

**TE Air**

# **Color Doppler Ultrasound System**

**Specification**

# 1 System Overview

The TE Air is a wireless handheld ultrasound system. The wireless transducer is paired with App on mobile devices over Wi-Fi.

## 1.1 Application

- Cardiac
- Abdomen
- Thoracic/pleural
- Gynecology
- Obstetrics
- Pediatric
- Vascular
- Urology
- Cephalic

## 1.2 Standard features

- B-Mode
- M-Mode
- Color Doppler Imaging
- Power Doppler Imaging
- Pulsed Wave Doppler
- iClear™ (Speckle Suppression Imaging)
- iTouch™ (Auto Image Optimization)
- Smart Bladder

## 1.3 Optional features

- TDI (Tissue Doppler Imaging)
- Air Capsule
  - Input voltage: 5V DC
  - Input current: 3A
  - Output voltage: 5V DC
  - Output current: 3A
  - Battery: 3.6V, 3000mAh
  - Support Wireless Charging Dock

# 2 Transducer Specification

## 2.1 Power Supply

- Input voltage: 5V or 9V
- Input current: 3Amax
- Adaptor:
  - Output interface: USB TypeA
  - Output voltage: 5V DC
  - Output current: ≥3A

## 2.2 Built-in Battery

- Lithium-Ion battery: 3.85V, 1650mAh

- Support fast charging
- Wired charging: Type-C charging cable
- Wireless charging: Air Capsule charging case
- Total working time of no less than 90 minutes with fully charged battery in B mode

## 2.3 Dimensions and Weight

- Dimensions: 46.5×33×170 mm
- Weight: 198±3g

## 2.4 Dustproof and waterproof

- IP68 rated

## 2.5 Programmable button

- User-defined functions

# 3 Operating Environment

## 3.1 iOS Platform

- Processor: Apple A10 processor or newer
- Operating System: iOS 13 or newer
- Storage space: 2 GB or larger
- Display size: 4.7 inches (Diagonal) or larger
- Display resolution: 1334 × 750 or higher

## 3.2 Android Platform

- Processor: Qualcomm Snapdragon 855 or newer
- Operating System: Android 9 or above
- Storage space: 256 GB or larger
- Running memory: 8 GB or larger
- Display size: 6.41 inches (Diagonal) or larger
- Display resolution: 2340 × 1080 or higher

# 4 User Interface

## 4.1 Comments

- Supports text input and arrow

## 4.2 Body mark

- 80 body marks for versatile application

## 4.3 Measurement

- Distance
- Ellipse
- Depth
- Angle
- Double Dist
- Volume
- Velocity

- Time
- Slope
- Heart Rate (HR)
- PS/ED
- Simpson

#### 4.4 Screen information\*

- Acoustic power
- Imaging parameters

\*Not all items are listed in this part. For detail information, please refer to the user manual.

## 5 Imaging Parameters

### 5.1 B-mode

- A.Power
- TGC: 6 sliders
- Gain: 0-100, 1/step
- Image Quality
- Dyn Ra.
- iClear
- L/R Flip: Right, Left
- TIS/TIC/TIB
- iTouch: On/Off
- Zoom

### 5.2 M-mode

- A.Power
- Gain: 0-100, 1/step
- Depth: the same as B mode
- Image Quality: the same as B mode
- Speed:
- Dyn Ra.

### 5.3 Color/Tissue Velocity Imaging/Power Doppler Imaging

- A.Power
- Gain: 0-100, 2/step
- Scale
- ROI Width: random adjustable
- ROI Height: random adjustable
- Image Quality
- iTouch: On/Off

### 5.4 PW/Tissue Velocity Doppler Mode

- A.Power
- Gain: 0-100, 2/step
- Baseline: random adjustable
- Scale

- Image Quality
- Speed
- SV: random adjustable
- Dyn Ra.
- Angle: random adjustable
- iTouch: On/Off

### 5.5 Smart Bladder

Automatically detect and calculate bladder volume

## 6 Cine Review and Post Processing

### 6.1 Cine review

- Available in all modes
- Playback available
- Freeze and real-time storage are available and length is pre-settable

## 7 Exam Storage and Management

### 7.1 Exam storage

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

### 7.2 Exam management

- iStation™ workstation dedicated for patient exam management
- Patient exam query/retrieve
- Support review of current and past exam
- Support data encryption and transmission encryption

## 8 Connectivity

### 8.1 Ethernet Network Connection

- Wireless connection

### 8.2 DICOM 3.0

- DICOM basic
  - Store
  - Media Exchange
- DICOM Worklist

### 8.3 Q-path

### 8.4 Remote Help

Remote Help: Mindray's collaboration solution for remote assistance, training, quality control, case discussion.

- Integrate Mico+ into the App, sharing real-time ultrasound and synchronize

ultrasound images, audio and video to the terminal device (mobile phone / computer / tablet)

- Support sharing original ultrasound images to Mico+

## 9 Transducer

### 9.1 Phased array

- i3PA
  - Bandwidth: 2.0-4.0MHz
  - Number of Elements: 64
  - Field of View (max): 90°
  - Max. depth: 38cm
  - Footprint: 24.2mm × 15.6mm

## 10 Safety and Conformance

### 10.1 Quality standards

- ISO 9001
- ISO 13485

### 10.2 Design standards

- 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 IEC60601-2-37
- EN 62304 and IEC 62304
- EN 62366 and IEC 62366
- EN ISO 17664 and ISO 17664

### 10.3 CE declaration

The system is fully in conformance with the Council Directive 2014/53/EU concerning Medical Devices. The number adjacent to the CE marking (0123) is the code of the EU-notified body that certified meeting the requirements of Annex II excluding (4). of the Directive.

Notice:

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

