

# APOLLO N1 — NICU Monitor



## Physical specifications

Net Weight (Standard Configuration) 5kgs  
Size 300(W)×270(H)×145(D)mm

## Display

Type and size 8.4" Color TFT  
Resolution 800\*600  
Sweep speed 12.5mm/s, 25mm/s, 50mm/s  
Display modes Standard display, Large-font display, Trend coexist display, OxyCRG dynamic view display, Apnea analysis diagram display

Drug does calculation Yes  
Standby mode Yes

## Operation Environment:

Temperature working: -10°C ~ 50°C  
Transportation: -10°C ~ 50°C  
Relative Humidity working ≤85% (noncondensing)  
Transportation ≤93% (noncondensing)

Adapter Input AC 100-240V 50/60Hz 1.7A  
Output DC 19V 3A

Vehicle power supply DC 12-14V 5A  
AC input power 70VA

## Battery

Type rechargeable Li-ion battery  
Voltage 14.8V  
Maximum number of batteries 2  
Battery working time 7 hours with 2 battery

## Recorder

Type Thermal dot array  
Number of waveform channels 4(standard)  
Paper width 112mm  
Paper speed 25mm/s

Patient Range Neonate

## Alarms

Categories Physical alarms and Technical alarms  
Priority High, Medium, and Low  
Alarm sound levels 0,1,2,3,4  
Notification Visual and Audible

## Performance Specifications

### ECG

Lead type 3-Lead or 5-Lead selectable  
3 leadwire I, II, or III  
5 leadwire I, II, III, V, AVR, AVL, AVF  
Gain ×0.25, ×0.5, ×1, ×2, Auto  
Sweep speed 12.5mm/s, 25mm/s, 50mm/s  
Bandwidth(Surgery mode) 1-20Hz  
Bandwidth(Monitoring mode) 0.5-40Hz  
Bandwidth(Diagnostic mode) 0.05-130Hz  
Multi-lead display 6 waveforms  
Lead fail Identifies failed lead  
Alarms User-selectable upper and lower heart rate limits

### ECG derived HR

Heart Rate for Neonate/Pediatric 15-350BPM  
Heart Rate Accuracy ±1BPM or ±1%, whichever is greater  
Heart Rate Resolution 1BPM  
Notch 50Hz, 60Hz

### ST Segment

ST segment range -2.0mv to 2.0mv  
ST alarm range -2.0mv to 2.0mv  
ST segment accuracy -0.8mv to 0.8mv  
ST segment error ±0.02mv  
Arrhythmia type 13 types

### Pace

Pace-maker detection Yes  
Pace rejection amplitude ±2 mV ~ ±700mV  
Pace rejection width 0.1ms ~ 2ms  
Pace rejection rise time 10µs ~ 100µs

### Temperature

Scale °Celsius(C) or °Fahrenheit(F)  
Probe type YSI type

Parameters T1  
Measurement range 0~50°C  
Resolution 0.1°C  
Accuracy ±0.1°C  
Refreshing time approximately 1S

### Masimo SPO2

#### Measurement range

SpO2 0~100%  
SpMet 0~99.9%  
SpCO 0~99%  
SpHb 0~25 g/dL  
SpOC 0~35ml of O2/dL of blood  
Pulse Rate 25~240 bpm  
Perfusion Index 0.02~20%  
PVI 0~100%

Oxygen saturation accuracy (%SpO2)

Saturation 60~80%  
No Motion Adults/Infants/Pediatrics +3%  
Saturation Adults/Infants/Pediatrics 70~100%

No Motion Adults/Infants/Pediatrics

Neonates +2%

Neonates +3%

Motion Adults/Infants/Pediatrics/Neonates +3%

Low Perfusion Adults/Infants/Pediatrics/Neonates +2%

Pulse rate accuracy

Pulse Rate

Measurement range 25~240 bpm

No Motion Adults/Infants/Pediatrics/Neonates +3 bpm

Motion Adults/Infants/Pediatrics/Neonates +5 bpm

Low Perfusion Adults/Infants/Pediatrics/Neonates +3 bpm

Carboxyhemoglobin saturation acc uracy (%SpCO) Adults/Infants/Pediatrics 1~40% +3%

Methemoglobin saturation acc uracy (%SpMet) Adults/Infants/Pediatrics/Neonates 1~15% +1%

Total Hemoglobin acc uracy (SpHb g/dL) Adults/Infants/Pediatrics 8~17 g/dL +1 g/dL

