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## VERSATILITY IN VITAL SIGNS



## Features:

15 Inch Touch Screen 3 or 5 Wire ECG Vital Signs Trending **Invasive Blood Pressure** 

**NIBP** SPO<sub>2</sub> ETCO2 **Temperature** 

# OMNI III



### Intuitive

Designed for a fast paced work environment, the Infinium **Omni III**<sup>TM</sup> patient monitor offers an extremely simple and adaptable user interface. Patient information along with vital sign settings can be quickly modified to meet the needs of a patients changing condition. The **Omni III** offers a high resolution 15 inch touch screen to optimize the speed of patient care. The user can therefore make quick screen adjustments, set default settings, alarm limits, and manage up to 72 hours of detailed patient data.

## Upgradable

From the general floor to high acuity surgeries, the Infinium Omni series patient monitors are designed to fit-in and move amongst many patient care areas. The **Omni III™** offers standard measurements of: non-invasive blood pressure, ECG with arrhythmia detection, motion tolerant SpO2, Temperature, and Respiration rate. End-tidal CO2, Anesthetic Agent measurement, Cardiac Output and Invasive blood pressure can added on-site by simply attaching our plug in modules. This field upgradability can allow the user to customize the monitor's acuity level while the patient's condition changes. If desired, the user can move from a basic vital signs monitor, to a continuous bed side monitor, to an operating room monitor while keeping the patient on a single monitor at all times.

## Connective

The **Omni III™** offers several connective solutions to network multiple monitors and/or manage patient data on an electronic medical records platform or a HL7 based hospital information system. The **Omni III** patient monitor offers Ethernet and RS-232 connections with an open source communication protocol. Infinium offers 2 levels of networking and connectivity. The **Omni III** is HL7 compliant. The HL7 network protocol will allow for all patient information and vital sign trends to be transferred and stored on a hospital information system. For non-HL7 medical facilities, there is the Infinium **Omniview™** central station which allows the real time remote monitoring and network of up to 32 **Omni** patient monitors. The Omniview™ archives full disclosure of all patient vital sign trends. The patient data from the **Omniview™** can be very simply saved, stored, printed, and, transferred.

# A Field Upgradable Operating Room Solution A MONITOR THAT CAN GROW WITH YOU...

Whether it be a basic outpatient procedure or a high acuity cardiac surgery the **Omni III** can be upgraded and custom tailored on-site by the user. The **Omni III** is preconfigured with non-invasive blood pressure, 3/5 ECG with arrhythmia detection, impedance respiration, SpO<sub>2</sub>, and temperature. More advanced readings of End-tidal CO<sub>2</sub>, Anesthetic agent measurement, and Cardiac Output Invasive blood pressure can be activated by the user at anytime.

## Capnography & Anesthetic Agent Measurement plug in Module:

The Infinium **Capnotrack™** module is a field upgradable plug in module that can measure End-tidal CO<sub>2</sub> alone or End-tidal CO<sub>2</sub> with the automatic identification of anesthetic agents (N<sub>2</sub>O, O<sub>2</sub>, Sevoflurane, Isoflurane, Desflurane, Halothane, Enflurane)

Both mainstream and sidestream modules are available for Endtidal CO<sub>2</sub> and agent measurement.

The **Capnotrack™** utilizes a low flow (50ml/min) sidestream method that allows use for intubated and non-intubated applications. The **Capnotrack™** sample line connection incorporates filter cells to eliminate the potential of cross contamination.



Simple connection sample lines allows the  $Capnotrack^{\tau M}$  to be one of the Industry's lowest cost per patient End-tidal CO<sub>2</sub> and anesthesia measurement systems.

## Cardiac Output & Invasive Blood Pressure:





2 channels of invasive blood pressure and the facility for thermodilution cardiac output are standard on the **Omni III**<sup>TM</sup>.

### ECG:

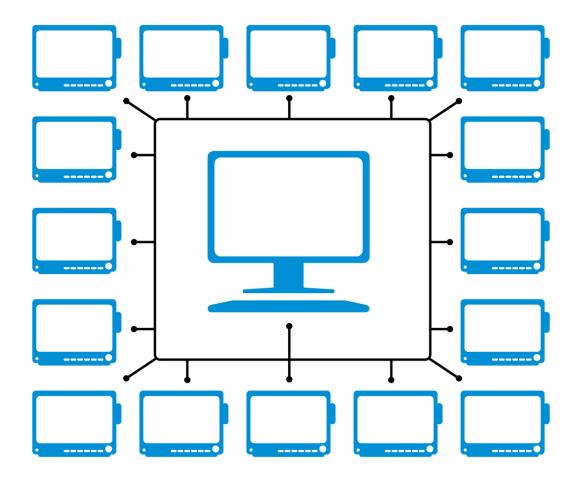


The **Omni III™** offers a 3, 5, and 12 lead ECG platform. Arrhythmia detection and ST are also standard and measurable on all lead sets.

