

# GHEALTH

*Innovative & Reliable*

## IRIS

### Vital Sign Monitor



## Technical Specification

### Physical Specification

Dimensions 250x180x180 mm  
Net weight 1.9kg (including battery)  
Display LED + 3.2" LCD (320x240dpi)

### Power Supply

DC: 100-240V 50/60Hz  
AC: 9 – 15V  
Internal battery: Rechargeable Li-ion  
Battery working period:  
5 hours  
10 hours (optional)

### Data Storage

120 patient data storage (4000 alarm data/patient and 1500 hours trend review)

### NIBP

Method: Oscillometric  
Mode: Manual, Auto  
Measuring Interval in auto mode:  
1-480(minute)

Pulse Rate Range:  
25-250 (bpm)

Measuring range:  
Adult Mode  
SYS 50-255 (mmHg)  
DIA 25-195 (mmHg)  
MEAN 30-215 (mmHg)  
Pediatric /Neonatal Mode  
SYS 50-135(mmHg)  
DIA 25-110(mmHg)  
MEAN 30-125(mmHg)  
Resolution: 1 mmHg  
Precision: Max average error: ±5mmHg  
Max standard error: ±8mmHg  
Overpressure Protection  
Adult 290-300 mmHg  
Child 215-225 mmHg  
Newborn 145-155 mmHg

### NIBP (SunTech)

Method: Oscillometric  
Mode: Manual, Auto, Continuous  
Measuring Interval in auto mode:  
5-480mins 15 options

Pulse Rate Range:  
25-250 (bpm)

Measuring range:  
Adult Mode  
SYS 40-260(mmHg)  
DIA 20-200(mmHg)  
Pediatric  
SYS 40-160(mmHg)  
DIA 20-120(mmHg)  
Neonatal:  
SYS 40-130(mmHg)  
DIA 20-100(mmHg)  
Resolution: 1 mmHg  
Precision: Avg. < 3 mmHg  
Overpressure Protection:  
Yes

### SpO2

Measuring Rang: 0~100%  
Resolution: 1%  
Precision: Adult/Pediatric  
70%~100% ± 2%  
Neonatal  
70%~100% ± 3%

Pulse Rate  
Measuring Range 25-240bpm  
Resolution 1 bpm  
Accuracy ± 3% or 2bpm

### SpO2 (Nellcor)

Measuring range 0~100%  
Resolution 1%  
Precision Adult/Pediatric  
70%~100% ± 2%  
Neonatal  
70%~100% ± 3%

Pulse rate  
Measuring and Alarm Range 25~250 bpm  
Resolution 1 bpm  
Precision ±3% or 2bpm

### SpO2 (Masimo)

Measuring range 0~100%  
Resolution 0.1%  
Precision Adult/Pediatric  
70%~100% ± 2%  
Neonatal  
70%~100% ± 3%

Pulse rate  
Measuring and Alarm Range 25~250 bpm  
Resolution 1 bpm  
Precision ±3% or 2bpm

### Temperature (Skin)

Channel 1  
Measuring and Alarm Range 0~50°C  
Resolution 0.1 °C  
Accuracy 0.1 °C (25-45°C)  
Actualization interval 1 second  
Average Time Constant < 10 second

### Temperature (Oral)

Channel 1  
Measuring and Alarm Range 32~43°C  
Resolution 0.1 °C  
Accuracy 0.1 °C  
Actualization interval <25 second  
Average Time Constant 4 second (oral)  
10 second(children axillary)  
15 second(adult axillary)  
10 second (rectal)

### Temperature (Infrared)

Channel 1  
Measuring and Alarm Range 34~42.2°C  
Resolution 0.1 °C  
Accuracy 0.2 °C (36-39°C) , 0.3°C (other)  
Actualization interval 1 second  
Average Time Constant < 10 second

### ECG

Leads: 3/5 leads  
Channels: 7 synchronization channels  
(I II III aVR aVL aVF V)  
Plus: 5mm/mV ± 5%, 10mm/mV ± 5%,  
20mm/mV ± 5%  
Sweep rate: 50mm/s ± 10%

Range of heart rate monitoring:  
20-350bpm (± 1%)  
Range of arrhythmia alarm:  
the same of measurement range,  
error ≤± 5%

### RESP

Method: Trans-thoracic impedance  
Operation Mode: Auto/Manual  
RR Measurement Range  
Adult: 0-120 rpm  
Pediatric/Neonatal 0-150rpm  
Resolution: 1rpm  
Precision: ±2%  
Apnea alarm threshold: 10s, 15s, 20s, 25s, 30s, 35s, 40s  
Alarm: Audio and visual,  
Alarm event recallable

### EtCO2 (GH MainStream or Side/MicroStream)

Sample Rate : 50 ml/min  
(SideStream)  
Measuring Range: CO2: 0~99 mmHg,  
RESP: 0~150 brpm  
Resolution: CO2: 1 mmHg;  
RESP: 1 brpm  
Accuracy: CO2: 2 mmHg + 2% of readings  
RESP: 1 brpm (0~70bom),  
3 brpm (others)