Resolution

Oxyhemoglobin Saturation (%SpO2) 1%

Carboxyhemoglobin Saturation (%SpCO), digital display 1%

Methemoglobin Saturation (%SpMet), digital display 0.1%

Total Hemoglobin (SpHb g/dL) 0.1 g/dL

Pulse Rate (bpm) 1 bpm

Resolution 1%

Accuracy ±2%(70%-100%); unspecified(0-69%)

Alarm range 0~100%

SunTech NIBP

Measurement technique Oscillometric

Displayed parameters Systolic, diastolic and MAP(mean arterial pressure)

Measurement mode Manual, Auto, STAT

Auto cycle time 0-4 Hours

Measurement unit mmHg/kPa selectable

Range of Systolic pressure Neonate : 40-135mmHg

Range of mean pressure Neonate : 20-110mmHg

Range of diastolic pressure Neonate : 10-100mmHg

Accuracy 5%

Resolution 1mmHg

Alarms Selectable upper and lower limits for systolic, diastolic and mean pressure

Over-pressure protection Double safety protection

Respiration

Measurement technique RA-LL Impedance variation detection

Range Neonate : 7~120rpm

Apnea alarm Yes, 10s, 15s, 20s, 25s, no alarm selectable

Sweep speed 6.25mm/s, 12.5mm/s, 25mm/s

Gain 0.25, 0.5, 1, 2, 4

Standard Configuration: ECG, RESP, Masimo SPO2, SUNTECH NIBP, TEMP, PR/HR

Optional functions: ETCO2, Wired/Wireless Central station systems



## APOLLO N1 — NICU Monitor

- 8.4 inch TFT-LCD display, touch screen.
- World' s golden standard neonate SPO2 technology from MASIMO.
- World' s leading neonate NIBP technology from Suntech.
- Impedance variation detection and Spectrometry detection assure the accurate testing of Resp.
- Unique interface and accessories specified for neonatal use only.



# APOLLO N2 —Ward Monitor



## Physical specifications

Weight (Standard Configuration) 5.5kg  
 Size 300(W)×270(H)×120(D)mm  
 300(W)×410(H)×120(D)mm (with printer)

## Display

Type and size 12.1" Color TFT  
 Resolution 800\*600  
 Number of trace 6 traces  
 Sweep speed 12.5mm/s, 25mm/s, 50mm/s  
 Display modes Standard display  
 Large-font display  
 Trend coexist display  
 OxyCRG dynamic view display

Drug does calculation Yes  
 Standby mode Yes

## Operation Environment:

Temperature Working: 0°C to 40°C  
 Transportation: -20°C to 60°C  
 Relative Humidity Working: ≤85% Transportation: ≤93%  
 Atmospheric pressure 860hPa ~ 1060 hPa

## Electrical

AC input voltage 100-240V  
 AC input frequency 50/60Hz  
 AC input power (100VA)

## Battery

Type Exchangeable Li-ion battery  
 Voltage 14.8V  
 Maximum number of batteries 1  
 Battery working time 2 hours with one battery

## Patient Range

Neonate, pediatric, and adult patients

## Alarms

Categories Physical alarms and Technical alarms  
 Priority High, Medium, and Low  
 Alarm sound levels 0,1,2,3,4  
 Notification Visual and Audible

## Performance Specifications

### ECG

Lead type 3-Lead or 5-Lead selectable  
 3 leadwire I,II, or III  
 5 leadwire I,II, III, V, AVR, AVL, AVF  
 Gain ×0.25, ×0.5, ×1, ×2, Auto  
 Sweep speed 12.5mm/s, 25mm/s, 50mm/s  
 Standardizing voltage 1mV marker  
 Bandwidth(Surgery mode) 1-20Hz  
 Bandwidth(Monitoring mode) 0.5-40Hz  
 Bandwidth(Diagnostic mode) 0.05-130Hz  
 Multi-lead display 6 waveforms  
 Lead fail Identifies failed lead  
 Alarms User-selectable upper and lower heart rate limits

### ECG derived HR

Heart Rate for Adult 15-300BPM  
 Heart Rate for Neonate/Pediatric 15-350BPM  
 Heart Rate Accuracy ±1BPM or ±1%, whichever is greater  
 Heart Rate Resolution 1BPM  
 Notch 50Hz, 60Hz

### ST Segment

ST segment range -2.0mv to 2.0mv  
 ST alarm range -2.0mv to 2.0mv  
 ST segment accuracy -0.8mv to 0.8mv  
 ST segment error ±0.02mv  
 Arrhythmia type 13 types

