

# Vivid q

Cardiovascular ultrasound system



Vivid q, a new advance in portable echocardiography, extends the reach of medical professionals to diagnose cardiovascular anatomy and LV function by adding more quantitative tools and pushing the boundaries to the highest levels of image quality. The Vivid q provides great accuracy and diagnostic confidence – while increasing 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 increases your diagnostic confidence.
- Tissue Synchronization Imaging (TSI) including quantitative analysis represents a parametric imaging mode which empowers physicians' eyes 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™ 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.



Its image quality and quantification are huge.

Raw data image quality – now with matrix array imaging – one of the most advanced probe technologies available. Parametric imaging and quantification of global and regional function for more confident clinical decisions. No other compact portable ultrasound system puts it all together like Vivid q.



Vivid q lets you assess LV function and cardiac performance with exceptional clarity and accuracy. Improve clinical confidence in complex invasive procedures. And optimize image settings across all procedures and users.

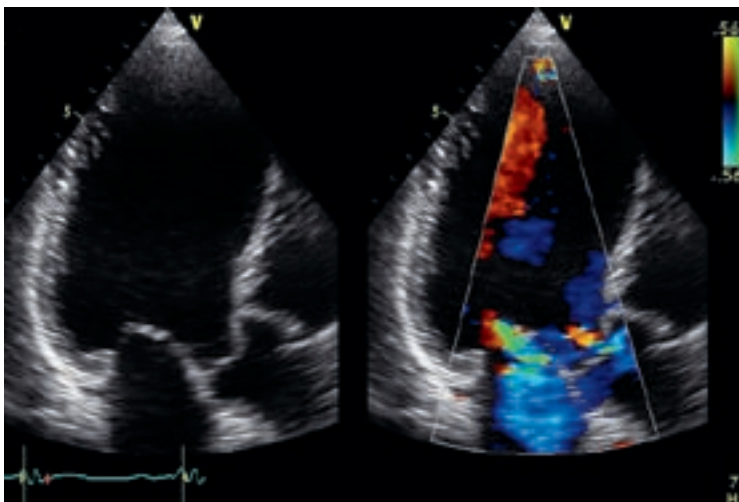
### Performance features and clinical tools

- The addition of the M4S-RS matrix array transducer produces enhanced 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 newer users see better results, expert operators save time and increase standardization among users.
- Smart Stress improves workflow, shortens optimization time and provides reproducibility for review, wall-segment scoring and reporting.

### Parametric imaging and quantification support clinical decisions

- Auto EF provides the most commonly used parameter to describe the LV function, the Ejection Fraction (EF). The 2D strain-based tool assists in finding the endocardial border. It also reduces the dependency of "seeing" the border in each image by analyzing and tracking the myocardial tissue. The program automatically locates the end systolic and end diastolic frames.

- Automated Function Imaging (AFI) supports LV function analysis, visualizing the longitudinal wall shortening and lengthening and highlighting a segment's contraction. AFI can potentially be used to differentiate disease from non-disease segments. It decreases LV function assessment variability, provides clinical decision support and streamlines 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) translates comprehensive quantification into an easy-to-understand image demonstrating mechanical synchronicity of different myocardial segments.



