

# SAMSUNG



## HERA W9

See the Possibilities

## Transforming Ultrasound

Hera, Greek goddess, protector of women and childbirth. Fiercely loyal and guardian of family. Empathetic and caring. Hera represents some of the best and important moments in life and reflects Samsung's passion and commitment to life-long healthcare for women.

Samsung is now transforming the ultrasound experience for both the clinician and the women they care for with the introduction of Hera. Hera, takes ultrasound to a new level, resulting in more meaningful ultrasounds that may lead to better clinical outcomes and brings calming reassurance to the women they care for. From exquisite image clarity and new technologies to assess blood flow to advanced ergonomics, Hera delivers ultrasound in a way never seen before.



## Because it's all about the Images

Our **Crystal Architecture™** is at the core of our exceptional image clarity and penetration and is built upon a combination of innovative beamforming and sophisticated image processing to produce clear, uniform and high resolution images.

### Crystal Architecture™

#### CrystalBeam™



#### CrystalLive™

Our state of the art **beamformer** leverages Coherent Pixel Summation and Massive Parallel Processing to efficiently and consistently create uniform image clarity throughout the field of view while maintaining high frame rates.

Our advanced **Image Processing System** provides exceptional detail and contrast resolution, artifact reduction and shadow suppression.

**This means high quality images, in less time, without the need for excessive manipulation.**

In the end, it is all about the images. Our exceptional image clarity and color sensitivity are the result of our Crystal Architecture, Transducers and Advanced Image Processing working seamlessly together to help you see the tiny details in every image in order to provide a confident diagnosis.

**10X**

**Data Transfer Rate \***  
for fast frame rates

**11X**

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

**3X**

**GPU Memory \***  
for fast rendering



\* Compared to the Samsung WS80A with Elite

# Advanced 2D & Color Images Processed by CrystalLive™

CrystalLive™ is an ultrasound imaging engine with enhanced 2D image processing, 3D rendering and color signal processing, offering outstanding image performance and efficient workflow during complex cases.

## ShadowHDR™

ShadowHDR™ performs dynamic shadow suppression to reveal additional details, otherwise obscured. This proprietary technique is advantageous when assessing the fetal brain as it suppresses cranial shadowing for a more complete display of intracranial anatomy.



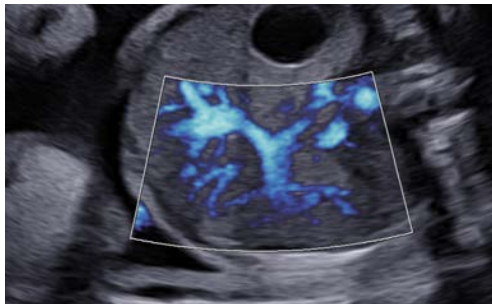
Fetal brain without ShadowHDR™



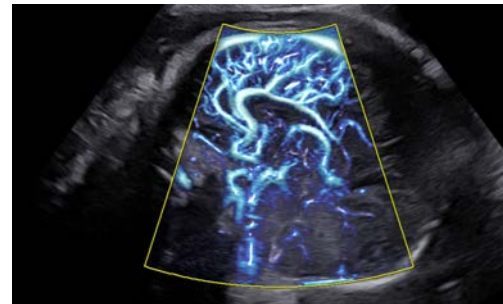
Fetal brain with ShadowHDR™

## MV-Flow™

MV-Flow™ is an advanced Doppler technology providing detailed visualization of microvascular perfusion into tissues and organs. Sophisticated spatial filtering differentiates slow moving blood flow from adjacent tissues for a more confident display of color Doppler hemodynamics. Fetal lung perfusion, ductus venosus, MCA, as well as adnexal low flow hemodynamics may be easier to visualize with MV Flow.



