

# Multi-parameter Patient Monitor (SUN-603S)



## Introduction: .

This equipment can monitor such parameters as ECG, RESP, SpO2, NIBP, and Dual-channel TEMP. It integrates parameter measuring module, display and recorder in one device to form a compact and portable device. At the same time, its built-in replaceable battery provides convenience for patient moving.

## Features:

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- \* Elegant appearance, clear marks, standard interface, oxyCRG SCREEN, trend graph, big characters, other BED observation, which are convenient for user.
  - \* Be applicable for **adult, pediatric and neonatal**.
  - \* Standard parameters of **ECG, RESP, NIBP, SpO2** and **dual-channel TEMP**. IBP, CO2, Built-in printer, curving handle, moving bracket and hanging bracket are optional.
  - \* Operation interface with Chinese and English. Finish all operations by keys and knobs.(Optional languages: **French, German, Portuguese, Turkish, Spanish.**) design with full built-in module, stable and reliable performance.
  - \* **12.1" color TFT LCD** with high-resolution displays patient parameter and waveform, and **alarm, bed NO, clock, state and other information** provided by the monitor synchronously.
  - \* Monitoring contents, scan speed, volume and output contents can be set optionally.
  - \* **Storage of 480-hour trend data, and review of 40-second holographic waveform.**
  - \* **Storage and review of 72-hour ECG waveform.**
  - \* Function of **NIBP review, storage for up to 2400 NIBP data.**
  - \* Adopt digital SpO2 technology, which has strong anti-interference and anti-weak filling capability.
  - \* Calculation of drug concentration.
  - \* Network: connecting with central station, other Bed observation and software updating. Connection mode: wireless and wired.
  - \* **Built-in rechargeable battery** for uninterrupted monitoring.
  - \* Print ECG, SpO2, RESP, BP and temperature data with one-key.

- \* Anti-high frequency surgical unit, defibrillation-proof(requirement for special leads).
- \* Analysis function for heart rate variability(HRV) (optional)

### Performance:

ECG	<p>Lead Mode 3-lead and 5-lead are optional</p> <p>Lead Selection I, II, III, avR, avL, avF, V</p> <p>Wave 5-lead: 2 channels</p> <p>3-lead: 1channel</p> <p>Gain <math>\times 2.5\text{mm/mV}</math>, <math>\times 5.0\text{mm/mV}</math>, <math>\times 10\text{mm/mV}</math>, <math>\times 20\text{mm/mV}</math></p> <p>HR Measuring and Alarm Range</p> <p>Range 15 ~ 300 bpm</p> <p>Accuracy <math>\pm 1\%</math> or <math>\pm 1\text{bpm}</math>, which is greater</p> <p>Alarm Accuracy <math>\pm 2\text{bpm}</math></p> <p>Resolution 1 bpm</p>
CMRR	<p>Monitor <math>\geq 100\text{ dB}</math></p> <p>Surgery <math>\geq 100\text{ dB}</math></p> <p>Diagnosis <math>\geq 60\text{ dB}</math></p>
Bandwidth	<p>Surgery 1 ~ 20 Hz(+0.4dB,-3dB)</p> <p>Monitor 0.5 ~ 40 Hz(+0.4dB,-3dB)</p> <p>Diagnosis 0.05~75Hz(+0.4dB,-3dB); 76Hz~150Hz(+0.4dB,-4.5dB)</p> <p>Calibration Signal 1 mV (Vp-p), <math>\pm 5\%</math> Accuracy</p>
ST Segment Monitoring	<p>Measuring and Alarm Range -0.6 mV~ + 0.8 mV</p>
ARR	<p>ARR Detecting Type ASYSTOLE, VFIB/VTAC, COUPLET, BIGEMINY, TRIGEMINY, R ON T, VT&gt;2, PVC, TACHY, BRADY, MISSED BEATS, PNP, PNC</p>
Alarm	<p>Available</p>

