

Bringing peace of mind to your hospital and patients

To address the emerging need for cybersecurity, Samsung provides a solution to support our customers by offering the tools to protect against cyberthreats that may compromise invaluable patient data and ultimately degrade the quality of care. Samsung's Cybersecurity Solution strives to abide by the CIA triad (Confidentiality, Integrity, and Availability) and takes a comprehensive approach to providing impeccable protection with the following pillars: Intrusion prevention, Access control, and Data protection.



Intrusion prevention

Tools for protecting against cyber threats from external attacks

- Security tools include Anti-virus & Firewall
- Secured operating system



Access control

Strengthened surveillance for tracking the access of patient information

- Account management
- Enhanced audit trail



Data protection

Encryption functions for safeguarding data whether at-rest or in-transit

- Data protection
- Transmission security

About Samsung Medison CO., LTD.

Samsung Medison, an affiliate of Samsung Electronics, is a global medical company founded in 1985. With a mission to bring health and well-being to people's lives, the company manufactures diagnostic ultrasound systems around the world across various medical fields. Samsung Medison has commercialized the Live 3D technology in 2001 and since being part of Samsung Electronics in 2011, it is integrating IT, image processing, semiconductor and communication technologies into ultrasound devices for efficient and confident diagnosis.

- This product, features, options and transducers are not commercially available in all countries.
- Sales and shipments are effective only after the approval by the regulatory affairs. Please contact your local sales representative for further details.
- This product is a medical device, please read the user manual carefully before use.
- S-Vue Transducer™ is the name of Samsung's advanced transducer technology.
- Optical Disk Drive is not available for this product.

1. Optional feature which may require additional purchase.
2. Clinical image acquired by the HS50 V1.00 ultrasound system.
3. Clinical image acquired by the HS50 V2.00 ultrasound system.
4. Clinical image acquired by the HS50 V2.02 ultrasound system.
5. Clinical image acquired by the HS50 V2.03 ultrasound system.
6. S-Detect™ for Breast and S-Detect™ for Thyroid are not available in Canada.
7. In the United States, certain classification items in S-Detect™ such as Margin, Posterior Features, and Echo Pattern are not automatically provided. Also the recommendations about whether results are benign or malignant in S-Detect™ are not applicable in the United States.
8. Strain value for ElastoScan+™ is not applicable in Canada and the United States.
9. The superscript PE of PA1-5A transducer stands for Public edition.

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Simple yet powerful

Ultrasound system HS50 Powered by CrystalLive™



Scan code or visit
www.samsunghealthcare.com
to learn more



Relentless Innovation for your diagnostic confidence

We make every endeavor to deliver innovative products and solutions that enable healthcare professionals to enhance diagnostic confidence.

Samsung's HS50 ultrasound system has adopted this integrated solution in order to provide exquisite image quality and expert tools that enable you to focus on your specific needs.



Powered by CrystalLive™

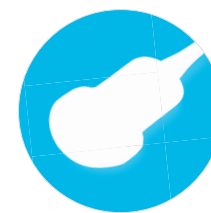
CrystalLive™ is Samsung's ultrasound imaging engine with enhanced image processing capabilities including 2D image processing, 3D rendering and color signal processing. It provides realistic and coherent images in various modes. In addition, it also offers an efficient diagnostic environment by handling large amount of signal data quickly.

Samsung
Ultrasound System **HS50**

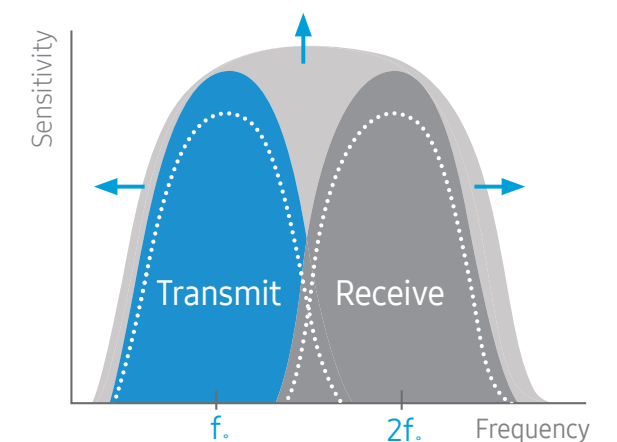


S-Vue Transducer™

S-Vue Transducer™ provides more efficient piezoelectric properties, resulting in wider bandwidths that enable better penetration and higher quality resolution.



