PATIENT
MONITOR

BIONICS Co., Ltd.

BPM-1200

Multi Parameter Patient Monitor

Experience the superiority of high-performance monitor, BPM-1200
You can get more and better than anything you have ever tasted before.

- 12.1" Large **touchable** LCD display of 800X600.
- Configurable up to **12** waveforms.
- 3ch ECG(12ch EKG option) Resp, NIBP, SpO_2, 2IBP(**4IBP** option)
  2Temp(**4Temp** option) $EtCO_2$(Main stream/Side Stream) option
  Optional Cardiac output, Optional Multi Gas(CO_2, N_2O).
- **13 kinds** Of Arrhythmia Detect.
- 1200 of ECG Recall for 20seconds.
- Unlimited configurations and flexible parameterposition at user's command.
- **30 days of graphic and list trends** (mini trend screen).
- **120 episodes** of alarm event recall for 20 seconds event data & graphic,
  which can be **zoomed** to observe and to print out.
- Easy to upgrade Software **by SD Card (Max. 16G).**
- 2 rechargeable Li-ion batteries offer up to **5 hours of operation time.**
- RS-232C interface, VGA Out, **Nurse call port.**
- EMR, HL7, Wired & Wireless Central Station.





TECHNICAL SPECIFICATIONS

BPM-1200

CE 1639

DISPLAY

Screen	12.1" color TFT LCD
Resolution	800(H) X 600(V) SVGA
Trace	6 waveform (Std.) / 12 waveform max (Opt.) Up to wave trace on/off (3ch ECG(Std.), 12ch EKG(Opt.) SpO_2 4IBP, RESP, $EtCO_2$,Multi Gas)
Parameters Display	ECG, SpO_2, NBP, 4IBP, PESP, $EtCO_2$, Multi Gas, ICO, HRV, OXY-CRG, APG detecy analysis, ST level dislay, mini trend, ECG Recall, Drug Dose, Color change, Temp TD, NIBP Text trend

ECG

Channel	3 channels (Std.) / 12 channels EKG (Opt.)
Electrode	3 or 5 electrode (10 electrode (Opt.)
3 lead wire	I, II, III (1 lead at a time)
4 lead wire	I, II, III, aVR, aVL, aVF (Up to 6leads at a time)
5 lead wire	I, II, III, aVR, aVL, aVF, V (Up to 7leads at a time)
10 lead wire	I, II, III, aVR, aVL, aVF, V1, V2, V3, V4, V5, V6 (All 12-leads of ECG at a time)
Filter	High frequency noise remove filter (50/60Hz), Frequency Bandwidth (0.05~80Hz)
Gain	2.5, 5, 10, 20, 30, 40, Auto mm/mV
Sweep Speed	6.25, 12.5, 25, 50 mm/sec
Heart rate	0 ~ 300 bpm, ±2bpm
Input signal range	0±0.5mV ~ ±5mV
QRS Detect	0.15mV ~ 0.40mV (Manual)
Defibrillator Protection	300Joules delivered at 5000Volts
Defibrillation Artifact Recovery Time	<8s
Pacemaker Detection Mode	User selectable (PNF, PNC)
Arrhythmia Detect (13Detect)	TAC, BRD, PVC, VTAC, ASY, BGM, TGM, VENT, VFIB, CPT, TPT, MIB, Ront
ST Analysis	Rang : -9.9mm ~ +9.9mm / Resolution : 0.1mm (Lead : ECG Channel Selection same)
HR Calculation	4~16 QRS wave

RESPIRATION

Method	Impedance for ECG Lead (selectable)
Respiration rate	0 ~ 150 bpm
Accuracy	+/- 2% or +/- 2 bpm
Lead Selection	I, II
Apnea	OFF, 10 ~ 60sec
GAIN	X0.25, X0.5, X1, X2, X4, AUTO
SWEEP SPEED	3.12, 6.25, 12.5, 25, 50mm / sec

NIBP

Technique Pressure	Oscillometric
Measurement range	Adult : 0 ~ 300 mmHg Neonate : 0 ~ 150mmHg
NIBP VENOUS STAT	50 ~ 200mmHg
Auto Measurement Cycle	1 ~ 59 min, 1 ~ 12 hr
STAT mode	5 ~ 15 min of consecutive
With an optional port	Suntech

CARDIAC OUTPUT (OPTIONAL)

