Comprehensive Selection of Transducers

Volume Transducers

CV1-8A
Abdomen, obstetrics, gynecology

EV2-10A
Obstetrics, gynecology, urology

EV3-10B
Obstetrics, gynecology, urology

Phased Array Transducers

PA4-12B
Cardiac, pediatric

PM1-6A
Cardiac, TCD, abdomen

PA3-8B
Cardiac, pediatric, abdomen

Convex Array Transducers

CA1-7A
Abdomen, obstetrics, gynecology, contrast

CA3-10A
Abdomen, obstetrics, gynecology

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

*** 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.

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.

* All of the products, features, options and transducers may not be 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.
* All clinical images on this catalog are acquired by the HERA W10 ultrasound system.
* S-Vue Transducer™ is the name of Samsung's advanced transducer technology.

1. This is an optional feature which may require additional purchase.
2. 13.2% decreased muscle activity for ultrasound scan task and 82.3% less peak pulling force for vaginal scan setting are result of a study conducted by collaboration between Samsung Medison and Prof. Yong-Ku Kong, Department of Industrial Engineering, Sungkyunkwan University.
3. 52.5% reduced wrist burden for using transducer is a result of an experiment conducted at DFx Group of Global Technology Center, Samsung Electronics.
4. SonoSync™ is an image sharing solution.

CT-HERA I10 V1.02-IMC-240412-EN

SAMSUNG MEDISON CO., LTD.

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SAMSUNG

Ultrasound Reimagined

HERA I10

Ultrasound Reimagined

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

With the introduction of the HERA I10, ultrasound hasn't just been redesigned, it has been reimagined. With input from clinicians and patients, HERA I10 transforms and elevates the ultrasound experience from each user's perspective. A new form factor, a combination ultrasound system with Built-in Chair, allows for a more comfortable environment with refined imaging technologies for increased diagnostic confidence.

01
Excellent Image Quality
for accurate diagnosis

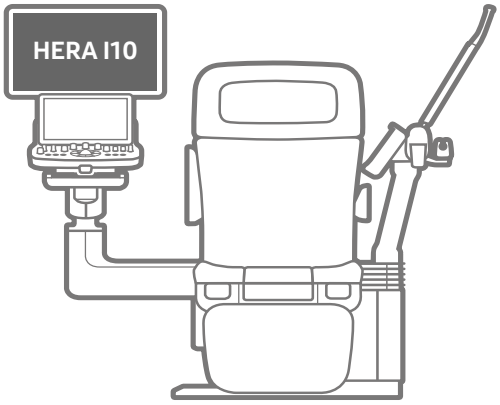
02
Relaxing Atmosphere
for the patients

03
Ergonomic Comfort
for healthcare professionals

Ergonomic Design Award

Samsung's elite team of designers and certified healthcare professionals collaborated to develop ergonomic and human-friendly ultrasound system, winning the Ergonomic Design Award.

* The Built-in Chair (WMH152) displayed with HERA I10 is an independent product designed to be compatible with HERA I10.



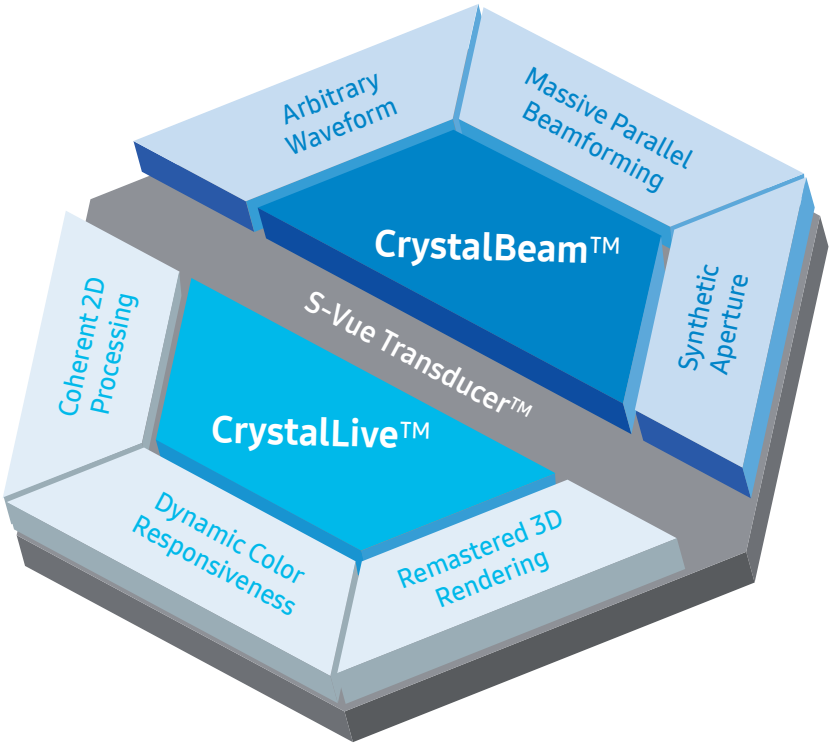
Redefined imaging technologies powered by Crystal Architecture™

Crystal Architecture™, an imaging architecture combining CrystalBeam™ and CrystalLive™, while based upon S-Vue Transdcuer™, produces crystal clear and uniform images. CrystalBeam™ is a new beamforming technology beneficial in delivering high-quality image resolution and increased uniformity of images. CrystalLive™ is Samsung's sophisticated ultrasound imaging engine with enhanced 2D image processing, 3D rendering and color signal processing, to offer outstanding image performance and efficient workflow during complex cases.

