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.

#### CT-HS70A with Prime V2.0-OB-FT-161010-EN

\* Prime is a package of technologies for upgraded systems.

- \* S-Vue<sup>TM</sup> is not the name of a function, but stands for Samsung's advanced transducer technology.
- \* S-Vision<sup>™</sup> is not the name of a function, but stands for Samsung's ultrasound imaging technology.
- \* In Canada and USA, a recommendation for whether the result is benign or malignant is not applied.
- \* In Canada and USA, strain value for ElastoScan is not applied.
- \* Availability of some products, features, options and transducers mentioned in this catalog may vary from country to country and is subject to varying regulatory requirements.
- \* This product, features, options and transducers are not commercially available in all countries. Due to regulatory reasons their future availability cannot be guaranteed. Please contact your local sales network for further details.

# **Daily inspiration**

# Ultrasound system HS70A with Prime V2.0



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# **Daily inspiration**

We, Samsung, aim to **continually** improve the image quality of our ultrasound systems and develop clinically proven tools designed for your needs. The HS70A with Prime is built upon these principles. Its superior imaging performance, specialized features, and accurate quantification tools enable you to conduct a wide range of obstetric and gynecological exams, from the routine to the complex.

Discover new innovations every day that give you an inspiration.



# S-Vision<sup>™</sup> imaging engine

With the S-Vision™ imaging engine built into HS70A with Prime, the digital signals produce clear, detailed resolution and tissue uniformity for various types of applications in ultrasound imaging.



# S-Vue<sup>™</sup> transducers (CA2-9A, CV1-8A, CA1-7A, CA3-10A)

HS70A with Prime incorporates single crystal technology. Employing an innovative crystal design, S-Vue™ transducers provide more efficient piezoelectric properties, resulting in wider bandwidths that enable better penetration and higher quality resolution on even challenging patients.

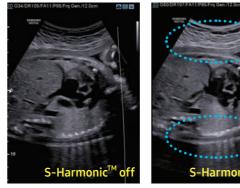




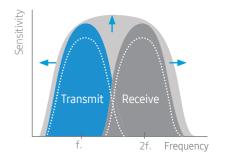
Fetal face

# S-Harmonic<sup>™</sup>

This new harmonic technology provides greater image uniformity from near to far field while reducing signal noise. Combined with S-Vue<sup>™</sup> transducers and S-Vision<sup>™</sup> imaging engine, S-Harmonic<sup>™</sup> improves the image quality of HS70A with Prime.



Fetal thorax \*

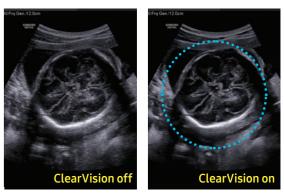




Fetal heart

# ClearVision

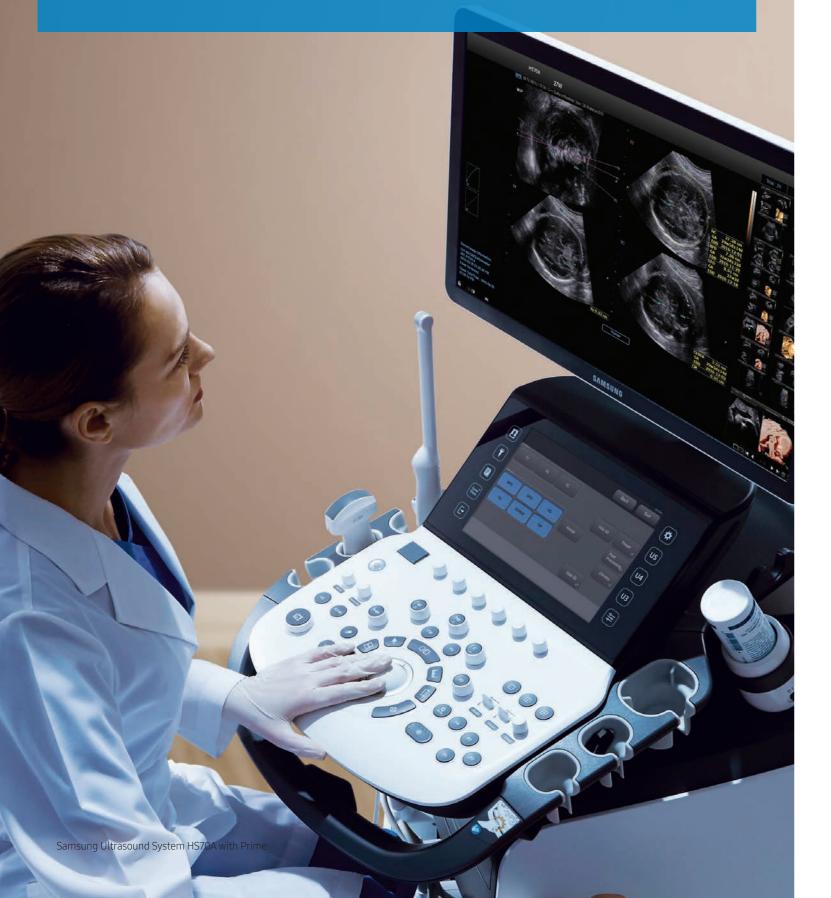
The noise reduction filter **improves edge** enhancement and creates sharper 2D images for optimal diagnostic performance. The integration of specialized Samsung technology results in a notable improvement in image quality. In addition, ClearVision provides application-specific optimization and advanced temporal resolution in live scan mode.



