

## 1 System Overview

### 1.1 Clinical Applications

- Dog
- Cat
- Sheep
- Swine
- Bovine/buffaloes
- Equine
- Donkey
- Camel
- Custom

### 1.2 Transducer Types

- Convex transducer
- Linear array
- Trans-vaginal transducer
- Micro-convex transducer
- Rectal transducer

### 1.3 Imaging modes

- B-Mode
- 2B/4B-Mode
- M-Mode
- B/M-Mode
- PW-Mode

### 1.4 Application

- Abdominal
- Vascular
- Reproduction
- Musculoskeletal
- Cardiac

### 1.5 Standard features

- B-Mode
- Tissue Specific Imaging (TSI)
- Tissue Harmonic Imaging (THI)
- B Chromatic imaging
- Pan-zoom



- 2B/4B-Mode
- M-Mode
- Full Screen Imaging (FSI)
- B/M-Mode
- PW-Mode
- B/PW dual real-time
- PW FSI
- Trans-abdominal application
- Speckle Reduction (SRF)
- 12-inch color display screen
- 2 transducer connectors
- 2 USB ports
- DICOM 3.0
- Phase Inversion Harmonic Imaging
- Automatic parameter saving (Zero button)
- One-click automatic image optimization
- Built-in operational guidelines and tutorial
- Built-in specialist measurement kit

### 1.6 Optional features

- Built-in Li-ion battery
- Laser/thermal printer
- Foot Switch
- Puncture
- Format: BMP

## 2 Physical Specification

### 2.1 Dimension and weight

- Width: approx. 370mm
- Height: approx. 360mm
- Thickness: approx. 155 mm
- Weight: 6.2 Kg (Without battery)

6.65Kg (with battery)

## 2.2 Monitor

- 12-inch high resolution color display screen
- Resolution: 1024×768
- Tile Angle: 0-90°

## 2.3 Transducer ports and holders

- 2 transducer ports
- 2 removable transducer holders

## 2.4 Electrical power

- AC adapter Input
  - Voltage: 100-240V~
  - Frequency: 50/60Hz
  - Power Consumption: 110VA
- Built-in Battery
  - Lithium-ion rechargeable battery
  - 10.89V/5200mAh

## 2.5 Operation Environment

- Ambient temperature: 5°C~+40°C
- Relative humidity: 25%~85%
- Atmospheric pressure: 700hPa~1060hPa

## 2.6 Storage & Transport Environment

- Ambient temperature: -20°C~+55°C
- Relative humidity: 10%~95%
- Atmospheric pressure: 500hPa~1060hPa

## 2.7 Main host

- Operating system -- Linux

# 3 User Interface

## 3.1 Control panel

- Power/Battery indicator
- Alphanumeric silica gel keyboard
- Function keys & parameter shortcut key
- Back-lit keys
- Knobs: Value & Gain
- 8-segment TGC control
- Trackball

## 3.2 System boot-up

- Boot-up in about 15s
- Shut down in about 8s

## 3.3 Comments

- Support text input and arrow
- Arrow position and direction adjustable

## 3.4 Body marks

- 23 Animal icon

## 3.5 Screen information

- Common info:
  - Logo
  - Hospital name
  - Display Parameters
  - System date & Time
  - Clinical application
  - Transducer type
  - Exam mode
  - Patient Name, Age, Gender
  - Transducer mark
  - Thumbnail
  - Focus position
  - Parallel scale & Vertical scale
  - Freeze mark
  - TGC Curve

# 4 Control Panel & Function

## 4.1 Control panel & Function

- Power On/Off
- AC/ Battery/Charge indicate lights
- Alphanumeric keys with green keyboard lights
- Transducer button: Select different transducer
- Zoom: Adjustable
- Depth: Shortcut key for depth value
- Mode button: B, B/B, B/M, M, PW
- TGC: 8 Segments
- Value: Combine with shortcut keys
- Gain: Adjust the whole image gain value
  - Patient: Create new patient
- Save: Save image/report

