## Pursuit of Excellence

# HERA W9

**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.
* Due to regulatory reasons their future availability cannot be guaranteed. Please contact your local sales network 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.
* All clinical images on this catalog are acquired by the HERA W10 ultrasound system.

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

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**SAMSUNG**

# PURSUIT OF EXCELLENCE

HERA, an acronym that stands for Hyper-aperture and Enhanced Reconstruction Architecture, is Samsung's new preeminent ultrasound platform committed to delivering astonishing images. The HERA platform offers access to state-of-the-art ergonomics with simple yet ingenious look for greater satisfaction in medical care.

Meet the new premium women's ultrasound designed to elevate confidence and efficiency in women's healthcare. The new HERA W9 ultrasound system combines superior imaging technology with ergonomic design to advance workflow. Featuring the innovative Crystal Architecture™ and premier image processing technologies, HERA W9 produces realistic, high-resolution images for exceptional accuracy.

**HERA W9**
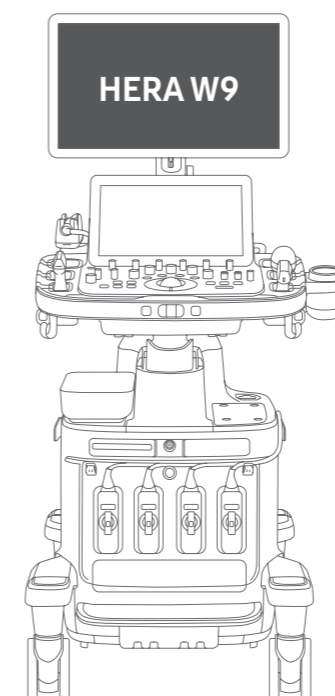
## REDEFINED IMAGING TECHNOLOGIES POWERED BY Crystal Architecture™

Crystal Architecture™ is an imaging architecture that combines CrystalBeam™ and CrystalLive™ while based upon S-Vue Transducer™, to provide crystal-clear images.

CrystalBeam™ is a new beamforming technology that contributes to high-quality image resolution and increased uniformity of images.

CrystalLive™ is Samsung's up-to-date ultrasound imaging engine with enhanced 2D image processing, 3D rendering and color signal processing. It offers outstanding image performance and efficient workflow during complex cases.
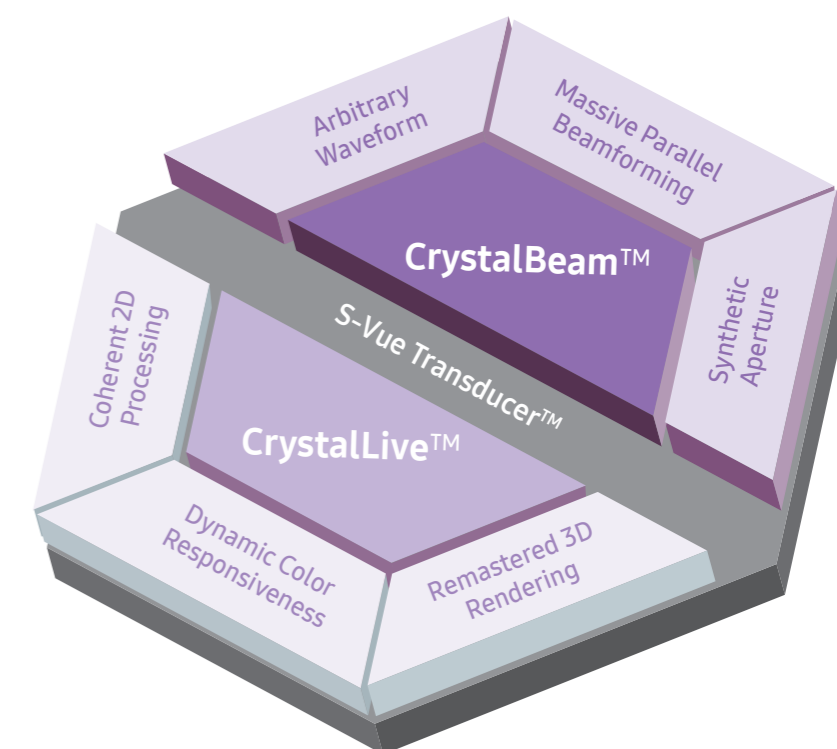
**X10**  **Data Transfer Rate ***
for fast frame rates

