SAMSUNG

HERA W10

Image is Everything

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

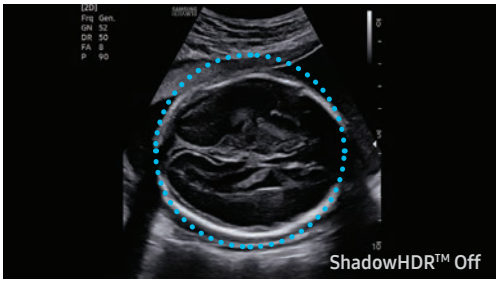
Fundamental 2D Imaging, Elevated

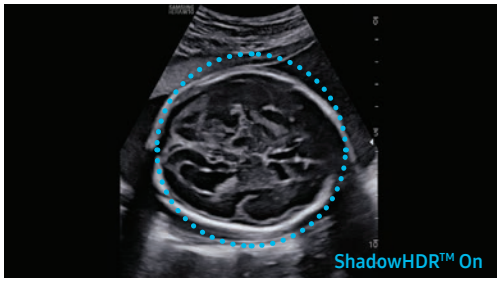
2D imaging is at the heart of each and every exam and integral to a confident diagnosis. Hera elevates 2D imaging to a level not seen before thanks to shadow suppression, artifact reduction and image clarity techniques that produce grayscale images with crisp interfaces, outstanding contrast resolution and precise spatial detail.

From routine to complex, you can rely on Hera to provide the exceptional image clarity needed to provide confident answers.

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.

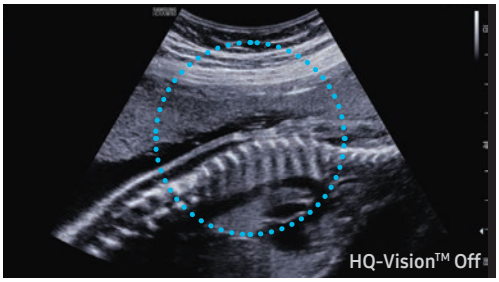


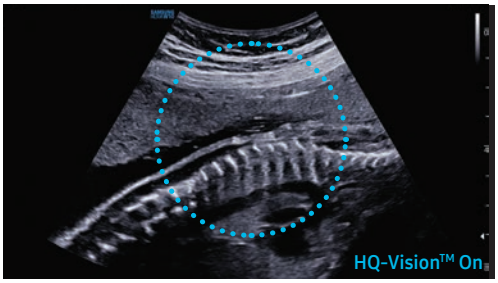


Fetal brain

HQ-Vision™

HQ-Vision™ is a sophisticated image processing technology designed to compensate for natural signal distortion as sound propagates through tissue. HQ-Vision continuously analyzes, deconstructs and then recalculates the received ultrasound image to display maximum sharpness and precise spatial clarity. This is especially helpful when performing detailed documentation of subtle interfaces, as well as fetal vertebrae.

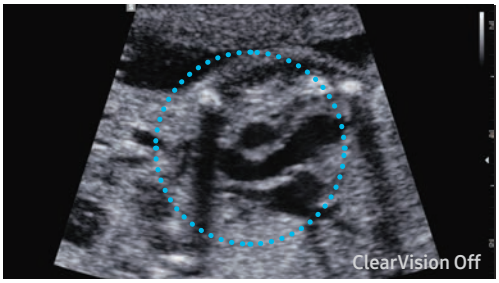


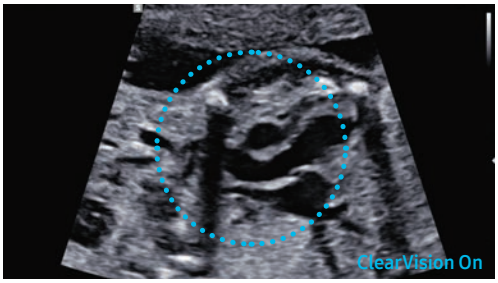


Fetal spine

Advanced ClearVision

Advanced ClearVision is an adaptive image optimization technology designed to remove distracting speckle artifacts, while sharpening tissue interfaces and enhancing subtle changes in the displayed grayscale image.





