

## Elite V8 Modular Monitor



Advanced monitoring system for Intensive Care,  
Anaesthesia and High Acuity patients



### Large data storage

- 120 hours graphic and tabular trends of all parameters.
- 1200 sets of NIBP measurement and 70 alarm events.
- USB ports ensure data storage / function upgrades clinical data can be viewed and managed via PatientCare viewer software.

### Clinical Network

- Bi-directional communication with EDAN MFM-CMS central station by wired or wireless connectivity.

### Feature

- 17" high resolution color TFT display
- Full touch-screen enables intuitive operation by clicking on the specific parameters or the waveform in real time, standard configuration includes the navigation knob
- Pacemaker detection, electrosurgical interference proof
- Defibrillation protection and defibrillation synchronization
- SD card slot enables memory extension for large data storage
- USB and serial ports enables abundant future upgrades
- VGA output and Analog output
- OxyCRG available to judge the respiration and circulation function for neonates
- Large font display
- Arrhythmia and S-T segment analysis
- Built-in rechargeable Li-ion battery
- Nurse Call function and bi-directional communication with MFM-CMS central station

**Optional Modules:** 12 channel ECG, Covidian BIS, CO2 (Main/Side Stream), 4 X IBP, Gas Module, CO



# Elite V8 Modular Monitor

## Safety Standards

CE Marking in accordance to Council Directive 2007/47/EC concerning Medical Devices  
IEC 60601-1+A1+A2; IEC 60601-1-2+A1; IEC 60601-1-8(Alarm)

## Physical Specification

Size: 425 mm (L) X 245 mm (W) X 382 mm (H)  
Weight: Standard Configuration 14.5 kg

## Display

17" Full Touch-screen Color TFT  
Resolution: 1280x1024 dpi  
Traces Displayed: up to 8  
Waveforms Displayed: up to 13  
Various Working Interface Selectable:  
Standard Monitoring Display  
Large Font Intensive Care Display  
Trend Graph/ Monitoring Co-Display  
Bed to Bed view Display (Optional)  
OxyCRG Dynamic View Display  
Drug Dose Calculation Interface  
Sweep Speed: 6.25mm/s, 12.5mm/s, 25mm/s, 50mm/s

## Environment Requirement

Ambient Temperature: -20°C ~ 55°C (-4 ~ 131°F)  
Humidity: 15%~95% non-condensing

## Power Supply

**External Power Supply**  
100-240V AC, 50/60Hz  
**Internal Battery Power Supply**  
Type: Rechargeable Li-ion  
2100 mAh 14.8 V DC  
Battery Working: 3 Hrs  
Battery Rechargeable Time: 3 Hrs

## RESP

Method: Trans-thoracic impedance  
Operation mode: Auto/ Manual  
RR Measurement range: Adult: 0~120 rPM  
Neonate/Pediatric: 0~150 rPM  
Resolution: 1rPM  
Apnea alarm threshold: 10s, 15s, 20s (default), 25s, 30s, 35s, 40s  
Alarm: 3 levels of audible and visual alarm, alarm events recallable  
Band width: 0.2-2.5Hz (-3dB)  
Sweep speed: 6.25mm/s, 12.5mm/s, 25mm/s, 50mm/s

## ECG

Lead type: 5-lead and 3-lead selectable, 12-lead optional  
3 leadwire cable: RA; LA; LL or R; L; F  
5 leadwire cable: RA; LA; RL; LL; V or R; L; N; F; C  
12-lead (including 3/5-lead) optional  
Input: 10 leadwire cable: RA; LA; RL; LL; V1-V6 or R; L; N; F; C1-C6  
Lead selection: 3-lead: I; II; III;  
5-lead: I; II; III; aVR; aVL; aVF; V  
12-lead: I; II; III; aVR; aVL; aVF; V1-V6  
Gain selection: x0.125; x0.25; x0.5; x1; x2; x4; auto  
Sweep speed: 6.25mm/s, 12.5mm/s, 25mm/s, 50mm/s  
ECG HR Range: Adult: 15-300bpm  
Pediatric / Neonate: 15-350bpm  
Resolution & accuracy:  $\pm 1$ bpm or  $\pm 1\%$ , whichever is greater  
Filter:  
Diagnostic mode: 0.05-100Hz or 0.05-150Hz (optional 12-lead)  
Monitoring mode: 0.5-40 Hz  
Surgical mode: 1-20Hz  
Protection: Withstand 5000VAC/50Hz voltage in isolation against  
Defibrillation and electrosurgical interference  
ST-Segment Detection:  
Measurement range: -2.0 mV~2.0mV  
Alarm range: -2.0 mV~2.0mV  
ST-Segment Arrhythmia analysis and categorization: Yes  
Alarm: 3 levels of audible and visual alarm, alarm events recallable  
12 lead ECG analysis: 208 Reference Diagnostic Results  
Pace maker detection: Yes, and 5 types abnormal status detectable  
Arrhythmia verification compliant with AHA and MIT-BIH databases  
IEC 60601-2-25 / EN 60601-2-25 / AAMI EC 11 / EC 13  
IEC 60601-2-27 / EN 60601-2-27

## NIBP

Method: Automatic Oscillometric  
Operation modes: Manual/Automatic/Continuous  
Auto measurement time interval: Adjustable  
1/2/3/4/5/10/15/30/60/90/120/240/480 Minutes  
Measurement unit: mmHg/kPa selectable  
Measurement types: Systolic, Diastolic, Mean  
Pressure range for Adults Systolic: 40 - 270 mmHg  
Diastolic: 10 - 215 mmHg  
Mean: 20 - 235 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  
Resolution: 1mmHg  
Accuracy: Max mean error  $\pm 5$ mmHg  
Max standard deviation  $\pm 8$  mmHg  
Alarm: Systolic, Diastolic, Mean  
PR from NIBP: Measurement 40~240 bpm  
Resolution 1 bpm  
Accuracy 3bpm or 3% whichever is greater  
Leak test and pressure auto calibration: Yes  
IEC 60601-2-30 / EN 60601-2-30 / EN 1060-1 / EN 1060-3 / EN 1060-4  
SP10:2002