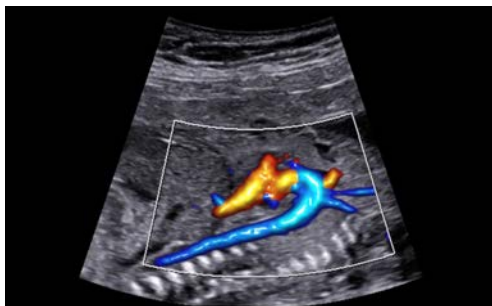
Liver vasculature with MV-Flow™



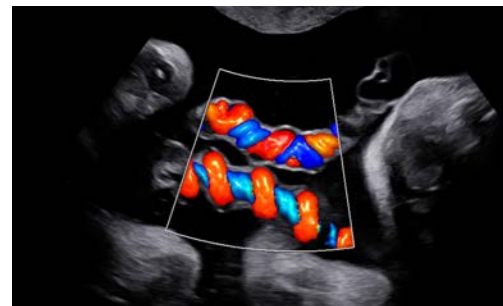
Pericallosal Artery with MV-Flow™

## LumiFlow™

LumiFlow™ provides dimensional visualization of blood flow which aids in quickly understanding vessel boundaries and may provide additional spatial comprehension when documenting vasa previa, placental cord insertion or outflow tracks.



S-Flow™ with LumiFlow™ (Fetal aorta)



Umbilical Cord with LumiFlow™

# Superb Volume Imaging

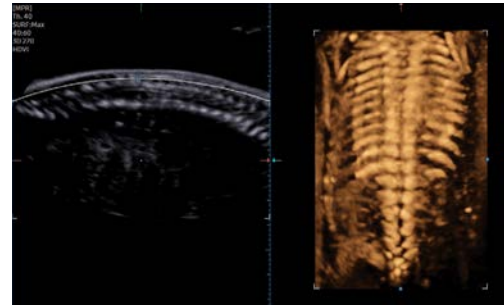
Studies have shown the importance of early bonding between mom and baby and 3D ultrasound can help begin this process before birth. However, volume imaging brings so much more to the ultrasound exam beyond facilitating these special moments. Seeing the anatomy in 3D and or 4D provides a more comprehensive understanding of anatomical spatial relationships and rendering techniques like RealisticVue™ and CrystalVue™ continue to evolve to show the tiny details even in first trimester. These new perspectives provide clinicians more information, earlier than ever before, helping identify anomalies and better prepare for surgery and other early interventions.

## HDVI™ 2.0

High Definition Volume Imaging (HDVI) provides detailed edge definition and exceptional clarity of three-dimensional anatomy. HDVI is especially useful when visualizing three-dimensional skeletal dysplasia and spinal defects.



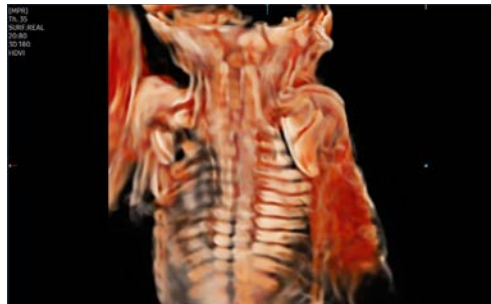
Fetal face with HDVI™



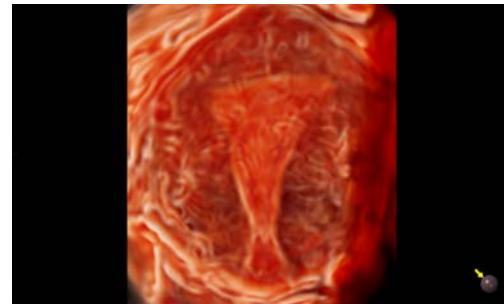
Fetal spine with HDVI™

## CrystalVue™

CrystalVue™ is an advanced volume rendering technology that enhances visualization of both internal and external structures in a single rendered image. The resulting image reveals more definitive documentation of skeletal dysplasia, early neural tube defects, as well as first trimester brain development.



