

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 confidence diagnosis.

CT-HS70A-FTW-150710-EN

\* S-Vision is not the name of a function, but is the name of Samsung's ultrasound imaging technology.

\* S-Vue is not the name of a function, but is the name of Samsung's advanced transducer.



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# Daily inspiration

## Ultrasound system HS70A



**SAMSUNG**

# User-inspired design enables higher efficiency

The HS70A was designed for hospital and private care - with you - the user in mind. The HS70A can be used in the departments of Radiology, Internal Medicine, Vascular Surgery, Urology, Gynecology, Pediatrics, Preventive Medicine, Orthopedics, Physiotherapy and Emergency Medicine for:

- Abdominal imaging
- Musculoskeletal imaging
- Small parts imaging
- Breast imaging
- Cardiac screening
- Pediatric heart imaging
- Vascular imaging
- Transcranial Doppler (TCD)

The high-quality image ensures user convenience, excellent patient care and higher patient throughput.

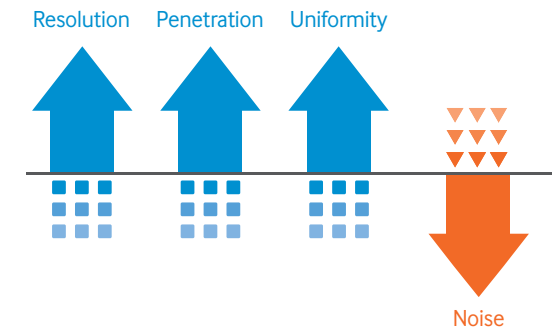


June 2015

## Image clarity

### S-Vision imaging engine

With the advanced technology built in the HS70A system, the digital signals received from the beamformer provide clear, detailed resolution and tissue uniformity for all types of applications in general imaging.



### S-Harmonic

This new harmonic technology makes a clearer image - near to far. Reducing signal noise, S-Harmonic provides more uniform ultrasound images. Combined with the S-Vue transducer and S-Vision imaging engine, S-Harmonic takes HS70A image quality one step higher.

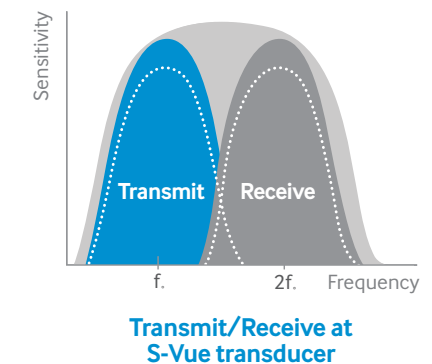
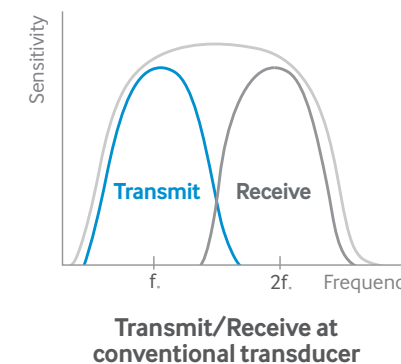


Fetal thorax with S-Harmonic / Fetal thorax without S-Harmonic

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### S-Vue transducer (CA1-7A, CV1-8A)

The S-Vue transducer provides a larger bandwidth and higher sensitivity both in transmit and receive capabilities. The combination of the new S-Vision beamformer with the S-Vue transducer allows easier visualization of difficult to image pathologies. In addition, the ergonomically designed S-Vue transducer is easy to hold and manipulate.



