PHILIPS

Ultrasound

EPIQ CVx

Designed for cardiology. Built for better care.

EPIQ CVx cardiovascular ultrasound system

Ultrasound for a changing world

Philips EPIQ CVx cardiovascular ultrasound system is designed to deliver quantifiable value to address the ever-increasing challenges of cardiology, with the exceptional ultrasound image quality for quick, definitive diagnoses and for confidence in interventional procedures. The Philips EPIQ CVx is designed for cardiology, with configurability defined by the user and with simple everyday workflow that makes it easy to use.

The EPIQ CVx offers advanced imaging and quantification and customizable capabilities that can significantly reduce exam time and speed time-to-results, including for transthoracic (TTE) or transesophageal (TEE) echo, so that you can provide greater care in less time for more types of cardiac patients. Remotely connect with your staff in real-time with diagnostic confidence.

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. It is essential to have fast image acquisition and the ability to seamlessly perform review and analysis away from the patient, either on-cart or off-cart.

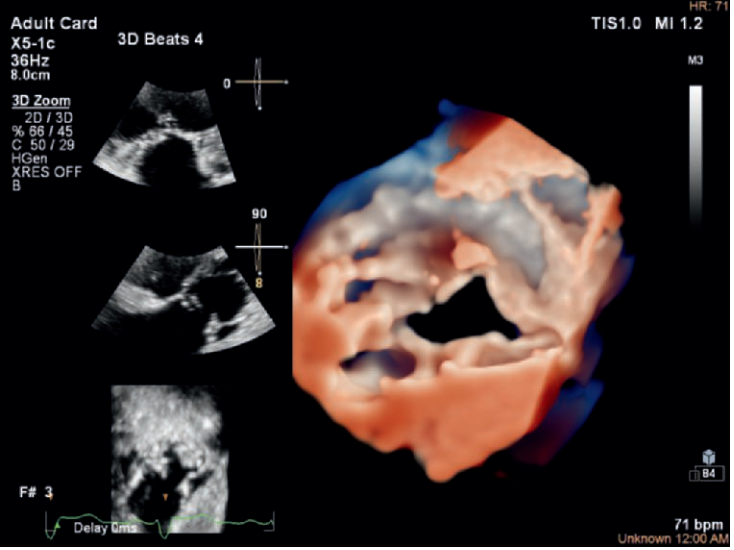
Bedside exams matter more than ever

Transport mode on EPIQ CVx becomes important as echo exams are performed at patient bedside rather than in the echo lab to help reduce the risk of infection exposure during patient transport. Place the system into transport mode, move it and boot up in seconds, saving valuable time between patients when performing mobile echo exams. This could help with reducing the overall likelihood of exposure to a potentially infectious patient.

Extend your team without expanding it

Enhance patient and staff experiences, improve workflow efficiencies and drive better outcomes.

- Remotely connect with staff in real time during an exam
- Respond instantly to a question or concern with your mobile device or web client from anywhere
- Supports diagnostic use
- Save valuable personal protective equipment when treating infectious patients by communicating remotely
- Provide real-time support, including remote system control, interventional procedure guidance and remote staff training



The X5-1c transducer combines with *n*SIGHT Plus for clinical information in 2D and 3D transthoracic imaging

Philips trusted xMatrix technology along with ***n***SIGHT Plus enables advances in TTE image quality required for todays echo imaging needs. The X5-1c transducer combined with ***n***SIGHT Plus and innovative design with its curved nose provides enhanced clinical information in 2D and 3D transthoracic imaging over a standard phased array transducer. The benefits may be decreased exam time due to faster access to echo windows, increased confidence in quantification results, and improved imaging especially of the more difficult structures such as tricuspid and pulmonic valves, as well as the LV Apex.

Clinically definitive images empower cardiac care

Increasingly, ultrasound is the first imaging modality used to diagnose patients.[1] Clinicians also recognize its utility in planning and monitoring a variety of treatments, and in follow-up imaging. Images must be easy to acquire, with clinically sufficient penetration, resolution and sensitivity. Images must also take minimal time to optimize, supporting efficient workflow. Robust results require good images to provide trusted data.