### Pace

Pace-maker detection Yes  
 Pace rejection amplitude ±2 mV ~ ±700mV  
 Pace rejection width 0.1ms ~ 2ms  
 Pace rejection rise time 10µs ~ 100µs

### Temperature

Scale °Celsius(C) or °Fahrenheit(F)  
 Probe type YSI types  
 Parameters T1, T2 and TD  
 TD(Temperature difference) Yes  
 Measurement range 0~50°C

Resolution 0.1°C  
 Accuracy ±0.1°C

### Pulse oximetry

Parameters monitored Arterial oxygen saturation(SpO2) and peripheral pulse rate(PPR)  
 SpO2 measurement range 35%~100%  
 PPR measurement range 20bpm ~ 300bpm 1bpm ±3bpm  
 Resolution 0.01  
 Error ±3bpm  
 Accuracy ±2%(70%-100%); unspecified(0-69%)

### NIBP

Measurement technique Oscillometric  
 Displayed parameters Systolic, diastolic and MAP(mean arterial pressure)  
 Measurement mode Manual, Auto, STAT  
 Measurement unit mmHg/kPa selectable  
 Range of Systolic pressure Adult : 40-270mmHg  
 Pediatric : 40-200mmHg  
 Neonate : 40-135mmHg

Range of mean pressure Adult : 20-235mmHg  
 Pediatric : 20-165mmHg  
 Neonate : 20-110mmHg

Range of diastolic pressure Adult : 10-215mmHg  
 Pediatric : 10-150mmHg  
 Neonate : 10-100mmHg

Accuracy 5%

Resolution 1mmHg

Alarms Selectable upper and lower limits

Over-pressure protection Double safety protection

### Respiration

Measurement technique RA-LL Impedance variation detection  
 Range Adult : 7~120rpm  
 Pediatric/Neonate: 7~150rpm  
 Apnea alarm Yes, 10s,15s,20s,25s,30s,35s,40s selectable  
 Sweep speed 6.25mm/s, 12.5mm/s, 25mm/s  
 Gain 0.25, 0.5, 1, 2, 4

### Recorder

Type Thermal dot array  
 Number of waveform channels 4(standard)  
 Paper width 112mm  
 Paper speed 25mm/s

### IBP

Channels 1 or 2 selectable  
 Measurement range -10~300mmHg  
 Resolution 1mmHg  
 Accuracy ±1mmHg or ±2%, whichever is greater (without sensor)

Pressure names ART, PA, CVP, RAP, LAP, ICP, P1, P2  
 Alarm range -10~300mmHg

Sensitivity 5µV/V/mmHg

Impedance range 300-3000Ω

### ETCO2

Mainstream CO2/Sidestream CO2  
 Measurement range 0-150mmHg  
 Accuracy 0 to 40mmHg ±2mmHg  
 41 to 70mmHg ± 5% of the reading  
 71 to 100mmHg ±8% of the reading  
 101 to 150mmHg ±10% of the reading

### Mainstream CO2

RR range 0 to 150rpm  
 Accuracy 1rpm  
 Response time <60ms

### Sidestream CO2

Sample flowrate 50ml/min  
 Accuracy ±15% or 15ml/min, whichever is greater  
 Warm-up time <1min, enter the iso accuracy mode  
 After 1 min, enter the full accuracy mode  
 RR range 0-120rpm  
 RR accuracy ±2 rpm

Standard Configuration: ECG, RESP, SPO2, NIBP, TEMP, PR/HR

Optional: ETCO2, IBP, 2-IBP, Masimo SpO2, wired and wireless Central Station systems, printer



Specialistic Monitor Manufacturer



Multi-Parameter Patient Monitor



# APOLLO N2 —Ward Monitor

- 12.1 inch TFT-LCD display, touch screen.
- External 112mm width printer for 4 channels.
- 15 drug calculation and 13 ARR analysis, ST analysis.
- 120mm thickness, foldable handle.
- Flexible mounting solution.



