PHILIPS

Ultrasound

EPIQ

Designed for **life**

Philips EPIQ Ob/Gyn
The evolution of premium ultrasound

Their trust in you
is **complete**

At Philips, we know that a woman's relationship with her Ob/Gyn is, at its heart, a personal one. We've designed our solutions to help you nurture a trusting relationship with each and every patient. Every day and every patient brings something new. No matter the diagnostic challenge, you require premium-quality imaging to make decisions with confidence, even with the most technically difficult patients. We've designed the Philips EPIQ Ob/Gyn ultrasound system so that you have the right tools at the right time to make accurate and early diagnoses.

Designed for life

The beginning of a new life is a special time in a woman's life, and Philips wants to be your partner, providing advances in image quality, workflow, ergonomics, analysis, and report generation that give you diagnostic confidence and allow you to spend more time with your patients.

Your patient's peace of mind is our top priority. EPIQ is designed to give you more information early in a woman's pregnancy for a confident diagnosis. During your patients' most important life moments, having Philips by your side can help you provide the care they need and the comfort they deserve. Philips has a 30-year history of partnering with clinicians to provide premium-quality care across the health continuum.

Every detail matters

It's our most technologically powerful architecture ever applied to ultrasound. EPIQ is the new direction for premium ultrasound, featuring an exceptional level of clinical performance to allow the deeper levels of definition and clarity that enable you to make early, evidence-based decisions during the critical first and second trimester – even in the most technologically difficult cases.

Sophisticated tools that make a difference in your day-to-day operations

Advanced automated capabilities, anatomical intelligent ultrasound (AIUS), and ergonomically designed equipment increase the speed, accuracy, and reproducibility of scans, ultimately giving you more time to focus on your patients.

The combination of intelligent ergonomic design and premium quality imaging allows you to reduce scan times while avoiding physical strain, repeat scans, increased cost, and liability risk.

Service you can count on as your patients count on you

You can depend on Philips to deliver reliable solutions with tools that maximize throughput and minimize downtime. We also develop analytics that add value to your purchase, including tools that help you optimize your ultrasound department by giving you easy access to deep levels of systems data and by providing a clear view into workflow, staffing, utilization, and downtime.

Early and easier diagnostic confidence
Be certain and decisive with Philips premium-quality imaging

Made for you
With optimized workflow, you can spend more time caring for your patients

Your partner today and tomorrow
Accurate diagnoses require a trusted partner that brings you closer to your patients

*n*SIGHT Imaging is a **new paradigm** in imaging architecture

Traditional ultrasound didn't go quite far enough.
So we revolutionized it. *n*SIGHT Imaging architecture
introduces a totally different way to form ultrasound images.

With our proprietary technology, we've matched a multi-stage precision beamformer to massive parallel processing. This allows the system to receive and process an enormous amount of acoustic data. *n*SIGHT Imaging creates images with superb resolution down to the pixel level.

- **Capture** highly detailed ultrasound images while maintaining extraordinary temporal resolution
- **See** new levels of tissue uniformity beyond traditional transmit focal zone placement
- **Obtain** superb detail resolution associated with high frequencies without sacrificing penetration to meet your imaging needs — especially with difficult patients

Committed to ultrasound, committed to you
Philips has over 650 ultrasound patents.

Quantifying breakthrough advances in imaging performance

Comparing EPIQ to conventional premium systems*
- **Up to 76% increase** in penetration (penetration = ability to scan at depths and maintain resolution in order to complete the study)
- **Up to 213% increase** in temporal resolution (temporal resolution = ability to maintain resolution at high frame rates) for EPIQ 7 and a 160% increase in temporal resolution for EPIQ 5

* 2013 quantitative engineering study comparing Philips iU22 ultrasound system with EPIQ.

Creating **new realities**, redefining clinical expectations

*n*SIGHT Imaging goes beyond conventional ultrasound performance for new levels of definition and clarity.