Fast Frame Rates
X10 Data Transfer Rate *

High-Quality Images
X11 Processing Power *

Fast Rendering
X3 GPU Memory *

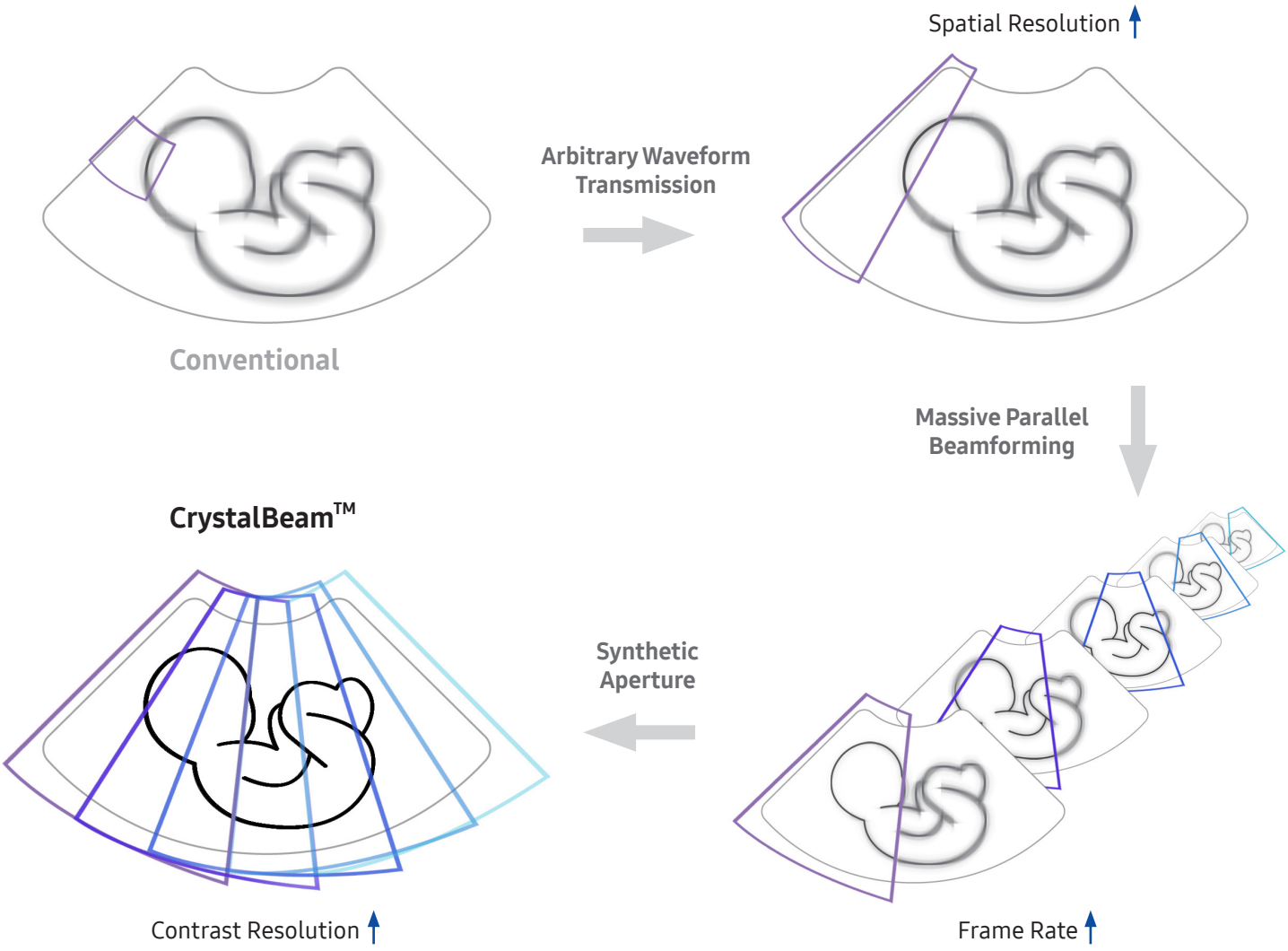


Crystal Architecture™

* Compared to the Samsung WS80A

A new beamforming for in-depth image creation

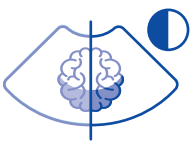
CrystalBeam™ utilizes Arbitrary Waveform Transmission, Massive Parallel Beamforming, and Synthetic Aperture technologies to produce a faster frame rate and improved image uniformity. Arbitrary Waveform Transmit refers to a widely-focused beam transmission technology that allows for more coherent images;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



* Compared to the Samsung WS80A

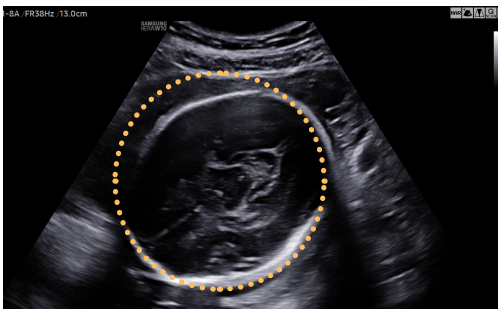
Sophisticated 2D images processed by CrystalLive™

CrystalLive™ helps you to make more confident diagnoses with fundamental 2D images. Some major advantages of 2D images include shadow-suppressed images, lessened halo artifacts, and mitigated blurred area. ShadowHDR™ is a key feature that shows shadowy areas, making it especially applicable for use in highly attenuated regions, such as fetal head or spine.

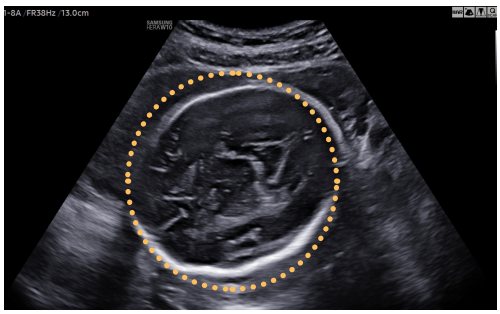


Visualization of attenuated shadow area

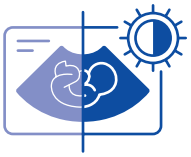
ShadowHDR™ selectively applies high-frequency and low-frequency of the ultrasound to identify shadowy areas such as fetal head or spine where attenuation occurs.



