OBELAB

NIRSIT ON

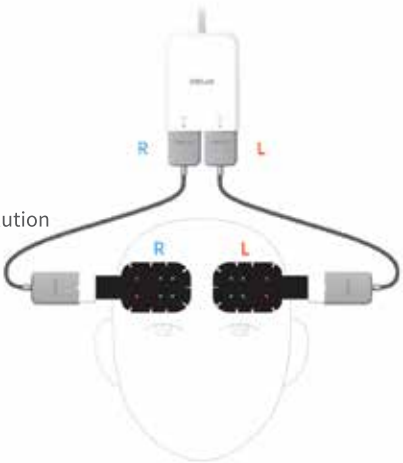
Bedside Brain Monitoring System

NIRSIT ON is a device designed to measure regional oxygen saturation (rSO2) and hemodynamic variations (ΔHbO2, ΔHbR) in prefrontal cerebral cortex by placing two patches (left/right) radiating a near-infrared light beam, at two/four wavelengths. The setup of **NIRSIT ON** system includes Main Module, Link Module, patches, and a Surface Pro Tablet.

OBELAB improved measurement accuracy by utilizing its advanced algorithm that compensates the variations in optical components.

Key features

- Provides non-invasive regional tissue oxygen saturation (rSO2) monitoring
- Absolute rSO2 accuracy of 4%
- Uses dual sources and quadruple detectors to minimize artifacts
- Continuous measurement of (ΔHbO2, ΔHbR, and ΔHbT) with 32Hz temporal resolution
- CSV file format support for measured data
- Four-wavelength LED or Laser sources
- Flexible disposable patches for various head sizes and personal hygiene
- Tolerant to the ambient light
- User-friendly graphical interface using tablet based monitor



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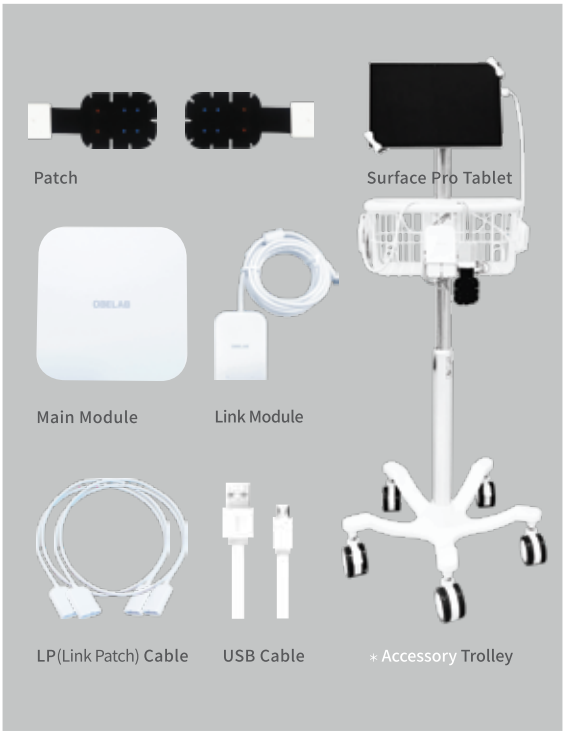
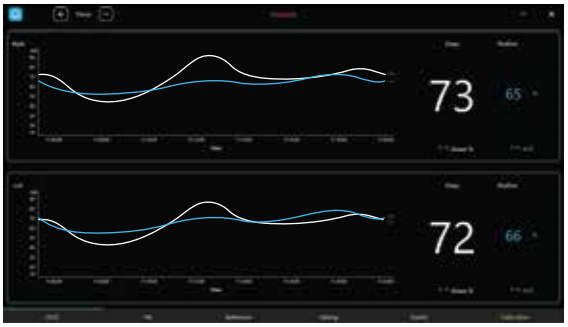
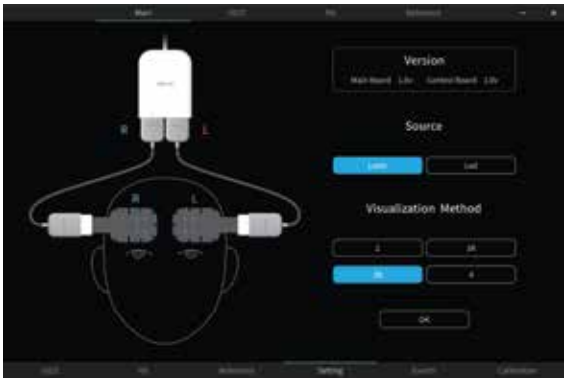
Main Unit & Components



Tablet · PC Tool





Mechanical Characteristics

Size (Width x Depth x Height)	Main Module : 94 x 94 x 11.2 ㎜ Link Module : 60.2 x 94 x 11 ㎜
Weight	Main Module : 71g Link Module : 192g

Technical Characteristics

Source Type	LED or VCSEL laser
Number of Source	2
Output power	max 1㎽
Operation mode	continuous wave
Number of Detectors	4
Number of Channels	8
Source Detector distance	3㎝, 3.35㎝, 2.5㎝, 2㎝
Sampling Rate	8.138 Hz / 32 Hz (with 5sec rSO2 display)
rSO2 range	15 % ~ 95 %
rSO2 accuracy	+/- 4 %

Electrical Characteristics

Input Voltage (via USB)	5 V
Maximum Current	0.9 A
Communication	USB to UART
Current consumption	4.5 VA

ETC

Model Name	NIRSIT ON
Warranty	1 year
Tablet/PC requirements	OS : Windows 10 or more CPU : Intel Core i5 or more Memory : 8 GB or more Storage : 128 GB SSD or more

OBELAB

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