Method	Thermodilution
Parameters	CI, SV, SI, LVSW, LVSWI, RVSW, VSWI, SVR, SVRI, PVR, PVRI
Catheter	Swan-Ganz standard Themodilution pulmonary Artery Catheter (131HF7, 744HF75)
Edward Lifesciences	

MULTI GAS (OPTIONAL)

Parameters	CO_2, N_2O
Anesthetic Agent	Halothane, Enflurane, Isoflurane, Desflurane, Sevoflurane

SpO_2

Probe	Finger type reusable sensor		
SpO_2 Range	0 ~ 100%	Pulse Rate	0 ~ 300 bpm
Resolution	1 %	GAIN	X0.25, X0.5, X1, X2, X4 AUTO
Sweep Speed	6.25, 12.5, 25, 50 mm/sec		
Setting Time	Wave out Time : Max 2 sec SpO_2 Percentage Display : Max 10 sec		
Low Perfusion Accuracy	0.1% up to		
SpO_2	±2 %, for readings 70 ~ 100 % ±3 %, for readings 50 ~ 69 % Unspecified 0 ~ 49 %		
Pulse	±2bpm, for readings 0~240bpm ±3bpm, for readings 241 ~ 300bpm		
Setting Time wave out time	5 sec max (Based on 75bpm)		
With an optional port	Nellcor OXI-MAX		

IBP

Channel	2 (Standard), 4 (Option)		
Measurement range	-50 ~ 400 mmHg		
Catheter	Yuta, Biosensors International		
Accuracy	±1 %	Zero balance	±150 mmHg
MODE	ABP, FEM, PA, CVP, LA, RA, ICP, SP		
Sweep Speed	6.25, 12.5, 25, 50mm/sec		

Temperature

Channel	2 (Standard), 4 (Option)		
Type	YSI - 400 Serise	Measurement range	0 ~ 50.0 ℃
Accuracy	±0.1℃, for readings 25.0 ~ 50.0℃ ±0.2℃, for readings 0 ~ 24.9℃		

$ETCO_2$ (OPTIONAL)

Measurement Mode	Respironics Mainstream / Sidestream Phasein Mainstream / Sidestream
Measurement range	0~150mmHg (kPa / %)
Accuracy	0-40 mmHg ± 2mmHg 41-70 mmHg ± 5mmHg 71-150 mmHg ± 10mmHg
GAIN	X0.25, X0.5, X1, X2, X4, AUTO
Sweep Speed	3.12, 6.25, 12.5, 25, 50mm / sec
Respiration rate	0-150 bpm / Accuracy ± 2% or ± 2 bpm

PRINTER (OPTION) Channel 3 Paper size 58 mm

\ ECG Recall

Storage Recall 20 seconds event data with graphic, and 2 seconds data can be zoomed to observe and analyze and Printed out.

Save up to data(1ch) 1200

\ Event Recall

Storage Recall 20 seconds event data with graphic, and 2 seconds data can be zoomed to observe and analyze and Printed out.

Save up to data 120

\ Data Recall

Storage full graphic and tabular trends of all parameters.

Save up to data 720 hour

\ Interface

Port RS-232, VGA, LAN and Wireless LAN(Opt.), ECG Output : Signal(1mV)/ Defibrillator sync out (5V, 100ms)(opt.), IBP Output : Signal(opt.), SD Memory Card Port, Nurse Call Port

\ Language

Parameters ENGLISH, FRENCH, SPANISH, GERMAN, ITALIAN, RUSSIAN, TURKISH, CZECH, RUMANIA, PORTUGAL (Can be applied to all languages.)

\ Trend

Memory Storage 30 days (Standard) All parameters /43,400 sets (1set per minute) of virtual signs list data can be stored, reviewed, and Printed out.

Tabular and Graphic Data Interval 1, 5, 15, 30 min ---and 1 Hours

\ Battery

Internal Battery Li-ion Battery

Operating time Min. up to 1hours (Std.) / Max. up to 5hours (2Pack - Opt.)

\ Network

EMR, HL7, Central Monitoring (Bionics) / SD Card Patient information Save Data in review

\ Physical Characteristics

Dimensions W310 x D160 x H290mm

Weight Weight 7Kg (Only Bady)

\ Power requirements

Voltage input 100a-240V~, 50-60Hz, 1.2A

Power consumption 120VA

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