Fetal heart

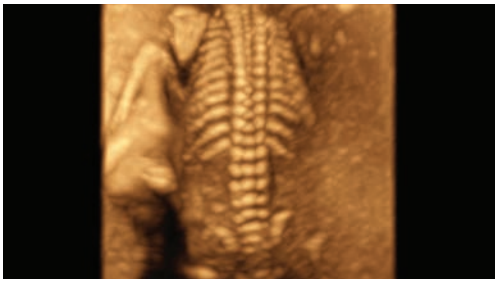
Gold Standard in Volume Imaging

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.

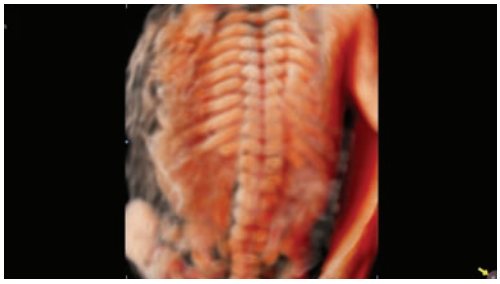
Fetal face with 3D



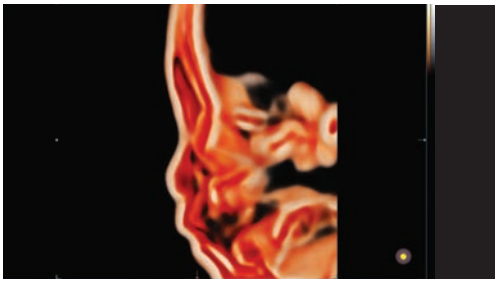
Fetal spine with 3D

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™

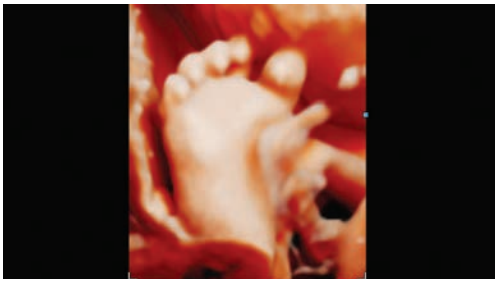


Fetal profile with CrystalVue™

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™

Elevating Hemodynamic Assessment

Assessing blood flow through the fetal heart and brain are an important part of every ultrasound exam performed. Fetal movement or the small size of the structure provide unique challenges to completing your assessment and without this information, a confident diagnosis cannot be reached. Samsung is introducing two new technologies to help you visualize blood flow; MV-Flow™ and LumiFlow™, technologies that can be used independently or in combination with each other to help assess both fetal and maternal circulation.

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.

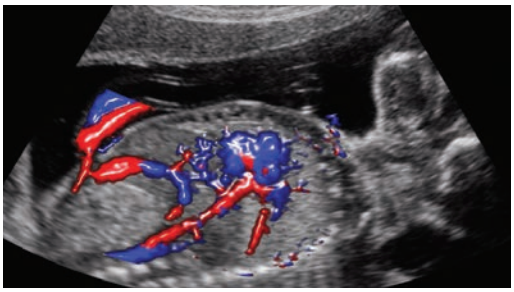
Placental cord insertion with MV-Flow™

Pericallosal artery using MV-Flow™

LumiFlow™

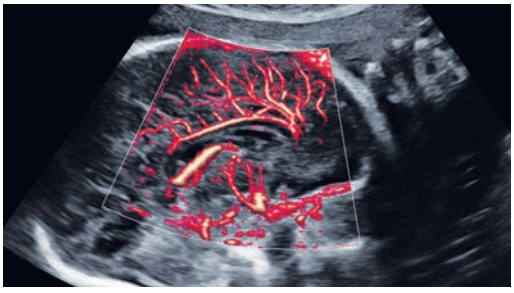
LumiFlow™ provides dimensional visualization of blood flow which aids in quickly understanding vessel boundaries and may provide additional spatial comprehension when documenting vasa previa, placental cord insertion or outflow tracks.

