

# Simple yet powerful

Ultrasound system

**HS50** Powered by CrystalLive™



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**Relentless Innovation**  
for your diagnostic confidence

**SAMSUNG**

# 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**

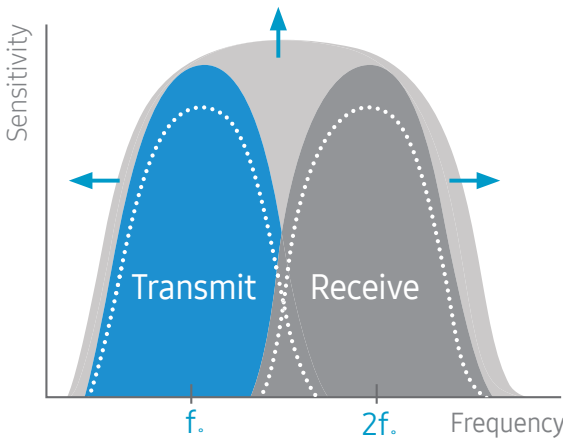


## S-Vue Transducer™

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, PA1-5A



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

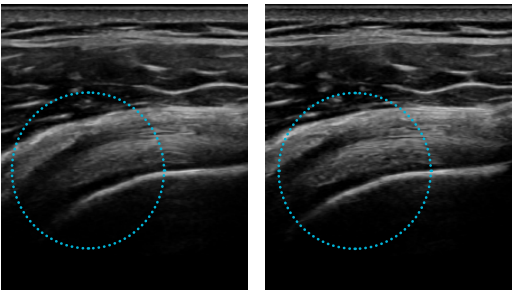


# More Valuable Information

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

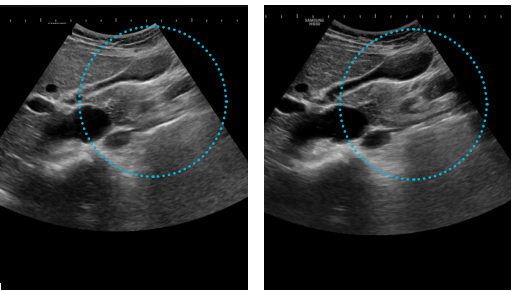
HQ-Vision™<sup>1</sup> provides clearer images by mitigating the characteristics of ultrasound images that are slightly blurred than the actual vision.



Shoulder<sup>4</sup> Shoulder<sup>4</sup> with HQ-Vision™

## Provide uniform image performance from near-to-far

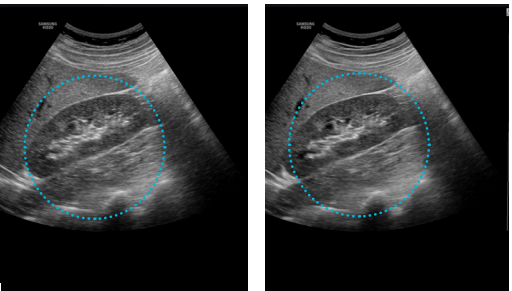
S-Harmonic™<sup>1</sup> mitigates the signal noise, enhances contrast, and provides uniform image performance of overall image area from near-to-far.



Pancreas<sup>2</sup> Pancreas<sup>2</sup> with S-Harmonic™

## Reduce noise to improve 2D image quality

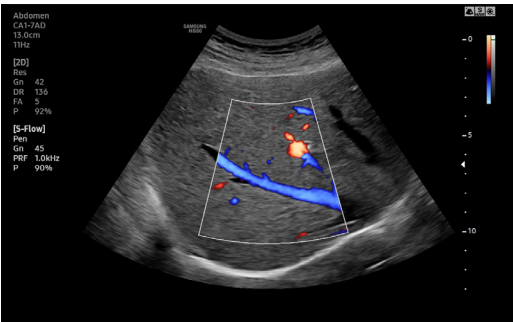
The noise reduction filter improves edge enhancement and creates sharper 2D images for optimal diagnostic performance. In addition, ClearVision provides application-specific optimization and advanced temporal resolution in live scan mode.



Kidney<sup>2</sup> Kidney<sup>2</sup> with ClearVision

## Examine peripheral vessels with directional Power Doppler

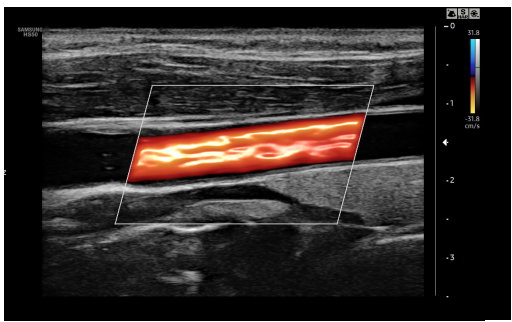
S-Flow™<sup>1</sup> is a directional power Doppler technology, which helps in diagnosis of complex forms of blood flow.



Liver<sup>3</sup> with S-Flow™

## Show blood flow in vessels in a 3D like display

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



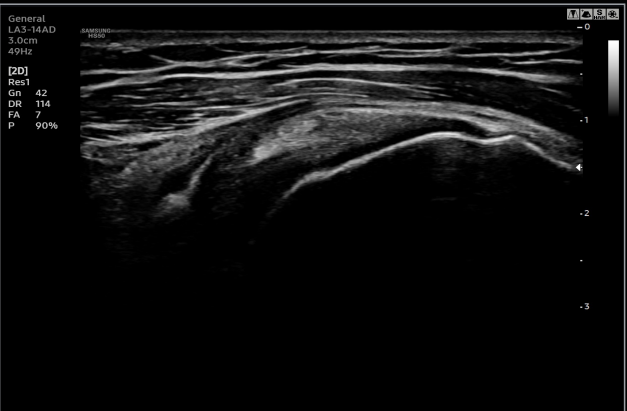
Carotid<sup>5</sup> with LumiFlow™



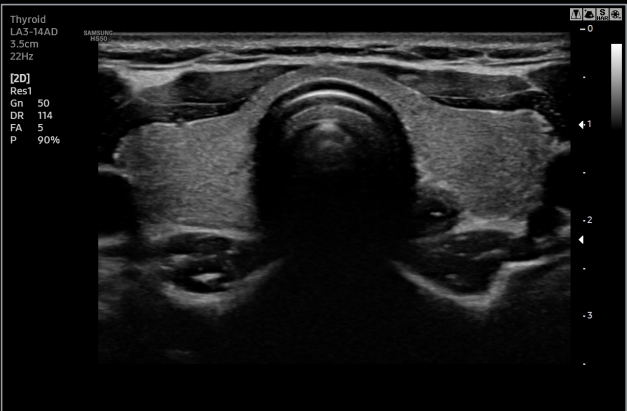
Liver<sup>3</sup>



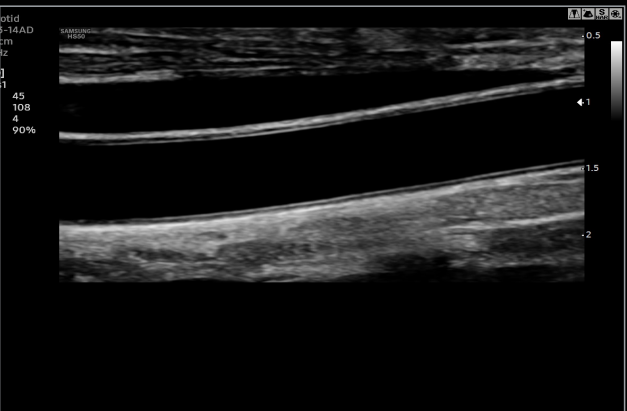
Pancreas<sup>3</sup>



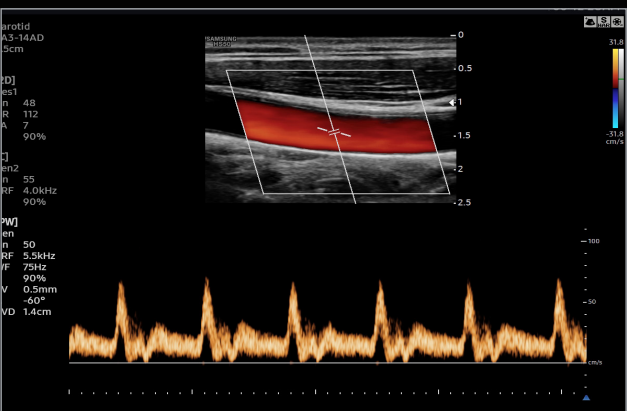
Shoulder<sup>3</sup>



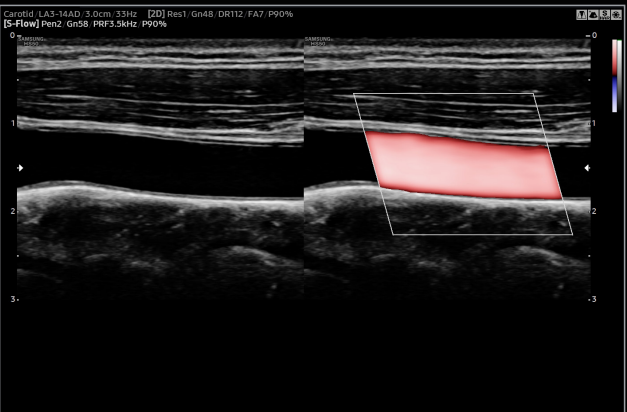
Thyroid<sup>3</sup>



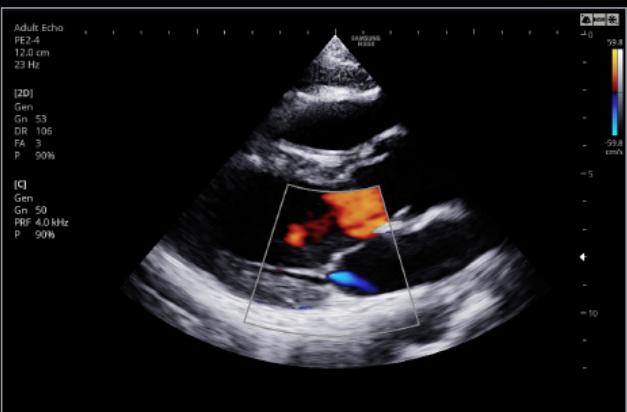
Carotid<sup>3</sup>



Carotid<sup>3</sup> with color & PW



Carotid<sup>3</sup> with S-Flow™



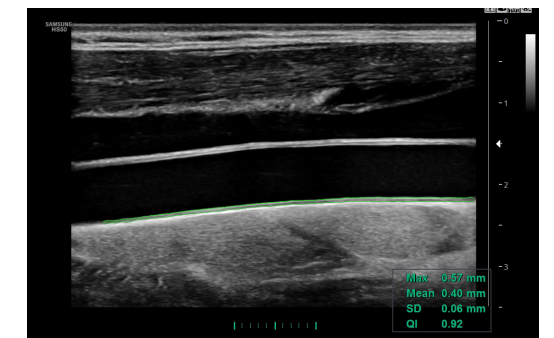
Parasternal long axis view<sup>3</sup> with color

# Increased Consistency

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

## Measure IMT in one click

**AutoIMT<sup>+</sup>** <sup>1</sup> is a screening tool to analyze potential risk of cardiovascular disease. It allows easy intima-media thickness measurement of both the anterior and posterior wall of the common carotid by the click of a button.



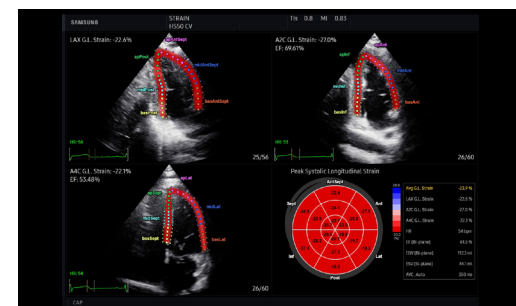
AutoIMT+

## Measure ejection fraction of the left ventricle

**AutoEF<sup>1</sup>** is a feature which conveniently measures and quantifies Ejection Fraction. The volume at the end-systolic and end-diastolic points of the left ventricle is calculated, to assist in quick and efficient assessment of the heart function.

## Quantify wall motion of the left ventricle

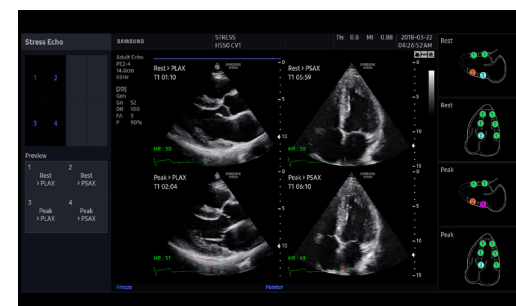
**Strain<sup>+</sup>** <sup>1</sup> is a quantitative tool for global and segmental wall motion of the left ventricle (LV). In Strain+, three standard LV views and a Bull's Eye are displayed in a quad screen for easy and quick assessment of the LV function.



Strain+

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

**StressEcho<sup>1</sup>** package includes wall motion scoring and reporting. It includes exercise StressEcho, pharmacologic StressEcho, diastolic StressEcho and free programmable StressEcho.