Fetal brain

# **5D** advanced solutions

The semi-automated functions included in **5D advanced solutions** mean **less operator dependency and more efficient work**, which allows **higher patient throughput**. In addition, these solutions provide **reliable**, **high-quality exams** which enable you to make quick, accurate decisions.



## 5D CNS<sup>TM</sup> (Fetal brain measurement)

5D CNS™ offers 6 measurements (BPD, HC, OFD, Vp, TCD, CM) from 3 transverse planes of a fetal brain which are the key indicators for intuitive fetal brain visualization. It improves throughput with only a 2 click operation.

## 5D LB<sup>TM</sup> (Fetal long bone detection)

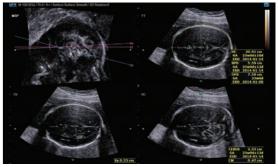
5D LB<sup>™</sup> allows easy detection and measurement of fetal long bones from volume data, with intuitive visualization of the fetal structures. Evaluation of fetal condition becomes more efficient as 5D LB<sup>™</sup> improves measurement accuracy while reducing exam time.

## 5D NT<sup>TM</sup> (Nuchal translucency measurement)

With Samsung's 5D NT<sup>™</sup>, operator dependency can be reduced for the first trimester fetal nuchal translucency (NT) measurement. 5D NT<sup>™</sup> allows the user to obtain the true mid-sagittal plane automatically by rotating and auto-zooming the image. This advanced technology is especially useful when facing difficult cases involving fetal position.

## 5D Follicle<sup>TM</sup> (Follicle measurement)

5D Follicle<sup>™</sup> identifies and measures multiple ovarian follicles for rapid assessment of follicular size and status during gynecology examinations.



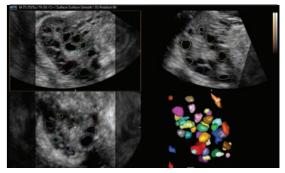
5D CNS™



5D LB™



5D NT™



Follicle measurement with 5D Follicle™ **\*** 

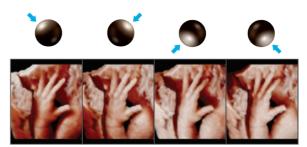
# Quality 3D/4D rendering

With Samsung's advanced rendering technology, HS70A with Prime delivers **realistic images that contain valuable anatomical information** for precise obstetric evaluation.



## Realistic Vue™

Realistic Vue<sup>™</sup> 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

# HDVI™

HDVI<sup>™</sup> gives outstanding image quality with clearer contrast, excellent tissue differentiation, edge depiction and speckle reduction. It allows consistent diagnosis with great confidence.



Fetal face

# Hello Mom™

Hello Mom<sup>™</sup> supports **simple and secure transfer** of fetal ultrasound images and clips wirelessly from the HS70A with Prime ultrasound system directly to an **Android smartphone or iPhone application**. These images can be shared easily with others.



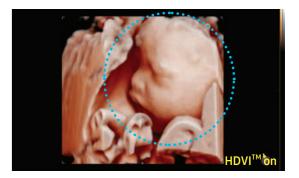
Download the Hello Mom<sup>™</sup> app on your smartphone.



\* Hello Mom<sup>™</sup> is not an application for diagnosis.



Fetal hand





# Trustworthy assistance in making the right decision

With its **advanced quantification tools**, the HS70A with Prime supports your knowledge and experience to **help you to make clear**, **confident decisions**.

# S-Detect™

## S-Detect<sup>™</sup> for Breast

S-Detect<sup>™</sup> for Breast employs **\*BI-RADS® scores** for standardized analysis and classification of suspicious lesions. It provides the **characteristics of displayed lesion** and a **recommendation on whether the lesion is benign or malignant** by adopting advanced detection algorithm. **With \* 3 selectable sensitivity modes,** S-Detect<sup>™</sup> for Breast can help **users perform a breast biopsy with confidence.** Such technology assists in a more **accurate diagnosis, while reducing the time users spend** in repetitive tasks.



High SensitivityDetecting any lesions that have a small chance of being malignant.High AccuracyProviding higher accuracy in classifying whether a lesion is<br/>beingn or malignant, compared to other modes (Default).

High Specificity Detecting suspicious lesions that have a higher chance of being malignant.

\* BI-RADS<sup>®</sup> : Breast Imaging-Reporting and Data System (2013)

# S-Detect<sup>™</sup> for Thyroid

S-Detect<sup>™</sup> for Thyroid uses the advanced technology based on **\*K-TIRADS**, RUSS and ATA guideline in **detecting and classifying suspicious thyroid lesions semi-automatically**. This state-of-the art technology helps you diagnose your patients with confidence and ease, providing accurate, consistent results and an **automatic reporting feature**.

