PHILIPS

Ultrasound

Affiniti Elevate

It understands **your** everyday

Philips Affiniti Elevate ultrasound for OB/GYN

Designed **for life**

Early, accurate diagnosis is essential for peace of mind. Providing a confident evaluation for women throughout their lives rests on identifying issues early to guide the patient journey, whether during pregnancy, in the course of their regular gynecological care or when addressing fertility issues.

Exceptional imaging for confident decision-making

End-to-end workflow efficiency for clinicians and patients

Expanded imaging access and collaboration where and when needed

A trusted partner to rely on

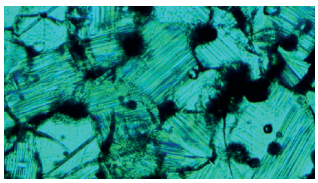
Excellence meets efficiency

Precision beamforming, PureWave technology, TSPs and efficiency and automation tools deliver both performance and workflow for confident throughput.

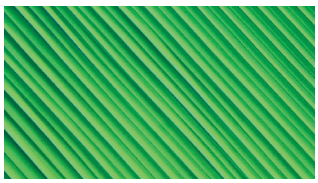
Power to scan technically difficult patients

While superb image quality is essential in OB/GYN ultrasound, the increasing number of patients with a high body mass index (BMI) makes it crucial to find ways to optimize exam success on these technically difficult patients. PureWave is your answer.

PureWave crystals have enhanced uniformity for greater bandwidth and twice the efficiency of conventional ceramic materials.[1] The result is excellent imaging and Doppler performance.[2]



Conventional PZT (x800)



PureWave crystal (x800)

High anatomical detail

PureWave transducers are designed to increase penetration, particularly in technically difficult patients such as expectant mothers with high BMIs. Pure, more uniform crystals, plus the ability to transform ultrasound energy with precision and efficiency, result in exceptional images with a high level of anatomic detail.[2]

PureWave power is strengthened by precision beamforming, which features a wide dynamic range to deliver superb spatial and contrast resolution, outstanding tissue uniformity, few artifacts and reduced image clutter.

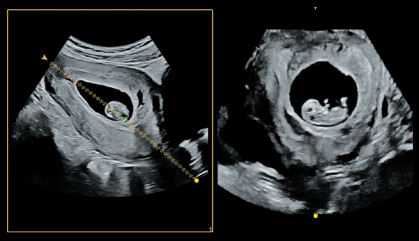
Tissue Specific Presets (TSPs) optimize the transducer for the specific exam type, producing excellent image quality with little or no need for image adjustment. This outstanding image quality combines with advanced clinical functionality.

The next generation of **PureWave**

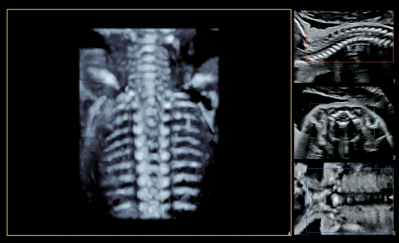
The V9-2 transducer uses the power of PureWave crystal technology to provide premium image quality. The ergonomic form and light weight mean that this transducer is designed to be used all day without fatigue, thus avoiding transducer switching.[3] Pairing the V9-2 transducer with the Affiniti ultrasound system offers exceptional OB/GYN imaging.

- Lightweight
- Exceptional ergonomic design
- First-, second- and third-trimester applications

Exceptional detail with the V9-2 transducer



First-trimester imaging using the V9-2 transducer with FlexVue feature



An expanded view of the fetal spine using the V9-2 transducer and TrueVue Pro

Supports additional technology

- 2D, 3D and 4D
- STIC
- xRes Pro
- TrueVue Pro/GlassVue
- TouchVue/MPR Touch
- Flow Viewer
- MicroFlow Imaging
- 3D Auto Edit
- Biometry Assist
- FlexVue

Ergonomic design allowed **85% of OB/GYN users** to scan with comfort for complete OB exams, avoiding the need to switch transducers during an OB exam*

*Based on a sample size of 26 users.

Elevated OB/GYN imaging versatility with tilt feature

The tilt feature of the 3D9-3v and V9-2 transducers provides 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 for maximum scanning versatility during the exam.

eL18-4 transducer*

The eL18-4 transducer is a high-frequency linear transducer that incorporates ultra-broadband PureWave crystal technology with fine-elevation focusing capability. The transducer's advanced design allows for wide field-of-view Trapezoid imaging and superb 2D detail resolution along with the penetration needed in obstetrical examinations to help elevate clinical confidence.

