



**PHILIPS**

Ultrasound

Affiniti CVx

Designed for cardiology.  
Built for your everyday.

Affiniti CVx cardiovascular ultrasound system

# Doing more for you, so you can do more in cardiac care

Philips Affiniti CVx ultrasound system is a dedicated cardiovascular system that helps you deliver exceptional care to patients with increased efficiency and throughput. It shares advances with Philips EPIQ CVx, our leading premium cardiology ultrasound system, so that you can overcome your everyday challenges in echo.

## Meaningful advances in cardiovascular ultrasound

From the leaders in cardiovascular ultrasound, Philips Affiniti CVx is the latest addition to the CVx family. EPIQ CVx and Affiniti CVx share a common cardiac-focused user interface and transducer capabilities so that you can enhance the user experience and standardize exam workflow across your facilities.

## Efficiencies for a changing world

COVID-19 has placed unimaginable demands on healthcare organizations. The need to perform fast, efficient echo exams that reduce the risk of virus transmission to technicians and clinicians has never been greater. Affiniti CVx features high-throughput workflow that results in exams that are performed quickly and confidently. The efficient sleep and transport modes add even greater value as more echo exams are performed at patient bedside rather than in the echo lab to reduce the risk of infection exposure from COVID-19 during patient transport.

## Extend your team without expanding it

Collaboration Live provides ultrasound system users with the ability to communicate and collaborate with colleagues or with Philips technical and clinical support personnel directly from the ultrasound system.

## The CVx family

EPIQ CVx and Affiniti CVx share so much.

- Shared TTE and TEE transducers
- Same user interface
- Advanced automation
- CV-focused workflow for TEE and TTE exams
- Remote access with diagnostic confidence



Affiniti CVx ultrasound system



EPIQ CVx ultrasound system

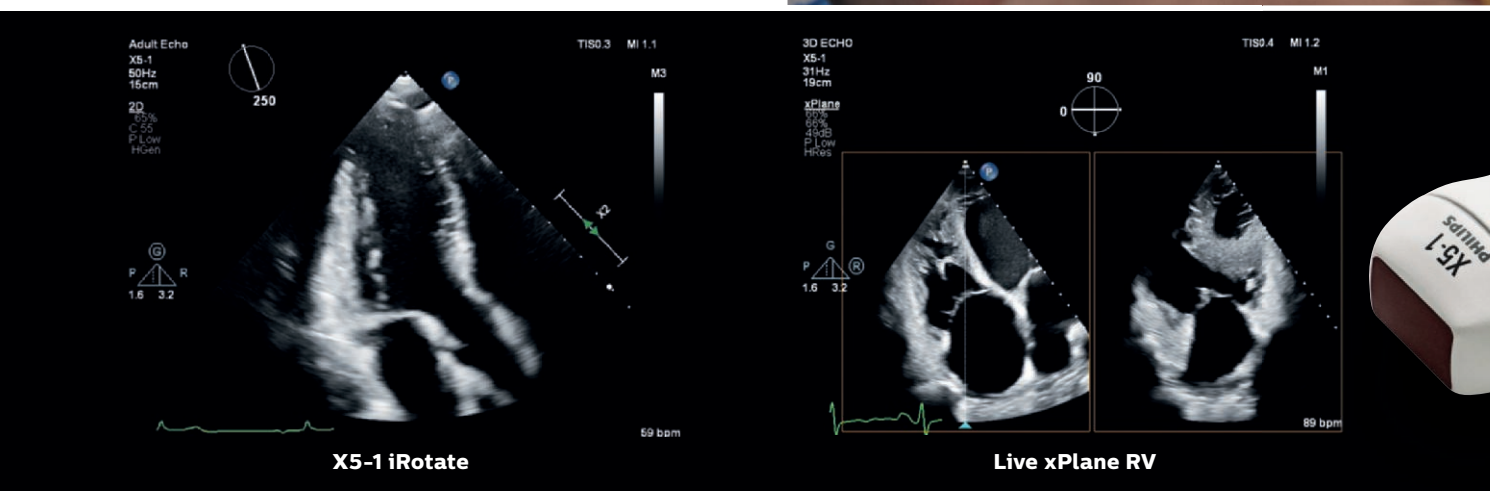


# Designed for cardiology

Affiniti CVx is made for the rigors of cardiology. Advanced tools and technology mean that the system is ready for the challenges you're facing, including clinically complex patients and limited exam time. Affiniti CVx helps you handle it all with ease, providing the tools for a confident diagnosis.