- Report: Edit report
- File: File delete management
- Tune Out: Review saved images
- Print: For laser printer to print report
- Freeze: Freeze image & Unfreeze
- Set: Confirm for selection & measurement
- Clean: Clean the display
- Caliper: Caliper & measurement
- Menu: Display & Hidden menu
- Body Mark
- Trackball
- Back
- Q button: Guidance
- Arrow & ABC: Add arrows and comments
- Review: Cine-loops, 1024 frames, Auto & manual
- Up/Down: Selection
- Frequency: Adjust frequency
- Focus: Adjust focus position
- DR: Dynamic range
- SRF: Speckle Reduction Function
- Auto: One-button default parameters
- FSI: Full Screen Imaging

## 5 Imaging Parameters

### 5.1 B-Mode

- Display formats: Single(B)  
Dual(B+B), Quad(4B)
- Gain: 0-100, 1/step
- Frequency: Depend on different transducer
- Depth: 280mm (Depend on different transducer)
- Pan-Zoom: 1-25, 1/step
- D.R: 0-255, 1/step
- SRF: 1-100, 1/step
- Focus position: 8 zone adjustable
- Cine loop: 1024
- TGC: 8 segments
- Pseudo C.: 1-8, 1/step
- B/W Invert: Available

- Reverse: Available
- Mirror: Available
- Gamma Corr.: 1-9, 1/step
- Brightness: 1-9, 1/step
- Contrast: 1-9, 1/step
- Frame Corr.: 10-230, 1/step
- Gray Scale: 1-19, 1/step
- Smooth: 46-110, 1/step
- TSI: 1-7, 1/step
- Focus No: 1- 4
- Scan Angle: 80-100, 5/step
- S. Power: 40-100, 4/step
- Central Line: Available
- Biopsy: 30° , 45° , 60° Adjustable
- Parallel Scale: On/Off
- Vertical Scale: On/Off
- Gray Scale Bar: On/Off
- THI: On/Off

### 5.2 M-Mode

- Display formats: H 1:1, Full
- M Speed: 1-63, 1/step
- Frequency: Depend on different transducer
- Sampling Line: Adjustable (Trackball)
- Gain: 0-100, 1/step
- D.R: 0-255, 1/step
- Pseudo C.: 1-8, 1/step
- Gray Scale: 1-19, 1/step
- S. Power: 40-100, 4/step

### 5.3 PW-Mode

- Display formats: H 1:1, Full
- Pseudo C.: 1-8, 1/step
- Spectrum Invert: Available
- B/W Invert: Available
- Gamma Corr.: 1-9, 1/step
- Brightness: 1-9, 1/step
- Contrast: 1-9, 1/step
- PRF: Depend on different transducer
- SVD: Available

- SV: 1-9, 1/step
- Angle: 0° -90° , 5° /step
- Baseline: 1-9, 1/step
- Speed: 7-63, 1/step
- Wall Filter: 10-990, 20/step
- Threshold: 1-254, 1/step
- Dynamic Range: 1-99, 1/step
- Image Enhance: 0-99, 1/step
- Noise Restrain: 0-63, 1/step
- Volume: Adjustable
- Volume mark: Lower right of display
- Duplex: On/Off

- GBW Thick
  - CBD
  - Lt Kidney (LWH)
- Rt Kidney (LWH)
  - Bladder (LWH)
- Obstetrics
  - BTD (GA, EDD)
  - BUD (GA, EDD)
- Cardiology(2D)
  - LV Major
  - RV Major
  - MIT RAL
- AO RTA
- Blood Vessel
  - CCA
  - ICA
  - ECA
  - VERT A

## 6 Measurement & Report

### 6.1 Generic measurements

- 2D-Mode
  - Distance
  - Depth
  - Area & Circle
  - Volume: 3 Distance, Ellipse Distance, Ellipse
  - Ratio: Length Ratio, Area Ratio
  - Angle
- M-Mode
  - Distance
  - Time
  - Heart Rate
  - EF Slope
- PW-Mode
  - Velocity
  - Heart Rate
  - Time
  - Acceleration
  - Index: Vmax, Vmin, Vmean, PI, RI, SD Ratio