Transducers include

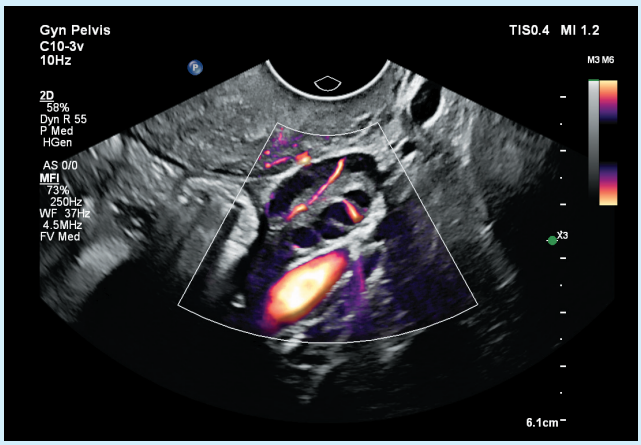
- PureWave C5-1 and PureWave C9-2 for obstetrical and gynecological exams
- PureWave C10-3v for early obstetrical and gynecological exams
- PureWave eL18-4* for a diverse range of clinical applications, including breast, MSK, small parts, vascular, pediatrics and OB/GYN
- PureWave V9-2 for obstetrical and gynecological exams

*The eL18-4 transducer presets are only available on Affiniti 70; the C5-1 transducer presets are available on both the Affiniti 50 and Affiniti 70.

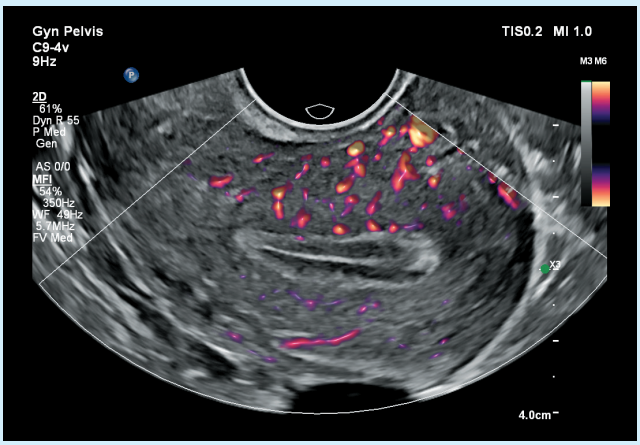
MicroFlow Imaging

MicroFlow Imaging (MFI) is a proprietary enhancement to CPA mode designed to detect low-volume, low-velocity blood flow found in fetal, placental, uterine and ovarian vasculature. MFI overcomes 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 artifact reduction techniques. 2D image subtraction, 2D blending and side-by-side display options offer excellent visualization versatility.



Ovarian blood flow MFI with Flow Viewer



Uterine blood flow MFI with Flow Viewer

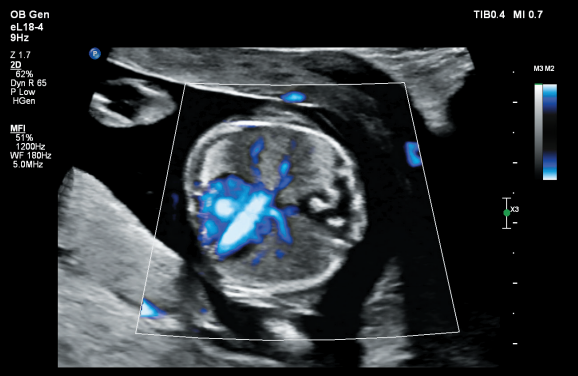
MFI enhanced ovarian perfusion visualization on endocavitary transducers in **100%** of OB/GYN users*

85% surveyed feel that MFI, with its ultrasensitive blood flow imaging, **enhances their diagnostic confidence****

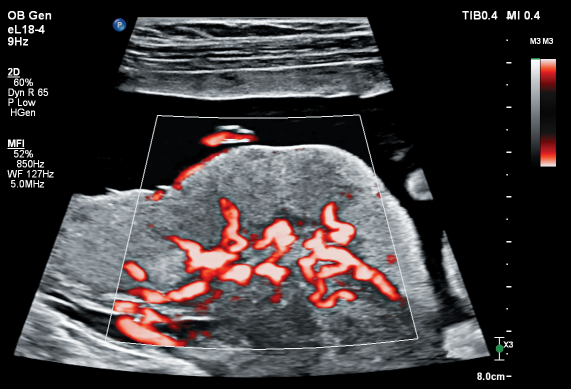
*Based on a sample size of 21 users.

