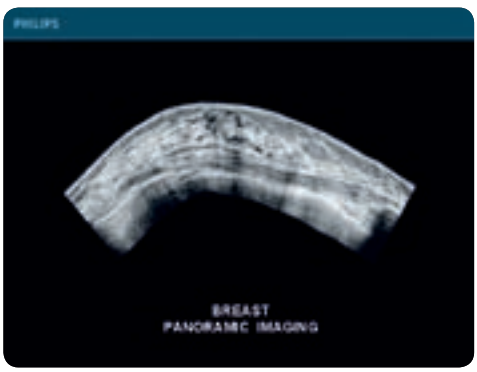
Refining the experience

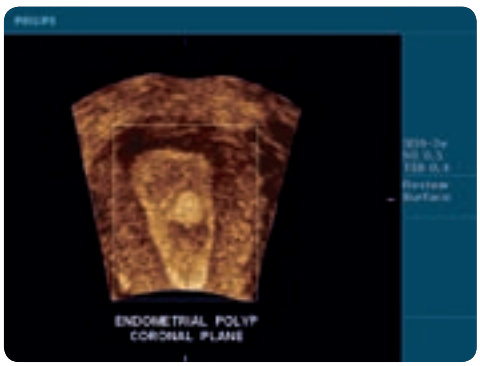
Philips HD11 XE ultrasound system

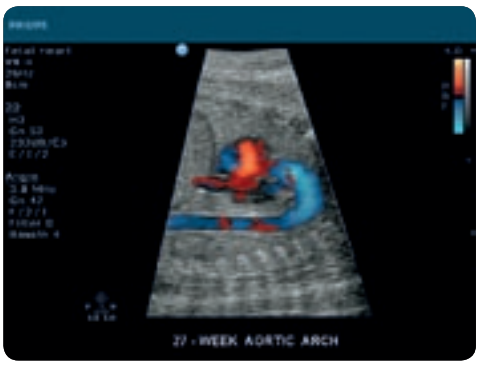
PHILIPS

Experience full featured enhancements

The HD11 XE is a complete, digital women's health imaging system that delivers high-definition imaging and ease-of-use in a compact, ergonomic and reliable package. You can also add powerful options like 4D Imaging, QLAB advanced quantification, 3D Fetal Echo STIC, iSlice and more.







Complete digital system

The HD11 XE offers superior image quality across your entire patient population, thanks to its broadband beamformer, and advanced imaging technologies such as SonoCT and XRES.

The following advanced modes and technologies are standard on every HD11 XE system:

- **SonoCT compounding** performs beam-steered spatial compounding in both transmit and receive modes. It acquires multiple lines of sight simultaneously, without any special transducer maneuvers, compounds them in real time and displays exceptionally clear images. You can count on more clinical data for increased diagnostic confidence, patient after patient.
  - An independent clinical study* determined that SonoCT technology produces images superior to conventional imaging in up to 94% of the patients and changes patient management in 17% of the cases.
- **XRES adaptive processing** virtually eliminates speckle noise artifact, enhancing borders and margins for better diagnostic review. And SonoCT and XRES working in tandem display images with breathtaking clarity and accuracy adding to your diagnostic confidence and allowing you to make patient management decisions earlier.
- **2D with Pulse Inversion Harmonic Imaging**, Philip's patented method for producing pure, broadband harmonic signals for superb grayscale presentation.
- **3D imaging with multiplanar views**, for qualitative freehand 3D images and interactive visualization through three planes.

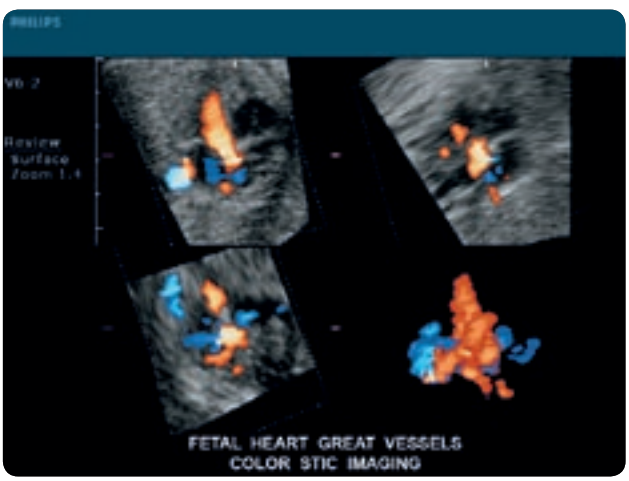
With the HD11 XE system, you get an uncompromising platform, plus the advanced options you need in a highly mobile and easy-to-use system.

