



touching for life

Multi-parameter Patient Monitor



iS10 Express iS10

Features:

- 12.1" or 10.4" LCD Full Touch Screen selectable
- High-end parameter modules of M series seamlessly compatible with iS series
- With flexibility and freedom to re-configure major monitoring parameters
- High-end Parameters: SunTech NIBP, CO, EtCO2, AG
- Exceptional connectivity by high-speed Wire or Wireless Networking
- Powerful 168 Hours of Trends with minimum 24 Hours of Full Disclosure



iS10



iS10 Express



SINOHERO

Size and Weight

- Product size: 31.8x26.4x15.2cm
- Packing size: 43x32x35cm
- Net weight: ≤4.5kg
- Gross weight: 7.5kg
- Standard module slot: 2

Power supply

- Power Voltage: AC 100-240V 50/60Hz
- Input Current: 1.1-0.5V
- Safety class: Category I

Display

- iS10 Express: 12.1"/iS10: 10.4"Color TFT-LCD
- Resolution: 800x600 pixels

Battery

- Type: Rechargeable Lithium battery,11.1V/4.0AH
- Operating time under the normal use and full charge: ≥210minutes

Recorder (Option)

- Method: Thermal dot array
- Paper width: 50mm(1.97 in)
- Paper length: 15m
- Paper Speed: 12.5/25/50(mm/sec)
- Traces: Maximum 3 tracks
- Recording way: Real-time recording, Periodic recording, Alarm recording

Alarm

- Level: Low, medium and high
- Indication: Auditory and visual
- Patient Physiological Alarm Light color: Yellow & Red
- Equipment Technical Alarm Light color: Blue
- Supports Pitch Tone and multi-level volume
- Supports custom arrhythmia tone

Input device

- Touch screen: Standard config
- Knob: Standard config
- Mouse input: Support
- Keyboard input: Support

System Output & Extensible Interfaces

- Ethernet Network: 1 Standard RJ45 socket
- Defibrillation Output: 1 BNC connector
- Nurse Call: 1 RJ11 connector
- Video Output: 1 VGA port
- USB1.1 port: 2
- SD memory card: 4Gb (Option)
- Analog Output(ECG or IBP): Option

Trend & Reviewing

- Trend: Long trend: 168h, minimum resolution is 1min (Store when power goes off)
- High resolution trend: 2h, minimum resolution is 5s
- NIBP measurement reviewing: 1000 groups
- ARR event: 128 groups of ARR event and the associated waveform
- Alarm events: 128 groups of parameter alarm events and associated parameter waveform at the alarm moment
- Full Disclosure waveform: 24 hours for 3 waveforms(with 4Gb SD card)

Environment

- Operating temperature: 0°C~+40°C
- Storage temperature: -20°C~+50°C
- Operating humidity: 15% to 85% non condensing
- Storage humidity: 10% to 93% non condensing
- Operating atmospheric pressure: 860hPa to 1060hPa
- Storage atmospheric pressure: 500hPa to 1060hPa

Safety: IEC60601-1 Approved, CE marking according to MDD93/42/EEC

ECG

- Lead Mode: 3-leads ECG input
5-leads ECG input
12-leads ECG input
- Lead selection: I, II, III, aVR, aVL, aVF, V1, II, III, aVR, aVL, aVF, V1 -V6(option)
- Gain: 2.5mm/mV(x0.25), 5mm/mV(x0.5), 10mm/mV(x1), 20mm/mV(x2), 40mm/mV(x4), Auto
- CMRR: Monitor mode ≥105dB
Surgery mode ≥105dB
Diagnostic mode ≥90dB
- Frequency response(-3d B):
Monitor mode 0.5-40Hz
Surgery mode 1-25Hz
Diagnostic mode 0.05-150Hz
- Input impedance ≥5.0Mohm
- ECG signal range: ±10.0mV
- Electrode offset potential: ±500mV
- Patient Leakage Current: <10uA
- Standardizing signal: 1mV±5%
- Baseline recovery: <5s after Defibrillation. (Mon or Surg mode)
- Indication of electrode separation: Every electrode(exclusive of RL)
- Protection: Breakdown Voltage 4000VAC 50/60Hz; defibrillator proof
- Sweep speed: 12.5mm/s, 25mm/s, 50mm/s

HR

- Range: Adult 10 -300bpm
Pediatric & Neonate: 10 --350bpm
- Refreshing time: ≤50 bpm Per2 pulses
50-120bpm per 4 pulses

≥120bpm per 6 pulses

- Resolution: 1 bpm
- Accuracy: ±1% or ±1 bpm, whichever is greater

ST segment

- Measurement range: -2.0mV-2.0mV
- Accuracy: -0.8mV-0.8mV: ±0.02mV or ±10% whichever is greater
Over ±0.8mV: unspecified
- Resolution: 0.01mV

