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- EEG+TCD+Multi-parameter Vital Signs Monitoring
- Innovative and Integrated System for Neuro Diagnostic and Monitoring
- Synchronous Display and Record
- Best and Complete Solution for ICU/NICU

**Neuro Monitor System** 

NSD-8100/7100)

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# A Milestone in Neuro Monitoring History: **Synchronous Monitoring for Cerebral Circulation and Brain Function**

# Features

# Synchronous Recording and Monitoring for Brain Function, Cerebral Circulation and Vital Signs

EEG signals, vital signs signals including ECG, RESP, SPO2, NIBP, PR and HR, and video data can be recorded and displayed synchronously on the screen. Furthermore, TCD (Transcranial Doppler) signals can also be added. This combination of EEG, TCD and Vital Signs is an invention on the world.

# Signal Acquisition System with High-accuracy and High-reliability

Amplifier is the most important module for EEG system to record all signals. The NSD-8100 system has high-performance EEG amplifier with features of high sensitivity, strong anti-interference and etc. Introducing the technology of simultaneously sampling and holding for all electrodes, the problem with time delay for transmitting signals between electrodes will not happen. As the process of converting analog signal to digital signal is executed in the inner of the amplifier before transmitting to PC, the risk of being interfered by external noise is greatly reduced during data transmis-

## Amplitude-integrated EEG (aEEG) Trend

Up to two channels of amplitude-integrated EEG signal can be displayed simultaneously. The aEEG gives a compressed view of the variation in amplitude of the EEG. The signal is recorded, amplified, filtered and displayed at a certain speed which can be user-defined. The aEEG trend is drawn continuously on the screen to reflect the information on background activity (overall brain function). This technology helps more for observing patient's brain wave change easily and intuitively.

With aEEG technology, the NSD-7100 system provides the best solution for long term monitoring and is especially designed with the challenges of the ICU and neonatal ICU environment in mind. It plays an important role for early diagnosis and treatment for neonatal patients with epileptic seizure and ischemia oxygen deficiency encephalopathy.

#### Density Spectral Array (DSA) Trendgraph

Frequency components of EEG and the amplitudes of each frequency are displayed as a DSA (Density Spectral Array) trendgraph on the review screen. The DSA lets you find epileptic seizures of a specific EEG frequency band over a long period of time. A long term DSA window is also available to show detailed change in the extended trendgraph.

Up to two DSA trendgraphs can be displayed simultaneously on the screen. You can easily find a specific EEG frequency band at a glance.

#### Synchronous Digital Video and EEG Waveforms

Patient images synchronized with the EEG waveforms can be recorded in high resolution on the same screen, and video data can be synchronously saved with EEG waveforms in a hard disk. Any video clip can be cut and saved as a new file. And "snapshot" function is also available.

## Easy for Diagnosis and Study of Sleep Disorders

All parameters for diagnosis and study of sleep disorders can be recorded, displayed and stored. All the EEG electrode signals and other analog input signals from sensors (RESP, SPO2 and etc.) for sleep study can be directly inputted into the amplifier of NSD-7100 system.





### TCD Spectra and Monitoring Curves Display

Bilateral TCD monitoring spectra and curves can be synchronously inputted and displayed on the same screen. The real-time change of cerebral blood flow can be easily observed during epileptic seizure. This unique function facilitates clinical research on the relationship between brain wave, cerebral blood flow, brain metabolism, hypoxic-ischemia, brain damage and epileptic

The trendgraph of cerebral blood flow can be recorded and displayed without time limit in monitoring window. Combining with DSA and aEEG trendgraphs, it helps more for analysis on the change of brain function and cerebral circulation during long time monitoring.

#### **Customizable Interface Layout**

The system offers user-friendly software which much improves the efficiency for operation. All windows for TCD spectra, monitoring curves, DSA and aEEG trendgraphs can be hidden or displayed according to user's needs.



