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# APOLLO N3 —EMS Monitor



## Physical specifications

Weight (Standard Configuration) 5kg  
Size 300(W)×270(H)×145(D)mm

## Display

Type and size 8.4" Color TFT  
Resolution 800\*600  
Number of trace 6 traces  
Sweep speed 12.5mm/s, 25mm/s, 50mm/s  
Display modes Standard display  
Large-font display  
Trend coexist display  
OxyCRG dynamic view display

Drug does calculation Yes  
Standby mode Yes

## Operation Environment

Temperature working: -10°C to 50°C  
Transportation: -10°C to 50°C  
Relative Humidity working ≤85% (noncondensing)  
Transportation ≤93% (noncondensing)

Adapter Input AC 100-240V 50/60Hz 1.7A  
Output DC 19V 3A

Vehicle power supply DC 12-14V 5A  
AC input power 70VA

## Battery

Type Exchangeable Li-ion battery  
Voltage 14.8V  
Maximum number of batteries 2  
Battery working time 7 hours with 2 battery

## Recorder

Type Thermal dot array  
Number of waveform channels 4(standard)  
Paper width 112mm  
Paper speed 25mm/s

Patient Range Neonate, pediatric, and adult patients

## Alarms

Categories Physical alarms and Technical alarms  
Priority High, Medium, and Low  
Alarm sound levels 0,1,2,3,4  
Notification Visual and Audible

## Performance Specifications

### ECG

Lead type 3-Lead or 5-Lead selectable  
3 leadwire I,II, or III  
5 leadwire I,II, III, V, AVR, AVL, AVF  
Gain ×0.25, ×0.5, ×1, ×2, Auto  
Sweep speed 12.5mm/s, 25mm/s, 50mm/s  
Bandwidth(Surgery mode) 1-20Hz  
Bandwidth(Monitoring mode) 0.5-40Hz  
Bandwidth(Diagnostic mode) 0.05-130Hz

### ECG derived HR

Heart Rate for Adult 15-300BPM  
Heart Rate for Neonate/Pediatric 15-350BPM  
Heart Rate Accuracy ±1BPM or ±1%, whichever is greater  
Heart Rate Resolution 1BPM  
Notch 50Hz, 60Hz

### ST Segment

ST segment range -2.0mv to 2.0mv  
ST alarm range -2.0mv to 2.0mv  
ST segment accuracy -0.8mv to 0.8mv  
ST segment error ±0.02mv  
Arrhythmia type 13 types

### Pace

Pace-maker detection Yes  
Pace rejection amplitude ±2 mV ~ ±700mV  
Pace rejection width 0.1ms ~ 2ms  
Pace rejection rise time 10µs ~ 100µs

### Temperature

Scale °Celsius(C) or °Fahrenheit(F)  
Probe type YSI types  
Parameters T1

Measurement range 0~50°C  
Resolution 0.1°C  
Accuracy ±0.1°C

### Masimo SPO2

#### Measurement range

SpO2 0~100%  
SpMet 0 - 99.9%  
SpCO 0 - 99%  
SpHb 0 - 25 g/dL  
SpOC 0 - 35ml of O2/dL of blood  
Pulse Rate 25 - 240 bpm  
Perfusion Index 0.02 - 20%  
PVI 0 - 100%  
Oxygen saturation accuracy (%SpO2) 60 - 80%

Saturation No Motion  
Adults/Infants/Pediatrics 3%  
Saturation. 70 - 100%

No Motion  
Adults/Infants/Pediatrics 2%  
Neonates 3%

Motion  
Adults/Infants/Pediatrics/Neonates + 3%  
Low Perfusion  
Adults/Infants/Pediatrics/Neonates 2%

### Pulse Rate

Measurement range 25 - 240 bpm

No Motion  
Adults/Infants/Pediatrics/Neonates + 3 bpm

Motion  
Adults/Infants/Pediatrics/Neonates + 5 bpm

Low Perfusion  
Adults/Infants/Pediatrics/Neonates + 3 bpm

Carboxyhemoglobin saturation acc uracy (%SpCO)  
Adults/Infants/Pediatrics 1 - 40% + 3%  
Methemoglobin saturation acc uracy (%SpMet)  
Adults/Infants/Pediatrics/Neonates 1 - 15% + 1%

Total Hemoglobin acc uracy (SpHb g/dL)  
Adults/Infants/Pediatrics 8 - 17 g/dL + 1 g/dL

Resolution  
Oxyhemoglobin Saturation (%SpO2) 1%  
Carboxyhemoglobin Saturation (%SpCO), digital display 1%  
Methemoglobin Saturation (%SpMet), digital display 0.1%

Total Hemoglobin (SpHb g/dL) 0.1 g/dL  
Pulse Rate (bpm) 1 bpm  
Resolution 1%

Accuracy ±2%(70%-100%); unspecified(0-69%)  
Alarm range 0~100%

### SunTech NIBP

Measurement technique Oscillometric  
Displayed parameters Systolic, diastolic and MAP(mean arterial pressure)  
Measurement mode Manual, Auto, STAT  
Measurement unit mmHg/kPa selectable

Range of Systolic pressure  
Adult : 40-270mmHg  
Pediatric : 40-200mmHg  
Neonate : 40-135mmHg