* Scientifica study on image quality.

Capture volumes of data

The HD11 XE system allows acquisition and construction of volume data sets in real time. Volumetric imaging provides you with new views and data that you could not acquire with conventional 2D imaging. It enhances your 2D imaging as well, for even greater diagnostic confidence in your obstetrical, gynaecologic, breast and general imaging studies.

The HD11 XE's robust volumetric imaging capabilities include 3D acquisition with display in real time (4D), fetal echo STIC, elegant display formats and comprehensive analysis, as well as a full set of manipulation tools.



Construct, view and analyze volumetric images in real time

The HD11 XE system provides you with the ability to acquire volume data and to view all planes (a, b and c) as well as the multiplanar reconstructed (MPR) format.

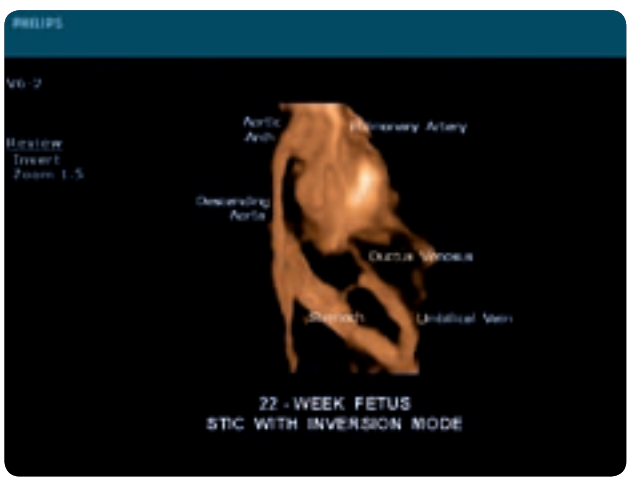
Once you have acquired your volumetric data – use **iSlice** to find the images with the best views and content for review and diagnoses. You can adjust the format to display 4, 9, 16 or 25 2D images based on precision slicing of the volume set – you control the data to best suit the exam needs. When you rotate the volume view, you also update the 2D views to reflect the new perspective. This is done instantaneously so you are always looking at updated data.

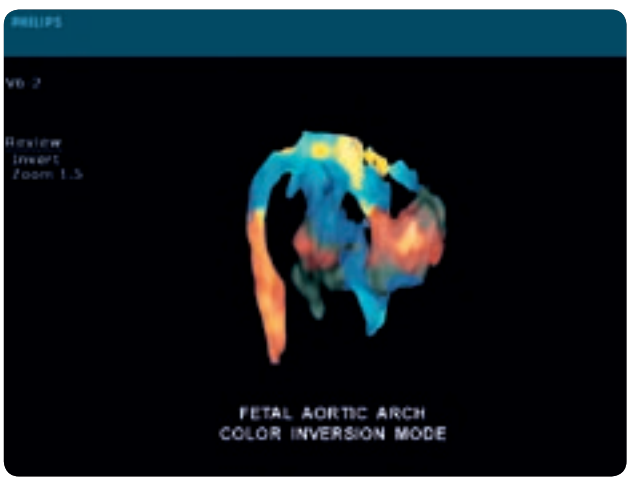
The **thick slice** function allows you to select a slice of data, control the thickness, and manipulate it for enhanced contrast resolution and improved visualization of anatomical structures.

You'll quickly find that **iSlice** and **thick slice** augment your diagnostic, decision-making and patient management processes.

The HD11 XE brings 4D imaging into the mainstream by delivering it on a platform with a unique combination of versatility and value. Move seamlessly through 2D and Doppler exam protocols right into breathtaking, 4D studies. The system's powerful architecture supports continuous, precise quantitative volume acquisition and display, with easy, simultaneous visualization and measurements in three planes. Numerous innovations are on and off-cart to give you stunning image quality and the potential to improve your exam efficiencies by changing the way you acquire and visualize ultrasound data.

- The HD11 XE offers new levels of volumetric capability including quantitative abdominal and OB imaging with the new smaller and more ergonomic V6-2 and V8-4 transducers.
  - **Invert** – is a volume display method that allows the direct visualization of anechoic structures such as the chambers and major vessels of the fetal heart.
  - **Color Invert** – enables the user to visualize directional bloodflow within the inverted volume.
- **3D fetal echo STIC** (Spatio-temporal Image Correlation) technology presents the fetal heart beating in a multiplanar display, preserving spatial relationships in the B and C planes. This allows for a more detailed view of fetal heart valves and wall motions, to aid in detecting anomalies during routine obstetrical exams.
- The **Panoramic Imaging** option provides an extended field-of-view display. This feature creates a series of real-time images while the user moves the transducer laterally across the anatomy. When imaging is complete, the system renders a panoramic mosaic display. The resulting panoramic image provides a larger reference image for documentation of spatial relationships of structures.
- The **contrast** option equips the HD11 XE to detect harmonic agent signatures using the S3-1 and C5-2 transducers. This option provides a uniform power field, allowing more even excitement of contrast agents throughout the sector. Optimized LVO system settings on the HD11 XE decrease contrast agent destruction and increase ease-of-use by minimizing the need for system adjustments. All of which add up to more complete visualization of contrast throughout the image.
- **3D Color mode** allows assessment of fetal circulation in 3D and multiplanar views.





