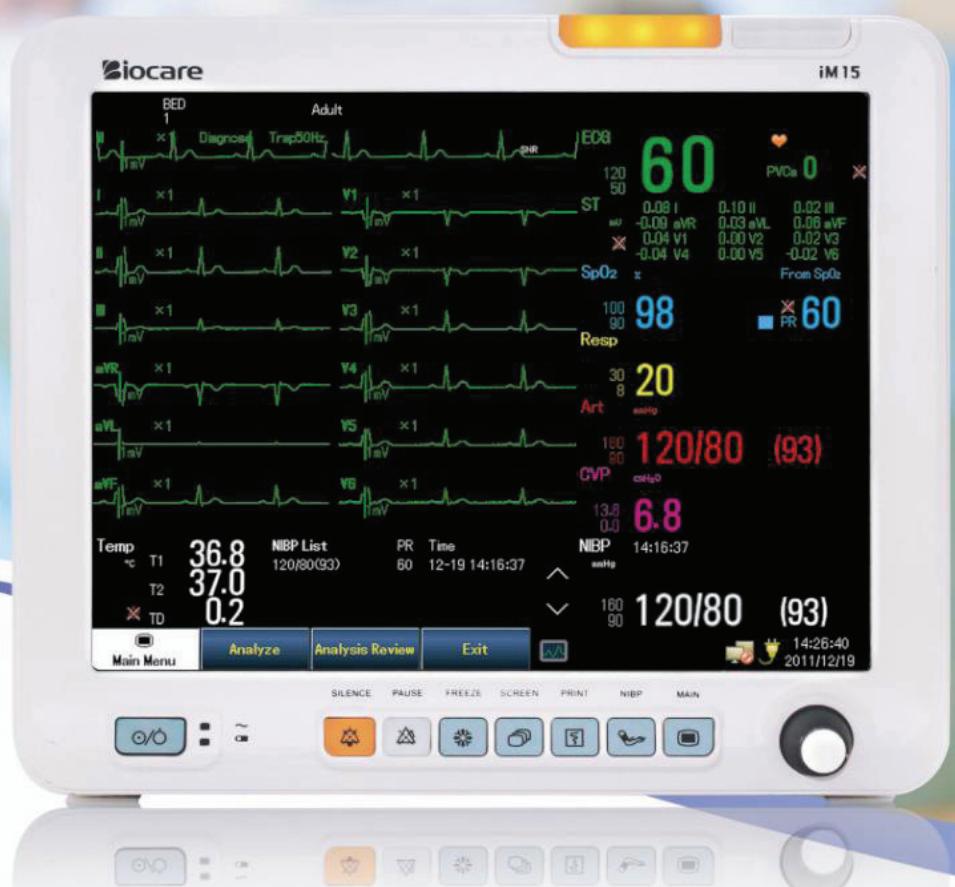# iM 15

Multi-Parameter Patient Monitor

Features

- 15 inches high resolution color LCD display with high brightness LED backlight;
- Optional full touch-screen and handwriting for easy operation;
- Attractive and durable silicon button with backlight;
- Support 7-lead ECG waveforms being displayed on screen, pacer pulse analysis, ST segment analysis and 20 types of arrhythmia analysis;
- Support 12-lead waveforms of resting ECG being displayed on screen, optional simultaneous 12-lead ECG analysis;
- Maximum 480-hour graphic and tabular trends, 1000 NIBP records, 700 alarm events and 2-hour ECG waveform storage and review;
- Menu shortcut key user-defined function meets different operation habits;
- Anti high-frequency electrotome and defibrillation protection meet different working environments;
- Support mounting and trolley solution;
- Support connecting external display via VGA port, also support software upgrade, keyboard & mouse connection via USB port.

Standard configuration: ECG, SpO2, NIBP, RESP, PR, TEMP
Options: 12-lead ECG, 2-IBP, EtCO2 (mainstream, sidestream, microstream), anesthetic depth, Masimo or Nellcor SpO2, AG, touch screen, VGA, trolley, wall mounting, recorder, nurse call, central monitoring system.

