

PHILIPS

Ultrasound

EPIQ 5

The **evolution**
of premium ultrasound

Philips EPIQ 5 ultrasound system for women's health care



The new **challenges** in global healthcare

To help ease the unprecedented strain on hospitals and healthcare systems, premium ultrasound must continue to deliver – improved quality, higher accuracy, faster and more consistent exams that lead to more confident diagnoses the first time, even for technically difficult patients.





The **evolution** of premium ultrasound for women's health care

It's our most powerful architecture ever applied to ultrasound imaging – touching all aspects of acoustic acquisition and processing, allowing you to truly experience ultrasound's evolution to a more definitive modality.



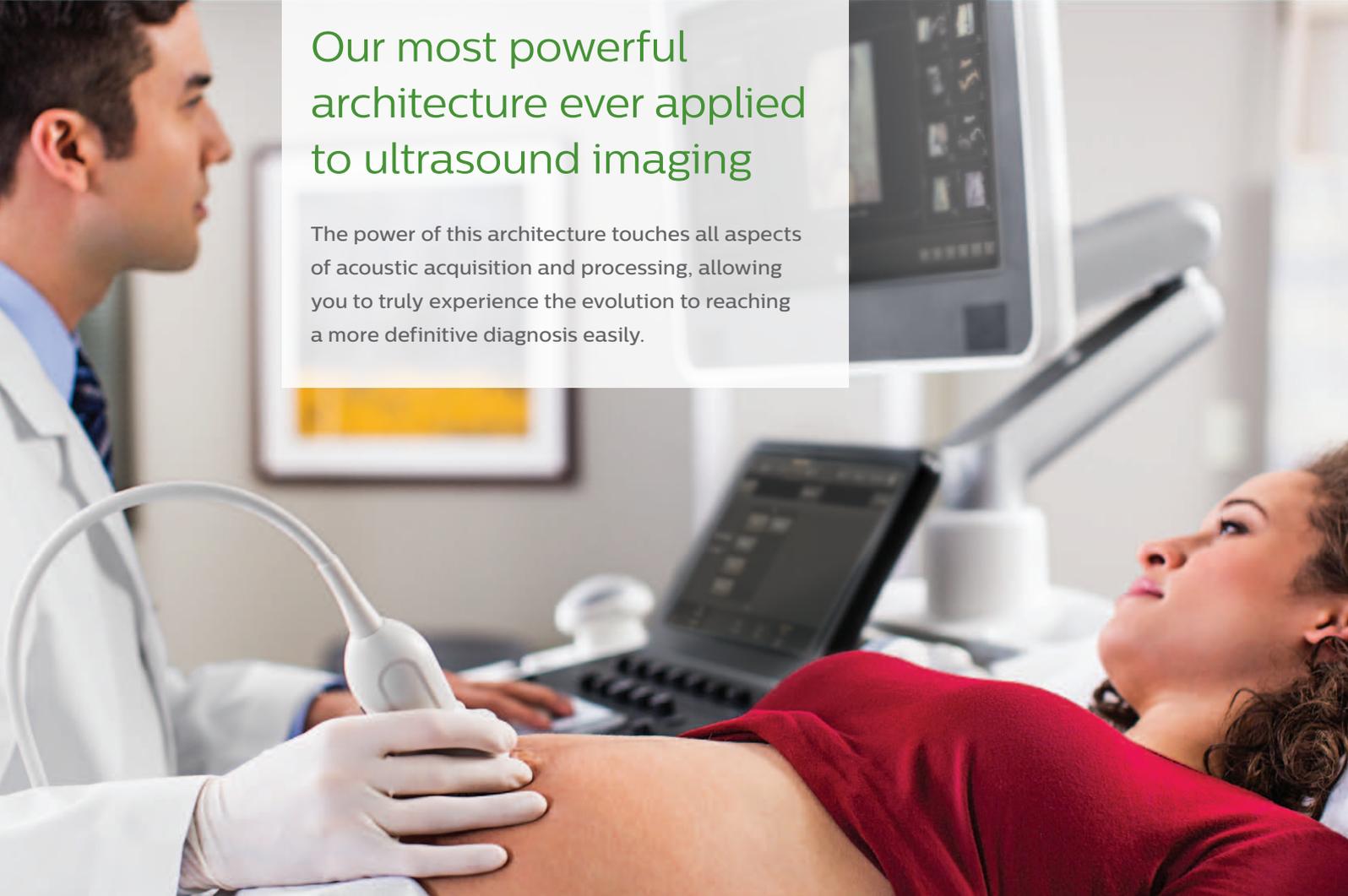
Throughout our worldwide research into women's healthcare you've told us about the challenges you face