**Based on a sample size of 20 users.

Performance
you can see

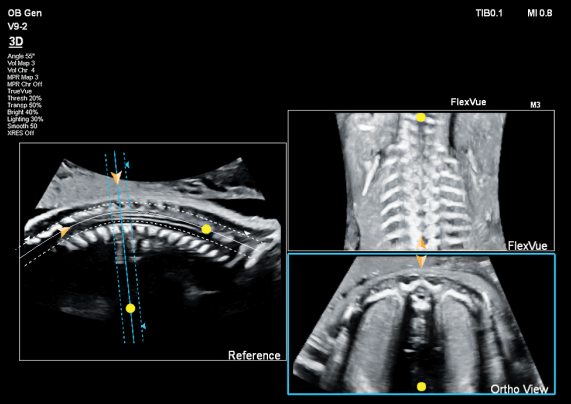


Second-trimester fetal heart with MFI



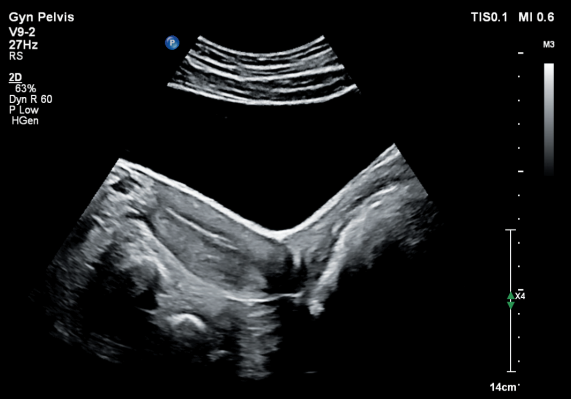
Placenta vascularization with MFI

Fetal brain, 17 weeks of gestation

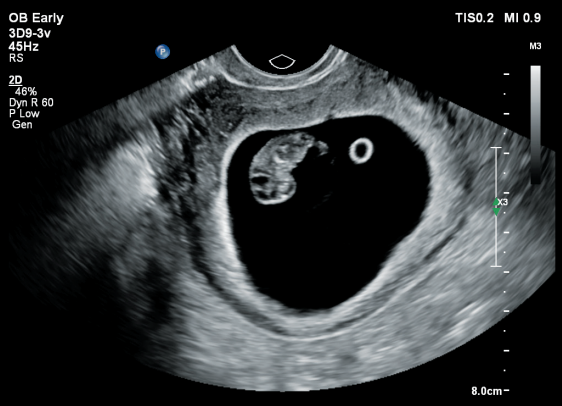


Spine FlexVue with Orthogonal View

Aortic arch with Color Power Angio directional

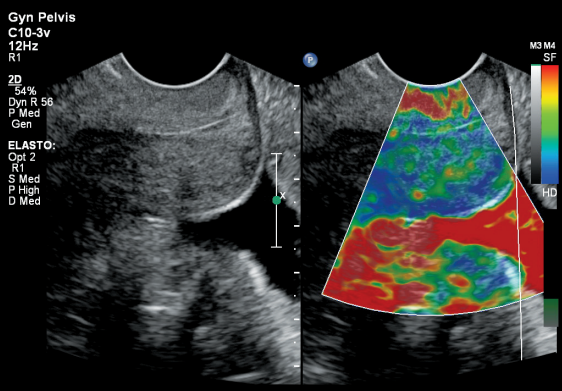


Uterus with transabdominal scan

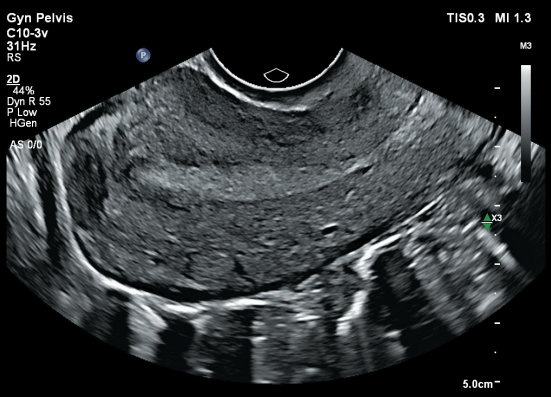


Early OB, 9 weeks of gestation

11 weeks of gestation



GYN elastography



Sagittal uterus

TrueVue Pro baby face

Second-trimester fetal heart

Remarkable
dimensionality in color modes

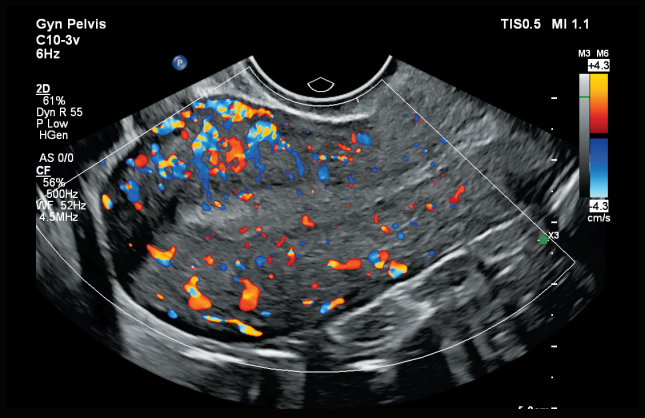
Flow Viewer provides a 3D-like rendering of flow imaging data (color, CPA/CPAd, MFI) to help better visualize fetal vessels and fetal heart structures and enhance the aesthetic appeal of all color imaging modes.

Flow Viewer's 3D appearance has advantages in clarity and boundary definition over traditional color flow for vessel and fetal cardiac identification. This is achieved by creating a surface whose height depends on the color Doppler power or velocity magnitude and calculating light reflection at each point on the surface.

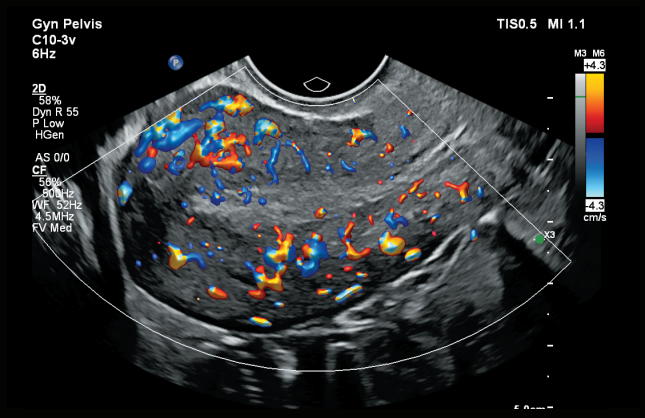
Enhanced visualization of complex hemodynamic flows

