# HERA Z20

## Empowering women with vision

SAMSUNG

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# Empowering women with vision

HERA Z20 is inspired by the spirit of hospitality and protection embodied in the Greek word "Zena," establishing groundbreaking ultrasound equipment for women's health. Samsung proudly presents this innovation as the new standard in women's health.

HERA Z20 excels with diverse patient types, offering tailored 2D, 3D, and color imaging to meet individual needs. Its integrated AI and automated features enhance diagnostic accuracy and efficiency, enabling healthcare professionals to focus more on patient care.

Designed with both functionality and aesthetics in mind, HERA Z20 ensures comfortable and efficient operations. It alleviates the workload of busy healthcare professionals, providing a clear and confident ultrasound experience. HERA Z20 is where innovative technology and the spirit of hospitality converge to advance women's health.

HERA Z20 — where visionary technology blends with the nurturing spirit of hospitality, empowering women's health for a healthier future.

## Key benefits

**Crystal-clear, exquisite image quality**

**Workflow efficiency and diagnostic accuracy with AI**

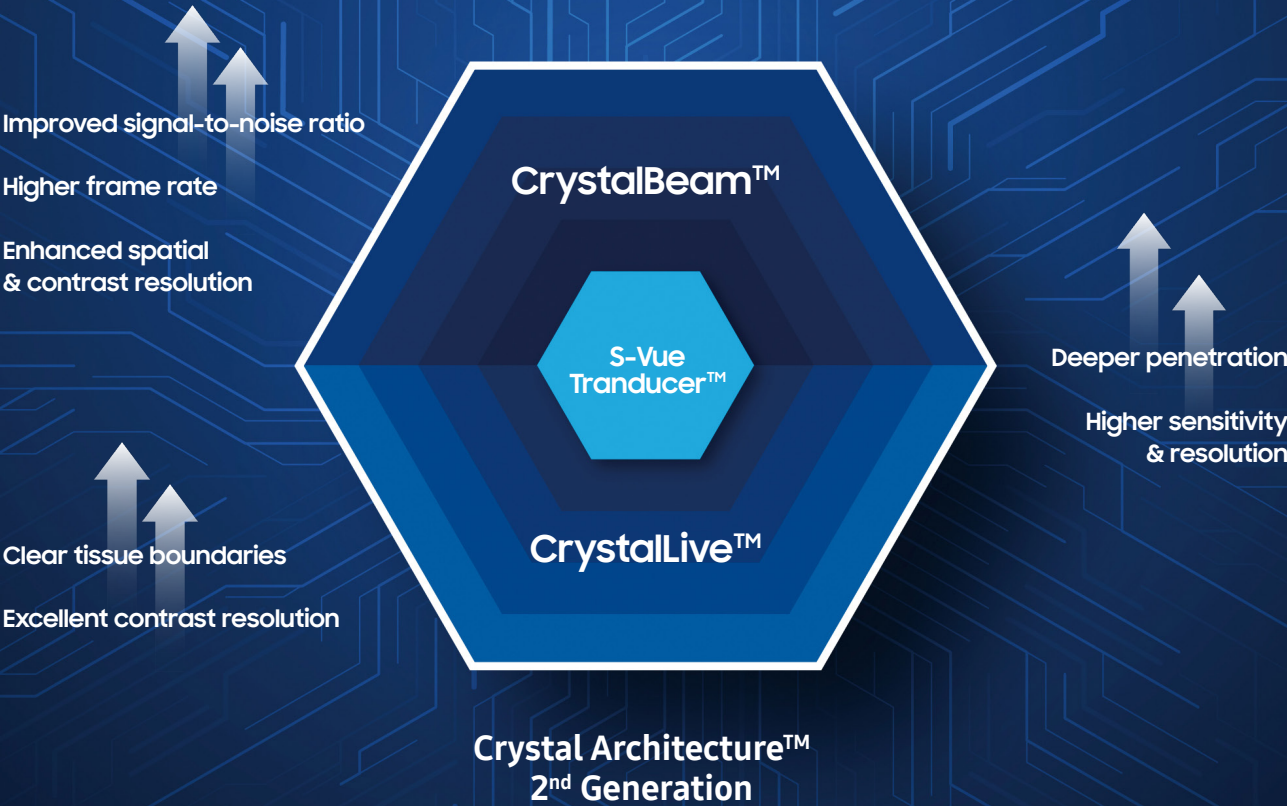**Redefining user's experience with customized solutions**

