



#### Cerenion C-Trend™

Bittium BrainStatus™ together with Cerenion C-Trend™ is the world's first practical method for measuring the brain function of intensive care patients. C-Trend™ combines standard EEG-measurement with advanced machine learning algorithms and artificial intelligence.

Bittium BrainStatus™ is easy to set up and together with the C-Trend™ Index it supports continuous monitoring and allows an at-a-glance view to brain activity over long monitoring periods.

#### C-Trend™ Index

The C-Trend™ Index provides reliable information based on the brain's slow-wave activity seen during sedation.

The health of the brain is distilled from a complex EEG waveform plot to an objective and easy to interpret index, ranging from 0 to 100. Values higher than 80 are considered to be normal for sedated patients.

The patient's condition and treatment decisions must be assessed based on the comprehensive EEG measurement and made by a qualified physician.

## Bittium

Connectivity  
to be trusted.

**Bittium** is a trusted Nordic company with over 30 years of expertise in advanced biosignal processing. Bittium provides medical technology products and solutions in biosignal measuring in the areas of cardiology, neurophysiology & neuroscience, home sleep apnea testing, rehabilitation, occupational health, and sports medicine. The products meet European Union medical CE requirements and Bittium Faros series is also cleared for FDA 510(k).

#### Products for Cardiology

Bittium Faros™ 180  
Bittium Faros™ 360

#### Products for Neurophysiology and Neuroscience

Bittium BrainStatus™  
Bittium NeurOne™

#### MedicalSuite™ Service Products

Bittium Holter™\*  
Bittium HolterPlus™\*

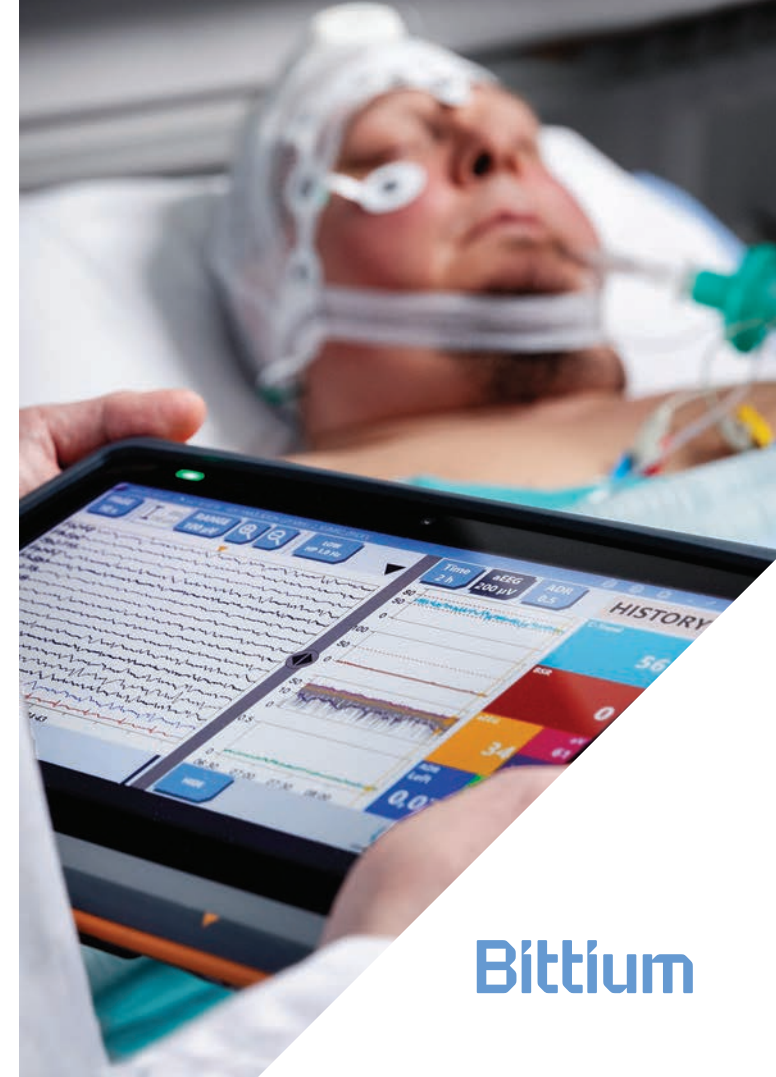
*\*A system that utilizes CE certified Bittium Faros™  
and Bittium Cardiac Navigator™ products.*

FOR MORE INFORMATION, PLEASE CONTACT:  
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# The Next Generation of Brain Monitoring for Intensive Care

Bittium BrainStatus™



**Bittium**

# Fast and Easy Brain Monitoring for Emergency and ICU

## Advantages\*

- Enables reliable quick diagnostics.
- Speeds up significantly the monitoring process as there is no need for pre-treatment of the patient's skin.
- The one-piece flexible headband design enables positioning the electrodes to the 10-10 standard electrode locations.
- There is no need to move the patient's head when putting on the Bittium BrainStatus™ electrode set.

Due to the fact that the electrode set is easy and fast to use, it is particularly well-suited to be used in emergency and intensive care and even in field conditions.

\* Key advantages for Bittium BrainStatus™ and Cerenion C-Trend™ according to studies carried out at Helsinki University Hospital and Oulu University Hospital.



### Bittium BrainStatus™

The fastest way to get EEG from an unconscious patient.

## Key Facts

- Very easy electrode setup enables EEG readings in a couple of minutes.
- The fastest way to get EEG from an unconscious patient.
- Easy-to-use tablet PC interface for real-time brain function measurement.
- The C-Trend™ Index, aEEG, alpha-delta ratio and BSR.
- Hygienic single-pack with usage instructions.
- Universal cable to connect Brainstatus electrode to any EEG device brand.

### Bittium BrainStatus™

**Disposable**  
sub-hairline  
electrode

**16 channels**  
optional with  
jack box/adaptor

**24 bit**  
sampling

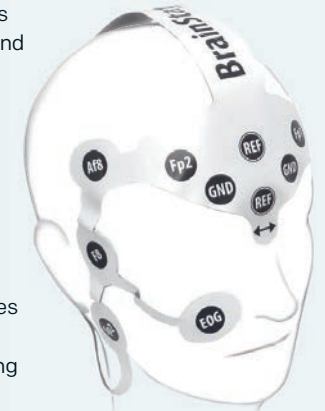
**80 gram**  
weight

**Offline**  
SD card slot

**Online**  
Bluetooth

**Brain-related injuries** and dysfunctions cause high costs to society. In emergency first response, early objective assessment of an unconscious patient is highly desirable to optimize treatment paths and improve treatment outcome. The earlier the assessment, the better the results.

**Bittium BrainStatus™** is novel EEG electrode, made to answer the diagnostics problems in emergency dispatch and other applications which require fast and easy EEG readouts. Bittium BrainStatus™ is disposable, and unlike traditional headbands, it's placed on the hairless area on the patient's head. This makes proper placement easier and faster, without moving the patient's head.



## Application Areas

- Hypoxic brain injury after cardiac arrest:** Predicting the neurological outcome. (C-trend)
- Deep anesthesia status epilepticus treatments:** Monitoring burst suppression ratio (BSR).
- Nonconvulsive status epilepticus:** Detecting changes in the EEG activity which might refer to epileptic seizures. (aEEG, Amplitude EEG)
- Subarachnoid hemorrhage:** Detecting changes in the EEG activity which might refer to brain hypoxia. (ADR, Alpha-Delta Ratio)