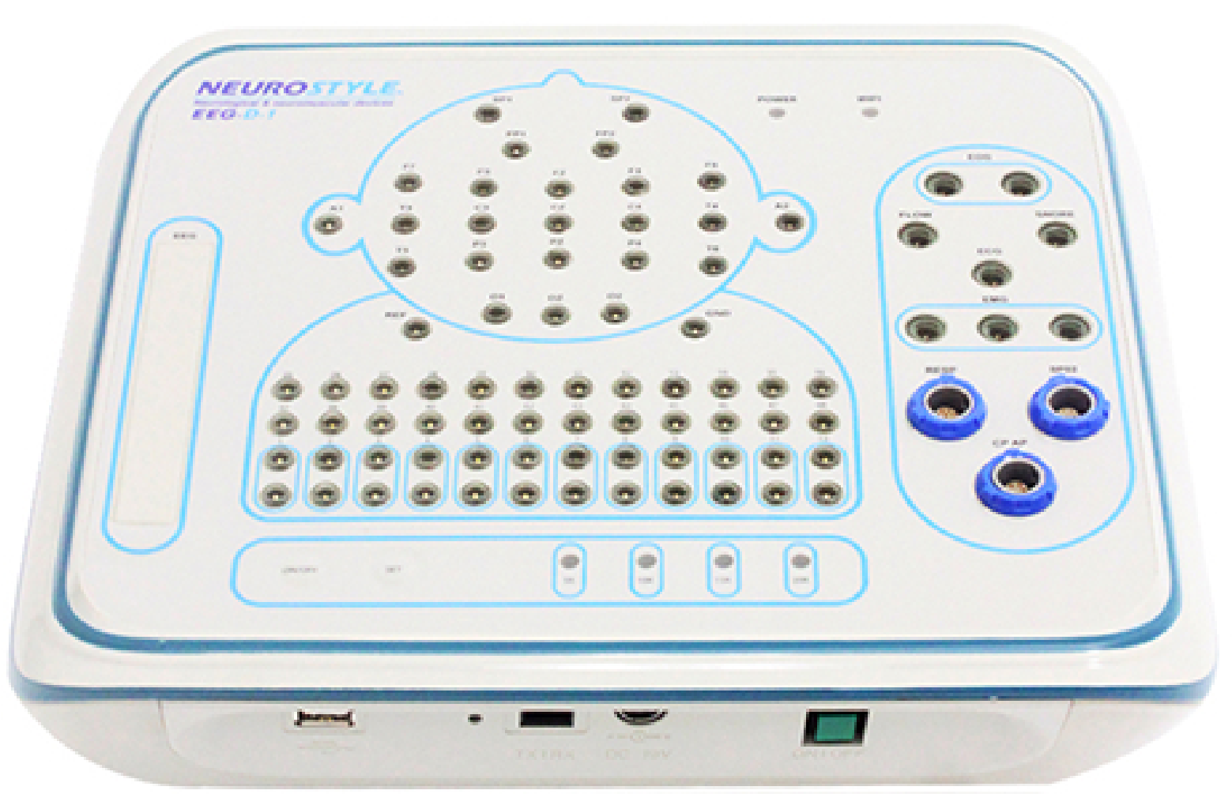
Products

EEG

ELETROENCEPHALOGRAM (EEG) SYSTEM

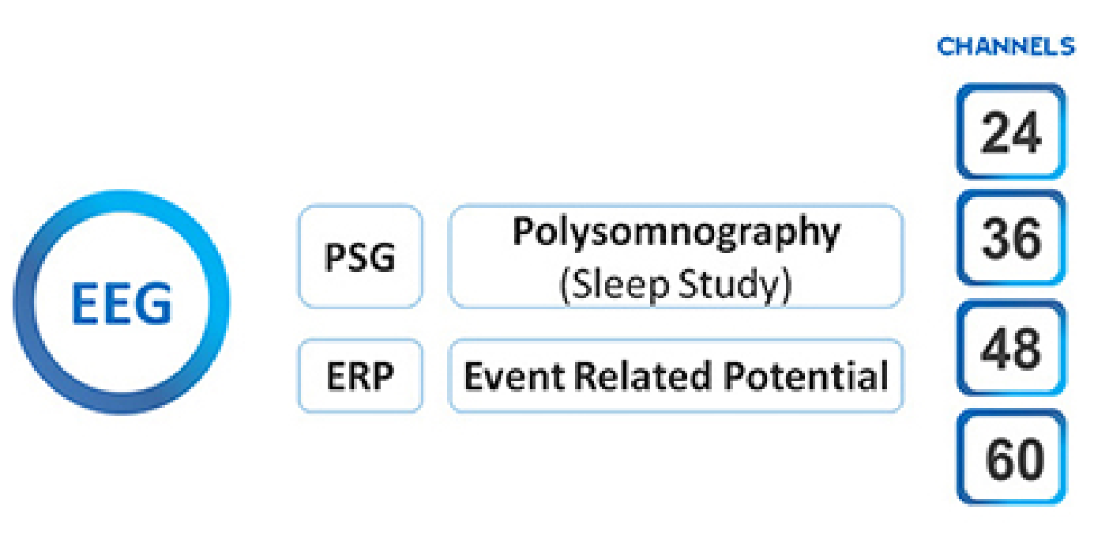


EEG

ELETROENCEPHALOGRAM (EEG) SYSTEM

NS-EEG-D1 is a digital EEG device available in 24/36/48/60 channels. It delivers high quality EEG signals through state-of-the-art hardware and software design, built-in impedance test module and anti-interference data transmission technology.