RESP

- Method: Thoracic impedance
- Lead Selected from: I (RA-LA) or II(RA-LL); Default: I
- Gain: x0.25, x1, x2, x4
- Bandwidth: 0.25Hz to 2.0Hz (-3dB)
- Sweep Speed: 6.25mm/s, 12.5mm/s, 25mm/s
- Measurement Range: 0-150 rpm
- Resolution: 1rpm
- Accuracy: ±2rpm or 2% whichever is greater
- Delay of Apnea Alarm: 10s, 15s, 25s, 30s, 35s, 40s, 45s, 50s, 55s, 60s

NIBP

- Way of measurement: Automatic Oscillometry
- Range of measurement:
Adult: SYS 30-270mmHg
DIA 10-220mmHg
MAP 20-235mmHg
Child: SYS 30-235mmHg
DIA 10-220mmHg
MAP 20-225mmHg
Neonate: SYS 30-135mmHg
DIA 10-100mmHg
MAP 20-125mmHg
- Cuff pressure range: 0-300mmHg
- Resolution: 1mmHg
- Pressure Accuracy: Static: ±2% or ±3mmHg, whichever is greater
Clinical: ±5mmHg average error
Standard deviation: ±8mmHg
- Unit: mmHg, kPa
- Measurement mode: Manual, Auto, STAT
- Intervals for AUTO measurement time: 1, 2, 3, 4, 5, 10, 15, 30, 60, 90 minutes; 2, 4, 8, 12 hours
- STAT mode cycle time: Keep 5 minutes, at 5 seconds interval.
- Overpressure Protection: Hardware and software double protections
- Pulse rate range: 40-240bpm

Standard SpO2 (Digital)

- Measurement Range: 0-100%
- Resolution: 1%
- Accuracy: At70-100% ±2%
At0-69%, unspecified

PR

- Measurement Range: 25-255bpm
- Resolution: 1bpm
- Accuracy: ±1% or ±1 bpm, whichever is greater

NonIcor-SpO2 (Option)

- Measurement Range: 0-100%
- Resolution: 1%
- Accuracy: At70-100% ±2% (Adult)
At70-100% ±3% (Neonate)
At70-100% ±2% (Low Perfusion)
At0-69%, unspecified

PR

- Measurement Range: 20-300bpm
- Resolution: 1bpm
- Accuracy: 20bpm to 250bpm: ±3bpm
251bpm to 300bpm: unspecified

Masimo-SpO2 (Option)

- 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% (motion conditions) 0% to 69%, unspecified
- Average time: 2-4s, 4-6s, 8s, 10s, 12s, 14s, 16s

PR

- Measurement Range: 25bpm to 240bpm
- Accuracy: ±3bpm (non-motion conditions)
±5bpm (motion conditions)
- Resolution: 1bpm

TEMP

- Max Channel: 6
- Measurement way: Thermal resistance way
- Measurement Range: 0.0°C-50.0°C (32°F -122°F)
- Accuracy: ±0.1°C or ±1T(exclusive of probe)
- Resolution: 0.1°C or 1°F
- Unit: Celsius(°C), Fahrenheit(°F)

IBP

- Max Channel: 6
- Measurement way: Directly invasive pressure measurement
- Sensitivity of transducer: 5uV/V/mmHg, ±2%
- Impedance of transducer: 300 to 3000Ω
- Measurement Range: -50-350mmHg
- Resolution: 1mmHg
- Unit: mmHg, kpa, cmH2O
- Accuracy:

Static: ±1 mmHg or ±2%, whichever is grater (exclusive of transducer)
±4mmHg or ±4%, whichever is grater (inclusion of transducer)

- Dynamic: ±4mmHg or 4%, whichever is grater
- Transducer sites: Arterial Pressure (ART)
Pulmonary Artery Pressure (PA)
Left Atrium Pressure (LAP)
Right Atrium Pressure (RAP)
Central Venous Pressure (CVP)
Intracranial Pressure (ICP)
P1/P2

-Selection of measurement range:

- ART: 0-+350mmHg
- PA: -10-+120mmHg
- CVP/RAP/LAP/ICP: -10-+40mmHg
- P1/P2: -50-+350mmHg

EtCO2 (Sidestream)

- Measure method: Infrared spectrum
- Measure Range: 0.0-13.1%(0-99.6mmHg)
- Resolution: 1 mmHg
- Unit: % mmHg, kpa
- Accuracy: 0% to 4.9% ±0.3% (±2.0mmHg)
5.0% to 13.1% <±10% of reading
- Measurement range of awRR: 3-150rpm
- Calibration: Offset calibration: auto, manual, Gain calibration

