



HIGH QUALITY **ULTRASOUND**  
AND DIAGNOSTIC SOLUTIONS



# P3 Plus

Ultrasound Diagnostic System

TECHNICAL SPECIFICATIONS

3016 NW 82nd Avenue Doral, Florida 33122 USA | +1 302 451.92.34 | info@medisono.com

[www.medisono.com](http://www.medisono.com)

TS-P3Plus-V1.0-June 2022





# P3 Plus

## Ultrasound Diagnostic System

### Technical Specification

TS-P3Plus-V1.0-June 2022

## **General Information**

### Dimensions and Weight

- Dimensions of main unit (approx.):  
335 mm (Length) \* 155 mm (Width) \* 350 mm (Height)
- Net weight of main unit (approx): 6.0 kg (no probe included)

### Electrical Power

- Adapter Power supply voltage: AC100-240V 50/60Hz
- Main system power input: 19V 3.16A
- Battery type: BT-2500 Li-ion 14.8V 4400mAh

## **User Interface**

### Operation Keyboard

- Fold-up Control Panel and Alphanumeric Keyboard
- Back-lit Keyboard for Good Visibility in Dark Room
- Interactive Back-Lighting
- Indicator Lights Identify Activated Keys
- 8 TGC Slides for Easy Adjustment
- Short Cut knob for Quick Adjustment
- Neat & Clear Keyboard Layout, Doctor Can Remember Easily
- Print Directly from the Keyboard

### Display Screen

- High resolution color LED
  - Diagonal dimension: 12 inch
  - Resolution: 1024X768
- Angle adjustable: 0-30°

## **System Overview**

### Applications

- Abdomen
- Cardiology
- Obstetrics
- Gynecology
- Urology
- Vascular
- Small Parts
- Pediatrics
- MSK
- Nerve

### Scanning Method

- Electronic convex
- Electronic linear
- Electronic micro-convex

### Transducer Types

- C3-A convex probe, center frequency 3.5MHz
- V6-A micro-convex probe, center frequency 6.0MHz
- L7M -A linear probe, center frequency 7.5MHz
- MC3-A micro-convex probe, center frequency 3.0MHz
- L7S-A linear probe, center frequency 7.5MHz
- MC6-A micro-convex probe, centre frequency 6.0MHz

### Image Modes

- B mode
- M mode
- B/M mode
- 2B mode
- 4B mode
- Trapezoidal mode
- D(PW) mode

### Display Mode

- Quad/dual display (for B mode)
- Duplex mode: B/M

### Display Annotation

- Institution/Hospital name
- Date/Time
- Patient Name and Patient ID
- System status (real-time or frozen)
- Gray bar
- Cine guide
- Scanning direction
- Measurement summary window
- Measurement results window
- Probe type
- Application name
- Menu indication
- Imaging parameters displayed on the screen

### Standard Configuration

- High resolution 12 Inch LED display
- 2 active probe port
- 16G high speed memory(500G optional)
- USB ports : left side 2, back 1
- Ethernet port
- Video out port
- VGA out port
- Footswitch port
- General measurement package
- Clinical measurement package
- Multi-language screen display
- EASYVIEW™: image archive system
- Patient information management system

- Building reporting system
- Intelligent Zoom

### Software Options

- DICOM 3.0

### Hardware Options

- V6-A Micro-convex probe, center frequency 6.0MHz
- C3-A Convex probe, center frequency 3.5MHz
- L7M-A Linear probe, center frequency 7.5MHz
- MC3-A Micro-convex probe, center frequency 3.0MHz
- L7S-A Linear probe, center frequency 7.5MHz
- MC6 -A Micro-convex probe, center frequency 6.0MHz
- Biopsy guide for C3-A, L7M-A, V6-A
- BT-2500 Li-ion battery
- Trolley
- Carry bag BG-100
- HDD 500G

### Peripherals

- Video printer: SONY UP897MD, SONY UP-D711MD, SONY UP-X898MD
- PC printer :
  - EPSON L120 Series
  - EPSON L130 Series
  - EPSON L310 Series
  - EPSON L380 Series
  - EPSON L805 Series
  - EPSON L1110 Series
  - EPSON L1118 Series
  - HP DeskJet 1010 series
  - HP OfficeJet Pro 6230
  - HP LaserJet 1020 Plus
  - HP LaserJet P2055d
  - HP LaserJet Pro M12a

- HP LaserJet Pro P1102
- HP LaserJet Pro P1102w
- HP LaserJet Pro P1108
- HP LaserJet Pro 200 color M251n
- HP Color LaserJet Pro M252n
- HP Color LaserJet Pro M252dw
- HP Color LaserJet Pro M254nw
- Canon SELPHY CP1200
- Canon SELPHY CP1300

## ***Imaging Processing and Presentation***

### **B Mode**

- Acoustic power (0-100%)
- Gain ( 0 ~ 255)
- TGC (8 Segments)
- Frequency(Min:2.5M, Max:11.0M, depend on the probe types)
- Depth (Min:2.0cm, Max:30.6cm, depend on the probe types)
- Focus number
- Focus position
- Scan width
- Density (Low ,High)
- Dynamic (30~120)
- Smooth
- Edge enhancement (0~6)
- Chroma
- 2D Map
- MB
- B Gama
- B Rejection
- Invert (left/right, up/down)
- Zoom coef
- Persistence
- Trapezoidal Mode(On,Off , only for linear transducer)
- i-Image
- Compound (On, Off)