This device can be used for routine EEG, Event-Related Potential (ERP) data acquisition and analysis, as well as professional Sleep monitoring using Polysomnography (PSG) for medical and research institutions.



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Technical Specifications

Dimensions & Weights	
size	290 x 245 X 65 mm
Amplifier Weight	2 Kg (approx)

Power Supply	
Power	DC 19V

Operation Time	
Duration	Up to 72 hours continuously

Performance	
Input Impedance	≥1000MΩ
Noise level	<0.4μV (rms)
CMRR	≥110dB
Resistance polarization voltage	± 300mV
Frequency characteristics	0.5Hz ~ 10KHz, error of +5% ~ -30%
Impedance Test	Includes scalp impedance test function: Impedance lights on top of EEG amplifier can be set at 5KΩ, 10KΩ, 15KΩ or 20KΩ threshold values to indicate impedance status of each channel (red or yellow light indicates high impedance; green light means impedance is acceptably low)
Channel Configuration	24/36/48/60 channel EEG, where 12 of the EEG channels can be set as bipolar EEG; Additional channels for multi-parameters: 3 EMG, 1 ECG, 2 EOG, 1 abdominal breathing (RESP), 1 snoring, 1 nose and mouth airflow (Flow), 1 for SpO2
Sampling Frequency	128Hz, 256Hz, 512Hz
Interface Technology	USB 2.0 interface, transmission rate 480Mb (/12Mb)/s
Fiber optic modules	Work rate ≤84Mb/s
Precision sampling resolution	24bit
Low-pass filter	15Hz, 30Hz, 40Hz, 60Hz, 120Hz, 250Hz, 1KHz, 3KHz
Time constant	0.01s, 0.02s, 0.03s, 0.1s, 0.2s, 0.3s, 1s, 2s, 3s
Amplification	1 – 10,000 times

Functional Modules

1. Routine EEG

2. Polysomnography (PSG) / Sleep Study

- EOG
- Air flow
- Snoring
- ECG
- EMG
- SpO2
- Thoracic and Abdominal Respiration

3. Event-Related Potential (ERP)

- Current Stimulation
- Audio Stimulation
- Visual Stimulation

System Key Features

System Key Features

- High quality signal with optical fiber isolation
- DC battery power operation eliminates AC power line interference
- Built-in impedance testing function
- Built-in impedance testing function
- Ergonomically designed single shielded cup/clip electrodes with touch-proof connectors (1.5mm)
- Choice of different configurations:
  - 24/36/48/60 channels unipolar EEG
  - 12 channels bipolar EEG
  - Synchronous acquisition, editing and display of EEG and video signals
  - Synchronised EEG examination and PSG recording enable for more sophisticated clinical applications

Accessories


USB-HDMI cable

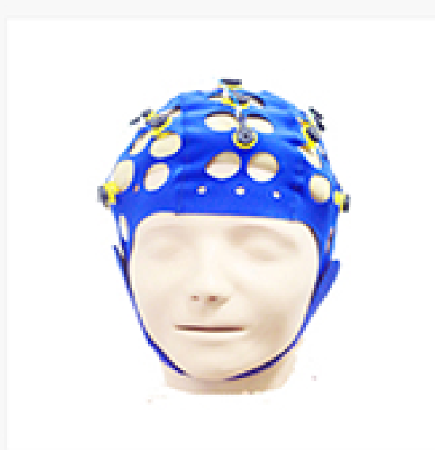

Fiber Optical cable


AC adaptor for EEG controller


AC adaptor for EEG amplifier


EEG Cap electrode cables


EEG Cap with electrode cables


EEG Cap with Electrodes Front view (worn).


EEG Cap with Electrodes Side view (worn).


EEG Cap with Electrodes Back view (worn)


Single-plug EEG Electrode cable (All-in-one)


EEG Cap


EEG Cap (worn)

EEG/PSG

System Key Features

- High quality signal with optical fiber isolation
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- Ergonomically designed single shielded cup/clip electrodes with touch-proof connectors (1.5mm)
- Choice of different configurations:
  - 24/36/48/60 channels unipolar EEG
  - 12 channels bipolar EEG
  - Synchronous acquisition, editing and display of EEG and video signals
  - Synchronised EEG examination and PSG recording enable for more sophisticated clinical applications