Better color containment within the vessel lumen

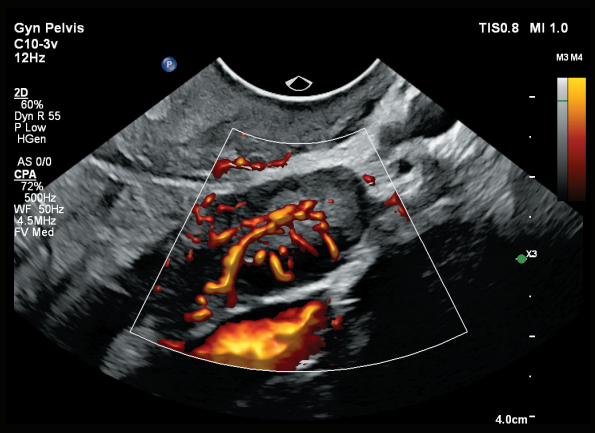
Better boundary demarcation between adjacent vessels and fetal heart chambers and outflow tracks



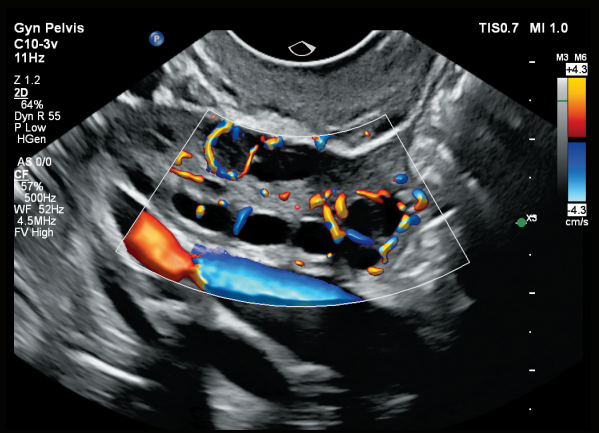
Uterus with color flow with C10-3v transducer



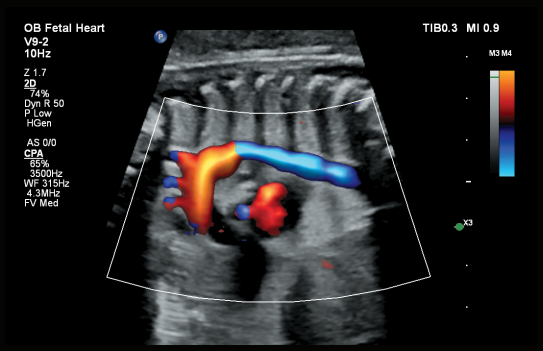
Uterus with Flow Viewer applied to color flow with C10-3v transducer



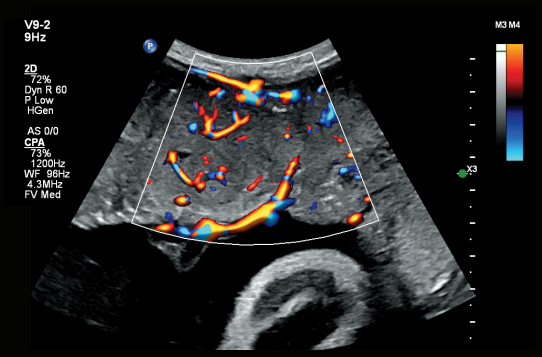
Ovary with Flow Viewer applied to Color Power Angio with C10-3v transducer



Ovary with Flow Viewer applied to color flow with C10-3v transducer

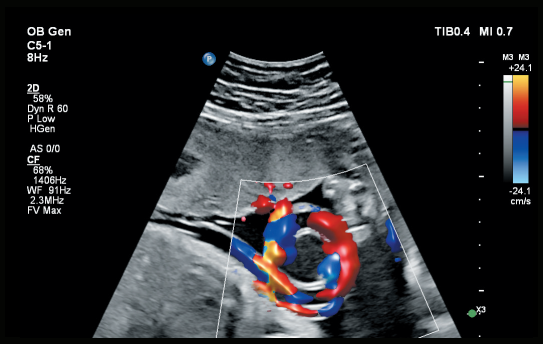


Fetal aortic arch CPA with Flow Viewer

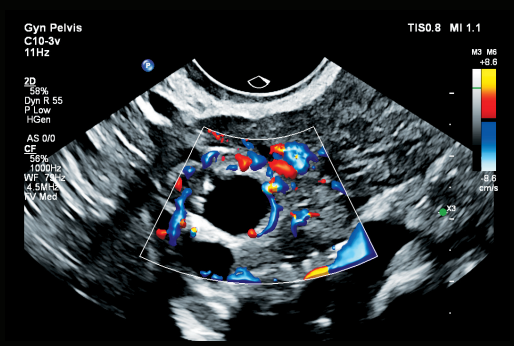


Placenta color flow with Flow Viewer

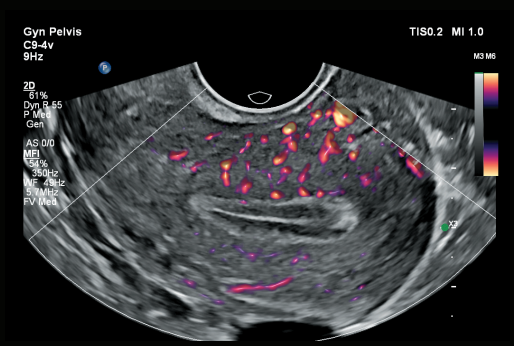
Fetal heart and lung color flow with Flow Viewer



