Vivid E95

Imaging. Elevated.

gehealthcare.com

Taking your cardiovascular care insights to a new level.

Imaging. Elevated.

Better image quality. Faster volume rates with higher processing power. Smaller probes.†
With the Imaging. Elevated. release, cSound 2.0 facilitates a new level of image quality and 4D volume rates by expansion of the processing power and the development of new beamforming algorithms. As you navigate the increasing challenges of cardiovascular care, the Vivid™ E95 cardiovascular ultrasound system brings you the uncompromised imaging you need more than ever. From the beamformer to the image processor (GPU) to the probes, we've advanced key elements of the system to deliver a solution that's **Better. Faster. Smaller.**

Advancements enabled by cSound™
Our breakthrough software beamformer platform, cSound, continues to allow us to develop powerful new algorithms and innovations. Ultrasound. Elevated. brought you the features that took image quality to the next level. Then, Productivity. Elevated. release incorporated many new tools to help you quickly and easily obtain clear, detailed imaging. Now, further harnessing cSound's ability to process data from every channel in the probe, the Vivid E95 is taking 4D image quality to new heights in support of exceptional patient care.[1]

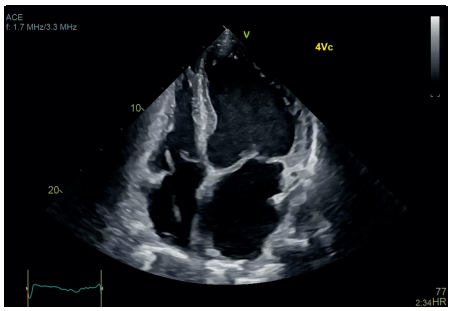
cSound "the enabler"

Ultrasound. Elevated. | Productivity. Elevated. | Imaging. Elevated.

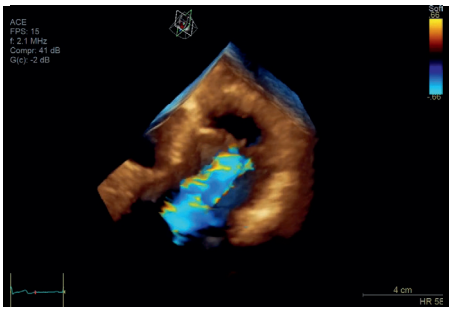
Echo Lab

Visualization

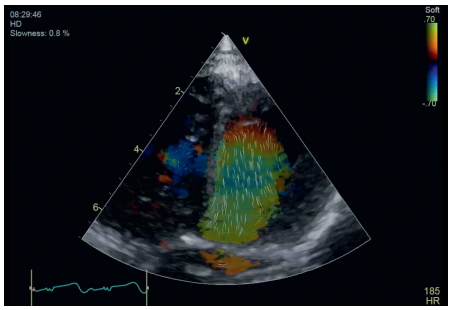
One patient, one probe
The new one-probe adult 4D TTE solution on the Vivid™ E95 provides an excellent ergonomic workflow solution with uncompromised 2D, 4D, color and Doppler image quality performance at ultra-high volume rates – all with a single probe. This allows for complete and comprehensive diagnosis with one probe and avoids switching of probes, thereby reducing exam time and helping you move swiftly through your work with minimal muscular stress and strain on the operator.



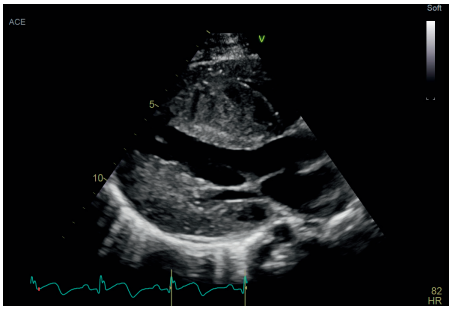
TCI and ACE – Observe the spatial, temporal and contrast resolution in the 2D image obtained with this new 4Vc-D probe.



4D color imaging with the 4Vc-D probe – High volume rates with excellent spatial resolution in single beat acquisition as shown in this mitral valve regurgitation at 15 fps.



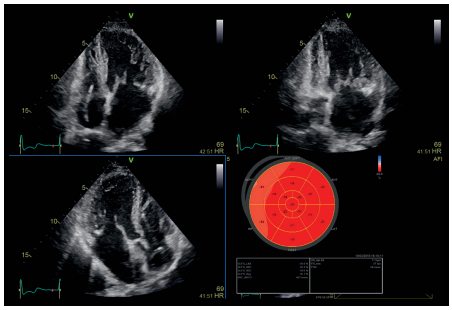
Blood Speckle Imaging* **–** Available for pediatrics as well as transesophageal echo (6VT-D only), BSI, which reduces the angle dependency and aliasing issues of conventional color flow, provides a graphical representation of the trajectories of the blood cells.



