

GE Healthcare

# Vivid q

Cardiovascular ultrasound system



Vivid q, a new advance in portable echocardiography, extends the reach of medical professionals to help diagnose cardiovascular anatomy and LV function by adding more quantitative tools and pushing the boundaries with exceptional levels of image quality. The Vivid q helps provide accuracy and enables diagnostic confidence - while allowing you to increase your productivity.

# Compact

## without compromise.

Vivid q builds on the many innovative features and technologies of the Vivid *i* with even more performance and new quantitative analysis tools.

- The Vivid q features a host of new image quality enhancements migrated from the Vivid 7 including the M4S-RS transducer. The matrix probe technology with the M4S-RS transducer allows electronic beam focusing in three dimensions, enabling higher image quality levels.
- Auto EF, a new automated ejection fraction measurement program designed specifically for the Vivid q, along with the Automated Function Imaging (AFI) feature that has been migrated from Vivid 7, enhance decision support with quantitative information of global and regional function that assists in increasing your diagnostic confidence.
- Tissue Synchronization Imaging (TSI) including quantitative analysis represents a parametric imaging mode which empowers physicians' to see quantitative information in moving two-dimensional images.
- Intracardiac Echo (ICE) imaging catheters open new application and care areas for your ultrasound systems.
- Sixteen probes further expand Vivid q's range of applications.
- Additional advanced quantitative analysis tools can be accessed right on the system, with the full EchoPAC<sup>®</sup> toolkit available on the workstation so you can optimize workflow to match your real needs.



Exceptional images.  
Advanced quantification.  
Streamlined workflow.  
Vivid q takes you anywhere  
you want to go in a  
clinical environment.



Excellent image quality  
and quantification.

Raw data image quality – with matrix array imaging – one of the most advanced probe technologies available. Parametric imaging and quantification of global and regional function assist in more confident clinical decisions. Vivid q is a comprehensive, compact portable ultrasound system.



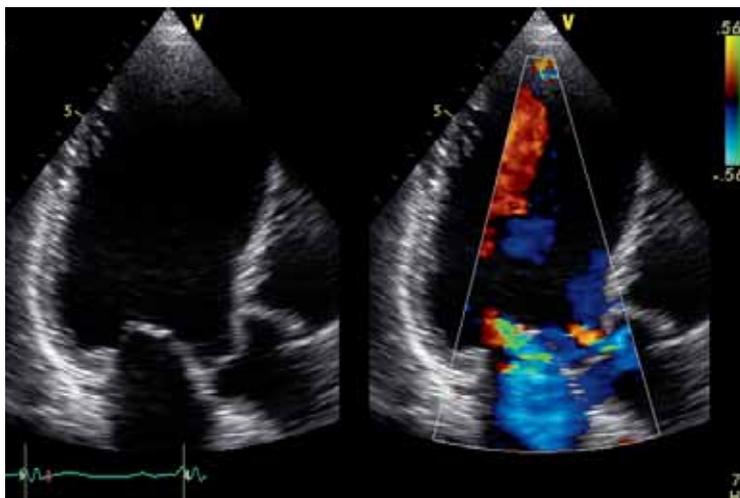
Vivid q helps you assess LV function and cardiac performance with clarity and may improve clinical confidence in complex invasive procedures. And optimize image settings across procedures and users.

### Performance features and clinical tools

- The M4S-RS matrix array transducer produces excellent 2D images for adult cardiac applications.
- Coded Octave imaging takes GE's image quality to the next level, enhancing your images for color flow and Doppler imaging.
- Smart Depth automatically adapts imaging parameters to help operators save time and increase standardization among users.
- Smart Stress can improve workflow, shortens optimization time and supports reproducibility for review, wall-segment scoring and reporting.

### Parametric imaging and quantification support clinical decisions

- Automated Function Imaging (AFI) supports LV function analysis at rest, visualizing the longitudinal wall shortening and lengthening and highlighting a segment's contraction. AFI highlights potential wall motion abnormalities. It may decrease LV function assessment variability, provide clinical decision support and streamline workflow.
- Tissue Velocity Imaging (TVI) and Tissue Tracking (TT) show tissue velocity and displacement in the direction of the ultrasound beam with high temporal resolution, and also visualize short events.
- Tissue Synchronization Imaging (TSI) facilitates translation of comprehensive quantification into an easy-to-understand image demonstrating mechanical synchronicity of different myocardial segments.
- On-board Quantitative Analysis allows in-depth analysis of the ultrasound data, including deriving traces and Curved Anatomical M-Modes.