Adult : 20-235mmHg  
Pediatric : 20-165mmHg  
Neonate : 20-110mmHg

Adult : 10-215mmHg  
Pediatric : 10-150mmHg  
Neonate : 10-100mmHg

Accuracy 5%  
Resolution 1mmHg  
Over-pressure protection Double safety protection

### Respiration

Measurement technique RA-LL Impedance variation detection  
Range Adult : 7~120rpm Pediatric/Neonate: 7~150rpm  
Apnea alarm Yes, 10s,15s,20s,25s,30s,35s,40s selectable  
Sweep speed 6.25mm/s, 12.5mm/s, 25mm/s

Gain 0.25, 0.5, 1, 2, 4  
Standard Configuration: ECG, RESP, Masimo SPO2, SUNTECH NIBP, TEMP, PR/HR  
Optional functions: ETCO2, Wired/Wireless Central station systems



Specialistic Monitor Manufacturer



Multi-Parameter Patient Monitor



# APOLLO N3 —EMS Monitor

- 8.4 inch TFT-LCD display, touch screen.
- Water-proof and anti-shake design.
- 15 seconds fast launch.
- 7 hours battery continuously working time.
- 3G remote information transfer system.
- Navigation/GPS system.



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# APOLLO N4 —ICU/CCU Monitor



## Physical specifications

Weight (Standard Configuration) 6.5 kg  
Size 350(W)×300(H)×120(D)mm  
350(W)×440(H)×120(D)mm(with printer)

## Display

Type and size 15" Color TFT  
Resolution 1024\*768  
Number of trace 6 traces  
Sweep speed 12.5mm/s,25mm/s,50mm/s  
Display modes Standard display  
Large-font display  
Trend coexist display  
OxyCRG dynamic view display

Drug does calculation Yes  
Standby mode Yes

## Operation Environment:

Temperature Working: 0°C to 40°C  
Transportation: -20°C to 60°C  
Relative Humidity Working: ≤85% Transportation: ≤93%

## Electrical

AC input voltage 100-240V  
AC input frequency 50/60Hz  
AC input power <70VA

## Battery

Type Exchangeable Li-ion battery  
Voltage 14.8V  
Maximum number of batteries 2  
Battery working time 2 hours with 1 battery

**Patient Range** Neonate, pediatric, and adult patients

## Alarms

Categories Physical alarms and Technical alarms  
Priority High, Medium, and Low  
Alarm sound levels 0,1,2,3,4  
Notification Visual and Audible  
Pausing 1min, 2min, 3min

## Performance Specifications

### ECG

Lead type 3-Lead or 5-Lead selectable  
3 leadwire I,II, or III  
5 leadwire I,II, III, V, AVR, AVL, AVF  
Gain ×0.25,×0.5,×1,×2,Auto  
Sweep speed 12.5mm/s, 25mm/s, 50mm/s  
Standardizing voltage 1mV marker  
Bandwidth(Surgery mode) 1-20Hz  
Bandwidth(Monitoring mode) 0.5-40Hz  
Bandwidth(Diagnostic mode) 0.05-130Hz  
Multi-lead display 6 waveforms  
Lead fail Identifies failed lead  
Alarms User-selectable upper and lower heart rate limits

### ECG derived HR

Heart Rate for Adult 15-300BPM  
Heart Rate for Neonate/Pediatric 15-350BPM  
Heart Rate Accuracy ±1BPM or ±1%, whichever is greater  
Heart Rate Resolution 1BPM  
Notch 50Hz, 60Hz

### ST Segment

ST segment range -2.0mv to 2.0mv  
ST alarm range -2.0mv to 2.0mv  
ST segment accuracy -0.8mv to 0.8mv  
ST segment error ±0.02mv  
Arrhythmia type 13 types

### Pace

Pace-maker detection Yes  
Pace rejection amplitude ±2 mV ~ ±700mV  
Pace rejection width 0.1ms ~ 2ms  
Pace rejection rise time 10µs ~ 100µs

### Temperature

Scale °Celsius(C) or °Fahrenheit(F)  
Probe type YSI types  
Parameters T1,T2 and TD  
TD(Temperature difference) Yes  
Measurement range 0~50°C

Resolution 0.1°C  
Accuracy ±0.1°C

### Pulse oximetry

Parameters monitored Arterial oxygen saturation(SpO2) and peripheral pulse rate(PPR)  
SpO2 measurement range 35%~100%  
PPR measurement range 20bpm~300bpm 1bpm ±3bpm  
Resolution 0.01  
Error ±3bpm  
Accuracy ±2%(70%-100%); unspecified(0-69%)