- I need more definitive image quality and advanced tools for all gestational ages and complex gynecological cases
- I am seeing higher referral rates with more complex cases, requiring improvement in workflow efficiency
- I am seeing more pregnancies in patients with high BMIs and I need to improve exam success on these technically challenging patients
- I have a desire to automate many system functions to assure ease of use and consistency of exams between users
- I need exceptional 3D surface rendering performance to better diagnose anomalies

Performance

More confidence in your diagnoses even for your most difficult cases

EPIQ 5 is the new direction for premium ultrasound, featuring an exceptional level of clinical performance to meet the challenges of today's most demanding practices and technically difficult-to-image patients through every gestational age and for gynecology applications.



Our most powerful architecture ever applied to ultrasound imaging

The power of this architecture touches all aspects of acoustic acquisition and processing, allowing you to truly experience the evolution to reaching a more definitive diagnosis easily.

Creating **new realities**, redefining clinical expectations

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

Philips *n*SIGHT Imaging is a totally new approach

The Philips proprietary *n*SIGHT Imaging architecture introduces a totally new approach to forming ultrasound images. Unlike conventional systems that form the image line by line, *n*SIGHT creates images with superb resolution down to the pixel level.

Extraordinary architecture

*n*SIGHT Imaging incorporates a custom multi-stage precision beamformer along with massive parallel processing. This proprietary architecture 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.

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

*n*SIGHT Imaging creates superbly 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

*n*SIGHT Imaging achieves superb 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

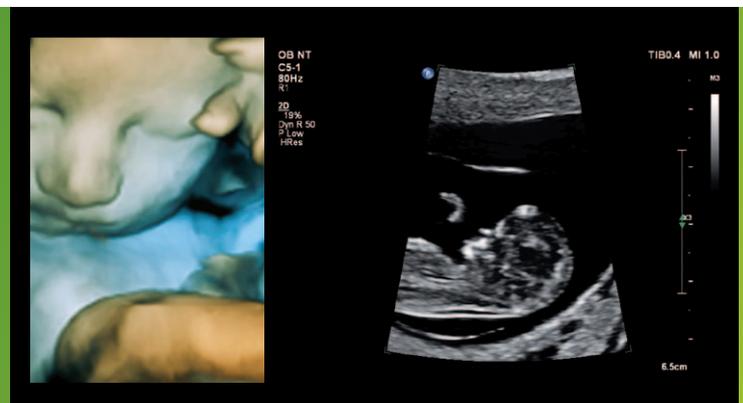
***n*SIGHT Imaging**
Superb penetration across full range of frequencies

*n*SIGHT Imaging architecture's ultra-wide dynamic range and unique beam reconstruction reinforces weak tissue signals allowing enhanced penetration at higher frequencies even on difficult patients.

Image quality: the numbers tell the story

Comparing EPIQ 5 to conventional premium systems shows breakthrough advances in imaging performance.*

- Up to **76%** increase in penetration (penetration = ability to scan at depths and maintain resolution in order to complete the study)
- Up to **160%** increase in temporal resolution (ability to maintain resolution at high frame rates)

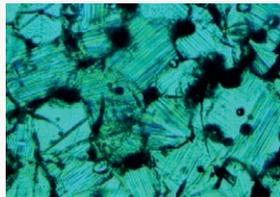


See dramatic improvements in 2D image quality at all depths across all 3D/4D modes and applications with the C9-2 transducer.