**X11**  **Processing Power ***
for high-quality images

**X2**  **GPU Memory ***
for fast rendering

Arbitrary Waveform

Massive Parallel Beamforming

Coherent 2D Processing

**CrystalBeam™**

S-Vue Transducer™

Synthetic Aperture

**CrystalLive™**

Dynamic Color Responsiveness
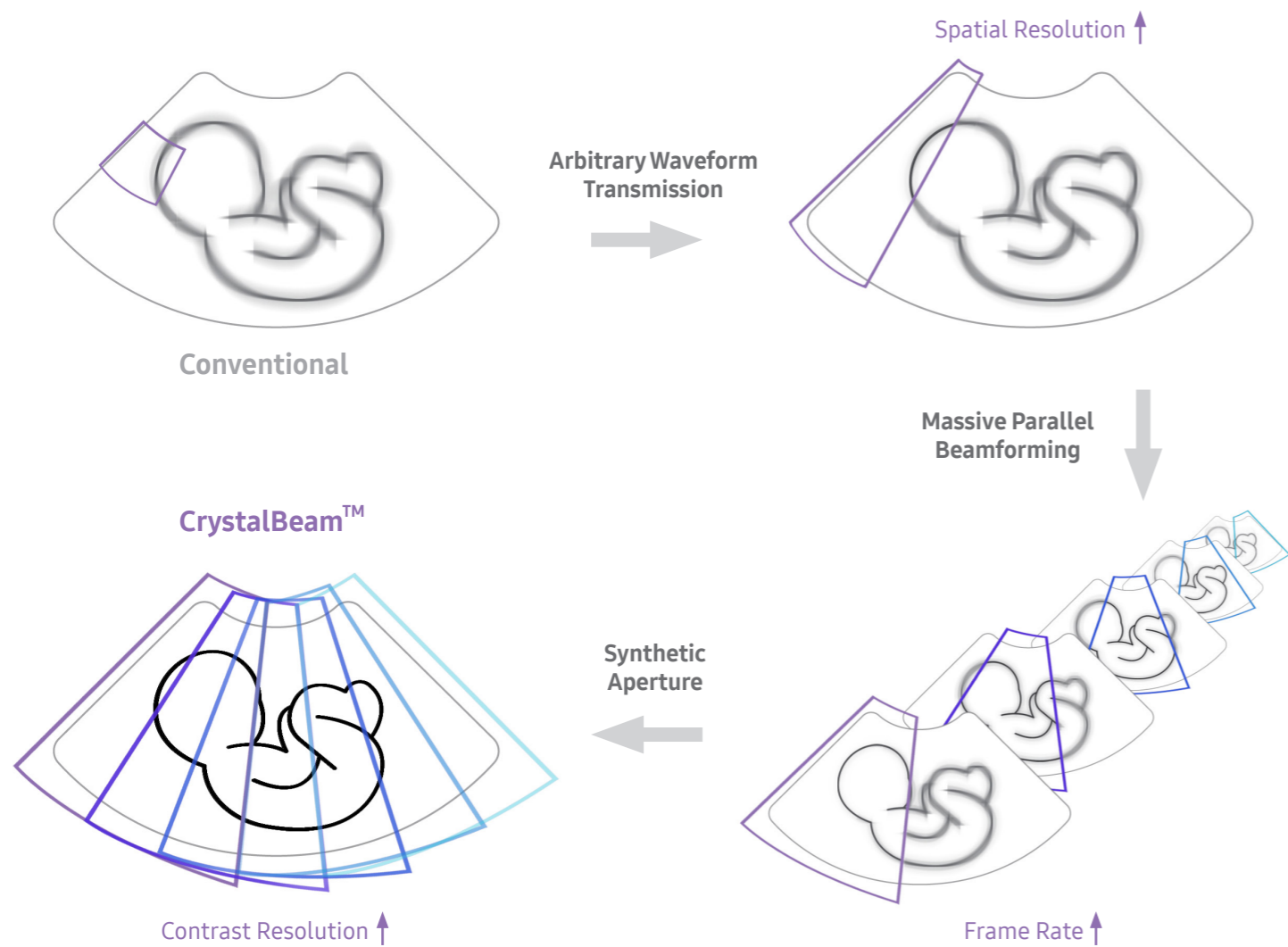
Remastered 3D Rendering