Fetal spine with CrystalVue™



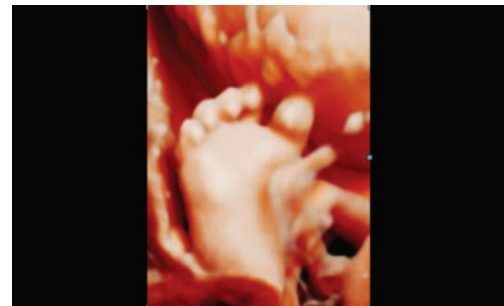
Endometrium with CrystalVue™

## 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. From detailed understanding of complex pathology to patient consultation and education, RealisticVue is a versatile and important tool for effective diagnostics and communication.



Fetal face with RealisticVue™



Fetal foot with RealisticVue™

# Intelligent Assist Tools

Images created by the Crystal Architecture™ technologies enhance various diagnostic features of Samsung ultrasound. HERA W9's diverse technologies to examine the growth of the fetus and generate detailed reports will help you build more confidence and enhance the workflow in your diagnosis.

## ViewAssist™

ViewAssist™ provides automatic recognition and text labeling of fetal cardiac anatomy to enhance clinical documentation and workflow.

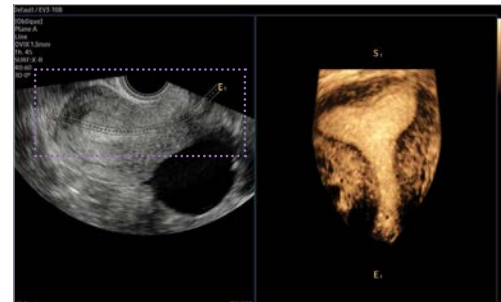


ViewAssist™

## Uterine Contour

Uterine Contour is a semi-automatic designation of the midline along the curvature of the sagittal endometrium and produces an instantaneous display of corresponding coronal planar view. In addition, uterine malformation classifications are reported according to the \*ESHRE/ESGE or ASRM guideline selection.

\* ESHRE/ESGE : The European Society of Human Reproduction and Embryology  
/ The European Society for Gynaecological Endoscopy  
ASRM : The American Society for Reproductive Medicine



Uterine Contour

## BiometryAssist™

BiometryAssist™ is a semi-automatic technology for biometric measurement, enabling users to measure the growth of the fetus more quickly and with greater accuracy while maintaining exam consistency.



Fetal biometry measurement with BiometryAssist™

## Slice A

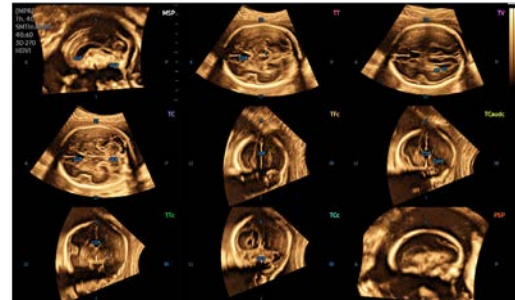
Slice A is a feature that improves the contrast resolution of the A Plane images. By compositing multiple A Plane images, it helps in analyzing tissues or structures that are difficult to see with only 2D images.



Slice A

## 5D CNS+™ (Central Nervous System)

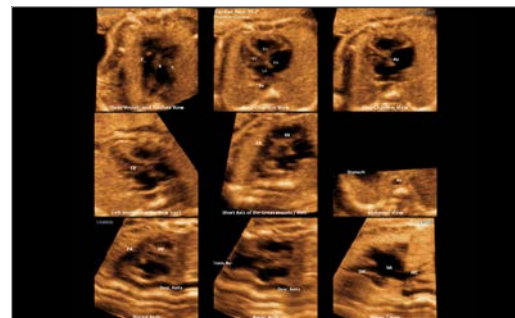
5D CNS+™ simplifies the fetal brain assessment by automatically providing nine planes simultaneously with biometric measurements. This innovative tool aids in visualization of intracranial anomalies.