Umbilical cord with LumiFlow™

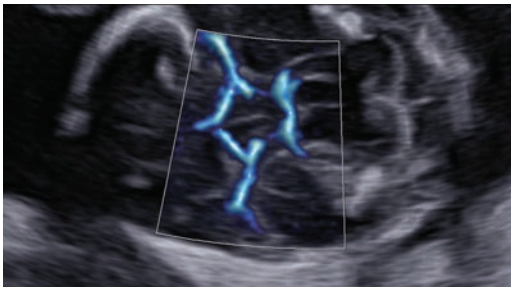


Fetal circulation with LumiFlow™

MV-Flow™ with LumiFlow™



Sagittal view of fetal brain with MV-Flow™ with LumiFlow™



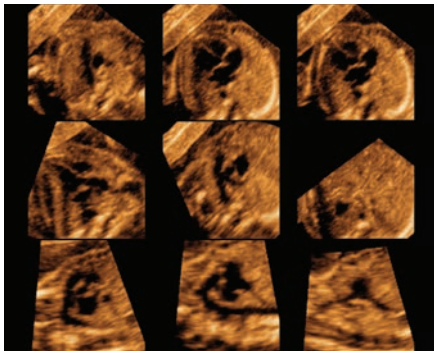
Circle of Willis demonstrated with MV-Flow™ with LumiFlow™

Advanced Tools for Confidence and Consistency

Advanced tools can help you see the fetal anatomy in new ways and provide additional information to help you make confident decisions quickly and provide women and the people they care for, calming reassurance. Samsung's innovative technologies not only help provide answers, but they can also add consistency and efficiency to the ultrasound exam.

Advanced 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. This enhanced technology includes Auto Fetal Positioning and Predictive Cursor which may help to display the nine views even easier by letting the software do some of the work for you.



5D 5D ultrasound helps streamline workflow and enhance reproducibility with a suite of semi-automated tools.

5D NT

5D NT automatically locates the mid-sagittal plane from an acquired 3D dataset and measures the maximum NT distance, reducing inter-user variability.

5D CNS+™

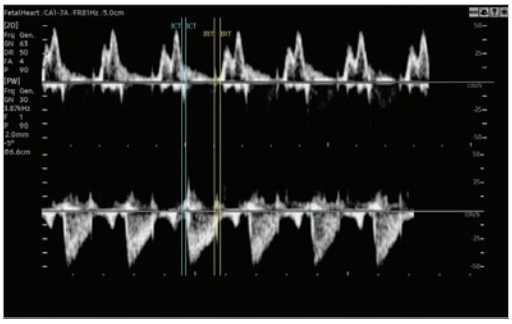
5D CNS+™ simplifies the fetal brain assessment by automatically providing nine planes simultaneously with biometric measurements. This innovative tool aids in visualization of intracranial anomalies.

5D Limb Vol.™

5D Limb Vol.™ is a semi-automated tool to estimate fetal weight by quickly and accurately measuring upper arm or thigh volumes from 3 simple seed points on a single volume data set.

MPI+ (Myocardial Performance Index)

MPI+ is able to semi-automatically measure LV MPI and RV MPI, providing a high reproducibility. After acquiring Inflow/ Outflow doppler, RV MPI proceeds alignment by utilizing synchronized signals of the heartrate and valve movement.