Fetal brain

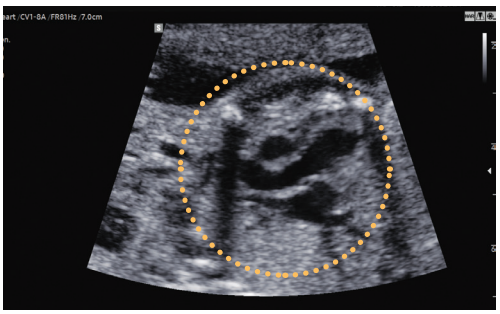


Fetal brain with ShadowHDR™

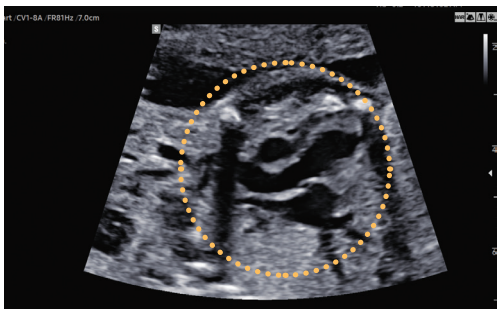


Improvement of 2D image quality with noise reduction filter

ClearVision provides clear tissue boundaries using the noise reduction filter and generates sharp 2D images. It reduces halo artifact that occurs when the tissue contour is enhanced, and removes noises on the tissue boundaries.



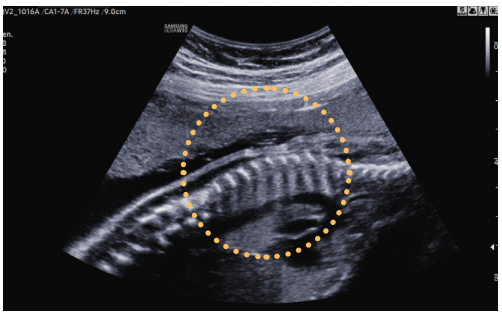
Fetal heart



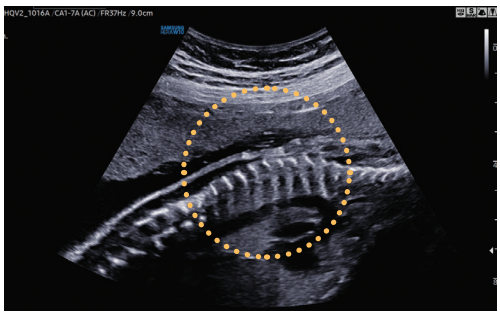
Fetal heart with ClearVision

Clarification of blurred area to provide clearer images

HQ-Vision™ provides clearer images by mitigating the characteristics of ultrasound images that are slightly blurred than the actual vision.



Fetal spine



Fetal spine with HQ-Vision™

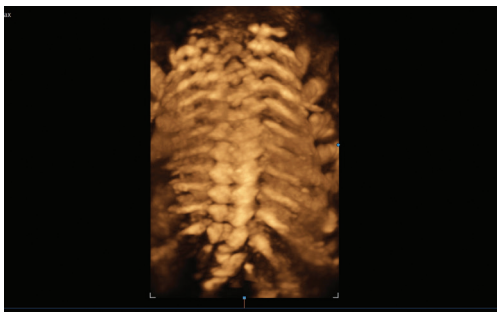
Realistic description of 3D/4D performance

CrystalLive™ in 3D/4D provides users with more realistic and high-resolution images. It outdoes conventional 3D imaging technologies in terms of viewing small parts 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.

High Definition Volume Imaging

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 3D



Fetal spine with 3D

Realistic expression of 3D anatomy [1]

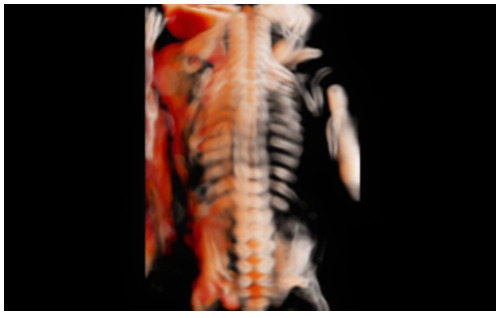
RealisticVue™ displays high resolution 3D anatomy with exceptional detail and realistic depth perception. User selectable light source direction creates intricately graduated shadows for better defined anatomical structures.

Fetal face with RealisticVue™

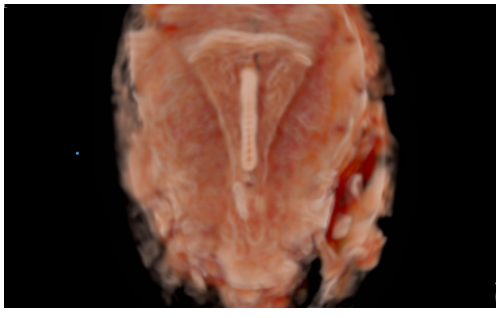
Early fetus with RealisticVue™

Visualization of internal and external structures with volume rendering [1]

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.



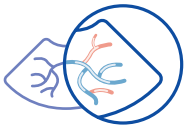
Fetal spine with CrystalVue™



Intra uterine device with CrystalVue™

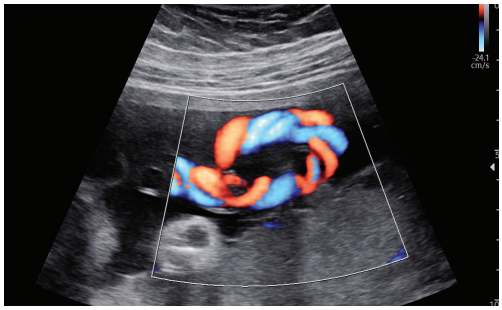
Detailed expression of blood flow dynamics

With the addition of CrystalLive, color performance and sensitivity have been improved to help clinicians more clearly visualize blood flow hemodynamics. New color signal processing allows for precise detection of peripheral blood vessels, microcirculatory blood flows, and volumes of slow blood flows.