**Abundant women's health solutions for every stage**

# Crystal-clear, exquisite image quality

**Crystal Architecture™** 2nd Gen, the next-generation imaging architecture combines the strengths of CrystalBeam™ and CrystalLive™ technologies with the latest advancements in S-Vue Transducer™. This enhanced architecture is engineered to deliver crystal-clear images with unprecedented clarity and detail.

Improved signal-to-noise ratio

Higher frame rate

Enhanced spatial
& contrast resolution

Clear tissue boundaries

Excellent contrast resolution

**CrystalBeam™**

**S-Vue Tranducer™**

**CrystalLive™**

Deeper penetration

Higher sensitivity
& resolution

**Crystal Architecture™
2nd Generation**

## Visualize microvascular structures in 3D-like display

**MV-Flow™**[1] visualizes microcirculatory and slow blood flow to display the intensity of blood flow. It is suitable for observation of microcirculatory blood flow and volume of slow blood flow.

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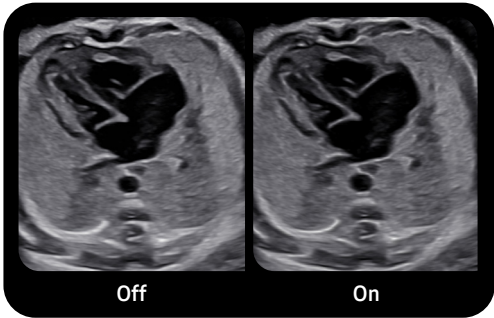
**High
Sensitivity**

+

**High
Resolution**

Pericallosal artery with MV-Flow™[1]

## Visualize the boundary in 3D-like display

**Luminant™** is a function that visualizes the boundary of a 2D image in three dimentional-like to help understand the boundary of structures such as the fetal heart or brain.


Off          On

## Enhance hidden structures in shadowed regions

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


Off          On
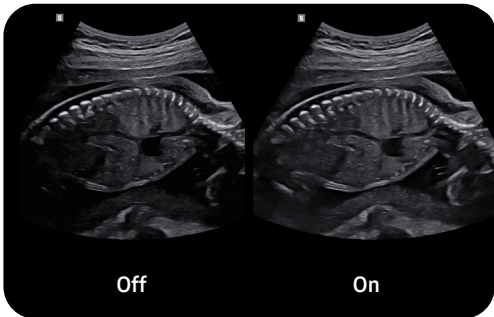
## Restore blurry or obscured parts of the fetus's face

**PortraitVue™** is a feature that analyzes 3D ultrasound images to predict the fetal face and virtually restores blurry or obscured parts of the fetus's face.

\* This feature is not a diagnostic function,
  but rather for an entertaining purpose to the mother.


Off          On
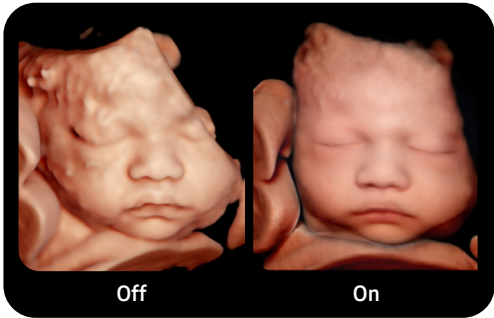
## Express 3D anatomy in detail and realistic view

**RealisticVue™**[1] displays high resolution 3D anatomy with detailed expression and realistic depth perception. User selectable light source direction creates intricately graduated shadows for better defined anatomical structures.