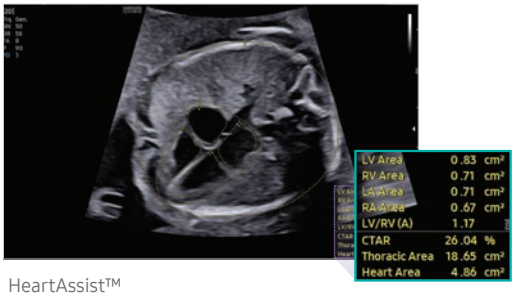
MPI+

Intelligent Assist Tools

Images created by the Crystal Architecture™ technologies enhance various diagnostic features of Samsung ultrasound. HERA W10'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.

HeartAssist™

HeartAssist™ is a semi-automatic measurement feature designed to recognize and quantify fetal cardiac anatomy facilitating consistency of measurements and efficient workflow.



HeartAssist™

ViewAssist™

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

ViewAssist™

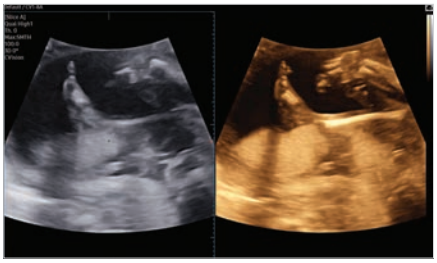
BiometryAssist™

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.

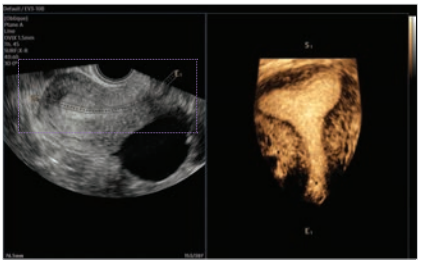


Slice A

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

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 Customization

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

Quick Preset

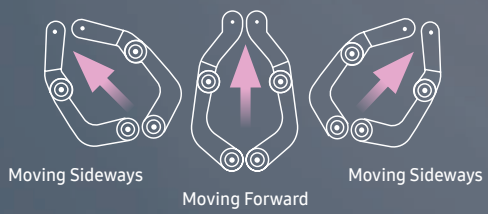
With one touch, the user can select the most common transducer and preset combinations. Quick Preset increases efficiency to make a full day of scanning simple and easy.

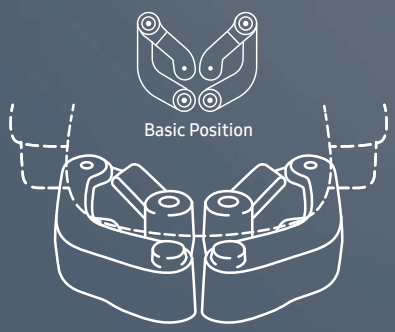
Fast Boot Up with MobileSleep

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.

State-of-the-art ergodynamics for your comfort and productivity

FreeForm™ refers to Samsung's new design theme. It was developed to provide a more comfortable diagnostic experience by reducing the need for movement from one spot to another. Our goal is to satisfy user's working environment by applying a mechanism to the control panel in its wide-moving range, as well as by considering a user's arm reach. This enables it to offer a sufficient amount of space for the user's knee.





Control Panel Swivel Mechanism

Control Panel Moving Mechanism

An internal study showed that Samsung's Control Panel Moving Mechanism reduces shoulder stress by about a third compared to the previous model. It does this by providing users with more space near the control panel area, resulting in less repetitive strain from hours of scanning. Users can now pull the control panel and rotate its angle at the same time.

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

Endocavity Transducer Holder [1]