### EtCO2 (Phasein Mainstream or Sidestream)

Co2 Range(IRMA): 0 ~ 99 mmHg  
Accuracy: ±(0.2 vol% + 2% of reading)  
Rise Time: IRMA CO2 < 90 ms  
ISA CO2 < 200 ms  
System Response Time: IRMA CO2 < 1 sec  
ISA CO2 < 3 sec  
Breath Detect: Adaptive threshold minimum  
1vol% CO2 change  
Respiratory Rate: 0-150 bpm 1 bpm

### EtCO2 (Oridion Microstream)

CO2 Range: 0~150mmHg,  
0~20 Vol %,  
0~20 kPa  
Accuracy: 0~38 mmHg ±2 mmHg  
39-99 mmHg  
±(5% of reading + 0.08% for  
every 1 mmHg above 38mmHg)  
100-150 mmHg  
±(5% of reading + 0.08% for  
every 1 mmHg above 38mmHg)  
Sampling Flow Rate: 50 ml/min (+15ml/min,-7.5ml/min)  
Initialization Time: Typically 30 seconds to obtain  
both reading and waveform.  
At full accuracy when value first  
appears.  
Respiration Rate: 0~150 breaths/min  
Mode: Adult, Pediatric, neonate

### Printer

Plug & Play type  
Speed: 12.5/25/50 mm/s

### Network Connection

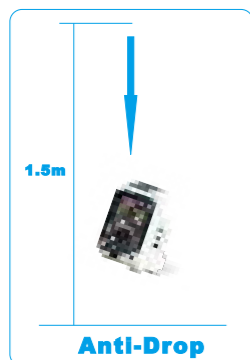
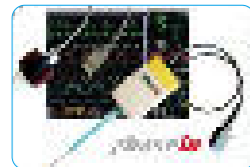
LAN Ethernet  
WLAN WIFI (optional)  
Telephony CDMA/GPRS  
(optional)

### I/O interface

RJ-45  
SD card socket

Remark: Features and specifications are subject to change without prior notice

# GHEALTH



## Measurement Technologies

- NIBP: Optional SunTech
- SpO2: Optional Nellcor and Masimo
- Temperature: Skin, Infrared and Oral fast temperature
- ECG: 3/5 Leads IEC and AHA standards
- EtCO2: Phasein Mainstream and Sidestream  
3F Mainstream, Sidestream (Microstream)

## Capacity of Data Storage

- Data Storage and Review: 1500 hours trend data and 4000 groups of 120 patient data storage and review.
- Alarm Review: at least 3500 groups of alarm
- External Storage: SD card

## Battery Backup

- Continuous Working Time: 5 hours (standard)  
10 hours (optional)

## Anti-drop

Special Design for Anti-Drop from 1.5 meter high to concrete floor

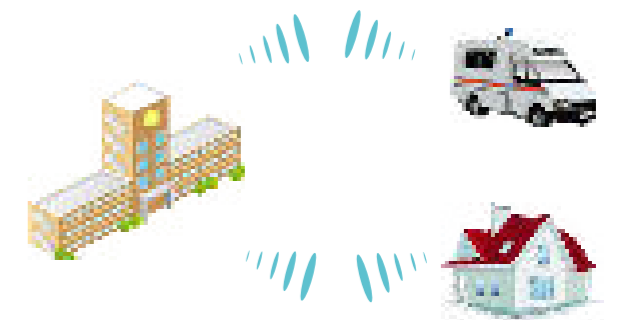
\*The anti-drop feature is not guaranteed by manufacturer, neither covers by manufacturer's guarantee or warranty terms.

## Configurations

Configuration	NIBP	SpO2	Temperature	ECG	EtCO2
IRIS 100	•				
IRIS 110		•			
IRIS 200	•	•			
IRIS 300	•	•	•		
IRIS 400	•	•	•	•	
IRIS 410/42	•	•	•		•
IRIS 500/510	•	•	•	•	•

## Telephony Network Solutions

The real-time data transfer through telephony network makes the geograph no longer the limit of monitoring a patient. Wherever the patient is, in the ambulance or at home, the data will be always transferred to the hospital for observation and analysis, which makes non-gap ambulatory patient monitoring becoming true and also the home-care monitoring as well.

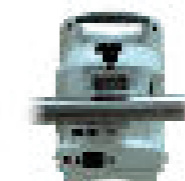


## LAN/WLAN Network solutions

The central monitoring station supports the connection with up to 128 bedside monitor through Ethernet or Wifi; bi-directional control and bed-to-bed view functions minimum the works of patient monitoring; dual screen display expanded the observation of patient information.



## Various Mounting Solutions



Bed Rail or Pole Rack



One-Step Quick Release Dock