- 3-Lead: I, II, III
- 5-Lead: I, II, III, aVR, aVL, aVF, V
- 12-Lead: I, II, III, aVR, aVL, aVF, V1~V6 (factory installed)

# **OMNIVIEW** Central Station

## SIMPLICITY IN CONNECTIVITY:



The **Omniview™** central station allows the wireless or hard-wired measurement for a network of up to 32 **Omni** patient monitors. The **Omniview™** archives full disclosure of all patient information and vital sign trends. In real time the **Omniview™** displays the patient's numeric vital signs along with waveforms. The patient data from the **Omniview™** can transferred to a EMR as a supplement to the patient's file or integrated into a hospital information system.

The **Omniview™** gives a real time display of all patient vital signs: Heart rate, Last BP reading, SpO<sub>2</sub>, Temp, EtCO<sub>2</sub> and Respiration rate with waveforms.





## Mounting Solutions A RELIABLE CONNECTION

Several mounting systems are available for the **Omni** series patient monitors.



## ROLLING STAND

Height and tilt adjustable with a large wheel base allows for smooth and stable mobility.

- Quick release slide mount
- Accessory basket
- Medical grade steel construction
- Lockable wheels



## WALL MOUNTS

Height and tilt adjustable wall mounts offer.

- Quick release of monitor
- Medical grade construction
- Adaptable to anesthesia machines
- Adaptable to most wall rail systems

### **OMNIVIEW** CENTRAL MONITORING SYSTEM SPECIFICATIONS:

#### **MAIN FRAME**

#### **Power Supply**

AC100-240V 6A/3A

#### **Basic Configuration**

20" or larger color display Intel Pentium IV2.0G CPU

Windows XP professional operating system

512MB RAM

80GB Fixed Disk drive

#### **PERFORMANCE**

#### **Display**

Size: color TFT display 20" or larger Number of display: 1 or 2 sets (optional) Resolution: 1280 x 1024

#### Waveform

ECG (I, II, III, aVR, aVL, aVF, V1-V6) PLETH, RESP, CO2, IBP, Multi-gas

#### **Parameter**

HR, ST, NIBP, IBP, SpO2, PR, RR, TEMP, EtCO2, Multi-gas

#### Indicator

Up to 32-waveform presentation

12.5mm/s, 25.0mm/s, 50.0mm/s user-adjustable sweep speed

Alarm sound

#### **Alarm**

High and Low limits alarm Audiable and visual alarm

#### **Record Type**

8 seconds real-time recording Freeze waveform recording Trend data recording Alarm strip recording

#### **Printer**

**External Laser Printer** 

Up 64 waveforms for up to 32 bedside monitors (8 monitors per screen)

All waveform presentation for single patient

48 hours of trend display for all parameters

Multi-leads ECG waveform display

Waveform freeze

Wireless Networking

Industry standard 802.11b/g WLAN

Connected bedside number: up to 16 bedside monitors

#### Review

240 hours trend review for each bedside monitor

720 items parameters alarm review for each bedside monitor

720 NIBP measurements review

72 hours of 32 channels full-disclosure waveforms

store and review

#### **Connection methods**

Wireless via transmitter Hardwired via ethernet Hardwired via RS-232

### **OMNI III** TECHNICAL SPECIFICATIONS:

#### **Application**

Neonatal, pediatric and adult patients

#### **Peformance Specifications**

15 inch color touch screen Display: 8 waveforms Trace: Indicator: Alarm indicator Power indicator

QRS beep and alarm sound

Trend time: 1 - 72 hour

Built-in, thermal array, 3 channels Recorder:

Record width: 48mm Recorder paper: 50mm

Record speed: 25mm/s, 50mm/s

#### **ECG**

Input: 5-lead ECG cable and standard AAMI line for connection

I, II, III, aVR, aVF, aVL, V, V1-V6, TEST Lead Choice: Gain Choice : x0.5, x1, x2, x4

Frequency Characteristic: 0.05 ~ 35 HZ (+3dB) 7 channels ECG Waveforms: Penetration Voltage: 4000VAC 50/60Hz

Sweep Speed: 12.5, 25, 50 and 100 mm/sec (left to right or right to left)

HR Display Range: 30 ~ 300bpm

±1bpm or ±1%, whichever is greater Accuracy: Alarm Limit Range Setting: upper limit 100 ~ 200bpm,

lower limit 30 ~ 100bpm

### RESP

Measure Method: **RA-LL** impedance 0 ~ 120 rpm Range: ±3 rpm

Accuracy: upper limit 6 ~ 120 rpm, Alarm Limit Setting: lower limit 3 ~ 120 rpm

Sweep Speed: 12.5, 25, 50 and 100 mm/sec

(left to right or right to left)

Measuring Technology: automatic oscillating measurement <30s (0 ~ 300 mmHg, standard **Cuff Inflating:** 

adult cuff) Measuring Period: AVE<40s Mode: Manual, Auto

Measuring Interval in

AUTO Mode: 2 min ~ 4 hrs Pulse Rate Range: 30 ~ 250 (bpm)