## Expand your clinical capabilities

- Advanced adult echocardiography, including Live 3D transesophageal (TEE) imaging for procedure guidance
- Pediatric echocardiography, including the MicroTEE S8-3t transducer
- Reproducible and fully automated left ventricle (LV) strain quantification
- Stress echocardiography
- Exceptional solutions for vascular assessment
- Automated 3D quantification tools
- Auto Measure powered by artificial intelligence



The X5-1 xMATRIX transducer is designed to simplify your imaging workflow while offering outstanding 2D image quality for even difficult-to-image patients.

# Start with confidence

Philips puts you ahead from the beginning. Affiniti CVx features technology and tools for optimal imaging and high throughput.

## Advanced cardiac automation

Philips Anatomical Intelligence Ultrasound (AIUS) features automatic anatomy recognition and proven quantification to make it easy to perform high-quality adult and pediatric exams, delivering clinical information quickly.

## Precision beamforming

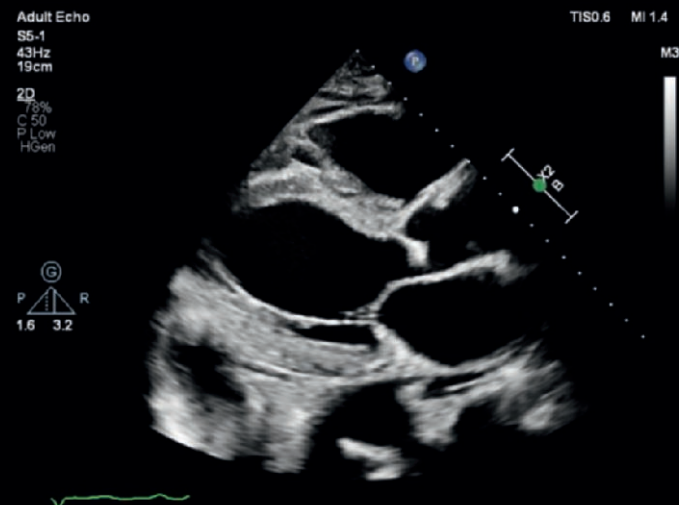
A wide dynamic range delivers superb spatial and contrast resolution, outstanding tissue uniformity, fewer artifacts and reduced image clutter. Image Boost is available on the X5-1 and S5-1 with Adult Cardiology clinical option.

## xMATRIX transducers

Our most leading-edge, versatile ultrasound transducer technology provides remarkable image quality with quick and easy volume acquisition, support for multiple interrogation capabilities, and views not possible with 2D imaging.

## PureWave transducers

The pure, uniform crystals of PureWave transducers are designed to increase penetration, increasing diagnostic confidence for even technically difficult patients.



**Excellent image quality with S5-1 transducer on a patient with a BMI of 53.**



Share most Philips cardiac transducers, including TEE transducers, among Philips ultrasound systems.



# Leading-edge echo

From routine transthoracic (TTE) to advanced TEE imaging, Affiniti CVx enhances your cardiovascular ultrasound practice with up-to-date clinical capabilities and advanced automation.

## **TEE imaging**

The xMATRIX X8-2t transducer brings exceptional image quality and confidence to TEE imaging. Live 3D and Live 3D color flow, together with latest capabilities such as Live xPlane Doppler and MultiVue, help you to make a confident diagnosis in even the most complex cases.

## **Optimize workflow and transducer compatibility**

The xMATRIX X8-2t transducer features a dedicated, customizable button that can speed imaging tasks, helping you to spend more time focused on your patient. Transducer compatibility within the CVx platform allows for superior return on investment as you share transducers between Affiniti CVx and EPIQ CVx.

## **3D Auto MV for mitral valve quantification**

Analyze the complex anatomy of the mitral valve in 3D as well as its dynamic mechanics. This is useful, from the initial discovery of mitral valve disease or pathology to support device planning, and through monitoring of pre- and postoperative cases.

## **3D Auto LAA for left atrial appendage (LAA) sizing**

Acquire the LAA ostium size quickly and easily. Automation reduces inter- or intra-user variability, increasing confidence during procedures.