## Visualize internal and external structures using volume rendering

**CrystalVue™**[1] 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.
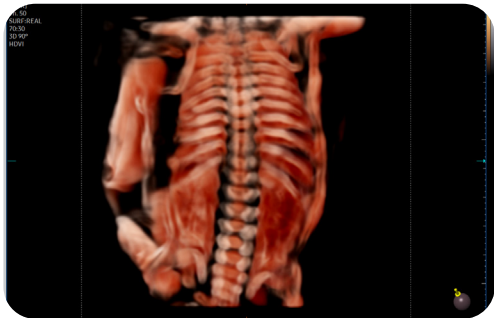
## Workflow efficiency and diagnostic accuracy with AI

Experience the future of healthcare with our state-of-the-art AI tools, designed to automate real-time classification and measurement tasks, enhancing diagnostic precision and confidence. With a single press of a button, HERA Z20 streamlines repetitive tasks, empowering healthcare professionals to deliver unparalleled patient care and optimize overall workflow efficiency.

### Automatic classification, annotation, and measurement of structures in real-time

**Live ViewAssist™**[1] is a feature based on Deep Learning technology, that automatically classifies ultrasound images in real-time and provides annotation of structures and measurement results.

**Reduced Scan Time**

**Minimize user dependency**
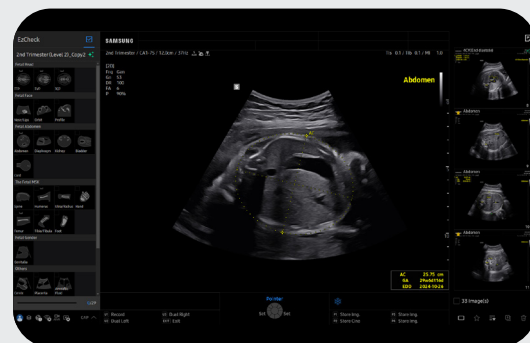
### Automatic structure segmentation for your desired view instantly

**EzVolume™**[1] is a feature based on AI technology that automatically segments the structures of the fetus in the acquired 3D image and allows the user to selectively view the structures they want. In addition, the user can intuitively view the desired 3D image by changing the color of each structure and adjusting transparency.

Render mode        EzVolume™ on
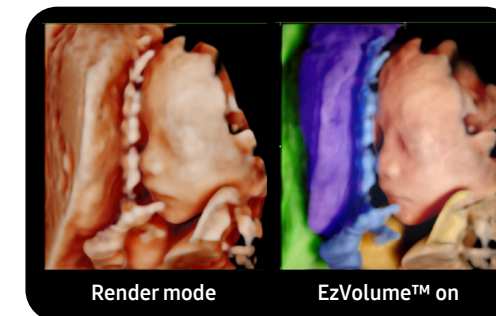
### Measure the size and shape of the uterus with AI technology

**UterineAssist™**[1], a feature based on Deep Learning technology, automatically measures the size and shape of the uterus, which helps in finding signs of uterine-related abnormalities, and also reduces scan time.
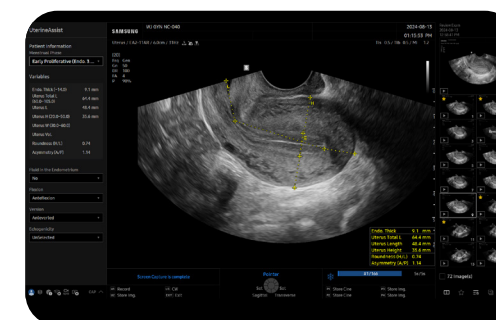
### An automated reporting tool for fetal heart diagnosis

**HeartAssist™**, a feature based on Deep Learning technology, provides automatic classification of ultrasound image into measurement views required for heart diagnosis and provides measurement results.

### An automated fetal biometry measurement

**BiometryAssist™**, a feature based on Deep Learning technology, is an automatic technology for biometric measurement. It enables users to measure the fetal growth parameters with one click while maintaining exam consistency.