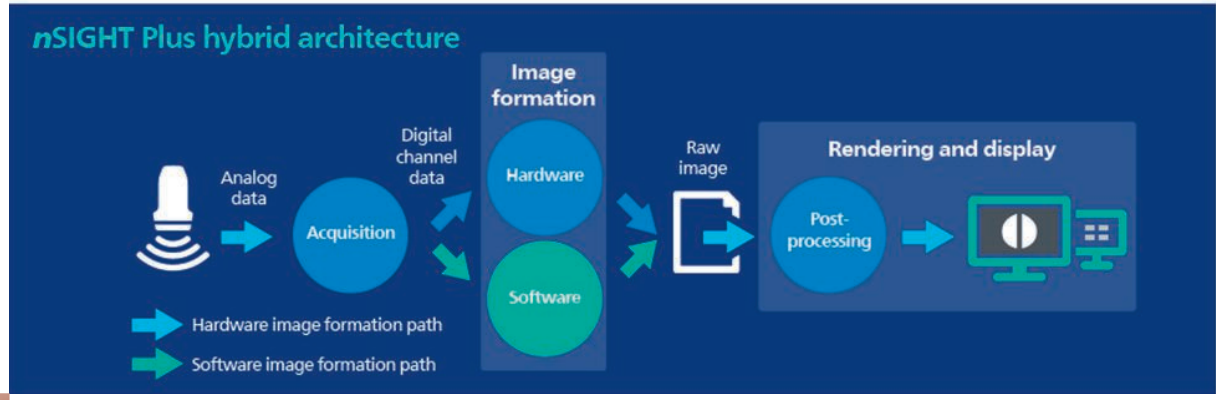
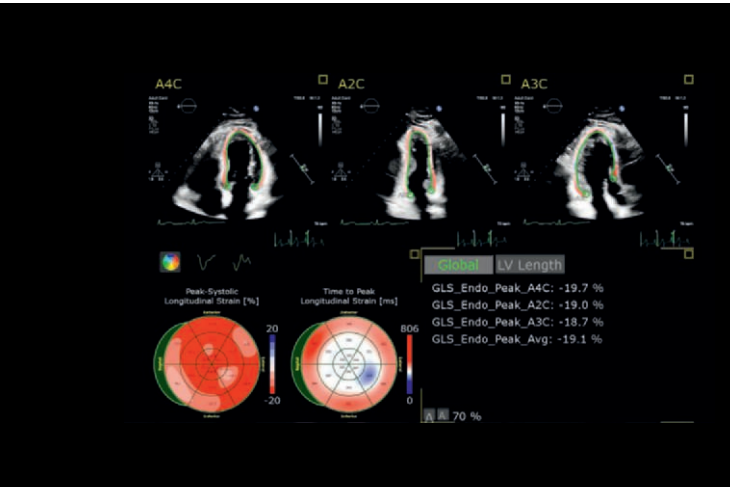


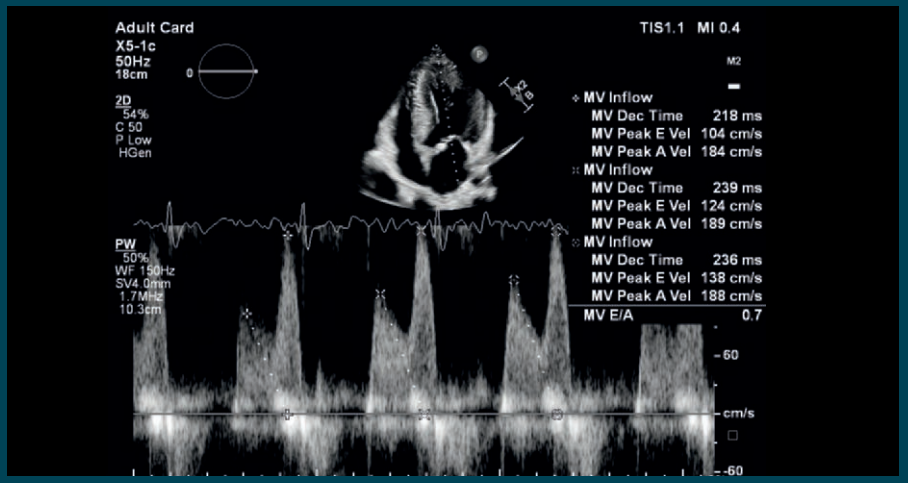
Image formation – the process of converting acoustic data from the transducer into a raw ultrasound image – is key to meeting all these requirements. Recent advances in the processing power of graphical processing units (GPUs) make it possible to build a platform that enables software to run image formation calculations. ***n***SIGHT Plus harnesses the power of hardware and the flexibility of software to bring new capabilities to image formation. Its advanced, intelligent algorithms adjust image formation based on the individual patient, decreasing artifacts and suppressing acoustic interference early in the imaging chain where data is more abundant.

Confidence in diagnosis

The EPIQ CVx ultrasound system brings superb image quality and streamlines evaluation of cardiac function, aiming to increase diagnostic confidence for patients with cardiac conditions such as pulmonary hypertension, congenital heart disease, coronary disease and heart failure.



AutoStrain LV

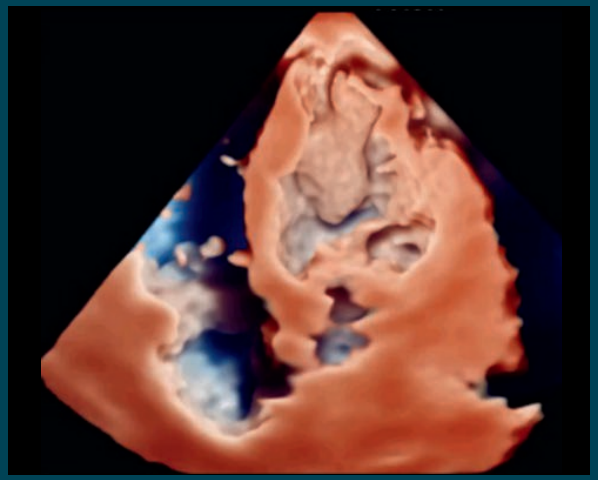


Auto Measure AI

Auto Measure
There are certain measurements which are needed for every echo exam. Current manual methods can be time consuming and have high inter and intra user variability. Auto Measure provides fully automated ways to measure Doppler, ventricular length and 2D PLAX images. Our proven AI empowered algorithm delivers fast and consistent measurements. Less user input has shown a 51% timesaving when performing measurements as compared other manual methods.

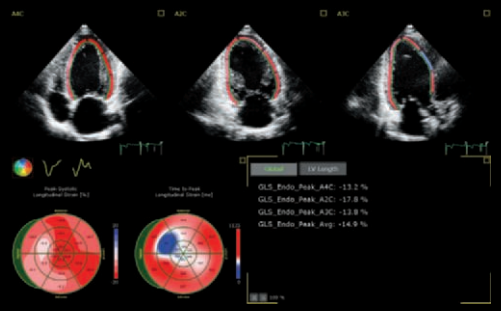
Early detection to enhance cardiac care
TOMTEC AutoStrain integrated on the EPIQ CVx uses Philips advanced automation such as Auto View Recognition, Auto Contour Placement and speckle tracking to enable robust, reproducible one-button global longitudinal strain (GLS) measurement. This efficient tool for routine clinical use in LV, LA and RV strain measurements aids early detection of heart function change.

Full cycle quantification, every day
Dynamic HeartModel offers LV and LA functional information in the same application from the same cardiac cycle. One-button workflow is made possible by advanced automation to automatically label and initiate border tracking. 3D Auto RV segments, identifies borders and aligns views of the right ventricle so that clinicians can quickly perform quantification and check measurements.

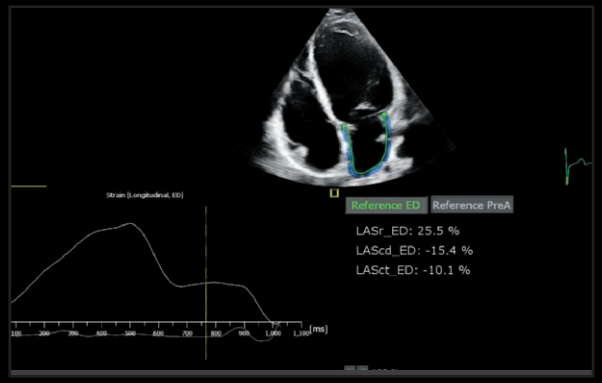


Clear visualization
of the LV thrombus
with Cardiac TrueVue

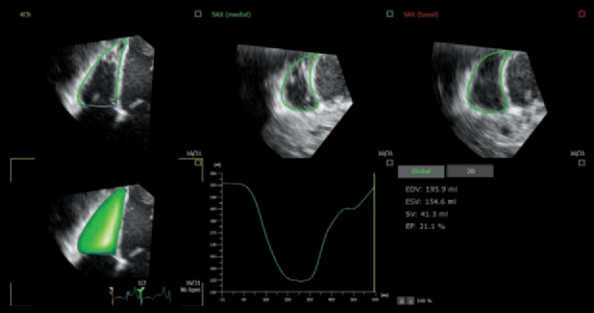
Dynamic HeartModel



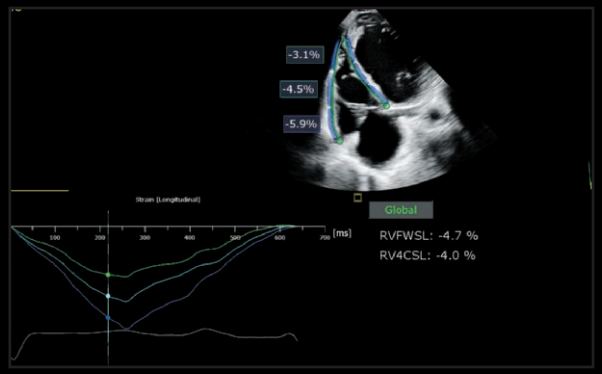
AutoStrain LV
with bullseye view



AutoStrain LA



3D Auto RV



AutoStrain RV

Functional assessment for cardio-oncology

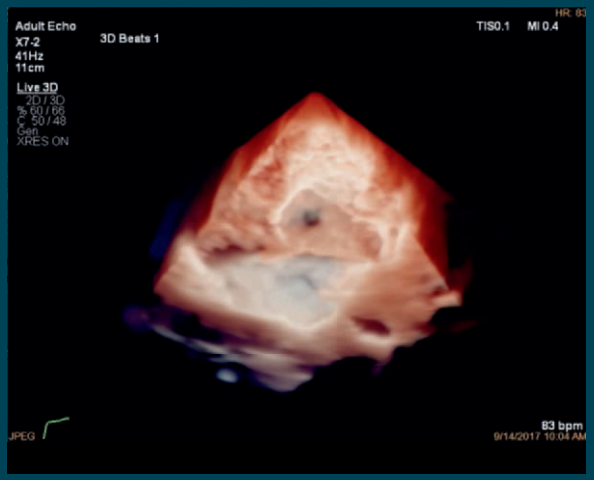
Together, Dynamic HeartModel and AutoStrain LV can provide an excellent solution for fast and consistent 3D ejection fraction and 2D GLS measurements for monitoring patients undergoing chemotherapy.

Assessing cancer therapy-related cardiac dysfunction (CTRCD)
While improvements in cancer treatment have markedly decreased cancer-related mortality, highly effective chemotherapeutic agents may cause CTRCD, marked by a decrease in left ventricular ejection fraction (LVEF). Echocardiography is a method of choice for cardiac evaluation of patients before, during and after cancer therapy, but to be effective it needs to be robust and reproducible.

The importance of 3D echo
LVEF calculated by conventional 2D echocardiography may fail to detect small changes in LV contractility because of LV geometric assumptions, inadequate visualization of the true LV apex, lack of consideration of subtle regional wall motion abnormalities and inherent variability of the measurement. 3D echocardiography is a preferred technique for monitoring LV function and detecting CTRCD.

Detecting subclinical LV dysfunction
GLS is the exceptional parameter of deformation for the early detection of subclinical LV dysfunction and measurements during chemotherapy should be compared with the baseline value.

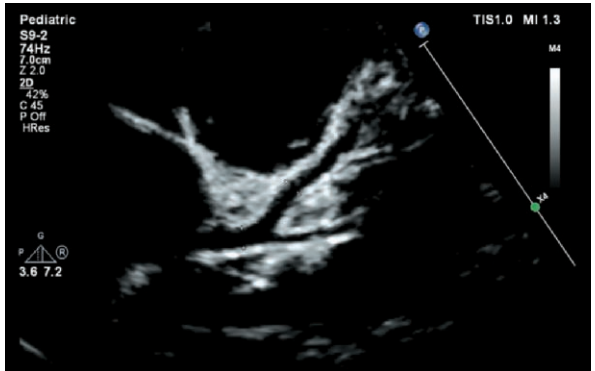
Robust tools help you monitor and track function over time in CTRCD



X7-2 xMATRIX pediatric 3D TTE transducer brings 3D to even the smallest pediatric patients.

Exceptional advances for pediatric imaging

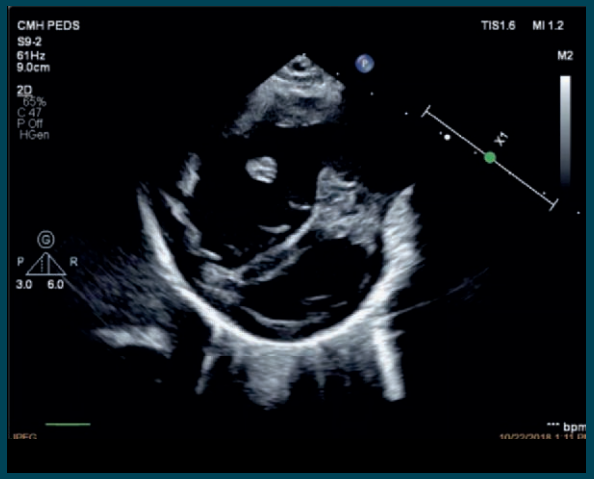
Pediatric patients come in all shapes and sizes. From the tiniest premature neonate to adult congenital patients, Philips offers a depth of imaging capability combined with streamlined cardiac workflow that can reduce the steps and time needed for challenging exams.



Coronary view with S9-2 transducer

Visualize extraordinary levels of detail
The PureWave S9-2 transthoracic transducer provides high levels of detail and resolution, enhancing visualization of structures such as coronary arteries. Philips xMatrix technology with on the X7-2, could provide additional benefits to aid with diagnosis by enabling 3D TTE and high resolution MPR imaging.

One-button coronary sub-mode
All Philips sector transducers feature a one-button coronary sub-mode designed for easy and fast evaluation of the coronary artery and flow.



PLAX view using S9-2 transducer

Definitive imaging

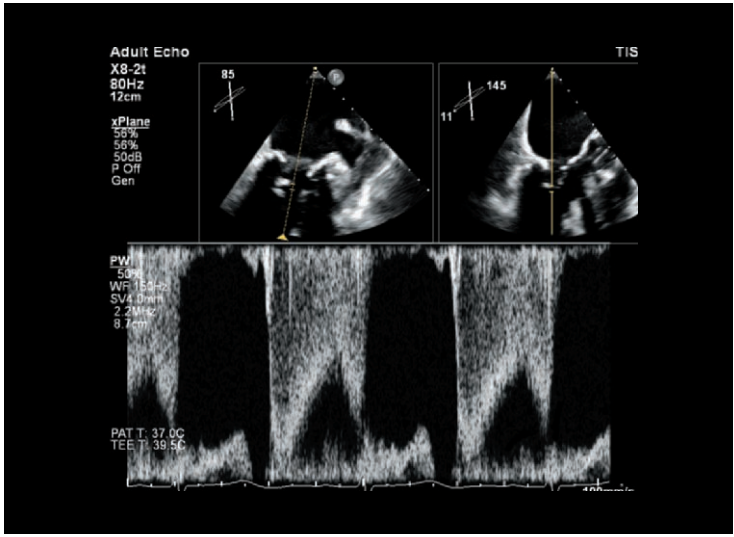
X8-2t transducer

Acquisitions in a single beat
The xMATRIX X8-2t transducer brings true one-beat acquisitions and our highest volume rates in Live 3D and Live 3D color flow to TEE imaging, without compromise to image quality.

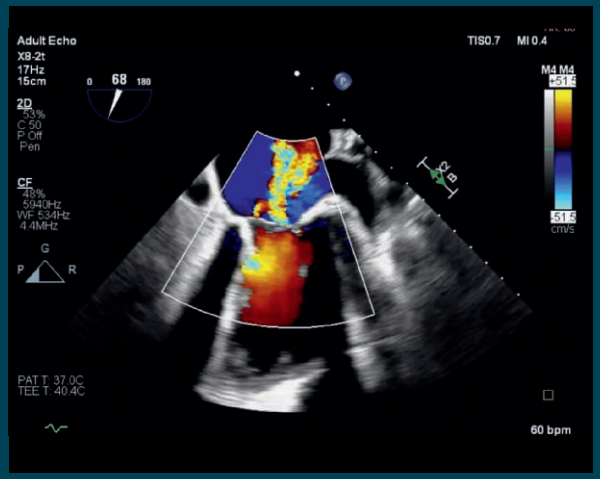
Boost image quality
While 3D TEE is becoming the standard imaging modality for interventional procedures, interventional device artifacts can compromise image quality, making it difficult to assess anatomy around the device. Image Boost is an advanced image formation process that suppresses unwanted clutter signals and boosts desired signals in MPR imaging mode.

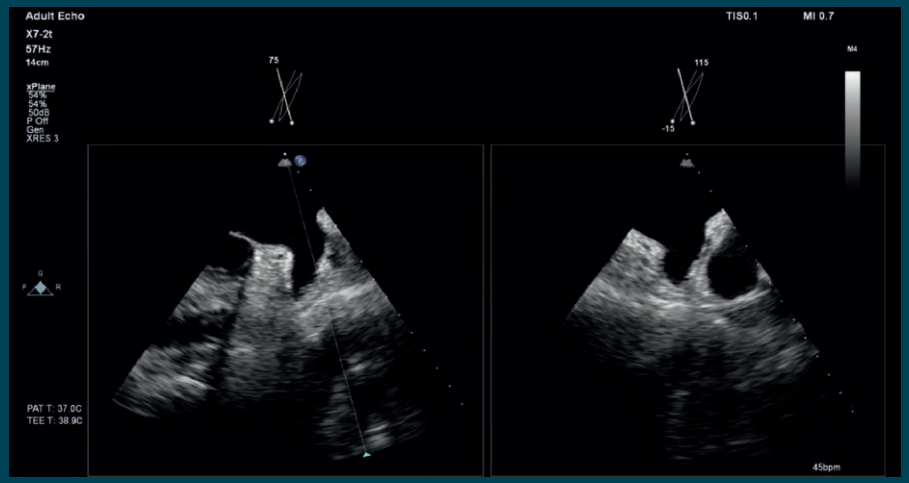
Dependent upon the chosen imaging preset, the X8-2t transducer enhances settings for either tissue or device. When using the interventional preset, the algorithm reduces the appearance of artifacts coming from the device to help maintain diagnostic confidence in all phases of the procedure.

xPlane Doppler
During complex TEE examinations, diagnostic confidence in valve disease assessment is fundamental, the X8-2t transducer with xPlane Doppler enables accurate representation and doppler quantification of the target flow without losing the correct image alignment.



xPlane Doppler with the X8-2t transducer





Excellent color sensitivity using the X8-2t transducer

xPlane imaging using the X8-2t transducer

3D photorealistic rendering

Fully appreciate the structure of cardiac anatomy and cardiac flow through real-time rendering with moveable light source that can be applied in both echo and color images. This unique visualization brings shadow and depth to the volume for a clearer understanding of flow and its position.

Cardiac TrueVue
Available when imaging in 3D or when reviewing a 3D dataset, Cardiac TrueVue provides easy touchscreen control of both the volume and position of the light source. Place the light source anywhere in the volume, even behind a structure to fully understand its orientation, shape and position within the heart.

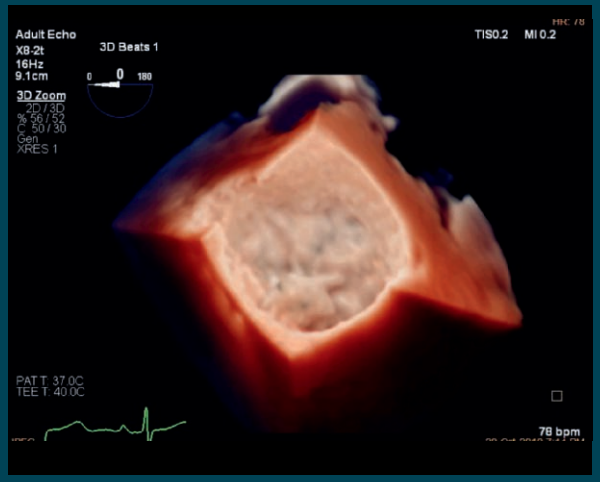
Cardiac TrueVue Color
When in the TrueVue mode, instantly access 3D color and benefit from the movable light source in the volume. Moving the light source around the color flow jets creates shadows that can help locate jet origin and indicate direction more clearly than in 2D.

Cardiac TrueVue Color with Glass
Visualize flow without the need to crop the image, which could potentially remove anatomical context. View regurgitate jet location and trajectory, as well as origin of the regurgitate orifice and gain overall improved visualization of echo behind the color.