### NIBP

Measurement technique Oscillometric  
Displayed parameters Systolic, diastolic and MAP(mean arterial pressure)  
Measurement mode Manual, Auto,STAT  
Measurement unit mmHg/kPa selectable  
Range of Systolic pressure Adult : 40-270mmHg  
Pediatric : 40-200mmHg  
Neonate : 40-135mmHg

Range of mean pressure Adult : 20-235mmHg  
Pediatric : 20-165mmHg  
Neonate : 20-110mmHg

Range of diastolic pressure Adult : 10-215mmHg  
Pediatric : 10-150mmHg  
Neonate : 10-100mmHg

Accuracy 5%  
Resolution 1mmHg  
Alarms Selectable upper and lower limits  
Over-pressure protection Double safety protection

### Respiration

Measurement technique RA-LL Impedance variation detection  
Range Adult : 7~120rpm  
Pediatric/Neonate: 7~150rpm  
Apnea alarm Yes, 10s,15s,20s,25s,30s,35s,40s selectable  
Sweep speed 6.25mm/s, 12.5mm/s, 25mm/s  
Gain 0.25, 0.5, 1, 2, 4

### Recorder

Type Thermal dot array  
Number of waveform channels 4(standard)  
Paper width 112mm  
Paper speed 25mm/s

### IBP

Channels 1, 2, 4 selectable  
Measurement range -10~300mmHg  
Resolution 1mmHg  
Accuracy ±1mmHg or ±2%, whichever is greater (without sensor)  
Pressure names ART, PA, CVP, RAP, LAP, ICP, P1, P2  
Alarm range -10~300mmHg

### Pressure transducer

Sensitivity 5µv/V/mmHg  
Impedance range 300-3000Ω

### ETCO2

**Mainstream CO2/Sidestream CO2**  
Measurement range 0-150mmHg  
Accuracy 0 to 40mmHg ±2mmHg  
41 to 70mmHg ± 5% of the reading  
71 to 100mmHg ±8% of the reading  
101 to 150mmHg ±10% of the reading

### Mainstream CO2

RR range 0 to 150rpm  
Accuracy 1rpm  
Response time <60ms

### Sidestream CO2

Sample flowrate 50ml/min  
Accuracy ±15% or 15ml/min, whichever is greater  
Warm-up time <1min, enter the iso accuracy mode  
After 1 min, enter the full accuracy mode