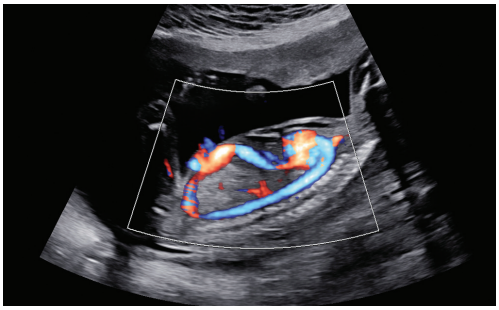


Directional power Doppler to examine peripheral vessels

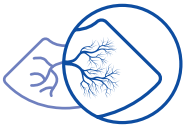
S-Flow™ is a directional power Doppler technology, which helps in diagnosis of complex forms of blood flow.



Umbilical cord with S-Flow™



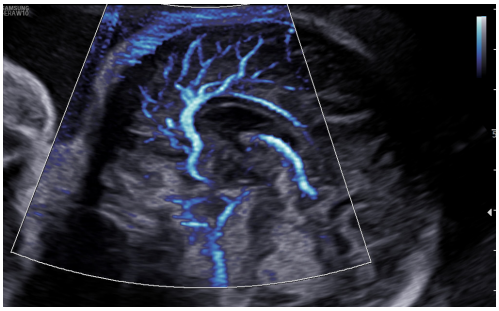
Fetal circulation with S-Flow™



Visualization of slow flow microvascularized structures [1]

MV-Flow™ offers a novel alternative to power Doppler for visualizing slow flow of microvascularized structures. High frame rates and advanced filtering enable MV-Flow™ to provide a detailed view of blood flow in relation to surrounding tissue or pathology with enhanced spatial resolution.

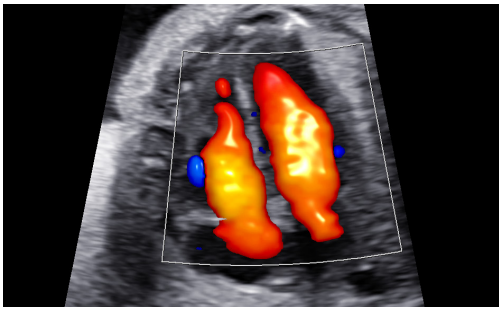
Placenta with MV-Flow™



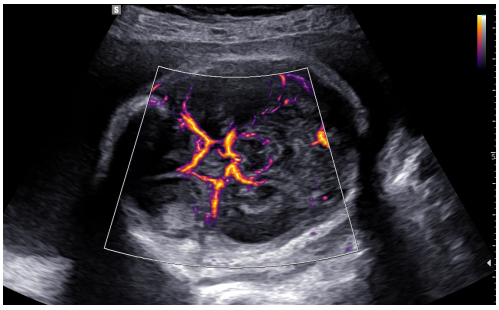
Pericallosal Artery with MV-Flow™

Three dimensional-like visualization of blood flow

LumiFlow™ is a 3D effect on Color Doppler, which helps to understand the structure of blood flow and small vessels intuitively.



Color Doppler with LumiFlow™ (4 Chamber view)



MV-Flow™ with LumiFlow™ (Circle of willis)

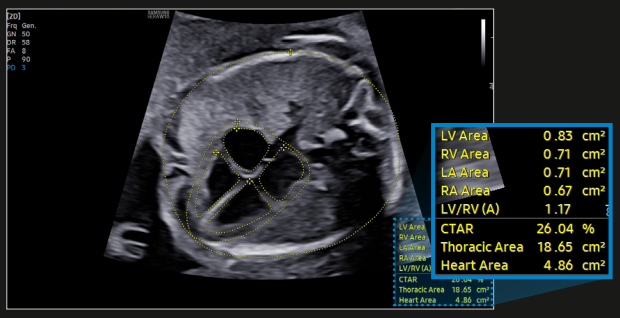
Enriched diagnostic system, excellence in utilization

Images created by the Crystal Architecture™ technologies enhance various diagnostic features of Samsung ultrasound. HERA I10's diverse technologies to examine the growth of fetus and women's health in detailed reports will help you build more confidence and enhance the workflow in your diagnosis.

HeartAssist™ [1]

A semi-automated reporting tool for fetal heart diagnosis

HeartAssist™, while based on big data, it semi-automatically classifies ultrasound image into measurement views required for fetal heart diagnosis and provides measurement results and distribution graph.

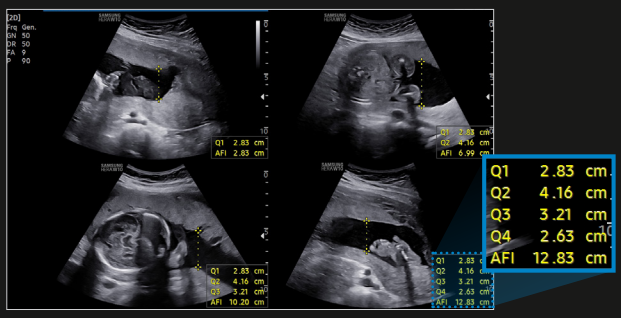


HeartAssist™

ViewAssist™ [1]

A semi-automated classification of the images and annotaion of the structures

ViewAssist™ provides automatic classification of the ultrasound images and annotation of the structures to help healthcare professionals in convenient measurement.



