



prosound  $\alpha$ 7



As of December 2006, Aloka was the first company to reach a significant milestone in producing 200,000 diagnostic ultrasound systems. We will continue to contribute to human health through our development of innovative and user-friendly systems.



We strive to provide quality products and services for our customers. We operate with regard for the environment.

We care, Ultrasound@Aloka.

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- The specifications, shape and color of this product are subject to change without prior notice.
- Some models may not be available in certain countries.

## Powerful and Friendly Compact Ultrasound

ProSound  $\alpha 7$  is a diagnostic ultrasound system realizing efficient examination through high-definition images, ease of use and efficient flexible data management.

ProSound  $\alpha 7$  facilitates examination and diagnosis thanks to its exceptional image quality and various functions that support and enhance the accuracy of diagnoses.

For example, noise components are reduced by optimizing the transmission waveforms, while the Broadband Harmonics offers high sensitivity that is comparable to fundamental imaging even with Harmonic Echo imaging. Significant effort was exerted to create a system that would alleviate user fatigue and increase patient throughput.

The panel switch customizing function simplifies the use of all functions and measurements. The reporting functions for individual applications reduce the time required for a series of examinations. Moreover, the system can be connected to a digital environment via the DICOM network, making it possible to comprehensively manage the patient information and examination records.

The system's open architecture design will easily allow for future hardware/software options and upgrades.

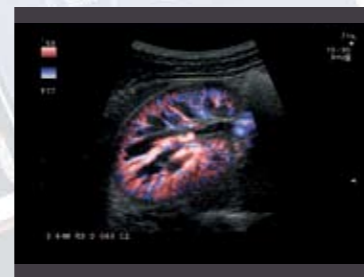
ProSound  $\alpha 7$ . The powerful yet easy-to-use diagnostic tool.





### Directional eFLOW (D-eFLOW)

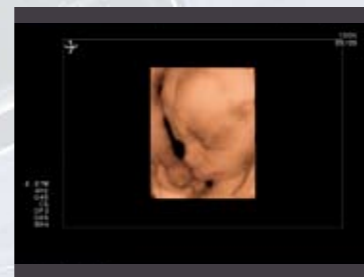
Displays high-resolution blood flow with directional information. Compared with conventional blood flow display methods, D-eFLOW features enhanced spatial and time resolutions for greater detail. Blood flow can be displayed separately from tissues with little overlapping. Furthermore, D-eFLOW uses color to differentiate blood vessels according to the direction of flow, facilitating discrimination of blood vessels.



### Real-Time 3D (4D)

Both expectant mothers and clinicians will be truly impressed with the smoothly moving images of a fetus.

- Rotatable 360° vertically and horizontally.
- Multi Planar Reconstruction (MPR)  
Distance, area and volume can be measured at any selected section of a 3D image.
- Automatic Volume Measurement (AVM)  
It is possible to automatically calculate the volume of areas of interest such as gall bladder and hepatic cysts as well as lesions which appear much brighter than peripheral regions.



### High-definition Extended Field of View (HD-EFV)

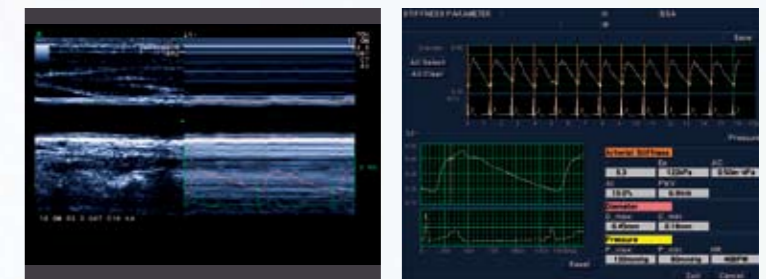
Displays images of an area exceeding scanning width of a probe by gradually moving the probe.

### CHE (Contrast Harmonic Echo)

Compatible with ultrasound contrast agents of high, medium and low sound pressure type.

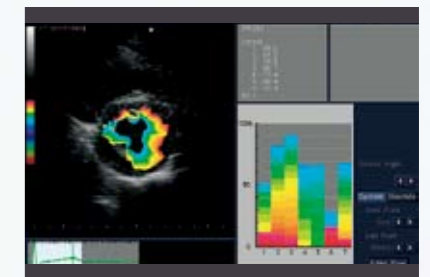
### eTRACKING (Echo Tracking) Supports preventive medicine

eTRACKING is designed to measure, automatically and in real time, changes in vessel diameter. The tracking gate follows movement of the vessel wall caused by pulsation with a precision as high as 0.01mm.

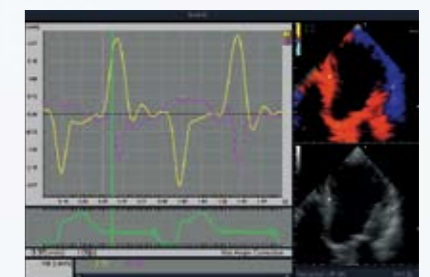


### Highly-developed cardiovascular examination functions

- KI/A-SMA  
Automatically traces the endocardium for quantitative assessment of wall motion based on the area change of the cardiac cavity segments.
- TDI analysis  
The ROI (Region of Interest), once set, follows the same point on the myocardium at any time phase of the cardiac cycle (auto-tracking function). This enhances the accuracy of wall motion velocity analysis.
- Strain and strain rate  
The innovative analysis methods, Strain and Strain rate are rarely affected by tethering or translation, and is generating much interest.
- Asynchrony measurement  
With its high frame rate, the ProSound *a7* system performs time phase analysis in the M-mode and D-mode and TDI with great accuracy. It provides the various parameters needed for evaluating atrioventricular, interventricular and intraventricular asynchrony as one Study.
- Stress echo  
The system offers good flexibility such as permitting installation of user protocols.



A-SMA



TDI analysis

## Comprehensive Data Management

- High-level DICOM network compatibility reinforces examination efficiency
- Raw data acquisition/management
- Privacy protection and security
- Compatibility with diverse formats and media
  - USB memory\*
  - CD-R\*



- Various input/output interface  
iLINK (IEEE1394)\*, USB2.0, Video\*
- Various data format  
ASF (Windows Media), AVI (MS-MPEG),  
DVD-video format (MPEG2)\*

\* Option

## Various Scan Methods

ALOKA's probes utilize wideband technology. Thanks to Multiple Frequency Imaging, the frequency can be selected at the touch of a button from among multiple frequencies, ranging from high resolution for shallow regions and penetration priority for deep regions.



Convex sector



Micro convex sector



180 degrees Transvaginal



Abdominal 4D



Intraoperative



Linear



Phased array sector



Trans-esophageal

- High-resolution LCD monitor  
Able to show the color black very intensely and precisely in a bright room which was not possible with the traditional CRT.
- The control panel can be turned horizontally and is height adjustable.
- Up to three probe holders can be mounted on each side of the console (holders on the left side are optional).
- The most compact and lightest weight in its class allowing for good portability.
- Four-wheel swivel casters with locks enable small turns.
- Low power consumption and low noise.

## User friendly Universal Design for Multiple User Operation

### The control panel supports speedy examinations

- User-customizable panel switches
- Blue LED switches are amblyopic friendly.
- Frequently-used keys are arranged around the trackball.
- Images can be easily frozen thanks to the integration of the gain knob and freeze switch.
- Menu items can be arranged to individual likings on the large (10.4 inches) LCD touch panel.
- Virtual keyboard for making entries via the touch panel.
- Retractable keyboard stored under the operation panel.