Fetal brain measurement with 5D CNS+™

## 5D Heart™

5D Heart increases the sensitivity and specificity of ultrasound for the assessment of congenital heart disease. 5D Heart quickly generates the nine recommended fetal echocardiography views for a more thorough sonographic examination of the fetal heart.



Fetal heart examination with 5D Heart™

## Adaptable Ergonomics – Designed for Comfort

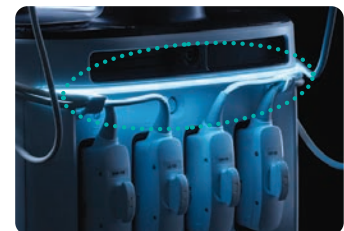
Our new state of the art ergonomic design allows the ultrasound system to adapt to the user's scanning position rather than forcing the user to adjust to the system. With the wide range of motion on both the control panel and the monitor, Hera can be adjusted, nearly infinitely, to allow for a more comfortable scanning experience as well as help decrease repetitive reaching and shoulder strain.



Endocavity Transducer Holder



Cable Management



Mood Light

HERA provides a **34%** reduction in shoulder stress\*

An internal study shows that the improved ergonomics of the Hera W9 reduces shoulder stress by about one third compared to our previous premium model. It does this by simplifying the user interface and increasing the range of motion of the control panel and monitor, resulting in less repetitive strain from hours of scanning.

\* Control panel usability study compared to the Samsung WS80A with Elite. Tested using same body postures.



# Customizable for the Way You Work

Everyone works a little bit differently, wouldn't it be nice if your ultrasound was customizable to your preferences? With Hera, it is. Tailoring the functionality of buttons on the control panel and customizing the layout of your touch panel menus are just a few conveniences we've added to help you keep your focus on what matters most.

## Contextual Button

Frequently used functions can be assigned to buttons around trackball to reduce repetitive menu selection.



## Touch Gesture

Intuitively allows user to rotate, zoom and move, while viewing the 3D image from the touch screen.



## Quick Preset

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



Sleep mode

Approx.  
20sec.

## Fast Boot Up with MobileSleep

Mobile Sleep allows you to move the system from one place to another without shutting down. Simply press the power button to put the system to sleep, unplug and go. System powers back up in about 20 seconds.

Wake-up

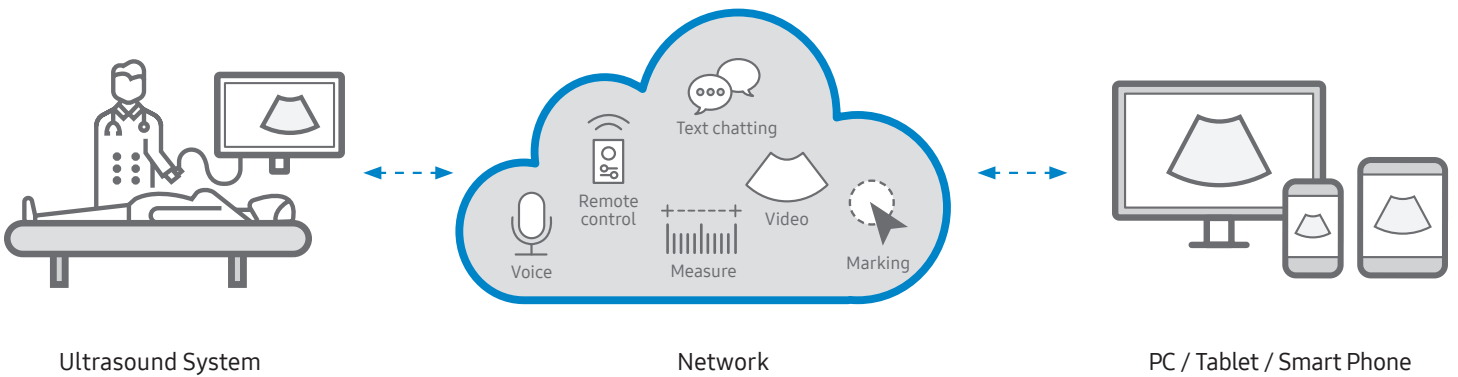
Approx.  
22sec.



# Work together in real-time from anywhere

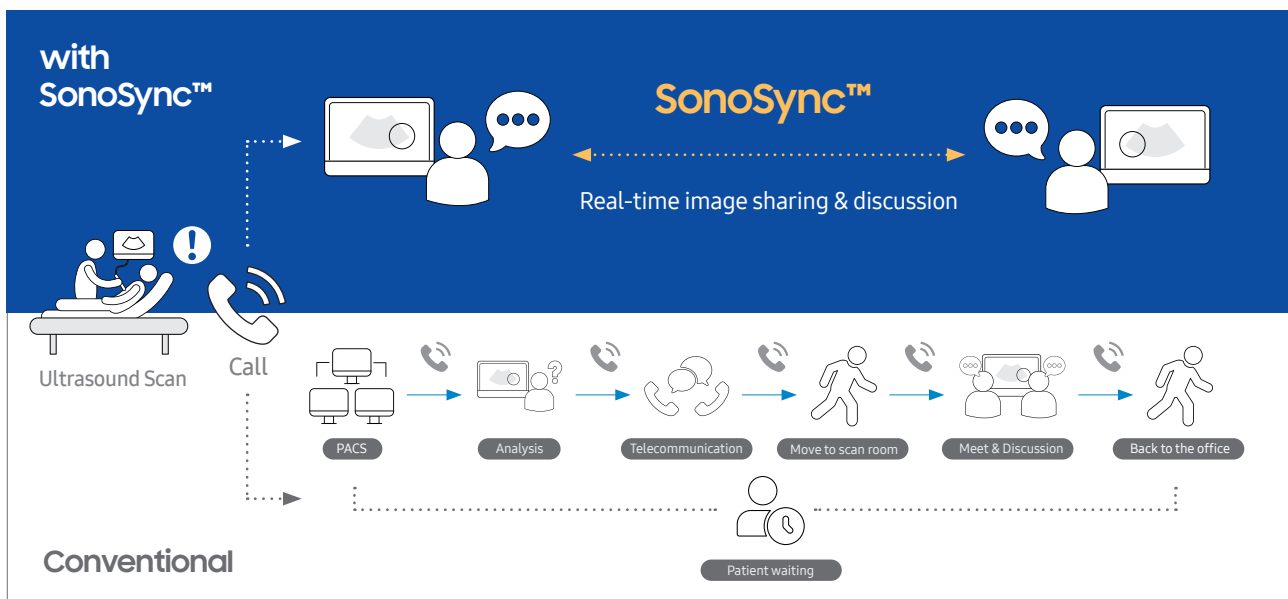
## What is SonoSync™?

SonoSync™ is a real-time ultrasound image sharing solution that allows voice communication and remote controllability for effective collaboration between physicians and sonographers at different locations. In addition, SonoSync™ has several other elegant features like marking, invitation, still image sharing, multi-user, and multi-view. SonoSync™ brings telesonography into reality.



## Replacing conventional workflow by SonoSync™

With abundant advanced technology, the conventional workflow can be simplified by using SonoSync™, utilizing hospital resources efficiently and helping the patient quickly.



\* SonoSync™ is an image sharing solution and not for diagnostic use.