EtCO2 (Mainstream)

- Measure method: Infrared spectrum
- Warm up time: Capnogram displayed in less than 15 seconds, At an ambient
- Temperature of 25°C full specifications within 2 minutes.
- Measure Range: 0.0-19.7%(0-150mmHg)
- Resolution: 1 mmHg
- Rise time(10l/min): ≤60ms
- Unit: % mmHg, kPa
- CO2 Accuracy: 0-40mmHg, ±2mmHg
41-70mmHg, ±5% of reading
71-100mmHg, ±8% of reading
101-150mmHg, ±10% of reading
- (at 760 mmHg, ambient temperature of 25°C)
- awRR measurement range: 0-150 rpm
- awRR measurement Accuracy: ±1 rpm

EtCO2 (Microstream)

- Measure method: Infrared spectrum
- Warm up time: Capnogram displayed in less than 20 seconds, At an ambient
- Temperature of 25t full specifications within 2 minutes.
- Measure Range: 0.0-19.7%(0-150mmHg)
- Resolution: 1mmHg
- Unit: %, mmHg, kPa
- CO2 Accuracy: 0-40mmHg, ±2mmHg
41-70mmHg, ±5% of reading
71-100mmHg, ±8% of reading
101-150mmHg, ±10% of reading
- (At 760 mmHg, ambient temperature of 25°C)
- (When RR>80 rpm, all the range is ±12% or reading)
- CO2 response time: <3S
- awRR measurement range: 2-150rpm
- awRR measurement Accuracy: ±1rpm
- Sample Flow Rate: 50ml/min ±10ml/min

Anesthetic Gas

- Measure method: Infrared spectrum
- Measure mode: Mainstream or Sidestream
- Fi and ET values: CO2, N2O, O2, AG(HAL, ISO, ENF, SEV, DES)
- Resolution: 1%
- Unit: %
- Calibration: Room air calibration performed automatically when changing airway adapter (<5 sec)
- Warm-up time: <10S, full accuracy within 1min
- Measurement and alarm range of AG

Gas	Range	Accuracy
CO2	0-10%	±(0.3% ABS+4%REL)
N2O	0-100%	±(2% ABS+8%REL)
O2	10-100%	±(2% ABS+2%REL)
HAL, ISO, ENF	0-5%	±(0.15% ABS+10%REL)
SEV	0-8%	±(0.15% ABS+10%REL)
DES	0-18%	±(0.15% ABS+10%REL)

- awRR measurement range: 0-150rpm
- awRR measurement Accuracy: ±1 rpm
- Rise time(flowing speed 10l/min) CO2 ≤90ms
O2 ≤300ms
N2O ≤300ms
Hal, Iso, Enf, Sev, Des ≤300ms
- Total system response time: <1seconds

C.O.

- Measurement Mode: Thermal dilution method
- Measurement Wave: Thermal dilution curve
- Measurement parameters: C.O., TB, TI, C.I.
- Measurement Range: C.O.: 0.1 L/min-20 L/min
TB: 23.0-43.0°C
TI: -1.0-27.0°C
- Resolution: C.O.: 0.1L/min
TB: 0.1°C
TI: -1.0-27.0°C
- Accuracy: C.O.: ±2% SD
- TB Alarm range: 23.0-46.0°C, high/low limit can be adjusted continuously

Optional parameter & configuration of iS Express 10 & iS10

- Option Module: SideStream EtCO2 Module, MicroStream EtCO2 Module, MainStream EtCO2 Module, AG Module, C.O. Module, IBP Module, Temp Module, Nellcor SpO2 Module, Masimo SpO2 Module, Sun-Tech-NIBP Module
- Navigating: USB Compatible Mouse and Keyboard
- Printing: 3 Channel Thermal Recorder
- Mounting: Rolling Stand, Wall Mount
- Battery: 11.1V/4.0AH Rechargeable Lithium Battery
- Other options: External Display, Wireless Lan, Extensive Memory card, Analog Output (ECG or IBP)

Stand configuration of iS Express10 & iS10

- 3/5 Lead ECG, HR, RESP, NIBP, SpO2, PR, 2-TEMP
- Main unit: iS10 Express: 12.1"/iS10: 10.4" TFT-LCD Display, 2 Standard Module Slot, Touch Screen, 1 RJ45 Ethernet Socket, 1 Defibrillation Output, 1 Nurse Call Socket, 1VGA Port, 2 USB1.1 Port, Lithium Rechargeable Battery

Specification subject to be changed without prior notice.

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