**Crystal Architecture™**

**\*** Compared to the Samsung WS80A

# A NEW BEAMFORMING FOR IN-DEPTH IMAGE CREATION

CrystalBeam™ utilizes Arbitrary Waveform Transmission, Massive Parallel Beamforming, and Synthetic Aperture technologies to produce a faster frame rate and improved image uniformity. Arbitrary Waveform Transmit refers to a widely-focused beam transmission technology that allows for more coherent images. Massive Parallel Beamforming and Synthetic Aperture enable more detailed and faster beam processing based on a large amount of acquired ultrasound data.



**Conventional**

Arbitrary Waveform Transmission

Spatial Resolution ↑

Massive Parallel Beamforming

**CrystalBeam™**

Synthetic Aperture

Contrast Resolution ↑

Frame Rate ↑

\* Compared to the Samsung WS80A

# SOPHISTICATED 2D & COLOR IMAGES PROCESSED BY CrystalLive™

CrystalLive™ helps you to make more confident diagnoses with fundamental 2D images and enhanced color performance. Some of the major advantages of this technology are identifying shadowy areas. The new color signal processing with greater sensitivity allows for a more accurate detection and visualization of the slow flow of microvascularized structures, blood flow and small vessels.

**ShadowHDR™**

ShadowHDR™ selectively applies high-frequency and low-frequency of the ultrasound to identify shadowy areas such as fetal head or spine where attenuation occurs.
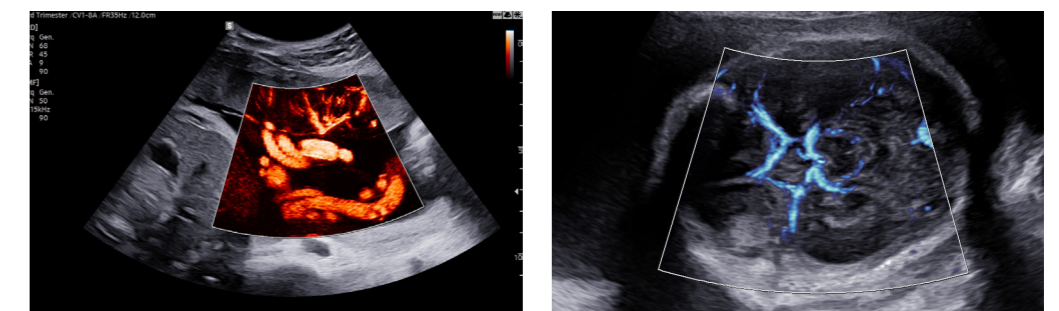