Fetal biometry estimation with BiometryAssist™



5D Heart



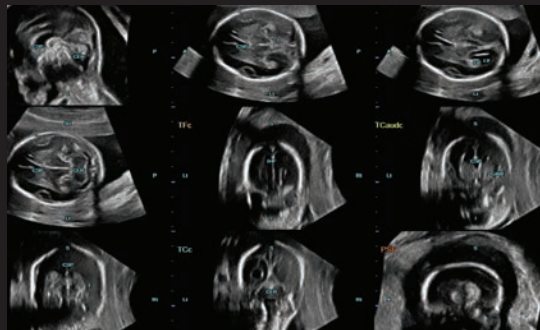
Fetal Abdomen with Lumi Flow™ and MV-Flow™



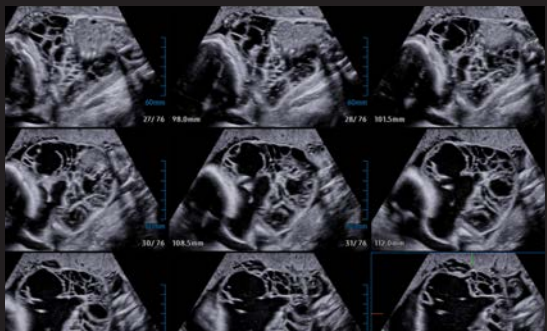
Uterus with S-Harmonic™



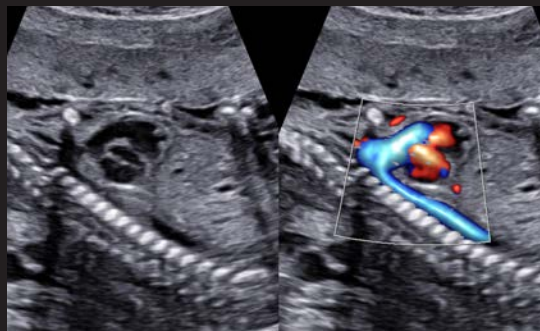
2D NT™



Fetal brain assessment with 5D CNS+™



Cystic Hygroma with Multi Slice



Ductal Arch with Dual Live

# HERA W9 IMAGE GALLERY

# Comprehensive selection of transducers

## Convex Array Transducers



**CA1-7A**

Application: abdomen, gynecology, musculoskeletal, obstetrics, pediatric, vascular



**CA3-10A**

Application: abdomen, gynecology, musculoskeletal, obstetrics, pediatric, vascular



**CA2-9A**

Application: abdomen, gynecology, obstetrics

## Endocavity Transducers



**EA2-11AR\***

Application: gynecology, obstetrics, urology



**EA2-11AV\***

Application: gynecology, obstetrics, urology

### \* 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.

## Linear Array Transducers



**LA2-14A**

Application: abdomen, musculoskeletal, obstetrics, small parts, vascular



**L3-12A**

Application: abdomen, musculoskeletal, small parts, vascular



**LA2-9A**

Application: abdomen, musculoskeletal, small parts, vascular

## Volume Transducers



**CV1-8A**

Application: abdomen, gynecology, obstetrics



**EV2-10A**

Application: gynecology, obstetrics, urology

## Secure your care

Samsung Healthcare Cybersecurity



### Intrusion Prevention

Security tools (Anti-virus & Firewall)  
Windows 10



### Access Control

Account management  
Audit log



### Data Protection

Data encryption  
EMR/DICOM Secure Transmission

# SAMSUNG

NeuroLogica, the healthcare subsidiary of Samsung Electronics Co., Ltd., develops, manufactures, and markets innovative imaging technologies and is committed to delivering fast, easy and accurate diagnostic solutions to healthcare providers. NeuroLogica, the global corporate headquarters and manufacturer of Samsung computed tomography, is also the US headquarters for sales, marketing and distribution of all Samsung digital radiography and ultrasound systems. NeuroLogica's growing portfolio of advanced medical technologies are used worldwide in leading healthcare institutions helping providers enhance patient care, improve patient satisfaction, and increase workflow efficiency. Samsung is committed to being leaders in the field of healthcare imaging.

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.

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