EDANUSA by MDPRO

X SERIES

X8, X10, & X12 Patient Monitors

High-Resolution Touch Screen

Bi-directional Communications with Central Monitoring System

Cable-Recieving Design

Discover the Edan X8/X10/X12, sophisticated and modern units designed to deliver extensive monitoring capabilities across diverse healthcare settings. The X Series showcases a high-resolution color display, offering crisp and detailed vital sign information for effortless interpretation.

Boasting a user-friendly interface, portability, and robust functionality, these patient monitors stand as indispensable tools in contemporary healthcare facilities. Elevate patient safety and enhance overall clinical outcomes with the advanced technology of the X Series patient monitors.

Features:

- 240 Hour trend review
- 1200 NIBP measurements
- 120 Seconds frozen waveform
- Accessories for all patient types
- User-friendly interface for easy operation
- Comprehensive connectivity options for easy data transfer
- High-precision vital signs monitoring with extensive data storage
- G2 CO2 water traps can be used with male luer-lock cannula
- Advanced patient monitoring algorithm with alerts and notifications

Standard Parameters: 3/5 lead ECG, HR, RESP, SpO2, NIBP, PR, 2-Temp
Standard Features: Touch screen, WiFi, USB, VGA Output, 8GB internal memory, IBP slots
Optional Configurations & Features: 6/12 lead ECG, G2 CO2, Cardiac Output (X12), Thermal Recorder, Nurse Call (with CMS), Defibrillator Synchronization

What's the Difference?

X8 Patient Monitor

- ✓ Optional CO2
- ✓ 8" Touch Screen
- ✗ Optional Dual IBP Slots
- ✓ WiFi
- ✗ Optional Cardiac Output

X10 Patient Monitor

- ✓ Optional CO2
- ✓ 10" Touch Screen
- ✓ Optional Dual IBP Slots
- ✓ WiFi
- ✗ Optional Cardiac Output

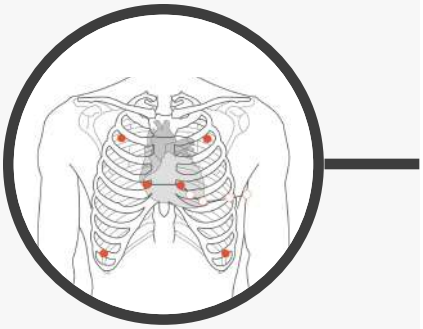
X12 Patient Monitor

- ✓ Optional CO2
- ✓ 12" Touch Screen
- ✓ Optional Dual IBP Slots
- ✓ WiFi
- ✓ Optional Cardiac Output

Proprietary Algorithms & Technologies

G2 CO2 (sidestream)

- Superior water trap design for accurate monitoring
- iCARB™ algorithm with intelligent CO2 pseudo wave identification technology
- Sampling rate as low as 50ml/min



ECG

- 12-lead ST analysis optional with additional internal module upgrade
- Automatic lead type detection
- Industry leading iSEAP™ algorithm with auto-detection of 33 types of arrhythmias
- SEMIP® algorithm with 208 ECG findings over age/gender diversities

NIBP

- Dual dust filter design means no blockage inside and provides accurate NIBP readings
- Unique cleaning mode for routine maintenance
- iCUFS™ algorithm with smart deflation technology

SpO2

- iMAT algorithm with motion resistance and low perfusion resistance performance
- Reference reading of Perfusion Index (PI) from 0 to 10 according to perfusion changes
- Simultaneous measurements of SpO2 and NIBP of the same limb

Configurations

X8
Standard Configuration with WiFi & Touch Screen

X8-G2
Standard Configuration with Internal Sidestream CO2. Uses traditional water traps & generic cannulas

X8.P
Standard Configuration with WiFi, Touch Screen & Built-in Thermal Printer

X8-G2.P
Standard Configuration with Internal Sidestream CO2, WiFi, Touch Screen & Built-in Thermal Printer

X10
Standard Configuration with WiFi & Touch Screen

X10-G2
Standard Configuration with Internal Sidestream CO2. Uses traditional water traps & generic cannulas

X10.P
Standard Configuration with WiFi, Touch Screen & Built-in Thermal Printer

X10-G2.P
Standard Configuration with Internal Sidestream CO2, WiFi, Touch Screen & Built-in Thermal Printer