S-Vue Transducer™
CA1-7AD, CA2-9AD, CV1-8AD,
PA1-5A



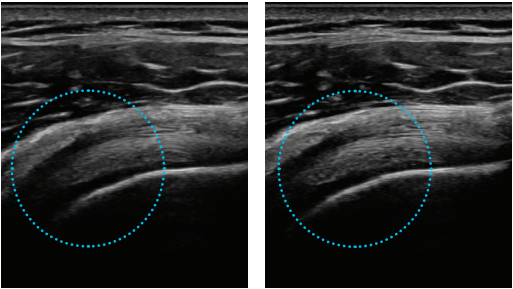
* The image is for illustrational purposes only and might differ from the actual performance of the device.

More Valuable Information

Samsung's advanced imaging technologies can provide new insights based on highly detailed images. This valuable information enables confident decision making.

Clean up blurry areas in the image

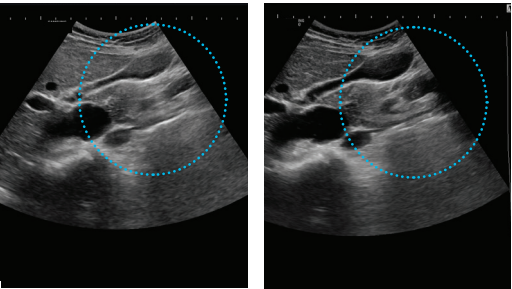
HQ-Vision™¹ provides clearer images by mitigating the characteristics of ultrasound images that are slightly blurred than the actual vision.



Shoulder⁴ Shoulder⁴ with HQ-Vision™

Provide uniform image performance from near-to-far

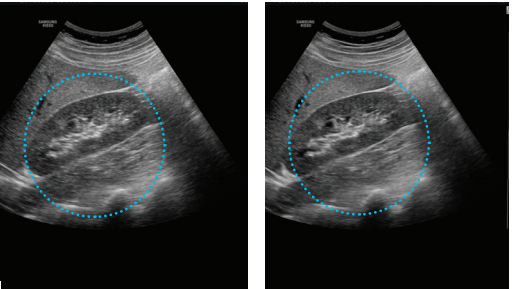
S-Harmonic™¹ mitigates the signal noise, enhances contrast, and provides uniform image performance of overall image area from near-to-far.



Pancreas² Pancreas² with S-Harmonic™

Reduce noise to improve 2D image quality

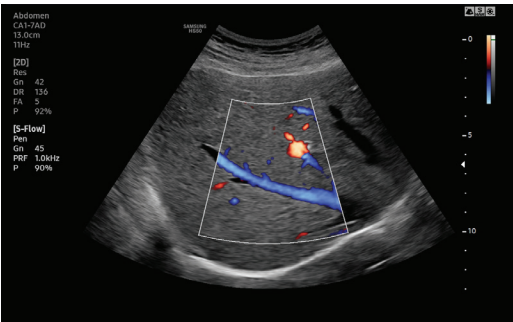
The noise reduction filter improves edge enhancement and creates sharper 2D images for optimal diagnostic performance. In addition, ClearVision provides application-specific optimization and advanced temporal resolution in live scan mode.



Kidney² Kidney² with ClearVision

Examine peripheral vessels with directional Power Doppler

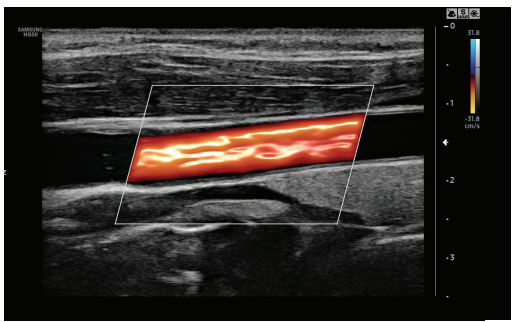
S-Flow™¹ is a directional power Doppler technology, which helps in diagnosis of complex forms of blood flow.