Alarm limit display

Trend graph monitoring co-display

Hand writing

7-lead full screen display

Drug dose calculation

7-lead half screen display

12-lead full screen display

OxyCRG monitoring display

Large font intensive care display

Bed to bed view display

Superior & intelligent coded socket

Durable silicon button with backlight

Stable handle

Dual Li-ion Battery, up to 10 hours continuous working

Abundant extension interface

Touch screen and handwriting

Dual alarm lights

CAPNOSTAT5 mainstream module

EtCO2 (Respironics) "Plug and Play"

LoFlo sidestream module

WiFi

Wire / wireless network solution
Bi-directional communications with central monitor station by wire / wireless network Nurse Call

Mounting Solution
Trolley and wall hanger meet clinical requirements of different medical environment

Specifications:

Dimension and Weight
Dimension: 370 mm(L) × 187 mm(W) × 313 mm(H)
Net Weight: 5.4 kg

Operation Environment
Power requirement: AC: 100V—240V, 50 Hz / 60 Hz
Internal battery power supply: Rechargeable Li-ion battery
14.8 V 4400mAh
Battery working period: up to 10 hours
Temperature: 0℃— 40℃
Humidity: ≤85%

Patient Range
Adult, pediatric and neonate

Standard Configuration:
ECG
Lead type: 3-lead and 5-lead selectable, 12-lead optional
Lead selection: 3-lead: I, II, III, 5-lead: I, II, III, aVR, aVF, aVL
12-lead: I, II, III, aVR, aVF, aVL, V1-V6
Gain selection: ×1/8, ×1/4, ×1/2, ×1, ×2, ×4, auto
Sweep speed: 6.25 mm/s ; 12.5 mm/s ; 25.0 mm/s ; 50.0 mm/s

HR
Adult: 15 bpm — 300 bpm
Pediatric / Neonate: 15 bpm — 350 bpm
Resolution & accuracy: ±1 bpm
Filter: diagnostic mode: 0.05 Hz-100 Hz
monitoring mode: 0.5 Hz-25 Hz
surgical mode: 1 Hz-15 Hz
Type of arrhythmia analysis: 20 types
Measurement range: (-2.0 mV) — (+2.0 mV)
Accuracy: (-0.8mV) — (+0.8mV): ± 0.02mV or ±10% whichever is greater

RESP
Method: trans-thoracic impedance
RR measurement rage: adult: 0 rpm — 120 rpm
neonate / Pediatric: 0 rpm — 150 rpm
Resolution: 1 rpm
Apnea alarm threshold: 0s, 15s, 20s, 25s, 30s, 35s, 40s
Band width: 0.2 Hz—2 Hz（-3 dB）
Sweep speed: 6.25 mm/s ; 12.5 mm/s ; 25.0 mm/s
Sensitivity: ×1 /4, ×1/2, ×1, ×2, ×4, auto
Accuracy: ±2 rpm

NIBP
Method: automatic oscillometric
Operation modes: manual / automatic / continuous
Resolution: 1 mmHg
Auto measurement time interval: adjustable1min, 3min, 5min, 10min, 15
min, 30 min, 45 min, 1h, 2h, 3h, 5h, 8h
Measurement types: systolic, diastolic, mean

Pressure range for adults: systolic: 40-270 mmHg
diastolic: 10-210 mmHg
mean: 20-230 mmHg
Pressure range for pediatrics: systolic: 40-200 mmHg
diastolic: 10-150 mmHg
mean: 20-165 mmHg
Pressure range for neonates: systolic: 40-135 mmHg
diastolic: 10-100 mmHg
mean: 20-110 mmHg
Leak test and pressure auto calibration: yes
Over-pressure protection: dual safety protection