\* Compared with the conventional Samsung transducers

# Images rich in detail



1st trimester with Realistic Vue™



Fetal face with Realistic Vue™



Fetal heart in four chamber view



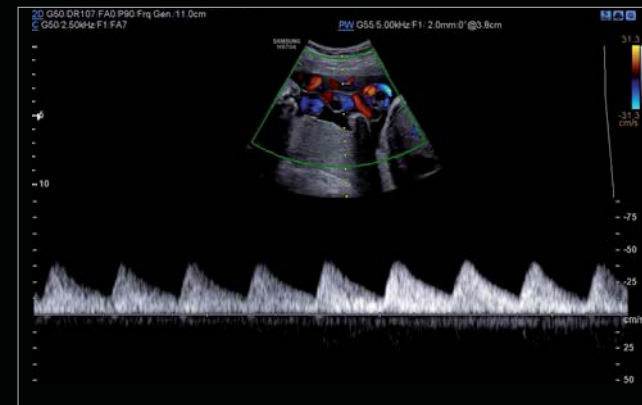
Fetal heart in aortic arch view



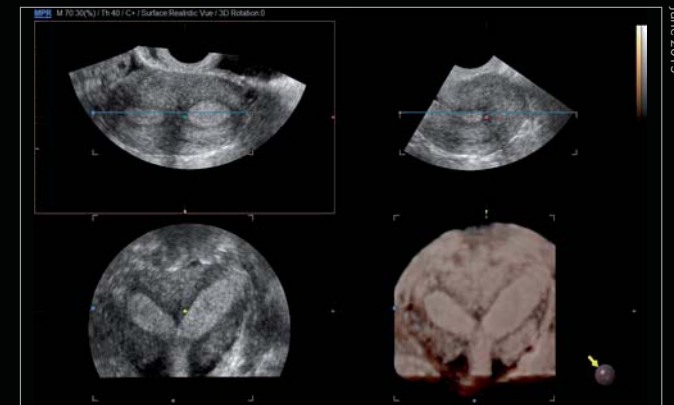
Fetus at 11 weeks



Fetal abdomen



Umbilical artery with PW



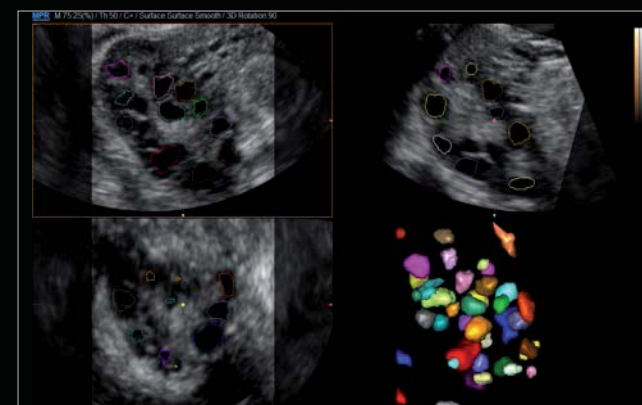
Bicornate uterus



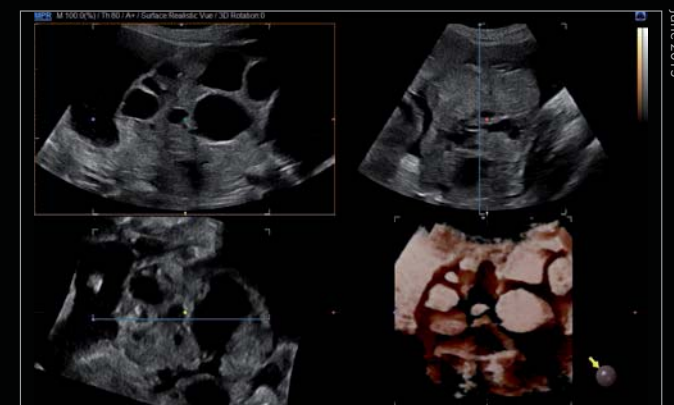
Brain



Umbilical cord with color



5D Follicle



Ovarian mass

# Details and simplification

Advanced technologies, Realistic Vue™, 2D NT and 5D Follicle combine to deliver detailed images and easy measurements.



## Realistic Vue™

Realistic Vue™ displays high resolution 3D anatomy with details and realistic depth perception. User selectable light source direction creates intricately graduated shadows for better defined anatomical structures.



Realistic Vue™ with different light source directions



2nd trimester fetal face with Realistic Vue™

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## 2D NT

By allowing accurate measurements with a single click, 2D NT simplifies first trimester fetal nuchal translucency (NT) measurements.