Proprietary *n*SIGHT Imaging architecture is unlike anything that has come before it. It captures an enormous amount of acoustic data from each transmit operation and performs digital beam reconstruction along with mathematically optimized focal processing to create real-time images with exceptional resolution and uniformity.

Superb penetration and resolution imaging of the fetal abdomen with the Philips C9-2 transducer.

Frame rate

Conventional
Users must choose between frame rate and image quality.

*n*SIGHT Imaging
More than doubles the frame rate without impact to image quality. Creates focused images with fewer transmit operations so you can experience both highly detailed ultrasound images and extraordinary temporal resolution.

Uniformity

Conventional
Best resolution is limited to transmit focal zone.

*n*SIGHT Imaging
Corrects focus during beam reconstruction for superb uniformity. Achieves uniformity through coherent beam reconstruction algorithms that apply mathematical focal correction coefficients continually at all depths of the image.

Penetration

Conventional
Penetration limitations and poor sensitivity to weak signals.

*n*SIGHT Imaging
Superb penetration across full range of frequencies. Reinforces weak tissue signals with the ultra-wide dynamic range and unique beam reconstruction of the architecture, allowing enhanced penetration at higher frequencies, even on difficult patients.

xMATRIX premium technology is simply **exceptional**

Your imaging challenges are monumental but, so is the solution. xMATRIX* is our most leading-edge and versatile ultrasound transducer technology. No other premium ultrasound system can run the complete suite of Philips most innovative ultrasound transducers. With the touch of a button, xMATRIX offers all modes in a single transducer: 2D, 3D/4D, Live xPlane, Live MPR, MPR, pulsed wave Doppler, color Doppler, and CPA.

_n_SIGHT Imaging makes powerful xMATRIX technology even more so
- **Achieve** ultra-thin 2D slices
- **Use** Live xPlane imaging to create two full-resolution planes simultaneously, allowing you to capture twice as much clinical information in the same amount of time
- **Present** superb, real-time 4D volume data in obstetrical exams
- **Acquire** near isovoxel resolution to reveal images from any plane within the volume
- **Export** 3D MPRs in the X-, Y-, and Z-plane to any PACS system with MPR DICOM export

EPIQ performance
Gather a volume of the fetal heart in as little as a two-second acquisition compared with the 12-second acquisition time of conventional volume imaging.

Exclusive panoramic volume imaging with xMATRIX
Panoramic volume imaging uses Live xPlane imaging to acquire a calibrated volume over an extended field of view. Easily capture, visualize, and quantify 3D panoramic volumes. For the first time, you can capture an entire third-trimester fetus or an entire uterus in one 3D panoramic volume. Now have exceptional demonstration of the spatial relationships between structures when a single volume is not enough to capture the entire region of interest. Get a global perspective of the examination area to easily and quickly identify target structures.
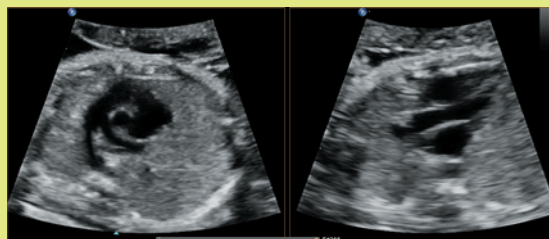
* xMATRIX is available on EPIQ 7 and as an upgrade path on EPIQ 5.
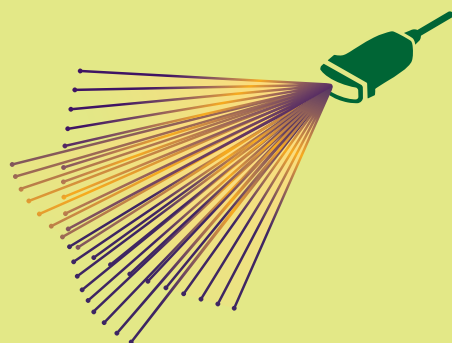
Live xPlane imaging

Capture, visualize, and quantify 3D panoramic volumes.
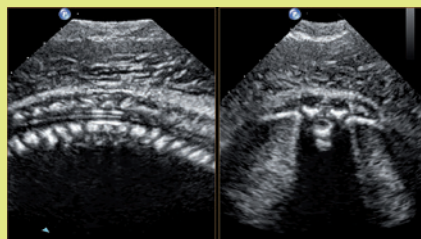
Fetal spine – Live xPlane

Early fetal heart – Live xPlane

The **power** of PureWave

When you're seeing more patients with high BMIs, finding ways to optimize exam success on these technically challenging patients becomes even more crucial. PureWave is your answer.