### A feature to extract the centerline and thickness of endometrium

**UterineContour™**, a feature based on Deep Learning technology, is to help in identifying uterine malformation. It 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
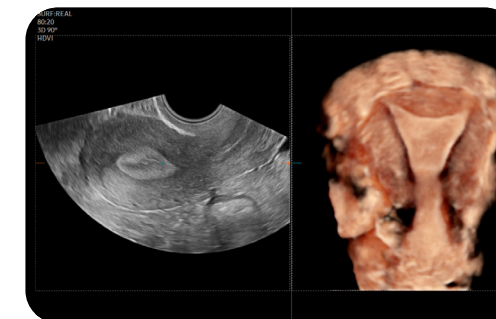
# Redefining user's experience with customized solutions

HERA Z20 offers user-centric features that significantly enhance workflow and maximize ease of use. Customizable settings provide a tailored experience for each user, ensuring efficiency at every step. With the convenience of a single button touch, users can obtain optimal images across various modes, simplifying procedures and consolidating multiple actions into one seamless process.

# Abundant women's health solutions for every stage

HERA Z20 offers comprehensive analysis tools that provide quick and accurate insights across every stage of women's health, including fertility care, fetal diagnosis, labor & delivery, and breast & gynecological care. Our tech-savvy features are designed to empower you to care with confidence, facilitating informed and comforting decisions.
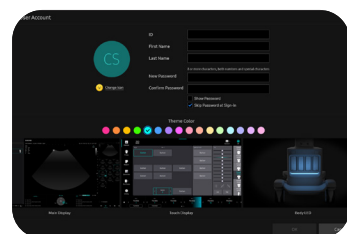
## Ultrasound made personal with user account

MyHERA™ offers a customized user experience, including user environment settings and individual system settings, supporting to maximize ease of use.
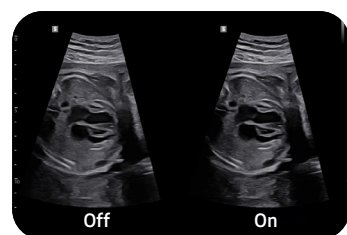
## One-button solution for optimal 2D image settings

EzStructure™ quickly provides optimal 2D images of specific areas of the fetus by simply clicking one button.

Off / On
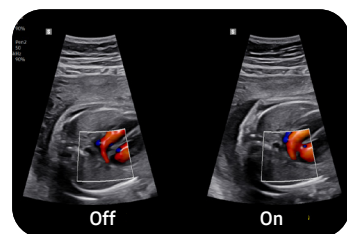
## One-button solution for optimal color and PW Image settings

EzFlow™ streamlines Color and PW image optimization by fine-tuning imaging parameters, with one click of a button. This enables the quick acquisition of optimal images for especially vascular structures, enhancing workflow for routine inspections.
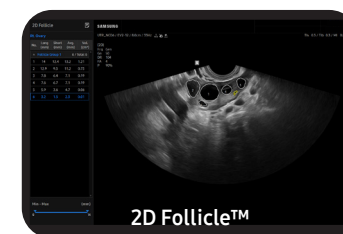
Off / On
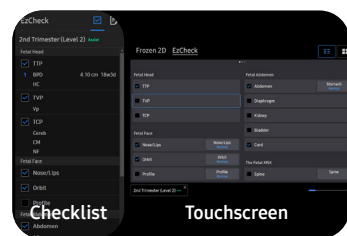
## Flag missing items

EzCheck™ helps to check whether the views and appearance check items that are recommended by the ISUOG guidelines have been acquired. This helps the users to track the not acquired items in real time.

Checklist / Touchscreen

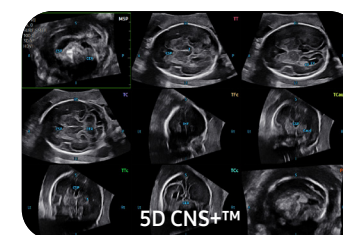### Fertility care

#### Family planning
- 2D Follicle™[1]
- 5D Follicle™[1]
- UterineAssist™
- UterineContour™

2D Follicle™

### Fetal diagnosis

#### Healthy pregnancy
- 5D CNS+™[1]
- 5D Heart Color™[1]
- Live ViewAssist™[1]
- HeartAssist™
- 5D Limb Vol.™[1]
- MPI+
- BiometryAssist™