X12
Standard Configuration with WiFi & Touch Screen

X12.CO
Standard Configuration with WiFi, Touch Screen & Cardiac Output

X12-G2
Standard Configuration with Internal Sidestream CO2, WiFi & Touch Screen

X12.P
Standard Configuration with WiFi, Touch Screen & Built-in Thermal Printer

X12.CO.P
Standard Configuration with WiFi, Touch Screen, Cardiac Output & Built-in Thermal Printer

X12-G2.P
Standard Configuration with Internal Sidestream CO2, WiFi, Touch Screen & Built-in Thermal Printer

Included Accessories

STANDARD ACCESSORIES
- ECG cable, 3-lead, snap, AHA, 3.4m — ***01.57.471388***
- SpO2 Finger Sensor, Adult, 2.5m, reusable - direct connect 7 pin — ***02.57.225029***
- NIBP Cuff, Adult, 27cm-35cm, reusable — ***Cuff.E9***
- NIBP Tube — ***01.59.473007***
- Adult skin temperature probe — ***01.15.040225***
- Rechargeable Lithium-Ion Battery (10.8V, 2550mAh) — ***01.21.064380***

G2 ACCESSORIES
- Water Trap — ***02.01.210520***
- Disposable CO2 Sampling line with male luer lock — ***4410-10-25***
- Adult Nasal CO2 sampling cannula — ***4000-7-25***

Optional Accessories

SPO2 SENSORS
- SpO2 Finger Sensor, Adult, 2.5m, reusable — ***SH1.DB9***
- SpO2 Wrap Sensor, Neonate, 1m, reusable — ***SH3.DB9***
- SpO2 Silicone Soft-tip Sensor, Adult, 1m, reusable — ***SH4.DB9***
- SpO2 Silicone Soft-tip Sensor, Pediatric, 1m, reusable — ***SH5.DB9***
- SpO2 Ear Clip Sensor, Adult/Pediatric, 1m, reusable — ***SH6.DB9***
- SpO2 7-pin Extension Cable, 2m — ***01.57.471068***
- SpO2 7-pin Extension Cable, 4m — ***01.57.471789***

CUFFS
- NIBP Cuff, Infant, 10-15cm, reusable — ***Cuff.E5***
- NIBP Cuff, Small Child, 13-17cm, reusable — ***Cuff.E6***
- NIBP Cuff, Child, 16-21cm, reusable — ***Cuff.E7***
- NIBP Cuff, Small Adult, 20.5-28cm, reusable — ***Cuff.E8***
- NIBP Cuff, Adult, 27cm-35cm, reusable — ***Cuff.E9***
- NIBP Cuff, Large Adult, 34cm-43cm, reusable — ***Cuff.E10***
- NIBP Thigh Cuff, Adult, 42cm-54cm, reusable — ***Cuff.E11***

NIBP TUBING
- NIBP Tube (3m) with connector — ***01.59.473007***

Specifications

PHYSICAL SPECIFICATION
X8
Dimensions:
236 mm(W)×236 mm (H)×147 mm (D)
Weight: approx. < 2.4 kg

X10
Dimensions:
261 mm (W)×246 mm (H)×146 mm (D)
Weight: approx. < 2.8 kg
X12
Dimensions:
306 mm (W)×309 mm (H)×151 mm (D)
Weight: approx. < 3.5 kg

DISPLAY
X8
Color TFT LCD: 8”
Resolution: 800x600
Waveforms Displayed: Up to 13
X10
Color TFT LCD: 10”
Resolution: 800x600
Waveforms Displayed: Up to 13

X12
Color TFT LCD: 12”
Resolution: 800x600
Waveforms Displayed: Up to 13

ECG
Lead Mode: 3 Electrodes: I, II, III
5 Electrodes: I, II, III, aVR, aVL, aVF, V
6 Electrodes: I, II, III, aVR, aVL, aVF, and leads corresponding to Va Vb.
10 Electrodes:
I, II, III, aVR, aVL, aVF, V1, V2, V3, V4, V5, V6
Sweep Speed:
6.25 mm/s, 12.5 mm/s, 25 mm/s, 50 mm/s
CMRR:
Diagnosis: > 95 dB
Diagnosis 1: > 105 dB (when Notch is turned on)
Monitor: > 105 dB
Surgery: > 105 dB
Enhanced: > 105 dB
Customized: > 105 dB
(Low-pass Filter < 40Hz) >95 dB
(Low-pass Filter > 40 Hz)
Sampling Frequency: 1000 Hz
Range:
ADU: 15 bpm to 300 bpm
PED/NEO: 15 bpm to 350 bpm
Accuracy: ±1% or 1 bpm
Resolution: 1 bpm
Sensitivity: 300 VPP