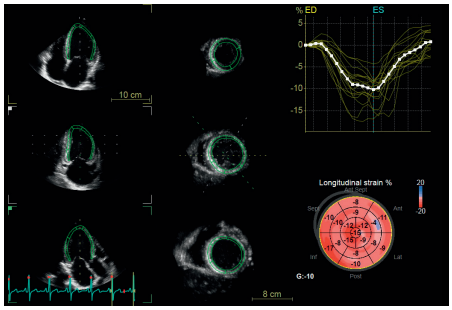
Virtual Apex – Phased array probes provide a wide field of view for enhanced visualization of structures at the sides of the sector.

Quantification

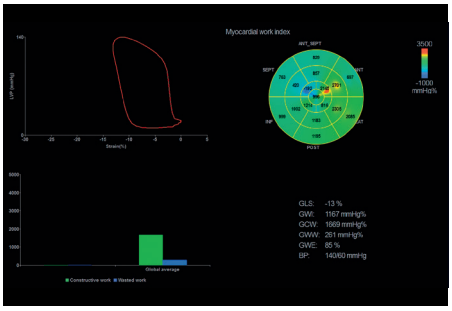
Define the care path
Quantification with Vivid E95 is all about helping providers evaluate problems and pursue the path forward. Count on a full suite of intuitive tools to make your work easy and efficient. Quickly, accurately and thoroughly quantify left and right ventricular wall motion and other key functions.



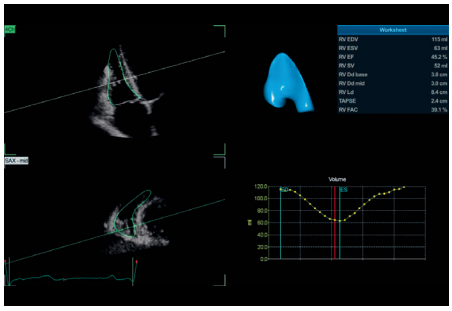
Automated Function Imaging (AFI)* – Assess and quantify left ventricular wall motion at rest or stress (with AFI stress option), calculating a large set of parameters.



4D Strain* calculates both global and regional strain values based upon a spatial speckle-tracking algorithm. The information is presented in a strain bull's-eye plot.



Myocardial Work* introduces new and less load dependent parameters based upon the results obtained with AFI (longitudinal strain) by accounting for the systolic blood pressure measured at rest immediately prior to the echo exam, as well as the MV and AV opening and closure times. These reduced load dependent parameters may provide more accurate and reproducible results, important especially for follow-up of patients over time.

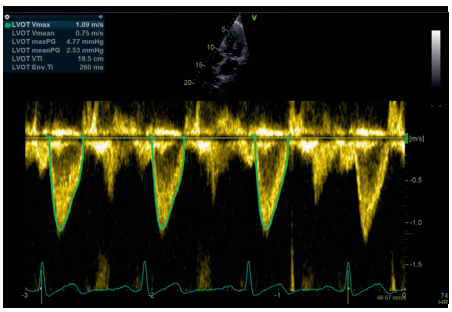


4D Auto RVQ* – This package helps visualize and quantify the right ventricle in TTE images via a semi-automatic, surface-detecting algorithm. It's seamlessly integrated into the regular M&A menu, with results ready for immediate review.

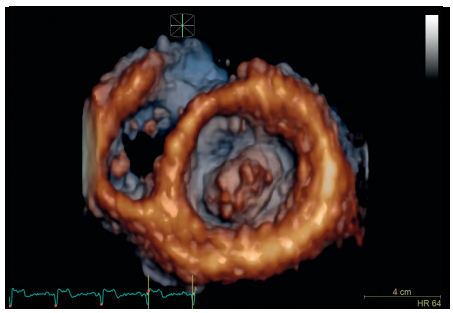
Workflow

Streamline your exams
Vivid E95 with cSound performance makes 4D imaging as easy as 2D imaging with efficient and intuitive tools. The high-quality raw data as well as the DICOM format adapts to your preferences in terms of resolution and gray scale. You can move smoothly through your work, thanks to automated tools that minimize user interaction and provide quick access to stored settings.

The **QuickApps** tool provides flexibility and easy workflow by providing instant access to settings that were stored earlier to match your color flow or contrast parameters, keeping the geometry of the current live image.