Umbilical cord with Flow Viewer



Ovary color flow with Flow Viewer



Uterus with MFI and Flow Viewer applied with C9-4v transducer

Flow Viewer enables ...

sharper delineation of vascular flow margins as compared to traditional color flow in **100% of cases***

more definitive fetal cardiac chamber and outflow tract identification in the second trimester as compared to traditional color flow in **100% of cases***

more definitive ductus venosus identification in the second trimester as compared to traditional color flow in **100% of cases***

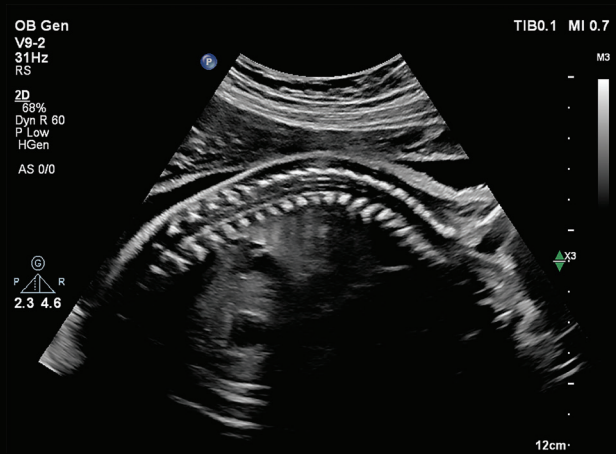
more definitive umbilical cord three-vessel identification as compared to traditional color flow in **100% of cases***

*Based on sample size of n=20

Enhance workflow with real-time image optimization

Auto Scan enhances fetus image uniformity

Auto Scan off



Auto Scan on

Next Gen Auto Scan improves image uniformity

Adaptively adjusts image brightness at every pixel and reduces the need for user adjustment while also improving transducer plunkability. Compared with previous generations of Auto Scan, Next Gen Auto Scan offers significant advantages.

Reduces button pushes by up to 54% with pixel-by-pixel real-time optimization*

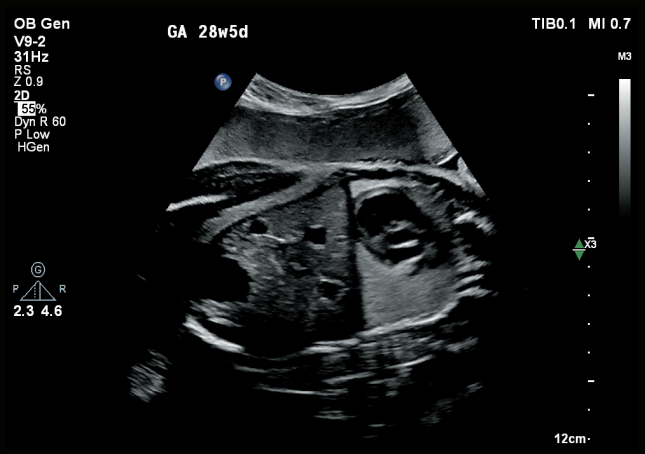
Requires fewer button pushes in 84% of exams*

Enhances image quality of reviewed images in 65% of cases through the use of post-processing controls**

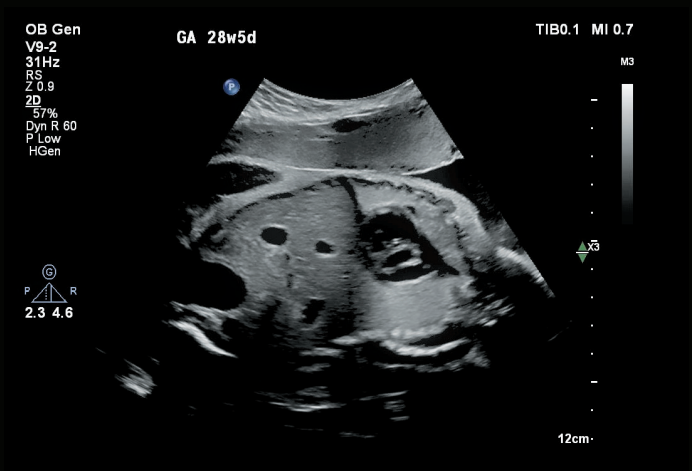
Enables users to modify images to **meet clinical expectations in 70% of cases****

Reduces need for repeat scanning, with 84% of users reporting that rescanning the patient due to unsatisfactory image quality resulting from inappropriate image settings could be avoided with the use of post-processing controls**

Improves user satisfaction with Auto Scan in **100% of cases**†



Auto Scan off



Auto Scan on

*When comparing release 10.0 performance to release 7.0 performance.
**Based on sample size of n=37.
†As demonstrated using the Philips image quality and image uniformity satisfaction questionnaire.

