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## UltrasoundSystem DUS - 7000



January 2018 DUS 7000 Rev. 04



## UltrasoundDigitalSystem

## Newcutting-edge4Ddigitalimagingtechnology

The DUS- 7000 provides images of exceptional resolution and detail, adding wide range of services with shared capabilities such as vascular, abdominal, pediatric/ fetal, OB and OR and other applications.

# Ultrasound





## Ultrasound

# 3D,4DVolumetric,S-Live

High definition LCD color display with articulated arm Ergonomic second display touch screen Four active transducer ports Digital front-end technology Multi-beam forming technology Compound imaging

µ-scan image processing Tissue harmonic imaging Phase-inversion harmonic imaging High pulse repetition frequency Panoramic imaging 3D/4D imaging, FreeHand 3D Exam-type icons Elastography Imaging Contrast imaging DVD ECG Module u-scan 5-band adjustable frequency in B mode LGC (2-band) Tissue characteristic index Modes: THI, PIH, Color, PDI, DPDI, PW, Simult, Steer M, Color M. TDI. CW. B Dual beams Image rotation function Compound imaging Trapezoidal imaging Capacity of Image and film **HPRF** Support Biopsy enhanced Stress Echo (optional) Measurement package: Basic, Obstetrics, Gynecology, Cardiology, Abdomen, Vascular, Urology, Small parts, Pediatrics, Myocardial performance index PW auto trace IMT measurement A wide range of transducers is available DICOM: transmission, worklist, MPPS, C-store, Q/R Power Supply: AC 100~240 Volts 50/60 Hz. Meet ISO 13485 Quality Standard Meets FDA 510(k) requirements. 2 years warranty.







## Ultrasound

## **DUS7000**

**Utrasound Digital System** Outstanding performance in multiple applications





### DUS-7000

## Ultrasoundimages



Elastography



Trapezoidal Image



Panoramic View with Color



Fetus



Umbilical Artery



Kidney Power Flow



3D/4D



4D S-Live



4D S-Depth



Aorta Spectral



Dig 1994 Al 1994 PN 1994 PN



Vascular

### Advanced Transducer Guide

## DUS-7000

#### **Convex Transducer**

| AI C322  | 72 Elements Micro-Convex Array C322 (Abdominal Biopsy). Frequency 2.0-7.0MHz/ R20mm. Biopsy Guide.                                     |     |
|----------|--|-----|
| AI C344  | 128 Elements Convex Array C344 (Abdominal, Obstetrics, Gynecology), 2.0-7.0MHz/ R40mm.   | 5   |
| AI 3C-A  | 128 elements convex array 3C-A (Patients with difficult access and obese & abdominal obese, Obstetrics, Gynecology),1.0-7.0MHz/ R50mm. | (a) |
| AI C613  | 128 elements Micro-Convex Array C613 (Cardiology, Pediatrics), 4.0-13.0MHz/ R14mm.   | 0   |
| AI VC6-2 | Volumetric convex array VC6-2 (Obstetrics, Abdominal, Gynecology), 2.0-7.0MHz/ R40mm. (4D)   | 0   |

#### Linear Transducer

| AI L741 | 128 elements Linear Array L74(Vascular, Small Parts, MSK, Breast ) Frequency 4.0-16.0MHz/46mm). Biopsy Guide. A                            | - |
|---------|--|---|
| L742    | 192 elements Linear Array L742 (Vascular, Small parts, MSK, Breast )Frequency 4.0-16.0MHz/ 38mm). Biopsy Guide                             | 5 |
| AI L743 | 192 elements Linear Array L743 (Vascular, Small parts, MSK, Breast ), 4.0-16.0MHz/ 46mm) Biopsy Guide.                                     |   |
| AI L752 | 256 elements Linear Array L752(Vascular, Small parts, MSK , Breast ), 4.0-16.0MHz/ 52mm).  | 5 |
| AI 1012 | 96 elements linear array 1012 (Intra- operative Application: Musculoskeletal, Small Parts, Nerve, Vascular, Surgery)<br>4.0-16.0MHz/ 25mm. |   |

#### Cardiological Transducer

Al 2P164 elements phased array 2P1 (Adult Cardiac, Transcranial) Frequency 1.0-6.0MHzAl 5P164 elements phased array 5P1 (Cardiac, Transcranial, Pediatric), Frequency 3.0-9.0MHzAl PWD 2.0PWD 2.0 (Cardiac, Transcranial), 2.0-3.0MHzAl CWD 2.0 CWD 2.0 (Cardiac, Transcranial), 2.0-3.0MHzAl CWD 5.0 CWD 5.0 (Cardiac, Transcranial), 3.3-5.1MHz .

