

Simply Touching!

Enhanced Usage With Suprising Ease-Of-Use!

Tranquility Touch Screen Patient Monitors



T - LITE

8" color TFT display

- ▶ 2 or 3 Waveforms displayed
- ▶ Simultaneous multi-lead ECG monitoring
- ▶ Graphical and tabular trending
- ▶ Audible and visual alarms
- ▶ Advanced ST and arrhythmia detection
- ▶ T-Lite Options: EtCo2 & Thermal Recorder
- ▶ Quick BP readings recall

TRANQUILITY II

12.1" color TFT display

- ▶ Multi-Lead ECG monitoring
- ▶ Drug dose calculations
- ▶ Large font display with 4, 6 & 8 waveforms shown
- ▶ NIBP list & OxyCRG dynamic view display
- ▶ Networkable with Central Monitoring System via a wireless or wired network
- ▶ Compact design is convenient for mobile monitoring
- ▶ S-T Segment & 72 hours trend data analysis
- ▶ Optional: Dual IBP, EtCo2, Anesthetic Agent and Built-in Thermal Recorder

TECHNICAL SPECIFICATIONS

T-LITE

TRANQUILITY II

SAFETY APPROVAL & QUALITY SYSTEM

Designed to meet IEC60601-1-1988, EN60601-1-1, EN60601-2
Class II Equipment, double insulated
Type BF applied parts
ISO9001 & EN46001 Certified

APPLICATION

Neonatal, pediatric and adult patients

POWER

Source: External AC power or internal battery
AC Power: AC 100–240VAC, 50-60Hz, 150VA
Battery: Built-in and rechargeable Charge time: ≥4 hours
Operating time ≥2 hours (full recharge)

PERFORMANCE SPECIFICATIONS

ECG

Patient Safety Standard: IEC60601-1-1988 CMRR: ≥60dB (Common Mode Rejection Ratio)
Heart Rate Range: 20–254bpm ± 1bpm Heart Rate Avg.: 8 second average
ST Segment Range: -0.8 ~ +0.8mV Interface: AAMI 6-pin
Lead Selection: I, II, III (3 lead mode)
I, II, III, aVR, aVL, aVF, V (5 lead mode) (ST and Arrhythmia analysis)
Lead Fault Alarm: Audible, Visual Input: 5-Lead ECG patient cable
QRS Indicator: Audible and Visual Alert Waveform Storage: 6 minutes
Sweep Speed: 12.5/25/50 mm/sec Gain Selection: 4mV, 2mV, 1mV, 0.5mV, 0.25mV, Auto
Trends: 2 hrs 4 hrs 8 hrs 24 hrs 48 hrs
Patient Isolation: Breakdown voltage: 40000VAC 50Hz 60 seconds
Leakage current: <10µA
Frequency width: Monitoring mode: 0.5–40Hz (+0.4dB, -3.0dB)
Surgery mode: 0.5–20Hz (+0.4dB, -3.0dB)
(not calibration significant)
Patient Drive Current: <10µA Max. T Wave Rejection Capability: 1.2mV
Enclosure Leakage Current: <0.1mA Heart Rate Alarm Response Time: <7 seconds
Aspect Ratio: 0.24–0.6 sec/mV
Alarm Frequency: Low alarm: 2-2.4kHz High alarm: 3-3.4kHz
Defibrillator Protected & ESIS Protected: Tested with 5kV
Recovery Time Following Defibrillation: <5 seconds

Respiration

Measurement Method: RA-LL Impedance Respiration Rate Range: 0–120 rpm
Accuracy: ±3rpm

Pulse Oximetry (SpO2)

SpO2 Range: 0-100% Adult/Pediatric/Neonate SpO2 Averaging: 8 second average
SpO2 Accuracy: ±2% (70–100%), ±3% (40–70%) Pulse Rate Range: 30–250bpm
Pulse Rate Averaging: 8 beat average Pulse Rate Accuracy: ±1% @ 30–100bpm
Sensor Types: Finger, Universal "Y", wrap probes Pulse Rate Display: Digital

Non-Invasive Blood Pressure (NIBP)

Method: Automatic oscillometric
Parameters: Systolic, diastolic, mean arterial pressure, pulse
Scale: mmHg or kPa
Operating Modes: Manual, Automatic, Continuous
Repeat Cycles: 1–10, 15, 30, 60, 90, 120 minutes
Determination - Systolic: Adult/pediatric: 40–250mmHg (5.3–33.3kPa)
Neonate: 20–160mmHg (2.7–21.3kPa)
- Diastolic: Adult/pediatric: 10–180mmHg (1.3–24.0kPa)
Neonate: 10–140mmHg (1.3–18.7kPa)
Cuff Pressure Range: Adult/pediatric: 0–300mmHg (0–40.0kPa)
Neonate: 0–140mmHg (0–18.7kPa)
Initial Cuff Inflation: Adult/pediatric: 170 ± 10mmHg (22.7 ± 1.3kPa)
Neonate: 100 ± 10mmHg (16.0 ± 1.3kPa)
Deflation Pressure: 30mmHg (4.0kPa) higher than the last systolic pressure
Cuff Inflation Rate: No greater than 50mmHg/sec
Measurement Time: Typical: 25 seconds Maximum: 40 seconds Typical Stat: 20 seconds
Pressure Display Accuracy: ±3mmHg BP Pulse Rate Accuracy: ±2% @ 40–240bpm

