



HIGH QUALITY **ULTRASOUND**
AND **DIAGNOSTIC SOLUTIONS**



P25 EXP

Digital Color Doppler Ultrasound System

Value and Efficiency

TECHNICAL SPECIFICATIONS

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Turnkey Supplier

1 General Specifications

1.1 Application

- Abdomen
- Cardiology
- OB/Gynecology
- Peripheral vascular
- Small parts
- Musculoskeletal
- Transvaginal
- Transrectal
- Cephalic

1.2 Available Probes

- Linear probe
- Convex probe
- Phased array probe
- Volume probe

1.3 Imaging Modes

- B
- THI/PHI
- M
- Anatomical M
- Color M
- CFM
- PDI/DPDI
- PW
- CW
- TDI
- TDI+PW
- TDI+M

1.4 Function and Configuration

- 5-band adjustable frequency in B mode (fundamental wave and harmonic wave)
- SNRT- μ -scan
- ompound imaging
- LGC
- Tissue specific index
- Image rotation
- Trapezoid imaging
- HPRF
- Simultaneous mode (Triplex)
- Auto Trace
- Auto IMT
- Auto NT
- Auto EF

- Zoom
- B Mode Panoramic Imaging
- Biopsy guide
- Vis-needle
- Freehand 3D
- 3D/4D
- S-Live
- S-Depth
- C-xlasto

1.5 Upgraded Function and Configuration

- Stress Echo
- ECG
- AVC-Follicle

1.6 Available Languages

- Software: English, Spanish, Russian, French, Italian, German, Norwegian, Portuguese
- Keyboard: English, Simplified Chinese, Spanish, Russian, French, Italian, German, Norwegian, Portuguese
- User manual: English, Simplified Chinese, Spanish, French, German, Portuguese

2 Physical Specifications

2.1 Size and Weight

- Width: approx. 520mm
- Depth: approx. 720mm
- Height: approx. 1370mm (The height is measured when the upper arm is adjusted to the lowest position and the monitor is adjusted to the vertical position)
- Weight: approx. 60Kg

2.2 Monitor

- 19-inch medical high definition monitor
- Resolution ratio: 1366*768 (1024*768)
- Viewing angle: 178°(horizontal), 178°(vertical)
- Swivel angle: $\pm 30^\circ$
- Up and down angle: -90° to 50°

2.3 Touch Screen

- 8-inch medical high definition monitor
- Resolution: 800×600
- Viewing angle: 160° (left and right), 160° (up

and down)

- User-defined parameters layout

2.4 Control Panel

- User-oriented design
- Backlight design: panel buttons
- Multiple user-defined keys
- TGC: 8 segment sliders
- Adjustable sensitivity of trackball
- Pull-out keyboard

2.5 Speaker

Hi-Fi Speaker

2.6 Caster

- Diameter: 5 inches
- Specification: all the four casters can be independently locked

2.7 Probe Ports and Probe Holder

- General probe ports: 4 sockets are activated and interchangeable
- Pencil probe port: 1
- Probe holder: 5
- Gel holder: 1
- Probe cable hanger: 2
- Probe cable management: 1

2.8 Power

- 100~240V~, 2.7~1.1 A
- Frequency: 50/60Hz
- Maximum power output: 270VA

2.9 Working Environment

- Temperature: 0°C~40°C
- Relative humidity: 30%~85%RH (no condensation)
- Atmospheric pressure: 700hPa~1060hPa
- System noise: ≤55dB

2.10 Storage and Transportation Environment

- Temperature: -20°C to +55°C
- Relative humidity: 20%~90% (no condensation)
- Atmospheric pressure: 700hPa~1060hPa

3 Annotation and Body Mark

- Annotation: text, annotation and arrow annotation
- Manual text annotation by touch screen

- Front size of text annotation: adjustable
- User-defined home position of annotation/arrow
- User-defined text annotation
- Arrow direction: adjustable
- All exams application included
- Body marks: 114 selectable
- Body marks classified by specific exam types, and position adjustable
- User preset

4 Monitor Information

- Manufacturer logo
- Hospital name
- System date and time
- Probe and exam item
- MI and TIS
- Operator
- Probe icon
- Patient ID, name and date of birth
- Exam type icon
- Tissue temperature display (specified probe)
- Depth scale and focus position
- Image parameter
- Measurement result
- Body marks annotation

