OMNI EXPRESS

PORTABLE PATIENT MONITOR

INFINIUM MEDICAL INC.

OMNI EXPRESS

■ Intuitive

Designed for a fast paced work environment, the Infinium Omni series patient monitors offers an extremely simple and adaptable user interface. The *Omni Express* offers a standard high resolution 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. The patient information along with vital sign settings and be quickly modified to meet the needs of a patients changing condition.

■ 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 Express* offers standard measurements of: non-invasive blood pressure, ECG with arrhythmia detection, motion tolerant SpO_2, Temperature, and Respiration rate. End-tidal Co_2 can added on-site by simply attaching our plug in modules. This field upgradability can allow the user to customize the monitors 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 anesthesia 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 a EMR or hospital network. The Omni series patient monitors offer Ethernet and RS-232 connections with an open source communication protocol. Infinium offer 2 levels of networking and connectivity. The Infinium *Datamanager* ® is a software solution designed for surgery centers and office based surgery. The *Datamanager* ® software application allows for the patient information and vital sign trends to be saved and stored on a dedicated PC. For larger medical facilities, the *Omniview* ® central station allows the real time measurement and network of up to 32 Omni patient monitors. The *Omniview* ® archives full disclosure of all patient vital sign trends. The patient data from either of these applications can sent to an EMR as a supplement to the patient's file or integrated into a hospital network.

■ Field Upgradable

A monitor that can grow with you…

All Infinium Omni series patient monitors are preconfigured with non-invasive blood pressure, ECG with arrhythmia detection, impedance respiration, SpO_2, and temperature. End-tidal Co_2, Invasive blood pressure, extended life batteries and thermal recorders are all upgrades that can be added by the user after initial purchase. These modules can also be moved between monitors to save costs on large monitor installations.

The Infinium *Capnotrac*® module is a field upgradable plug in module that can measure End-tidal Co_2.

Both mainstream and sidestream modules are available for End-tidal Co_2.

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 sent to an EMR as a supplement to the patient's file or integrated into a hospital network.
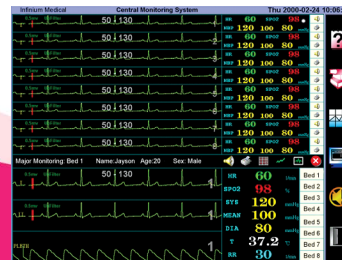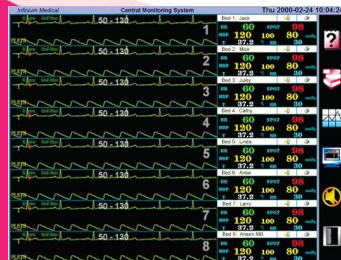
The *Omniview*® gives a real time display of all patient vital signs: **Heart rate, Last BP reading, Spo$_2$, Temp, EtCo$_2$ and Respiration rate.**

■ **A reliable connection:**

MOUNTING SOLUTIONS

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

■ ## 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*

■ ## Rolling Stands

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*

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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, CO_2, IBP, Multi-gas

Parameter
HR, ST, NIBP, IBP, SpO_2, PR, RR, TEMP, $EtCO_2$, 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

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:

Application
Neonatal, pediatric and adult patients

Peformance Specifications

Display:	8 inch color touch screen
Trace:	8 waveforms
Indicator:	Alarm indicator
	Power indicator
	QRS beep and alarm sound
Trend time:	1 - 72 hour
Recorder:	Built-in, thermal array, 3 channels
	Record width: 48mm
	Recorder paper: 50mm
	Record speed: 25mm/s, 50mm/s

ECG

Input:	5-lead ECG cable and standard AAMI line for connection
Lead Choice:	I, II, III, aVR, aVF, aVL, V, TEST
Gain Choice :	x0.5, x1, x2, x4
Frequency Characteristic:	0.05 ~ 35 HZ (+3dB)
ECG Waveforms:	7 channels
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
Accuracy:	±1bpm or ±1%, whichever is greater
Alarm Limit Range Setting:	upper limit 100 ~ 200bpm, lower limit 30 ~ 100bpm

RESP

Measure Method:	RA-LL impedance
Range:	0 ~ 120 rpm
Accuracy:	±3 rpm
Alarm Limit Setting:	upper limit 6 ~ 120 rpm, lower limit 3 ~ 120 rpm
Sweep Speed:	12.5, 25, 50 and 100 mm/sec (left to right or right to left)

NIBP

Measuring Technology:	automatic oscillating measurement
Cuff Inflating:	<30s (0 ~ 300 mmHg, standard adult cuff)
Measuring Period:	AVE<40s
Mode:	Manual, Auto
Measuring Interval in AUTO Mode:	2 min ~ 4 hrs
Pulse Rate Range:	30 ~ 250 (bpm)

NIBP (continued)

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
Accuracy:	
Maximum Mean error:	±5mmHg
Maximum Standard deviation:	8mmHg
Overpressure Protection:	Adult Mode: 300(mmHg)
	Neonatal Mode: 160 (mmHg)
Alarm Limit Setting:	SYS: 50 ~ 240 mmHg
	DIA: 15 ~ 180 mmHg

TEMP

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 Limit Setting:	upper limit 0 ~ 50°C, lower limit 0 ~ 50°C
Channel:	2 channels

SpO2

$ASpO_2$:	Anti-motion SpO_2
SpO_2% Range:	0-100%
SpO_2 Accuracy:	±2% (70 ~ 100%, non-motion)
	±3% (70 ~ 100%, motion)
Pulse Rate Range:	30-250 bpm
Pulse Rate Accuracy:	±2 bpm(non-motion)
	±3 bpm (motion)
Alarm Limit Setting:	upper limit 70 ~ 100%, lower limit 70 ~ 100%
SpO_2 Probe:	Red light LED wavelength 660nm±5nm
	Infrared light LED wavelength 940nm±10nm

IBP

Measurement Range:	-50 ~ 300mmHg
Channel:	2 channels
Pressure Transducer:	sensitivity, 5μV/V/mmHg
Impedance Range:	300 ~ 3000Ω
Transducer Sites:	ART, PA,CVP, RAP, LAP, ICP
Unit:	mmHg/kPa selectable
Resolution:	1mmHg
Accurancy:	±1mmHg or ±2%, whichever is greater
AlarmRange:	-10 ~ 300mmHg

EtCO2

CO_2 Measurement Range:	0 ~ 99mmHg
Accuracy:	±2mmHg (0 ~ 38mmHg) 39-99mmHg ±5% of reading +0.08% for every 1mmHg (above 38mmHg)
Sampling Rate:	50 ml/min
Initialization Time:	30 seconds(typical), reaches ±5% steady-state accuracy within 3 minutes.
Respiration Rate:	0 ~ 150 breaths/min
Mode:	adult, neonate

Networking
Industry standard 802.11b/g wireless ne twork

Power

Source:	External AC power or internal battery
AC Power:	100 ~ 240VAC, 50/60Hz, 150VA
Battery:	Built-in and rechargeable
Charge Time:	4 hours

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