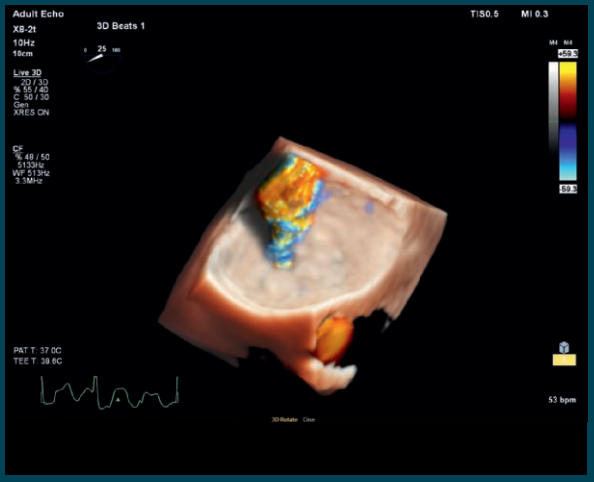
86% of clinicians preferred the presentation of flow information from Cardiac TrueVue Color in viewing the regurgitant jet location and trajectory, as well as the origin of the regurgitant orifice.*

90% of clinicians preferred the presentation of 3D tissue data from the Cardiac TrueVue Color rendering.*

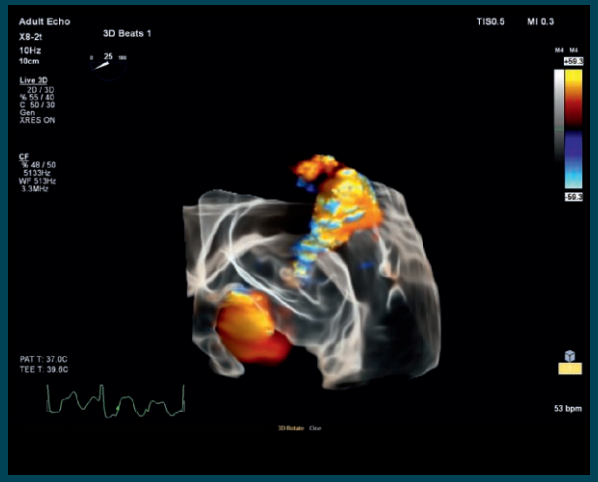
* Compared with the color Vision H.



Cardiac TrueVue for best-in-class photorealistic 3D rendering



Cardiac TrueVue Color improves visualization of flow and its location within the anatomy



Cardiac TrueVue Color with Glass to see complete color flow without losing anatomical context

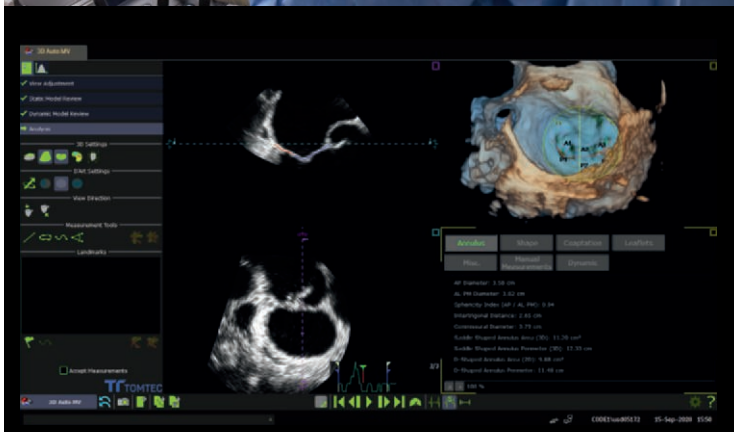
Procedural confidence

Sizing and proper alignment of new cardiac devices can be challenging, affecting cost as well as the experience of both the clinician and patient. The EPIQ CVx has advanced capabilities tailored to interventional solutions, with the streamlined workflow to make interventional procedures predictable and practical for everyday use. Philips solutions in imaging and measurement can provide appreciation of morphology and size for devices, which may reduce time in the OR.

3D Auto LAA for LAA sizing
Acquire the LAA ostium size quickly and easily with 3D Auto LAA. Using automation reduces inter- or intra-user variability, increasing confidence during procedures.

