

THE TERASON ECHO™ ULTRASOUND SYSTEM

Clinical Advantages for Echocardiography

Terason, a division of Teratech Corporation, is a diagnostic ultrasound technology company that is setting new standards for imaging performance, ease of use, size, and cost. The company's breakthrough Teratech™ Architecture and cutting edge system integration technologies help improve patient care by enabling compact equipment to generate highly informative diagnostic images previously possible only using large, expensive machines.

Terason's background in high performance laptop ultrasound design provides unique advantages in the field of echocardiography. Echocardiography imaging requires superior spatial resolution, high frame rates, and sensitive Doppler performance. The **Terason Echo Ultrasound System**, based upon Terason's proprietary Teratech Architecture, delivers a compact imaging platform without sacrificing clinical performance.

Teratech™ Architecture and Fusion™ Processor



Terason researchers have created the ideal medical ultrasound platform by applying advanced electronics technologies to the creation of diagnostic ultrasound images. Leveraging patented charge-domain processing and system integration technologies, Teratech Architecture is the first ultrasound system architecture breakthrough in over twenty years. Teratech Architecture is based on **Terason's Fusion Processor**, the world's only custom-designed integrated ultrasound chip set, and the use of a Windows®-based computer. Teratech Architecture enables the development of cutting-edge, flexible, and infinitely scalable imaging applications while significantly reducing their cost.

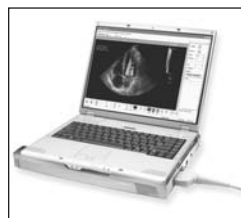
Unlike the Application Specific Integrated Circuits (ASICs) that are widely used in both computing and medical applications, Terason's Fusion Processor is an advanced custom-designed chip for ultrasound applications that delivers exceptional image quality and unlimited scalability not possible with conventional ASICs. Existing compact ultrasound systems using conventional ASIC technology rely on a reduction in beamforming power to achieve lightweight and portability. Only Terason achieves 256 beamforming channels—a unique imaging advantage.

Scanning Performance

Unlike other portable systems that rely on customization of off-the-shelf components, the Terason Echo Ultrasound System does not compromise image quality to achieve lightweight portability. Using the proprietary Fusion Processor, based on decades of cutting-edge integrated circuit research, Terason's chip designers

have enabled breakthrough performance in a portable system that utilizes 256 beamforming channels. As a result, the performance is superior to other compact systems, even at the high frame rates required for echocardiography.

Laptop Model



The Terason Echo is the only high-performance laptop ultrasound system designed specifically for echocardiography. As a result, the system can be upgraded easily and inexpensively as laptop technologies advance. The Terason Echo System allows users to choose from a traditional cart-based configuration for fixed scanning or portability in a laptop configuration. Delivering exceptional clinical performance in either configuration, it has been designed to meet the needs of both hospitals and private practices.

Connectivity

Optimal workflow is critical in today's busy echocardiography labs, and the Terason Echo Ultrasound System delivers rapid throughput and easy integration. The Echo's digital image storage and archiving allows DICOM output, and produces PACS-ready images. Networking and wireless connectivity are available out-of-box using standard PC protocols such as streaming video, and telemedicine-friendly outputs. The Terason Echo system is easy to integrate with third party post-processing and analysis software.

Windows®-based Personal Computer

Because the Echo System uses a Windows-based Personal Computer back end, the system delivers flexibility and efficiency in image processing, reporting, communication, and system integration. It offers PC-related productivity benefits that are second nature, such as images, loops, and reports that can be transferred to standard word-processing and presentation software applications with cut-and-paste simplicity. Terason's Echo system can also be integrated into the existing communication infrastructure or can operate as standalone workstations within the hospital or at remote locations.



For more information concerning Terason call 1-866-TERASON; contact a Terason representative at ACC, booth #4178 for special Exhibit Hall Pricing; or visit the company Web site at www.terason.com.