

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, SpO2, and temperature. More advanced readings of End-tidal CO2 can be activated by the user at anytime.

Capnography & Anesthetic Agent Measurement plug in Module:



The Infinium **Entide™** module is a field upgradable plug in module that can measure End-tidal CO2 alone

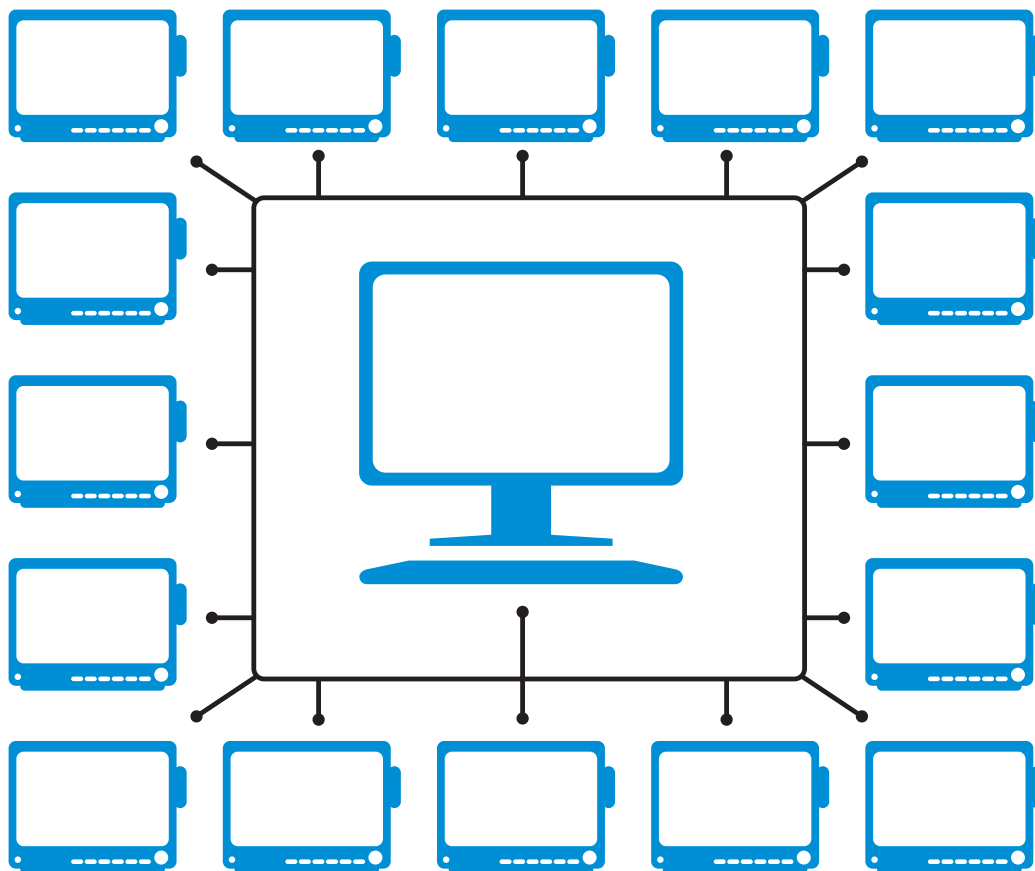
Both mainstream and sidestream modules are available for End-tidal CO2 and agent measurement

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

Simple connection sample lines allows the Entide™ to be one of the industries lowest cost per patient End-tidal CO2 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, SpO2, Temp, EtCO2 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

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 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, ETCO₂

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: ± 1 bpm or $\pm 1\%$, 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: ± 5 mmHg

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) SpO₂

Measurement range: 0% to 100%

Resolution: 1%

Accuracy:

70% to 100%, $\pm 1\%$, Adult/
Pediatric, Non-motion conditions

70% to 100%, $\pm 1\%$, Neonate, Non-
motion conditions

70% to 100%, $\pm 1\%$, Adult/
Pediatric/Infant/Neonate, Motion
conditions

70% to 100%, $\pm 1\%$, 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, AP0D (user
selectable)

Pulse Rate

Measurement range: 25 to 240 bpm

Accuracy: $\pm 1\%$ 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 SpO₂ (optional)

EtCO₂ (OPTION)

Mode of Sampling: Sidestream or Mainstream

Principle of Operation: Non-dispersive infrared (NDIR) single
beam optics, dual wavelength,
no moving parts.

CO₂ Measurement Range: 0 to 150 mmHg (0 to 19.7%, 0 to 20 kPa)

CO₂ Calculation Method: BTPS (Body Temperature Pressure
Saturated)

CO₂ Resolution: 0.1mmHg (0-69mmHg),
0.25mmHg (70-150mmHg)

CO₂ Accuracy: 0~40 mmHg ± 2 mmHg

41~70 mmHg $\pm 5\%$ of reading

71~100 mmHg $\pm 8\%$ of reading

101~150 mmHg $\pm 10\%$ of reading

Above 80 breath per minute $\pm 12\%$ 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 CO₂

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: -20~60 °C

Humidity Range: Operating: $\leq 80\%$

Storage: $\leq 80\%$

RECORDER (OPTION)

Record Width: 48 (mm)

Paper Speed: 25 (mm/s)

Print Data: 3 waveforms with patient info
and digital values

FUSE

T 3.0A