

Multi Parameter Patient Monitor

VITAPIA7200T

- Semi-Modular and integrated design
- Multi-parameter : ECG, NIBP, SpO₂, Resp, Temp
- Optional parameter : 12-ch ECG, 2-IBP, 4-IBP, EtCO₂, Anesthetic gas
- Easy Operation with touch and button navigation
- Low power consumption : 6 hour battery operation
- Short System booting time
- Low perfusion and accurate measurement (SpO₂)
- High qualified connector for long lasting use and reliable measurement
- Internal large memory for over 60 days data saving
- HDMI video output
- External micro SD card slot
- Optional central network system (wire/wireless)



Type	VITAPIA7210	VITAPIA7212	VITAPIA7215
LCD Size	10.4"	12.1"	15"
Touch Screen	Standard	Standard	Standard

Multi Parameter Patient Monitor VITAPIA7200T Technical Specifications

Classification

Anti-electroshock type	Class I equipment and Internal powred equipment
EMC Type	Group 1, Class A
Anti-electroshock degree	ECG(RESPI), TEMP, IBP, C.O.CF, SpO2, NIBP, CO2, BF
Ingress Protection	IPX1
Disinfection/sterilization method	Refer to Chapter Care and Cleaning for details
Working System	Continuous operation equipment

Specifications

Size & Weight Monitor	Type 7210 Size : 285mm (L) X 145mm (W) X 253 mm(H) Weight : < 3.6kg Type 7212 Size : 316mm (L) X 145mm (W) X 284 mm(H) Weight : < 3.8kg Type 7215 Size : 368mm (L) X 145mm (W) X 342 mm(H) Weight : < 6kg Working : +0 ~ +40 ℃ / Transport and Storage : -20 ~ +50 ℃ Working : 15%~95% / Transport and Storage : 15~95% (non-condensing) Working : 86kPa ~ 106kPa / Transport and Storage : 70kPa ~ 106kPa
Temperature	Type 7210 10.4" Colur TFT, Touch Screen, Resolution : 800 X 600
Humidity	Type 7212 12" Colur TFT, Touch Screen, Resolution : 800 X 600
Altitude	Type 7215 15" Colur TFT, Touch Screen, Resolution : 1024 X 768
Power Supply	Messages
Display	A Maximum of 10waveforms / Onepower LED / Twoalarm LED / Onecharge LED
Battery	Type 7210 Rechargeable 2.5Ah / Operating Time : More than 3.5 hours Type 7212 Rechargeable 2.5Ah / Operating Time : More than 2.5 hours Type 7215 Rechargeable 2.5Ah / Operating Time : More than 2 hours
Recorder	Record width : 48mm Paper Speed : 25mm/s, 50mm/s Trace : 3
Data Storage	Trend graph/trend table review : 1hour, at 1second Resolution by default 120hour, at 1min, Resolution by default
	Alarm Measurement Review : up to 60 sets NIBP Measurement Review : 1200 sets Arrhythmia events : Up to 60 sets 12-Lead Dignosis Review : Up to 50 sets

ECG

Lead Mode	3-Lead : I, II, III / 5-Lead : I, II, III, aVR, aVL, aVF, V 12-Lead : I, II, III, aVR, aVL, aVF, V1, V2, V3, V4, V5, V6
Waveform	3-Lead : 1-channel waveform / 5-Lead : 2-channel waveform, max. seven waveform 12-Lead : 2-channel waveform, a maximum of 13 wave forms
Lead naming style	AHA, IEC
Display Sensitivity	2.5mm/mV (x0.25), 5mm/mV (x0.5), 10mm/mV (x1), 20mm/mV (x2), AUTO gain
Waveform Speed	12.5mm/s, 25mm/s, 50mm/s
Bandwidth [-3dB]	Diagnosis: 0.05Hz to 150Hz / Monitor: 0.5Hz to 41Hz / Surgery: 1Hz to 20Hz
CMRR	Diagnosis: > 95dB [the Notch filter is off] Monitor: > 105dB [the Notch filter is on] Surgery: > 110dB [the Notch filter is on]
Notch	In diagnosis, monitoring, surgery mode: 50Hz/60Hz
Differential input impedance	> 5MΩ
input Signal Range	±10mV (peak-to-peak value)
Accracy of Input Secnal Reconstruction	ANSI/AAMI EC13:2002, Sect. 4.2.9.8.
Electrode Offset Potential Tolerance	±600mV
Auxiliary Current [Lead off detection]	Active electrode: < 100nA / Reference electrode: < 900nA
Recovery time after Defibrillation	< 5s
Leakage current of patient	< 10μA
Scale Signal	1mV(peak-to-peak value), accuracy is ±5%
System noise	< 30μVPP
ESU Protection	Recovery time: ≤ 10s
Heart Rate	Measurement Rage : ADU: 15 bpm ~ 300bpm / PED/NEO: 15 bpm ~ 350bpm
PVC	Accuracy : ±1% or ±1 bpm, whichever is greater
ST Value [only applicable to adult]	Resolution : 1bpm Measurement Range : ADU: 0~300 PVCs/ min / PED/NEO: 0~350 PVCs/ min Resolution : 1 PVCs/min Measurement Range : -2.0 mV ~+2.0mV Accuracy : -0.8mV ~ +0.8mV: ±0.02mV or 10% (I), whichever is greater. Resolution : 0.01mV
16different arrhythmia analysis Classification [applicable to adult and pediatric]	Non-Paced Patient : ASYSTOLE , R on T, VFIB/VTAC, PVC, COUPLET, TACHY VT > 2, BRADY, BIGEMENY, MISSED BEATS, TRIGEMINY, IRR, VENT, VBRADY Paced Patient : ASYSTOLE, TACHY, BRADY, PNC, PNP

