

## Portable Color Doppler System

# EBit 50

## Datasheet

### V1.4

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## General information

### Dimensions and Weight

- Dimensions of main unit (approx.): 358mm (Length) ×125mm (Width) ×399mm (Height)
- Net weight of main unit (approx.): 7.8kg (no probe included)

### Electrical Power

- Power supply voltage: Auto adaptable for AC100-240V
- Power supply frequency: 50-60 Hz
- Power consumption: 150 VA

## User interface

### Operation Panel

- Control panel
- Alphanumeric keyboard
- 8 STC Slides
- Interactive backlit keys
- High resolution color LCD
  - Diagonal dimension: 15 inch
  - Resolution: 1024X768
  - Brightness adjustment
- Integrated speaker
  - Volume adjustable

## System overview

### **Applications**

- Abdominal
- Cardiac
- Small organ
- Peripheral Vascular
- Transvaginal
- Transrectal
- Musculo-skeletal
- Pediatric
- Fetal
- OB
- GYN
- Urology

### **Scanning Method**

- Electronic convex
- Electronic linear
- Electronic micro convex
- Electronic phased array

### **Transducer Types**

- Convex transducer: C3-E
- Linear transducer: L7-E, L12-E, L7W-E,
- Transvaginal transducer: V6-E, V7-E
- Phased array transducer: P3-E
- TransRectal transducer: L7R-E
- Micro-convex transducer: MC3-E, MC6-E, MC5-E

**Image Modes**

- B Mode
- B/M Mode
- M Mode
- 2B Mode
- 4B Mode
- 2D Steer (option)
- CFM Mode
- CPA Mode
- DPD Mode
- PW Mode
- B/BC Mode (option)
- Triplex Mode
- CW Mode (option)
- TDI (option)
- Color M Mode (option)
- Trapezoidal Mode
- ECG (option)
- Super Needle (option)
- Elastography Mode (option)
- Free Steering M mode (option)

**Display Mode**

- Quad/dual display (Only for B)
- Duplex mode: B+CFM, B+CPA, B+DPD, B/M
- Triplex mode: B+CFM+PW, B+CPA+PW, B+DPD+PW,

**Display Annotation**

- Logo
- Hospital name
- Exam Date/Time
- Mechanical index
- Tissue thermal index
- Patient Name and Patient ID

- System status (real-time or frozen)
- Gray/Color bar
- Cine guide
- Measurement summary window
- Measurement results window
- Probe type
- Frequency
- Menu indication
- Trackball functions indication
- Imaging parameters

**Standard Configuration**

- High resolution 15 Inch LCD display
- 2 active probe ports
- Pulse Wave Doppler
- Color Doppler Flow Imaging
- Power Doppler Flow Imaging
- Directional Power Doppler Flow Imaging
- ≥500G integrated hard disk
- USB ports : 4
- Ethernet port :1
- S-video out port :1
- VGA port :1
- DVI port :1
- ECG port :1
- Foot switch :1
- Remote :1
- General measurement package
- Clinical measurement packages
- Multi-language screen display
- Review: images review system
- Archive: patient information management system
- Reporting system
- AIO (Automatic Image Optimization)

- Intelligent Zoom
- Speckle Reduction Algorithm (SRA)
- Q-Image software package

**Software Options**

- DICOM (storage, print, worklist)
- Super needle
- CW
- TDI
- Color M
- ECG
- B/BC mode
- 2D steer

**Hardware Option**

- Convex transducer: C3-E
- Linear transducer: L7-E, L12-E, L7W-E
- Transvaginal transducer: V6-E, V7-E
- Phased array transducer: P3-E, P6-E
- TransRectal transducer: L7R-E
- Micro-convex transducer: MC3-E, MC6-E, MC5-E
- Footswitch
- Carrying case
- Trolley
- ECG cable
- Bag

**Peripherals**

- Video printer: SONY UP897MD, SONY UP-D711MD, SONY UP-X898MD
- PC printer :
  - HP Laser Jet 1020
  - HP Laser Jet 1102/1102W
  - HP Laser Jet P2055d
  - HP Laser Jet M251n/M252n/252dw
  - HP OfficeJet Pro 6230

## *Imaging processing and presentation*

### **B Mode**

- Gain
- STC
- Depth
- Freq.
- FHI
- AIO
- Invert
- X-CONTRAST
- UD Invert
- Zoom
- Full screen
- Focus number
- Compound
- SRA
- Density
- Dynamic
- Focus position
- Q-Image
- Persistence
- B Rejection
- Scan width
- Gamma
- Smooth
- Edge enhance
- Acoustic power
- L/R Flip
- Chroma
- 2D Map
- Zoom coef

- Trapezoidal imaging (only for linear transducer)
- 2D steer
- ECG
- Biospy
- Super Needle
- Needle Angle
- Center Line
- Elastography Mode (option)