## NIBP (By Omron M3600)

**Measurement Ranges**  
**Adult/Pediatric:**  
Pulse Rate: 40 - 200bpm  
Systolic Pressure: 60 - 250mmHg  
Diastolic Pressure: 40 - 200mmHg  
Mean Arterial Pressure: 45 - 235mmHg  
**Neonate:**  
Pulse Rate: 40 - 240bpm  
Systolic Pressure: 40 - 120mmHg  
Diastolic Pressure: 20 - 90mmHg  
Mean Arterial Pressure: 30 - 100mmHg

## Measurement Accuracy

Pulse Rate:  $\pm 2$ bpm or 2% of reading whichever is greater  
Blood Pressure: Complies with ANSI/AAMI SP10:2002  
**Measurement**  
Modes of Measurement: Manual  
Long-term automatic  
Short-term automatic  
Smart Inflation  
Smart measurement  
High speed  
Pressure Transducers: Two independent solid-state  
Deflation Methods: Dynamic Linear Deflation rate specific to pulse rate

## SpO2

Measurement & Alarm Range: 0 - 100%  
Resolution: 1%  
Accuracy:  $\pm 2\%$  (70-100%, Adult/Pediatric);  
 $\pm 3\%$  (70-100%, Neonate)  
PR Measurement and Alarm Range: 30 - 300bpm  
Resolution: 1bpm  
Accuracy: 3bpm  
Refresh 1s  
ISO 9919

## SpO2 (By Nellcor Oximax™)

Measurement & Alarm Range: 0 - 100%  
Resolution: 1%  
Accuracy:  $\pm 2-3\%$  (70-100%, Adult/Pediatric);  
 $\pm 3-3.5\%$  (70-100%, Neonate)  
PR Measurement and Alarm Range: 20 - 300bpm  
Resolution: 1bpm  
Accuracy: 3bpm (depends on probe)

## Temperature (2 Channels, 1 probe by default)

Measurement range: 0~50°C (32-122°F)  
Resolution: 0.1°C  
Accuracy:  $\pm 0.1$ °C (without probe)  
Channel: Dual-channel. Provide T1; T2;  $\Delta T$   
IEC 12470-4

## IBP (Multi-channel extendable)

Measured Pressure: ART, PA, CVP, RAP, LAP, ICP, P1, P2  
Measurement range: -50 - 300 mmHg; Resolution: 1 mmHg  
Accuracy:  $\pm 2\%$  or  $\pm 1$ mmHg whichever is greater (without probe)  
Sensitivity: 5 $\mu$ V/V/mmHg  
Impedance range: 300-30000  
IEC 60601-2-34

## CO2 (Mainstream / Sidestream)

By Philips Respronic CAPNOSTAT®5 & LoFlo Technology  
Range: 0~150mmHg  
Accuracy:  $\pm 2\%$  0 ~ 40mmHg,  
 $\pm 5\%$  41~70mmHg  
 $\pm 8\%$  71~100mmHg  
 $\pm 10\%$  101~150 mmHg  
AwRR Accuracy:  $\pm 1$ rpm  
Convenient design for intubated and non-intubated applications  
Possible to work at low sample flow rate: 50ml / minute  
Detailed specification refer to the user manual of Respronic ISO 21647

## Cardiac Output

Method: Thermodilution Technology  
**Measuring range**  
CO: 0.1 ~ 20L/min  
TB: 23°C ~ 43°C  
TI: -1°C ~ 27°C  
Alarm range: 23°C ~ 43°C

## BIS Module

### Anesthetic GAS/O2

Technology Infra-red absorption characteristic  
Paramagnetic Oxygen: Optional  
Gas: CO2, O2, N2O, Des, Iso, Enf, Hal, Sev

### Warm-up time

(IRMA AX+) Iso accuracy mode: 45s  
Full accuracy mode: 60s  
(ISA OR+ / AX+) <20s  
Sample flow rate (for ISA OR+ / AX+)  
50  $\pm$  10 ml/min

### Measuring range

CO2: 0 ~ 15%  
N2O: 0 ~ 100%  
Hal/Iso/Enf: 0 ~ 8%  
Sev: 0~10%  
Des: 0 ~ 22%  
O2: 0 ~ 100% (ISA OR+ / AX+)  
Respiratory Rate: 0-150bpm  $\pm 1$ bpm  
MAC Value displayed  
ISO 21647

### Thermal Recorder

Build-in, direct thermal pixel array recorder  
2 channels printing and 1,2 channels selectable  
Up to 3 channels printing and 1,2,3 channels selectable (to be released)  
Print speed: 25mm/s, 50mm/s (to be released)  
Paper width: 50 mm

### I/O Interface

8-USB Ports  
SD Card Socket  
RS-232 Serial Port  
RJ-45 Ethernet Port. IEEE 802.3  
HDMI output  
VGA output  
Analog and Nurse Call output  
Defibrillation Synchronization Output  
WLAN Access Point 802.11g 54Mbps (optional)

# EDAN

## EDAN INSTRUMENTS, INC.

3/F - B, Nanshan Medical Equipments Park, Nanhai Rd  
1019#, shekou, Nanshan Shenzhen, 518067 P.R. China  
Tel: +86-755-2689 8326 Fax: +86-755-2689 8330  
www.edan.com.cn Email: info@edan.com.cn



Distributor: