

Specifications for A6 Diagnostic Ultrasound System



SonoScape

SonoScape Technology Co.,Ltd

Specifications for A6 Diagnostic System

General Specification

The system is a full digital portable B/W diagnostic ultrasound system with high performance. With the most advanced full digital ultrasound design in the industry, the system is configured with high performance super large scale integration, and human tissue ultrasound information can be acquired to its best capability; In combination with professional built-in Linux computer system, rich data ports, professional application packages and standard Windows style interface, the system is featured with high performance, as well as powerful software function and easy operation.

A high-performance industrial-grade LCD is used on the systems. Other than the traditional systems, clear image display and abundant gray scales can be found on this system, meanwhile the system weight is reduced significantly.

Moreover, the professional built-in operation system and the standard PC ports enable the user to perform system upgrade and maintenance without effort, while maintaining the advantages of its technologies.

Standard Configuration

- Host 1 pc
- Power cable 1 pc

- Protective ground cable 1 pc
- Fuse 1.6A/250V 2 pcs
- S-terminal cable 1 pc
- BNC video cable 1 pc
- USB2.0 cable 1 pc
- VGA video cable 1 pc
- Ultrasound gel 1 bottle

Optional Accessories

- DVD
- Footswitch
- Biopsy guide
- Trolley
- Special backpack

Optional Peripherals

- Memory stick
- Mobile hard disk
- DVD-RW
- Video printer
- Composite video printer
- Network printer
- VCR

Application

- Abdominal
- Gynecological
- Cardiology
- Urological
- Vascular

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- Small Parts

Sweep method

- Electronic Convex Sector
- Electronic Linear
- Biplane Plane Probe

Sweep Range

- Convex array: Depth over 260mm
- Linear array: depth 140mm, width 65mm
- Micro-convex array: Max angle 180°, max Depth 320mm

Image Modes

- B-Mode
- B+M-Mode
- M-Mode
- Dual B-Mode
- Quad Display
- Tissue Harmonic Image

Standard Features

- Frame Rate: 60 frames/sec
- Display Gray Scale: 256 levels
- Scanning lines: 256 lines in B mode
512 lines in M mode
- frequency range 2.0-12.0MHz
- Dynamic range: 108dB

Scanning Parameters

B-Mode

- B Power: 30% to 100% changeable
- B Frequency: 5 steps
- Focus: Up to 4, focus span adjustable
- Line density: high and low
- Region: adjustable
- Dynamic range: 8 steps
- Persistence: 8 steps
- Rotate: 0°、90°、180°、270°
- Gray Scale Curve: 16 types
- Chroma: 8 types
- TGC Curve : 8 steps
- Gain control: 0-255
- Zoom factor: max 4.0, 8 steps
- Biopsy guide line: on/off
Position/angle adjustment

M-Mode

- sweep speed : 5 Kinds selectable
- line Persistence: 8 steps
- Enhance: 8 steps
- Smoothness: 8 steps
- Chroma: 8 kinds selectable
- Video Invert : Positive、 Negative

B+M Mode

- Power: 30% to 100% changeable
- Frequency: 5 steps
- M Persistence: 8 steps
- M Smoothness: 8 steps

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- M Enhance: 8 steps
- Gray Scale Curve: 16 types
- Dynamic range: 8 steps
- Region: adjustable
- sweep speed : 5 steps

Cine and storage

- In B mode:256 frames
- 128s in M mode
- Cine store:
 - ≥10000 images in JPG format
 - ≥2000 images in bmp format
- Measurement when recall images;

File Management

- File output format:
 - Image: BMP, JPG, AVI;
 - Report: RPT
- Storage media
 - USB Drive
 - DVD-Drive(Optional)

DICOM Network Communication

- Applicable to DICOM3.0 Standard
- Storing, printing, and worksheet management
 - Storing: directly upload the image and patient information to DICOM server
 - Printing: directly printing by printers applicable to DICOM Standard

- Worksheet management: viewing and managing the patient information in HIS and RIS

Data transmission

- Able to communicate with computer system by USB and archive the patient information, reports and images.

Pre-set function

- Users can pre-set the optimal diagnostic mode according to the different probes and checking targets, optimize the imaging parameters and adjusting combination.

Character and icon

- The annotation can be either selected from the dictionary or defined by the user.
- Input character: As ID, Name, Age, Sex
- Image Parameters: As Frame Rate, Frequency, GSC
- Body mark: not less than 50 type

Patient's information

- Name ID sex Age
- Telephone address Memo
- ClinicNo BedNo LMP

Probe Connectors

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- Active Connectors: 2 connectors

Display Screen

- 12-inch industrial-grade LCD, the user can adjust the monitor through system menu

Input/output information

- Input : Footswitch, 2×USB2.0
- output : LAN, 2×USB2.0, composite video, VGA, S-Video, print control

Safety standard

- IEC 60601-1 Class I, Type BF, FDA track I, SFDA

Environmental Requirements

In operation

- Temperature: +10 to +40 degrees C
- Relative Humidity: 30% to 75% (non condensing)
- Atmospheric pressure: 700 to 1060hPa

In Storage/Transportation

- Temperature: -5 to +40 degrees C
- Relative humidity: ≤ 80% (non condensing)
- Atmospheric Pressure: 700 to 1060hPa

Power in

- 100-220V~, 50/60Hz, 1.6Amps
- 150 VA(MAX.)