Temperature (Dual Channel)

Range: 25–50°C Probe: YSI® 400 Skin surface or rectal/esophageal
Scale: Celsius Accuracy: ±0.1°C Resolution: 0.1°C

EtCO2 (optional)

CO2 Range: 0–99mmHg Sampling Rate: 50 ml/min
Initialization Time: 30 seconds (typical), reaches +5% steady-state accuracy within 3 minutes
Accuracy: +2mmHg (0–38mmHg) 39–99mmHg +5% of reading
Respiratory Range: 0–150 breaths/min Mode: adult, neonate

TFT Color Display

T-LITE: Size - 8 inches Matrix - 640 (H) x 480 (V) pixels

Options

T-Lite: EtCO2 & Recorder
Specifications subject to change without notice

PHYSICAL DIMENSIONS & WEIGHT

Main Unit

Dimension: 555mm H x 335mm W x 235mm D
Weight: 5kg

APPLICATION

Neonatal, pediatric and adult patients

OPERATION ENVIRONMENT

Power

Source: External AC power or internal battery
AC Power: 100-240VAC, 50/60Hz, < 150VA
Battery: Rechargeable Lead Acid
Operating time under the normal condition: 1 hour
Operating time after the first alarm of low battery: 10 minutes

Temperature

Working: 5-40°C Storage: -20-65°C

Relative Humidity

Working: 30-75% Storage: ≤80%

Altitude

Operating Altitude: Up to 5,000 meters Hyperbaric Pressure: Up to 405.3 kPa

PERFORMANCE SPECIFICATIONS

Display: 12.1" color TFT, Touch Screen Resolution: 800 x 600 pixels
Trace: 4, 6, 8, or 9 wave forms
ECG (I, II, III, aVR, aVL, aVF, V1-V6), PLETH, RESP, IBPX2, ETCO2
Indicator: Alarm indicator - Power indicator - QRS beep and alarm sound
Trend time: 72 hrs Recorder: Built-in, thermal array, 2 channels
Record width: 48mm
Recorder paper: 50mm
Record speed: 25mm/s, 50mm/s
OxyCRG: Combines HR, SPO2 and Respiration trends into a single graph

ECG

Input: 5-lead ECG cable and standard AAMI line for connection
Lead Choice: I, II, III, aVR, aVF, aVL, V
Gain Choice: x0.125, x0.25, x0.5, x1.0, x2.0
Filter: Diagnostic mode: 0.05-100Hz
Monitoring mode: 0.05-75Hz
Surgical mode: 1-20Hz
ECG Waveforms: 7 channels Penetration Voltage: 4000VAC 50/60Hz
Sweep Speed: 12.5, 25 and 50 mm/s HR Display Range: 15-300bpm
Accuracy: ±1% or ± 1bpm, whichever is greater
S-T Segment Detection: 7 channels Measurement Range: -2.0mv +2.0mv
Arrhythmia Analysis: 13 types Alarm Limit Range Setting: Upper limit: 80 - 400bpm
Lower limit: 20 - 150 bpm

RESP

Measure Method: RA-LL impedance Range: 0-120rpm
Accuracy: ±3rpm
Alarm Upper-lower Limit Setting: Upper limit: 6-120rpm Sweep Speed: 12.5 and 25 mm/x
Lower Limit: 3-120rpm

NIBP

Measuring Technology: Automatic oscillating measurement
Cuff Inflating: < 30s (0-300mmHg, standard adult cuff) Measuring Period: AVE < 40s
Mode: Manual, Auto, STAT Measuring Interval in Auto Mode: 2 min - 4 hrs
Pulse Rate Range: 30 - 250 (bpm)
Measuring Range - Systolic: Adult/pediatric: 40 – 250mmHg
Neonate: 40 – 135mmHg
- Diastolic: Adult/pediatric: 15 – 200mmHg
Neonate: 15 – 100mmHg
Resolution: 1mmHg Accuracy: Pressure Maximum Mean error: ± 5mmHg
Maximum Standard deviation: 8mmHg
Overpressure Protection: Adult mode: 280 (mmHg) Neonate mode: 1 50 (mmHg)
Alarm Limit Setting: SYS 50-240 mmHg DIA 15-180 mmHg

Temperature

Range: 0-50°C Accuracy: Without sensor
Display Resolution: 0.1°C Alarm Upper & Lower Limit Setting: 0-50°C
Channel: 2 channels, provide T1, T2, AT

SPO2

ASpO2: Anti-motion SpO2 SpO2 Range: 0-100%
Accuracy: + - 2% 70-100%, non-motion + - 3% 70-100%, motion
Pulse Rate Range: 30-250bpm Pulse Rate Accuracy: + - 2bpm (non-motion)
+ - 3bpm (motion)
Alarm Upper & Lower Limit Setting: 70-100%
SpO2 Probe: Red light LED wavelength 660nm ± 5nm
Infrared light LED wavelength 905nm ± 10nm

Options: IBP, EtCO2, Anesthetic Agent & Recorder

Specifications subject to change without notice



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