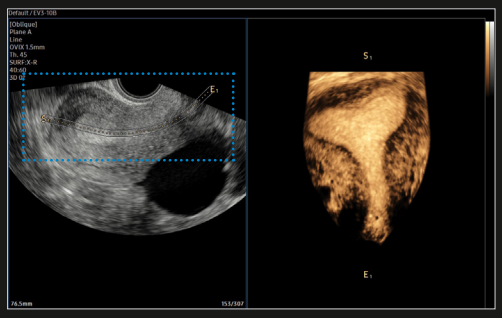
ViewAssist™

Uterine Contour

A feature to extract the centerline and thickness of endometrium

Uterine Contour automatically extracts the centerline and thickness of the curved endometrium and provides a coronal view in 3D, flattened by the centerline. In addition, uterine malformation classification 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™

A semi-automated measurement of fetal biometry

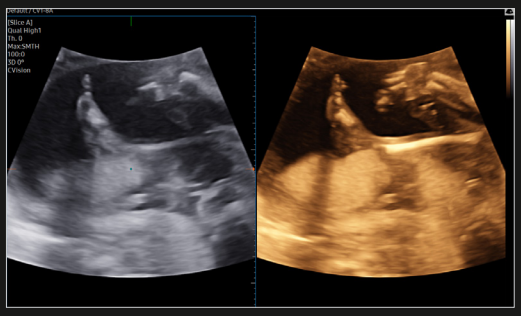
A semi-automatic technology for biometric measurement, BiometryAssist™, enables users to measure the growth of the fetus quickly while maintaining exam consistency.

Fetal biometry measurement with BiometryAssist™

Slice A [1]

A feature to increase the contrast resolution through thick slide volume

Slice A is a feature that improves the contrast resolution of 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.

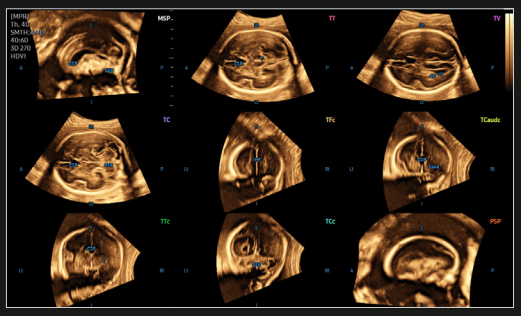


Slice A

5D CNS+™ [1]

Fast brain measurement tool based on volume data

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

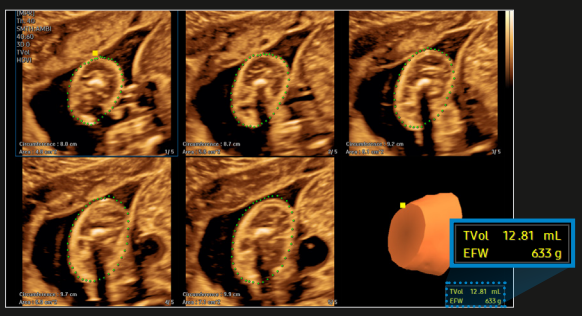


Fetal brain measurement with 5D CNS+™

5D Limb Vol.™ [1]

Fast fetal weight estimation tool for checking growth of the fetus

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

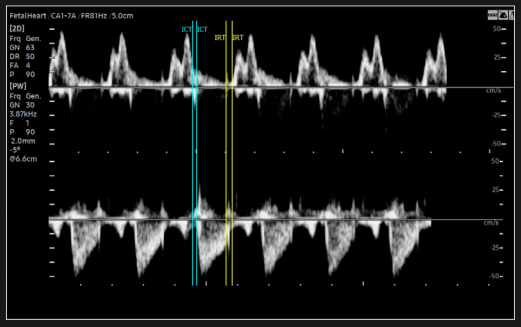


Fetal weight estimation with 5D Limb Vol.™

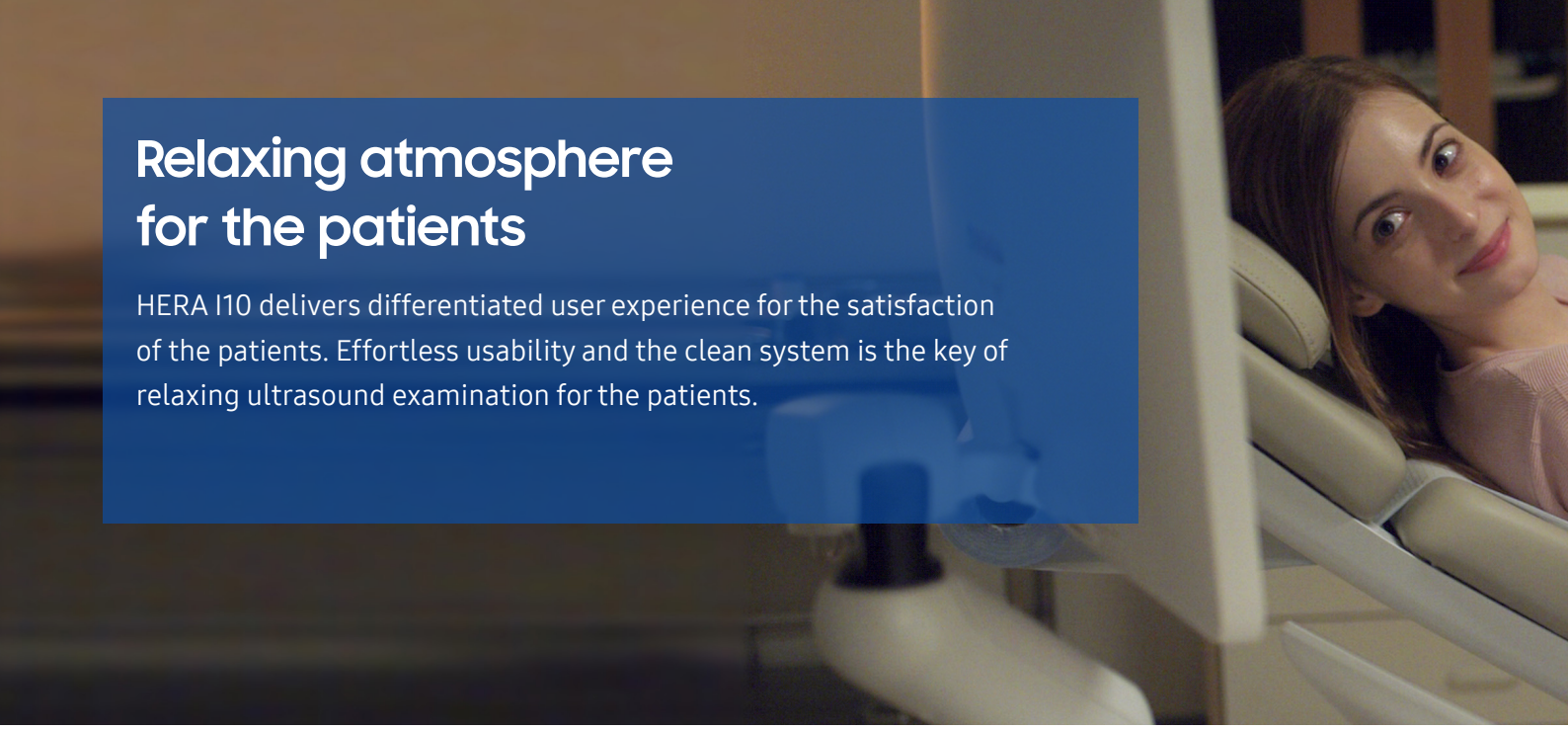
MPI+ [1]