RR range 0-120rpm  
RR accuracy ±2 rpm

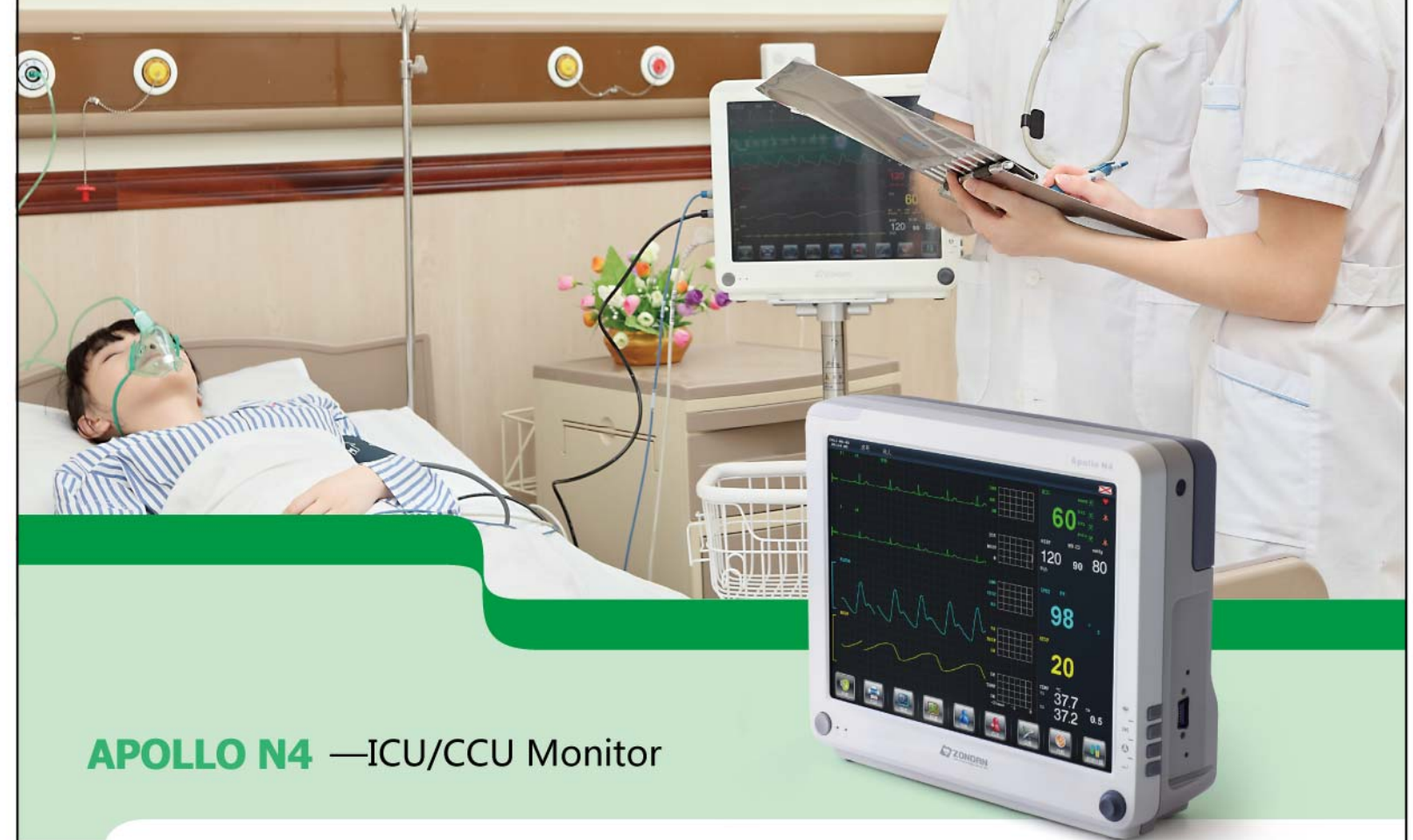
Standard Configuration: ECG, RESP, SPO2, NIBP, TEMP, PR/HR  
Options: ETCO2, IBP, 2-IBP, 4-IBP, Masimo SpO2, Suntech NIBP, wired and wireless Central Station systems, printer



Specialistic Monitor Manufacturer



Multi-Parameter Patient Monitor



## APOLLO N4 —ICU/CCU Monitor

- 15 inch TFT-LCD display, touch screen.
- Multi-lead display.
- SD card unlimited storage.
- External 112mm width printer for 4 channels.
- Power fail safeguard memory storage.



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# APOLLO N5 —OR Monitor



## Physical specifications

Weight (Standard Configuration) 7kg  
Size 400(W)×325(H)×188(D)mm

## Display

Type and size 15" Color TFT  
Resolution 1024\*768  
Number of trace 6 traces  
Sweep speed 12.5mm/s, 25mm/s, 50mm/s  
Display modes Standard display  
Large-font display  
Trend coexist display  
OxyCRG dynamic view display

Drug does calculation Yes  
Standby mode Yes

## Operation Environment:

Temperature Working: 0°C to 40°C  
Transportation: -20°C to 60°C  
Relative Humidity Working: ≤85% Transportation: ≤93%  
Atmospheric pressure 860hPa ~ 1060 hPa  
Power AC 100-240V, 50/60Hz

## Battery

Type Exchangeable Li-ion battery  
Voltage 14.8V  
Maximum number of batteries 2  
Battery working time 2 hours with one battery

## Recorder

Type Thermal dot array  
Number of waveform channels 2(standard)  
Paper width 50mm  
Patient Range Neonate, pediatric, and adult patients  
Alarms Categories Physical alarms and Technical alarms  
Priority High, Medium, and Low  
Alarm sound levels 0,1,2,3,4  
Notification Visual and Audible

## Performance Specifications

### ECG

Lead type 3-Lead or 5-Lead selectable  
3 leadwire I, II, or III  
5 leadwire I, II, III, V, AVR, AVL, AVF  
Gain ×0.25, ×0.5, ×1, ×2, Auto  
Sweep speed 12.5mm/s, 25mm/s, 50mm/s  
Bandwidth(Surgery mode) 1-20Hz  
Bandwidth(Monitoring mode) 0.5-40Hz  
Bandwidth(Diagnostic mode) 0.05-130Hz

### ECG derived HR

Heart Rate for Adult 15-300BPM  
Heart Rate for Neonate/Pediatric 15-350BPM  
Heart Rate Accuracy ±1BPM or ±1%, whichever is greater  
Heart Rate Resolution 1BPM  
Notch 50Hz, 60Hz