Image even technically difficult patients

With a complete family of PureWave transducers, your most difficult diagnoses are now easier. PureWave crystal technology represents the biggest breakthrough in piezoelectric transducer material in 40 years. The pure, uniform crystals of PureWave are 85% more efficient than conventional piezoelectric material, resulting in exceptional performance. This technology allows for enhanced penetration in difficult patients and for excellent detailed resolution.
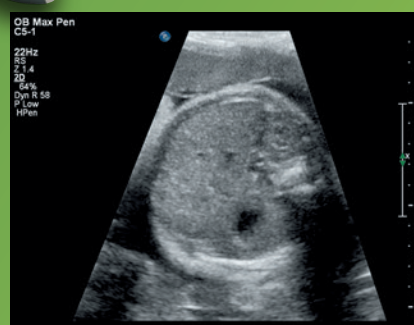
PureWave transducers: X6-1, C9-2, C5-1, C10-3v, and eL18-4.
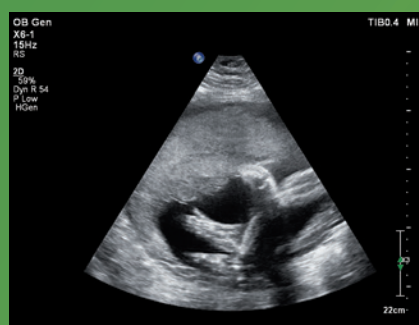
Fetal foot
25-week gestation, BMI = 40

Fetal abdomen
30-week gestation, BMI = 40.1

Fetal abdomen
Technically difficult patient, BMI = 80

Ultra broadband for **ultra performance** in Ob/Gyn

Ultra broadband has never been seen in Ob/Gyn ultrasound before, not even at the premium level. The Philips eL18-4 ultra broadband transducer provides superb 2D detail resolution, along with the penetration needed to provide diagnostic confidence, especially in those critical first and second trimester OB exams.

Ultra diagnostic confidence
The combination of superb detail resolution and penetration is made possible by advanced PureWave crystal technology with fine-elevation focusing capability.
• Multi-row array configuration for full electronic focusing of the elevation plane
• Elevation focusing works in conjunction with azimuthal focusing to provide thin-slice imaging

2 MHz   22 MHz

The eL18-4 transducer generates frequencies from 2 to 22 MHz

Peering under the lens of the eL18-4 reveals a multi-row array that delivers fine elevation focusing over an extended depth of field

Virtually perfect uniformity

PureWave crystals have virtually perfect uniformity for greater bandwidth and twice the efficiency of conventional ceramic materials. The result is excellent imaging and Doppler performance.
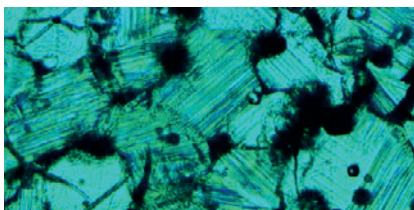
Conventional PZT (x800)
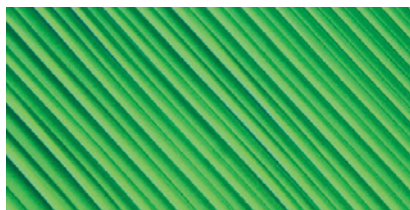
PureWave crystal (x800)

Detect low-volume, low-velocity flow

Philips MicroFlow Imaging (MFI), found on the Philips eL18-4 transducer, is a proprietary mode designed to detect low-volume, low-velocity blood flow found in fetal, placental, uterine, and ovarian vasculature.

