SAMSUNG

# HERA Z20

## Empowering women with vision

Learn more

# 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.

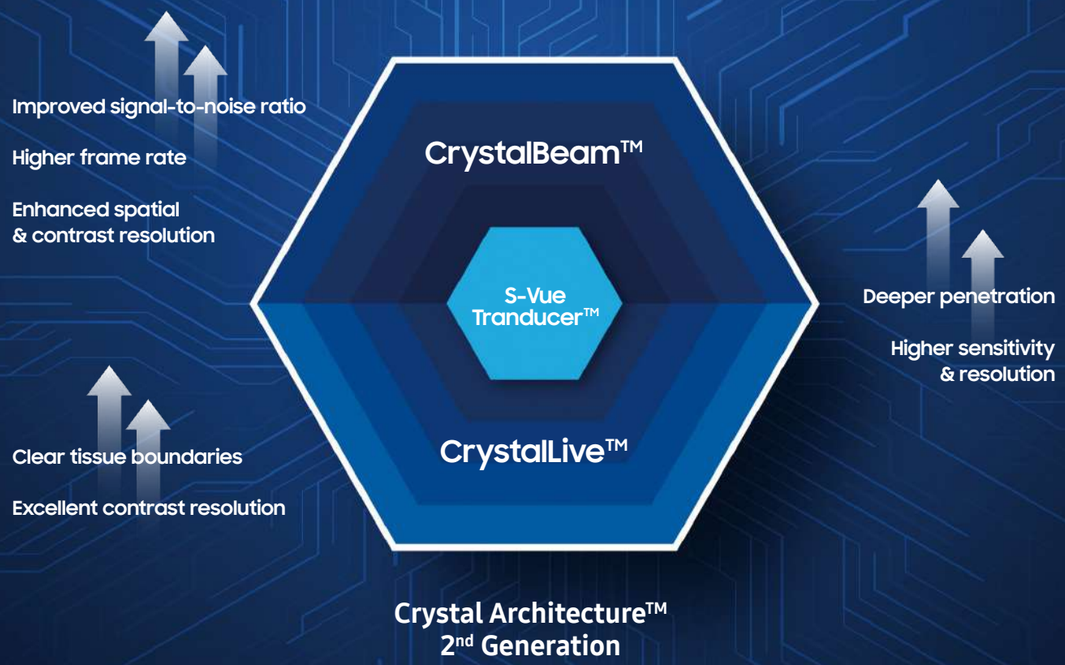
HERA Z20 — where visionary technology blends with the nurturing spirit of hospitality, empowering women’s health for a healthier future.

## 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

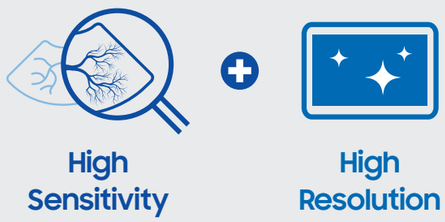
**Crystal Architecture™** 2nd Gen, the next-generation imaging architecture combines the strengths of CrystalBeam™ and CrystalLive™ technologies with the latest advancements in S-Vue Transducer™. This enhanced architecture is engineered to deliver crystal-clear images with unprecedented clarity and detail.

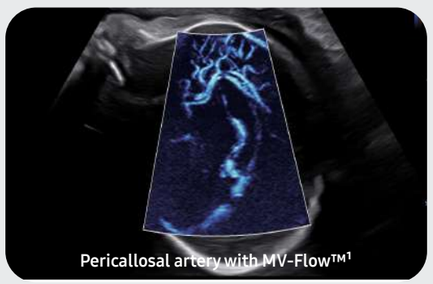



## Visualize microvascular structures in 3D-like display

**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.

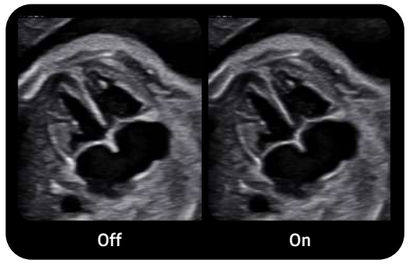
**LumiFlow™** is a function that visualizes blood flow in three dimensional-like to help understand the structure of blood flow and small vessels intuitively.