### ST Segment

ST segment range -2.0mv to 2.0mv  
ST alarm range -2.0mv to 2.0mv  
ST segment accuracy -0.8mv to 0.8mv  
ST segment error ±0.02mv  
Arrhythmia type 13 types

### Pace

Pace-maker detection Yes  
Pace rejection amplitude ±2 mV ~ ±700mV  
Pace rejection width 0.1ms ~ 2ms  
Pace rejection rise time 10µs ~ 100µs

### Temperature

Scale °Celsius(C) or °Fahrenheit(F)  
Probe type YSI types  
Parameters T1, T2 and TD  
Measurement range 0~50°C  
Resolution 0.1°C  
Accuracy ±0.1°C

### Masimo SPO2

Measurement range 0~100%  
SpO2 0 - 99.9%  
SpMet 0 - 99%

SpHb 0 - 25 g/dL  
SpOC 0 - 35ml of O2/dL of blood  
Pulse Rate 25 - 240 bpm  
Perfusion Index 0.02 - 20%  
PVI 0 - 100%  
Oxygen saturation accuracy (%SpO2)  
Saturation 60 - 80%  
No Motion  
Adults/Infants/Pediatrics +3%  
Saturation 70 - 100%  
No Motion  
Adults/Infants/Pediatrics + 2%  
Neonates + 3%  
Motion  
Adults/Infants/Pediatrics/Neonates + 3%  
Low Perfusion  
Adults/Infants/Pediatrics/Neonates + 2%  
Pulse rate accuracy  
Measurement range 25 - 240 bpm  
No Motion  
Adults/Infants/Pediatrics/Neonates + 3 bpm  
Motion  
Adults/Infants/Pediatrics/Neonates + 5 bpm  
Low Perfusion  
Adults/Infants/Pediatrics/Neonates + 3 bpm  
Carboxyhemoglobin saturation accuracy (%SpCO)  
Adults/Infants/Pediatrics 1 - 40% + 3%  
Methemoglobin saturation accuracy (%SpMet)  
Adults/Infants/Pediatrics/Neonates 1 - 15% + 1%  
Total Hemoglobin accuracy (SpHb g/dL)  
Adults/Infants/Pediatrics 8 - 17 g/dL + 1 g/dL

### Resolution

Oxyhemoglobin Saturation (%SpO2) 1%  
Carboxyhemoglobin Saturation (%SpCO), digital display 1%  
Methemoglobin Saturation (%SpMet), digital display 0.1%  
Total Hemoglobin (SpHb g/dL) 0.1 g/dL  
Pulse Rate (bpm) 1 bpm  
Resolution 1%  
Accuracy ±2%(70%-100%); unspecified(0-69%)  
Alarm range 0~100%

### SunTech NIBP

Measurement technique Oscillometric  
Displayed parameters Systolic, diastolic and MAP(mean arterial pressure)  
Measurement mode Manual, Auto, STAT  
Measurement unit mmHg/kPa selectable  
Range of Systolic pressure  
Adult : 40-270mmHg  
Pediatric : 40-200mmHg  
Neonate : 40-135mmHg  
Adult : 20-235mmHg  
Pediatric : 20-165mmHg  
Neonate : 20-110mmHg  
Adult : 10-215mmHg  
Pediatric : 10-150mmHg  
Neonate : 10-100mmHg

### Range of mean pressure

### Range of diastolic pressure

Accuracy 5%  
Resolution 1mmHg  
Alarms Selectable upper and lower limits  
Over-pressure protection Double safety protection

### Respiration

Measurement technique RA-LL Impedance variation detection  
Range Adult : 7~120rpm Pediatric/Neonate: 7~150rpm  
Apnea alarm Yes, 10s, 15s, 20s, 25s, 30s, 35s, 40s selectable  
Sweep speed 6.25mm/s, 12.5mm/s, 25mm/s  
Gain 0.25, 0.5, 1, 2, 4

Standard Configuration: ECG, RESP, Masimo SPO2, Suntech NIBP, TEMP, PR/HR  
Optional: IBP, 2-IBP, EtCO2, Multi-Gas, CSI, Printer, wired and wireless Central Station systems



Specialistic Monitor Manufacturer



Multi-Parameter Patient Monitor



# APOLLO N5 — OR Monitor

- 15 inch TFT-LCD display, touch screen.
- Modular design, flexible extension for CSI, AG, ETCO2.
- Accurate performance in low perfusion situation by Masimo SPO2.
- SunTech technology ensuring accurate measurement.
- Pace-maker detection, anti-HF knife and defibrillator protection.



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