ShadowHDR™ Off
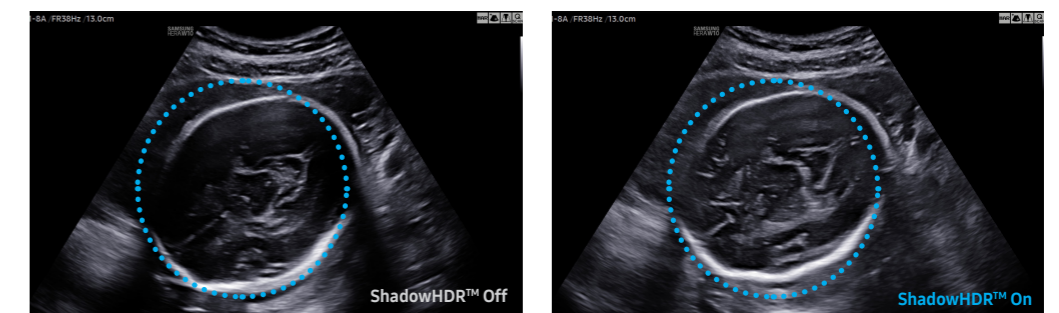
ShadowHDR™ On

Fetal brain without and with ShadowHDR™

**MV-Flow™ \***

MV-Flow™ visualizes microcirculatory and slow blood flow to display the intensity of blood flow in color. It is suitable for observation of microcirculatory blood flow and volume of slow blood flow.
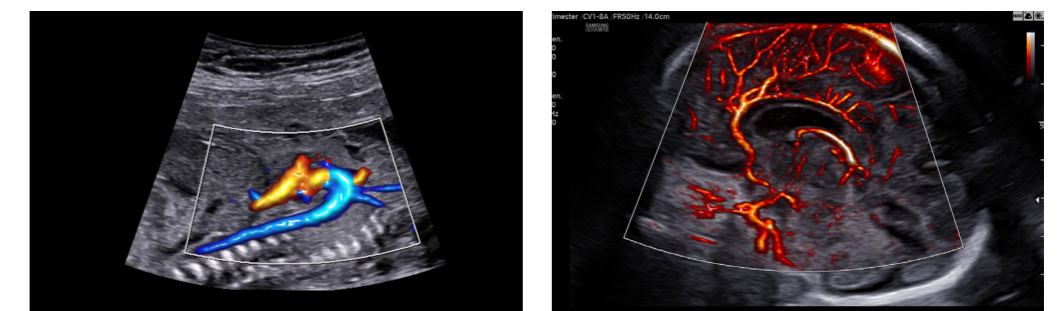


Fetal abdomen with MV-Flow™

BPD with MV-Flow™

**LumiFlow™ \***

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



\* Optional Extra

S-Flow™ with LumiFlow™ (Fetal aorta)

MV-Flow™ with LumiFlow™ (Fetal brain)

# REALISTIC DESCRIPTION OF 3D/4D PERFORMANCE

CrystalLive™ in 3D/4D provides users with more realistic and high-resolution images.
It outdoes conventional 3D imaging technologies in terms of viewing small details and lighting effects. In addition, you are able to see 3D anatomy with more realistic depth perception, and can visualize the internal and external structures at once.
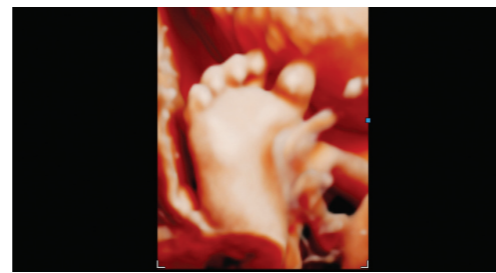
## RealisticVue™ *

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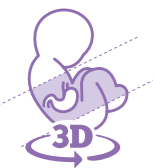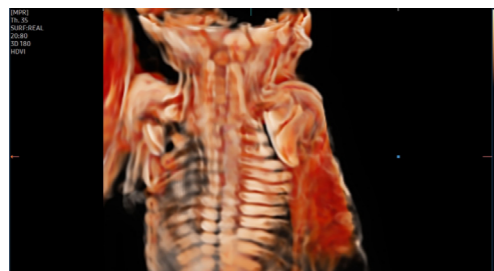


Fetal face with RealisticVue™

Fetal foot with RealisticVue™

## CrystalVue™ *

CrystalVue™ is an advanced volume rendering technology that enhances visualization of both internal and external structures in a single rendered image using a combination of intensity, gradient and position.