### 6.2 Clinical measurement packages

- Abdomen
  - GB L
  - GB H

### 6.3 Report

- Date
- Name
- Gender
- Age
- Height: cm
- Weight: kg
- App
- InHouse No
- Ultrasound No
- Meas. Display
- Img. Display: 4 images
- Observed
- Diagnose
- Doctor's name
- Doctor's Tell
- Review: Full page, Zoom page
- Save: by USB to PC review

## 7 System setup

### 7.1 Measure & Calculate

Ellipse Method

Locus Method

### 7.2 Language: Chinese, English, Spanish,

French, Russian, Turkish

### 7.3 Date & Time Setup

- Date Setup
- Week Setup
- Time Setup
- Date Format
  - YYYY/MM/DD
  - MM/DD/YYYY
  - DD/MM/YYYY
  - YYYY-MM-DD
  - MM-DD-YYYY
  - DD-MM-YYYY
- Off week
- Time Format
  - 24 Hour System
  - 12 Hour System

### 7.4 Others

- Screensaver: 6-99, 1/step
- Auto Freeze: On/Off
- Parallel Scale: On/Off
- Vertical Scale: On/Off
- Gray Scale Bar: On/Off
- M Speed: 1-63, 1/step
- THI: On/Off
- Hospital
- Image Save
  - Save to U disk
  - Save to local
- Factory Reset
  - Restore Current App to Factory Settings
  - Restore System to Factory Settings
- Access Privileges: On/Off

## 8 Transducer Parameters

- **Convex Transducer 3C50A**
  - Applications: Abdomen, reproduction, Urology, Cardiac, etc.
  - Center frequency: 3.5MHz
  - Harmonics frequency: THI3.2
  - Basic frequency: 2.0, 3.0, 3.5, 5.0MHz
- **Linear Array Transducer 7L40A**
  - Applications: Organs, Thyroid, Vascular, etc.
  - Center frequency: 7.5MHz
  - Harmonics frequency: THI6.0
  - Basic frequency: 5.0, 7.5, 10.0, 12.0MHz
- **Trans-vaginal transducer 6E10A**
  - Applications: OB/GYN
  - Applications: reproduction, Urology,
  - Harmonics frequency: THI5.0
  - Basic frequency: 4.0, 6.5, 7.5, 9.0MHz
- **Micro- Convex Transducer 6C15A**
  - Applications: Abdomen, reproduction, Urology, Cardiac, etc.
  - Harmonics frequency: THI5.0
  - Basic frequency: 4.0, 5.5, 6.5, 9.0MHz
- **Linear-Rectal Transducer 6L64A**
  - Applications: reproduction
  - Harmonics frequency: THI6.0
  - Basic frequency: 4.5, 6.5, 7.5, 8.0MHz

## 9 System Inputs & Outputs

- **USB Port: 2**
  - Connect to Devices that Abide by the USB Protocol
- **Video: 1**
  - Output video signals, used to connect

video printers, ultrasound workstation, etc.

- **VGA Port: 1**
  - Serial port, used to connect monitor
- **Equipotential:**
  - Balance the protective grounded potential
- **DC IN:**
  - DC-19V
- **Power Switch:**
  - Turn on/off the system power

**Dispomedical reserves the right to make changes in specifications and features shown herein.**

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## **10 Standard Package**

- **Main Unit**
- **One transducer as standard**
- **Power cord/grounding cable**
- **Fuse (2)**
- **User's Manual**
- **Coupling Gel (0.25L)**

## **11 Optional Accessories**

- **Convex Array Transducer**
- **Linear Array Transducer**
- **Trans-vaginal Transducer**
- **Micro-convex Transducer**
- **Rectal Transducer**
- **Suitcase**
- **Lithium battery**
- **Pedal Switch**
- **Biopsy**
- **Trolley**

## **12 Certificates**

- **Quality Standards**
  - ISO13485
  - CE

### **◆ NOTICE:**

**Not all features or specifications described in this document may be available in all transducers and all modes.**