SPO2
Measuring Range: 0% to 100%
Resolution: 1%
Data Update Period: 1 s
Accuracy:
Adult /Pediatric 2% (70% to 100% SpO2)
Undefined: (0% to 69% SpO2)
Neonate: 3% (70% to 100% SpO2) Undefined: (0% to 69% SpO2)
Sensor:
Red Light (660+/-3) nm I
Infrared Light (905+/-10) nm
Emitted Light Energy: < 15 mW
PI:
Measuring Range: 0-10, invalid
PI value is 0.
Resolution: 1

RESP
Method:
Impedance between RA-LL, RA-LA
Measurement lead:
Options are lead I and II. The default is Lead II.
Calculation Type: Manual, Automatic
Baseline Impedance Range: 200 to 2500 (with ECG cables of 1 K resistance)
Measuring Sensitivity:
Within the baseline impedance range: 0.3
Waveform Band width:
0.2 Hz to 2.5 Hz (-3 dB)
Respiration Excitation Waveform: Sinusoid, 45.6 kHz (10%), < 350 A RR Measuring Range:
Adult: 0 rpm to 120 rpm
Neo/Ped: 0 rpm to 150 rpm
Resolution: 1 rpm
Accuracy:
Adult: 6 rpm to 120 rpm: 2 rpm 0 rpm to 5 rpm: not specified
Neo/Ped6 rpm to 150 rpm: 2 rpm 0 rpm to 5 rpm: not specified
Gain Selection: 0.25, 0.5, 1, 2, 3, 4, 5
Sweep: 6.25 mm/s, 12.5 mm/s, 25 mm/s, 50 mm/s
No RR Detected Delay:
10 s, 15 s, 20 s, 25 s, 30 s, 35 s, 40 s;
default value is 20 s.

TEMP
Technique: Thermal resistance
Position: Skin, oral cavity, rectum Measure Parameter: T1, T2, TD(the absolute value of T2 minus T1)
Channel: 2
Sensor Type:
YSI-10K and YSI-2.252K Unit: °C,°F
Measuring Range: 0 °C to 50 °C (32 °F to 122°F)
Resolution: 0.1 °C (0.1 °F)
Accuracy: 0.3 °C
Refresh Time: Every 1 s to 2 s
Temperature Calibration:
At an interval of 5 to 10 minutes
Measuring Mode: Direct Mode
Transient Response Time: 30 s

NIBP
Technique: Oscillometry
Mode: Manual, Auto, Continuous, Sequence
Measuring Interval in AUTO Mode
(unit: minutes):1/2/3/4/5/10/15/30 /60/90/120/180/240/360/480 and User Define
Continuous: 5 min, interval is 5 s
Measuring Parameter: SYS, DIA, MAP, PR
Pressure Unit: kPa, mmHg, cmH2O
Measuring Range:
Adult Mode:
SYS: 25 mmHg to 290 mmHg
DIA: 10 mmHg to 250 mmHg
MAP: 15 mmHg to 260 mmHg
Pediatric Mode:
SYS: 25 mmHg to 240 mmHg
DIA: 10 mmHg to 200 mmHg
MAP: 15 mmHg to 215 mmHg
Neonatal Mode:
SYS: 25 mmHg to 140 mmHg
DIA: 10 mmHg to 115 mmHg
MAP: 15 mmHg to 125 mmg
Alarm Type: SYS, DIA, MAP, PR (NIBP)
Cuff Pressure Measuring Range:
0 mmHg to 300 mmHg
Pressure Resolution: 1 mmHg
Maximum Mean Error: ±5 mmHg
Maximum Standard Deviation: 8 mmHg
Maximum Measuring Period:
Adult/Pediatric: 120 s
Neonate: 90 s
Typical Measuring Period: 20 s to 35 s (depend on HR/motion disturbance)