SpO2 (Masimo & Nellcor are optional)
Measurement & alarm range: 0%—100%
Resolution: 1%
Accuracy: ±2% (70%—100%) for biocare SpO2 module
Masimo & Nellcor SpO2 module,
±2% for adult & pediatrics (70-100%), ±3% for neonates
(70-100%)
PR measurement and alarm range: 25 bpm—250 bpm
Resolution: 1 bpm
Accuracy: ±3 bpm

Temperature (2 channels)
Measurement / Alarm range: 0℃—50℃ (32℉—122℉)
Resolution: 0.1℃
Accuracy: ±0.1℃
Channel: 2-channel

Optional Configuration:
IBP
Measured parameters: systolic pressure, diastolic pressure, mean
pressure, pulse rate
Measurement pressure: ART, PA, P1, P2, LAP, RAP, ICP, CVP
Measurement range: -50—350mmHg
Accuracy: ±2% or 1mmHg whichever is greater
Resolution: 1mmHg
Calibration accuracy range: ±150 mmHg
Calibration accuracy: ±1 mmHg
Refresh rate: 1s

ETCO2 (mainstream, sidestream, microstream)
By RESPIRONICS, PHASEIN, technology

Respironics Sidestream LoFlo Module (can support microstream):
Measurement mode: sidestream
Measurement range: 0 %—19.7 %（0 mmHg —150 mmHg）
Resolution: 1 mmHg
Measurement accuracy: 0 mmHg—40 mmHg, ±2 mmHg
41 mmHg—70 mmHg, ±5%
71 mmHg—100 mmHg , ±8%
101 mmHg—150 mmHg , ±10%
Respiration rate measurement range: 2 rpm—150 rpm
Respiration rate measurement accuracy: ±1 rpm
Apnea alarm delay: 20s, 25s, 30s, 35s, 40s, 45s, 50s, 55s, 60s

Sampling flow rate: 50ml/min ± 10ml/min

Respironics Mainstream CAPNOSTAT5 Module
Measurement mode: mainstream, sidestream, microstream
Measurement range: 0%—19.7 %（0 mmHg —150 mmHg ）
Resolution: 1mmHg
Measurement accuracy: 0 mmHg—40 mmHg , ±2 mmHg
41 mmHg—70 mmHg , ±5%
71 mmHg—100 mmHg , ±8%
101 mmHg—150 mmHg, ±10%
Respiration rate measurement range: 0 rpm—150 rpm
Respiration rate measurement accuracy: ±1 rpm
Apnea alarm delay: 20s, 25s, 30s, 35s, 40s, 45s, 50s, 55s, 60s

Phasein Mainstream IRMA Module
Measurement range: 0%—15%
Resolution: 1mmHg
Accuracy: 0—15vol%
Respiration rate measurement range: 0 rpm—150 rpm
Respiration rate measurement accuracy: ±1 rpm
Apnea alarm delay: 20s, 25s, 30s, 35s, 40s, 45s, 50 s, 55s, 60s

CSM Anesthetic Depth Index Monitoring
Anesthetic depth index: 0—100, 6Hz—42Hz filtering
Wireless transmission distance: ≥8 m between monitor and CSI module
EEG Sensitivity: ±400 μV
EMG: 0-100 (Logarithmic value), 75Hz—85Hz filtering
BS: 0-100%, 2Hz—42Hz filtering

Phasein Anesthetic Gases
Measurement method: infrared radiation absorption characteristics
Warm-up time: 30 s
Measuring range: CO2: 0%～25%, O2: 0%～100%
N2O: 0%～100%, Des: 0%～25%
Sev: 0%～25%, Enf: 0%～25%
Iso: 0%～25%, Hal: 0%～25%
AwRR: 0 rpm～254 rpm
Resolution: CO2:1mmHg, awRR: 1 rmp
Measuring accuracy drift: meet the accuracy requirements within 6 hours
Suffocation alarm delay: 20 s, 25 s, 30 s, 35 s, 40 s, 45 s, 50 s, 55 s, 60 s