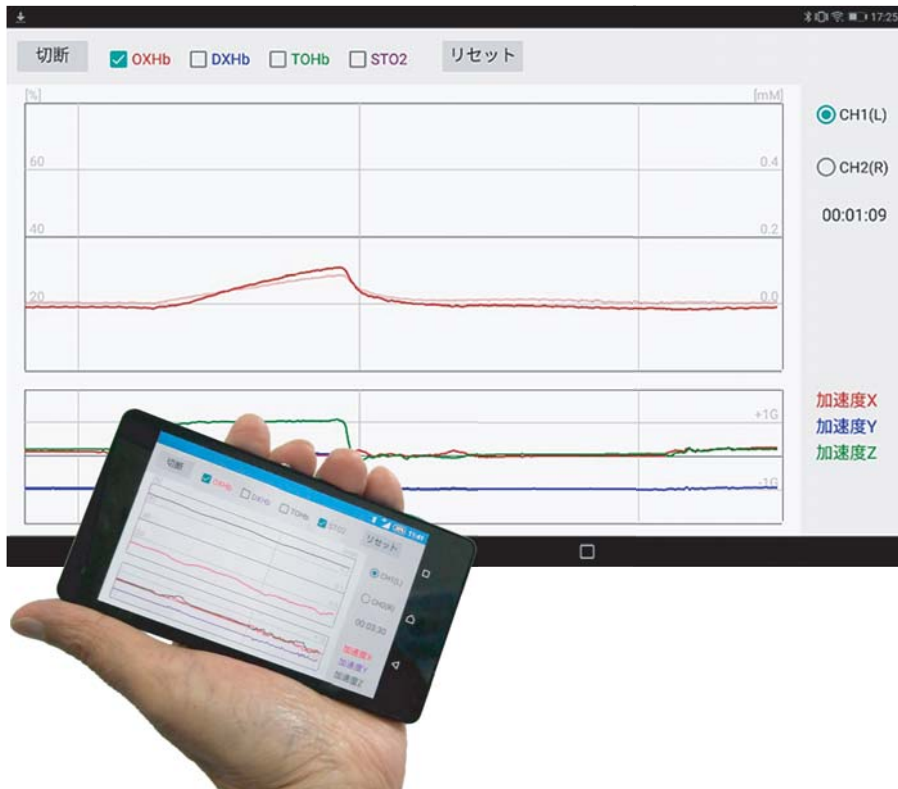


Brain Activity Monitor Device Hb133

Low Cost version !
Comfortable fit using
stretch fabricated bandana
2channels at Frontal lobe
rSO2(%), Oxy, Deoxy-Hb(mM)
Accelerometer (X,Y,Z)

monitoring screen on the tablet /Smartphone(android)



- LED sensor : 2 channels(fixed)
- Weight : 100g(Extremely light weighted)
- Bandana : stretch fabrication, ASTEM original (made in Japan)
- Measurable items(each channel)
 - oxygen saturation(rSO2:%), oxy-Hb, deoxy-Hb(mM)
- Acceleration sensor (X, Y, Z) max=2G
- Wireless device : Bluetooth-BLE(MBN52832)
- Sampling rate : Max 1 0Hz (0.1sec)
- Operating System for measurement view : Windows and android

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Technologies for Wellness and Happiness

Hb13 Series Brain-NIRS System

Wearable device for visualizing blood flow in brain

Specifications

| | |
|---------------------------------------|---|
| Product Type | Hb133 |
| Measurement Method | NIRS(Near-Infrared Spectroscopy) Specially-Resolved Spectroscopy(SRS) Method |
| Light Source | 2 Color LEDs peak wave length : 770 +/-10nm and 830 +/-10nm average power : ~1mW /LED |
| Light Reception | Photo Diodes |
| Sensor Board | Flexible printed circuits(FPC) Warning: repeated bending breaks circuit |
| Number of Cannels | 2 channels(fixed) |
| Output Data Format | csv type |
| Sampling Rate | 0.1 / 0.2 / 0.5 / 1.0 second |
| Measurement Items | Regional Saturated Oxygen (rSO2: %) |
| | Change value (mM/L) - Oxygenated hemoglobin(Oxy-Hb) , - Deoxygenated hemoglobin(Deoxy-Hb) |
| | 3-axis acceleration (max: 2G) |
| Power Supply | 2 AA A dry batteries (1.5V * 2) |
| Wireless Connection | Bluetooth-BLE (MBN52832) Range Distance : 5m or less |
| | Oversea Certifications CE for Europe, FCC for US, IC for Canada |
| Available OS (measurement program) | Windows Win-XP,-7,-8.1, -10 (Hb133.exe) |
| | Android 5.0 or later version (Hb133.apk) |
| Weight | approx. 100g including 2 AAA dry batteries |
| Accessory Software | NIRS data analyzing tool |



| Product Name | Product Code | Price(JPY) | Remarks |
|---------------------------|--------------|------------|-----------------|
| Brain Activity Monitor *) | Hb133 | 180,000 | Tax is excluded |
| Bandanas(L, M or S) | Hb-b | 4,000 | |

*)two bandanas(L/M and M/S) included

- In bright environments, it may not be possible to measure due to the influence of external light.
- The intervenes of a hair between a device and skin may disturb the measurement.
- Bandana size : M/L for men, M/S for women(Color : black only).
- Bandana is consumable goods, and can be ordered separately as a spare.
- Following software are provided in a USB device.
 - Measurement software, analyzing software, instruction manual etc.
- One year warranty certificated



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Important Matter

- The device may not be used for medical purposes.
Approval by an ethics committee is required for medical use.
- The development and sales of software connecting our devices can be possible when contact us beforehand.
necessary information can be provided with no charge.
- The optical measuring and correction algorithm of this product is carried out by Astem Co., LTD. under the exclusive license of Shizuoka University owned technology.

Manufacturer/Distributor

Controlled medical devices marketing license holder
Highly controlled medical devices marketing license holder
rental business

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