A semi-automated measurement of LV MPI and RV MPI measurement

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+



Relaxing atmosphere for the patients

HERA I10 delivers differentiated user experience for the satisfaction of the patients. Effortless usability and the clean system is the key of relaxing ultrasound examination for the patients.

Safe & Comfortable Position Change with *iChair

When your patients walk into the exam room, they will see a warm and inviting environment with HERA I10. Help your patients gently ease into the ultrasound exam in a relaxing and comforting way. The powered, adjustable Built-in Chair has four programmable positions to help patients safely and comfortably move into the optimal position needed to capture the necessary images to provide a confident diagnosis. Take your patient satisfaction to a new level by elevating your ultrasound experience with HERA I10.

Hand Remote

Foot Controller [1]

Start Position

Abdomen Position

Full Flat Position

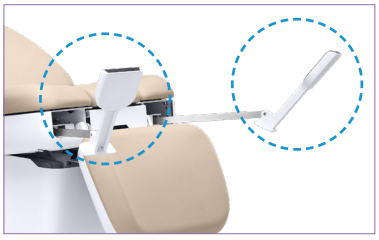
Lithotomy Position

Clean & Clutter-free Environment with *iChair

The Paper Roll Hanger provides a convenient and easy way to maintain a clean and safe environment. The Transducer Station sustains the cable to not reach the patient's body. The ergonomic structure satisfies the patients to experience ultrasound exams in a clean and relaxing atmosphere.