Pericallosal artery with MV-Flow™[1]

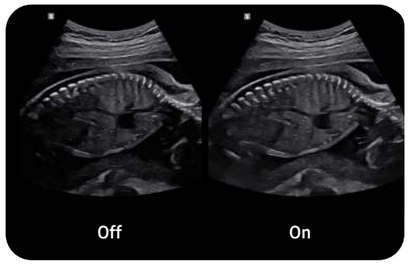
## Visualize the boundary in 3D-like display

**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.




## Enhance hidden structures in shadowed regions

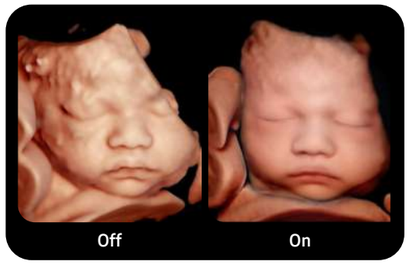
**ShadowHDR™** selectively applies high-frequency and low-frequency of the ultrasound to identify shadow areas such as fetal head or spine where attenuation occurs.




## 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.




## 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

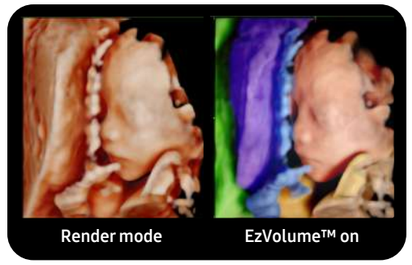
**Live ViewAssist™**[1] is a feature based on Deep Learning technology, that automatically classifies ultrasound images in real-time and provides annotation of structures and measurement results.

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.

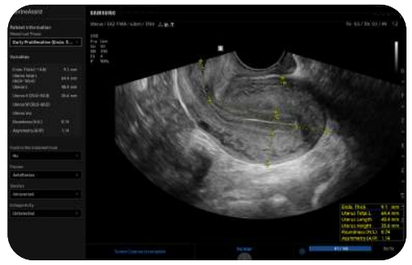



## An automated fetal biometry measurement with AI technology

**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.

## Measure the size and shape of the uterus with AI technology

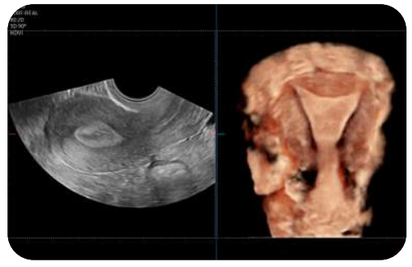
**UterineAssist™**[1], a feature based on Deep Learning technology, automatically measures the size and shape of the uterus, which helps in finding signs of uterine-related abnormalities, and also reduces scan time.



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

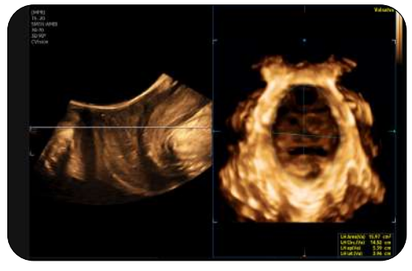
**UterineContour™**, a feature based on Deep Learning technology, is to help in identifying uterine malformation. It automatically extracts the centerline and thickness of the curved endometrium and provides a coronal view in 3D, flattened by the centerline. In addition, uterine malformation classification 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



## NEW Automatic analysis of pelvic floor with AI technology

**PelvicAssist™**[1], a feature based on AI technology, helps identify anatomical structures and dysfunction of the Pelvic floor through structural analysis and automatic measurement, and it is provided with a streamlined workflow.

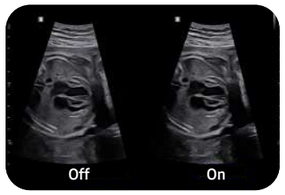


# Redefining user's experience with customized solutions

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.

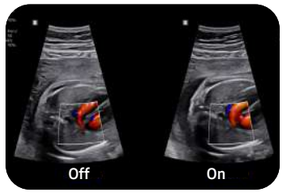
## Ultrasound made personal with user account

**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.




## 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.

## 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.

## NEW Ensuring clinical standards with AI

**QualityCheck** is a feature based on AI technology to assess whether the views acquired during prenatal ultrasound examinations meet clinical standards. It provides Quality Criteria to assist users in detecting with appropriate criteria and maintaining image quality consistency. This feature applies not only to Live ViewAssist™ but also to manually acquired views, thus enhancing its utility across various clinical situations.