**MicroFlow Imaging overcomes technical barriers**
Overcoming many of the technical barriers associated with conventional methods to detect small vessel blood flow with high resolution and minimal artifacts, MFI maintains high frame rate and 2D image quality while applying advanced artifact reduction techniques. New 2D image subtraction, 2D blending, and side-by-side display options offer excellent versatility in visualization.
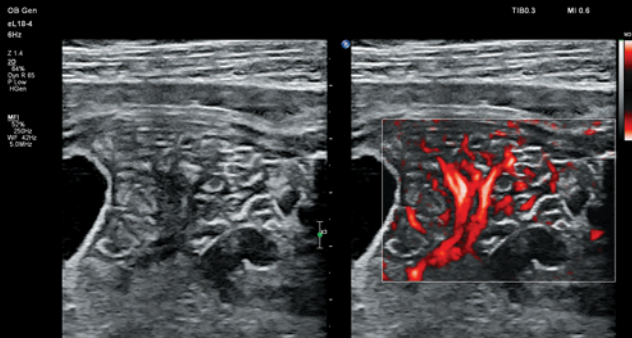
Fetal bowel with MFI compare
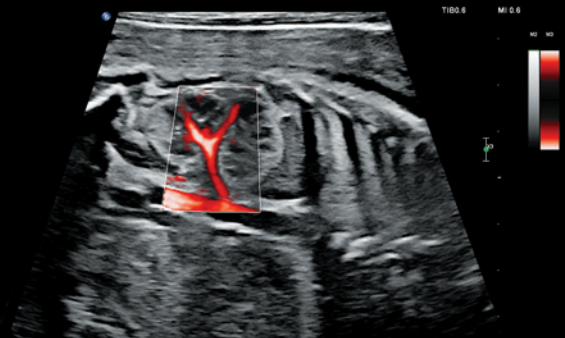
Fetal kidney MFI
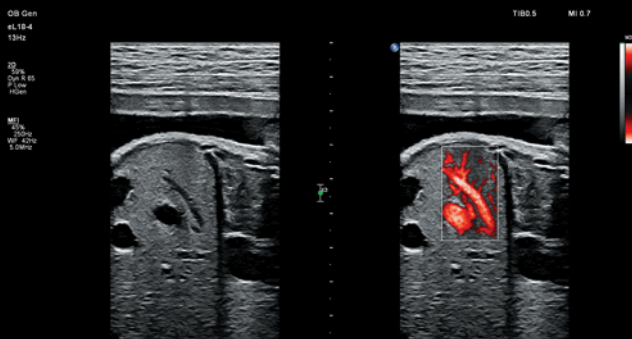
Fetal liver with and without MFI

Fetal brain pericallosal artery MFI

Real life, **illuminated**

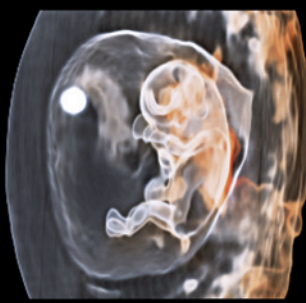**Light source, umbilical cord**   **Light source, upper right**   **Light source, lower left**   **Light source, lower right**

A virtual light for real illumination in 3D imaging

Philips TrueVue virtual light source can be placed anywhere within the acquired 3D volume. This flexibility allows the user to manipulate light and shadow on anatomical structures to enhance clinical confidence, and may foster maternal–fetal bonding.
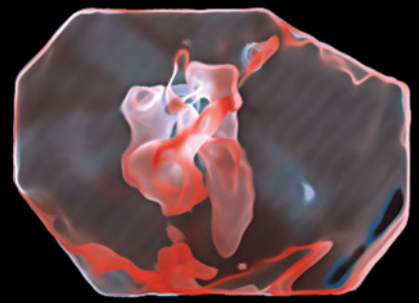

GlassVue, with light source, triplets   **GlassVue, fully transparent**   **GlassVue, less transparency**   **GlassVue, fetal heart**

An early view with GlassVue

Philips GlassVue with internal light source goes beyond the surface to reveal bone, organs, and other internal structures, providing a more transparent view of the fetal anatomy than traditional ultrasound. The transparent nature of GlassVue allows for the user to dynamically identify fetal cardiac chambers, and size and location of inflow and outflow tracts.

