| Operating time — USB communication | 19.0 hours | 19.0 hours | 24.0 hours |
| Allows for simultaneous stimulation (tDCS and TMS compatible) | ✓ | ✓ | ✓ |

SOFTWARE

| | | | |
|---|--|---|---|
| File output | Proprietary NEDF or EDF+ & ASCII file formats | | |
| Real-time EEG monitoring | ✓ | ✓ | ✓ |
| Scalp and cortical mapping of brain activity | ✓ | ✓ | — |
| Spectrum, spectrogram and band power plots | ✓ | ✓ | ✓ |
| Raw data streaming output | Lab Streaming Layer (LSL) outlets or TCP/IP port | | |
| EEG markers sources | Lab Streaming Layer (LSL) inlets, TCP/IP, keyboard, TTL triggers | | |
| Timestamp synchronization for precise hyperscanning | ✓ | ✓ | ✓ |
| Compatible with Windows 7/8/10/11 and macOS (\geq High Sierra) | ✓ | ✓ | ✓ |
| 3rd party EEG software compatibility | OpenVibe, BCI2000, NeuroGuide, E-Prime (via Lab Streaming Layer) | | |
| Offline EEG analysis | MatLab (EEGLAB Plugin), Python (NEPY library) | | |
| Investigational applications via Software Development Kit | ✓ | ✓ | ✓ |
| Networked system control with MatNIC toolbox | ✓ | ✓ | ✓ |

HEADSET

| | | | |
|----------------------------------|--|---------------|--------------|
| Available headcaps | 6 sizes: 42/46/49/54/57/60cm | | |
| EEG custom montages | Headcaps available with 39 or 64 of 10-10 EEG system positions | | |
| Set-up time using gel | 20-25 minutes | 15-20 minutes | 8-12 minutes |
| Set-up time using dry electrodes | 4 minutes | 3 minutes | 1-2 minutes |

Enobio[®] product content

| Enobio 32 | Enobio 20 | Enobio 8 |
|---|---|--|
| 1 x Enobio 32 NECBOX | 1 x Enobio 20 NECBOX | 1 x Enobio 8 NECBOX |
| 1 x Neoprene headcap size M | 1 x Neoprene headcap size M | 1 x Neoprene headcap size M |
| 4 x NG Geltrode (bag of 8) | 3 x NG Geltrode (bag of 8) | 1 x NG Geltrode (bag of 8) |
| 1 x Earclip | 1 x Earclip | 1 x Earclip |
| 1 x Kendall™ H124SG Electrodes (bag of 50) | 1 x Kendall™ H124SG Electrodes (bag of 50) | 1 x Kendall™ H124SG Electrodes (bag of 50) |
| 1 x Set of cables Enobio 32 1 x 10 Electrode cable | 1 x Set of cables Enobio 20 1 x 10 Electrode cable | 1 x 10 Electrode cable |
| 1 x Signagel® Electrode Gel (250g) | 1 x Signagel® Electrode Gel (250g) | 1 x Signagel® Electrode Gel (250g) |
| 1 x Curved syringe | 1 x Curved syringe | 1 x Curved syringe |
| 1 x USB Stick with manuals & Software | 1 x USB Stick with manuals & Software | 1 x USB Stick with manuals & Software |
| 1 x USB wifi dongle | 1 x USB wifi dongle | 1 x USB wifi dongle |
| 1 x USB Isolator & Extension cable | 1 x USB Isolator & Extension cable | 1 x USB Isolator & Extension cable |
| 1 x Wifi devices power adapter | 1 x Wifi devices power adapter | 1 x Wifi devices power adapter |