5 Image Parameter

5.1 Description

- System Boot up: ≤100s
- Frame rate: ≥820 fps (e.g. L741)
- Gray map: 256 levels
- Element number: up to 256
- Quad beams
- Audio: 0 - 100, 101 levels adjustable

5.2 B mode

- Gain: 1-255 adjustable
- Scan depth: ≥40cm
- Compound imaging: off, 1, 2, 3 levels adjustable
- Frequency: 5 bands adjustable (fundamental wave: 5 bands; harmonic wave: 5 bands)
- Chroma: 1-13, 13 types selectable
- Adapt fusion imaging: 0-15, 16 levels selectable
- SNRT-μ-Scan: off, 2, 3, 7, 11, 5 levels adjustable
- Line density: 3 levels adjustable (High/Medium/Low)

- Persist: 0-95 adjustable (e.g. L741)
- Focus: up to 12, focus span adjustable (e.g. L741)
- Dynamic range: 20-280 (e.g. L741)
- Gray map: 1-7, 7 levels selectable
- Power%: 1-100, 100 levels adjustable
- Tissue acoustic index: 1400-1700, 31 levels adjustable
- TGC: 8 segment sliders
- LGC: 2 bands
- Image inversion: left/right, up/down, image rotation
- Sector width and position: adjustable
- B steer mode: 3 levels adjustable (linear probe)
- Trapezoid imaging: off, 1, 2 (linear probe)
- Auto optimization

5.3 M mode

- Gain: 1-255 adjustable
- Chroma: 1-5, 5 types adjustable
- Display format: H1/2, H1/4, V1/3, V1/2, V2/3, O1/4
- Scan speed: Min, Slow, Med, Fast, Max, 5 levels selectable (cardiology probe)
- Video invert: On/Off
- M process: Ave, Peak
- Power%: 30-100, 8 levels adjustable
- Color M: CFM, TDI

5.4 Anatomical M mode

- Display 3 sample lines simultaneously
- Angle and position of sample lines: adjustable

5.5 CFM mode

- Frame rate: ≥ 110 fps
- Gain: 0-255 adjustable
- Power%: 0-100 adjustable, 11 levels adjustable
- B reject: 0-255, 256 levels adjustable
- Size and position of color ROI: adjustable
- Image inversion: up/down, left/right
- Color invert: On/Off
- Frequency: 5 bands adjustable
- Wall filter: 25 - 750 adjustable (e.g. 2P1)
- PRF: 0.5-12kHz adjustable (e.g. L752)
- Line density: Low, Med, High, Max, 4 levels adjustable
- Color Map: 1-10, 10 types adjustable
- Color baseline adjustment: ± 15 , 31 levels

adjustable

- Persist: 30-80 adjustable
- ROI steer: 5 levels adjustable (linear probe)
- ROI color: adjustable
- Auto optimization

5.6 PDI/DPDI mode

- Power%: 0-100, 11 levels adjustable
- B reject: 0-255, 256 levels adjustable
- Persist: 0-60, 5 levels adjustable (e.g. L741)
- Color map: 1-7, 7 types adjustable
- Image inversion: up/down, left/right
- Wall filter: 35 - 750 adjustable (e.g. 2P1)

5.7 PW mode

- Gain: 0-255 adjustable
 - Display format: H1/2, H1/4, V1/3, V1/2, V2/3, O1/4
 - Simultaneous mode (Triplex)
 - Sample volume size: 0.7-21mm adjustable (e.g. L742)
 - Sample volume position: adjustable
 - Invert: On/Off
 - Quick angle correction: 0°, 60°, -60° adjustable
 - Angle correction range: 0-72° adjustable range
 - Steer angle: 5 levels adjustable (linear probe)
 - Auto trace: available in real-time and frozen mode
 - Baseline: -8 to 8, 17 levels adjustable
 - Frequency: 5 levels adjustable
 - Wall filter: 25-750 adjustable
 - PRF: 1-16kHz (2P1)
 - HPRF
 - Velocity range: 0-10m/s (2P1, PRF=16KHZ, $\theta=60^\circ$, the lowest baseline)
 - Scan speed: Min, Slow, Med, Fast, Max
 - Chroma: 1-5, 5 types adjustable
 - Dynamic range: 1-10, 10 levels adjustable
 - Auto optimization
- ### 5.8 CW mode
- Gain: 0-255 adjustable
 - Display format: H1/2, H1/4, V1/3, V1/2, V2/3, O1/4
 - Sample volume position: adjustable
 - Invert: On/Off
 - Angle correction range: 0-72° adjustable
 - Auto trace: available in real-time and frozen

