

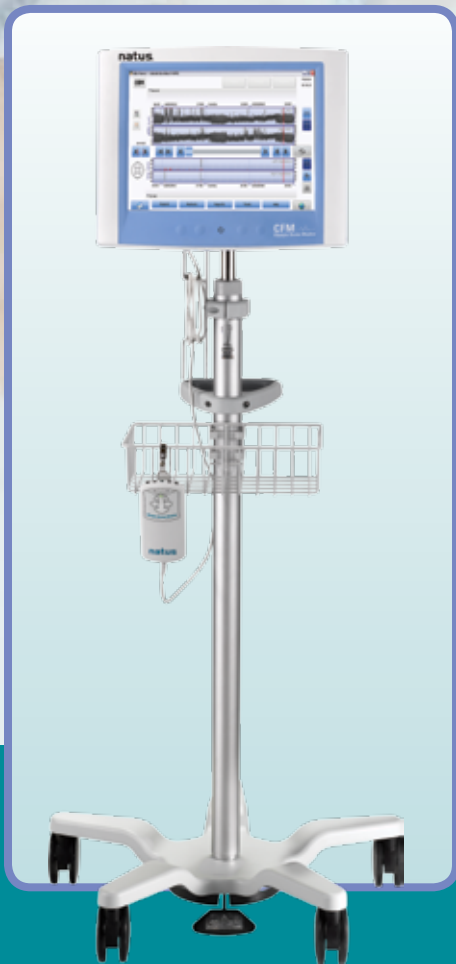
# CFM

## Olympic Brainz Monitor

*Continuous Bedside Cerebral Function*

*Monitoring provides actionable*

*information when you need it most...*



*The **Olympic Brainz Monitor** is the latest technology in cerebral function monitoring (CFM), allowing you to begin monitoring in 3 easy steps: Plug in unit, apply electrodes and start recording.*

**natus**<sup>®</sup>  
*pediatrics*

Understanding an infant's brain health is a critical part of your treatment decisions. Use of continuous Cerebral Function Monitoring provides vital information to clinicians to assist with earlier diagnosis and treatment<sup>1</sup> — the **Olympic Brainz Monitor** is the optimal CFM solution for fast & simple routine bedside monitoring.

# CFM

## Olympic Brainz Monitor

The Olympic Brainz Monitor provides aEEG (amplitude integrated EEG), real time EEG and continuous measurement of impedance in 1, 2, and up to 3 channel configurations. The kiosk style interface allows real time monitoring of brain function, providing vital data that may assist in predicting outcomes.

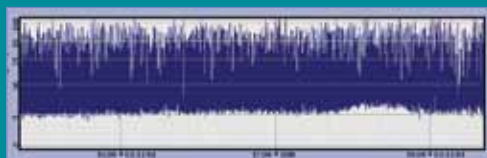
### Clinical Usage of aEEG Monitoring

Medical literature reports that aEEG monitoring can be used to:

- Monitor general neurological status
- Monitor and record frequency and intensity of seizures to assist in the management of medical therapy
- Monitor during hypothermic treatment to measure the effectiveness of treatment<sup>2</sup>
  - ♦ The time to normal trace (TTNT) has prognostic value and is a good predictor of neurodevelopment outcome in term infants with Hypoxic-Ischemic Encephalopathy (HIE) undergoing hypothermic treatment<sup>3</sup>
- Monitor aEEG patterns to indicate the presence of sleep wake cycling in preterm infants, which is associated with better outcomes in HIE patients<sup>4</sup> and may add value in developmental care

### Ease of Operation

- System based *Online Help* feature provides a step-by-step guide for setting up both the system and patient prep — allowing staff to start monitoring in minutes
- Intuitive navigation allows access to information fast when you need it most
- Versatile Patient Settings
  - ♦ Easily add a channel to an existing single channel setup
  - ♦ Cross cerebral, right and left hemisphere and up to 3-channel monitoring simplifies patient hook up and provides additional data when needed



Trace appears normal without CFMsight



Same trace with CFMsight clearly shows a burst suppression pattern

### CFMsight™

Provides enhanced signal display for easier trace interpretation

<sup>1</sup>Utility of prolonged bedside amplitude-integrated encephalogram in encephalopathic infants. Mathur AM, Morris LD, Tete F, Inder TE, Zempel J. *Am J Perinatol.* 2008 Nov;25(10):611-5. Epub 2008 Oct 7.

<sup>2</sup>Atlas of amplitude integrated EEGs in the Newborn, 2nd Edition. Lena Hellström-Westas (Author), Ingmar Rosen (Author), Linda S. de Vries (Author) (P.81 and p.82).

