

QBit 5
Color Doppler System
Datasheet
V1.0



General information

Dimensions and Weight

- Dimensions of main unit (approx.): 747mm (Length) x517mm (Width) x1283mm (Height)
- Net weight of main unit (approx.): 50kg (no probe included)

Electrical Power

- Power supply voltage: Auto adaptable for AC100-240V
- Power supply frequency: 50-60 Hz
- Power consumption: 600 VA

User interface

Operation Panel

- Control panel
- Alphanumeric keyboard
- 8 STC Slides
- Interactive backlit keys
- High resolution color LED
 - Diagonal dimension: 15 inch
 - Resolution: 1024X768
 - Brightness and contrast 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: D3C60L
- Linear transducer: D7L40L
- Trans-rectal transducer: D7L40L-REC
- Trans-vaginal transducer: D6C12L
- Trans-vaginal transducer: D7C10L
- Micro convex transducer: D3C20L
- Micro convex transducer: D5C20L
- Micro convex transducer: D6C15L
- Phased array transducer: D3P64L

Image Modes

- B Mode
- B/M Mode
- M Mode
- 2B Mode
- 4B Mode
- 2D Steer
- CFM Mode
- CPA Mode
- DPD Mode
- PW Mode
- B/BC Mode
- Triplex Mode
- CW Mode (option)
- TDI (option)
- Color M Mode (option)
- Trapezoidal Mode
- ECG (option)
- Super Needle (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 LED display
- 2 active probe ports(standard)
- Pulse Wave Doppler
- Color Doppler Flow Imaging
- Power Doppler Flow Imaging
- Directional Power Doppler Flow Imaging
- ≥32G integrated capacity
- USB ports : 6
- Ethernet port :1
- S-video out port :1
- Video out port :1
- VGA port :1
- DVI port :1
- ECG port :1
- Foot switch :2
- 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
- X-contrast
- Q-beam
- Q-flow

Software Options

- DICOM (storage, print, worklist)
- Super needle
- CW
- TDI
- Color M
- ECG

Hardware Option

- Convex transducer: D3C60L
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- Micro convex transducer: D6C15L
- Phased array transducer: D3P64L
- Footswitch
- ECG cable

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
 - EPSON L130

Imaging processing and presentation

B Mode

- Gain
- Frame rate
- STC
- Depth
- Freq.
- FHI
- X-CONTRAST
- U/D flip
- 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

M Mode

- Color Map
- Speed
- Layout
- M 2D map

Color Mode

- Gain
- Frame rate
- 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
- ROI Size

CPA/DPD Mode

- Gain
- Frame rate
- Freq.
- Wall filter
- Q-flow
- Q-beam
- Steer (only for linear transducer)
- PRF
- Persistence
- Wall Thre.
- Blood Efection
- Density
- DPD
- ROI Size

PW Mode

- Gain
- Freq.
- Wall Filter
- Triplex mode
- Steer
- Invert
- PW chroma
- Audio
- PRF
- Speed
- Baseline
- Angle
- SV
- D 2D map
- Spectrum Enhance
- Dynamic Range

TDI mode

- Gain
- Frame rate
- Freq.
- Wall filter
- Color Invert
- Density
- Color Map
- PRF
- Persistence
- Baseline
- Wall Thre.
- Blood Effecton
- ROI Size

CW mode

- Gain
- Wall Filter
- CWD chroma
- Audio
- PRF
- Speed
- Base line
- CW 2D map
- Spectrum enhance
- dynamic

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

- 32G Capacity
- 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: 1×1,2×2, 4×4
- 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

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
 - M distance
 - M Time
 - Velocity
 - Heart__Rate
- General M mode measurement
 - Velocity
 - Distance
 - Peak
 - Trace
 - StD%
 - StA%
 - ICA/CCA
 - Flow Volume
 - 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/bodymark
- Customize exam mode
- Customize hotkey functions
- DICOM setting
- Net setting
- System information
 - function setting
 - 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

- AC Power In: 1
- AC power Out: 1
- Power Button: 1
- USB Port: 6
- Ethernet: 1
- Remote Control: 1
- S-Video Out: 1
- DVI: 1
- VGA Out: 1
- Video Out: 1
- Footswitch Port: 2

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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