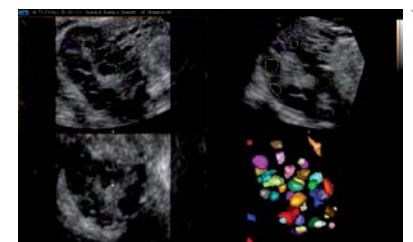


NT measurement with 5D NT

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## 5D Follicle (Follicle measurement)

Sonographic parameters have been proven to be effective indicators when assessing in-vitro fertilization (IVF). The HS70A's 5D Follicle measures the size and the status of each follicle to provide useful diagnosis information.

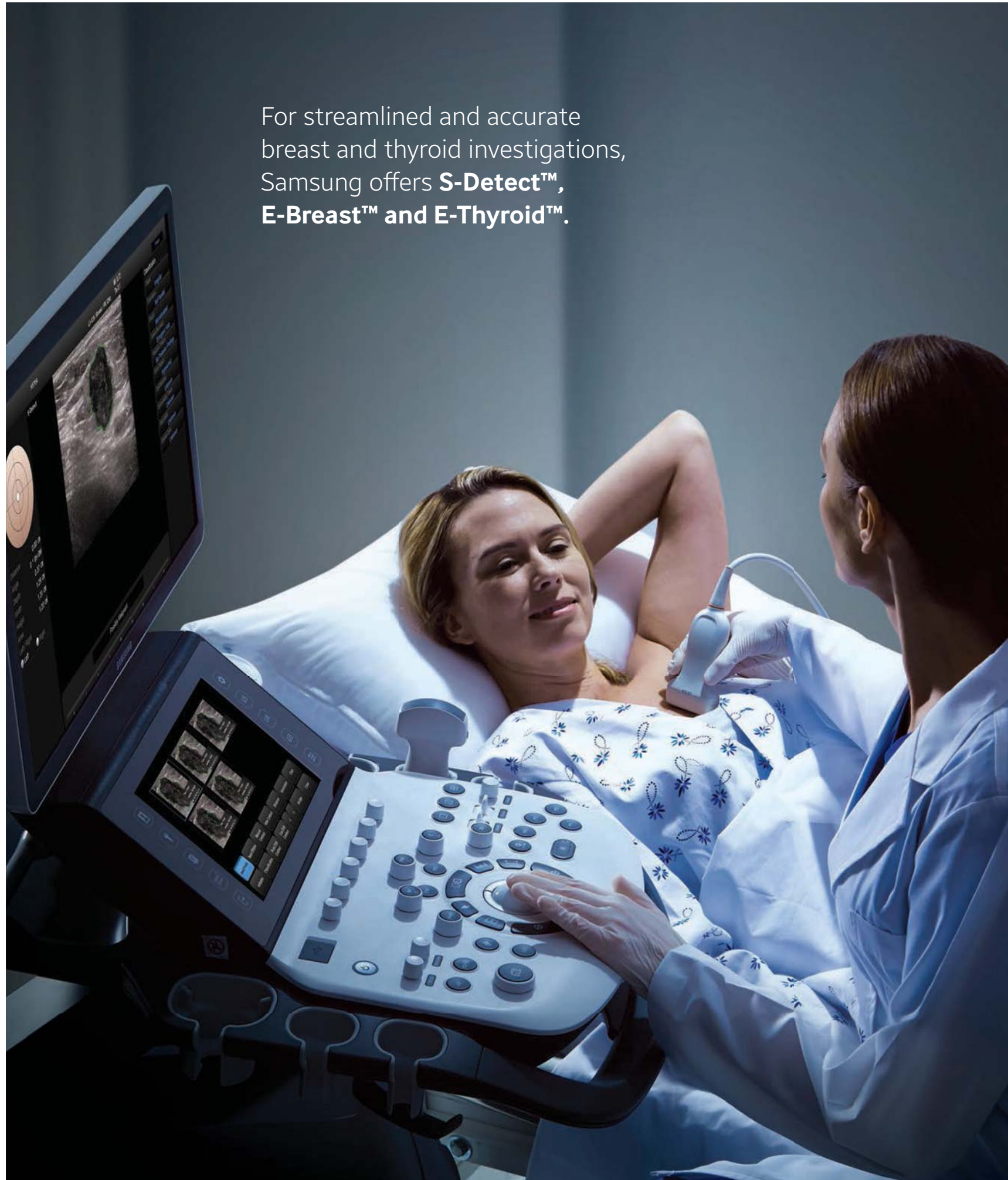


Follicle measurement with 5D follicle

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\* Above features may not be available in some countries.

For streamlined and accurate breast and thyroid investigations, Samsung offers **S-Detect™**, **E-Breast™** and **E-Thyroid™**.



## Advanced measurement tools

### S-Detect™

By simply clicking a suspicious lesion, S-Detect™ draws the lesion borders, suggests the characteristics of the lesion and gives a hint whether the lesion is benign or malignant. S-Detect™ uses the Breast Imaging-Reporting and Data System (BI-RADS®) scores for standardized reporting and classification of lesions.



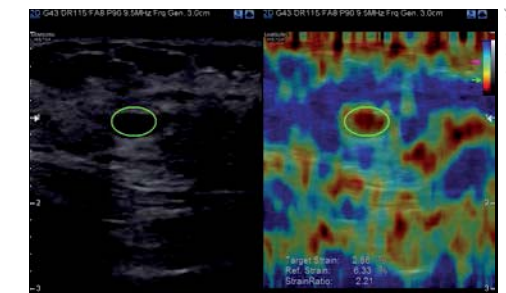
S-Detect Report		Possibly Malignant	
Distance	13.34 cm	Shape	Oval
Depth	6.69 cm	Orientation	Not Parallel
Width	2.56 cm	Margin	Circumscribed
Height	2.22 cm	Lesion Boundary	Abrupt Interface