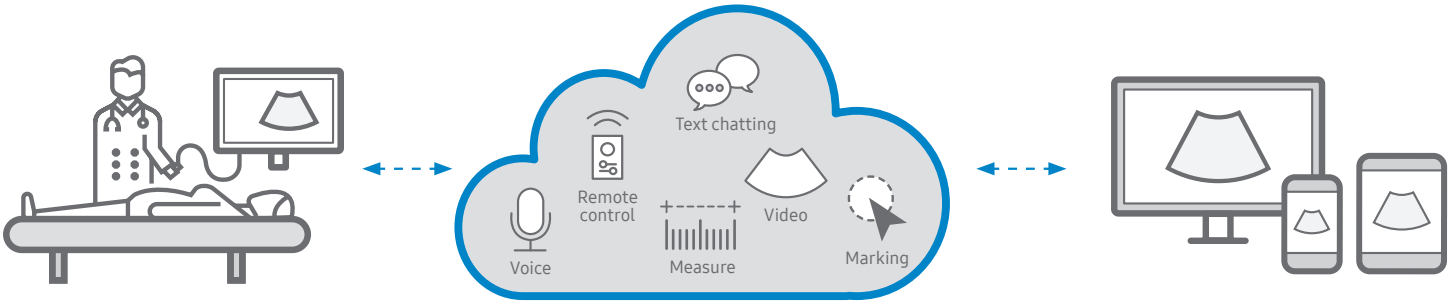
Cable Management

Mood Light

Work together in real-time from anywhere

What is SonoSync™?

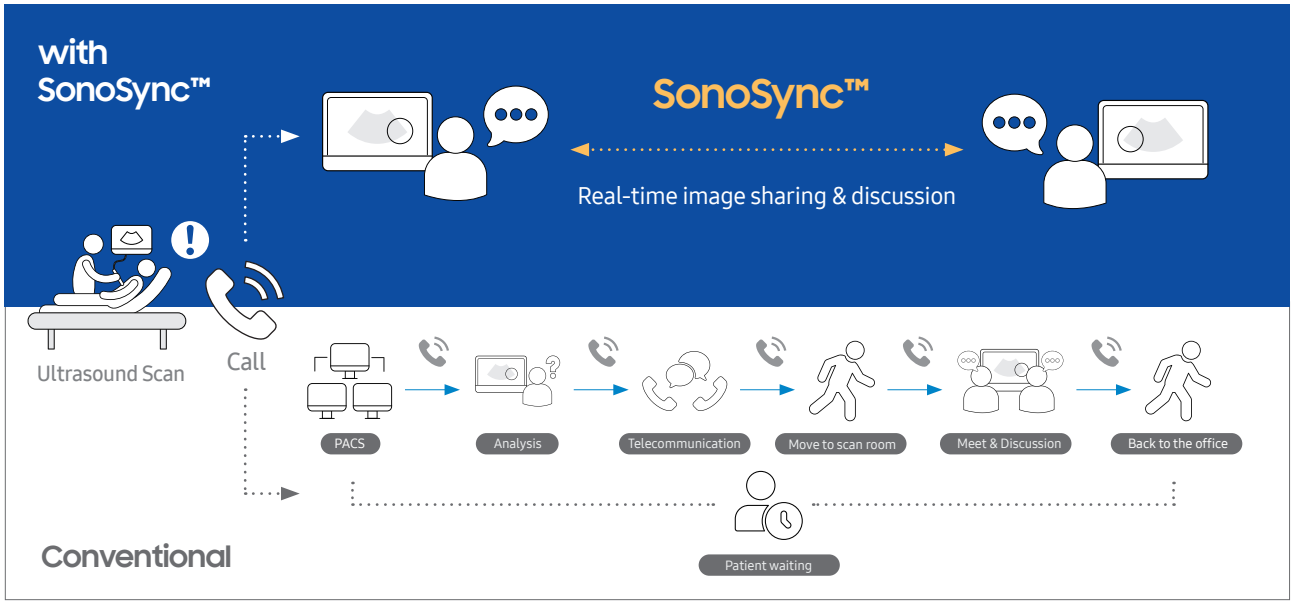
SonoSync™ is a real-time ultrasound image sharing solution that allows voice communication and remote controllability for effective collaboration between physicians and sonographers at different locations. In addition, SonoSync™ has several other elegant features like marking, invitation, still image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