Real life, **illuminated**

Affiniti offers easier, more intuitive workflow to enhance detailed OB/GYN exams through lifelike TrueVue Pro 3D imaging display with the intuitive TouchVue 3D volume workflow. The combination of TrueVue Pro with TouchVue may help in the maternal-fetal bonding process and may facilitate doctor-to-patient communication.[4]

TrueVue Pro with TouchVue interface and GlassVue feature

TrueVue Pro offers a powerful 3D visualization tool that produces realistic imaging of fetal and gynecological anatomy. TrueVue Pro features an innovative virtual light source that provides illumination at any location within the 3D volume for exceptional visualization. The virtual light source allows the freedom to adjust the amount of light and shadow displayed on anatomical structures to reveal subtle detail not obtainable with conventional 3D rendering.

In addition, GlassVue is an advanced 3D imaging tool that goes beyond the surface to reveal bone, organs and other internal structures. Users have control over the amount of transparency in the 3D volume.

TrueVue Pro features an interactive interface called TouchVue. TouchVue utilizes the Affiniti touchscreen to allow fingertip control of both volume rotation and virtual light source position directly on the TrueVue Pro 3D image.

TrueVue Pro virtual light sources can be placed anywhere within the acquired 3D volume, allowing manipulation of light and shadow on anatomical structures to enhance clinical confidence.

Light source, umbilical cord

Light source, upper right

Light source, deep in gestational sac

Light source, lower right

Workflow meets wow

The Affiniti ultrasound system incorporates innovations that make Philips ultrasound the choice of those who demand high image quality and proven clinical applications, while also addressing the everyday need to scan quickly and deliver results efficiently, even for complex cases.

Automation tools save time

Automation features enhance workflow, decrease repetitive tasks and enhance ease-of-use and consistency of exams among users. These include:

- **Biometry Assist:** virtually every obstetrical ultrasound examination includes standardized measurements of fetal structures to assess age and growth trends. Biometry Assist uses anatomical intelligence of fetal anatomy to automatically preplace measurement cursors on selected structures, which users can quickly accept or edit. This helps reduce conventional measurement steps and streamlines obstetrical report generation. Biometry Assist allows selection of Auto Measure function for BPD, HC, AC and FL fetal structures.
- **SmartExam protocols:** system-guided SmartExam protocols facilitate exams with an onscreen menu guiding you through required views and modes while automatically entering annotations and prompting for measurements. SmartExam protocols help you build a report quickly, alert to missed views and reduce overall keystrokes and exam time.
- **High Q Auto Doppler:** takes ten steps from a conventional exam to three steps, and reduces button pushes by an average of 68%.[6]

Biometry Assist[5] allows for fewer keystrokes and less time needed for exams

C5-1 transducer[5]
39% fewer keystrokes
33% time-savings

C9-2 transducer[5]
42% fewer keystrokes
32% time-savings

More reproducible **results**

Anatomical Intelligence Ultrasound (AIUS)

At the heart of the powerful Affiniti architecture is our Philips exclusive Anatomical Intelligence Ultrasound (AIUS), designed to elevate the ultrasound system with advanced organ modeling, image slicing and proven quantification.

Before (above) and after (below) 3D Auto Edit

Biometry Assist

Quick launch presets touchscreen

One touch to reveal

3D Auto Edit uses a proprietary anatomical intelligence algorithm that automatically sculpts away data around the fetal face by recognizing the geometry of the skull.

A welcome assist during the obstetrical exam

Biometry Assist uses anatomical intelligence to automatically preplace measurement cursors on selected structures to assess fetal age and growth trends.

Easily and quickly optimize images during the OB exam

Quick launch presets offer a 60% decrease in button pushes and 55% decrease in image optimization time during an obstetric exam.[7]

Visualize the challenging with ease

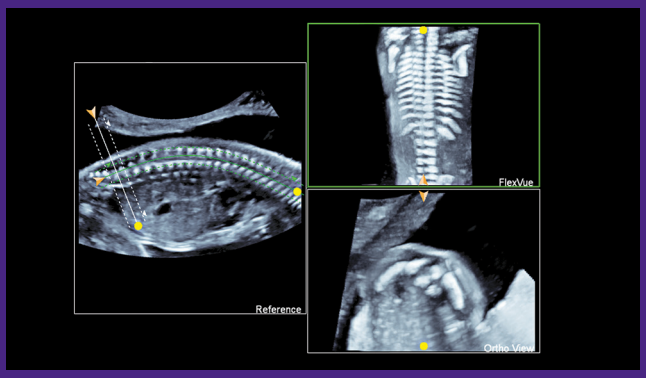
You need the ability to quickly visualize a wide variety of planes of section within 3D volumes. FlexVue with Orthogonal View with quantification allows for flexibility in plane acquisition from 3D datasets and provides a comprehensive measurement package.