5D CNS+™

### Labor & Delivery

#### Healthy birth
- E-Cervix™[1]
- LaborAssist™[1]

LaborAssist™ Animation

### Breast & Gynecology

#### Gynecologic health
- S-Detect™ *for Breast*[1]
- E-Strain™
- IOTA-ADNEX[1]
- IOTA-SRrisk[1]

IOTA-SRrisk

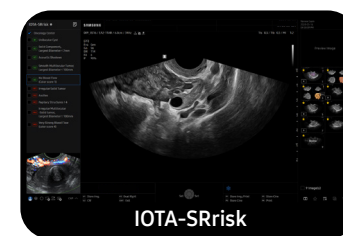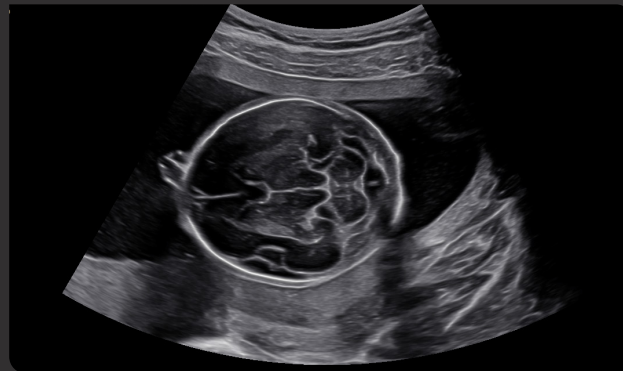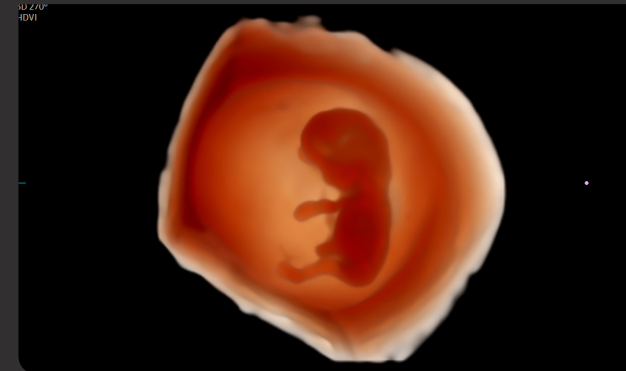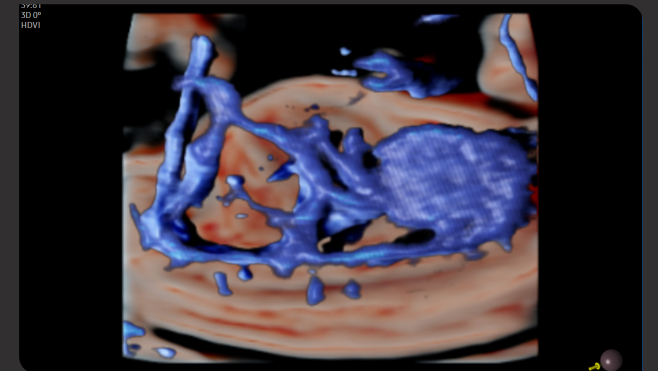# Image gallery


Fetal brain TCV view


Fetal abdomen


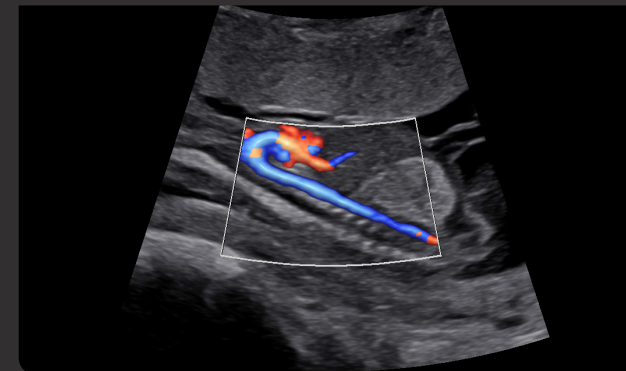1st trimester in CrystalVue™[1]