One touch to reveal

No longer is it a time-consuming process to reveal the fetal face. Philips aReveal[A.I.] uses a proprietary anatomical intelligence algorithm that automatically sculpts away data around the fetal face by recognizing the geometry of the skull.

Before aReveal[A.I.]

After aReveal[A.I.] applied

One touch reveals the face and one touch reverses the process.

aReveal[A.I.] works with both TrueVue and traditionally rendered 3D volumes.

Anatomical Intelligence Ultrasound (AIUS) turns data into information

aReveal[A.I.] is an advanced feature of Philips AIUS that removes extraneous information to quickly and easily reveal the fetal face. AIUS turns data into information. AIUS looks at a patient's ultrasound data and applies adaptive systems intelligence using 3D anatomical models to create easier and more reproducible results.

Exceptional

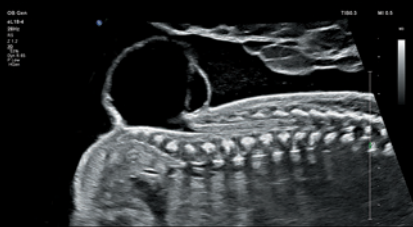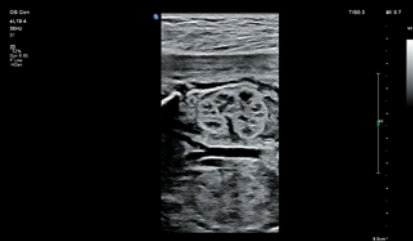## by any measure

eL18-4 myelomeningocele

eL18-4 fetal profile

eL18-4 pericallosal artery with MFI

eL18-4 fetal kidney

eL18-4 fetal heart
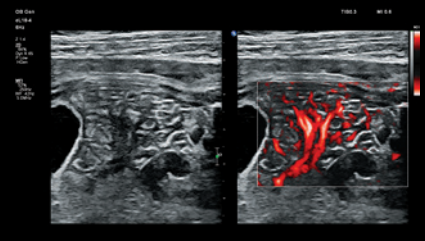
eL18-4 fetal bowel with MFI

X6-1 xMATRIX array, face and fingers

V6-2 TrueVue with light source

3D9-3v fetus with cord

Extraordinary
views

3D9-3v early OB

3D9-3v early OB 3D MPR

**V6-2 three vessel cord –
TrueVue with light source**
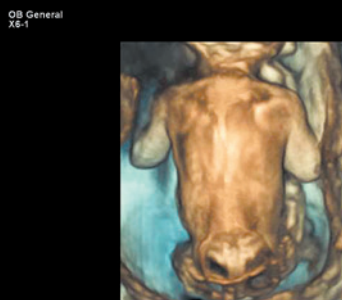
X6-1 3D spina bifida
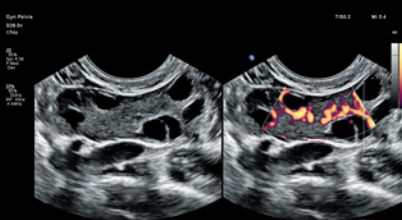
3D9-3v ovaries in MaxVue
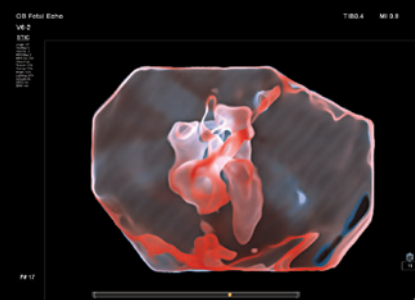
V6-2 fetal heart with GlassVue