Easily evaluate anatomy

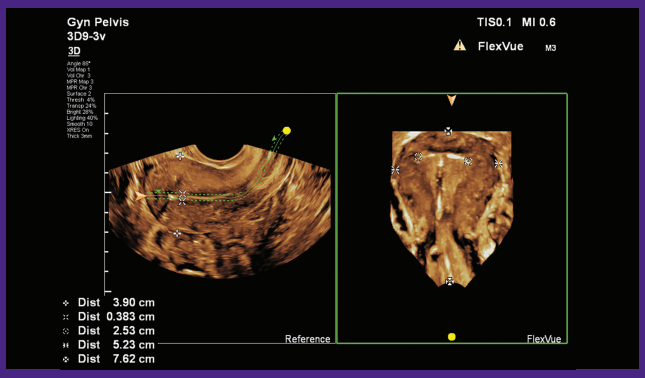
FlexVue with Orthogonal View with quantification displays structures in their entirety in projected views. Even when a structure is curved, you can easily evaluate the anatomy in a wide variety of planes of section. The coronal and transverse planes are imperative for diagnosing uterine malformations and IUD placement. This tool is particularity useful in assessing the uterine anomalies, where the cervix and uterine body are not always in the same plane due to their curvature. It is also useful in assessing the fetal spine, where all portions of the spine are not always in the same plane due to their curvature.

Tissue Emphasis Control

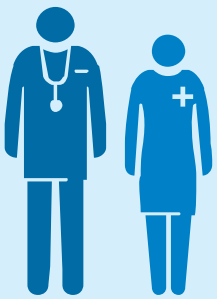
You now have the ability to change the image appearance of the projected view produced by FlexVue. FlexVue offers Tissue Emphasis Control, which allows you to change the range of intensity projections from maximum intensity projection to minimum intensity projection in just four stages.



FlexVue with Orthogonal View demonstrates a curved fetal spine in the sagittal, coronal, and transverse views



FlexVue with Orthogonal View with quantification produces a complete projected coronal view of the uterus



95% of OB/GYN users surveyed feel that FlexVue with Orthogonal View **may improve their workflow***[8]

85% of OB/GYN users surveyed feel that FlexVue with Orthogonal View **may enhance their diagnostic confidence***[8]

*Based on a sample size of 20 users.

Comfort meets **competence**

Designed around your everyday workflow.
Affiniti offers walk-up usability, ergonomics and mobility.

Philips leveraged the experiences of its customers to design Affiniti to address the challenges of daily scanning. We understand the reality of tight spaces, high patient volume, technically difficult patients and time constraints, and we've designed the system with thoughtful details to help lighten your workload.

You wouldn't notice it unless it were gone, but users have reported that easy clip, our innovative cable management solution, keeps cables tangle-free.

MaxVue high-definition display

With the touch of a button, MaxVue brings full high-definition display quality to ultrasound imaging. Now you can experience extraordinary visualization of anatomy with 1,179,648 more image pixels when compared to the standard 4:3 display format mode. MaxVue enhances ultrasound viewing during interventional procedures and provides 38% more viewing area to optimize the display of dual, side/side, biplane and scrolling imaging modes.*

Over one million more pixels per image

38% larger viewing area

Standard format 4:3

1024 X 768 pixels

MaxVue
Full high-definition format 16:9

1920 X 1080 pixels

*Compared to our previous monitor without MaxVue.

With image replication and TGCs on its tablet touchscreen, Affiniti was designed to reduce reach and button pushes.

The friendly design and library-quiet operation enhance patient comfort.

One of the lightest in its class, so pushing the system down hallways and tight spaces is easy.

To reduce the time required for mobile scans, the system can be put to sleep in two seconds and then moved to a new location where it starts up in just seconds.

Enhanced active native data
Allows users to perform retrospective measurements on stored ElastQ Imaging exams.

TGC post-processing
Offers TGC post-processing to enhance image quality, as well as 2D gain, dynamic range and contrast and gray maps.

Walk-up usability
The intuitive, intelligently designed user interface and system architecture have been validated by studies that show that users with ultrasound experience require minimal training on system use to be able to complete an exam.*

Workflow advances
Affiniti places relevant, easy-to-learn controls right at your fingertips, streamlining workflow. An estimated 80% of ultrasound clinicians experience work-related pain, and more than 20% suffer a career-ending injury.[9] Our intuitive, tablet-like touchscreen interface reduces reach and button pushes.

Scanning comfort
Affiniti is designed to make a full day of scanning comfortable. The control panel with 180° of movement and generously sized 54.6 cm (21.5 in) articulating monitor enhance scanning comfort whether sitting or standing and also can be used to bring comfort to patients because you can easily turn the monitor towards them and share images on the large screen. At just 83.5 kg (184 lb), with a small footprint and a fold-down monitor, the system can be easily moved and fits into small spaces.

Ready when you need it
The Set-up Wizard provides out-of-the-box usability that allows users to step up to the system, easily establish user configurations and begin scanning quickly.

When an exam is finished, a full suite of DICOM and PC format capabilities makes information sharing simple. Structured reporting facilitates patient workflow by giving you the ability to transfer measurements, images and reports over network share, and wireless capability plus easy connection to printers helps you document exams.

Tablet-like user interface results in **40% to 80% less reach and 15% fewer steps**** [10]

TGC **enhanced quality of reviewed images in 65% of cases** and allowed users to modify images **to meet clinical expectations in 70% of cases****

*2014 internal workflow study comparing Affiniti to HD15.
**Based on sample size n=37.

A **smart** investment

Built to withstand the rigors of daily use, Affiniti offers low operating costs and is backed by Philips support and value-added services. The Affiniti 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 Affiniti system, you get access to our award-winning service organization and our competitive financing and educational programs that help you get the most out of your system.