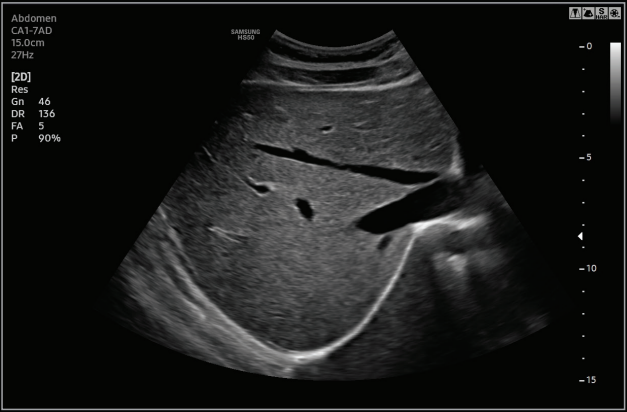
Liver³ with S-Flow™

Show blood flow in vessels in a 3D like display

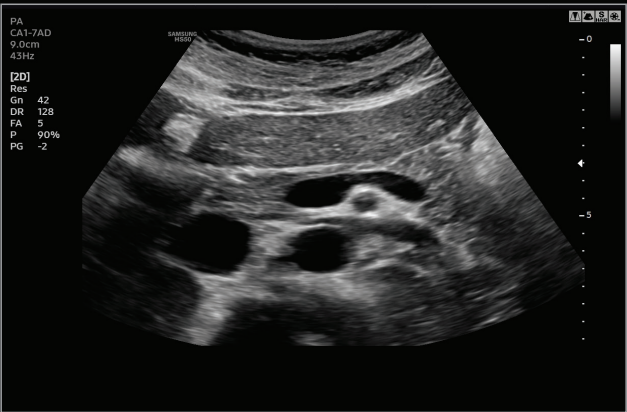
LumiFlow™¹ is a function that visualizes blood flow in three dimensional-like to help understand the structure of blood flow and small vessels intuitively.



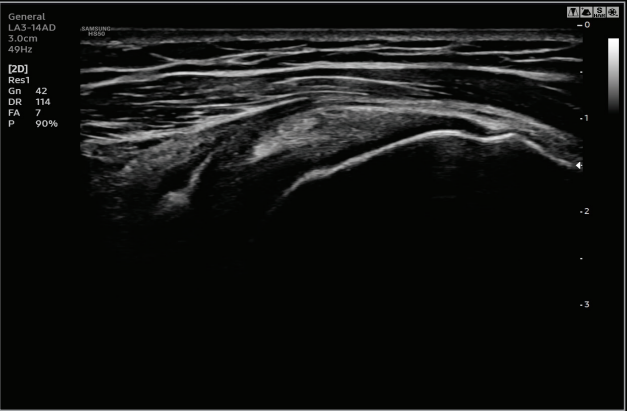
Carotid⁵ with LumiFlow™



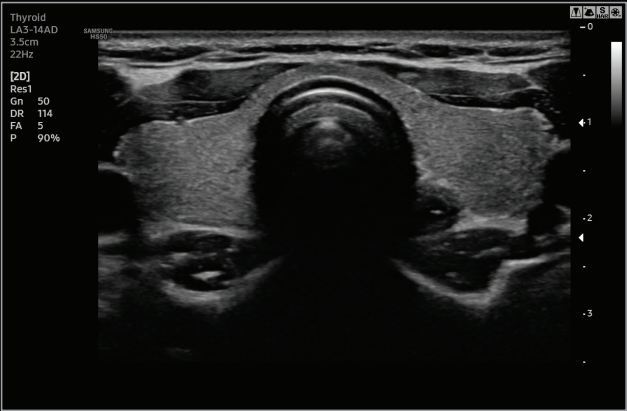
Liver³



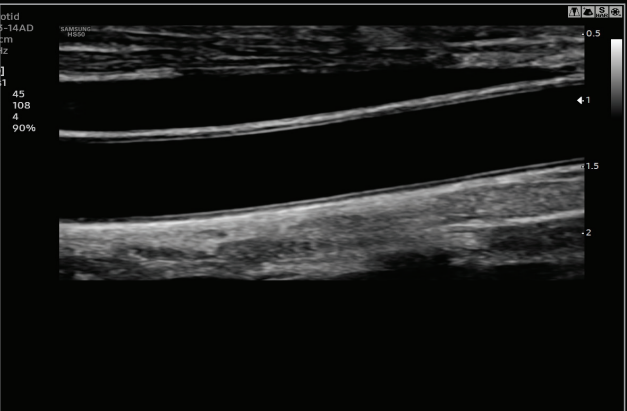
Pancreas³



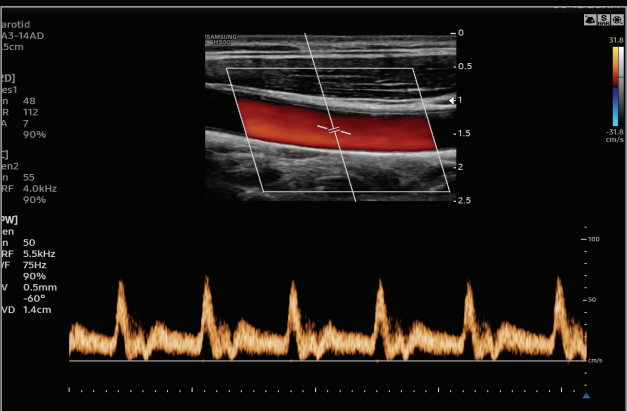
Shoulder³



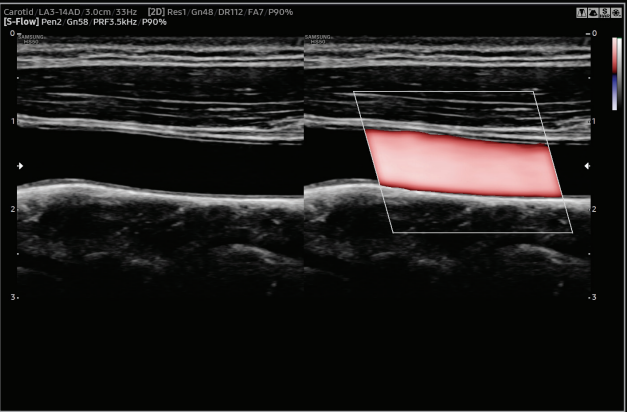
Thyroid³



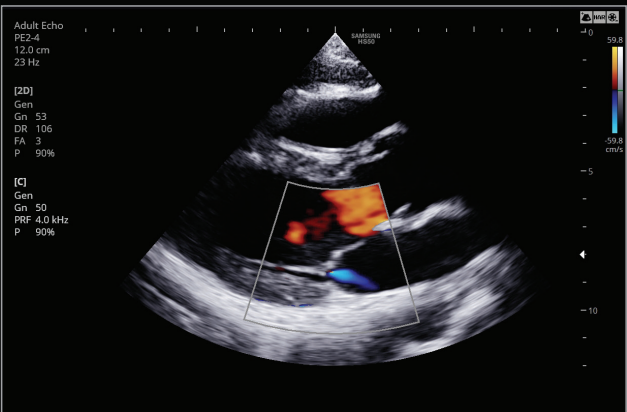
Carotid³



Carotid³ with color & PW



Carotid³ with S-Flow™



Parasternal long axis view³ with color

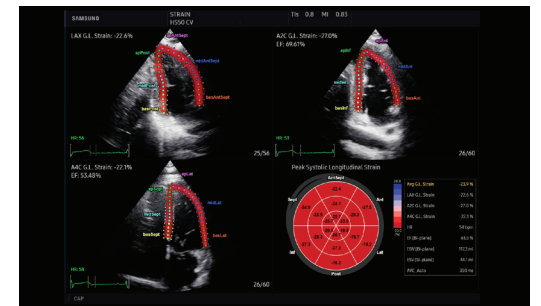
Increased Consistency

Thanks to its specially designed solutions, including an extensive range of quantification functions, the HS50 creates consistency to ensure accurate measurement.



Quantify wall motion of the left ventricle

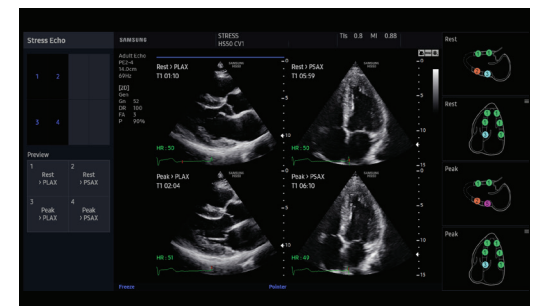
Strain+¹ is a quantitative tool for global and segmental wall motion of the left ventricle (LV). In Strain+, three standard LV views and a Bull's Eye are displayed in a quad screen for easy and quick assessment of the LV function.