3D9-3v triplets with GlassVue
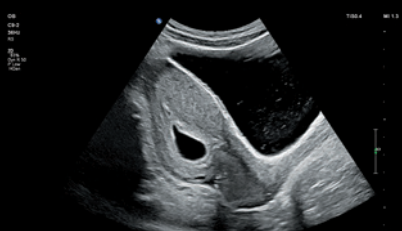
C9-2 gestational sac

C9-2 fetal profile

The **touch** you've been looking for

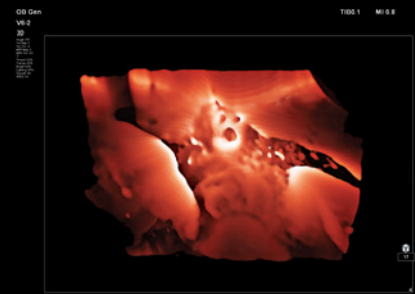Philips TouchVue is an easier, more intuitive method of 3D volume manipulation than found on traditional ultrasound systems. Just by using simple finger gestures on the EPIQ touch panel, the user can control 3D volume rotation in all axes. When in TrueVue 3D photorealistic rendering mode, TouchVue also allows the user to position the internal light source in all axes.

TouchVue enhances TrueVue, GlassVue, and traditional 3D volume workflows and lets you use an intuitive touch panel to control 3D volume rotation in all axes.

aBiometry
Assist[A.I.]
Default

A **welcome assist**
during the exam

Virtually every obstetrical ultrasound examination includes standardized measurements of fetal structures to assess fetal age and growth trends. Philips aBiometry Assist[A.I.] uses anatomical intelligence technology to automatically preplace measurement cursors on selected structures, which users can quickly accept or edit.

aBiometry Assist[A.I.] reduces conventional measurement steps
These automatic measurements of the most commonly used fetal biometry parameters – BPD, OFD, HC, AC, and FL – may allow for a reduction in measurement steps and save time over conventional manual measurement methods. Measurements generated by aBiometry Assist[A.I.] automatically transfer to obstetrical reports, therefore streamlining report generation.

Experience
full high-definition viewing

Philips MaxVue allows you to experience ultrasound imaging in 16:9 full high definition (FHD), displaying 1,179,648 more image pixels than standard format mode. This display provides greater viewing area to optimize dual, side-by-side, biplane, and scrolling imaging formats. MaxVue can also enhance ultrasound viewing during interventional procedures.

Make your image **38% larger** than the traditional ultrasound image with no loss of resolution.

Standard format 4:3
1024 X 768 pixels

MaxVue
Full high-definition format 16:9
1920 X 1080 pixels

Elevate Ob/Gyn
imaging versatility

The Philips tilt feature, offered on the 3D9-3v transducer, provides incremental lateral steering of the 2D image plane to the right or left. 2D tilt allows scanning access to anatomical structures that are off-axis without having to manually angle the transducer. This facilitates maximum scanning of the pelvic adnexa in Ob/Gyn applications while helping to maintain patient comfort during the exam.

Plane midline
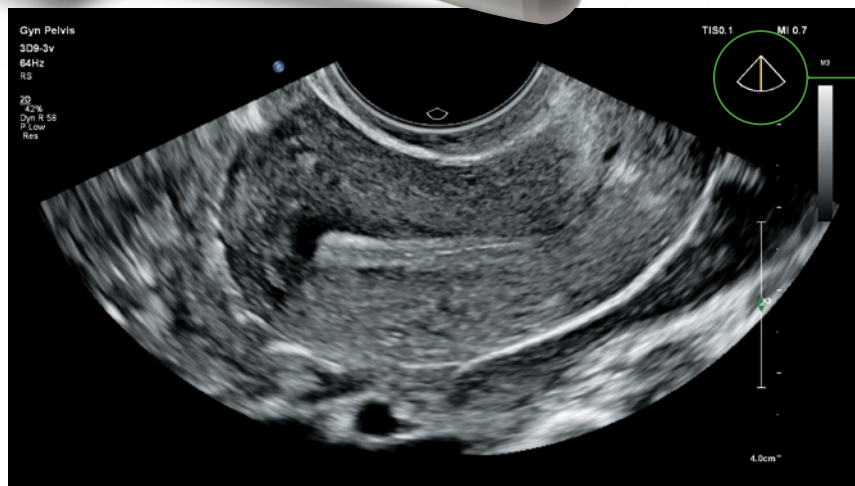
Tilt: midline pelvis, midline uterus