2D and 2D color flow of APLAX view

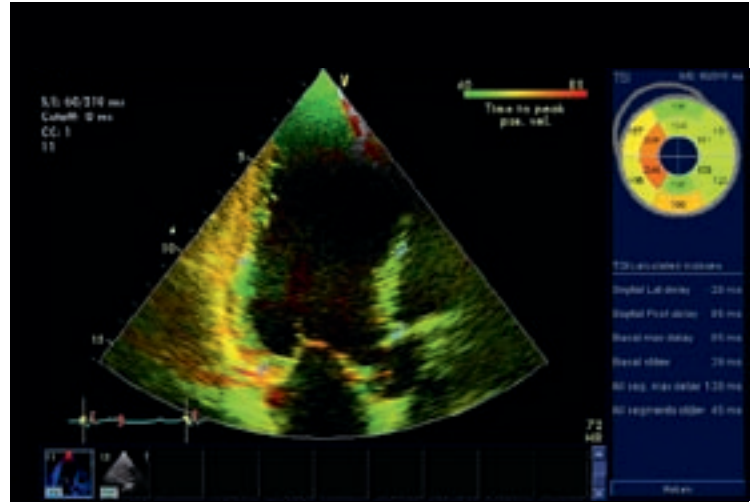


Auto EF

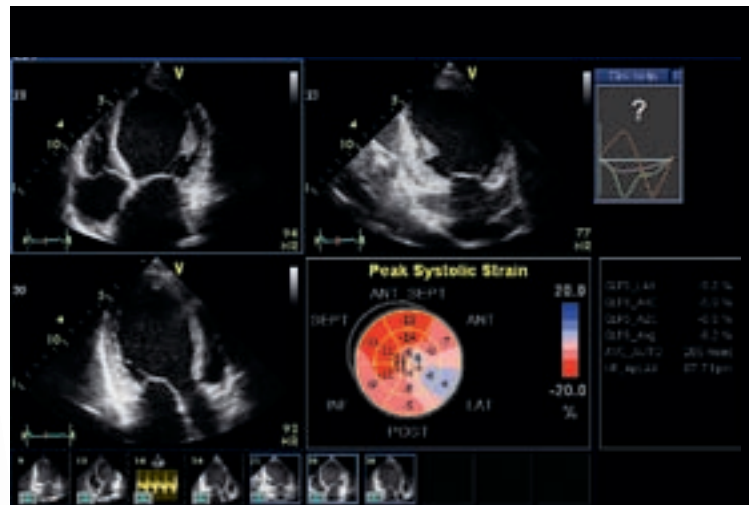
## Intracardiac Echo (ICE) imaging

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

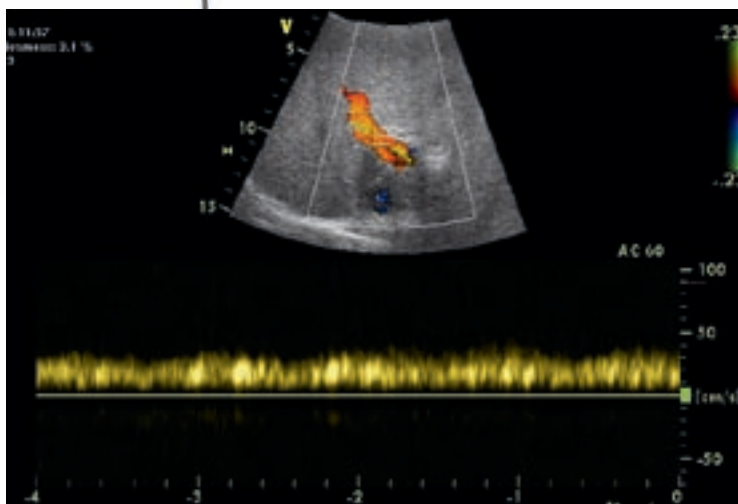
- ICE catheters deliver excellent image quality and real-time visualization of cardiac structural anatomy, with therapy catheters for monitoring and guidance during interventional procedures.
- ICE gives you a better understanding of structural orientation during trans-septal puncture procedures to help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



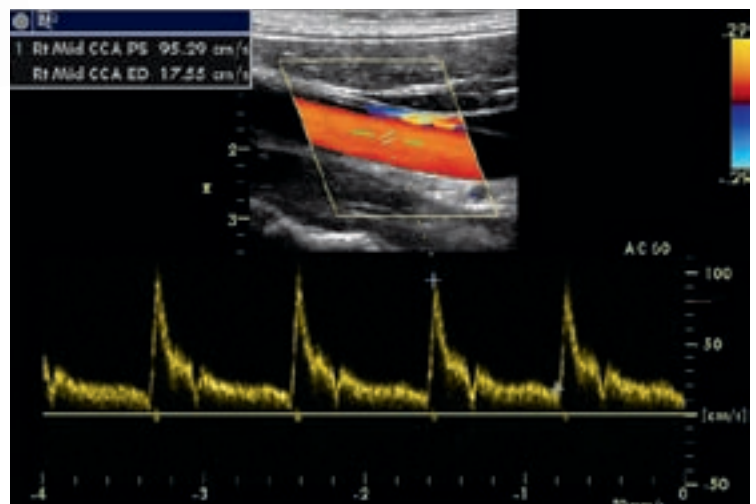
Tissue Synchronization Imaging (TSI)



Automated Function Imaging (AFI) with bull's eye



Pulse wave Doppler of portal vein



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 wherever it's needed.

# 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 support specific diagnoses in the OR during and directly after open-heart surgery.
- Share images remotely on any PC with the eVue option for efficient, convenient consultations.

## Pediatric Echocardiography

- Examine children of all ages, including newborns, without compromise.
- Choose from a wide range of sector, micro convex, linear and transesophageal transducers plus a specific ECG cable.

## Shared Services

- Conduct more 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).
- Measure the carotid artery's intima-media thickness quickly and accurately for early information on atherosclerosis risk with the IMT analysis package.
- Use Wide Aperture to improve 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 anywhere and everywhere.

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## Healthcare Re-imagined

GE is dedicated to helping you transform healthcare delivery by driving critical breakthroughs in biology and technology. Our expertise in medical imaging and information technologies, medical diagnostics, patient monitoring systems, drug discovery, and biopharmaceutical manufacturing technologies is enabling healthcare professionals around the world to discover new ways to predict, diagnose and treat disease earlier. We call this model of care "Early Health." The goal: to help clinicians detect disease earlier, access more information and intervene earlier with more targeted treatments, so they can help their patients live their lives to the fullest.

Re-think, Re-discover, Re-invent, Re-imagine.

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imagination at work