Weigh and Dimensions

- Approx 6kg
- L×W×H≤340×340×150 (mm)

Optional Probe

- Curved Probe (Abdomen, OB/GYN)
 - C351 (2-6MHZ)
 - C352 (2-6MHZ)
 - C543 (3-8MHZ)
- Linear Probe (Vascular, Small Part)
 - L745 (5-11MHZ)
 - L746 (5-11MHZ)
 - L773 (5-11MHZ)
 - 10L2 (6-13MHZ)
 - L663V (4-9MHZ)
- Micro-curved Probe (Transvaginal)
 - 6V4 (4-9MHZ)
 - 6V5 (4-9MHZ)
- Micro-curved Probe (Cardiology)
 - C312 (2-5MHZ)
 - C612 (4-9MHZ)
 - EC2 (4-9MHZ)

System Menu

- **General Setting**
 - Hospital
 - Date
 - Time
 - Language Setting
 - Simple Chinese

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- English
- Spanish
- Italian
- Russian
- Screen Saver
 - Nothing
 - 5 minute
 - 30 minute
- BM Format
 - 1: 1 LB/RM
 - 1: 1 TB/BM
 - 1: 2 TB/BM
- Image Format
 - BMP
 - JPG
- Video Format
 - NTSC
 - PAL
- Menu Setting
 - Gray
 - Color
- LCD Setting
 - Light
- Software Version
- **Dicom Setting**
 - Local Network
 - Setting DHCP
 - Set Fix IP
 - Static IP
 - NewMask
 - GateWay
 - Print IP
 - Server Network
 - Export USB
 - Export Remote
 - Remote IP
 - Port No
 - Access No
 - **Select Formula**
 - Gestational Sac diameter
 - Hansmann
 - Tokyo
 - Hellman
 - China
 - Nyberg
 - Crown Rump Length
 - Hansmann
 - Tokyo
 - Robinson
 - Hobbins
 - Hadlock
 - Campbell
 - Jeanty
 - Nelson
 - Biparietal Diameter
 - Hansmann
 - Tokyo
 - Robinson
 - Kurtz
 - Hadlock

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- Campbell
- Jeanty
- Head Circumference
 - Hansmann
 - Hadlock
 - Campbell
- Abdominal Circumference
 - Jeanty
 - Campbell
 - Hadlock
- Tibia Length
 - Jeanty
- Ulna Length
 - Jeanty
- Femur Length
 - Hansmann
 - Tokyo
 - Hadlock
 - Campbell
 - Hohler
 - Jeanty
- Estimated Fetal Weight
 - Hansmann
 - Osaka
 - Merz
 - Handlock
 - Shepard
- Cerebellum
 - Goldstein
 - Hansmann
- Humerus Length
 - Jeanty
- Occipito frontal Diamete
 - Hansmann
- Outer Orbital Diameter
 - Jeanty
- Thoracic Diameter
 - Hansmann
- Anteroposterior Abdominal Diameter
 - Jeanty
 - Campbell
 - Hadlock
- Abdominal Area
 - Hansmann
- **Formula Setting**
 - Measure Item
 - Gestational Sac diameter
 - Crown Rump Length
 - Biparietal Diameter
 - Head Circumference
 - Abdominal Circumference
 - Tibia Length
 - Ulna Length
 - Femur Length
 - Estimated Fetal Weight
 - Cerebellum
 - Humerus Length
 - Occipito frontal Diamete
 - Outer Orbital Diameter
 - Thoracic Diameter

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- **Comment Setting**

- Abdominal
- Gynecological
- Obstetrical
- Cardiology
- Urological
- Small Parts
- Others

Measurements and Calculations

- **General Measurements**

- **B-Mode**

- Distance
- Angle
- Ratio
 - ✧ Distance
 - ✧ Area
- Area/Circumference
 - ✧ Ellipse
 - ✧ Trace
- Volume
 - ✧ 2-Axis
 - ✧ 3-Axis

- **M-Mode**

- Distance
- Time
- Slope
- Heart rate

- **Base Obstetrical Measurements**

- **B-Mode**

- Gestational Sac diameter
- Crown Rump Length
- Biparietal Diameter
- Head Circumference
- Abdominal Circumference
- Femur Length
- Occipitofrontal Diameter
- Foot length
- Cerebella
- Amniotic Fluid Index
- Obstetrical report