mode

- Baseline: -8 to 8, 17 levels adjustable
- Wall filter: 25 - 750 adjustable (2P1)
- PRF: 1-48KHz (2P1)
- Velocity range: 0-38 m/s (2P1, PRF=48KHZ, $\theta=60^\circ$, the lowest baseline, SVD=0.1cm, FRQ=1.8MHz)
- Scan speed: Slow, Fast, Max
- Chroma: 1-5, 5 types adjustable
- Dynamic range: 1-5, 5 levels adjustable

5.9 TDI mode

- Power%: 0-100, 11 levels adjustable
- B reject: 0-255, 256 levels adjustable
- Persist: 0-50, 6 levels adjustable (2P1)
- Color Map: 1-4, 4 levels adjustable
- Image inversion: up/down, left/right
- Color invert: On/Off
- Wall filter: 25 - 750 adjustable (2P1)

5.10 TDI+PW mode

- PRF: 1-16kHz (2P1)
- Velocity range: 0-11 m/s (2P1, PRF=16KHZ, $\theta=60^\circ$, the lowest baseline, SVD=0.1cm, FRQ=2MHz)

5.11 TDI+M mode

- Gain: 1-255 adjustable
- Chroma: 1-5, 5 types adjustable
- Display format: H1/2, H1/4, V1/3, V1/2, V2/3, O1/4
- Scan speed: Min, Slow, Med
- M process: Ave, Peak
- Power%: 30-100, 8 levels adjustable

5.12 Freehand 3D

- Scan method: electronic sector scanning, electronic linear scanning
- Display format: dual-split screen, quad-split screen, 3D full screen
- Rotate X: rotate 4° along X axis
- Rotate Y: rotate 4° along Y axis
- Rotate Z: rotate 4° along Z axis
- Viewing angle: top, bottom, left, right, front, back
- 3D orientation: 0° , 90° , 180° , 270°
- Reset: default settings, swivel angle, view angle
- Render mode: Surface, Grad. Light, Skeleton,

Transp. Min, X-Ray, S-Depth, S-Live

- Threshold: 0 - 255, 1 each step
- Contrast: 0 - 100, 1 each step
- Transparency: 0 - 100, 1 each step
- Brightness: 0 - 100, 1 each step
- Smoothness: 0 - 30, 1 each step
- Light Position: 0 - 9, 1 each step
- B Chroma: 1 - 13, 1 each step
- 3D Chroma: 0 - 14 adjustable depending on the different render modes, 1 each step
- Edit: trace, box, eraser
- M-Slice
 - Display: 1×2 , 2×2 , 3×4 , 3×3 , 4×4 , 5×5
 - Slice distance: 0.5 - 10.0 adjustable, 0.5 each step
 - Slice number: 3 - 29 adjustable, 2 each step
- AVC Follicle

5.13 3D/4D

- Display format: dual-split display, quad-split display, 3D full display
- Rotate X: rotate 4° along X axis
- Rotate Y: rotate 4° along Y axis
- Rotate Z: rotate 4° along Z axis
- Up/Down: move the image up/down
- Left/Right: move the image left/right
- View: top, bottom, left, right, front, back
- 3D orientation: 0° , 90° , 180° , 270°
- Reset: default settings, swivel angle, view angle
- Render mode: Surface, Grad. Light, Skeleton, Transp. Min, X-Ray, S-Depth, S-Live
- Free rotation: 0° , 45° , 90° , 180° , 270° , 360°
- Image quality: High, Med, Low
- Swivel angle: 5° to 75° , 5° each step
- Stability: On/Off
- Edit ROI: On/Off
- Auto face: On/Off
- Reset: default settings, swivel angle, view angle
- Adjust light: On/Off (S-Live)
- VolPre: user can return to pre-activate mode from activate mode
- Cine review: 0 - 499 adjustable, depending on the size of volume data
- Trackball (Rotate highlighted): Rotate, Z Rotate
- Threshold: 0 - 255, 1 each step
- Contrast: 0 - 100, 1 each step
- Transparency: 0 - 255, 1 each step