Fetal spine with CrystalVue™

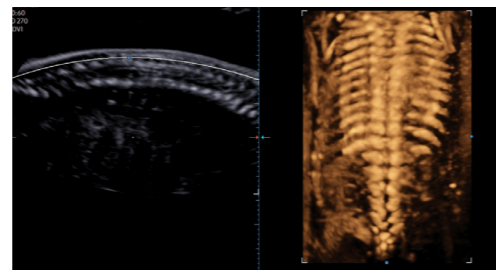Fetal face with CrystalVue™

## HDVI™ 2.0

HDVI™ is a volume rendering technology that improves visualization of edges and small structures in volume data. Upgraded marginal expression and image saturation expresses the very details from angle to shadow of the fetus.
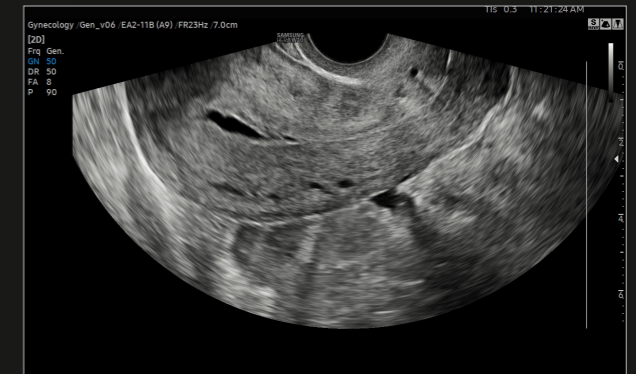


Fetal face with HDVI™

Fetal spine with HDVI™

* Optional Extra



**Fetal biometry estimation with BiometryAssist™ ***

A semi-automatic technology for biometric measurement, BiometryAssist™, enables users to measure the fetal growth parameters such as BPD, HC, AC and FL with one click while maintaining exam consistency.



**Uterus with S-Harmonic™**

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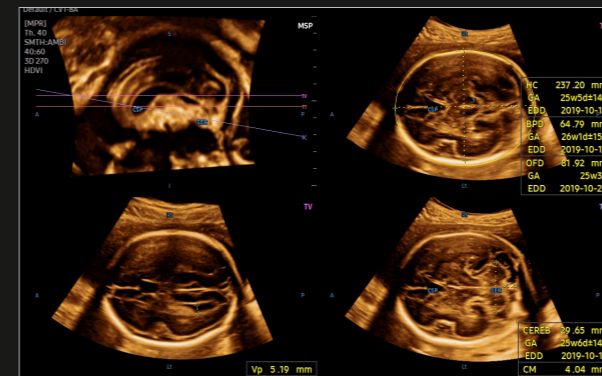


**Fetal brain measurement with 5D CNS+™ ***

5D CNS+™ uses intelligent navigation to provide 6 measurements from 3 transverse views of the fetal brain to enhance measurement reproducibility and streamlined workflow.
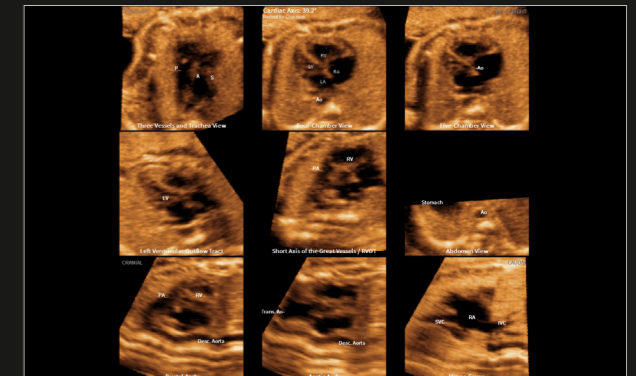