- **Applicable Obstetrical measurement**

- **B-Mode**

- Anteroposterior Abdominal Diameter
- Abdominal Area
- Humerus Length
- Thoracic Diameter
- Fetal Trunk Area
- Estimated Fetal Weight
- Outer Orbital Diameter
- Tibia Length
- Ulna Length
- Last Menstrual Period
- Fetal Growth Curve
- Fetal Biophysical Profile
 - ✧ Fetal Heart Rate
 - ✧ Fetal Motion
 - ✧ Fetal Breathing Motion

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- ✧ Fetal Tension of muscle
- ✧ Amniotic Fluid
- ✧ Placenta grading

• Gynecological Measurements

▪ B-Mode

- Uterus measurement
 - ✧ Uterus length
 - ✧ Uterus height
 - ✧ Uterus width
- Endometrium thickness
- Left Ovary Volume
- Right Ovary Volume
- Left Follicle
- Right Follicle
- Cervix long diameter
- Gynecological Report

• Cardiac measurements

▪ B-Mode

- Left Ventricle function
 - ✧ Single Plane Ellipse
 - ◆ Left Ventricular Area of Long axis diastolic
 - ◆ Left Ventricular Length of long axis diastolic
 - ◆ Left Ventricular Area of Long axis systolic
 - ◆ Left Ventricular Length of long axis systolic

✧ Biplane Plane Ellipse

- ◆ Left Ventricular Area of Long axis diastolic
- ◆ Left Ventricular Area of short axis at Mitral valve diastolic
- ◆ Left Ventricular Diameter of short axis diastolic
- ◆ Left Ventricular Area of Long axis systolic
- ◆ Left Ventricular Area of short axis at Mitral valve systolic
- ◆ Left Ventricular Diameter of short axis systolic

✧ Bullet

- ◆ Left Ventricular Area of short axis at Mitral valve diastolic
- ◆ Left Ventricular Length of long axis diastolic
- ◆ Left Ventricular Area of short axis at Mitral valve systolic
- ◆ Left Ventricular Length of long axis systolic

✧ Simpson

- ◆ Left Ventricular Area of short axis at Mitral valve diastolic
- ◆ Left Ventricular Length of long axis diastolic
- ◆ Left Ventricular Area of short axis at Papilla diastolic
- ◆ Left Ventricular Area of short

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- axis at Papilla systolic
- ◆ Left Ventricular Length of long axis systolic
- ◆ Left Ventricular Area of short axis at Mitral valve systolic
- Right Ventricle inner diameter
- Pulmonary Artery inner diameter
- Cardiac Report
- **M-Mode**
 - Left Ventricular Mass
 - ◇ Teichholz
 - ◆ ALL
 - ◆ Left Ventricular Septal thickness diastolic
 - ◆ Left Ventricular Diameter of short axis diastolic
 - ◆ Left Ventricular Posterior Wall thickness diastolic
 - ◆ Left Ventricular Septal thickness systolic
 - ◆ Left Ventricular Diameter of short axis systolic
 - ◆ Left Ventricular Posterior Wall thickness systolic
 - ◇ Cube
 - ◆ ALL
 - ◆ Left Ventricular Septal thickness diastolic
 - ◆ Left Ventricular Diameter of short axis diastolic
 - ◆ Left Ventricular Posterior Wall thickness diastolic
 - ◆ Left Ventricular Septal thickness systolic
 - ◆ Left Ventricular Diameter of short axis systolic
 - ◆ Left Ventricular Posterior Wall thickness systolic
- ◇ Gibson
 - ◆ ALL
 - ◆ Left Ventricular Septal thickness diastolic
 - ◆ Left Ventricular Diameter of short axis diastolic
 - ◆ Left Ventricular Posterior Wall thickness diastolic
 - ◆ Left Ventricular Septal thickness systolic
 - ◆ Left Ventricular Diameter of short axis systolic
 - ◆ Left Ventricular Posterior Wall thickness systolic
- Mitral Valve measurement
- Aortic valve measurement
 - ◇ ALL
 - ◇ Aorta diameter
 - ◇ Left atrium diameter
 - ◇ Aortic valve opening diameter
 - ◇ Ejection Time
 - ◇ Left ventricular outflow track

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diameter

- ✧ Aorta amplitude
- TEI Index Measurement
 - ✧ Isovolumic Relaxation Time
 - ✧ Isovolumic Contraction Time
- Cardiac Report

• **Urology measurement**

▪ **B Mode**

- Remnants urine quantity
- Prostate Volume
- Left Kidney
- Right Kidney
- Urology Report

• **Small Part Measurement**

▪ **B Mode**

- Left Thyroid
- Right Thyroid
- Parathyroid
- Report

Specifications for A6 Diagnostic System

- The specifications are subject to change without notice.
- Not all the products are available in all countries.
- Please contact your local Sonoscape representative.

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