

# OMNI EXPRESS

PORTABLE PATIENT MONITOR



# OMNI EXPRESS



## Intuitive

Designed for a fast paced work environment, the Infinium **Omni Express™** 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 patient's changing condition. The **Omni Express** offers a high resolution 7 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 Express series patient monitors are designed to fit-in and move amongst many patient care areas. The **Omni Express™** offers standard measurements of: non-invasive blood pressure, ECG with arrhythmia detection, Masimo SET® SpO2, Temperature, and Respiration rate. Masimo SET® (Signal Extraction Technology®) SpO2 provides industry standard Measure-through Motion and Low Perfusion™ Pulse Oximetry to Infinium patient monitors. End-tidal CO2 can be 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 Express™** 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 Express** patient monitor offers Ethernet and RS-232 connections with an open source communication protocol. Infinium offers 2 levels of networking and connectivity. The **Omni Express** 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 Express™** can be upgraded and custom tailored on-site by the user. The **Omni Express** 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> 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

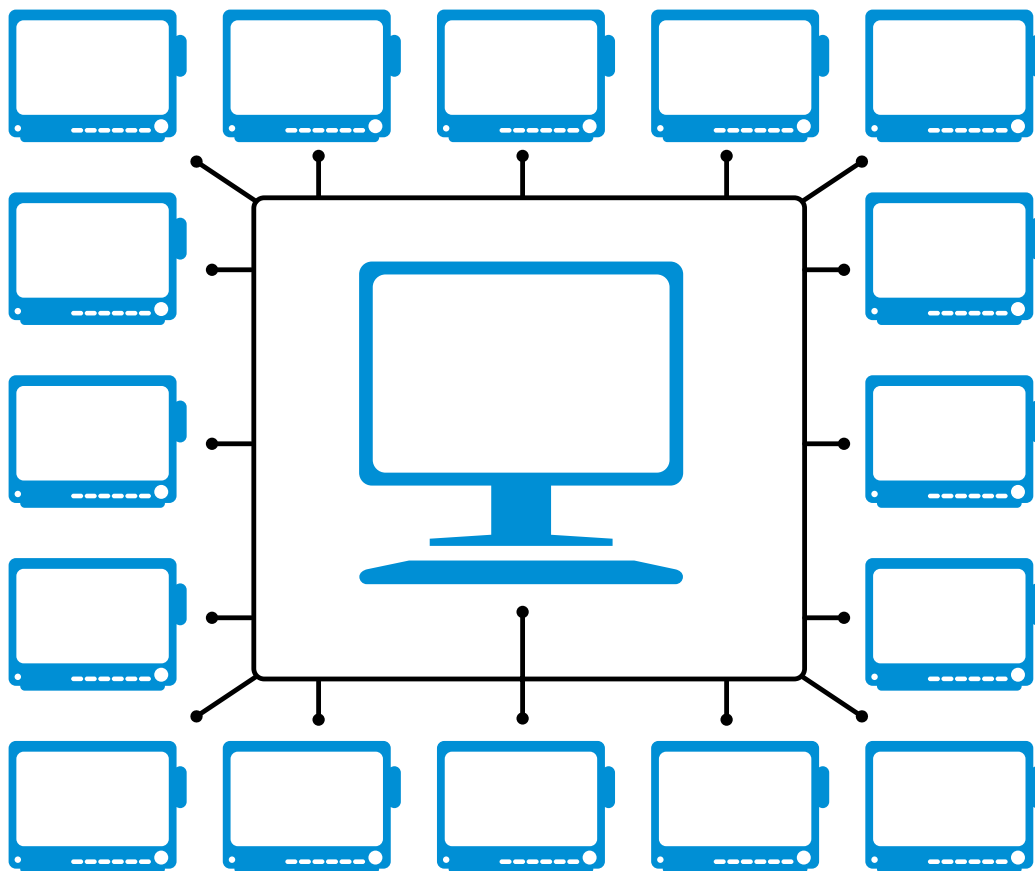
Both mainstream and sidestream modules are available for End-tidal CO<sub>2</sub> and agent measurement

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™ to be one of the industries lowest cost per patient End-tidal CO<sub>2</sub> systems

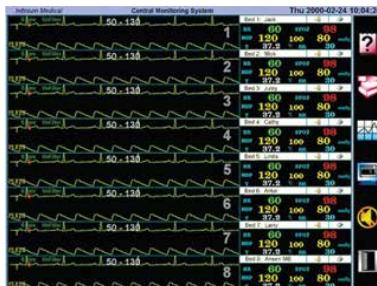
# OMNIVIEW Central Station

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 be transferred to an 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 IV.2.0G 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, CO<sub>2</sub>, IBP, Multi-gas

### Parameter

HR, ST, NIBP, IBP, SpO<sub>2</sub>, PR, RR, TEMP, EtCO<sub>2</sub>, 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

Audible and visual alarm

### Record Type

8 seconds real-time recording

Freeze waveform recording

Trend data recording

Alarm strip recording

### Printer

External Laser Printer

### View

Up to 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 EXPRESS TECHNICAL SPECIFICATIONS:

## PERFORMANCE SPECIFICATIONS

Display: 7" color TFT  
Resolution: 1024x860  
Trace: 2 or 3 waveforms  
Waveforms: ECG(I, II, III, aVR, aVL, aVF, V1-V6), PLETH, RESP, ETCO<sub>2</sub>  
Indicator: Alarm indicator  
Power indicator  
QRS beep and alarm sound  
Trend time: From 30 minutes to 72 hours