Cardiac Auto Doppler – With minimal user interaction, Cardiac Auto Doppler provides Doppler measurements over all heart cycles for the most common parameters, supporting consistent results in advanced studies and potentially saving time.



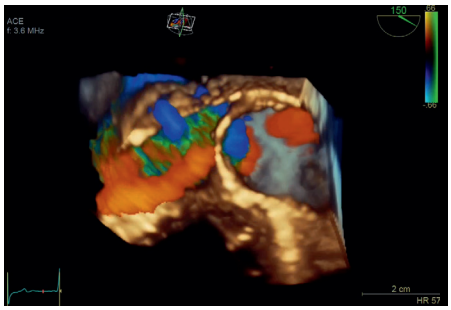
4D Views provides you with "one-touch" options to view images such as 4-chamber, 2-chamber, APLAX, mitral valve, septum, and aortic valve. After a rapid alignment, it takes the full volume acquisition data set and, with the touch of a button, automatically crops away the volume to instantly deliver the view you want.

Interventional

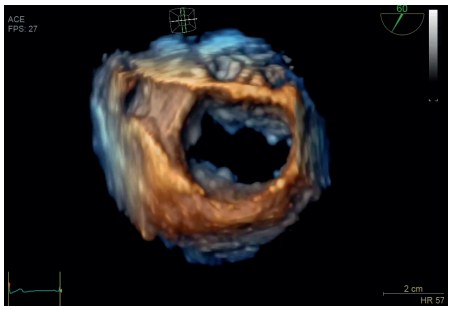
Visualization

Ultra-high single-beat volume rates
With TEE procedures growing, so is the need to find ways to achieve the benefits of 4D imaging without compromising productivity.

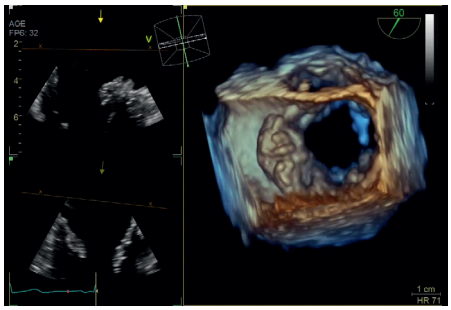
Vmax* enabled by cSound™ 2.0 offers ultra-high 4D volume rates acquired in single beat acquisition with no loss of image quality. Elimination of ECG gated multibeat/stitching acquisition provides enhanced overview of structures and function in cases with high and/or irregular heart rhythm – which potentially reduces interventional procedure time and improves patient outcomes.



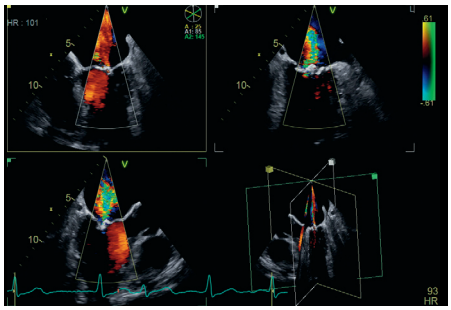
4D TEE color imaging with Vmax – 4D color volume rates at large volume sizes for sake of overview, acquired in single beat acquisition as shown in this aortic valve flow acquired at 10 fps.



HDlive™ is an advanced visualization method that simulates light propagation and scattering through tissue.

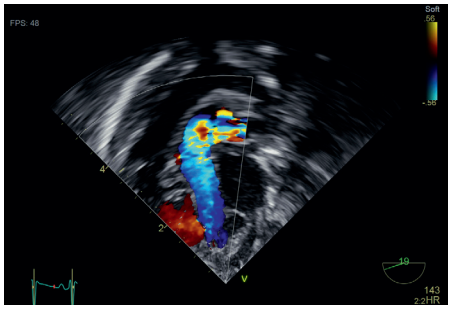


FlexiZoom's intuitive user interface enables flexible, quick and easy visualization of the structures of interest.



Triplane lets you image three planes from the same heartbeat, with high temporal and spatial resolution.

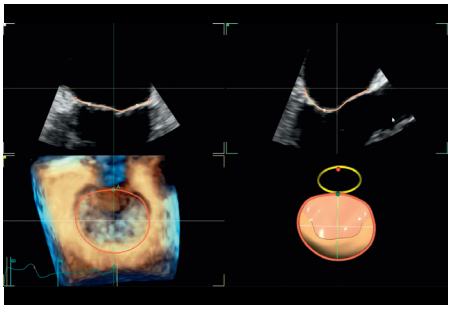
View-X* displays X-ray from fluoroscopy in real time right on your Vivid screen as a picture in picture, facilitating communication between team members.