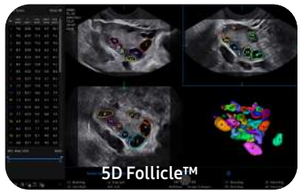
# Abundant women's health solutions for every stage

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.

**Fertility care**

## Family planning

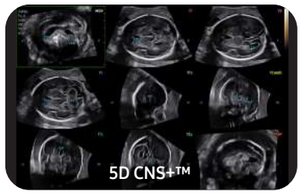
- 2D Follicle™[1]
- 5D Follicle™[1]
- UterineAssist™
- UterineContour™




**Fetal diagnosis**

## Healthy pregnancy

- 5D CNS+™[1]
- 5D Heart Color™[1]
- Live ViewAssist™[1]
- HeartAssist™
- BiometryAssist™
- 5D Limb Vol.™[1]
- 5D NT™[1]
- MPI+
- NEW QualityCheck




**Labor & Delivery**

## Healthy birth

- E-Cervix™[1]
- LaborAssist™[1]

**Breast & Gynecology**

## Gynecologic health

- S-Detect™ *for Breast*[1]
- E-Strain™
- E-Breast™
- IOTA-ADNEX[1]
- IOTA-SRrisk[1]
- NEW IDEA (International Deep Endometriosis Analysis)
- NEW IETA (International Endometrial Tumor Analysis)
- NEW EzPictogram™
- NEW PelvicAssist™[1]

# Image gallery

Fetal brain TCP view

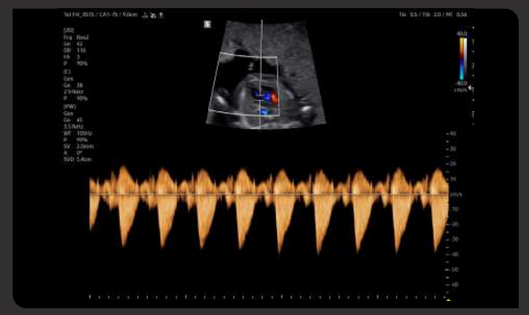
Fetal abdomen

Complexed fetal heart anomaly

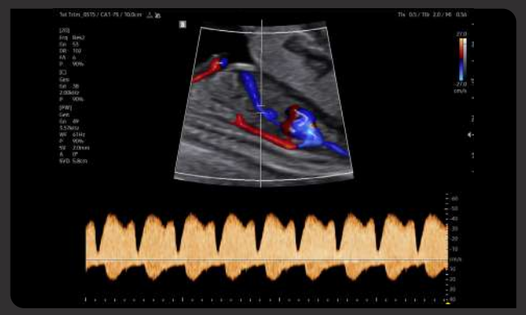
Fetal heart with Luminant™

Fetal heart with MV-Flow™[1]

Fetal heart with MV-Flow™[1]

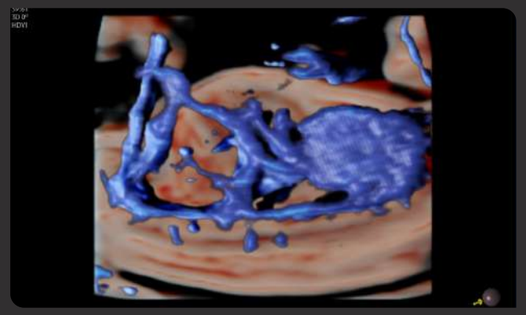


Fetal heart LVOT Doppler



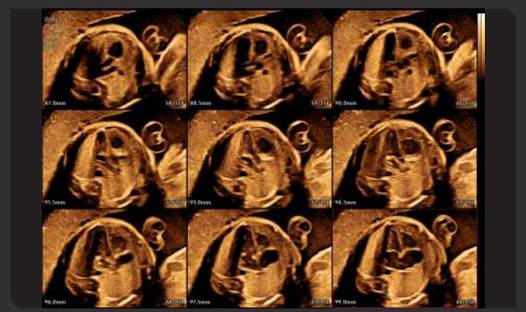
Ductus venosus Doppler

1st trimester in CrystalVue™[1]