* 2013 quantitative engineering study comparing Philips iU22 ultrasound system with EPIQ 5.

nSIGHT Imaging strengthens the power of PureWave to image technically difficult patients you see every day. 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 excellent detailed resolution.

The technically difficult patient is



Conventional (x800)

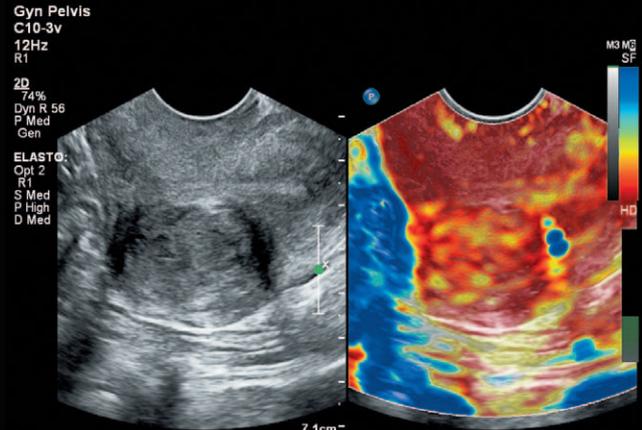


PureWave (x800)

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.



Fetal abdomen
Patient with BMI = 80



Uterine fibroid

now even easier

EPIQ 5 *n*SIGHT architecture enhances both the penetration and image quality of PureWave transducers. Bring your most challenging cases to EPIQ 5 with our PureWave solutions from gynecological surveys to OB exams for all gestational ages.

- C9-2 transducer is designed for high-frequency OB imaging, especially in the first trimester anomaly scan
- C10-3v transducer suited for challenging fibroid and complex ovarian cases
- C5-1 transducer suited for the largest abdomens all the way through the third trimester, patients with gestational diabetes, or premature rupture of membranes

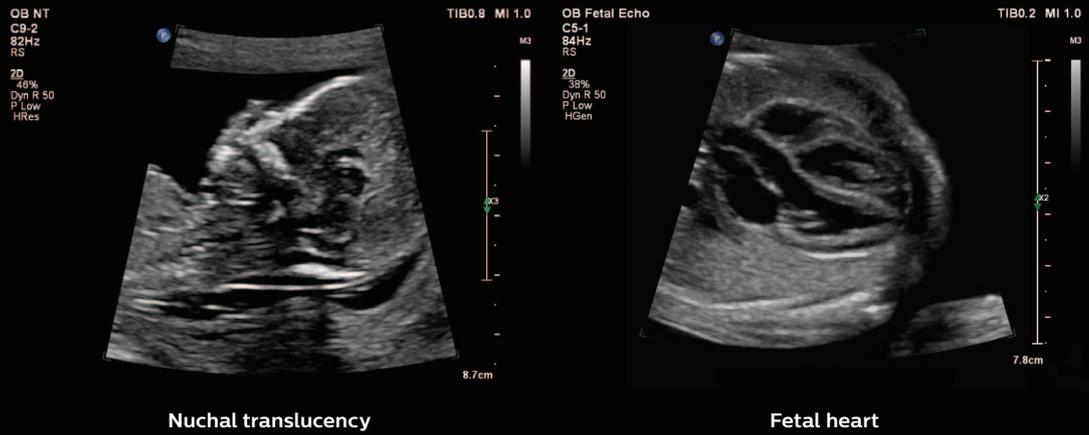
EPIQ performance

- Solutions for technically difficult-to-image patients for every gestational age and for gynecological exams
- Strain elastography for breast and uterine applications
- Most powerful system without compromise available today among leading ultrasound manufacturers



Automation supports the way you work

This powerful architecture also supports automation designed to aid your workflow and increase your confidence in one of the most challenging exams – the fetal heart.