StressEcho

## Display needle tip clearly

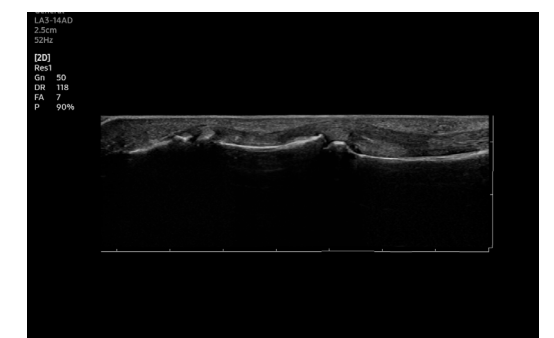
**NeedleMate+<sup>TM</sup>** <sup>1</sup> delineates needle location when performing interventions such as nerve blocks. Improved accuracy and efficiency in procedure are possible with beam steering added to NeedleMate+<sup>TM</sup>.



NeedleMate+<sup>TM</sup>

## Intuitive multi-modality fusion imaging with high precision

**Panoramic+<sup>TM</sup>** <sup>1</sup> imaging displays as an extended field-of-view so users can examine wide areas that do not fit into one image as a single image. Panoramic images provide data obtained the linear and convex transducers.



Panoramic+<sup>TM</sup>



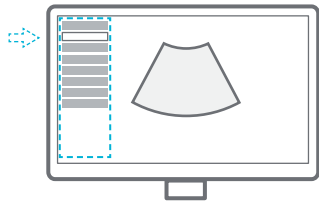
# Enhanced Efficiency

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 needs, reducing the complexity and stress of operating the system.



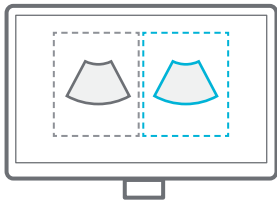
## Build predefined protocols for streamlined process

**EzExam+™**<sup>1</sup> ensures the full investigation is performed, eliminating the risk of forgetting an image or loop capture, as well as measurement and transducer preset changes.



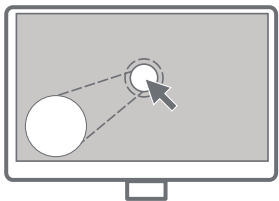
## Compare previous and current exam in a side-by-side display

**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.



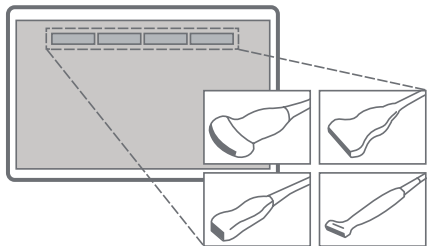
## Magnify the region of interest in a picture-in-picture window

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.



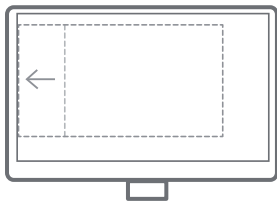
## Select transducer and preset combinations in one click

**QuickPreset** allows the user to select the most common transducer and preset combinations in one click.



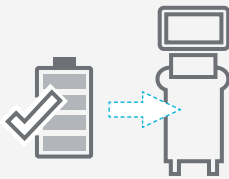
## View images in wider screen

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



### 1 Gel warmer<sup>1</sup>

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



### 3 Use the system when AC power is temporarily unavailable

**BatteryAssist™**<sup>1</sup> 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.

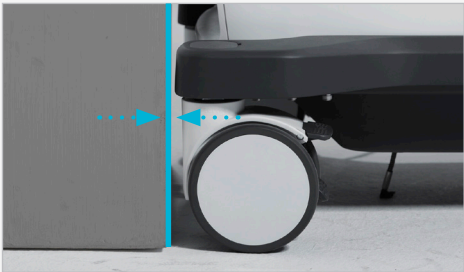


### 2 Solid State Drive (SSD)

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

**CA4-10M**  
pediatric, vascular

## 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

## Phased array transducers



**PA1-5A<sup>PE7</sup>**  
abdomen, cardiac,  
vascular, pediatric

**PA3-8B**  
abdomen, cardiac,  
vascular, pediatric

**PA4-12B**  
abdomen, cardiac,  
vascular, pediatric



Cleaning and  
disinfection guide

## Samsung healthcare cybersecurity

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 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



Learn more



Intrusion prevention



Access control



Data protection

#### 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. Strain value for ElastoScan+™ is not applicable in Canada and the United States.
7. The superscript PE of PA1-5A transducer stands for Public edition.

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