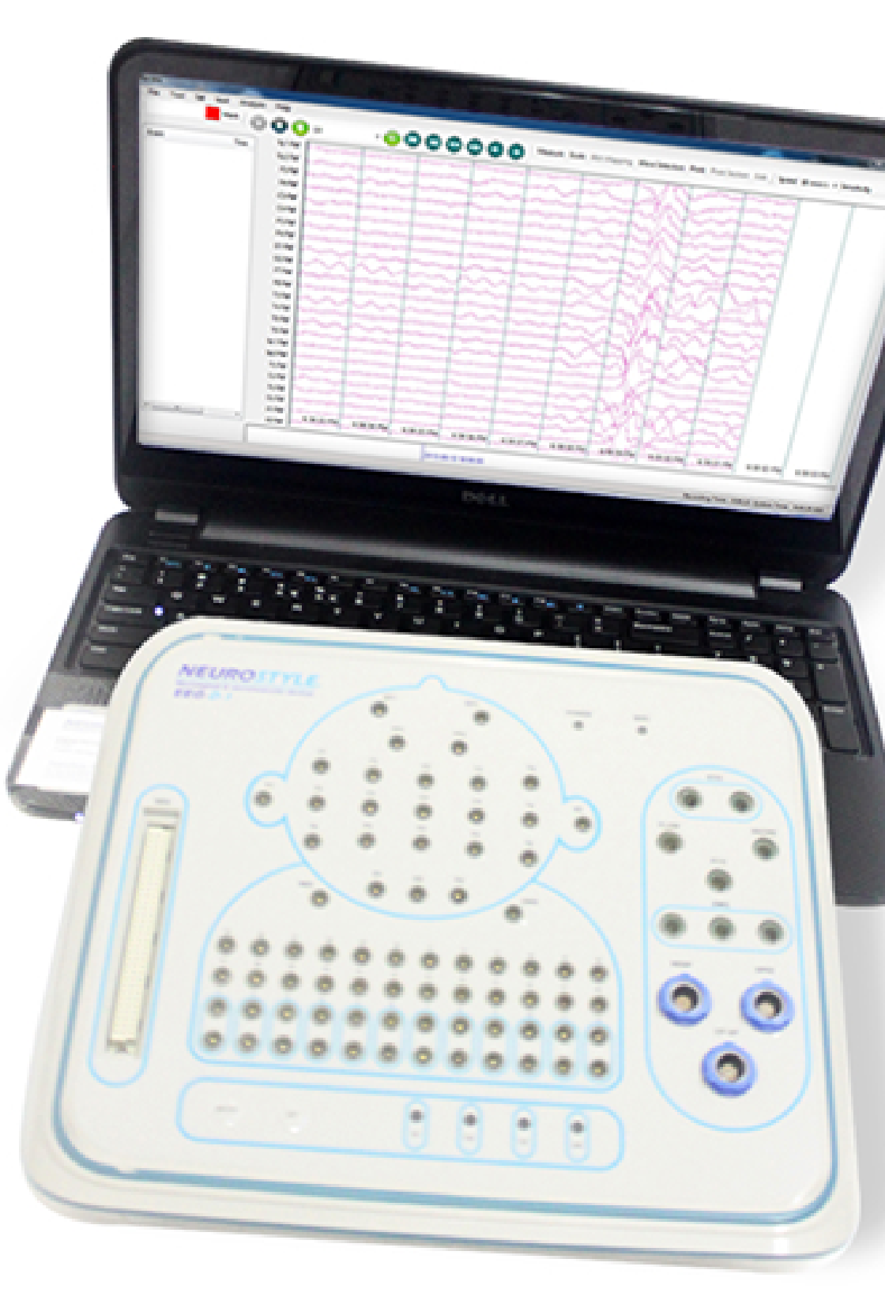
PSG Key Features:

- Synchronised EEG examination and PSG recording enable for more sophisticated clinical applications
- PSG hardware integrated into EEG amplifier – No additional hardware space, negligible weight difference, easy hardware management and connection
- Multiple channels available for PSG recording:
  - EOG
  - EMG
  - Air Flow
  - SpO2
  - Snoring
  - Thoracic and Abdominal Respiration (RESP)
  - ECG
- Respiration leading tone is featured to gain patient's respiration frequency during deep respiration events

EEG/ERP

System Key Features

- High quality signal with optical fiber isolation
- DC battery power operation eliminates AC power line interference
- Built-in impedance testing function
- Ergonomically designed single shielded cup/clip electrodes with touch-proof connectors (1.5mm)
- Choice of different configurations:
  - 24/36/48/60 channels unipolar EEG
  - 12 channels bipolar EEG
  - Synchronous acquisition, editing and display of EEG and video signals
  - Incorporation of ERP consists of acoustic, visual and current stimulation



ERP Key Features:

- Choice of acoustic, visual and current stimulation
- ERP recognition potentials comprising of P300, N400, CNV and MMN
- Stimulation synchronized with EEG waveform acquisition and configurable stimulation parameters and patterns
- ERP data averaging function for better case assessment
- Diversified data measurement tools for ERP latent period and amplitude measurement
- Multiple ERP(s) available to be replayed and compared concurrently

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