Adult echo²

Score and report wall motion to determine heart and blood vessel function

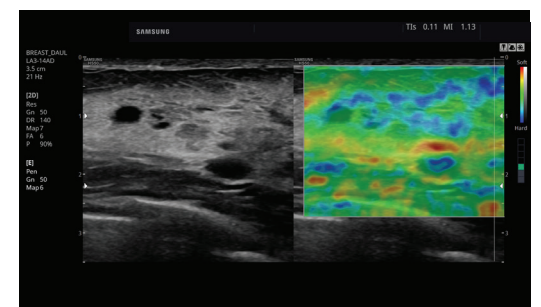
StressEcho¹ package includes wall motion scoring and reporting. It includes exercise StressEcho, pharmacologic StressEcho, diastolic StressEcho and free programmable StressEcho.



Adult echo²

Display tissue stiffness in color image

A diagnostic ultrasound technique for imaging elasticity, **ElastoScan**^{TM 1,7} observes the transformation of the tissue strain by the internal or external forces, and converts relative stiffness into a color image.



Breast²

Analyze selected breast lesions and report breast assessment

S-Detect^{TM for Breast 1,6,7}, which analyzes selected lesions in the breast ultrasound study and shows the analysis data, applies BI-RADS ATLAS* (Breast Imaging-Reporting and Data System, Atlas) to provide standardized reporting; and helps diagnosis with the streamlined workflow.

* It is a registered trademark of ACR and all rights reserved by ACR.

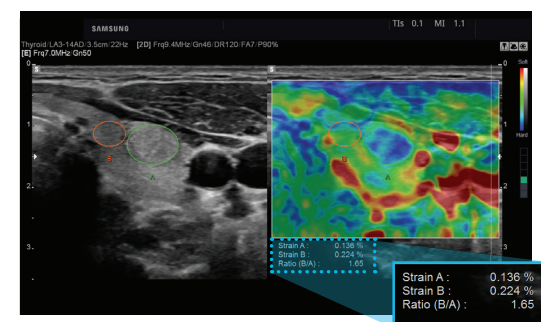
Analyze selected thyroid lesions and report thyroid assessment

S-Detect^{TM for Thyroid 1,6,7}, which analyzes selected lesions in the thyroid ultrasound study and shows the analysis data, provides standardized reporting based on the ATA, BTA, EU-TIRADS and K-TIRADS guidelines; and helps diagnosis with the streamlined workflow.

* ATA: American Thyroid Association
* BTA: British Thyroid Association
* EU-TIRADS: European Thyroid Imaging Reporting and Data System
* K-TIRADS: Korean Thyroid Imaging Reporting and Data System

Calculate the strain ratio between two ROIs

E-Strain^{TM 1} is designed to enable quick and easy calculation of the strain ratio between two regions of interest for day-to-day practice. Simply by setting the two targets, you can receive accurate, consistent results and make informed decisions in many types of diagnostic procedures.



Thyroid³

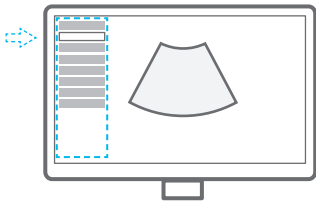
Enhanced Efficiency

The HS50 has been designed to enhance efficiency through reducing keystrokes, enabling you to streamline your workflow by combining multiple actions into one. Its user-oriented design also enables you to focus on your patient, reducing the complexity and stress of operating the system.



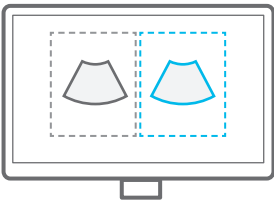
Build predefined protocols for streamlined process

EzExam+™ enables you to build or use a predefined protocol, and assign protocols for examinations that are regularly performed in the hospital in order to reduce the number of steps that you have to go through. For fetus diagnosis, in particular, you can arrange the examination order according to the fetus position using the touchscreen, and automatically apply the BodyMarker, Annotation, Measurement, etc.



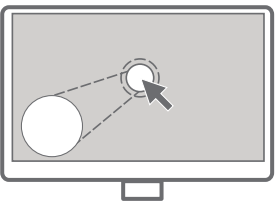
Compare previous and current exam in a side-by-side display

EzCompare™ allows easy access to previously taken exams to evaluate corresponding views in a side-by-side display. For greater efficiency, EzCompare™ automatically matches the image settings, annotations, and bodymarkers from the prior study.



