

# the Aspen and Aspen Advanced Ultrasound System

## **A NEW VISION IN ULTRASOUND. INNOVATION. PERFORMANCE. VALUE.**

Extremely powerful and versatile, the Aspen™ and Aspen Advanced Ultrasound System offers a new level of performance in all clinical applications.

The Aspen system resulted from a unique convergence of select Sequoia Ultrasound System technologies and other Acuson innovations to form an entirely new imaging platform. Its new digital system architecture provides complete digital control of the ultrasound echoes from the transducer through the captured digital examination.

In the Aspen, you will discover an array of new technological achievements never before seen in any ultrasound system such as Convergent™ Color Doppler, a powerful new way to image blood flow dynamics. And you will find the exclusive DIMAQ™ Integrated Ultrasound Workstation-the foundation of the digital laboratory-resulting in streamlined workflow and greater productivity.

The new imaging gold standard is defined by Native™ Tissue Harmonic Imaging (NTHI) and DELTA™ Differential Echo Amplification - two powerful technologies that were first introduced on the Sequoia® ultrasound platform and have now migrated to the Aspen Advanced system.

The upgradeable system design, a concept pioneered by Acuson, protects your investment. That is because it keeps you at the forefront of ultrasound innovation and it allows you to expand your clinical capabilities at any time.

## **ONGOING EXCELLENCE IN ULTRASOUND.**

From its ergonomic design and portability to its flexible architecture and unmatched versatility, the Aspen ultrasound system continues the Acuson tradition of delivering uncompromised clinical performance. And extraordinary sensitivity for both imaging and Doppler. With its expanded capabilities, the Aspen system brings a new level of performance to premium ultrasound technology. The Aspen platform is built



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upon four major cornerstones:

- **TECHNOLOGY CONVERGENCE** Leveraging advanced technological breakthroughs.
- **VALUE ENGINEERING** Versatility, productivity, upgradeability and quality.
- **TRANSDUCER TECHNOLOGY** Versatility and innovation in a comprehensive family of high performance transducers.
- **DIMAQ INTEGRATED ULTRASOUND WORKSTATION** Foundation of the digital laboratory.

### **TECHNOLOGY CONVERGENCE. LEVERAGING ADVANCED TECHNOLOGICAL BREAKTHROUGHS.**

The Aspen platform combines select technologies from our revolutionary Sequoia ultrasound platform and other advanced Acuson technologies in new and unique ways. This results in remarkable improvements in clinical performance and productivity.



NTHI & DELTA dramatically improve image quality for every ultrasound patient - even the most difficult to image. All while making the most subtle tissue differences readily apparent. So you can make virtually every diagnosis simpler, faster and with more confidence.

For example, Convergent Color Doppler provides the increased sensitivity of Color Doppler Energy with the directionality of Color Doppler Velocity. This gives you information from both energy and velocity simultaneously. Convergent Color Doppler is an easier-to-use and more sensitive form of color Doppler imaging and is the culmination of years of innovation in Color Doppler Energy and Color Doppler Velocity imaging. With Convergent Color Doppler, the door is open to expanded Doppler imaging in such demanding applications as renal, obstetric, gynecologic, and small parts imaging.

Some other examples of technology convergence in the Aspen system are:

- High-resolution, extended frequency imaging results from the convergence of Acuson's patented beamformer architecture, new high-frequency technologies and expanded MultiHertz® multiple frequency imaging for superior imaging of the breast, small parts, and superficial structures.

Outstanding and uncompromised cardiology capabilities including an integrated stress echo package and a remarkable single transducer solution for adult cardiac exams. The combination of high resolution imaging with wide field of view provides superb endocavity imaging with high spatial and contrast resolution

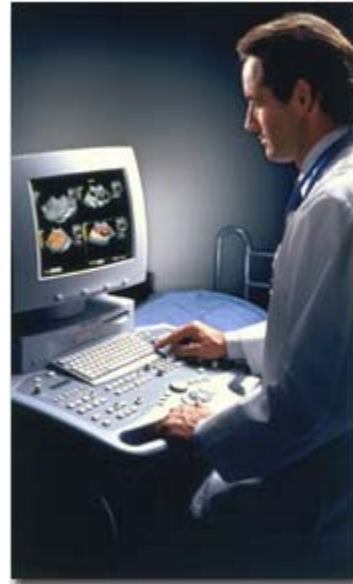
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throughout the entire field of view.

**VALUE ENGINEERING.  
VERSATILITY AND UPGRADEABILITY BY DESIGN.**

The Aspen system is compact, lightweight and very portable. Designed for a broad range of applications, it comes with clinical versatility and robustness built in right from the beginning. Plus, its upgradeable system architecture ensures long-term value through expanding ultrasound capabilities.

The Aspen system offers superb ergonomics and a rapid access user interface—a design based on extensive customer feedback—to increase exam efficiency and speed. Our new HomeBase keyboard places the most frequently used controls at your fingertips. And the tilt-and-swivel monitor adjusts to individual scanning styles and ambient lighting, for enhanced user comfort and ease of use.



**TRANSDUCER TECHNOLOGY.  
A COMPREHENSIVE FAMILY OF HIGH PERFORMANCE**

The Aspen ultrasound system accommodates new transducers designed specifically for the Aspen platform as well as select transducers from both the 128XP® and the Sequoia ultrasound systems. This brings significant advantages to the Aspen system including:



- More than 20 high-performance transducers are currently available addressing the full range of clinical applications.
- Specialized transducers for such applications as breast, pediatric, neonatal head, endocavity, peripheral vascular, cardiac, and intraoperative.

New transducer ergonomics ensure superior scanning across mainstream and specialized applications.

**THE DIMAQ™ INTEGRATED ULTRASOUND WORKSTATION.  
FOUNDATION OF THE DIGITAL LAB.**

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An exclusive Acuson development shared with our Sequoia system, DIMAQ is a special-purpose ultrasound workstation that is completely integrated within the Aspen architecture. Powerful and cost-effective, the DIMAQ workstation has direct access to all exam data generated in the system. It includes the 5 key elements of Digital Lab System Architecture



1. A patient-oriented file structure stores all of a patient's images and data in one DICOM file-for faster, easier access and transfer.
2. Customizable protocols afford a quick, easy way to create manageable file sizes and work more efficiently.
3. Direct digital acquisition provides easy, single-key acquisition of a clip or calculation-without the need for external acquisition devices
4. An Integrated Compression Engine utilizes DICOM-standard compression to reduce file sizes by 20-30X. This facilitates high-speed transmission and conserves storage without comprising image quality.
5. Embedded DICOM maintains all patient data in a DICOM format inside the system. You can easily transfer this data-without additional conversion-to ultrasound or multimodality PACS, HIS/RIS networks and printers.

## **ACUSON GOLD STANDARD PERFORMANCE**

An ultrasound pioneer, Acuson continues to lead the way in expanding ultrasound capabilities. Our singular focus means we are constantly working to improve technology and integrate advances into sophisticated yet user-friendly systems.

Rigorous Acuson standards for quality, performance and value are reflected in the Aspen platform. Furthermore, it is designed to keep you on the cutting edge of imaging technology while leveraging your capital investment.

All this is what we mean by Gold Standard performance. It represents our unwavering commitment to you and to better care and outcomes for your patients.