IBP
Complies with IEC 60601-2-34: 2011.
Technique Direct invasive measurement
Channel 2 channels
Measuring Range
Art (0 to +300) mmHg
PA/PAWP (-6 to +120) mmHg
CVP/RAP/LAP/ICP (-10 to +40) mmHg
P1/P2 (-50 to +300) mmHg
Resolution 1 mmHg
Accuracy (not including sensor) ± 2 % or ±1 mmHg, whichever is greater
ICP: 0 mmHg to 40 mmHg: ± 2 % or ±1 mmHg, whichever is greater;
-10 mmHg to -1 mmHg: undefined
Pressure Unit kPa, mmHg, cmH2O
Pressure sensor Sensitivity 5 V/V/mmHg
Impedance
Range: 300 to 3000
Filter DC~ 12.5 Hz; DC~ 40 Hz
Zero Range: ± 200 mmHg
Pressure Calibration Range
IBP (excluding ICP) 80 mmHg to 300 mmHg
ICP 10 mmHg to 40 mmHg
Volume Displacement: 17.4 x 104 mm3 / 100 mmHg

CO2
Complies with ISO 80601-2-55: 2011.
Intended Patient: Adult, pediatric, neonatal
Measure Parameters: EtCO2, FiCO2, AwRR
Uni:t mmHg, %, kPa Measuring Range:
EtCO2 0 mmHg to 150 mmHg (0 % to 20%)
FiCO2 0 mmHg to 50 mmHg
AwRR 2 rpm to 150 rpm
Resolution:
EtCO2 1 mmHg
FiCO2 1 mmHg
AwRR 1 rpm
Accuracy EtCO2:
± 2 mmHg, 0 mmHg to 40 mmHg Typical conditions:
Ambient temperature: (25 ± 3) °C
Barometric pressure: (760 ± 10) mmHg
Balance gas: N2
Sample gas flowrate: 100 ml/min
± 5% of reading, 41 mmHg to 70 mmHg
± 8% of reading, 71 mmHg to 100 mmHg
± 10% of reading, 101 mmHg to 150 mmHg
± 12% of reading or ± 4 mmHg
AwRR ± 1 rpm
Sample Gas Flowrate 70 ml/min
or 100 ml/min (default), accuracy: ±15 ml/min
Warm-upTime Display reading within 20 s; reach to the designed accuracy within 2 minutes.
Rise Time < 400 ms (with 2 m gas sampling tube, sample gas flowrate: 100 ml/min) < 500 ms (with 2 m gas sampling tube, sample gas flowrate: 70 ml/min)
Response Time < 4 s (with 2 m gas sampling tube, sample gas flowrate: 100 ml/min/70 ml/min)
Work Mode Standby (default), measure
O2
Compensation
Range: 0% to 100%
Resolution: 1%
Default: 16%
N2O
Compensation
Range: 0% to 100%
Resolution: 1%
Default: 0%
AG
Compensation
Range: 0% to 20%
Resolution: 0.1%
Default: 0%
Humidity Compensation Method ATPD (default), BTPS
Barometric Pressure Compensation Automatic (The change of barometric pressure will not add additional errors to the measurement values.)
Zero Calibration Support:
Calibration Support (It is recommend to be operated by trained personal.)
Alarm: EtCO2, FiCO2, AwRR
No RR
Detected Delay:
10 s, 15 s, 20 s, 25 s, 30 s, 35 s, 40 s; default value is 20 s.
Data Sample Rate: 100 Hz EtCO2
Change1
AwRR 80 rpm, meet the accuracy mentioned above;
AwRR > 80 rpm, EtCO2 descends 8%;
AwRR > 120 rpm, EtCO2 descends 10%;
with 2 m gas sampling tube, sample gas flowrate: 100 ml/min)
AwRR 60 rpm, meet the accuracy mentioned above;
AwRR > 60 rpm, EtCO2 descends 8%;
AwRR > 90 rpm, EtCO2 descends 10%;
AwRR > 120 rpm, EtCO2 descends 15%;
with 2 m gas sampling tube, sample gas flowrate: 70 ml/min