## **MultiVue reduces steps in Live 3D images**

MultiVue allows one-click cropping of a Live 3D image during interventional procedures, and one-click alignment of the catheter within cardiac anatomy.

Using the 3D Auto LAA feature can **reduce the time of measurement by 70%** on average compared with measuring the LAA features manually.\*

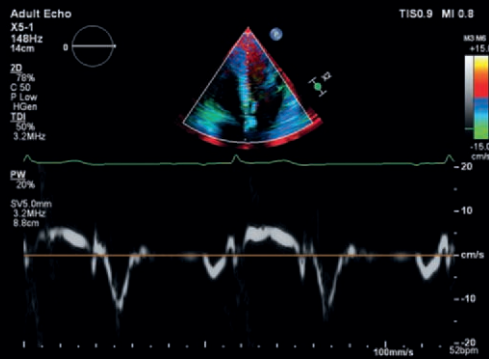


\* Results based on internal comparison between 3D Auto LAA and 3DQ on a set of 15 left atrial appendage data sets of randomized subjects.

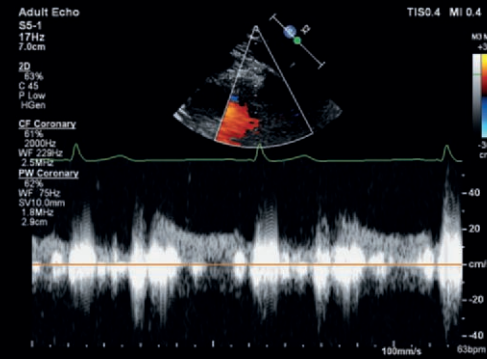
**Live xPlane Doppler imaging on the X8-2t transducer enhances confidence in accurate assessment of flow.**



