SE-1202

Electrocardiograph

Version 1.4

Technical Specifications



Physical Specifications

Dimensions

400 mm×360 mm×90 mm

Weight

≤6.5kg (Excluding recorder paper and battery)

Display

10.1", 1280×800 multicolor LCD Screen

The display can be flipped 25 degrees clockwise.

Power Supply

Mains Supply

Operating Voltage = 100V-240V~

Operating Frequency = 50Hz/60Hz

Input Current = 0.9-0.4A

Internal Li-ion Battery Pack

Rated voltage = 14.8V

Rated capacity = 2,500 mAh or 5,000 mAh

Necessary Charge time: 3 hours or 6 hours

Recording

Recorder

Thermal dot-matrix recorder

Recorder Paper:

Folded thermal paper:

 $210mm \times 295mm \times 100pages$

Folded thermal paper:

215mm×280mm×100pages

Folded thermal paper:

210mm×295mm×200pages (Optional)

Printing Density:

8 dots per mm / 200 dots per inch (amplitude axes)

40 dots per mm / 1000 dots per inch (time axes, @ 25 mm/s)

Paper Speed:

5mm/s, 6.25mm/s, 10mm/s, 12.5mm/s, 25mm/s, 50mm/s

External Printer:

HP 1510, HP 1020P, HP 1112, HP 2132, HP DeskJet 4729

HP DeskJet 3638, HP M401, HP LaserJet P2035

HP 1010, HP Laserjet Pro M403D, HP LaserJet pro M202DW

HR Recognition

HR Range

30 BPM ~300 BPM

Accuracy

±1 BPM



ECG Unit

Leads:

9 or 12 standard leads

A/D Converter:

24bits

Time Constant:

≥5s

Sampling Frequency:

64,000 Hz/channel

Input Impedance: $\geq 100 M\Omega (10 Hz)$

Input Voltage Range:

≤±5 mVpp

CMRR:

≥140dB (AC on) ≥123dB (AC off) **Acquisition Mode:**

9 or 12 leads acquisition simultaneously

Resolution:

0.1192uV/LSB

Frequency Response:

0.01Hz ~ 350Hz (-3dB)

Gain:

1.25, 2.5, 5, 10, 20, 10/5 mm/mV, AGC, ±5%

Input Circuit Current:

 $\leq 0.01 \mu A$

Calibration Voltage:

 $1mV\pm2\%$

QTc Formulas:

Bazzet, Fridericia, Framingham, Hodges, and QRS

Pacemaker

Amplitude:

 $\pm 500 \mu V$ to $\pm 700~mV$

Sampling Frequency

80,000 Hz, Rhythm Lead

Width:

30μs to 2.0 ms

Filter

AC Filter:

Off/50Hz/60Hz

EMG Filter:

Off/25Hz/35Hz/45Hz

DFT Filter:

0.01Hz/0.05Hz/0.32Hz/0.67Hz

LOWPASS Filter:

350Hz/300Hz/270Hz/150Hz/100Hz/75Hz

Data Transmission

Report Format:

DAT, PDF, JPG, BMP, TIFF, SCP, FDA-XML, DICOM ECG Waveform, DICOM

Encapsulated PDF

Data Management System:

SE-1515 Data Management System, bidirectional communication

Data Storage:

1,000 ECGs

Data Transmission:

Wi-Fi, Ethernet, 4G network

HIS connection:

DICOM Worklist/DICOM Storage/HL7/GDT



Wi-Fi

Transmitting Frequency:

2.4GHz & 5GHz

Modulation Type:

DBPSK, DQPSK, CCK, BPSK, QPSK, 16-QAM, 64-QAM

Frequency Band:

FCC: 2412 MHz ~ 2462 MHz, 5180 MHz ~ 5825 MHz CE: 2412 MHz ~ 2472 MHz, 5180 MHz ~ 5825 MHz

Transmitting Power:

<20 dBm (CE requirement: detection mode - RMS) <30 dBm (FCC requirement: detection mode - peak power)

4G (Option)

Bands

FDD LTE: Band 1, Band 2, Band 3, Band 4, Band 5, Band 7, Band 8, Band 20, all bands with diversity

WCDMA/HSDPA/HSUPA/HSPA+: Band 1, Band 2, Band 5, Band 8, all bands with

diversity

GSM/GPRS/EDGE: 850 MHz/900MHz/1800

MHz/1900 MHz

Anti-electric-shock type:

Class I with internal power supply

Patient Leakage Current:

 $NC < 10\mu A (AC) / < 10\mu A (DC)$

 $SFC < 50\mu A (AC) / < 50\mu A (DC)$

Patient Auxiliary Current Anti-electric-shock degree:

CF type with defibrillation-proof

Safety Specifications

Comply with:

IEC 60601-1:2005/A1:2012 EN 60601-1:2006/A1:2013 IEC 60601-1-2:2014

EN 60601-1-2:2015 IEC/EN 60601-2-25

 $NC < 10\mu A (AC) / < 10\mu A (DC)$

 $SFC < 50\mu A (AC) / < 50\mu A (DC)$

Environment Specifications

Temperature:

Transport & Storage: -20° C (-4° F) $\sim +55^{\circ}$ C

 $(+131^{\circ}F)$

Working: $+5^{\circ}$ C ($+41^{\circ}$ F) $\sim +40^{\circ}$ C ($+104^{\circ}$ F)

Atmospheric Pressure:

Transport & Storage: 70kPa ~106kPa

Working: 70kPa ~106kPa

Relative Humidity:

Transport & Storage: 15%~95% Non-Condensing

Working: 15%~95% Non-Condensing