#### Vaginal and Rectal Transducer

AI 6V3192 elements endocavity 6V3 (Gynecology, Obstetrics, Urology), 3.0-15MHz/ R10mm.AI 6V7192 elements endocavity 6V7 (Gynecology, Obstetrics, Urology), 3.0-15MHz/ R10mm.AI EC9-5128 elements transrectal EC9-5 (Urology), 3.0-15.0MHz/ R8mm.AAI BCC9-5 128/128 elements biplane BCC9-5 (Urology), 3.0-15.0MHz/ R10mm

#### Transesophageal Transducer

AI MPTEE64 elements transesophageal (Adult ) Frequency 4.0-13.0MHZAI MPTEE48 elements transesophageal (Pediatric) Frequency 4.0-13.0MHZ

Mini





### **DUS-7000**

### **Technical Specifications**

| B - Mode   | Gain 0-255<br>Depth: 32.9 cm Max ( According probe used )<br>Zoom: Max . = 10<br>TGC : 8 Controls Slide<br>Investment: Left / Right / Up / Down<br>Mode: 2B & 4B<br>Focus : Up to 12 , Lapse Adjustable focus  | Frequency : 5 EasySteps<br>U - Scan:Adjustable<br>Dynamic Range: 20-280 dB (According probe used)<br>GSC 7 selectable stages ,0-255<br>Sec . Width adjustable position B side image.<br>Power: 1-100 % Changeable   |  |
|--|--|---|--|
| 3D/4D<br>Imaging   | 3Simultaneously arbitrary sections<br>Display Mode: Dual Display<br>Quadruple Screen<br>Full Screen 2D<br>Full Screen 3D<br>Full Screen 4D<br>Rotation: X / Y / Z<br>Movement: D / A -A<br>Auto Rotation: 45, 90, 180, 270.360° Adjustable.<br>Capacity: 0-255 Ouset Adjustable - Adjustable 0-255 F | Z scale: Adjustable<br>Z angle: 10-170 ° Adjustable<br>Map of Color: 4Types<br>Multi-Slice: Ref A, Ref B<br>Cutting Space: 0.5-2.0 Adjustable<br>Scanning Angle: 20-75 degrees<br>Image Quality: High, Medium, Low<br>4D Gain: Adjustable<br>Freq. Image: 5 frames / sec or more<br>Pending |  |
| Capacity<br>of image<br>and Film   | Image storage in real time single / dual<br>Static and Dynamic<br>Archived image can be viewed on PC<br>Audio Player Doppler Cinema  | Cine Loop: 10000 frames or more<br>Film Loop Time: 60 seconds or more<br>(> = 500 frames per film)  |  |
| DICOM<br>Display signal<br>Physiologic   | ECG , Pulse Wave<br>ECG Gain: Adjustable<br>ECG Position: Adjustable<br>ECG Inverted: On /Ou   | R- Timer: On /Ou<br>Trigger Delay : Adjustable<br>Frame Count : Adjustable  |  |
| User Interface<br>Keyboard   | Keyboard abbreviation integrated<br>Recording keys for remote control peripherals<br>and devices DICOM<br>4 active ports for connecting transducers  | 8 TGC -Slots<br>Integrated FunctionKey<br>External keyboard   |  |
| Character<br>and Icon  | Entry Area : ID , Name, Date, Birth , Gender , Height , Weig<br>Body mark : 52 Types   | ht, Last menstrual period.  |  |
| Optional<br>Probe  | Phased Array Probe(Cardiology)<br>Linear Probe(Vascular Small-Parts)<br>Curved Prove(Abdomen, OB/GYN)  | Micro - Curved Probe (Transvaginal)<br>Micro - Curved Probe (Cardiologia)<br>Linear Surgical (Surgery)  |  |
| Measurements   | General Measurements<br>Color Mode<br>B - Mode<br>M - Mode<br>4D - Mode<br>Spectral Doppler<br>Obstetrical / Gynecological Measurements<br>B - Mode<br>Pulse - wave mode   | Cardiac Measurements<br>B - Mode<br>M - Mode<br>Pulse - Wave Mode<br>Vascular Measurements<br>Urologic Measurements<br>Small Parts Measurements<br>Orthopedic Measurements  |  |
| Environmental<br>Requirements  | Temperature: +10 to +40 ° C<br>Relative Humidity: 30 % to 75 % (non-condensing)<br>Atmospheric Pressure: 700 to 1060 hPa   |   |  |
| Applications   | AnesthesiaGynecological and ObstetricVascuCardiologyMusculoskeletalUrolo   | Ilar Small Parts Orthopedic<br>gy Pediatric Interventional ultrasound   |  |
| Scaning Method   | Probe Curve: 70 ° or more Phased Array Probe :   | 90 ° or more Probe Micro - curve: 193 ° or more   |  |
| DICOM Network<br>CommunicationStorage: Directly transmits images with patient information to the DICOM file server.<br>Print: Images can be printed directly using a DICOM compatible printer.<br>DICOM Storage Commitment, DICOM Worklist, DICOM MPPS, DICOM Q/R<br>Medical digital images and communication DICOM 3.0 interface. |  |   |  |