Affiniti 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.[10]

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

Affiniti Elevate reduces energy use by

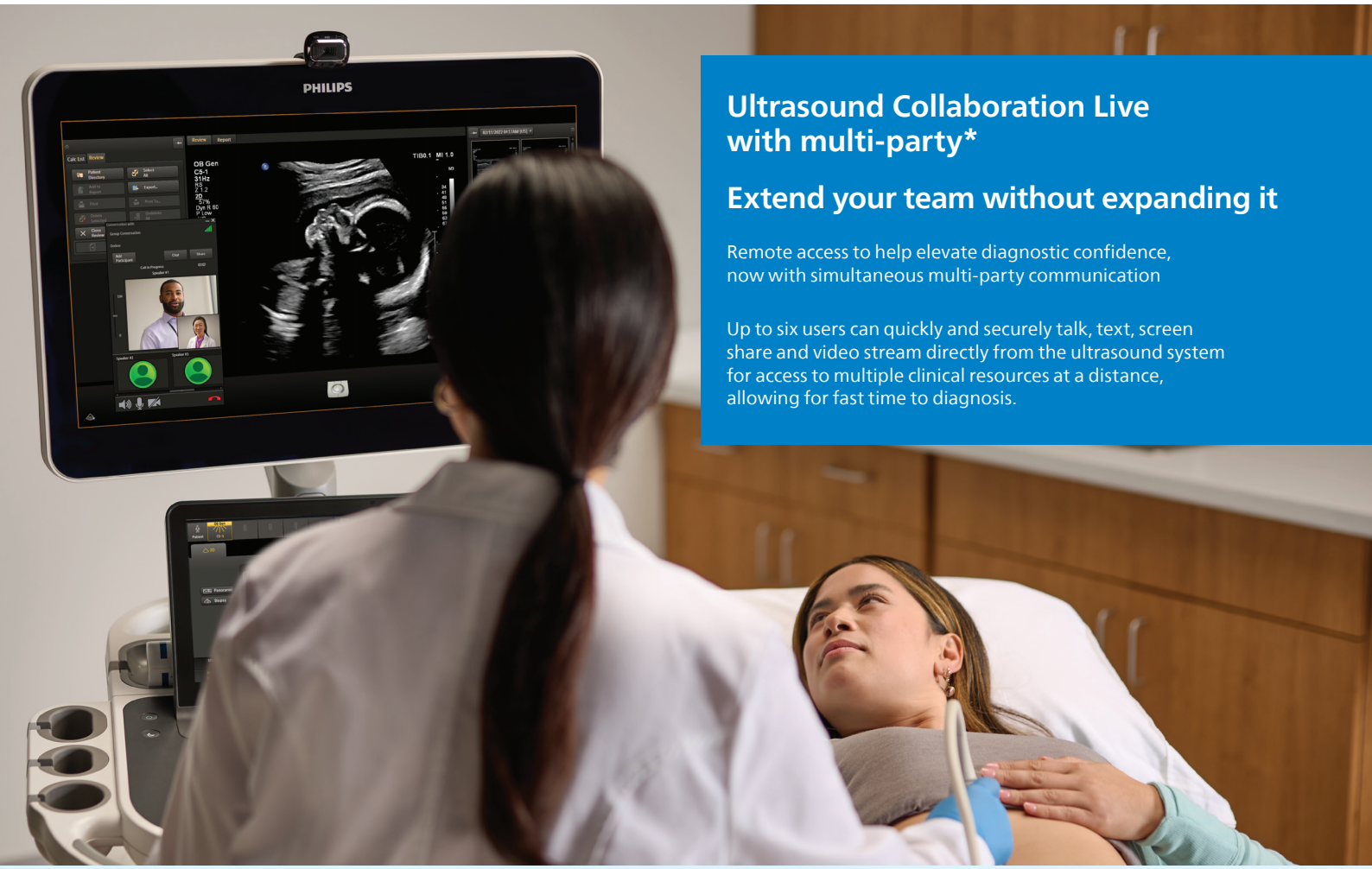
37%[11]

It consumes less energy than a toaster and may help you save on energy and cooling costs.

Support request button for immediate access to Philips support.

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

Value you can count on



Ultrasound Collaboration Live with multi-party*

Extend your team without expanding it

Remote access to help elevate diagnostic confidence, now with simultaneous multi-party communication

Up to six users can quickly and securely talk, text, screen share and video stream directly from the ultrasound system for access to multiple clinical resources at a distance, allowing for fast time to diagnosis.

Flexible financing

Innovative solutions tailored to you, with the financial flexibility to manage capital budgets and return on investment, supporting your continued growth.

Defense-in-depth security

Philips ultrasound is developed for security as well as clinical capability.[12]

Comprehensive clinical education

To improve operational efficiency and support patient care.

A world leader in sustainability

Philips is committed to lifecycle circularity for its systems.**

*Contract required. Requires release 7.0.5 or higher. Diagnostic use and remote access via mobile device or browser requires release 9.0 or higher. Multi-party and system-to-system connect require release 10.0 or higher.

** https://www.philips.com/a-w/about/environmental-social-governance/environmental.html

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Printed in the Netherlands.
00000712-00-01 * MAR 2025