Significant addition to the **power** of elastography

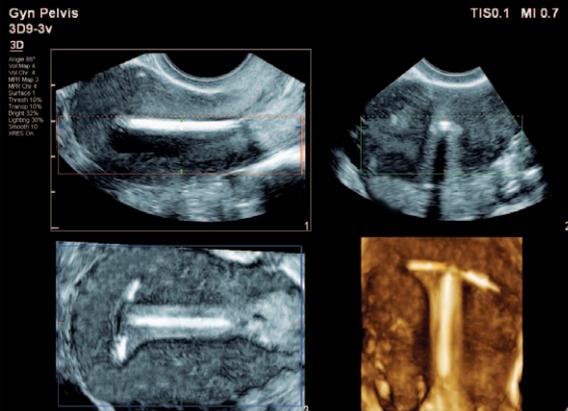


Studies have shown that a combination of sonography and ultrasound elastography, a technique that enables evaluation of relative tissue stiffness, could potentially reduce unnecessary biopsies.¹ EPIQ 5 offers the most sensitive strain elastography solution in the market for both breast and gynecological applications. No additional compression required means increased exam consistency and reproducibility.

¹ Ferraioli G, et al. Point shear wave elastography method for assessing liver stiffness. World J Gastroenterol 2014 April 28;20(16):4787-4796.

Exceptional

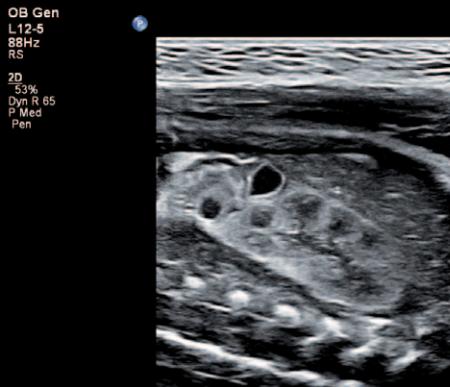
images for a new era



Intrauterine device



Nuchal translucency



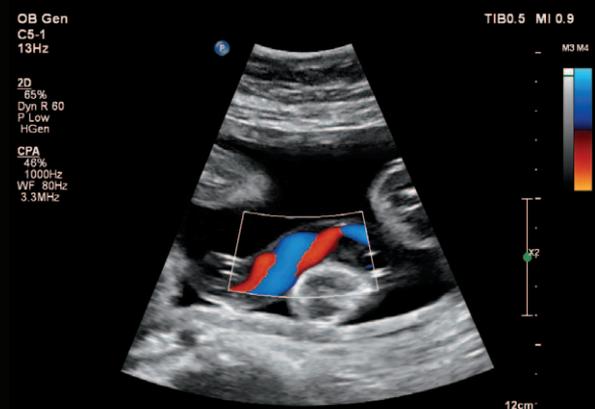
Fetal kidney



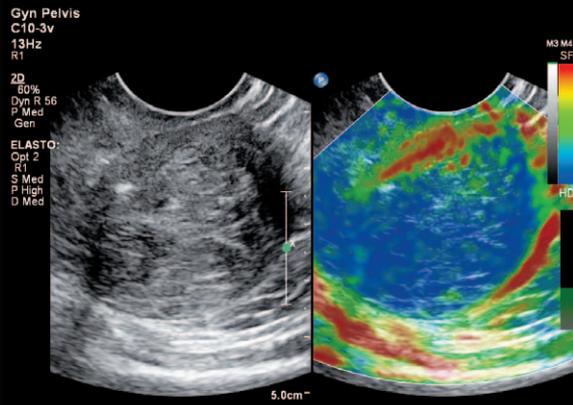
3D fetal spine – skeletal rendering



26-week gestation



Umbilical cord



Uterine fibroid elastogram

OB Gen
V6-2
4D

Page 01
Vol Max 2
Vol 27
480 Max 3
480 Max 3
Dyn Cap
Trans 0%
Revol 0%
Right 5%
Left 0%
Smooth 0%
V62 Cap



34-week gestation



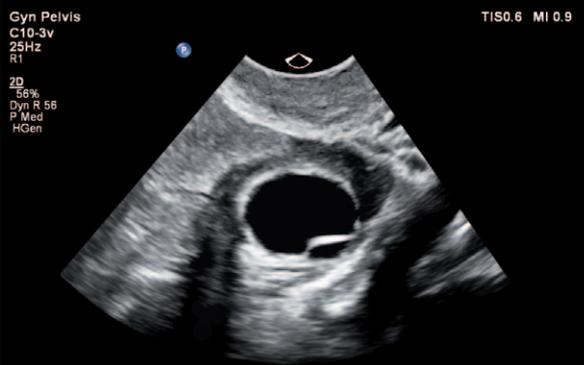
Cerebellum



14-week gestation



Fetal abdomen



Ovary

Designed to reinvent the user experience

EPIQ 5 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.