- Brightness: 0 - 100, 1 each step
- Smoothness: 0 - 30, 1 each step
- Light Position.: 0 - 9, 1 each step
- 2D μ -Scan: off, 1 - 5 adjustable, 1 each step
- 3D μ -Scan: off, 1 - 5 adjustable, 1 each step
- 3D Chroma: 0 - 14 adjustable depending on the different render modes, 1 each step
- B Chroma: 1 - 13, 1 each step
- Edit: trace, box, eraser
- Display (C-Plane): AB, AC, BC, ABC
- M-Slice
 - Display: 1*2, 2*2, 3*4, 3*3, 4*4, 5*5
 - Slice distance: 0.5 - 10.0 adjustable, 0.5 each step
 - Slice number: 3 - 29 adjustable, 2 each step
- AVC Follicle

5.14 C-xlasto (Compression Elastography Imaging)

- Image inversion: up/down, left/right
- Display mode: single display and dual live
- Map display: independent adjustment of left and right map
- Strain process: 0 - 6, 7 levels adjustable
- Contrast: 0.02 - 2.0, 0.01 each step
- Transparency: 0.10 - 1.0, 0.02 each step
- Persist: 0.02 - 0.98, 0.02 each step

5.15 Panoramic imaging

- B Mode Panoramic Imaging
- Color Panoramic Imaging: CFM, PDI
- Probe types: linear, convex, micro convex
- Rotation: 0 - 360°, 5° each step
- Zoom: 2.0 times

5.16 Biopsy Guide

- Biopsy lines angle quick adjustment
- User-defined angle of biopsy line
- Biopsy lines offset: adjustable
- User preset

5.17 Vis-Needle

- Probe: L741, L752, 10I2, L742
- Image steer angle: 20°, 30°, 40°, 50° adjustable
- Biopsy lines depth: adjustable
- Dual Live

5.18 Wide Scan

- Trapezoid imaging: off, 1, 2 (linear probe)

5.19 Zoom

- Zoom: 0.8 - 10.0
- Scr-Zoom: One-key full screen display

5.20 Preset Exam

- Preset best exam mode, parameter for different probe and exam type.
- User-defined icon
- Import or export preset

6 Measurement/Analysis and Report

6.1 Measurement settings

- BSA setting: Eastern, Western
- Cross Cursor Size: Small, Medium, Large
- Measure Line Size: Small, Medium, Large
- Distance Dash Line Display: On, Off
- Velocity Cross Line Display: On, Off
- Ellipse Cross Line Display: On, Off
- Line ID Display: On, Off
- Keep Result Window: On, Off
- Result Font Size: Small, Medium, Large
- Result Position: Right Top, Right Bottom, Left Top, Left Bottom

6.2 Basic Measurement Package

- Obstetrics measurement package
- Small parts measurement package
- Gynecology measurement package
- Vascular measurement package
- Abdominal measurement package
- Cardiac measurement package
- Urology measurement package
- Pediatrics measurement package

6.3 Report

- Measurement values: editable
- Image Insertion
- Report logo (170x60Pixel, bmp)
- Font size and color
- Background color
- Display items
- Application-specific measurement report
 - Fetal growth curves

- Fetus anatomy structure
- Fetus compare (four fetuses)

6.4 Auto Measurement

- Auto IMT
- Auto NT
- Auto EF
- AVC Follicle

7 Storage and Data Management

7.1 Storage

- Total storage: 500G; free: ≥ 466 G
- Maximum 2D cine: 100-2000 frames
- Maximum 4D cine: ≥ 480 frames (probe and parameter dependent)
- Directly store to USB drive

