

Schwarzer LTM

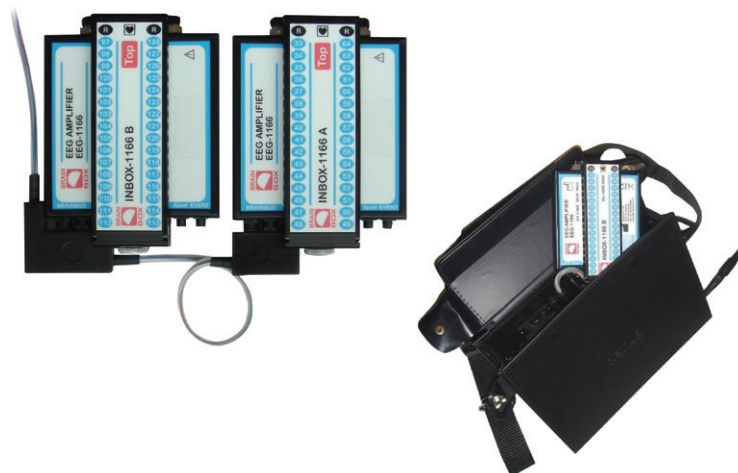
featuring Coherence software

A Complete Epilepsy Monitoring Solution

Long term monitoring systems require the highest possible reliability and patient comfort. Consequently, Brainbox LTM amplifiers are the most compact available today, and computer acquisition hardware with noisy fault-tolerant storage can be installed in a secure server room outside of the nurse control unit.

Versatile Platform

Mocular Brainbox Amplifier system and pouches for 64, 128, 192 or 256 channels



HD Video from Network Cameras

Coherence software can record standard or high definition video directly from Day/Night network cameras. Network cameras utilize a standard network cable and are controlled from the acquisition software or from any computer on the network. H.264 compression guarantees the highest video and audio quality with optimal compression ratio.

Brainbox Network Amplifiers

Amplifiers, cameras and the switchbox for cortical stimulation can all be connected to the main unit via standard network cables, eliminating dedicated and costly cabling. A variety of amplifiers and a photic stimulator connects to a network interface placed in the patient room. The Brainbox 1166 LTM amplifier is not only the smallest and lightest amplifier available today, it also provides the flexibility to daisy chain up to 4 amplifiers depending on the number of channels required.



Brainbox 1042

APPLICATION

Routine EEG/PSG
LTM version available
(Brainbox 1142)

CHANNELS

42 inputs: 32 referential for EEG
or polygraphic signals,
8 ch. DC, 1 marker, 1 SpO₂



Brainbox 1166
w/compact click-on inbox

LTM w/max 64
EEG electrodes

64 referential inputs for EEG
or polygraphical signals,
or polygraphical signals,
1 marker, 1 SpO₂



Brainbox 1166
w/separate inbox

LTM w/intra-cranial
electrodes; separate
inbox for convenient
DSM connection

Daisy chain up to 4 64-channel amplifiers
1 x 1166 = 64 channels
2 x 1166 = 128 channels
3 x 1166 = 192 channels
4 x 1166 = 256 channels



Photic

LED photic stimulation
(optional interface for
external stimulators)