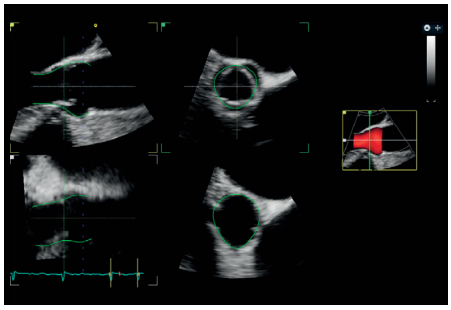
Micro TEE Multiplane Probe – Clearly visualize complex heart conditions in neonatal patients(down to 2.5 kg) and for adults with intolerance to standard TEE.

Quantification

Exploration made easy
Quantification with Vivid E95 elevates providers' ability to evaluate problems and pursue the path forward. Count on a full suite of intuitive tools to make your work easy and efficient.



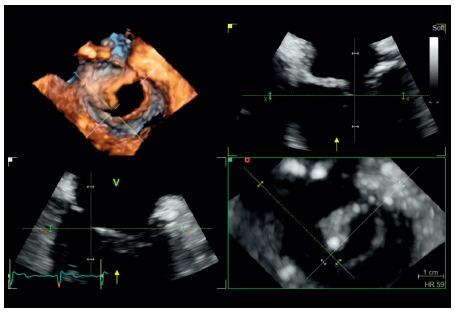
4D Auto MVQ* – Supporting TTE or TEE images, this package helps visualize and quantify the mitral valve via a semi-automatic, surface-detecting algorithm.



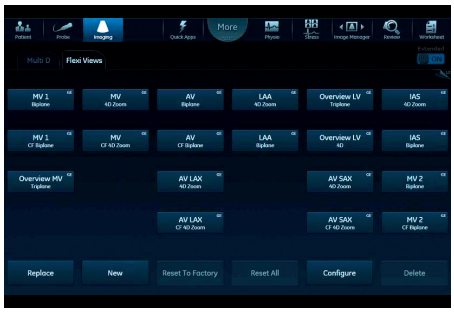
4D Auto AVQ* automatically segments, aligns and quantifies the aortic outflow tract – vital to device sizing and orientation for TAVI/TAVR procedures.

Workflow

Facilitate complex procedures
You can move smoothly through your work, with tools that help to simplify workflow and reduce scanning time. Additional tools include 2-click crop, Biplane prepare and 4D views.



FlexiSlice – Extracting 2D slices from 4D volumes can be a complicated process. FlexiSlice is an intuitive, interactive tool for obtaining many 2D or render views in either live or replay mode.

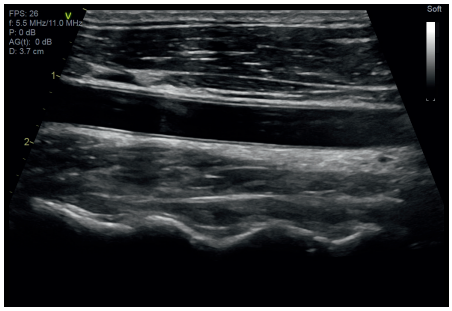


FlexiViews provides quick access to predefined 4D/Multiplane views during live mode, potentially reducing scan time during complex interventional procedures.

Shared Services

Visualization

Image a wide range of patients
Vivid E95 delivers superb performance in your shared services operation, including cardiac, stress echo, vascular, abdominal, OB/GYN and small-parts applications. With a growing obese population, XDclear™ probes combined with cSound beamformer technology can make a difference in many of your exams, helping you quickly and easily acquire images on many different patient types.



Vascular – The two linear probes, 9L-D and 11L-D, highlight True Confocal Imaging (TCI) – providing automatic focusing throughout the field of view, with superb signal-to-noise ratio and excellent spatial resolution both near and far. Together with Virtual Convex** provides a wider far field visualization and aims to enhance image quality.

General Abdominal – The two curved array probes, C1-6-D and C2-9-D, support general imaging as well as abdominal, renal, urology and OB/GYN applications. Both probes have XDclear™ transducer architecture, which delivers the high spatial resolution and deep penetration required for uniform presentation of anatomic structures throughout the field of view. The endocavity transducer, iC5-9-D, is also available.

Security

Vivid E95 is built and configured for reliability and security.

LDAP – Help ensure patient data safety with Lightweight Directory Access Protocol, which allows your IT team to maintain greater control of who's in the system, reducing the risk of breaches.