\* K-TIRADS : Korean-Thyroid Imaging Reporting and Data System RUSS : Russ' TIRADS ATA : American Thyroid Association



Possibly Malignant

# ElastoScan™

## E-Breast<sup>™</sup> (ElastoScan<sup>™</sup> for breast)

E-Breast<sup>™</sup> is a technology that calculates the strain ratio between the selected target and surrounding fatty tissues. Especially, it, **requires only one ROI** to be selected by the user. This simplified process **enhances consistency and reduces the chance of error** by eliminating the step of manual selection of the surrounding fatty tissue region.

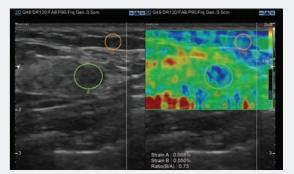
# E-Strain™

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

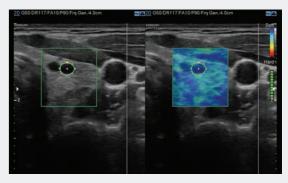
## E-Thyroid<sup>™</sup> (ElastoScan<sup>™</sup> for thyroid)

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





Breast (E-Strain<sup>™</sup>)



Thyroid

# Image gallery



Fetal foot at 24 weeks



Fetal face with Realistic Vue™



Fetal heart in 4 chamber view



NT at 12 weeks



Fetal abdomen at 30 weeks \*



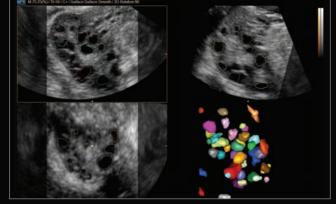
Fetal spine at 24 weeks



Fetal brain at 26 weeks



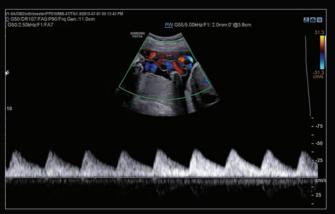
Fetal brain with S-Flow™



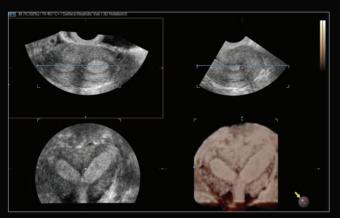
5D Follicle™ **\*** 



Fetal heart in aortic arch view \*



Umbilical artery with PW \*



Bicornate uterus \*

# Intuitive, streamlined workflow

# **Quick Preset**

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



# EZ-Exam+™

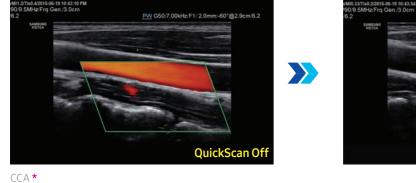
EZ-Exam+™ enables users to build or to use predefined protocols. It transforms the ultrasound investigation into a streamlined process. EZ-Exam+™ ensures the full investigation is performed, eliminating the risk of forgetting an image or loop capture, as well as measurement and transducer preset changes.

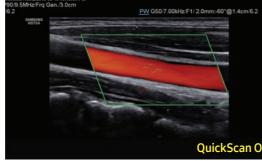


Set up display of EZ-Exam+™ ★

# Advanced QuickScan

Image optimization can be done simply with one touch of the QuickScan button. Samsung's advanced QuickScan technology provides intuitive optimization of both grayscale and Doppler parameters.









# 23-inch Full HD LED monitor

The HS70A with Prime features a 23-inch full HD LED monitor, delivering excellent contrast resolution, image clarity and vibrant color in any lighting condition.



# 10.1-inch touch screen

The 10.1-inch touchscreen is highly sensitive, allowing an efficient interaction during the examination.

# Gel warmer

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



# Silent operation

This exceptionally quiet device allows physical exams to be performed, including auscultation, while the ultrasound system is turned on.

# **Comprehensive selection of** transducers

# Curved array transducers



# Volume transducers



• Application : abdomen, obstetrics, gynecology gynecology, urology • Application : small parts, vascular, musculoskeletal

# Linear array transducers

C.	Contraction			
LA4-18B	L3-12A	LA3-16A	LA2-9A	LA3-16AI
<ul> <li>Application : small parts, vascular, musculoskeletal</li> </ul>	<ul> <li>Application : small parts, vascular, musculoskeletal</li> </ul>	<ul> <li>Application : small parts, vascular, musculoskeletal</li> </ul>	<ul> <li>Application : small parts, vascular, musculoskeletal, abdomen</li> </ul>	Application : musculoskeletal, intraoperative

# Endocavity transducers



# **TEE transducer**



**MMPT3-7** • Application : cardiac

# CW transducers

DP2B



DP8B • Application : cardiac • Application : cardiac, vascular

# Phased array transducers