RESPIRATION

Measurement method	Trans-thoracic impedance
Measurement lead	Lead Options are lead I and II. [Default : II]
Waveform amplitude	x0.25, x0.5, x1, x2, x3, x4, x5
Waveform speed	6.25mm/s, 12.5mm/s, 25.0mm/s, 50mm/s
Respiration excitation waveform	< 300 μA, sinusoid, 62.8 kHz (± 10%)
Measuring sensitivity	0.3 Ω (base impedance200 to 4500 Ω)
Baseimpedance range	200to 2500 Ω(cable resistance = 0 K) / 2200 to 4500 Ω (leads cables 1KΩ resistance)
Maximum dynamic range	500 Ω base impedance, 3 Ω variable impedance
Waveform bandwidth	0.2 to 2.5Hz [-3dB]
Differential input impedance	> 5 MΩ
*RRmeasuring range	Adult : 0 to 120 rpm, Neo/Ped : 0 to 120 rpm
Resolution	1rpm,
*Accuracy	± 2 rpm
Apnea Alarm dealy	10s, 15s, 20s(Default), 25s, 30s, 35s, 40s.

NIBP

Measurement method	Oscillometric
Mode	Manual, Auto, Continuous
Measuring interval in AUTO Mode	1/2/3/4/5/10/15/30/60/90/120/240/480 min
Continuous	5min, interval is 5s
Measuring Type	SYS, DIA, MAP, PR
*Measuring Range	Adult Mode : SYS: 40 mmHg ~ 270 mmHg DIA: 10 mmHg ~ 215 mmHg MAP: 20 mmHg ~ 235 mmHg Pediatric Mode : SYS: 40 mmHg ~ 230 mmHg DIA: 10 mmHg ~ 180mmHg MAP: 20 mmHg ~ 195 mmHg Neonatal Mode : SYS: 40 mmHg ~ 135 mmHg DIA: 10 mmHg ~ 100mmHg MAP: 20 mmHg ~ 110 mmHg

Resolution	1mmHg
*Accuracy	Maximum mean error : ±5mmHg
Overpressure Protection	Maximum standard deviation : 8mmHg Adult : 297±3mmHg , Pediatric : 245±3mmHg Neonatal : 147±3mmHg
PR	* Measurement range :40 bpm ~240bpm * Accuracy : ±3bpm or 3.5%, whichever is greater

SpO2

Measuring Range	0 ~ 100 %
Resolution	1%
Accuracy	Adult (including Pediatric) : ±2 % (69%~100% SpO2) Undefined (0~68% SpO2) Adult (including Pediatric) : ±3 % (69%~100% SpO2) Undefined (0~68% SpO2)
Pulse Rate	* Measuring Range : 25bpm~ 300bpm Resolution : 1bpm * Accuracy : ±2 bpm
Data Update period	1s
Sensor	Wave length : Red light : 660 ± nm; Infrared light : 905 ± 10 nm
PI	Emitted light energy : < mW Measuring Range : 0~10, invalid PI value is0. Resolution : 1

TEMPERATURE

Measurement method	Thermal resistance
Channel	2
Sensor type	YSI-10K
* Measuring Range	0℃ ~ 50 ℃
Resolution	0.1℃
* Accuracy	±0.1℃
Unit	℃, °F
Refresh Time	1s~2s

IBP

Measurement method	Direct invasive measurement
Pressure Sensor	Sensitivity : 5(μV/mmHg) Impedance range : 300 to3000 Ω
Measuring range	Art : 0 to 300 mmHg PA : - 6 to +120mmHg CVP/RAP/LAP/ICP : -10 to +40 mmHg P1/P2 : -50 to +300 mmHg
Resolution	1mmHg
* Accuracy	± 2 % or 1 mmHg, whichever is greater

CO2

Intended patient	Adult, pediatric, neonatal
Measurement method	Infra-red Absorption Technique
Unit	mmHg, %, Kpa
* Measuring Range	EtCO2 : 0 mmHg ~ 150 mmHg FiCO2 : 3 mmHg ~ 50 mmHg AwRR : 2 rpm~150 rpm(sidestream) 0 rpm~150 rpm(mainstream)
Resolution	EtCO2 : 1mmHg FiCO2 : 1mmHg AwRR : 1 rpm
EtCO2 Accuracy	± 2mmHg, 0 to 40 mmHg ± 8 % of reading, 71 to 100 mmHg ± 10 % of reading, 101 to 150 mmHg ± 12 % of reading, RESP measurement value exceeds 80rpm(sidestream)
* AwRR Accuary	± 1 rpm
Sample Gas Flowrate	50 ± 10ml/min
Stability	Short Term Drift: Less than 0.8 mmHg over 4Hours Long Term Drift : Accuracy specification will be maintained over a 120hour period.
O2 Compensation	Range : 0~100% , Resolution : 1% Default : 16%
CAS Compensation	Range : 0~20% , Resolution : 0.1%, Default : 0.0% Balance gas compensation : Including Helium, N2O, Room air Apnea Alarm Delay : 10s, 15s, 20s, 25s, 30s, 35s, 40s (Default value is 20s)

※ Contents and specification subjects change without notice