

### 1 System Overview

#### 1.1 Application

- Abdomen
- Obstetrics
- Gynecology
- Cardiology
- Small parts
- Urology
- Vascular
- Pediatrics
- EM (Emergency)
- Others

#### 1.2 Transducer types

- Curved array transducer
- Linear array transducer
- Phased array transducer

#### 1.3 Imaging modes

- B-Mode
- THI (Tissue Harmonic Imaging)
- PSHI (Phase Shift Harmonic Imaging)
- M-Mode/Color M-mode
- Free Xros M (Anatomical M-mode)
- Free Xros CM (Curved Anatomical M-mode)
- Color Doppler Imaging
- Power Doppler Imaging/Directional PDI
- Pulsed Wave Doppler
- Continuous Wave Doppler
- TDI
- Smart 3D (Freehand 3D)
- Static 3D
- 4D
- Stress Echo
- iScape View (Panoramic Imaging)

#### 1.4 Standard features

- B-Mode
- THI and PSH
- M-Mode
- Color Doppler Imaging
- Power Doppler Imaging and Directional PDI
- Pulsed Wave Doppler
- iBeam (Spatial Compounding Imaging)

- iClear (Speckle Suppression Imaging)
- iTouch (Auto Optimization)
- Zoom/iZoom (Full Screen Zoom)
- FCI (Frequency Compounding Imaging)
- B steer
- ExFOV Imaging: Extend imaging for convex transducer
- Trapezoid imaging for linear transducer
- Hard drive
- DVD R/W driver
- USB

#### 1.5 Optional features

- 17" LCD monitor
- Continuous Wave Doppler
- Free Xros M
- Free Xros CM
- iScape View
- Smart 3D
- 4D
  - iPage
  - STIC
- IMT
- Stress Echo
- TDI (Include TVI, TVD, TVM, TEI)
- TDI QA (TDI Quantitative Analysis)
- iNeedle(7L4A, L14-6N, L14-6 support)
- DICOM
- Clinical Measurement Package

#### 1.6 Language support

- Software: English, Chinese, German, Spanish, French, Italian, Portuguese, Russian, Czech, Polish
- Keyboard input: English, Chinese, German, Spanish, French, Italian, Portuguese, Russian, Czech, Polish, Icelandic, Norwegian, Swedish, Finnish, Turkish, Danish
- Control panel overlay: Chinese, Italian, Portuguese, Spanish, German, Russian, French, Czech, Polish
- User manual: English, Chinese, German, Spanish, French, Italian, Portuguese, Russian

## 2 Physical Specification

### 2.1 Dimension and weight

- Height: 1290-1570mm
- Width: 460mm
- Depth: 730mm
- Weight: approx. 95kg

### 2.2 Monitor

- 15-inch high resolution color LCD monitor(17-inch LCD optional)
- Resolution: 1024x768

### 2.3 Audio speakers

- Stereo audio speakers

### 2.4 Wheels

- Front castor (2 ea): total lock and break
- Rear castor (2 ea): total lock and break

### 2.5 Electrical power

- Voltage: 100-127V~, or 220-240V~
- Frequency: 50/60 Hz
- Power consumption: Max. 600 VA
- Circuit breaker: 240V~, 13A

### 2.6 Operating Environment

- Ambient temperature: 0-40 °C
- Relative humidity: 30%-95% (no condensation)
- Atmospheric pressure:  
700hPa-1060hPa

### 2.7 Storage & Transportation Environment

- Ambient temperature: -20~55 °C
- Relative humidity: 30%-95% (no condensation)
- Atmospheric pressure:  
700hPa-1060hPa

## 3 User Interface

### 3.1 Control panel

- User-centric control panel with home-based layout favors easy access to keys
- Backlit keys ensure accurate work in the dark room
- Programmable keys available for user-defined functions
- 8-segment TGC control
- Full-sized, backlit QWERTY keyboard for text input, function keys and system programming
- Adjustable key volume and trackball

speed meet different needs

- Dedicated palm rest design to help reduce user repetitive stress injury
- Independent rotation and up/down of control panel facilitates optimal positioning

### 3.2 Comments

- Supports text input and arrow
- Adjustable text size and arrow size
- Supports home position
- Covers various application
- User customizable

### 3.3 Bodymark

- User customizable

### 3.4 Screen information\*

- Common info:
  - Mindray logo
  - Hospital name
  - Exam date
  - Exam time
  - Acoustic output indices
  - Mechanical index
  - ID, Last name, First Name, Middle initial, Gender, Age, DOB(Date of birth)
  - Probe model
  - ECG icon (when ECG connected),
  - Operator
  - TGC Curve
  - Focus position
  - Thumbnail
  - Machine model
  - Imaging parameters
  - Help guidance

\*Not all items are listed in this part, detail info please refer to user manual

## 4 Imaging Parameters

### 4.1 Overview

- Octal-beam forming

### 4.2 B-mode

- iClear
- iBeam
- iTouch

### 4.3 THI and PSHI

- Available on all types of transducer
- Patent PSH technology, obtains purer

harmonic, better contrast resolution,  
higher SNR, exceptional high  
frequency harmonic