More than 80% of sonographers experience work-related pain, and more than 20% of these suffer a career-ending injury.² The EPIQ 5 tablet-like interface results in dramatic reduction in reach and button pushes.



Advanced workflow

The design of the platform features “walk-up usability,” meaning that users can perform an exam with minimal training.³ The system offers the automation to drive efficiency throughout exams with features such as Real Time iSCAN (AutoSCAN), which automatically optimizes gain and TGC continuously to provide excellent images in 2D, 3D, or 4D.

Amazing fit to your environment

At just 104 kg (230 lb), EPIQ 5 is lightest in its class and 40% lighter than the heaviest competitive premium system. Place it in sleep mode, and boot up in seconds. Exceeds Society of Diagnostic Medical Sonography ergonomics for maneuverability by 76% to easily fit into tight spaces. Wireless[†] DICOM further aids workflow.

Large 54.6 cm (21.5 inch) wide screen for easy viewing in virtually any environment.

Place EPIQ 5 in sleep mode, move it, and boot up in seconds.

Four transducer ports decrease the amount of plug/unplugging required during a day of scanning.



Automation supports the way you work

This powerful architecture also supports automation designed to aid your workflow and increase your confidence in the most challenging exams, such as first trimester or fetal heart.

SmartExam

SmartExam decreases exam time by 30-50%, keystrokes by as many as 300 per exam, and results in a high level of consistency among users.⁴ It is fast and easy to customize, providing consistent and accurate annotation, automatic mode switching, and missed view alerts to streamline exams. The result is more time to focus on your patients, increased confidence in complete studies, less focus on requirements, less repetitive

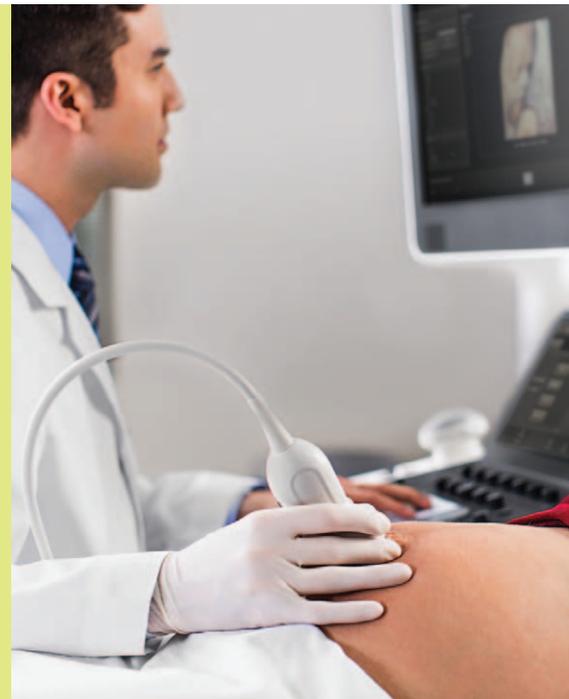
motion, less stress, and enhanced schedule maintenance and department efficiencies.

Efficient fetal scanning

Ability to create protocols for all trimesters and specialty exams such as trisomy 13 and 21.

Real Time iSCAN

Automatically optimizes gain and TGC to continuously provide an optimal image in 2D, 3D, or 4D.



EPIQ 5 features integrated efficiency tools and multiple degrees of articulation for scanning comfort.

Library quiet

EPIQ 5 is almost silent when running. A noise test determined that EPIQ 5 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 the 54.5 cm (21.5 in) LCD monitor with 720° of freedom allows for ergonomic alignment, whether sitting or standing, for scanning comfort.