Image plane steered right

Tilt: right ovary and adenexa

Advanced
post-processing

Active native data allows post-processing of many exam parameters, allowing you to finalize images before transfer to PACS. Philips enhanced active native data goes beyond to allow users to move or change annotation or body markers as well as adjust 2D gain, views, display zoom, gray map, Chroma map, and dynamic range on frozen or stored cine clips.

Post-processing frozen Doppler scroll modes are offered, including baseline, sweep speed, Chroma maps, display formats, angle correction, and spectral compression or reject functions.

More focus on your patient

Philips SmartExam decreases exam time by 30–50% and keystrokes by as many as 300 per exam, and results in a high level of consistency among users.* It is fast and easy to customize, providing consistent annotation, automatic mode switching, aBiometry Assist[A.I.] functionality, and missed view alerts to streamline exams.

The result is more time to focus on your patient, less focus on exam requirements, increased confidence in complete studies, less repetitive motion, and enhanced department standardization and efficiencies.

Efficient fetal scanning
Create protocols for all trimesters and specialty exams such as trisomy 13 and 21.

Real Time iSCAN
Real Time iSCAN (AutoSCAN) automatically optimizes gain and TGC to continuously provide an optimal image in 2D, 3D, or 4D.

Philips offers solutions for technically difficult-to-image patients for every gestational age, and for gynecological exams.

*University of Colorado, Protocols Study, April 2007.

Designed for **life**

EPIQ has completely reinvented the premium ultrasound user experience. Ease of use, workflow, ergonomics, portability — we've revolutionized how you interact with an ultrasound system from every standpoint and kept it beautifully intuitive.

As advanced as EPIQ is, it is also easy to operate. It is the lightest premium ultrasound system in its class, with 67% less bulk and 50% less weight than other systems. You can place EPIQ in sleep mode and boot up in seconds. Easily connect a transducer with one hand. Have four transducers available and active. The system also exceeds the Society of Diagnostic Medical Sonography ergonomic standards for maneuverability by 76% to easily fit into tight spaces.

Beautifully intuitive
With EPIQ, efficiency is built in. The design of the EPIQ platform features "walk-up usability," meaning that users can perform an exam with minimal training.* More than 80% of sonographers experience work-related pain, and more than 20% of these suffer a career-ending injury.** The EPIQ tablet-like interface results in dramatic reduction in reach and button pushes, with 40% to 80% less reach and 15% fewer steps.† You can also share transducers across many Philips systems.

Tablet-like touch interface allows quick navigation of EPIQ system functions.

 * External user study in which all users had over 90% success (gold standard in usability) on set tasks with no training on EPIQ, Jan 2013.
** Society of Diagnostic Medical Sonography, Industry Standards for the Prevention of Musculoskeletal Disorders in Sonography, May 2003.
 † 2013 engineering study comparing EPIQ with Philips iU22 ultrasound system.

Made for your
environment

EPIQ was designed for your scanning environment and the world at large, with advances in sound, comfort, viewing, and energy usage.

EPIQ provides subtle visual cues for the keyboard, OEMs, and transducer ports.

Library quiet
EPIQ is almost silent while running. A noise test determined that EPIQ runs at 37–41 dB, which is equivalent to the sound of a library.

Scanning comfort
Multiple degrees of articulation for both the control panel and LCD monitor with 720° of freedom allow for ergonomic alignment, whether sitting or standing, for scanning comfort.

At home in the dark
EPIQ offers easy viewing and efficient use, even in darker scanning environments, with a large and wide screen and ambient lighting.