2D and 2D color flow of APLAX view



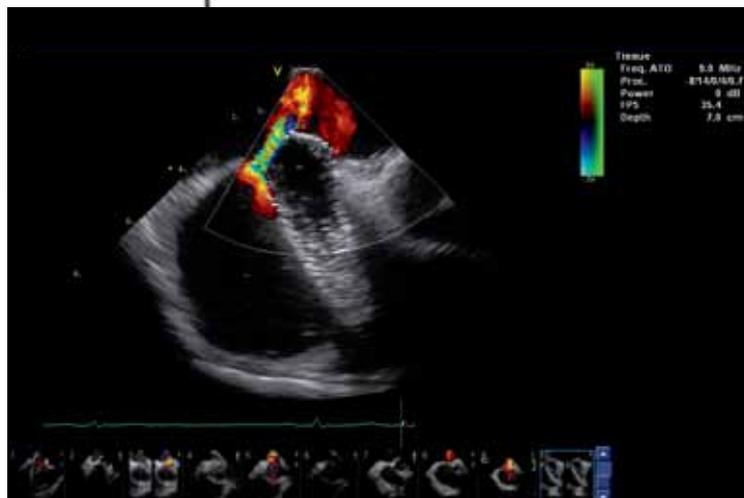
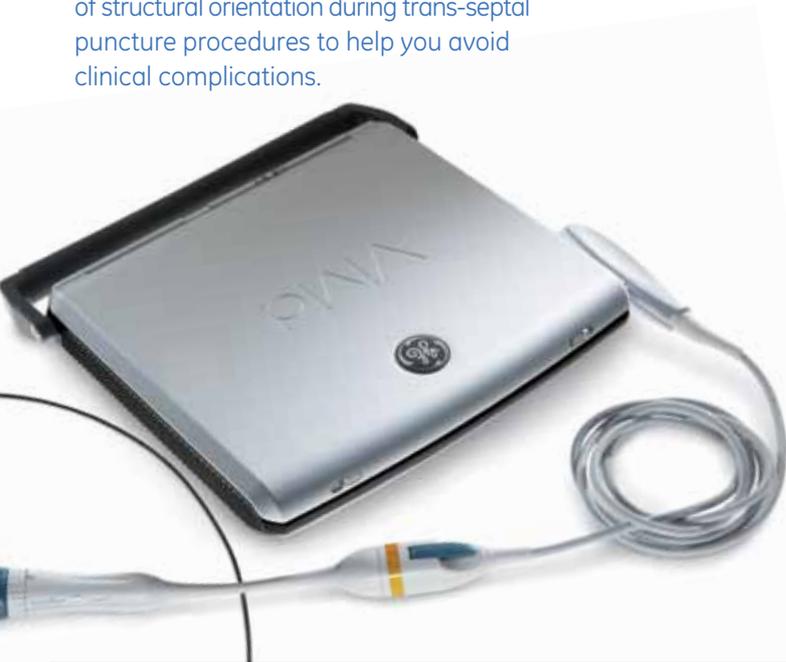
Auto EF



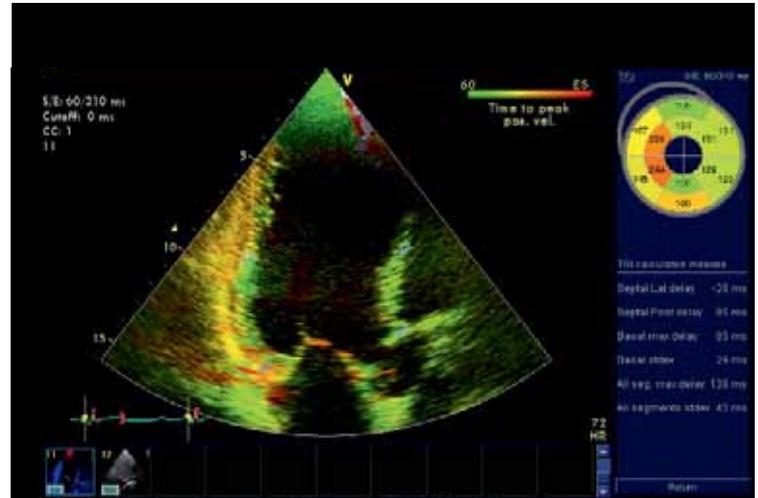
## Intracardiac Echo (ICE) imaging

Combining exceptional detail and quality of information with advanced interventional echocardiography ultrasound ICE imaging technology, Vivid q opens another window to the heart.