Area	6.31 cm <sup>2</sup>	Posterior Feature	No Posterior Findings
Angle	33.66°	Echo Pattern	Hypoechoic
		Calcification	Unknown
		Surrounding Tissue	Unknown
		Vascularity	PI Level
		Special Case	Unknown

Exam report of S-Detect™

\* Above feature may not be available in some countries.

### E-Breast™ (ElastoScan™ for breast)

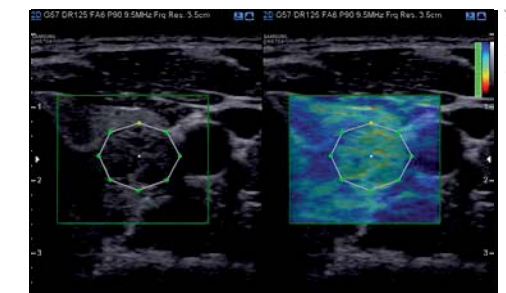
Next to the B-mode image, ElastoScan™ displays a color image that represents the elasticity of the tissue. E-Breast™ technology calculates the strain ratio between the selected target and surrounding fatty tissue. With E-Breast™, the user only has to select one ROI.



Breast Parenchyma

### E-Thyroid™ (ElastoScan™ for thyroid)

E-Thyroid™ uses the pulsations of the adjacent common carotid artery (CCA), eliminating the need for manual transducer compression and offering greater consistency in the ElastoScan™ image. E-Thyroid™ provides an elasticity contrast index that is calculated by comparing the elasticity of the lesion and normal tissue within the ROI.



Thyroid ElastoScan™ nodule

# Intuitive streamlined workflow

## Quick Preset

Quick Preset shows the four connected transducers and, for each of them, the most frequently used image settings. With one touch, the desired transducer and preset will be activated.