EPIQ makes it easy to be green

25%
less power

EPIQ is one of the greenest systems we have ever designed. It consumes 25% less power than our legacy premium ultrasound.

A **smart** investment

Built to withstand the rigors of daily use, EPIQ offers low operating costs and is backed by Philips support and value-added services. The EPIQ system boasts a low total cost of ownership, making it a smart investment.

Enhance uptime
- Modular design for enhanced reliability and rapid repair
- Philips remote services* monitoring, which corrects issues using a standard Internet connection, reducing the need for service calls
- Access to our award-winning service organization

Responsive relationships
The value of a Philips ultrasound system extends far beyond technology. With every EPIQ system, you get access to our award-winning service organization, our competitive financing, and educational programs that help you get the most out of your system.

EPIQ offers a defense-in-depth strategy, implementing a suite of security features designed to help clinical IT professionals and healthcare facilities provide additional patient data privacy and virus protection, as well as protection from unauthorized access via the ultrasound systems on hospital networks.

Support request button for immediate access to Philips support.

Philips OmniSphere data intelligence tools help you manage your department, maximize resources, and improve workflow.

Exceptional serviceability
The system features a superb modular design for rapid repair.

* Not all services available in all geographies; contact your Philips representative for more information. May require service contract.

Count on us
as your patients count on you

The value of a Philips ultrasound system extends far beyond technology. With every EPIQ system, you get access to our award-winning service organization,* competitive financing, and educational tools that help you get the most out of your system.**

Always there, always on
We work as one with your team to keep your EPIQ system running smoothly.

Remote service capabilities maximize efficiency
Easy, rapid technical and clinical support through remote desktop enables a virtual visit with a Philips expert.

If you prefer to keep your know-how in-house, the OmniSphere Remote Technical Connect application† allows your BioMed team remote access to Philips systems on your network so that you can have remote service capabilities your way.

Proactive monitoring solutions maximize uptime
Philips proactive monitoring increases system availability by predicting potential system disruptions and proactively acting on them, letting you focus on what is most important – your patients.

Immediate support request at your fingertips
The support request button allows you to enter a request directly from the control panel, for a fast and convenient communication mechanism with Philips experts without leaving your patient, minimizing workflow interruption.

On-cart transducer test provides confidence in your transducer quality
On-cart transducer test provides a non-phantom method to test EPIQ transducers at any time, giving you confidence in your diagnostic information.

Sharing risk, increasing the return on your investment
Partner with us to maximize utilization and uptime of your EPIQ system.

Utilization reports for confident decision-making
Data intelligence tools can help you make informed decisions to improve workflow, deliver quality patient care, and decrease the total cost of ownership. The on-board utilization tool provides individual transducer usage data and the ability to sort by exam type. The OmniSphere Utilization Optimizer takes this a step further by providing easy-to-use charts and graphs for all of your applicable† networked Philips systems.

Understanding your needs, designed for you
Our flexible RightFit service agreements, education offerings, and innovative financing solutions can be adapted to meet your needs and strategic priorities.
- **Technology Maximizer Program:** helps keep your system performing at its peak by continuously providing the latest software from Philips at a fraction of the cost of the same upgrades purchased individually over time.
- **Xtend Coverage:** lets you choose additional service coverage for your ultrasound equipment at the time of purchase to more easily calculate your total cost of ownership.
- **Clinical education solutions:** comprehensive, clinically relevant courses, programs, and learning paths designed to help you improve operational efficiency and enhance patient care.

ISSL technology
- This industry-standard protocol meets global privacy standards and provides a safe and secure connection to the Philips remote services network using your existing Internet access point.
- Business optimization tools such as OmniSphere allow you to use the power of data and connectivity to generate actionable insights and enhance productivity to improve your return on investment.

 * Philips is rated number one in overall service performance for ultrasound for 23 consecutive years in the annual IMV ServiceTrak survey in the USA.
** Optional. Not all services available in all geographies; contact your Philips representative for more information. May require service contract.
 † Check with your Philips representative for system compatibility.