7.2 Data Management

- Image share (Samba)
- Export data to USB drive or DVD
- Export format:
 - System format
 - Image format: BMP、JPG、TIF
 - Cine format: AVI、WMV
 - Report format: PDF、TXT
 - DICOM format
- Clipboard: thumbnail display, delete, export
- Create exam, activate exam, resume suspended exam, close exam
- Query/Retrieve
- Review current exam and history exam
- Post-processing and post-measurement
- Show gallery

8 Cine Review

- Cine Review: Frame by frame manual review and auto play with adjustable speed
- One keystroke reviews the first or last frame
- Auto Play: can be activated/inactivated by trackball

9 System Input and Output

- USB port:
 - 5 USB 2.0 ports, including one engineering port
- Video output: 3

- VGA
- VIDEO OUT
- S-VIDEO OUT
- Audio output: 1
- Foot switch input: 1
- Ethernet port: 1
- Video print port: 1
- Video output: 6
 - TV-NTSC
 - TV-PAL
 - VGA (4:3)
 - VGA (16:3)
 - DVI (4:3)
 - DVI (16:9)
- Network Connection: 2
 - Local network
 - Wireless network (same with cable network)

10 DICOM 3.0

- DICOM storage
- DICOM structured report
 - Gynecology structured report
 - Obstetrics structured report
 - Cardiology structured report
 - Vascular structured report
- DICOM storage commitment
- DICOM Worklist
- DICOM MPPS
- DICOM print
- DICOM Q/R

11 Probe

11.1 Convex Probe

- C344
 - ✓ Application: Abdomen, OB/Gynecology
 - ✓ Frequency range: 2.0-7.0MHz
 - ✓ Acoustic lens: 57mm×18mm
 - ✓ Biopsy bracket: NGBC344, 21°, sterilizable
- C322
 - ✓ Application: Abdomen
 - ✓ Frequency range: 2.0-7.0MHz
 - ✓ Acoustic lens: 32mm×11mm
 - ✓ Biopsy bracket: NGBC322, 5°/25°, sterilizable
- 3C-A

- ✓ Application: Abdomen, OB/Gynecology
- ✓ Frequency range: 1.0-7.0MHz
- ✓ Acoustic lens: 60mm×18mm
- ✓ Biopsy bracket: NGB3C-A, 12°/16.5°/22.5°/33.5°, sterilizable
- C353
 - ✓ Application: Abdomen, OB/Gynecology
 - ✓ Frequency range: 2.0-7.0MHz
 - ✓ Acoustic lens: 71mm×18mm
 - ✓ Biopsy bracket: NGBC353, 15.4°/24.3°, sterilizable
- 6V1
 - ✓ Application: Gynecology, Urology
 - ✓ Frequency range: 3.0-15.0MHz
 - ✓ Acoustic lens: 32mm×10mm
 - ✓ Biopsy bracket: NGB6V1, 3°, sterilizable
 - ✓ Temperature control
- 6V3
 - ✓ Application: Gynecology, Urology
 - ✓ Frequency range: 3.0-15.0MHz
 - ✓ Acoustic lens: 41mm×10mm
 - ✓ Biopsy bracket: NGB6V3-2, 0°, sterilizable
 - ✓ Temperature control
- 6V7
 - ✓ Application: Gynecology, Urology
 - ✓ Frequency range: 3.0-15.0MHz
 - ✓ Acoustic lens: 41mm×10mm
 - ✓ Biopsy bracket: NGB6V7, 15°, sterilizable
 - ✓ Temperature control
- C613
 - ✓ Application: Cardiology, Abdomen
 - ✓ Frequency range: 4.0-13.0MHz
 - ✓ Acoustic lens: 30mm×10mm
 - ✓ Biopsy bracket: NGBC613, 12°/18°/30°, sterilizable
- EC9-5
 - ✓ Application: Urology
 - ✓ Frequency range: 3.0-15.0MHz
 - ✓ Acoustic lens: 27mm×10mm
 - ✓ Biopsy bracket: NGBEC9-5, 1.5°, sterilizable
 - ✓ Temperature control
- 6V1A
 - ✓ Application: Gynecology
 - ✓ Frequency range: 3.0-15.0MHz
 - ✓ Acoustic lens: 32mm×10mm
 - ✓ Temperature control