Paper Roll Hanger

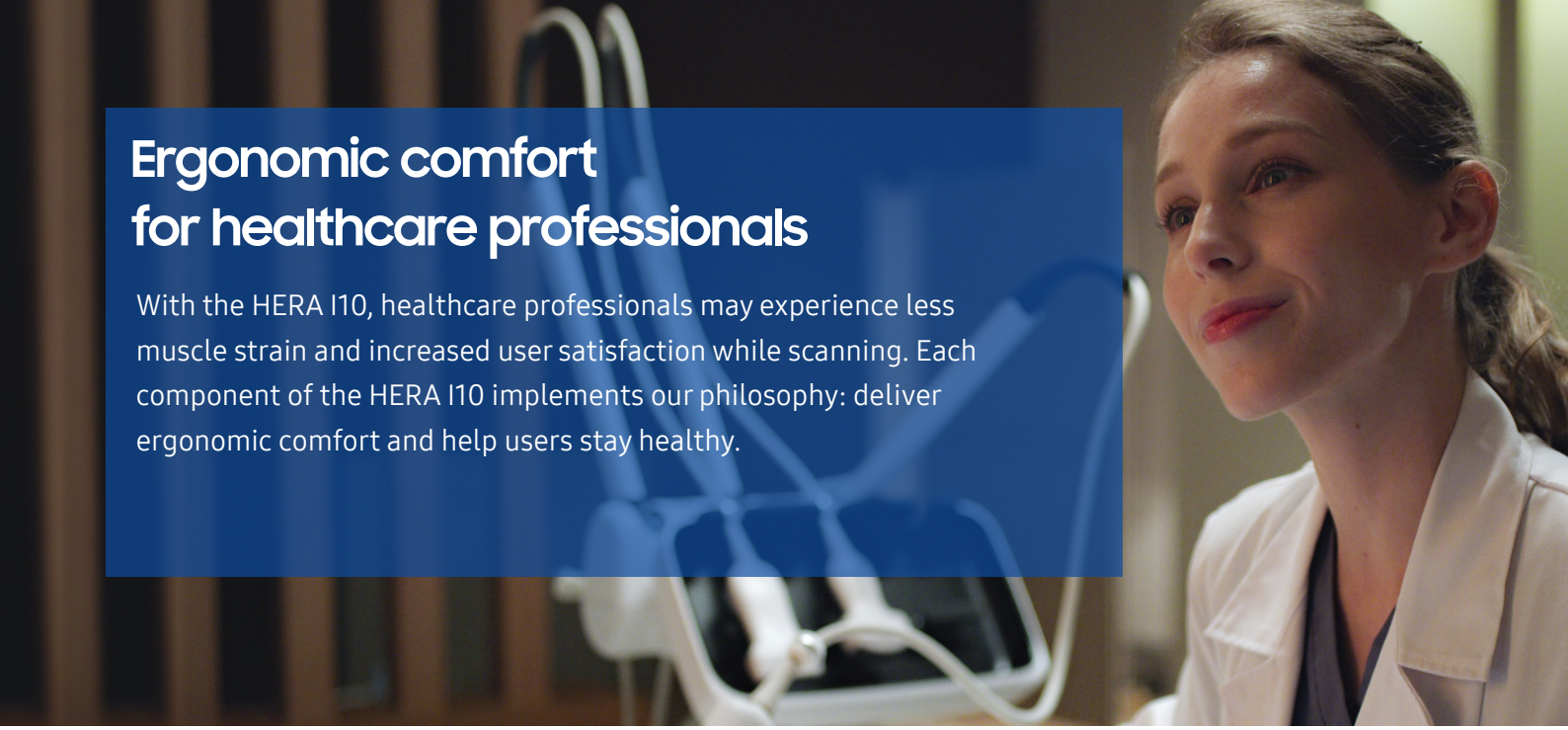
Transducer Cable Support



Stirrups for Foot Placement
(Lithotomy Position)

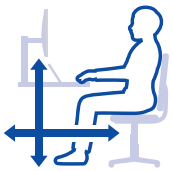
Transducer Cable Management

* The Built-in Chair (iChair) displayed with HERA I10 is an independent product designed to be compatible with HERA I10.



Ergonomic comfort for healthcare professionals

With the HERA I10, healthcare professionals may experience less muscle strain and increased user satisfaction while scanning. Each component of the HERA I10 implements our philosophy: deliver ergonomic comfort and help users stay healthy.



Ample Leg Room & Relieved Muscle Strain

The conventional location of the system electronics is located at the backside of the Built-in Chair (*iChair) to offer plenty of leg room for the examiner. The Transducer Cable helps decrease muscle strain, reduces peak pulling force and wrist burden. The cable is coming from a higher position instead of a lower position like in conventional system, thus making the transducer feel lighter in operation.

⇩ 13.2%

** Decreased Muscle Activity [2]
for ultrasound scan task

⇩ 82.3%

** Less Peak Pulling Force [2]
for vaginal scan setting

⇩ 52.5%

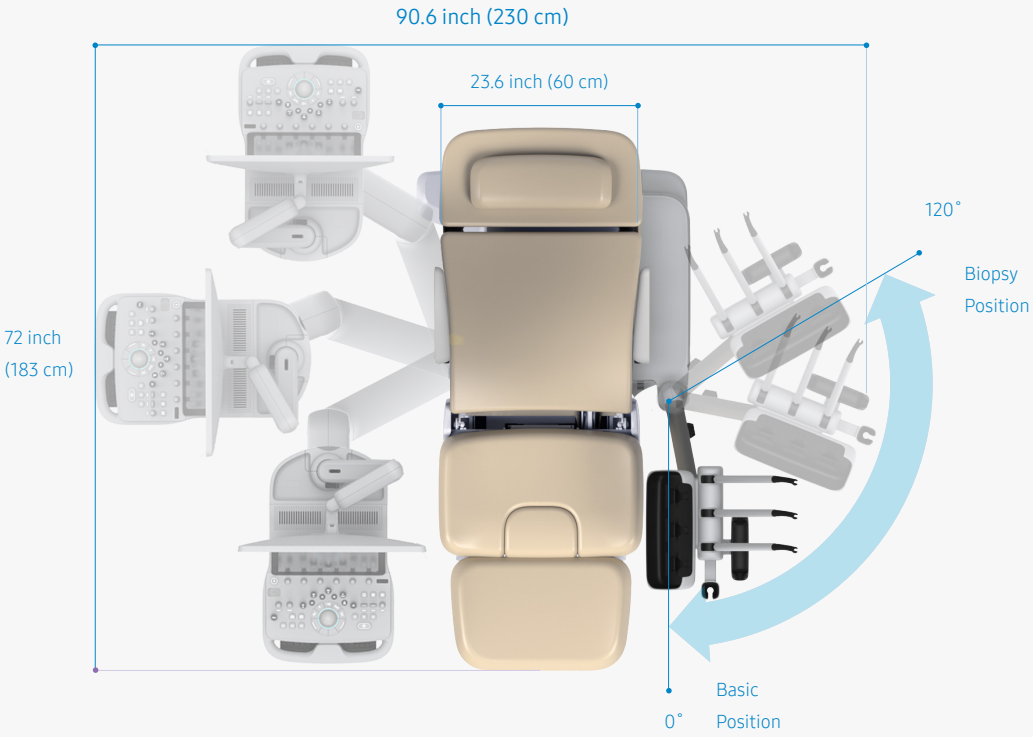
** Reduced Wrist Burden [3]
for using transduer

* The Built-in Chair (iChair) displayed with HERA I10 is an independent product designed to be compatible with HERA I10.

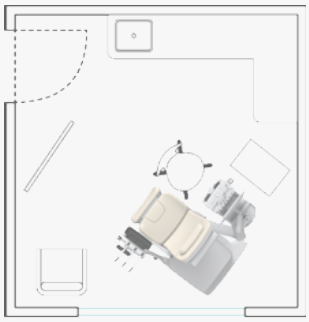
** Compared to the Samsung WS80A

HERA I10 Dimensional Information

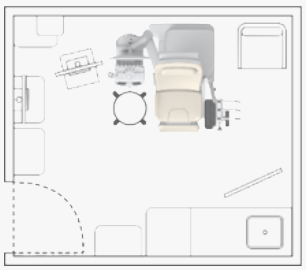
Maximum Size : Length 7.5ft (230cm) x Width 6ft (183cm) x Height 5.7ft (175cm)



