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HDI 4000 System - Features & Benefits

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Fully-integrated 3D imaging and comprehensive 4D technology



The outstanding image quality that is a hallmark of HDI products plays a critical role in assuring you have the highest quality 2D image as a basis for your 3D and 4D imaging. The HDI 4000 system is a practical and affordable solution offering maximum clinical versatility and unmatched performance in 3D and 4D imaging.

Comprehensive 4D technology

The HDI 4000 system incorporates many timesaving features to make 4D imaging faster and easier than ever before. One-touch 4D image rendering enables the rapid evaluation of complex fetal or gynecological anatomy without the time-consuming two-handed manipulations necessary on other systems.

[Read more about 4D >](#)

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The Power of HDI



High Definition Imaging (HDI), synonymous with leading edge diagnostic ultrasound, combines the flexibility and agility of an all-digital broadband beamformer with revolutionary software control. It allows the addition of new and advanced imaging capabilities to streamline exams and provide more diagnostic information for the clinician.

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Broadband digital beamforming



The HDI broadband beamformer uses state-of-the-art, high-speed digital processing to detect and preserve tissue signatures. With 512 digital channels, the HDI 4000 captures the full returning signal and digitally processes a wide range of frequencies. Broadband digital beamforming also has the ability to precisely steer and focus ultrasound signals containing broad frequency bandwidths. More tissue information is acquired which improves axial, spatial and contrast resolution and displays images with outstanding resolution and clarity. The result: increased diagnostic confidence.

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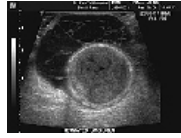
HDI Broadband transducers



The HDI 4000 system uses a full selection of high-performance transducers from the versatile HDI broadband family. Broadband curved, linear and phased array transducers have an expanded functional bandwidth allowing for more tissue information to be acquired. As well, Doppler sensitivity is increased with improvements in acoustic design and efficiency. These broadband transducers support a wide range of applications from abdomen to OB/Gyn, cardiac, and vascular, as well as specialized requirements for breast, prostate, small parts, intraoperative and musculoskeletal imaging.

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Tissue Harmonic Imaging (THI)



Pioneered and patented by Philips/ATL, THI displays images with a dramatic reduction of artifacts, haze and clutter and better overall contrast resolution and grayscale information. Tissue Harmonic Imaging selectively excludes signals associated with superficial structures and tissues such as subcutaneous fat, ribs and skin. It provides better visualization of tissue interfaces and adds a new level of patient-independent performance, especially on technically-difficult patients.

[Read more about Tissue Harmonic Imaging >](#)

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Trapezoidal Imaging

Trapezoidal Imaging expands the field of view of linear array transducers. More diagnostic information is revealed in a single image, while maintaining excellent resolution.

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High Q Automatic Doppler Analysis

High Q Doppler Analysis automatically traces, calculates and displays all established critical arterial Doppler values and indices in real time. Exam time is reduced and reproducibility of exam results is increased. Real-time displays for vascular and cardiac studies include those volumes and indices required for diagnostic reports.

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