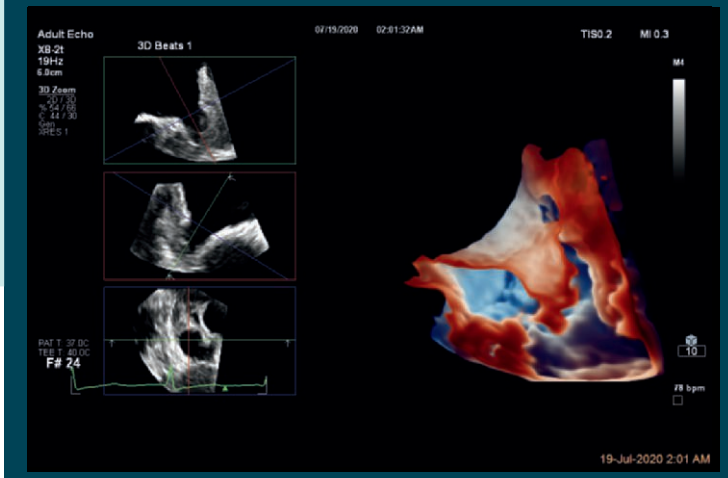
Cardiac TrueVue Glass
Obtain an improved view of morphology using ultrasound. Cardiac TrueVue Glass can also enable a cast-like rendering of any 3D structure, and is especially useful when assessing morphology of a structure e.g., the LAA. This can be performed live or on an image that has already been acquired.

3D Auto MV for mitral valve quantification
Analyze the complex anatomy of the mitral valve in 3D as well as its dynamic mechanics. Geometric measurements such as annular dimensions, leaflet morphology and coaptation descriptions can be used from the initial discovery of MV disease or pathology, to support device planning, and through monitoring of pre- and postoperative cases.

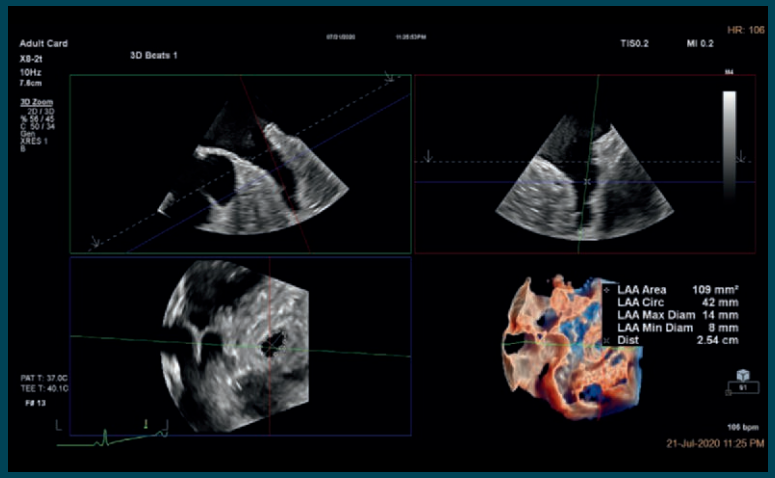


3D Auto MV

Gain complete visualization of LAA morphology and ostium size in **70% less time** by using TrueVue Glass and 3D Auto LAA*



Cardiac TrueVue Glass showing LAA morphology



3D Auto LAA

* Results based on internal comparison between 3D Auto LAA and 3DQ on a set of 15 3D LAA datasets of randomized subjects.

A smart investment

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

Enhance uptime

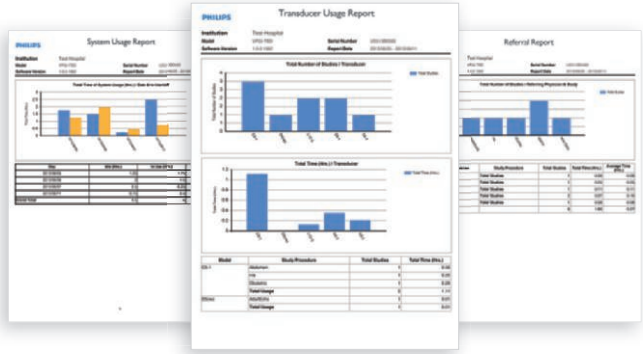
- Modular design for enhanced reliability and rapid repair
- Philips remote services* monitoring, which corrects issues using a standard Internet connection, reducing the need for service calls
- Access to our award-winning service organization

Responsive relationships

The value of a Philips ultrasound system extends far beyond technology. With every EPIQ CVx 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 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.

Support request button for immediate access to Philips support.



Philips 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.

1. From discussions with our users, American Society of Echo, EACVI, Klein reports.

© 2021 Koninklijke Philips N.V. All rights are reserved.
Philips reserves the right to make changes in specifications and/or to discontinue any product at any time without notice or obligation and will not be liable for any consequences resulting from the use of this publication. Trademarks are the property of Koninklijke Philips N.V. or their respective owners.

www.philips.com

4522 991 71641 * OCT 2021