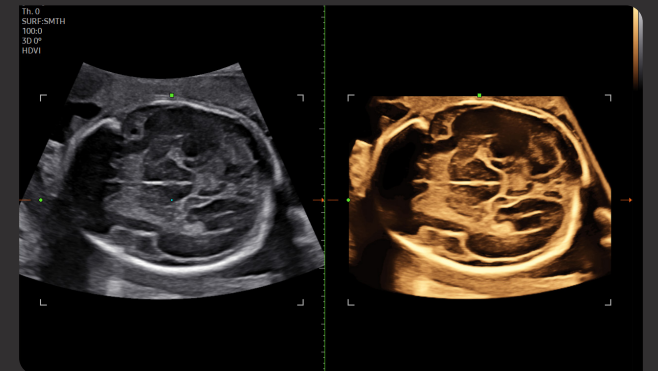Fetal circulation with MV-Flow™[1] 3D


Complexed fetal heart anomaly


Fetal heart with Luminant™
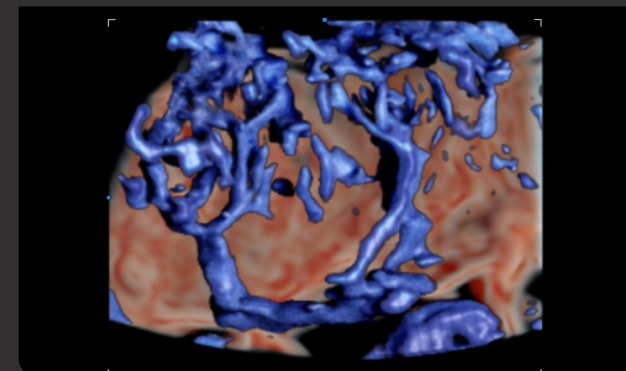

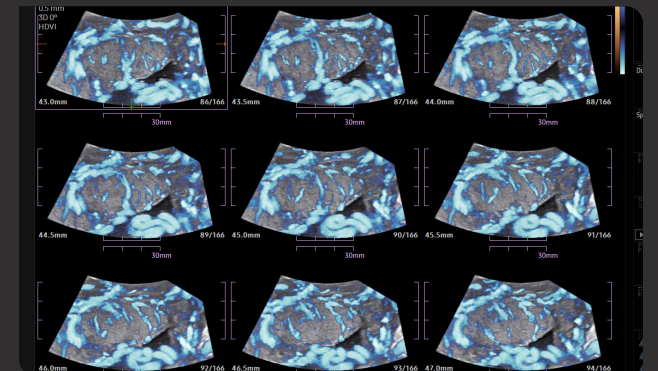1st fetal heart aortic arch view with S-Flow™
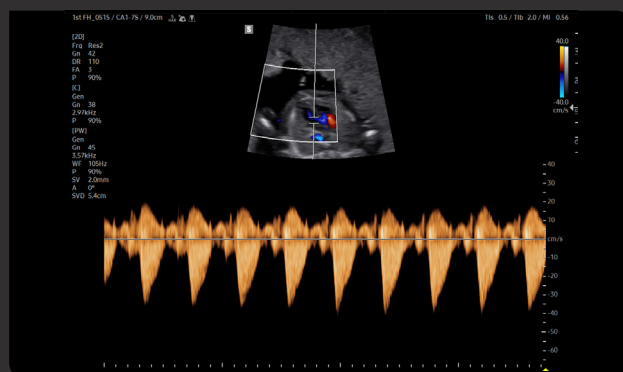

Fetal CNS in SliceA[1]


Fetal heart with MV-Flow™[1]