Review	Available
Scan Speed for ECG Waveform is adjustable	12.5mm/s accuracy $\pm 10\%$ 25mm/s accuracy $\pm 10\%$ 50mm/s accuracy $\pm 10\%$
Respiration	Method R-F(RA-LL) Impedance Differential Input Impedance $> 2.5 \text{ M}\Omega$ Measuring Impedance Range $0.3 \sim 5.0 \Omega$ Baseline Impedance Range $100 \Omega - 2500 \Omega$ Bandwidth $0.3 \sim 2.5 \text{ Hz}$
Resp. Rate	Measuring and Alarm Range $0 \sim 120 \text{ rpm}$ Resolution $1 \text{ rpm}$ Measuring Accuracy $\pm 2 \text{ rpm}$ Alarm Accuracy $\pm 3 \text{ rpm}$ Apnea Alarm $10 \sim 40 \text{ S}$
NIBP	Method Oscillometry Mode Manual, Auto, continuous Measuring Interval in AUTO Mode $1 / 2 / 3 / 4 / 5 / 10 / 15 / 30 / 60 / 90 / 120 / 240 / 480 / 960 \text{ Min}$ Measuring Period in Continuous Mode $5 \text{ Min}$ Measuring and Alarm Range $10 \sim 270 \text{ mmHg}$ Alarm Type SYS, DIA, MEAN
Resolution	Pressure $1 \text{ mmHg}$ Cuff Pressure $\pm 3 \text{ mmHg}$ Accuracy $\pm 10\%$ or $\pm 8 \text{ mmHg}$ , which is greater Over-pressure Protection: Adult Mode $315 \pm 10 \text{ mmHg}$ Pediatric Mode $265 \pm 10 \text{ mmHg}$

	Neonatal Mode $155 \pm 10$ mmHg
SpO2	Measuring Range 0 ~ 100 % Alarm Range 0 ~ 100 % Resolution 1 % Accuracy 70% ~ 100% $\pm 2\%$ 0% ~ 69% unspecified
Pulse Rate(PR)	Measuring and Alarm Range 0~250bpm Resolution 1bpm Measuring Accuracy $\pm 2$ bpm or $\pm 2\%$ , which is greater Alarm Accuracy $\pm 2$ bpm
TEMP	Channel dual-channel Measuring and Alarm Range 0 ~ 50°C Resolution 0.1°C Accuracy $\pm 0.1^\circ\text{C}$ Actualization Interval about 1 Sec. Average Time Constant < 10 Sec. Alarm responding Time $\leq 2$ min
EtCO2	Method Sidestream or Mainstream Measuring Range for CO2 0~150mmHg Resolution for CO2: 0.1 mm Hg 0 to 69 mm Hg 0.25 mm Hg 70 to 150 mm Hg Accuracy for CO2: 0 – 40 mm Hg $\pm 2$ mm Hg 41 – 70 mm Hg $\pm 5\%$ 71 – 100 mm Hg $\pm 8\%$ 101 – 150 mm Hg $\pm 10\%$ Respiration Rate >80BPM $\pm 12\%$ AwRR Range 2~150 rpm AwRR Accuracy $\pm 1$ BPM Apnea Alarm Available
IBP	Channel dual-channel

	Label ART, PA, CVP, RAP, LAP, ICP, P1, P2 Measuring and Alarm Range -50~350 mm Hg Resolution 1 mm Hg Accuracy $\pm 2\%$ or 1mm Hg, which is greater
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Display Mode 12.1" color TFT LCD with high-resolution.

Power Supply 220V, 50Hz

Safety Classification class I , type CF defibrillation-proof part

Physical Characteristic:

Dimension 310×140×263(mm)

Net weight 3.8Kg

**Accessories:**

- 1) Adult SpO2 probe(5-pin)
- 2) Adult NIBP cuff
- 3) Extending tube for blood pressure
- 4) ECG lead
- 5) ECG electrode
- 6) Temperature probe
- 7) Power cord
- 8) Thermal recording paper(optional)
- 9) User Manual