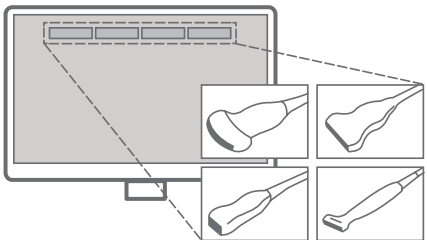
Magnify the region of interest in a picture-in-picture window

When placing a caliper, **Measure Navigation** automatically magnifies the area of interest using a picture-in-picture window to allow more precise placement of the calipers. This is especially useful when measuring small structures or when accuracy is critical.



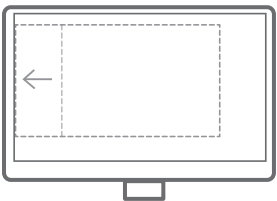
Select transducer and preset combinations in one click

With one touch, the user can select the most common transducer and preset combinations. **QuickPreset** increases efficiency to make a full day of scanning simple and easy.



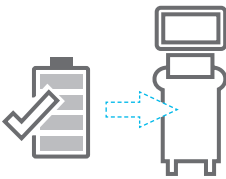
View images in wider screen

WideScreen provides approximately 27% more lateral viewing information compared to normal screen, allowing ultrasonic examination with wider view at a glance.



1 Gel warmer¹

Two-level adjustable gel warmer maintains ultrasound gel at a comfortable temperature.



3 Use the system when AC power is temporarily unavailable

BatteryAssist™¹ provides the system with battery power. It enables users to perform scans and transport the ultrasound system to other locations in environments where AC power may not be available temporarily.

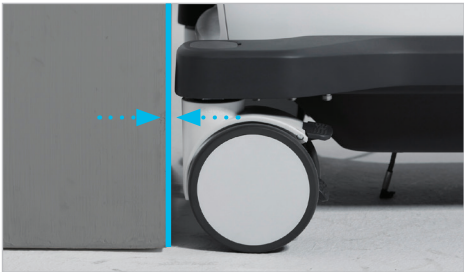


2 Solid State Drive (SSD)

The HS50 uses advanced solid state drives. These stable and dependable drives allow faster bootup, better frame rates, and fast processing speeds.

4 Clever use of space

With its reduced weight and compact size, the HS50 takes up minimal space and can move freely. In addition, its streamlined rear profile allows you to park the HS50 in small spaces.



Comprehensive selection of transducers

Curved array transducers



CA1-7AD
abdomen, obstetrics,
gynecology,
musculoskeletal, pediatric,
vascular, urology

CA2-9AD
abdomen, obstetrics,
gynecology,
musculoskeletal, pediatric,
vascular, urology

CF4-9
abdomen, obstetrics,
gynecology,
musculoskeletal, pediatric,
vascular, urology

Linear array transducers



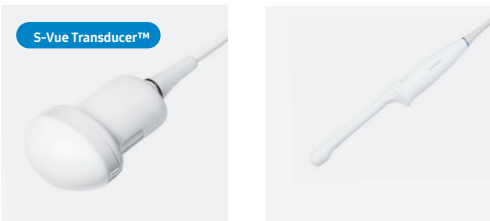
LA3-14AD
small parts, vascular,
musculoskeletal,
abdomen, obstetrics,
gynecology, pediatric

LA3-16A
small parts, vascular,
musculoskeletal,
abdomen, obstetrics,
gynecology, pediatric

LA2-9A
small parts, vascular,
musculoskeletal,
abdomen, obstetrics,
gynecology, pediatric

LA3-16AI
small parts, vascular,
musculoskeletal,
abdomen, obstetrics,
gynecology, pediatric

Volume transducers



CV1-8AD
abdomen, obstetrics,
gynecology,
musculoskeletal, pediatric,
vascular, urology

EV2-10A
obstetrics, gynecology,
urology

Endo-cavity transducers



EA2-11AV
obstetrics, gynecology,
urology

EA2-11AR
obstetrics, gynecology,
urology

ER4-9
obstetrics, gynecology,
urology

EVN4-9
obstetrics, gynecology,
urology

Phased array transducers



PA1-5A^{PE 9}
abdomen, cardiac,
vascular, pediatric

PA3-8B
abdomen, cardiac,
vascular, pediatric

PA4-12B
abdomen, cardiac,
vascular, pediatric

CW transducers



CW6.0
cardiac, vascular



DP2B
cardiac, vascular

TEE transducers



MMPT3-7
cardiac