Configurable system password – There are fully configurable user log-on passwords and internal passwords that can meet your IT department's requirements regarding security strength.

Disk encryption of the drive, which contains patient archive and images, helps ensure safety and privacy of the data, even in case of theft.

Connectivity

Enhanced DICOM review – Accelerate reviewing and reporting by using contrast, brightness and zoom/pan controls to optimize DICOM images.

Enhanced support for cardiac and vascular DICOM SR, including user defined measurements.

Pediatric DICOM SR support – Pediatric measurements sent by SR automatically populate the pediatric report on the receiving side for fast, accurate review elsewhere.

Ergonomics

A familiar, yet modern and efficient package

- 22” high-resolution OLED monitor
- 12” LCD touch screen
- Adjustable floating keyboard
- Convenient data management
- Easy mobility
- Low power consumption with efficient and low noise cooling
- Minimal muscular stress and strain for operator with one-probe solution (4D TTE)

GE Healthcare has a variety of service solutions delivering flexibility and value for your ultrasound equipment.

AssurePoint™ Services

We can help optimize equipment availability and improve productivity. Innovative remote and proactive technologies that assist with reducing unplanned downtime.

We can help maintain clinical excellence and enhance patient care. Knowledgeable, timely support to help keep equipment operating at peak performance.

We can help manage risk and meet budget realities. Informatics and decision support tools to extend useful equipment life and meet changing regulatory requirements.

iLinq™

Real-time answers to technical questions. Direct access to technical expertise right from the console in as little as four minutes.

ViewPoint™ 6 With EchoPAC™ Suite

Image and Measurement Transfer

- Raw data and all measurements (including customized) from Vivid* Systems
- User selectable raw data file transfer in DICOM environment.
- User selectable transfer of systolic part of loop for stress echo, in DICOM environment
- DICOM** and public DICOM SR from 3rd party
- Pediatric DICOM SR Support

EchoPAC Post- Processing

- Full access to GE raw data
- Access to all Vivid measurement tools
- Review, post -process, and measure using AFI, Wall Motion Scoring, etc.

Image Management

- Store and review cine loops and static images
- Measure
- Annotate
- Export
- Send to/Retrieve from Long Term Storage

Reporting

- Create clean, comprehensive, easy-to-read reports
- Complete reports faster with quick report templates
- Easily add images to report
- Option to customize reporting forms and printout
- Report templates for TTE (adult and pediatrics), TEE (adult and pediatrics), Stress, Vascular

IT Integration

- HIS Interface (HL7)
- Patient Data
- Orders
- EMR Interface (HL7)
- Report Text
- Formatted report (PDF)
- PACS Interface (DICOM)
- Export
- Long term Archive

InSite™

Fast diagnosis and repairs. Remote access to system configuration and diagnostic tools. Allows GE specialists to diagnose, calibrate and repair systems remotely without user intervention.

Personalized clinical expertise support direct to customers. Real-time remote support from clinical application domain experts.

iCenter™ Maintenance

Asset analytics at your fingertips. A secure internet application providing informatics for enhanced asset management decision making.

Accidental Probe Coverage

Coverage assurance for your probe accidents

QA Care

QA documentation support for ultrasound accreditation. GE Healthcare helps to provide a solution to the image quality and system performance documentation to help control the impact the accreditation process has on your staff and the patient imaging time. The Quality Assurance (QA) program covers the equipment performance and image quality system checks specified by the American College of Radiology and other accrediting bodies. These services can help expedite the accreditation process and help you maintain your accreditation.

GE Healthcare provides transformational medical technologies and services to meet the demand for increased access, enhanced quality and more affordable healthcare around the world. GE (NYSE: GE) works on things that matter – great people and technologies taking on tough challenges.

From medical imaging, software & IT, patient monitoring and diagnostics to drug discovery, biopharmaceutical manufacturing technologies and performance improvement solutions, GE Healthcare helps medical professionals deliver great healthcare to their patients.

Imagination at work

[1] Robert Kulina, MD, MS; Sunil Agarwal, MD, PhD; Brandon Wiley, MD; Jagat Narula, MD, DM, PhD, FACC; Partho P. Sengupta, MD, MBBS, DM, FASE; Farooq A. Chaudhry, MD, FACP, FACC, FASE, FAHA Mount Sinai Icahn School of Medicine NY, NY. New Software Beamforming Algorithm is Superior to Standard Hardware-Based Beamformer in Endocardial Border Detection. GE Healthcare. 2016.

†10T Micro TEE and 4Vc-D.

*Optional

**Compared to scanning without Virtual Convex.

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