Streamline your

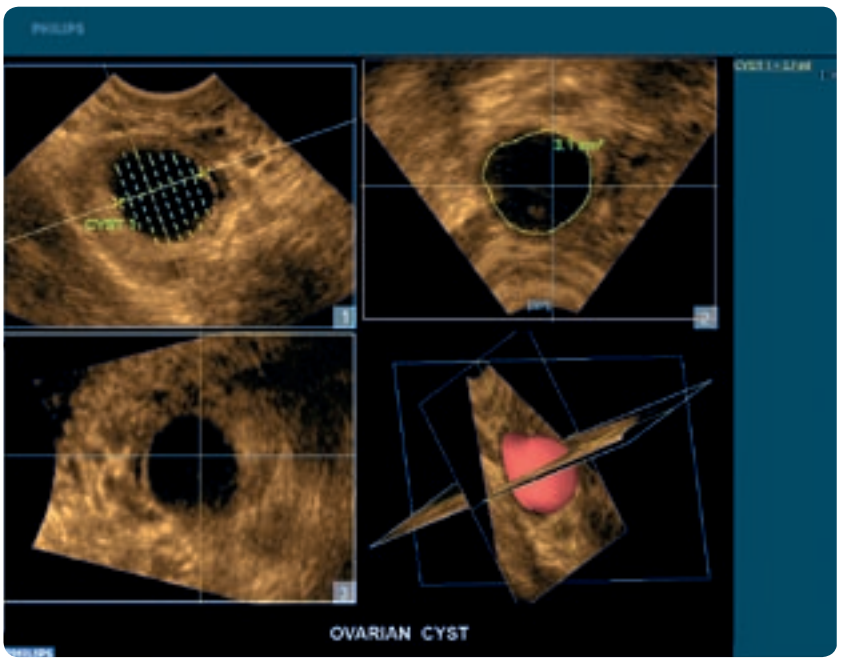
QLAB supports the iSlice display, so you can manipulate the volume data set, make your image selections and append them to patient reports.

Automation tools

Built-in automation tools make it easy to achieve the best 2D and Doppler imaging on the HD11 XE, using minimal keystrokes.

- Exclusive iSCAN intelligent optimization technology replaces numerous fine-tuning steps, simplifying and streamlining most Doppler while increasing consistency from user to user.
  - With the push of a button, iSCAN automatically adjusts gain, TGC and compression on 2D vascular images.
  - iSCAN also operates in Doppler modes, providing automatic scale and baseline adjustments.
- High Q Automated Doppler Analysis provides real-time measurements of user-defined Doppler waveforms.
- Harmonics provides a clear advantage over fundamental imaging in difficult-to-image patients, reducing clutter and increasing the resolution of walls and fine details of tissue structures.
- The Fusion key allows users to optimize the image to patient type by emphasizing Resolution, General, or Penetration imaging characteristics.
- All clinical software packages contain presets for virtually all-standard exam protocols. You can also create customized presets for preferred transducers and exam types.
- Adaptive color Doppler automatically picks the optimal color Doppler or Angio frequency as a function of focal depth. It automatically sets higher frequencies when you're close to the surface and lower frequencies when you're imaging deep, for fine resolution and high sensitivity.

workflow



QLAB Advanced Quantification Software

QLAB is available on-cart and off-cart, offering options for workflow efficiencies that best suit your needs. QLAB software allows you to edit and save images in BMP, TIF, JPG and AVI formats, providing files to enhance presentations and imbed in reports.

- The GI 3DQ plug-in allows you to – open, view and quantify 3D data sets, and display, review and select 2D images from the **iSlice** volume display. The **automated stacked contours** feature enables you to quickly and easily calculate a volume based on the selected content.

Data management and connectivity

Image and data management capabilities allow flexible recording, archiving, editing and even exam reports with embedded images.

- On-screen image thumbnails let you build your study and check exam status, at a glance.
- Multi-session CD and optional peripheral devices allow you to meet your documentation and archiving needs.
- Prepare professional patient reports with embedded images.