**M Mode**

- Gain
- STC
- Depth
- Invert
- FHI
- AIO
- Full Screen
- Speed
- M Chroma
- Layout
- M 2D map
- Free M

**Color Mode**

- Gain
- Depth
- FHI
- AIO
- Full Screen
- Freq.
- Wall filter
- Q-flow
- Color Invert
- Q-beam



- Steer (only for linear transducer)
- Color Map
- PRF
- Persistence
- Baseline
- Color mode: Velocity, Variance
- Wall Thre.
- Blood Effecton
- Density
- B/BC

**CPA/DPD Mode**

- Gain
- Depth
- FHI
- AIO
- Color Invert
- Full Screen
- Freq.
- Wall filter
- Q-flow
- Q-beam
- Steer (only for linear transducer)
- PRF
- Color Map
- Persistence
- CF Mode: Velocity, Variance
- Wall Thre.
- Blood Effecton
- Density
- B/BC

**PW Mode**

- Gain

- FHI
- AIO
- Full Screen
- Freq.
- Wall Filter
- Triplex mode
- Steer
- Invert
- PW chroma
- Audio
- PRF
- Speed
- Baseline
- Angle
- D 2D map
- Spectrum Enhance
- Dynamic Range

**TDI mode**

- Gain
- Depth
- FHI
- AIO
- Full Screen
- Freq.
- Steer
- Wall filter
- Color Invert
- Density
- Color Map
- PRF
- Q-beam
- Q-flow
- Persistence

- Baseline
- Wall Thre.
- Blood Efection
- B/BC

**CW mode**

- Gain
- Angle
- Invert
- FHI
- AIO
- Full Screen
- Steer
- Freq.
- Wall Filter
- CWD chroma
- Audio
- Triplex Mode
- PRF
- Speed
- Base line
- CW 2D map
- Spectrum enhance
- Dynamic Range

**Cineloop**

- Support 2D, M, PW, CFM, CPA, DPD
- Simultaneous and independent review in Triplex mode
- Cineloop auto/manual
- Variable cine playback speed
- User-define start and end frame of cine storage
- User-define start and end frame of cine review
- storage in hard disk and display in real-time modes
- Slide show: slide show function

**Storage**

- ≥500GB integrated hard drive
- USB driver
- Still images storage format: BMP
- Still images export format: BMP, JPG
- Cine loops storage format: CINE
- Cine loops export format: AVI

**Review**

- Image review Layout: 1x1,2x2, 4x4
- Image management

**Archive**

- Patient info
- Review report
- Backup exam
- Restore exam
- Send exam
- Delete exam
- Patient view
- Study view
- Expand all
- Collapse all
- Select all
- New Exam
- Continue Exam
- Edit Exam
- Review

***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
  - Perimeter/area
  - Volume (1Distance)
  - Volume (1Distance)
  - Volume (1Ellipse)
  - Volume (2Distance)
  - Volume (3Distance)
  - Volume (1Distance1Ellipse)
  - Ratio (distance/ area)
  - Angle
  - Histogram (rectangular/ellipse/trace)
  - profile
- PW mode measurement
  - Distance
  - Peak
  - Velocity
  - Trace
  - StD%
  - StA%
  - ICA/CCA
  - Flow Volume
  - Heart\_Rate
- General M mode measurement
  - Velocity
  - Distance
  - Time
  - HR

**Clinical Analysis Packages**

- Abdomen
- Obstetric

- Gynecology
- Cardiology
- Vascular
- Urology
- Small parts
- ORTH
- Pediatrics

## System setup

By using system Setup, users could

- Customize hospital information
- Customize language
- Customize screen type
- Customize screen controller
- Customize measurement package
- Customize comment/bodymarks
- Customize exam mode
- Customize hotkey functions
- DICOM setting
- Net setting
- System information
  - function setting
  - Upgrade
  - hardware function
  - Video&VGA setting

### **User Define Functions**

By user-define function, users could customize user-define preset, including

- Applications name, Presets name, User defined name
- Applications exam type
- Imaging parameters

### **Multi-language Display Interface**

- English
- Chinese
- Other languages

*Note: other languages for detailed, please contact CHISON.*

## *Inputs & outputs*

System power in: 1

- Ethernet: 1
- S-video: 1
- Footswitch port: 1
- USB port: 4
- Video out: 1
- Remote control: 1
- VGA: 1
- DVI: 1
- ECG port: 1

## *Operating conditions*

- Ambient temperature: 10°C to 40°C
- Relative humidity: 30% to 75%
- Atmospheric pressure: 700 hPa to 1060 hPa

## *Storage and transport conditions*

- Ambient temperature: -5°C to 40°C
- Relative humidity: ≤ 80%
- Atmospheric pressure: 700 hPa to 1060 hPa

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

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