Fetal heart in MV-Flow™[1]
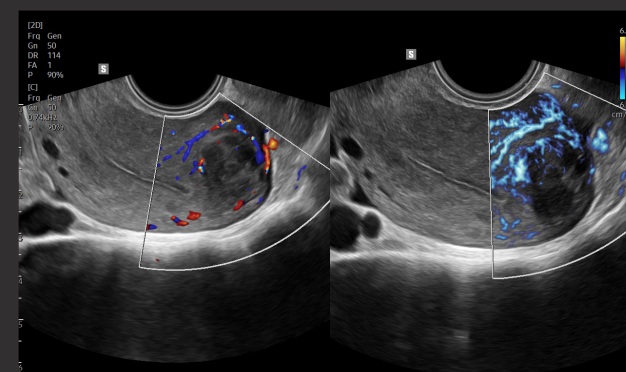

Placental villous tree with MV-Flow™[1] 3D


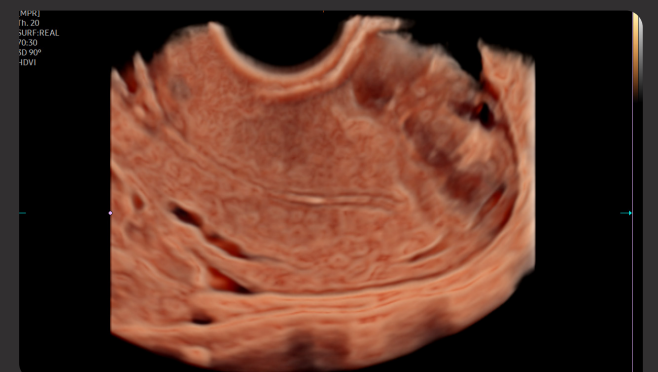Placenta with MV-Flow™[1] 3D in MSV mode


Fetal heart LVOT Doppler


Ductus venosus Doppler


Myoma with Color and MV-Flow™[1]


Uterine myoma with CrystalVue™[1]

# Pursuing professional grace in the ultrasound system

Samsung dedicated extensive thought to engineering for healthcare professionals. How can we integrate professional grace into the workflow setup? How can we infuse the machine with a patient-caring tone? HERA Z20 was created with these considerations in mind, respecting the virtues upheld by healthcare professionals.



27 inch

**27" OLED Monitor with deep black color rendition**



15.6 inch

**15.6" tilting touchscreen**



**Lock the wheels easily with the button, allowing you to move the equipment conveniently**



**Wide moving range of control panel for flexible movement and posture**



**Effective design reduces heat and fan noise**



**Emotional LED lighting for visibility in dark environment**



**Ample knee space for comfortable position**



**Two-level adjustable new gel warmer to warm the gel**

## Real-time image sharing solution

**SonoSync™**[1] is a real-time ultrasound live-streaming solution with remote controllability from a smart device. The remote control gives access of the control panel and touch screen from a smart device, which enables care guide and training between the healthcare professionals. In addition, voice chatting, text chatting, video conference, and real-time marking are provided for efficient communication.

* SonoSync™ is a function for image sharing, not for diagnosis.



Voice  Video  Marking  Remote control

Network

Ultrasound System

PC / Tablet / Smartphone
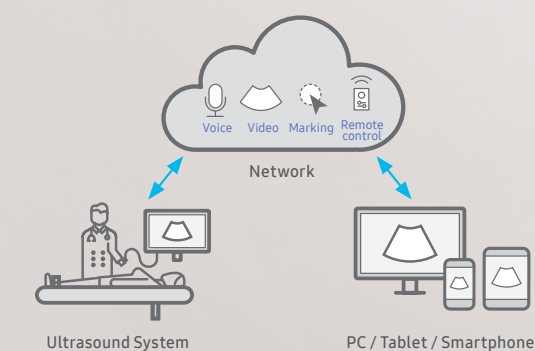
# Comprehensive selection of transducers