Measuring Range:

SYS: 40 ~ 250 (mmHg) Adult/Pediatric Mode: DIA:15 ~ 200 (mmHg) Neonatal Mode: SYS: 40 ~ 135 (mmHg)

DIA: 15 ~ 100 (mmHg) Accuracy:

Maximum Mean error: ±5mmHg Maximum Standard deviation: 8mmHg

#### **NIBP** (continued)

Resolution: 1mmHa

Adult Mode: 300 (mmHg) Overpressure Protection: Neonatal Mode: 160 (mmHg) Alarm Limit Setting: SYS: 50 ~ 240 mmHg

DIA: 15 ~ 180 mmHg

#### **TEMP**

Range: 25 ~ 50 (°C)  $\pm 0.2$ °C (25.0 ~ 34.9°C) Accuracy:  $\pm 0.1$ °C (35.0 ~ 39.9°C)

 $\pm 0.2$ °C (40.0 ~ 44.9°C)  $\pm 0.3$ °C (45.0 ~ 50.0°C)

Display Resolution: 0.1°C

Channel:

upper limit 0 ~ 50°C. Alarm Limit Setting:

lower limit 0 ~ 50°C 2 channels

#### **Sp02**

ASp02: Anti-motion Sp02 Sp02% Range:

0-100% Sp02 Accuracy: ±2% (70 ~ 100%, non-motion) ±3% (70 ~ 100%, motion) 30-250 bpm

Pulse Rate Range: Pulse Rate Accuracy: ±2 bpm (non-motion

±3 bpm (motion) upper limit 70 ~ 100%, Alarm Limit Setting: lower limit 70 ~ 100% Sp02 Probe:

Red light LED wavelength 660nm±5nm

Infrared light LED wavelength 940nm±10nm

IBP

-50 ~ 300mmHg Measurement Range: Channel: 2 channels

Pressure Transducer: sensitivity, 5µV/V/mmHg Impedance Range:  $300 \sim 30000$ ART, PA,CVP, RAP, LAP, ICP Transducer Sites:

Unit: mmHg/kPa selectable Resolution: 1mmHg Accurancy: ±1mmHg or ±2% whichever is greater

AlarmRange: -10 ~ 300mmHg

#### EtC<sub>02</sub> CO<sub>2</sub> Measurement Range:

0 ~ 99mmHg ±2mmHg (0 ~ 38mmHg) Accuracy:

39-99mmHg ±5% of reading +0.08% for every 1mmHg (above 38mmHg) 50 ml/min

Sampling Rate: Initialization Time: 30 seconds (typical), reaches ±5% steady-state accuracy within

3 minutes. Respiration Rate: 0 ~ 150 breaths/min Mode: adult, neonate

#### C.O. (Cardiac Output)

Measurement Method Thermodilution Method Measurement Range 0.00.1 to 20 L/min

TB 23 to 43 ΤI 0 to 27 C.O. 0.1 L/min

Resolution TB. TI 0.1 Accuracy C.O.

±5% or ±0.1 L/min, whichever is greater, as measured using electronically generated flow curves. TB, TI ±0.1 (without sensor)

Alarm Range 23 to 43 TB

±2% or ±0.1 L/min, which-Repeatability C.O.

ever is greater, as measured using electronically generated flow curves.

#### **Anesthetic Agents**

Method: Infrared absorption Gas Sorts:

Halothane, Isoflurane, Enflurane, Sevoflurane, Desflurane, CO2, N2O, 02 (optional Automatic Agent ID)

Measurement Range: Halothane Isoflurane:

0 ~ 8.5% 0 ~ 10% Enflurane, Sevoflurane: Desflurane: 0 ~ 20% CO2: 0 ~ 10% 0 ~ 100% N20: 02: 0 ~ 100%

Halothane, Isoflurane, Enflurane,

Sevoflurane, Desflurane:  $\pm (0.15 \text{ Vol}\% + 15\% \text{ rel.})$  $\pm (0.5 \text{ Vol}\% + 12\% \text{ rel.})$ CO2: ± (2 Vol% + 8% rel.) N20: 02: ±3 Vol%

#### **Networking**

Industry standard 802.11b/g wireless network

#### **Power**

Source: External AC power or internal battery AC Power: 100 ~ 240VAC, 50/60Hz, 150VA Battery: Built-in & rechargeable lithium ion 3+ hours

Operating Time: **Environmental Specifications** 

### Temperature:

Operating: 5 ~ 40 °C Storage: -20 ~ 65 °C **Humidity range:** 

Operating: ≤80 %

Storage: ≤80 % **Other Standard Features** 

OxyCRG, drug dose calculation, cascading ECG, On screen NIPB trends (up to 250 readings), user set defaults, Arrhythmia detection, ST segment