- iClear available

#### 4.4 M-mode

- Dynamic range
- Gain
- M sweep speed
- M soften

#### 4.5 Color M-mode

- Dynamic range
- Gain

#### 4.6 Color Doppler Imaging

- Dual live
- Steer
- Gain
- Scale
- Baseline

#### 4.7 Power Doppler Imaging/ Directional power doppler

- Dual live
- Dynamic range
- Gain

#### 4.8 PW/CW-Mode

- Sample volume size
- Sample gate depth
- Scale

## 5 Measurement/Analysis and

### Report\*

#### 5.1 Generic measurements

- 2D-mode
  - Depth
  - Distance
  - Angle
  - Area
- M-mode
  - HR
  - Slope
  - Distance
  - Time
  - Velocity
- Doppler mode
  - D Velocity
  - HR
  - Time
  - Acceleration
  - D Trace

- PS/ED

- Vas Area

- Automatic Doppler Spectrum Analysis
  - Heart cycle pre-settable
  - Automatic real-time and retrospective tracing
  - User configurable display of items
  - Support PI, RI, TAMAX, TAMEAN, Volume Flow calculations
  - Appropriate factory setting according to applications

#### 5.2 Report

- Specific report template to the application
- Editable value in report
- Images are selectable
- Support anatomical graphics in vascular reports
- Titles are pre-settable in setup
- Export as PDF/RTF format

\* Not all measurements are listed in this part;  
For more detailed information please refer  
to User Manual

## 6 Exam Storage and Management

#### 6.1 Exam storage

- Direct digital storage of single frame and cine 2D, color and Doppler.

#### 6.2 Exam management

- iStation dedicated for patient exam management
- Patient exam query/retrieve
- Support review of current and past exam
- New exam, Active exam, Continue exam functions, End exam are available
- Support measurements and calculations on archived exam and images
- Support backup/send to USB devices, DVD-RW media

## 7 Connectivity

#### 7.1 Ethernet Network Connection

#### 7.2 USB to serial data output (need a

converter cable)

### 7.3 DICOM 3.0

## 8 Transducers

### 8.1 Curved array

- C5-2
  - Application: Abdomen, OB/GYN
- 6C2 (Micro-convex)
  - Application: Abdomen, Neonatal Abdomen, Neonatal Head, Pediatrics
- V10-4 (Endocavity)
  - Application: OB/GYN, Urology
- V10-4B (Endocavity)
  - Application: OB/GYN, Urology
- CB10-4 (Biplane)
  - Application: OB/GYN, Urology

### 8.2 Volume curved array

- 4CD4
  - Application: OB/GYN, Abdomen

### 8.3 Linear array

- 7L4A
  - Application: Breast, Thyroid, Peripheral Vascular, Musculoskeletal
- L12-4
  - Application: Breast, Thyroid, Peripheral Vascular, Musculoskeletal
- L14-6
  - Application: Musculoskeletal, Thyroid, Breast Peripheral Vascular
- L14-6N
  - Application: Small organ, Musculo-skeletal, Nerve, Vascular Orthopedics, Pediatric
- L7-3
  - Application: Peripheral Vascular, Thyroid
- 7L5
  - Application: Peripheral Vascular, Breast
- 7LT4 (Intraoperation)
  - Application: Intraoperative, Small organ, Vascular, Musculo-skeletal, Abdominal, Pediatric

### 8.4 Phased array

- P4-2
  - Application: Adult Cardiac, Pediatric Cardiac, TCD, Abdomen-difficult
- P7-3
  - Application: Cardiac, Abdominal,

Cephalic, Pediatric

### 8.5 Pencil Probe

- CW5s
  - Application: Vascular, Cardiac, Cephalic, Pediatric

## 9 System Inputs and Outputs

### 9.1 Video/Audio input

- Video In
- S-Video In
- VGA In
- Audio in
- Microphone

### 9.2 Video/Audio output

- Video out
- S-Video out
- VGA Out
- DVI
- Audio Out

### 9.3 Physio input

- Support ECG signal
- ECG

### 9.4 Other input/output

- USB
- Ethernet
- Remote
- RS-232 port

## 10 Safety and Conformance

### 10.1 Quality standards

- ISO 9001
- ISO 13485

### 10.2 Design standards

- UL 60601-1
- CSA C22.2 No. 601-1
- EN 60601-1 and IEC 60601-1
- EN 60601-1-1 and IEC 60601-1-1
- EN 60601-1-2 and IEC 60601-1-2
- EN 60601-2-37 and IEC 60601-2-37
- EN 60601-1-4 and IEC 60601-1-4
- EN 60601-1-6 and IEC 60601-1-6

### 10.3 CE declaration

DC-T6 system is fully in conformance with the Council Directive 93/42/EEC Concerning Medical Devices, as amended by 2007/47/EC. The number adjacent to the CE marking (0123) is the number of the EU-notified body that certified meeting the

requirements of Annex II of the Directive.

**NOTICE:**

**Not all features or specifications described in this document may be available in all probes and/or modes. Mindray reserves the right to make changes in specifications and features shown herein, or discontinue the product at any time without notice or obligation. Contact Mindray Representative for the most current information**

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