OMNI

TOUCH SCREEN PATIENT MONITOR



INFINIUM®

MasimoSET®

OMNI



Intuitive

Designed for a fast paced work environment, the Infinium **Omni™** 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** offers a high resolution 10.1 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™** 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 CO_2, 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™** 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** patient monitor offers Ethernet and RS-232 connections with an open source communication protocol. Infinium offers 2 levels of networking and connectivity. The **Omni** 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™** can be upgraded and custom tailored on-site by the user. The **Omni** is preconfigured with non-invasive blood pressure, 3/5 ECG with arrhythmia detection, impedance respiration, SpO_2, and temperature. More advanced readings of End-tidal CO_2, 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 **Entide™** module is a field upgradable plug in module that can measure End-tidal CO_2 alone or End-tidal CO_2 with the automatic identification of anesthetic agents (N_2O, O_2, Sevoflurane, Isoflurane, Desflurane, Halothane, Enflurane)

Both mainstream and sidestream modules are available for End-tidal CO_2 and agent measurement.

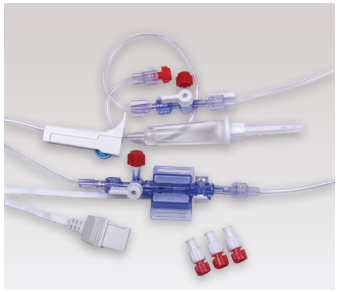
The **Entide™** utilizes a low flow (50ml/min) sidestream method that allows use for intubated and non-intubated applications. The **Entide™** sample line connection incorporates filter cells to eliminate the potential of cross contamination.



Simple connection sample lines allows the **Entide™** to be one of the Industry's lowest cost per patient End-tidal CO_2 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™**.

ECG:



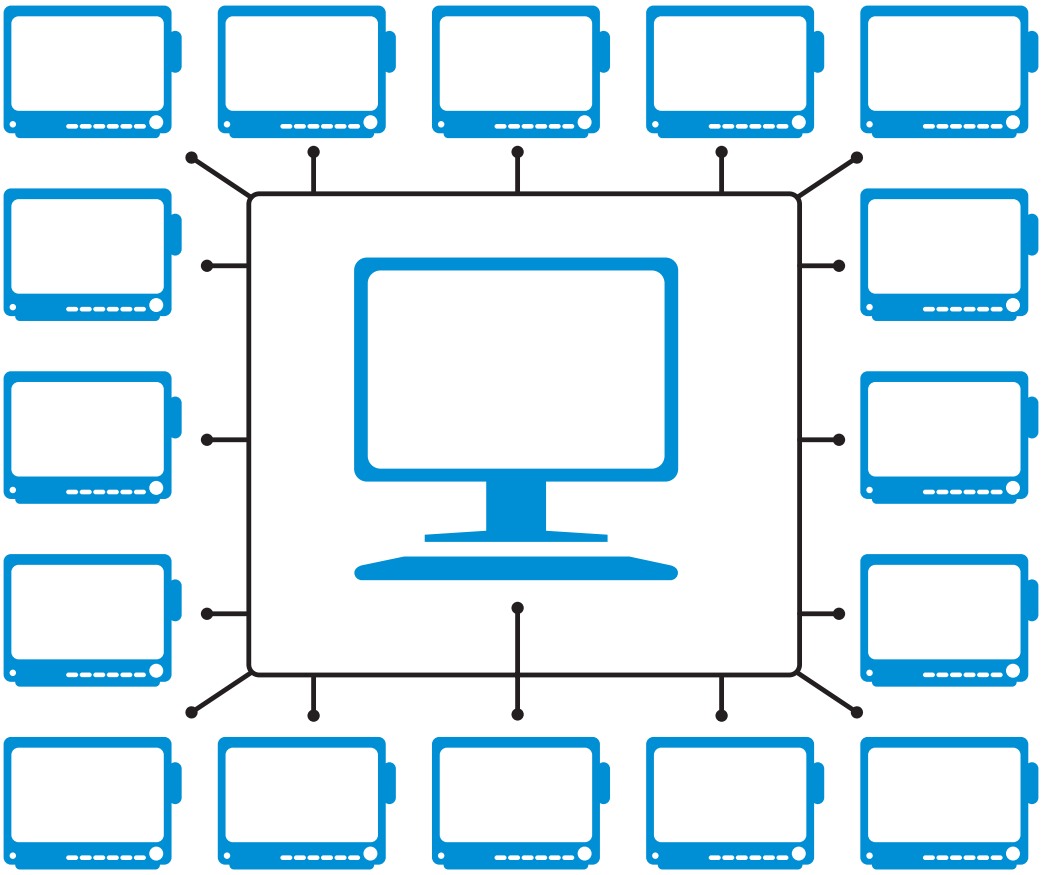
The **Omni™** offers a 3, 5, and 12 lead ECG platform. Arrhythmia detection and ST are also standard and measurable on all lead sets.