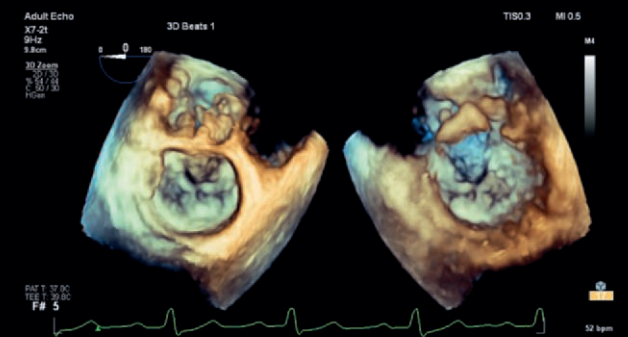
# Cardiovascular performance



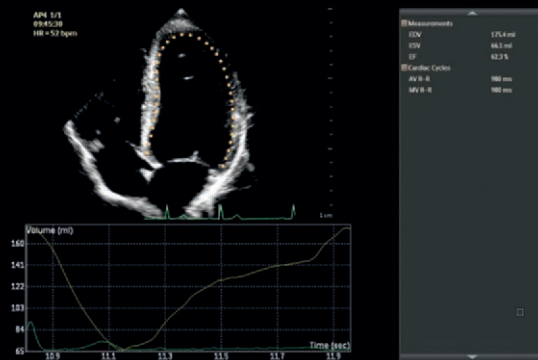
Tissue Doppler



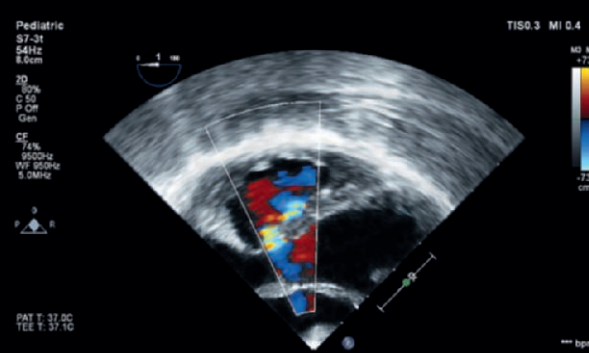
Coronary Doppler



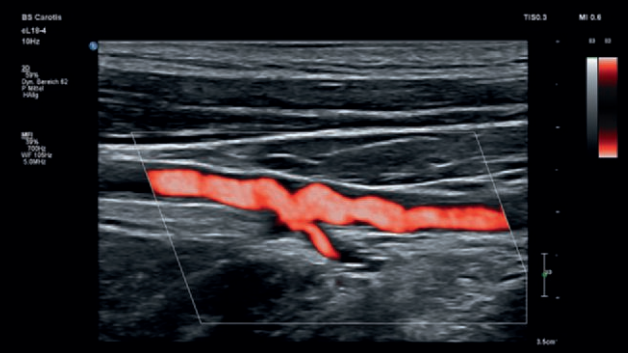
Live 3D mitral valve dual



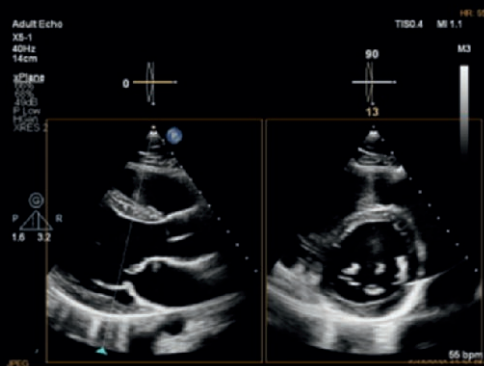
Automated 2DQ EF



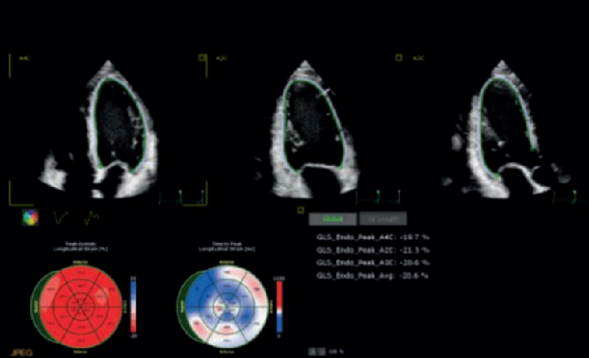
Patent foramen ovale



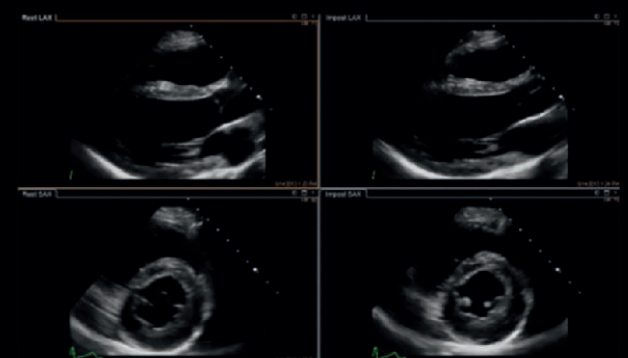
Vascular MFI



Live xPlane mitral valve



TOMTEC AutoStrain LV



Stress echo

# Built for your everyday

Affiniti CVx is designed for high-throughput cardiology workflow to address the unique daily challenges of your busy cardiovascular lab or practice.

## **Customizable cardiology-focused interface**

Designed to optimize cardiac workflow, the new interface is designed for “walk-up usability” so that users can perform exams with minimal training. The interface can be configured to match your specific workflow, which means you can focus on the patient and images, rather than searching for controls.

## **iRotate to easily access an optimal view**

Electronically access the optimum view within the acoustical window between ribs instead of manually rotating the transducer to search for an unobscured window. This may increase accuracy in measuring LV volumes because the image is less likely to be foreshortened.

## **Auto Measure**

Powered by artificial intelligence, the fully automated Doppler and 2D distance measurements improve exam efficiencies by more than 50%<sup>1</sup> of time saving on cardiac measurements for everyday echo. With capability to accept, edit or decline the results.