**5D Heart™**

The function provides 9 standard planes of the heart by using the fetal STIC data as well as important information about fetal heart development in an easy and accurate way in accordance with the AIUM guideline.
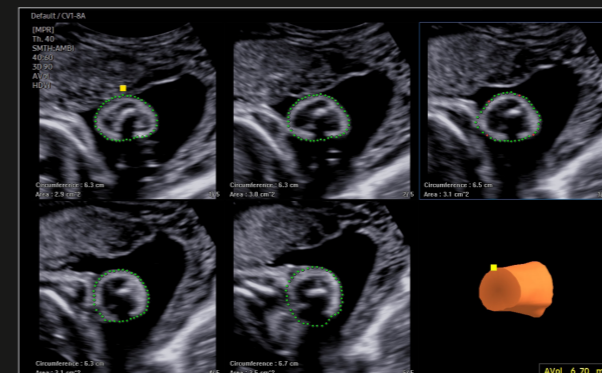


**Fetal weight estimation with 5D Limb Vol.™ ***

5D Limb Vol.™ is a semi-automated tool for predicting EFW to quickly and accurately measure upper arm or thigh volumes from 3 simple seed points on a single volume data set.
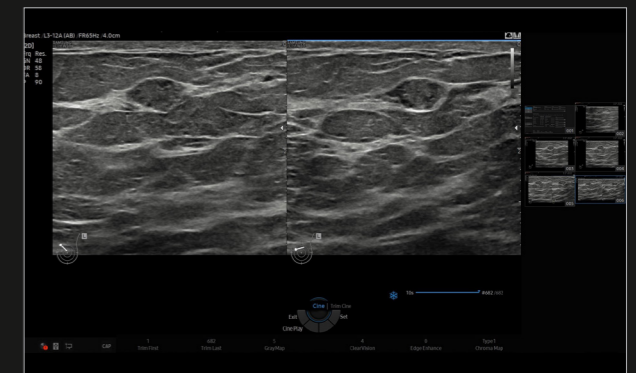


**Breast with WideScreen**

WideScreen provides approximately 23% more lateral viewing information compared to a normal screen, allowing ultrasonic examination with wider view at a glance.

* Optional Extra

# STATE-OF-THE-ART ERGODYNAMICS
# FOR YOUR COMFORT AND PRODUCTIVITY

HERA W9 is developed to provide a more comfortable diagnostic experience with the electric lifting control panel and the tilting touch screen. Our goal is to satisfy user's working environment by considering a user's arm reach, as well as by offering a sufficient amount of space for the user's knee.

Tilting
Touch Screen

Electric Lift

Ample
Knee Space

Endocavity Transducer Holder

Cable Management
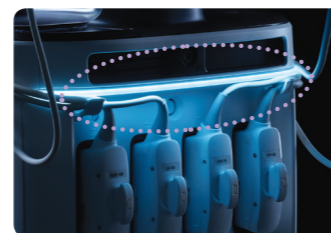
Mood Light

## FAST BOOT UP WITH MobileSleep

Booting-up from sleep mode saves about 63% of your time, when compared to a normal boot-up. MobileSleep enters to the sleep mode quickly for easy maneuverability of the system.

Sleep mode
Approx.
20sec.

Wake-up
Approx.
22sec.

# EFFECTIVE REAL-TIME COLLABORATION,
# CUSTOMIZABLE FOR THE WAY YOU WORK

We believe that a truly great system offers customer-centric working conditions. The collaborative solution enables users to cooperate, monitor, and educate in real-time regardless of where the users are located. The streamlined workflow supports your daily procedures by reducing keystrokes and by combining multiple actions into one. Users have the option of customizing its diagnostic settings based on personalized protocol, resulting in a more simplified exam process and faster workflow.

## SonoSync™ *
## for real-time image sharing solution

SonoSync™ is a real-time image sharing solution that allows collaborative communication for care guide and training between doctors and sonographers. In addition, voice chatting and real-time marking function are provided for efficient communication, and the MultiVue function is included to monitor multiple ultrasound images on a single screen.