- Frame Rate Max 1229 FPS
- SRA (On,Off)
- Biopsy (On,Off)
- Center Line (On, Off)
- Quick Angle
- PW

#### M Mode

- Sweep speed
- M Chroma
- M 2D Map
- M Gamma
- Layout
- 

#### D(PW) Mode

- Steering Angle
- Freq
- D 2D Map
- Enhance
- D Gamma
- Dynamic
- Pixel Ratio
- Color Map
- Audio
- Acoustic Power
- Threshold
- Dtrace Smooth
- Quick Angle
- Invert
- Wall Filter
- PRF
- Speed
- Baseline



### Cineloop

- Support 2D, M, D(PW)
- Cineloop auto/manual
- Play Speed
- Capacity:256 frames

### Storage

- 16G SSD high speed memory
- USB ports
- Still images storage format: BMP
- Still images export format: BMP, JPG,
- Cine loops storage format: Cine
- Cine loops export format: AVI

### EASYVIEW™

- Information
- Report
- Send images
- Print images
- Delete images
- Row Column: 1X1, 2×2, 4×4
- Pre Page
- Next Page
- Select All
- Deselect All
- New Exam
- Continue Exam
- Archive
- Exit

### Archive

- Patient Info
- Review Report

- Backup Exam
- Restore Exam
- Send Exam
- Delete Exam
- Patient View
- Study View
- Expand All
- Collapse All
- Select All

## **Measurement & Calculation**

### General Measurement Package

- Software packages for various specific clinical use
- Comprehensive analysis methods
- Clinical analysis reports
- **General measurement package**
- General B mode measurement
  - Distance
  - Circumference/Area
  - Volume (3Distances)
  - Volume (2Distances)
  - Volume ( 1Distance )
  - Volume ( 1Ellipse )
  - Volume (1Ellip1Dis)
  - Ratio
  - Angle
  - Histogram
  - Profile
- General M mode measurement
  - Distance
  - Time
  - Velocity
  - Heart Rate
- General D mode measurement

Velocity  
Distance  
Peak  
Trace  
-StD%  
-StA%  
-ICA/CCA  
-Volume Flow  
Heart Rate

**Clinical Analysis Packages**

- Abdomen
- Obstetric
- Gynecology
- Cardiology
- Vascular
- LE Vein
- LE Artery
- Urology
- SmallPart
- ORTH
- Pediatrics
- TCD
- Fast

## **System Setup**

By using system Setup, users could

- Customize hospital information
- Customize date-time and regional
- Customize language
- Customize screen saving type
- Customize screen controller
- Customize comment library
- Customize measurement formula
- Customize body-mark library
- Customize exam mode configuration
- Customize report layout
- Customize output types
- DICOM setting
- Net setting
- System information
  - function setting
  - hardware function
  - Video&VGA setting

### Multi-language

- English
- Chinese
- Czech
- Italian
- Russian
- Turkish
- French
- German
- Spanish
- Portuguese
- Polish








### Operation System

Linux Embedded

## Transducers

### Transducer Selection

- One transducer ports

Probe Name	Outlook	Probe Type	Main Frequency	Frequency Range(MHz)	Application
C3-A		Convex R=60mm	3.5MHz	2.5 3.5 4.5 5.0	ABD,OB/GYN,URO
V6-A		Micro convex R=12mm	6.0MHz	4.5 5.0 6.0 8.0	OB/GYN,URO
L7M-A		Linear L=40mm	7.5MHz	5.3 6.5 7.5 10.0	Vessel, Small Parts, MSK/PT, Nerve
L7S-A		Linear L=30mm	7.5MHz	5.3 7.5 9.0 11.0	Vessel, Small Parts, MSK, PT, Nerve
MC3-A		Micro- Convex R=20	3.0MHz	2.5 3.0 4.5 5.0	Cardiac
MC6-A		Micro Convex R=15	6.0MHz	4.5 5.0 6.0 8.0	ABD, Neonatal(Pediatrics)
R7-A		linear L=40mm	7.5MHz	5.0 6.5 7.5 10.0	Prostate Bladder

## ***Inputs & Outputs***

- Video: 1
- VGA: 1
- USB port: 3
- Ethernet: 1
- Remote Port 1
- Footswitch port 1
- System power in: 1
- Power button: 1

## ***Operating Conditions***

- Temperature: 10° C ~ 40° C
- Relative Humidity: 30%~75%, non-condensing
- Atmosphere Pressure: 700hPa ~ 1060hPa

## ***Storage Conditions***

- Temperature: -25° C ~ 55° C
- Relative Humidity: ≤ 95% non-condensing
- Atmosphere Pressure: 700hPa ~ 1060hPa

## ***Quality Standards***

- ISO 10993 Biological evaluation of medical devices

## ***Design Standards***

- IEC 60601-1 Electrical medical equipment
- IEC 60601-1-1 Electrical medical equipment
- IEC 60601-1-2 Electromagnetic compatibility
- IEC 60601-1-4 Programmable medical systems
- IEC 60601-2-37 Comply with the IEC60601-2-37

Not all features or specifications described in this document may be available in all probes and/or modes.

Medisono LLC. reserves the right to make changes in specifications and features shown here in, or discontinues the product at any time without notice or obligation. For the most current information, Contact Medisono Representative.