## EZ-Exam+™

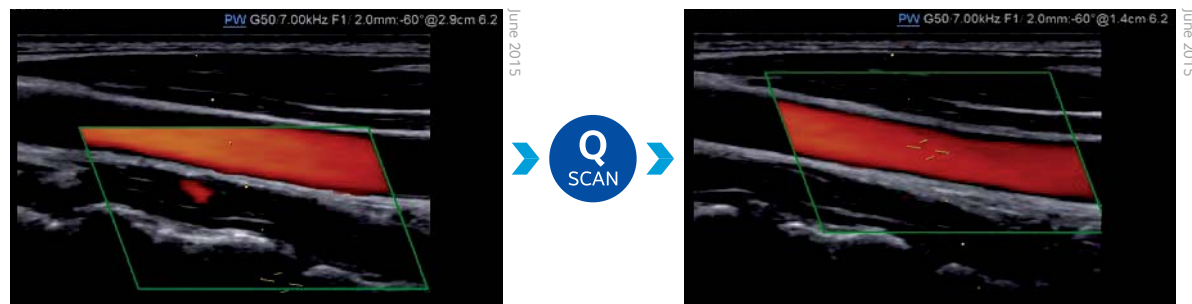
EZ-Exam+™ enables users to build or to use predefined protocols. It transforms the ultrasound investigation into a streamlined process. EZ-Exam+™ ensures the full investigation is performed, eliminating the risk of forgetting an image or loop capture, as well as measurement and transducer preset changes.