* SonoSync™ is an image sharing solution, not a diagnostic solution.

Voice   Video   Marking

Ultrasound System                    Network                    PC/Tablet/Smart Phone
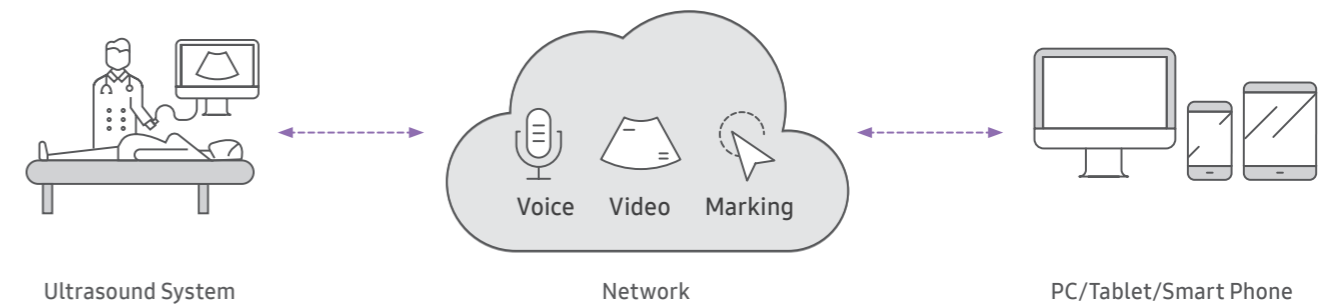
### QuickPreset
### for easy transducer preset

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.

### Touch Customization
### for your preferences

A customizable touchscreen interface that allows the user to move frequently used functions to the first page, keeping the focus on the patient instead of the system.

### Contextual Button
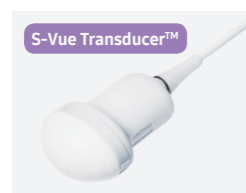### for your convenient access

Depending on the user's choice of ultrasonic inspection items, the required diagnostic functions may be assigned to the control panel buttons to reduce the hassle of menu selection.

# COMPREHENSIVE SELECTION OF TRANSDUCERS

## Volume Transducers

S-Vue Transducer™

**CV1-8A**
Abdomen, obstetrics, gynecology

**EV3-10B**
Obstetrics, gynecology, urology

## Convex Array Transducers

S-Vue Transducer™

**CA1-7A**
Abdomen, obstetrics, gynecology, contrast

S-Vue Transducer™

**CA3-10A**
Abdomen, obstetrics, gynecology

S-Vue Transducer™

**CA2-9A**
Abdomen, obstetrics, gynecology

**CF4-9**
Pediatric, vascular

## Linear Array Transducers

**L3-12A**
Small parts, vascular, musculoskeletal

**LA2-9A**
Small parts, vascular, musculoskeletal

## Endocavity Transducers

**EA2-11AR***
Obstetrics, gynecology, urology

**EA2-11AV***
Obstetrics, gynecology, urology

**EA2-11B**
Obstetrics, gynecology, urology

**VR5-9**
Obstetrics, gynecology, urology

## Phased Array Transducers

**PA4-12B**
Cardiac, pediatric

**PM1-6A**
Cardiac, TCD, abdomen

**PA3-8B**
Cardiac, pediatric, abdomen

**\* Ergonomic Transducer (EA2-11AR, EA2-11AV)**

The new endocavity transducer supports natural grip by moving the max width point to a more forward position and also increased the length of the grip to allow balanced weight distribution.

## Secure your care
Samsung Healthcare Cybersecurity

**Bringing peace of mind to your hospital and patients**

To address this 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 (Anti-virus & Firewall)
- Secured operating system

### Access control

Strengthened surveillance for tracking the access of patient information
- Account management
- Enchanced audit trail

### Data protection

Encryption functions for safeguarding data whether at-rest or in-transit
- Data encryption
- Transmission security