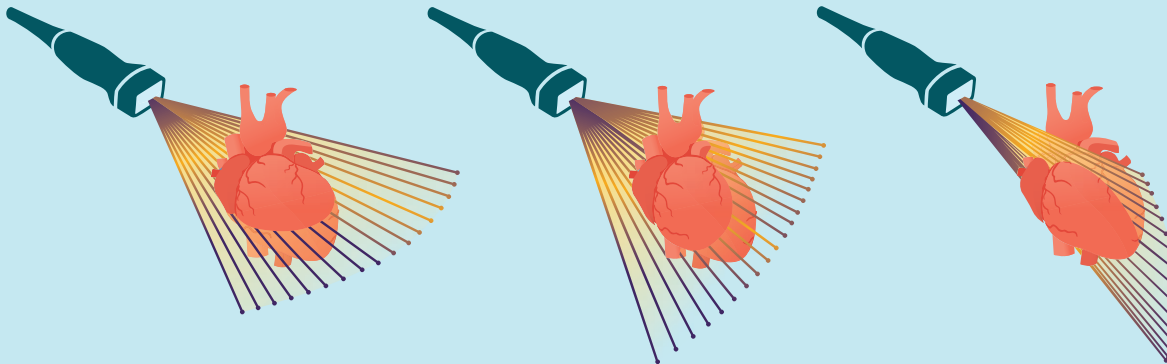
## **Live xPlane for accurate 2D EF**

Acquire two simultaneous orthogonal views without manually rotating the transducer. Because the views are from the same heartbeat, this allows more accurate calculation of ejection fraction (EF) using the Simpson's biplane method of discs (MOD).

## **Increase exam consistency**

Philips SmartExam guided workflow increases consistency, reduces keystrokes and decreases exam time by 30%-50%<sup>2</sup> by automatically planning and processing application protocols. iRotate can be added to any SmartExam protocol to increase exam consistency.

**iRotate** allows you to obtain the optimal views of the heart within the acoustic window without needing to manually rotate the transducer.



**85% of clinicians** who saw the CVx system thought that the customization of the user interface would improve their on-cart scanning workflow.<sup>3</sup>





# Efficiencies across exam types

Affiniti CVx has advanced technology and tools that help you complete even complex exams quickly and easily.

## Early detection to enhance cardiac care

TOMTEC AutoStrain integrated on the Affiniti CVx uses Philips advanced automation such as Auto View Recognition, Auto Contour Placement and speckle tracking to enable robust, reproducible one-button global longitudinal strain (GLS) measurement. This efficient tool for routine clinical use in LV, LA and RV strain measurements aids early detection of heart function change. Strain measurements are also important in cardiac evaluation for COVID-19 and cardio-oncology. Research also suggests that GLS may become a new gold standard for assessing heart failure.

## Automated 2D Cardiac Quantification (a2DQ) offers fast access to volumes

Access 2D LV and left atrium (LA) volumes for EF in seconds.

## Elevated vascular assessment

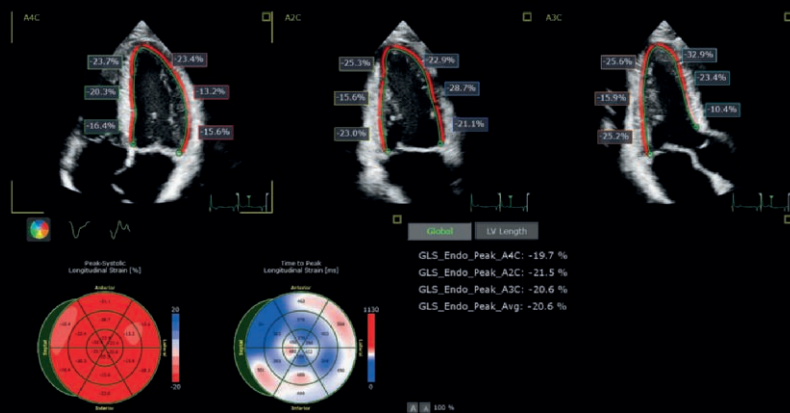
The lightweight L12-3ERGO transducer provides superb detail and resolution, including MicroFlow Imaging for remarkable sensitivity in assessing blood flow. The eL18-4 transducer provides thin-slice imaging for exceptional tissue uniformity from near to far depth of field across a wide range of applications and depth requirements.

