

BrainU Co., Ltd.

<http://www.brainu.co.kr/>

Cortical Activity Index(CAI) Monitor For Depth of Anesthesia(DoA) Monitoring



About us

BrainU Co., Ltd. is planning to enter overseas markets first with parts of Southeast Asia (Vietnam, Indonesia, etc.) that can advance to ISO 13485:2016, which is currently owned by the company, and to advance into Europe and other countries sequentially by obtaining CE certification in the future.

Technically, BrainU Co., Ltd. aims to differentiate itself from market-leading products by platforming anesthesia through sleep anesthesia function and hardware improvement.

Starting with the addition of sleep anesthesia functions, BrainU CO., Ltd. will create a new paradigm for the industry through the development of brainwave-based medical devices and wearable devices such as sleep monitoring systems and sleep-including wearable devices.

Product description

* A device that indexes(Waking:80~99, Appropriate anesthesia:40~60, Death:0) the depth of anesthesia by estimating changes in the level of consciousness of a person(patient) that changes depending on the depth of anesthesia through changes in the patient's brain activity.

To this end, the principle of monitoring changes in size by frequency of brain waves to obtain brain activity and to index it through self-developed computational algorithms.

* CAI consists of sensors, amplifiers and monitors(with SW)

- Sensor : Collect EEG and auxiliary indicator of EMG by attaching sensor to the patient's forehead
- Amplifier : Amplify, digitize, and wirelessly transmit weak EEG analog signals to monitors
- Monitor : Calculate indicators and provide them to medical staff through mounted index algorithm SW

* Based on electroencephalogram(EEG, approx 2 to 48 Hz) measurement is the basis, and electromyography(EMG, muscle tremors) measurement is an auxiliary indicator.

- Number of channels : 2 CH (EEG) + 1 CH (EMG)
- Filter : EEG 2.5 Hz ~ 48 Hz (-3dB)
EMG 80 Hz ~ 130 Hz (-3dB)