- BCC9-5
 - ✓ Application: Urology
 - ✓ Frequency range: 3.0-15.0MHz
 - ✓ Acoustic lens: 26mm×10mm
 - ✓ Biopsy bracket: NGBBCC9-5, 0°, sterilizable

11.2 Linear Probe

- L741
 - ✓ Application: Vascular, Small parts, Musculoskeletal, Neurology
 - ✓ Frequency range: 4.0-16.0MHz
 - ✓ Acoustic lens: 49mm×10mm
 - ✓ Biopsy bracket: NGBL741, 45°, sterilizable
- L752
 - ✓ Application: Vascular, Small parts, Musculoskeletal, Neurology
 - ✓ Frequency range: 4.0-16.0MHz
 - ✓ Acoustic lens: 55mm×10mm
 - ✓ Biopsy bracket: NGBL752, 45°, sterilizable
- 10I2
 - ✓ Application: Vascular, Small parts, Musculoskeletal, Neurology
 - ✓ Frequency range: 4.0-16.0MHz
 - ✓ Acoustic lens: 28mm×10mm
- L742
 - ✓ Application: Vascular, Small parts, Musculoskeletal, Neurology
 - ✓ Frequency range: 4.0-16.0MHz
 - ✓ Acoustic lens: 42mm×10mm
 - ✓ Biopsy bracket: NGBL742-2, 59.8°/42.9°, sterilizable
- LAP7
 - ✓ Application: Intraoperative
 - ✓ Frequency range: 3.0-15.0MHz
 - ✓ Acoustic lens: 42mm×10mm
 - ✓ Temperature control

11.3 Phased Array Probe

- 2P1
 - ✓ Application: Cardiology, Abdomen
 - ✓ Frequency range: 2.0-4.0MHz
 - ✓ Acoustic lens: 24mm×16mm
 - ✓ Biopsy bracket: NGB2P1, 19°, sterilizable
- 5P1
 - ✓ Application: Pediatric cardiology
 - ✓ Frequency range: 2.0-9.0MHz
 - ✓ Acoustic lens: 15mm×13mm

- CWD2.0
 - ✓ Application: Vascular, Cephalic
 - ✓ Central frequency: 2.0MHz
 - ✓ Acoustic lens: Φ 10mm
- CWD5.0
 - ✓ Application: Vascular, Cephalic
 - ✓ Central frequency: 5.0MHz
 - ✓ Acoustic lens: Φ 14mm

11.4 Volume probe

- VC6-2
 - ✓ Application: Gynecology, Abdomen
 - ✓ Frequency range: 2.0-7.0MHz
 - ✓ Acoustic window: 150mm \times 86mm

12 Accessories

12.1 Printer

- Printer types
 - ✓ Color ink jet printer
 - ✓ B/W video printer
 - ✓ Color video printer
- Print type
 - ✓ Video print
 - ✓ Network print
 - ✓ USB print
 - ✓ Windows print
- Video invert
- User can add printer

12.2 External Wi-Fi

12.3 Foot switch

- 2 pedals
- USB port

12.4 Barcode Scanning Input

12.5 DVD R/W drive

12.6 Built-in Battery

- Continuous work time: about 1.5 hour in B mode

12.7 Pull-out keyboard

12.8 1T Hard Disc

12.9 ECG Cable

12.10 Double-wing vagina dilator

13 Safety and Certification

- Certification: ISO 9001, ISO 13485
- Comply with:
 - ✓ CSA C22.2 No. 601-1,
 - ✓ EN 60601-1 and IEC 60601-1,
 - ✓ EN 60601-1-2 and IEC 60601-1-2,
 - ✓ EN 60601-1-6 and IEC 60601-1-6,
 - ✓ EN 60601-2-37 and IEC 60601-2-37, EN 62304 and IEC 62304,
 - ✓ EN 62366 and IEC 62366
- Certification: ISO 9001, ISO 13485
- CE announcement: this system is consistent with EU medical devices directive 93/42/EEC. The code (0197) following CE logo is the number of the notified body by EU, which proves the system is consistent with the directive 93/42/EEC.

NOTE:

- The specifications of this system may change without any prior notification.
- Some products or features may not be available in some countries.
- Please contact your local Medisono sales representative for more information.