Set-up Wizard

Set-up Wizard allows users to step up to the system, easily establish user configurations, and get running quickly.

Active native data

Active native data allows for post-processing of many exam parameters.

EPIQ 5 makes it easy to be green

25% less power

EPIQ 5 is one of the greenest systems we have ever designed. It consumes 25% less power than our legacy premium ultrasound.



A tablet-like touch interface allows quick navigation to system functions and results in dramatic reduction in reach and button pushes, with 40% to 80% less reach and 15% fewer steps.*

² Society of Diagnostic Medical Sonography, Industry Standards for the Prevention of Musculoskeletal Disorders in Sonography, May 2003.

³ External user study where all users had over 90% success (gold standard in usability) on their set tasks with no training on EPIQ, Jan 2013

⁴ University of Colorado, protocols study, Apr. 2007.

* 2013 engineering study comparing Philips iU22 ultrasound system with EPIQ 5.

† Check for availability in your geography.

Advanced **support services** are proactive and predictive

We understand your challenges: uncertain economic times, changing healthcare landscapes, and the impact of healthcare reform. We know that efficient workflows and system uptime are critical success factors in running an effective healthcare business.

Philips is committed to offering innovative solutions to provide you with world-class services that move from reactive to proactive and with predictive service models that provide high system availability and enhanced workflow to help you deliver high quality patient care.

Remote services mean we're closer than ever*

Remote desktop

Spend less time on the phone with a Philips "Virtual Visit" with remote system interaction for fast technical and clinical troubleshooting and guided scanning options.

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.

Online support request

Enter a support request directly from your EPIQ system for a fast, convenient communication mechanism that reduces workflow interruption and keeps you at the system and focused on your patient.

Utilization reports

Data intelligence tools that can help you make informed decisions to improve workflow, deliver quality patient care, and decrease the total cost of ownership. This is the only ultrasound utilization tool that provides individual transducer usage and the ability to sort by exam type.

Proactive monitoring

Proactive monitoring allows for the detection and repair of anomalies before they become problems and helps us to better predict potential failures and proactively act on them. Increase system availability, optimize workflow, and promote patient satisfaction by scheduling downtime as opposed to reacting to an unexpected problem.

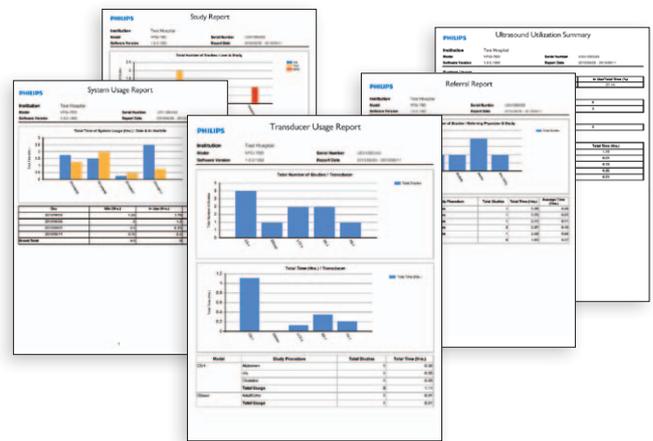
* Check for availability in your geography.

The remote desktop allows Philips service engineers to gain a live view of your system's console for remote operation, real-time clinical troubleshooting, and issue resolution.



Exceptional serviceability

Philips offers the only ultrasound utilization tool that provides individual transducer usage and the ability to sort by exam type.



The system features superior modular design for rapid repair, getting your system up and running quickly.

Intelligent software architecture

Software is easily optimized, maintained, and restored by the service user without risk to patient data, giving you peace of mind when dealing with software anomalies and confidence that your data is safe.

This software architecture takes patient data privacy to a new level. Patient data is stored on a separate partition and physical location to provide protection and ease of removal, providing you total control of your data.

Clinical education solutions

Our comprehensive, clinically relevant courses, programs, and learning paths are designed to help you improve operational efficiency and enhance patient care.



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