## ECG

Input: 5 lead or 3 lead ECG cable and standard AAMI line for connection  
Lead Choice: I, II, III, aVR, aVL, aVF, V  
Gain Choice: x0.5, x1.0, x2.0  
CMRR (common mode rejection ratio): >100 dB at 50 Hz or 60 Hz  
Frequency Characteristic: 0.67-40 Hz (+3dB attenuation)  
ECG Waveforms: 7 channels  
Sweep Speed: 12.5, 25 and 50 mm/s  
HR Display Range: 30-300bpm  
Accuracy: ±1bpm or ±1%, whichever is greater  
Alarm Limit Range: Upper limit: 80-400bpm  
Lower limit: 20-150bpm

## RESPIRATION

Measure Method: RA-LL impedance  
Range: 0-120 rpm  
Accuracy: ±3 rpm  
Alarm Upper-lower Limit: Upper limit: 6-120 rpm,  
Lower limit: 3-120 rpm  
Sweep Speed: 12.5 and 25mm/s

## NIBP

Measuring Technology: Automatic oscillating measurement  
Cuff Inflating: <30s (0-300 mmHg, standard adult cuff)  
Measuring Period: AVE<40s  
Mode: Manual, Auto, STAT  
Measuring Interval in AUTO Mode: 2 min-4 hrs  
Pulse Rate Range: 30 bpm-250 bpm  
Measuring Range: Adult/Pediatric Mode  
SYS 40-250 (mmHg)  
DIA 15/200 (mmHg)  
Neonatal Mode  
SYS 40/135 (mmHg)  
DIA 15/100 (mmHg)  
Resolution: 1mmHg  
Pressure Accuracy: Maximum Mean error: ±5mmHg  
Maximum Standard deviation: 8mmHg  
Overpressure Protection: Adult Mode 280(mmHg)  
Neonatal Mode 150 (mmHg)  
Alarm Limit: SYS 50-240 mmHg  
DIA 15-180 mmHg

## TEMPERATURE

Range: 25-50 (°C)  
Accuracy: ± 0.2 °C (25.0-34.9 °C)  
± 0.1 °C (35.0-39.9 °C)  
± 0.2 °C (40.0-44.9 °C)  
± 0.3 °C (45.0-50.0 °C)  
Display Resolution: 0.1 °C  
Alarm Upper-lower Limit: Upper limit 0-50 °C  
Lower limit 0-50 °C  
Channel: 1 channels  
Alarm Limit: 10-50 (°C)

## Masimo SET Pulse Oximetry (standard) SpO<sub>2</sub>

Measurement range: 0% to 100%  
Resolution: 1%  
Accuracy: 70% to 100%, +/-2%, Adult/  
Pediatric, Non-motion conditions  
70% to 100%, +/-3%, Neonate, Non-motion conditions  
70% to 100%, +/-3%, Adult/  
Pediatric/Infant/Neonate, Motion conditions  
70% to 100%, +/-2%, Adult/  
Pediatric/Infant/Neonate, Low perfusion conditions  
Averaging time: 2-4 sec, 4-6 sec, 8 sec, 10 sec, 12 sec, 14 sec, 16 sec (user selectable)  
Sensitivity settings: Normal, Maximum, APOD (user selectable)

## Pulse Rate

Measurement range: 25 to 240 bpm  
Accuracy: +/-3 bpm, Adult/Pediatric/Infant/  
Neonate, Non-motion conditions  
5 bpm, Adult/Pediatric/Infant/  
Neonate, motion conditions  
Resolution: 1 bpm

## Perfusion Index (PI)

Measurement range: 0.02 - 20%

## Any other SpO<sub>2</sub> (optional)

## EtCO<sub>2</sub> (OPTION)

Mode of Sampling: Sidestream or Mainstream  
Principle of Operation: Non-dispersive infrared (NDIR) single beam optics, dual wavelength, no moving parts.  
CO<sub>2</sub> Measurement Range: 0 to 150 mmHg (0 to 19.7%, 0 to 20 kPa)  
CO<sub>2</sub> Calculation Method: BTPS (Body Temperature Pressure Saturated)  
CO<sub>2</sub> Resolution: 0.1mmHg (0-69mmHg), 0.25mmHg (70-150mmHg)

CO<sub>2</sub> Accuracy: 0-40 mmHg ± 2 mmHg  
41-70 mmHg ± 5% of reading  
71-100 mmHg ± 8% of reading  
101-150 mmHg ± 10% of reading  
Above 80 breath per minute ± 12% of reading  
Sampling Rate: 100Hz  
Respiration Rate: 2-150 bpm  
Respiration Rate Accuracy: ±1 breath  
Response Time: <3 seconds - includes transport time and rise time  
Inspired CO<sub>2</sub> Measurement Range: 3-50 mmHg

## NETWORKING

Wired Networking: Industry standard: IEEE 802.3 wired network  
Connected bedside number: Up to 16 bedside monitors  
RJ45 interface or RS232 serial port  
Wireless Networking: Up to 100m indoors  
Frequency Range: 2.412-2.484 GHz  
Industry standard 802.11b/g wireless  
Supports TCP/IP and UDP/IP Protocols

## POWER

Source: External AC power and internal battery  
AC Power: 100-240VAC, 50/60Hz, 150VA  
Battery: Rechargeable Lead-Acid  
Type: FB 1223 12v-2.3Ah  
Operating time under normal condition: 3 hour  
Operating time after the first alarm of low battery: 10 minutes  
Manufacturer: Pilot Battery Co.,Ltd.

Charge Time: 4 hours  
Operating Time: 3+ hour

## ENVIRONMENTAL SPECIFICATIONS

Temperature: Operating: 5-40 °C  
Storage: -10-45 °C  
Humidity Range: Operating: ≤80 %  
Storage: ≤80 %

## RECORDER (OPTION)

Record Width: 48 (mm)  
Paper Speed: 25 (mm/s)  
Print Data: 3 waveforms with patient info and digital values

## FUSE

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