

## BWII EEG / PSG SYSTEM TECHNICAL SPECIFICATIONS

### BWII EEG (25 Channel) Configuration & Input Range

Referential AC Inputs	21 EEG	400 $\mu$ Vpp
	02 Aux	400 $\mu$ Vpp
Bipolar AC Input	01 Aux	400 $\mu$ Vpp
DC Input	01 Photic Stimulator	0 V / +5V

### BWII PSG (29 Channel) Configuration & Input Range

Referential AC Inputs	08 EEG	400 $\mu$ Vpp
	02 EOG	400 $\mu$ Vpp
	03 Aux	400 $\mu$ Vpp
Bipolar AC Input	01 EMG	400 $\mu$ Vpp
	01 ECG	400 $\mu$ Vpp
	01 Snore	400 $\mu$ Vpp
	01 Flow	400 $\mu$ Vpp
	01 Pressure	400 $\mu$ Vpp
	02 Effort	400 $\mu$ Vpp
	01 Position	400 $\mu$ Vpp
	01 LM	400 $\mu$ Vpp
	02 Aux	400 $\mu$ Vpp
	DC Input	02 DC
01 DC		+ 5V / - 5V
Oximeter Integrated	01 SpO2	Nonin OEM III
	01 BPM	Nonin OEM III

### Analog / Digital Conversion

Resolution	12 bit (0.03 Hz to 100 Hz)
Sample Rate	1000 Hz
Storage Rate	200 Hz

### Input Impedance

AC	$\geq 100 \text{ M}\Omega$ per input ( $\geq 200 \text{ M}\Omega$ per channel)
DC	Constant over $\pm 4\text{Vpk}$ input range

### Noise (referred to input)

Referential Inputs	< 2 $\mu$ Vpp
Bipolar Inputs	< 4 $\mu$ Vpp

### CMRR

At 50 or 60 Hz	$\geq 100 \text{ dB}$
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### Filters

Analog Low Filters	0.03 Hz
Digital Low Filters	0.03 / 0.10 / 0.16 / 0.30 / 0.53 / 1.00 / 1.60 / 10 Hz
Analog High Filters	100 Hz
Digital High Filters	15 / 35 / 50 / 70 / 100 Hz
Notch	50 / 60 Hz

### LED Photic Stimulator

High-Intensity LEDs	White
Stimulation	1-30 Hz (in steps of 1Hz / programmable)

### Integrated Pulse Oximeter

Type	Nonin OEM III
SpO2 range	0-100 %
Pulse Rate Range	0-511 BPM

### Computer

CPU	Core 2 duo 2, 1Ghz
Memory	3GB RAM
OS	Windows Vista Basic
Storage	160GB HDD
Archiving	DVD-RW
Connectivity	Ethernet Card
Display	15" or higher

### Digital Video Recording

Dazzle - Pinnacle	Resolution 320 x 240 pixels
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### General Specifications

Isolated Power Supply	115V or 240V, 50/60Hz
Calibration Signal	Built in, square wave, 50 $\mu$ Vpp, 0.5 Hz
Impedance Measure	Built in, automated, range: 0-100 k $\Omega$

### System Dimensions

Power Supply Module	6.1" x 3.5" x 3"	Weight: 3.3 lbs
Amplifier Module	10.6" x 5.3" x 2.8"	Weight: 2.2 lbs
Flash Stimulator Module (Only EEG)	4.7" x 3.5" x 1.4"	Weight: 0.4 Lbs
Head Box module (Only PSG)	6.1" x 5.3" x 1.8"	Weight: 0.7 lbs

### Environment

Temperature Operating	41° F (5° C) to 95° F (35° C)
Temperature Storage	- 40° F (- 40° C) to 149° F (65° C)
Relative humidity	20% to 80% no condensed

### Quality System

Designed, developed and marketed by Neurovirtual under ISO 13485:2003 and ISO 9001:2008, CE certified quality system.

### Regulatory Standards

IEC 60601-1:	Medical Electrical Safety Standard
IEC 60601-1-2:	General Requirements for Safety, Amendment N° 2. Collateral Standard: Electromagnetic Compatibility Requirements and Tests
IEC 60601-1-2-26:	Particular Safety of electroencephalographs