<sup>3</sup>Sleep-Wake Cycling on Amplitude-Integrated Electroencephalography in Term Newborns With Hypoxic-Ischemic Encephalopathy. Damjan Osredkar, MD\*, Mona C. Toet, MD\*, Linda G. M. van Rooij, MD\*, Alexander C. van Huffelen, MD, PhD, Floris Groenendaal, MD, PhD\*, Linda S. de Vries, MD, PhD\* *PEDIATRICS* Vol. 115 No. 2 February 2005, pp. 327-332.

<sup>4</sup>NeoReviews. Hellstrom-Westas, Rosen, deVries, Greisen. Vol 7 No. 2 February 2006

# Monitor neurological status sooner — help the newborn faster

## Ease of Interpretation & Collaboration

### CFM Viewer

- CFM Viewer software implements similar functionality to the bedside unit, permitting review & analysis of recorded CFM data on a personal computer
- Remote Consult & Review — offers remote viewing of active recordings from any location
  - Allows remote consultation
  - Provides remote review and annotation of patient recordings with marked events appearing at bedside
- Viewer runs on Windows® XP SP2+, Windows® Vista and Windows® 7

### Event Markers

- User-customizable, time-stamped markers keep track of medications administered, making the review process more efficient and easier for cross collaboration
- Different colors designate whether markers were placed at bedside or using Viewer from a remote location

### File Management & Printing Options

- Network archiving feature allows transfer of sessions and facilitates file management by increasing speed of transfer
- Network printer connectivity simplifies charting and record keeping, saving cost by allowing printing onto standard paper
- Archive, restore and review patient files via USB, allowing data management even when not connected to the hospital network



## ACCESSORIES

### CART

- The bedside unit mounts to a cart – for placement in close proximity to the patient's bedside

### ELECTRODES

- Both Hydrogel and Needle electrodes are supported through standard touch-proof connectors located on the amplifier housing

## ORDERING INFORMATION

Description	Catalog#
Olympic Brainz Monitor Kit - NA (Includes: Monitor, roll stand, starter kit, power cord, DAB and hard copy manuals).....	OBM70001
Olympic Brainz Monitor Kit - EU (Includes: Monitor, roll stand, starter kit, power cord, DAB) .....	OBM70002
Olympic Brainz Monitor Kit - UK (Includes: Monitor, roll stand, starter kit, power cord, DAB) .....	OBM70003
Olympic Brainz Monitor Kit - NZ/AUS (Includes: Monitor, roll stand, starter kit, power cord, DAB) .....	OBM70004
<b>Consumables</b>	
Neonatal Sensors – 12 sets (1 set = 5 sensors) in a re-sealable pouch.....	OBM00042
Low Impedance needle electrodes - 6 sets (1 set = 4 needles).....	OBM00046
Wrap Hats (pack of 10 w/ dots).....	OBM00043
Skin Markers (box of 10).....	OBM00044
NuPrep Skin Preparation Gel - 4oz Tubes (3-pk).....	102566N
Positioning Strips - Term and Pre-Term, pack of 20 (10 of each).....	OBM00047



## GENERAL SPECIFICATIONS

### TOUCH SCREEN MONITOR:

Weight	14.33 lbs (10 kg)
Dimensions	16.46 x 13.46 x 4.53 in (418 x 342 x 115 mm)

### DATA ACQUISITION BOX (DAB):

Weight	10 oz (280 g)
Dimensions	2.98 x 5.75 x 1.23 in (75.7 x 146.1 x 31.2 mm)

### ROLL STAND:

Weight	40 lbs (20 kg)
Dimensions	61.5 in height, 25 in base dia. (1562 mm height, 635 mm base dia.)

### OPERATION (all components)

Temperature	0 to 40 °C (32 to 104 °F)
Relative humidity	25 to 90% at 40 °C (non-condensing)

### Display

Real-time EEG Waveform  
Rapid pens (aEEG, Impedance) - Computed  
Rapid numeric (Impedance) - Computed  
Histogram distribution over 15-second  
intervals (aEEG, Impedance)  
Color TFT LCD with resistive touchscreen,  
15" (381 mm) diagonal, TFT color,  
1024 x 768 pixel native resolution

### POWER SUPPLY (integrated)

Power supply unit	Integrated AC, medical grade
Power supply input voltage	100 - 240 VAC, 50/60 Hz, 4A - 2A
EEG specifications Sensitivity	50 µVpk full scale maximum sensitivity ( $< 1\mu\text{V}/\text{mm}$ )
Dynamic Range	0.30 - 10000 µVpp (1-20 Hz)
Update Rate	200 Hz (EEG Waveform)

### DATA ACQUISITION BOX (DAB) SPECIFICATIONS:

Differential channels	3
Frequency response	0.5 Hz ~ 450 Hz
Analogue to digital converter	SAR ADC (16x oversampling)
Sampling rate	2000 Hz
Resolution	16 bits
Sampling quantization	300 nV
Input impedance (DC)	$> 50\ \Omega$

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