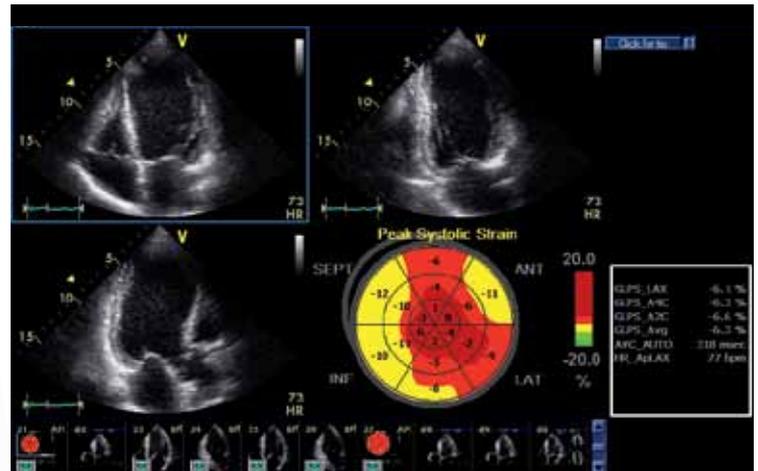
- ICE catheters deliver excellent image quality and real-time visualization of cardiac structural anatomy, and therapy catheters to aid in monitoring and guidance during interventional procedures.
- ICE can give you a better understanding of structural orientation during trans-septal puncture procedures to help you avoid clinical complications.



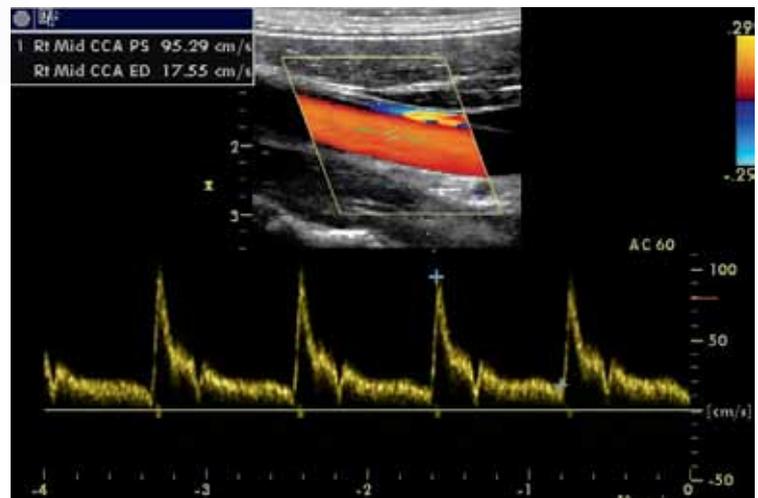
ICE imaging color flow around a closure device



Tissue Synchronization Imaging (TSI)



Automated Function Imaging (AFI) with bull's eye



Pulse wave Doppler of right common carotid artery

Vivid q's compact, laptop size and light weight make it easy to take exceptional ultrasound imaging performance to any clinical environment.

# Share. Everywhere.

## OR/Anesthesia

- Address perioperative needs with transthoracic examinations under challenging conditions.
- Enable monitoring with the help of adult or pediatric TEE.
- Support saphenous vein harvesting and carotid evaluations.
- Use the intra-operative probe to obtain information to support specific diagnoses in the OR during and directly after open-heart surgery.\*\*
- Share images remotely on a PC with the eVue option for efficient, convenient consultations.

\*\* The i12L-Rs probe is not approved to be brought in direct contact with the open heart.

## Pediatric Echocardiography

- Examine children of all ages, including newborns.
- Choose from a wide range of sector, micro convex, linear and transesophageal transducers plus a specific ECG cable.

## Obstetrics/Gynecology

- Focus on fetal echo, or comprehensive examinations.

## Shared Services

- Conduct vascular and abdominal exams with Vivid q's comprehensive set of linear and convex transducers.
- Display blood flow with 2D-like spatial resolution and no color-flow-imaging artifacts with B-Flow and Blood Flow Imaging (BFI).
- Measuring the carotid artery's intima-media thickness quickly with the IMT analysis package may obtain early information on atherosclerosis risk.
- Use Wide Aperture to support improvement in the signal-to-noise ratio and spatial resolution for better penetration in deeper structures.





With its 16 probes and compact size, the Vivid q lets clinicians share exceptional ultrasound imaging in any clinical environment.

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## About GE Healthcare

GE Healthcare provides transformational medical technologies and services that are shaping a new age of patient care. Our broad expertise in medical imaging and information technologies, medical diagnostics, patient monitoring systems, drug discovery, biopharmaceutical manufacturing technologies, performance improvement and performance solutions services helps our customers to deliver better care to more people around the world at a lower cost. In addition, we partner with healthcare leaders, striving to leverage the global policy change necessary to implement a successful shift to sustainable healthcare systems.

Our “healthymagination” vision for the future invites the world to join us on our journey as we continuously develop innovations focused on reducing costs, increasing access, and improving quality around the world. Headquartered in the United Kingdom, GE Healthcare is a unit of General Electric Company (NYSE: GE). Worldwide, GE Healthcare employees are committed to serving healthcare professionals and their patients in more than 100 countries. For more information about GE Healthcare, visit our website at [www.gehealthcare.com](http://www.gehealthcare.com)

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imagination at work