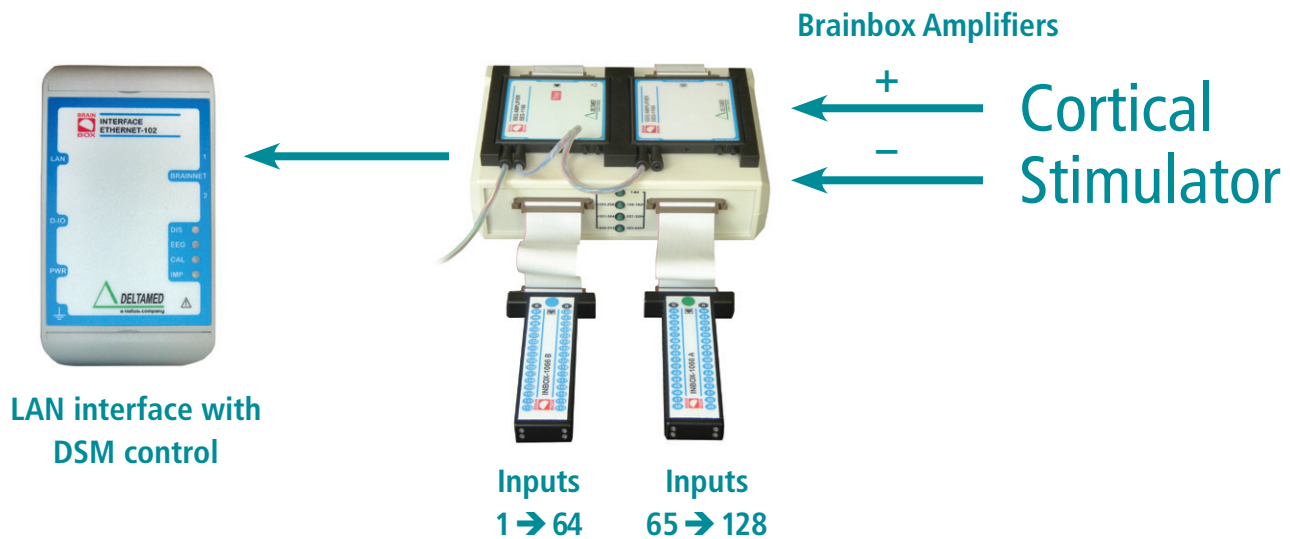
N/A

Brainbox Amplifier Key Specifications

- Dimensions & weight of 1166 amplifier with click-on inbox: 10cm x 10 cm x 3cm, 240gr
- Sampling rates of up to 4Khz with a single 64-channel amplifier, and 2KHz with 128 channels
- Very high common mode rejection ratio of 150dB and 100MOhm input impedance, ensuring clean signals in the most challenging conditions
- 8 bit marker input on the network interface

Cortical Stimulation with Full IP Control

The digital switch matrix (DSM) is connected only during cortical stimulation between the input box and the amplifier itself, enabling the amplifiers to remain compact & portable. The Coherence acquisition program allows convenient switching of the electrodes for stimulation. For a 256-channel system, up to 2 switch matrixes can be daisy chained.



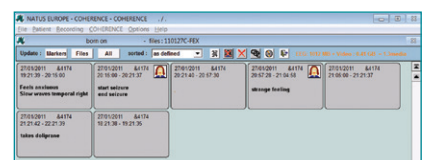
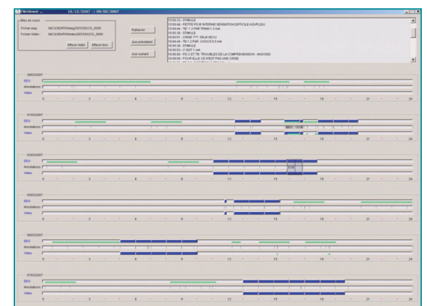
Schwarzer LTM systems can be remotely operated from the patient room using the mobile control unit including the digital switch matrix and the cortical stimulator. The adjustable keyboard shelf and monitor enables both sitting and standing operation.

Coherence software provides unique tools for LTM

Coherence software offers unique tools to access recorded Long Term Monitoring EEG and video data, as well as exported EEG or VIDEO-EEG data selected for archiving.

Natus Europe developed the Coherence file viewer tool to show graphically and on a day-by-day basis the recorded and exported EEG and video data as colored bars on the 24-hour time axis. This unique tool simplifies navigating directly to any portion of the data or annotations.

The Coherence database can display all exported data from a study in a slideshow, providing a comprehensive overview of seizures and other data with epileptic activity – another example of how Coherence software is developed with efficient user workflow in mind.



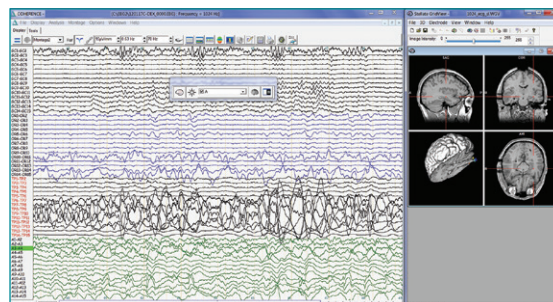
Stellate Spike & Seizure Detection

Coherence software now incorporates the reknowned Stellate spike and seizure detection algorithms developed by Dr. Jean Gotman. Automatic spike and seizure detection allows critical focus on data that may contain epileptic activity and few algorithms are as widely accepted as those developed by Dr. Gotman. Several specific detectors for surface or intracranial detectors can run simultaneously during recording, and notify EEG technicians and neurologists in various ways in the event of a seizure.

Stellate GridView™

Stellate Gridview is a powerful and unique software tool allowing localization and annotation of grid or depth electrodes from within the EEG software.

After segmentation of the patient's brain based on 3D images from MRI or CT images, and positioning of the electrodes from the electrode set used for recording, Coherence can interface with Gridview and show exactly where the electrodes are located in the brain tissue. It also allows annotating and exporting the image in order to provide the neurosurgeon with the relevant information.



Presentations

Coherence EEG & video can be reviewed any time, any place using the Coherence DeltaFree browser or using the Coherence Freeviewer (via DVD).

In addition, Coherence exclusively features a built-in video clip generator allowing creation of high resolution clips (1280 x 720 pixels) in order to preserve original EEG and video quality. Coherence includes a built-in video clip editor specifically designed for presentations.



A High-Performance System with High-Performance Support

Standing behind every Schwarzer product is Natus Medical Incorporated, an internationally respected innovator of medical products and services.

Our LTM systems are backed up by an in-house support team staffed with technical and clinical experts, the largest clinical and technical field support network in Neuro/Sleep and customized service contracts that include preventative maintenance visits and computer upgrades. No one supports you better than Natus.



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