### DUS-7000

### **Technical Specifications**

| Exploration<br>Mode  | 4D image<br>Biplane probe<br>Color Mmode<br>TDI mode<br>CW mode   | Eco Stress<br>2D panoramic images<br>Panoramic images influx Color mode<br>Elastography images<br>Biopsy specialized guide  |
|--|---|---|
| Image<br>Mode  | Adjustable Gain 1-255<br>Depth: 42.9cm<br>Image Zoom (0.8 to 10 times)<br>TGC: 8 control levels<br>Investment Image: Left, Right, Up and Down<br>Panoramic image<br>Composite image: Ou, 1, 2 adjustable<br>Focus: Up to 12, range<br>Adjustable Focus (depending on the probe)<br>Frequency: 5 adjustable bands<br>Chromatic: 13 selectable types<br>Adaptive image fusion: 15 selectable types<br>U -Scan: 0, 2, 3, 7 and 11 adjustable | Line Density: 3 adjustable levels (High - medium-low )<br>Persistence: 0-95 selectable<br>Biopsy Guide Function: On / Ou<br>Guide biopsy adjustable angle<br>Dynamic range: 20-280 (depending on the probe)<br>Grayscale curve 7 selectable<br>Image width and position: adjustable<br>Power: 1-100 adjustable, one step at<br>Acoustic fabric: 400-1700<br>LGC: adjustable gain in the left / right side<br>on and ou (linear array probe): trapezoidal image<br>Direction Mode B<br>M- Tuning |
| Flow Mode<br>Colour<br>(CFM ) /<br>Mode<br>Doppler<br>Tissue(TDI ) | Gain 0-255<br>Frame Rate : 2,3,4,5,7 MHz<br>Frequency range: 5 Stages<br>Size and position of ROI colors : Adjustable<br>Auto Focus ( number of focus : 1 )<br>Investment: up / down , left / right<br>Reverse flow : On / Ou<br>Frequency range: 5 stage adjustable<br>Filtering Wall : 25-750Hz (depending on the probe)<br>PRF : 0.5 to 12 KHz   | Line density : 4 types<br>(Low / medium / high / high -Max )<br>Color / address energy: 10 selectable types by Color<br>Doppler , and 4 types selectable by Doppler Tissue<br>Color Adjustment baseline : ± 15 levels<br>Persistence: 0-80 (depending on the probe)<br>Rejection B: 0-255 adjustable<br>Linear deviation angle : 0, ± 16 , ± 20 adjustable<br>Flow Color: Available in frozen mode<br>M -tuning   |
| M - Mode   | Orientation M: 3 sample lines, Display frame rate<br>Video Inversion (On/Ou)<br>Chroma: 5 types<br>Display Format: H1/2, H1/4, V1/3, V1/2, V2/3, O1/4<br>Scan Speed: 6 levels adjustable<br>M Processing: Switch between average and peak values  | M Processing: Switch between average and peak values<br>Power: 30-100 adjustable<br>Color Modo-M: displays both color flow and M mode<br>Inverse Videeo: ou and on<br>Inversion: up and down<br>Screen Format: H1/2,H1/4,V1/3,V1/2,V2/3,O1/4  |
| Spectral<br>Doppler  | Pulse Wave Doppler (PWD)<br>Continuous Wave Doppler (CWD)<br>Sample Size PW Doppler: 1-20 mm<br>Modifiable 1 mm<br>Update 2D: On / Ou<br>Invert Video: On / Ou<br>Mode: 2B<br>Audio Volume: 0-100 Adjustable<br>Filter: 50-1000Hz (PW and CW)<br>Angulo: 0-80 degree<br>Auto real-time tracking   | Vertical Shift: Available up to 17 phases<br>Frequency: 5 phases<br>PRF Adjustable: PW 1 to 20 KHz - CW 1-48 KHz<br>Maximum Speed Range: PW 0.0004-40.9 m / s -<br>CW 0.0013-49.1 m / s<br>Scanning Speed: 2,4,6,8 Seg / Plano<br>Power: 30-100 % Changeable<br>Dynamic Range: 10 selectable stages<br>Display Format: H1 / 2 , H1 / 4 , V1 / 3 , V1 / 2 , V2 / 3 , O1 / 4<br>Steering Angle: 5 Types (Probe Linear)<br>Max. ± 20 Degrees, 0, ± 16 / ± 20 Modifiable.                           |
| Functions<br>Report  | Obstetrics Report /<br>Gynecology Report Cardiac Function<br>Vascular Report  | Urology Report<br>Small Parts Report<br>IMT Report  |
| Data<br>Management<br>System                                       | Memory capacity hard drive : 500 GB<br>Storage media : USB Drive  |   |
| Physical<br>Specifications   | 685mm (L) x 520mm (W) x 1311mm (H)<br>4-idential probe connectors, 1 pencil probe connector<br>18.5" monitor, anti-flickering with LED backlight can b  | Weight: approx. 56kg<br>5 probe holders<br>be vertically or horizontally swiveled.  |



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