## Volume transducers



S-Vue Transducer™
CMV1-10

Abdomen, Obstetrics, Gynecology, Urology

S-Vue Transducer™
CV1-8A

Abdomen, Obstetrics, Gynecology, Urology

S-Vue Transducer™
EV2-12

Obstetrics, Gynecology, Urology

## Curved array transducers

S-Vue Transducer™
CA1-7S

Abdomen, Obstetrics, Gynecology, Musculoskeletal, Pediatric, Vascular, Urology

S-Vue Transducer™
CA3-10A

Abdomen, Obstetrics, Gynecology, Musculoskeletal, Pediatric, Vascular, Urology

## Linear array transducer

LM2-18

Abdomen, Musculoskeletal, Small Parts, Vascular, Obstetrics, Pediatric

## Endocavity transducers

EA2-11AR

Obstetrics, Gynecology, Urology

EA2-11AV

Obstetrics, Gynecology, Urology

## CMV1-10 matrix transducer

Exceptional image quality starts with cutting-edge transducer technology. Utilizing advanced matrix array technology, CMV1-10 helps healthcare professionals with high-resolution and penetration imaging. Samsung transducer enhances performance across 2D, 3D, and color imaging, ensuring precise diagnoses.
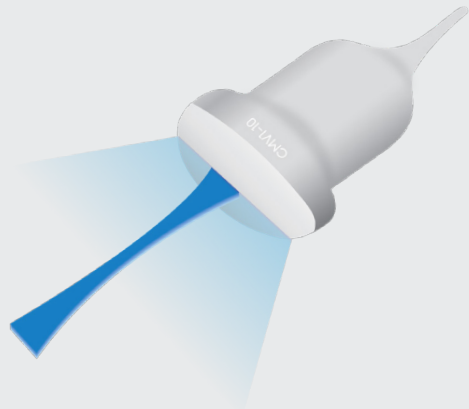
**Higher resolution** + **Deeper penetration** + **Light weight**

# Changes Start from Small Steps

HERA Z20, meticulously crafted from eco-conscious components, exemplifies our unwavering commitment to environmental sustainability and healthcare. By incorporating recycled resin and eco-conscious paper packaging, we are proud to reduce carbon footprints, revealing our dedication to healthcare innovation and ecological responsibility. HERA Z20 not only cares for you and your patients but also for the planet we all share.
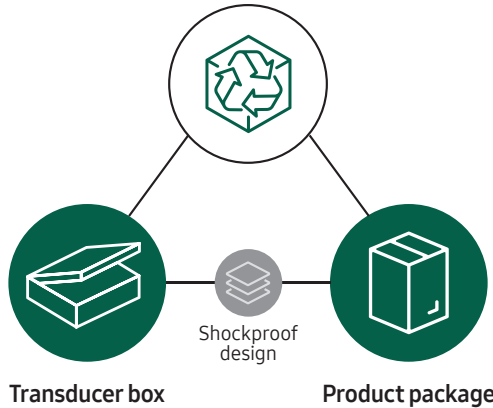
## 50%
Recycled resin applied on the system body
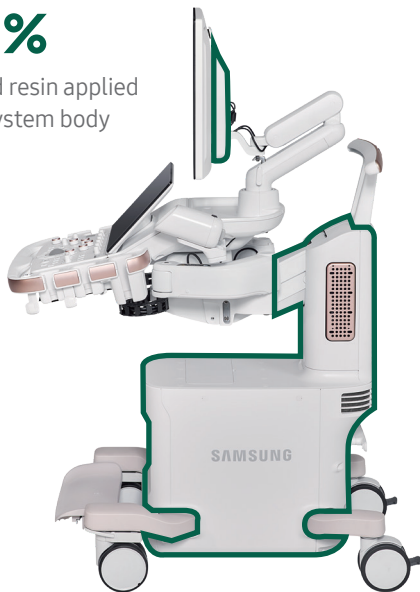
## 100%
Eco-conscious paper packaging with specially engineered shockproof design

Transducer box — Shockproof design — Product package

# Samsung healthcare cybersecurity

To address the 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    Access control    Data protection    Learn more

## 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 may not be commercially available in some countries.
\* Sales and shipments are effective only after the approval by the regulatory affairs.
   Please contact your local sales representative 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.

1. Optional feature which may require additional purchase.

## SAMSUNG MEDISON CO., LTD.

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