Set up display of EZ-Exam+™

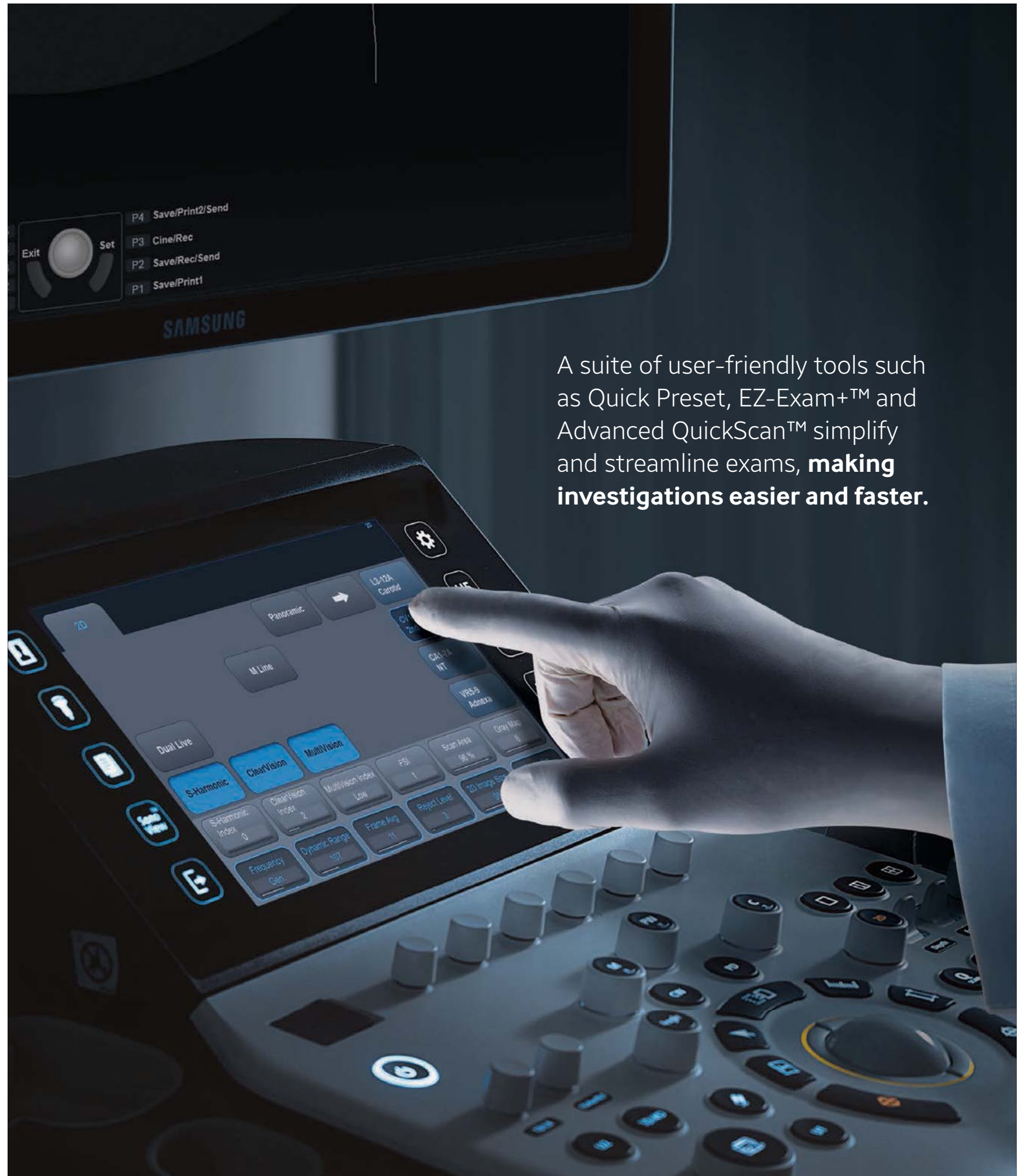
## Advanced QuickScan™

To optimize efficiency, one touch of the QuickScan™ button during a CCA ultrasound scan automatically sets the ROI position, scanning direction, sample volume position and angle correction.



CCA Doppler without QuickScan™

CCA Doppler with QuickScan™



A suite of user-friendly tools such as Quick Preset, EZ-Exam+™ and Advanced QuickScan™ simplify and streamline exams, **making investigations easier and faster.**

# Ergonomic design



## Silent operation

This exceptionally quiet device (35 dB or less) allows physical exams to be performed, including auscultation, while the ultrasound system is turned on.



## Mobility

The design of the HS70A makes it easy to move in any situation.



## 23-inch LED Full HD display

To enhance the image, the HS70A features a 23-inch full high-definition (FHD) LED display, delivering superior image contrast on a large ultrasound display.



## 10.1-inch touch screen

The 10.1-inch touch screen is highly sensitive and makes operating the ultrasound system smartly efficient.



## Gel warmer

For operator convenience, a gel warmer can be installed on both sides of the control panel.



## User-friendly console design

Customizable U and P keys allow users to create a workflow tailored to their needs. The console also can be adjusted up, down, left and right so each user is ensured the optimal location.



# Comprehensive selection of transducers

## Curved array transducers

S-View  
transducer



### CA1-7A

- Application : abdomen, obstetrics, gynecology
- Field of view : 70°

### CA2-8A

- Application : abdomen, obstetrics, gynecology
- Field of view : 58°

### CF4-9

- Application : pediatric, vascular
- Field of view : 92°

## Linear array transducers



### L3-12A

- Application : small parts, vascular, musculoskeletal
- Field of view : 50mm

### LA3-16A

- Application : small parts, vascular, musculoskeletal
- Field of view : 38.4mm

### LA2-9A

- Application : small parts, vascular, musculoskeletal, abdomen
- Field of view : 44.16mm

### LA3-16AI

- Application : musculoskeletal, intraoperative
- Field of view : 25.6mm

## Volume transducers

S-View  
transducer



### CV1-8A

- Application : abdomen, obstetrics, gynecology
- Field of view : 72°

### V5-9

- Application : obstetrics, gynecology, urology
- Field of view : 150.6°

### LV3-14A

- Application : musculoskeletal, small parts, vascular
- Field of view : 38.4mm

## Endocavity transducers



### VR5-9

- Application : obstetrics, gynecology, urology
- Field of view : 150.3°

### E3-12A

- Application : obstetrics, gynecology, urology
- Field of view : 210°

## Phased array transducers



### PE2-4

- Application : abdomen, cardiac, TCD
- Field of view : 90°

### PA3-8B

- Application : cardiac, pediatric, abdomen
- Field of view : 90°

## CW transducer



### DP2B

- Application : cardiac