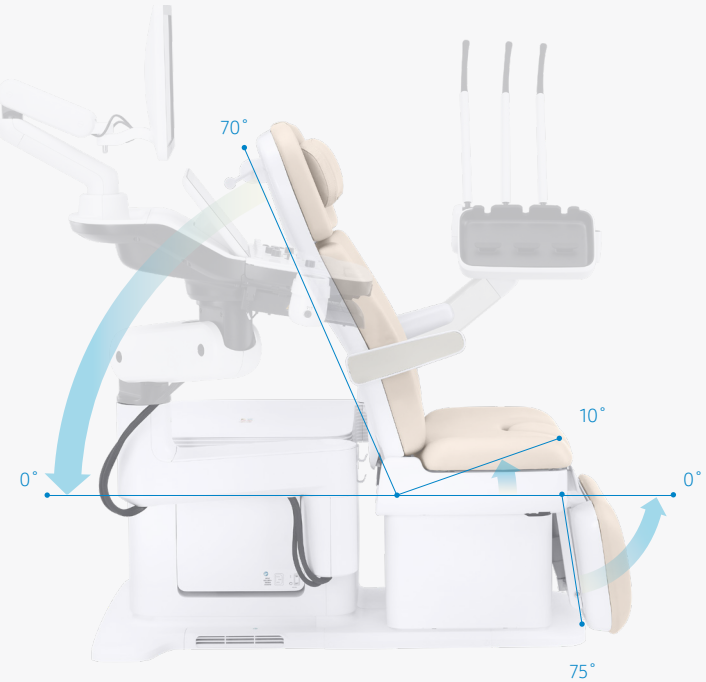
Room Layout 1 11.8 ft x 11.8 ft

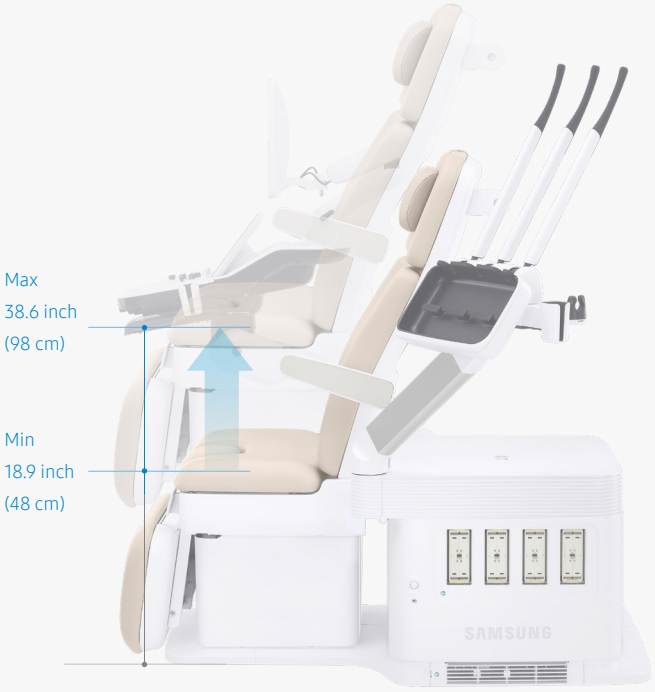


Room Layout 2 11.8 ft x 10.2 ft



Fully automatic chair movement, wheel chair accessible seat height





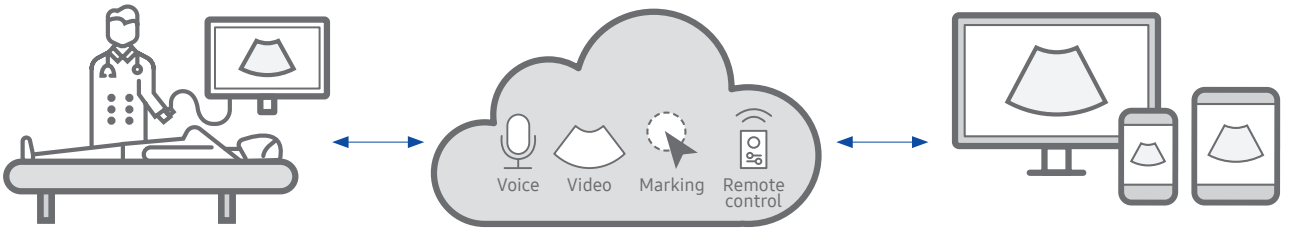
Effective real-time collaboration, customizable for the way you work

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™ [1,4]

Real-time image sharing solution

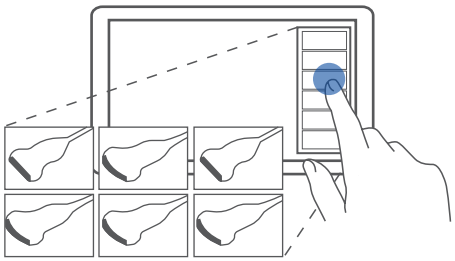
SonoSync™ is a real-time ultrasound image sharing solution that allows voice communication and remote controllability for effective collaboration between physicians and sonographers at different locations. Apart from these, SonoSync™ has several other elegant features like marking, invitation, still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

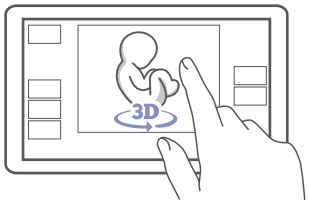


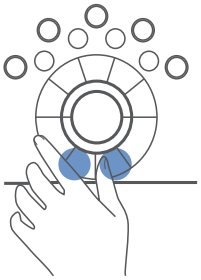
HelloMom™ [1]

Simple transfer of fetal ultrasound images and clips

HelloMom™ is a simple and secure image sharing solution by generating QR code for the selected fetal images. Pregnant women and family are capable of downloading images of fetus by scanning on the QR code using smartphone, reducing the hassle of installing a separate application.







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 Gesture
for your preferences

Touch Gesture intuitively allows to rotate, zoom and move while viewing the 3D image from the touch screen. In addition, 3D manipulations such as Oblique, MagiCut, etc. are conveniently operated.

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.

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