

Type-E Routine EEG System

Type-E EEG/ERP System



Model: Nation7128W

Specifications for Type-E EEG Amplifier:

Input channels: 32/64/128 channels Monopolar EEG

Power supply: Internal rechargeable lithium battery (16.8V); External charger input: AC100~240V, output DC 19V.

Connection to PC: USB (HDMI interface) cable

Operation Modes: Real-time

A/D conversion: 24 bit

Sampling Rate: 128/256/512/1024/2048/4096/8192Hz

Input impedance: $\geq 10\text{M}\Omega$

CMRR: $\geq 100\text{dB}$

Noise: $\leq 0.5\mu\text{VRMS}$

Low-pass filter: 0-120Hz

Amplitude-frequency characteristic: 1-60Hz

High-pass filter: 0.01-0.3s

Interface: USB2.0 (USB1.1), interface transfer rate: 480Mb (/ 12Mb) / s

Dimension & Weight: 300*226*60(mm); 2kg (amplifier only)

Key Features & Advantages:

- Professional EEG amplifier suitable for all standard applications of routine EEG and long term EEG monitoring;
- Supports up to 128 channels of monopolar EEG recording, along with data acquisition and analysis of ERP (Event Related Potential), enabling for scientific research institution to research and analyze special EEG waveforms of various EP;
- High quality real-time EEG signal acquisition is transmitted via fiber optical isolation, which shields away interference from power line and other signals, transmitting stable and reliable measurement data at high-speed while greatly ensuring patient's safety;
- 24 bits A/D conversion rate with high sampling rate of up to 8 kHz;
- Different configurations for choice:
 - ① Additional ERP examination with Acoustic & Visual stimulator;
 - ② Synchronized video monitoring with software control zoom/tilt and infra-red lamp to support night monitoring.

Software Functions:

1. Acquisition & Settings

- ◆ Colors of waveforms are in accord to colors of events, and users can mark on the waveforms with character directly; it's available to open respiration leading sound to instruct patient's respiration frequency in a deep respiration event;
- ◆ EEG channels can be arbitrarily set up for users to customize the layout of channels during collection process and playback analysis. This includes the choice of processing EEG waveforms with filters, baseline and other arbitrary parameters;
- ◆ Configuration chart display and data source of physical channel configuration are displayed together at the same interface, making channel editing simpler and more intuitive;
- ◆ Events markers enables users to mark timings of seizures or any abnormal wave occurrences during recording, whereby events marked are listed and can be traced with the event localization feature during playback;
- ◆ Sound, light and electricity evoking is available during ERP data acquisition, and different evoke methods can be applied to different patients to extract evoking waveform;
- ◆ Superposition of ERP waveforms eliminate clutter and reserve EP data clearly;
- ◆ Superposition of different event EP waveforms according to event's classification setting;
- ◆ Same-screen, and real-time display brain tendency chart is in synchronism with EEG waveforms acquisition. Brain tendency chart include various energy curve maps: energy curve, peak value frequency, relative energy, absolute energy, energy peak frequency, medium frequency index, side frequency index and coma index.

2. Replay & Analysis

- ◆ EEG mapping;
- ◆ EEG tendency analysis;
- ◆ EEG spectral analysis;
- ◆ Brain waves fast playback and fast positioning function;
- ◆ Automatic spike recognition with adjustable arbitrary spike-wave parameters;
- ◆ ERP data averaging function;
- ◆ User can list the events marked during replay and locate each of the event markers in the waveform. User can add, change or remove event markers based on manual observation made during recording;
- ◆ User can also review the EEG waveforms with a different combination of parameters and filters;
- ◆ Various data measurement tools to measure EEG waveform, latent period and amplitude of EP;
- ◆ Can display and compare up to 5 kinds of superposed data of ERP on screen;
- ◆ Automatically generates EEG case reports with customizable print templates.

Accessories: All-in-one Monitoring electrode cap; All-in-one cup electrode cable; All-in-one bracket electrode cable.



All-in-one monitoring
electrode cap



All-in-one cup electrode
cable



All-in-one bracket electrode
cable

Optional parts:

1. Video System

- Supported BUS Interface of video card: PCI
- Power supply: AC240V 50/60Hz 2A
- PAN/TILT Turn speed: 0.5°~30°/s
- Night-vision survey with IR-illumination: Supported
- Maximum picture resolution: 640×480
- Operation System: Windows XP, Win 7
- Video camera with remote control: By software.

2. Flash Stimulator:

Stimulation Frequency: 1-30Hz

3. Computer(minimum requirements):

CPU: Pentium 4 with memory 512MB or higher

USB2.0 interface

Operating system: Windows XP, Win 7

General Specifications:

1. Dimension and Weight:

Type-E EEG with standard accessories: 1 carton; 510*450*230(mm); Charge weight: 11kg

Photic Stimulator with tripod (Optional): One carton; 630*260*190 (mm); 10kg

Photic Stimulator with pentagonal stand (Optional): 1 carton; 210*1000*620(mm);

Charge weight: 25kg

Video system (optional): 1 carton; 450*300*300 (mm); Charge weight: 7kg

2. Environment:

Temperature: +10°C ~+30°C

Relative humidity: 30%~80%

Power supply: AC100—240V (Host computer system)

Amplifier: DC6V

3. Quality System:

ISO13485: 2003; CE (93/42/EEG)