

# Nicolet nEEG

## Modular Neurodiagnostic System

### Specifications

#### General Specifications

##### Isolated Power Supply

110/115 or 230 VAC  $\pm$  10% input, 50 - 60 Hz  
595 VA primary; 500 VA secondary  
Output voltage = input voltage

##### Dimensions

Unibody cart approx. 119 H x 53 W x 76 D cm (47" x 21" x 30")

##### Weight

Unibody cart approx. 68kg (150 lbs.) (depending on model of printer)

##### Operating Environment (in use)

Temperature: 15.6 to 32.2° C, (60 to 90° F)  
Relative Humidity: 20-80%, non-condensing  
Altitude: 0-3km, (0-10,000 ft)

##### Non-Operating Environment (in storage)

Temperature: 17.7 to 55° C, (0 to 132° F)  
Relative Humidity: 10-90%, non-condensing  
Altitude: 0-12km, (0-40,000 ft)

#### Desktop Computer

**CPU** Intel® Pentium Core 2 duo 2.1 GHz technology with 2 GB RAM (min.)

**Operating System** Microsoft® Windows® XP Professional

**User Interface** Keyboard and mouse

**Hard Disk** 80 GB (min.)

**Digital Video System** 500 GB (min.) Total of 580 GB

**Graphics** Dual head, PCIX (optional)

#### Storage Devices

DVD+R/W Drive

#### Monitor/Display

19" LCD with Speakers (optional)

Pixel Resolution 1280 x 1024

24" Wide Aspect LCD (optional)

#### Printout

HP DeskJet Printer (Black, White, and Color)

#### Network

10/100/1000 Mb Ethernet (standard)

HL7 compatible through VLink interface

#### nEEG software (with v32/v44 Amplifier)

##### EEG Display

**Sec/Page** 2, 5, 10, 20, 30, 60, 120, 240, 300, 600, 1200

**mm/Sec** 6, 8, 10, 15, 30, 60, 120, 240

**Sensitivity** 10, 20, 30, 50, 70, 100, 150, 200, 300, 500, 700, 1000, 2000, 5000  $\mu$ V/cm

1, 2, 3, 5, 7, 10, 15, 20, 30, 50, 70, 100, 200, 500  $\mu$ V/mm

**High Filters** Off, 10, 15, 25, 30, 35, 40, 50, 60, 70, 100, 150, 200, 300, 500, 1000, 1500 Hz

**Low Filters** Off, 0.053, 0.16, 0.3, 0.5, 1, 1.6, 2, 3, 5 Hz

0.2, 0.33, 0.5, 0.625, 1, 2, 3.3, 6.2, 18.9 seconds

**Notch Filter** Off, 50/60 Hz

nEEG software interfaces to Nicolet Ambulatory Module. See Nicolet Ambulatory EEG product brochure w/specifications 169-435300

#### v32 Amplifier

**Analog/Digital Converter** 16 bits

**ADC Resolution Voltage** = 0.153  $\mu$ V

**DC Offset Tolerance**  $\pm$  340 mV

**Channels (Inputs)** 32 EEG, configurable as bipolar AC (24-32), 1 configurable as DC (32)

**Maximum Input Range**  $\pm$  5 mV

**Bandwidth** 0.053 - 500 Hz

**Noise** < 1.5  $\mu$ V pk-pk @ 0.1 - 100 Hz

**Input Impedance** > 100 M $\Omega$  (common mode)

**CMRR at Patient Inputs** > 115 dB @ 50 - 60 Hz, with active patient ground connected

**Channel Crosstalk** < -40 dB

**Amplifier Sample Rate (under software control)**

125, 250, 500, 1000, 2000

**Calibration** Square wave, 1, 5, 10, 20 sec period,

10, 50, 100, 1000  $\mu$ V amplitude

**Input Bias Current** < 5 nA

**Anti-Aliasing Filter Cut Off Frequency** 500 Hz

**Differential Input Impedance** 40 M $\Omega$

**Interface to Amplifier** Ethernet

**Built-in Impedance and Display**

**Headbox** Optional; no impedance display

##### Additional Ports

- Isolated SpO2 with X-Pod

- Photic output

- Isolated patient event button

**Channel Hardware Gain** 410

**Deblock** Yes

##### Auxiliary Inputs

1 Hi-level, non-isolated input for connection of external devices

(e.g. CO2 monitors, etc.)

**Analog/Digital Converter** 16 bits

**Maximum Input Range**  $\pm$  2.5V

**ADC Resolution** 76.3  $\mu$ V

**Bandwidth** DC - 500 Hz

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