DICOM Networking option

The HD11 XE system allows you to adapt to most DICOM management systems. Includes DICOM Print and Store, Modality Worklist, Performed Procedure Step and Structured Reporting.

- DICOM Structured Reporting for women's health exams supports both conventional free-text reports and structured information, for improved precision, clarity, and value of clinical documentation.

Choose comfort and versatility

V6-2

V8-4

C6-3

The V6-2 and V8-4 volume trandsucers' new light weight, smaller design improves user comfort and eases image access in tight spaces. The C6-3 smaller curved array transducer improves intercostal access.

The ultimate in ergonomics and mobility

From the adjustable monitor and control panel, to the easy-to-access transducer connectors and highly maneuverable cart, the HD11 XE was built with enhanced ergonomics in mind.

- The HD11 XE adapts to virtually any scanning position for optimal user comfort and convenience.
- Meets Industry Standards* recommendation for independent height adjustment of the monitor and control panel, facilitating neutral working postures and reducing repetitive stress injuries.
- Ultra-bright, virtually flickerless LCD flat panel display reduces eye strain.
- The HD11 XE is the lightest and smallest system in its class, enhancing its portability and making it easy to bring world-class ultrasound to your patients.
- The integrated footrest allows correct posture, reducing stress on the spine.
- Up to five available transducer ports reduce bending to switch out transducers.
- Advanced circuitry produces less heat, helping to keep users and patients more comfortable.

A unique family of ergonomically designed transducers

The HD11 XE offers a comprehensive selection of curved linear array, volume sector and linear-array transducers. And with transducer frequencies ranging from 1 to 15 MHz, you can meet a complete range of obstetrics, gynecology and breast applications.

- The HD11 XE supports over 20 transducers, including many from the Explora line.
- Explora transducers deliver maximum acoustic efficiency for greater penetration and resolution, and have extremely lightweight and flexible superflex cables that dramatically ease wrist strain.
- Select transducers are compatible across platforms, including the iU22 and EnVisor systems.
- Leading the market in advanced ergonomics for volumetric imaging our 3D transducers offer:
  - advanced lightweight design for improved user comfort.
  - smaller footprint for easy imaging access in tight spaces.
- C6-3 transducer allows excellent image quality and nearfield resolution.
  - multiangle biopsy guide is available offering a choice of 4 angles.

*Society of Diagnostic Medical Sonography, Industry Standards for the Prevention of Musculoskeletal Disorders in Sonography, May 2003

Depend on us

The HD11 XE is a system you can depend on – every day, patient after patient. And it's built on an upgradeable platform to protect your investment.

Advancing ultrasound technology for better patient care

Our mission is simple: advancing ultrasound for better patient care. Our commitment to development has resulted in systems that meet and exceed expectations across a wide range of users. We've played a significant role in clinical research leading to new applications and advanced techniques. And we aren't stopping here. We are always working on tomorrow's advances.

We'd like to be your ultrasound partner for today and tomorrow. Please contact us to learn more about our systems, support programs and financing options.

Award-winning **CUSTOMerCARE** Services

Delivering the highest quality of customer support in our industry doesn't come easy. We prove it each and every day with our CUSTOMerCARE service agreements. They're designed to provide the flexibility and choice to manage your financial performance in a way that promotes uptime, lowers the cost of ownership and increases your productivity. For the 13th year in a row, customers rated Philips #1 in overall service performance and #1 in overall manufacturer satisfaction in IMV Limited's 2005 annual survey.*

Bringing expertise and vision to your ultrasound education

Philips Ultrasound offers a wide array of clinical and technical education, online resources and training courses to meet the increasingly complex needs of healthcare professionals.

*IMV Limited, based in Greenbelt, MD., is an independent healthcare research firm.

Philips Healthcare is part of Royal Philips Electronics

How to reach us
www.philips.com/healthcare
healthcare@philips.com
fax: +31 40 27 64 887

Asia
+852 2821 5888

Europe, Middle East, Africa
+49 7031 463 2254

Latin America
+55 11 2125 0744

North America
+1 425 487 7000
800 285 5585 (toll free, US only)

Philips Healthcare
Global Information Center
P.O. Box 1286
5602 BG Eindhoven
The Netherlands

Philips Healthcare is part of Royal Philips Electronics

www.philips.com/healthcare
healthcare@philips.com
fax: +31 40 27 64 887

Printed in The Netherlands
4522 962 05761/795 * JUN 2008

Philips Healthcare
Global Information Center
P.O. Box 1286
5602 BG Eindhoven
The Netherlands