- **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)**

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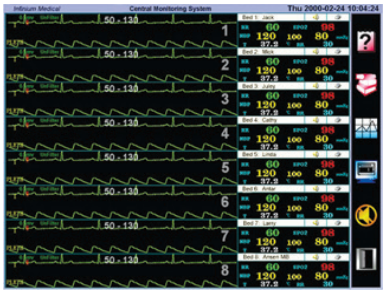
OMNIVIEW Central Station

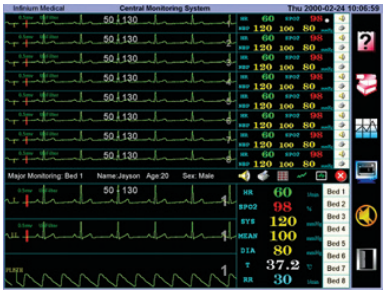
SIMPLICITY IN CONNECTIVITY:



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_2, Temp, $EtCO_2$ 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**

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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 TECHNICAL SPECIFICATIONS:

Application
Neonatal, pediatric and adult patients
Peformance Specifications
Display: 10.1 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, V1-V6, 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)
Measuring Range:
Adult/Pediatric Mode: SYS: 40 ~ 250 (mmHg) DIA :15 ~ 200 (mmHg)
Neonatal Mode: SYS: 40 ~ 135 (mmHg) DIA : 15 ~ 100 (mmHg)
Accuracy:
Maximum Mean error: ±5mmHg
Maximum Standard deviation: 8mmHg
Resolution: 1mmHg
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
Masimo SET Pulse Oximetry (standard)
SpO2
Measurement range: 0% to 100%
Resolution: 1%
Accuracy:
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 SpO2 (optional)
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
Measurement Method: Thermodilution Method
Measurement Range: C.O. 0.1 to 20 L/min; TB 23 to 43; TI 0 to 27
Resolution: C.O. 0.1 L/min; 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: TB 23 to 43
Repeatability: C.O. ±2% or ±0.1 L/min, whichever is greater, as measured using electronically generated flow curves.
Anesthetic Agents
Method: Infrared absorption
Gas Sorts: Halothane, Isoflurane, Enflurane, Sevoflurane, Desflurane, CO_2, N_2O, O_2 (optional Automatic Agent ID)
Measurement Range:
Halothane, Isoflurane: 0 ~ 8.5%
Enflurane, Sevoflurane: 0 ~ 10%
Desflurane: 0 ~ 20%
CO_2: 0 ~ 10%
N_2O: 0 ~ 100%
O_2: 0 ~ 100%
Bias:
Halothane, Isoflurane, Enflurane, Sevoflurane, Desflurane: ±(0.15 Vol% + 15% rel.)
CO2: ±(0.5 Vol% + 12% rel.)
N2O: ± (2 Vol% + 8% rel.)
O2: ±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
Operating Time: 3+ hours
Environmental Specifications
Temperature:
Operating: 5 ~ 40 °C
Storage: -10 ~ 45 °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

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