## Exceptional advances for pediatric imaging

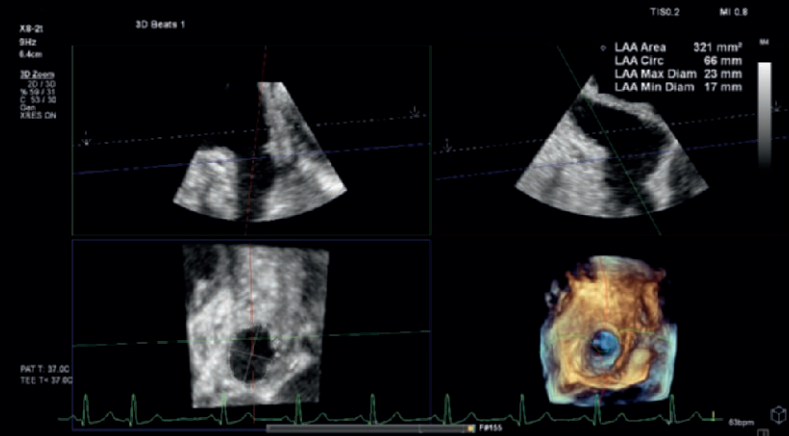
Pediatric patients come in a range of body habitus. From fetal echo to pediatrics to adult congenital patients, Affiniti CVx offers a depth of imaging capability combined with streamlined cardiac workflow to reduce the steps and time needed for challenging exams such as TTE and TEE.



The MicroTEE S8-3t transducer is designed for neonatal TEE imaging.



TOMTEC AutoStrain LV



3D Auto LAA



# Works hard to make your day easier



Collaborating with clinicians like you, we've designed ease of use into the hardworking Affiniti CVx.

## **Reduced reach and button pushes**

Because 80% of ultrasound clinicians experience work-related pain, and more than 20% suffer a career-ending injury<sup>4</sup>, we've designed our intuitive, tablet-like touchscreen interface to reduce reach and button pushes.

## **Scanning comfort**

The control panel with 180° of movement and generously sized articulating monitor enhance scanning comfort whether sitting or standing. The large touchscreen makes it easy to control scanning while focusing on your patients.

## **Goes where you need it**

Small, lightweight and with a fold-down monitor, Affiniti CVx is easy to maneuver down hallways and into tight spaces.

## **Sleep and transport modes**

Place the system into sleep mode, move it and boot up in seconds, saving valuable time between patients when performing mobile echo exams. This could also help reduce the overall likelihood of exposure to a potentially infectious patient.

The transport mode features reliable WiFi capability to share data and information, reducing time between scan and report.

## **Easy clip cable management**

Keeps cables tangle-free and reduces damage while decreasing cable strain to enhance comfort while scanning.

## **Extend your team without expanding it**

Users can quickly and securely talk, text, screen share and video stream directly from the ultrasound system to your mobile device or web client for real-time remote access with diagnostic confidence.<sup>5</sup>



# A smart investment

Affiniti CVx is extremely reliable and robust, built to minimize system downtime and supported by the most highly rated service team in ultrasound.

## Low total cost of ownership

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

## The uptime you rely upon

The modular design enhances reliability and aids rapid repair when necessary. Philips remote services\*\* monitoring, which corrects issues using a standard internet connection, reduces the need for service calls.

Affiniti CVx 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.



Immediately access Philips support from the system.

Affiniti CVx consumes nearly

# 40%

less energy

than its predecessor.<sup>†</sup>  
It consumes less energy than a toaster and may help you save on energy and cooling costs.



## Exceptional serviceability

The system features a superb modular design for rapid repair.

\* Philips is rated number one in overall service performance for ultrasound for more than 25 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.

<sup>†</sup> HD15



# Count on us as your patients count on you

## Always there, always on

We work as one with your team to keep your Affiniti CVx 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.

### **Remote software distribution boosts performance over the entire system lifecycle**

Remote software distribution provides a simple, convenient and safe process to seamlessly receive updates at a time that suits you, keeping your system at peak performance now and in the future.

### **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 Affiniti CVx 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 Affiniti CVx 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.

## 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.





1. External study with external sonographers comparing the results of 18 exams with and without Auto Measure.
2. 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.
3. Results obtained during user demonstrations performed in December 2017 with the CVx and the Philips iE33 ultrasound systems. The research was designed and supervised by Use-Lab GmbH, an independent and objective engineering consultancy and user interface design company. The tests involved 42 clinicians from 17 countries. The various types of cardiac customer segments represented were adult diagnostics and interventional, adult diagnostics, and pediatric diagnostics and interventional.
4. Society of Diagnostic Medical Sonography, Industry Standards for the Prevention of Musculoskeletal Disorders in Sonography, May 2003.
5. Contract required. For use with Philips EPIQ or Affiniti ultrasound systems release 6.0 or higher. Collaboration Live is designed to enable clinical collaboration and consultation.