Ultrasound System | Network | PC / Tablet / Smart Phone

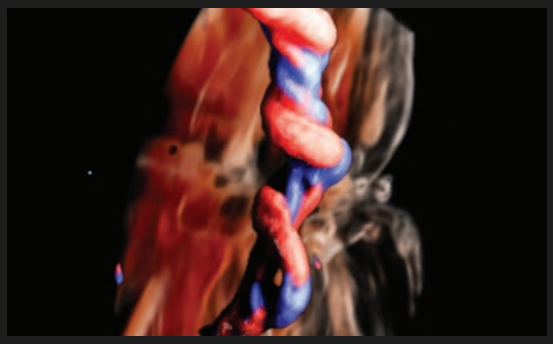
Replacing conventional workflow by SonoSync™

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

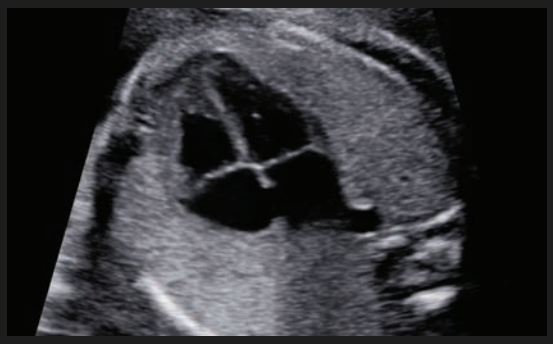


* SonoSync™ is an image sharing solution and not for diagnostic use.

HERA W10 IMAGE GALLERY



Umbilical cord rendered using CrystalVue Flow™



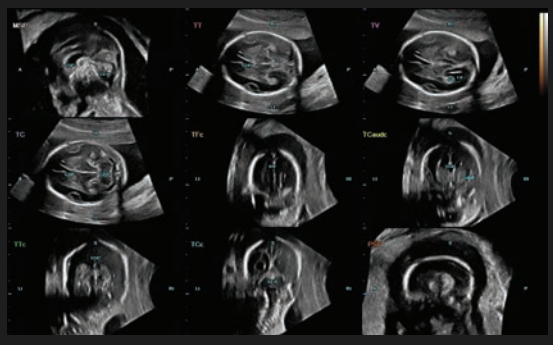
Fetal heart in 4-chamber view

Fetal aortic arch with contrast

Umbilical cord insertion and placental perfusion demonstrated with MV-Flow™

Hepatic vasculature utilizing S-Flow™ and LumiFlow™

3rd trimester fetal face with RealisticVue™



Fetal brain assessment with 5D CNS+™

Fetal circulation with S-Flow™

Comprehensive selection of transducers

Convex Array Transducers

CA1-7A

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

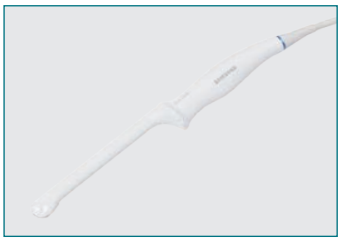
CA3-10A

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

CA2-9A

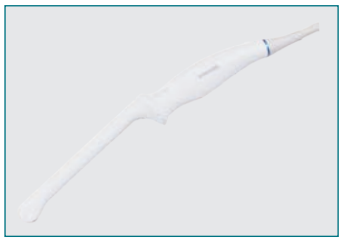
Application: abdomen, gynecology, obstetrics

Endocavity Transducers



EA2-11AR*

Application: gynecology, obstetrics, urology



EA2-11AV*

Application: gynecology, obstetrics, urology

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

Phased Array Transducers

PA1-5A

Application: abdomen, cardiac, TCD

PA4-12B

Application: cardiac, pediatric

PM1-6A

Application: abdomen, cardiac, TCD

PA3-8B

Application: abdomen, cardiac, pediatric

Volume Transducers

CV1-8A

Application: abdomen, gynecology, obstetrics

EV2-10A

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.

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

Scan to
Learn More

To learn more please visit www.samsunghealthcare.com

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