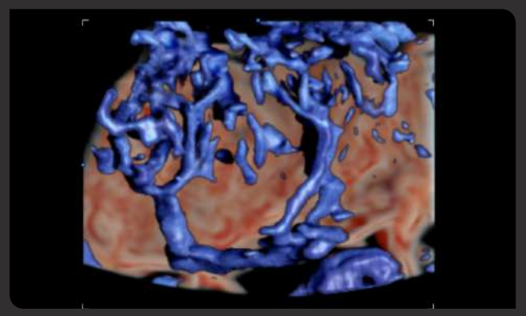


Fetal circulation with MV-Flow™[1] 3D

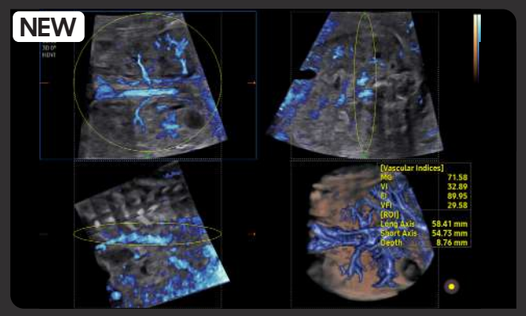
1st fetal heart aortic arch view with S-Flow™



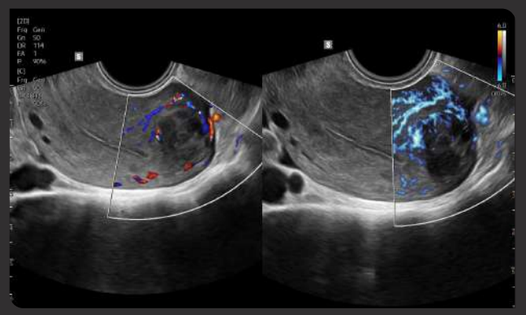
Fetal heart in MSV



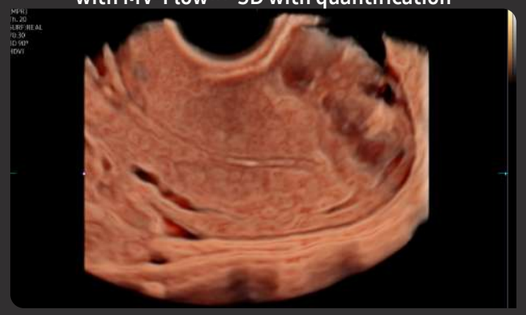
Placental villous tree with MV-Flow™[1] 3D




Renal arteries and abdominal aorta in coronal plane with MV-Flow™[1] 3D with quantification



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" OLED Monitor with deep black color rendition**

**15.6" tilting touchscreen for optimal viewing**

**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**

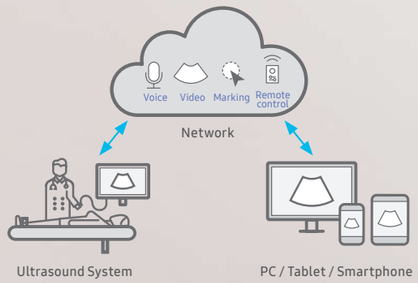
**Ample knee space for comfortable position**

**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.



# Comprehensive selection of transducers

## Volume transducers

Abdomen, Obstetrics, Gynecology, Urology

Abdomen, Obstetrics, Gynecology, Urology

Obstetrics, Gynecology, Urology

## Curved array transducers

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

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

* Sensor implemented

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

Abdomen, Pediatric, Vascular, TCD

## Linear array transducers

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

Abdomen, Small Parts, Pediatric, Vascular, Musculoskeletal

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

Small Parts, Musculoskeletal, Vascular, Pediatric

Small Parts, Musculoskeletal, Vascular, Pediatric, Intraoperative

## Endocavity transducers

Obstetrics, Gynecology, Urology

Obstetrics, Gynecology, Urology

* Sensor implemented

Obstetrics, Gynecology, Urology

Obstetrics, Gynecology, Urology

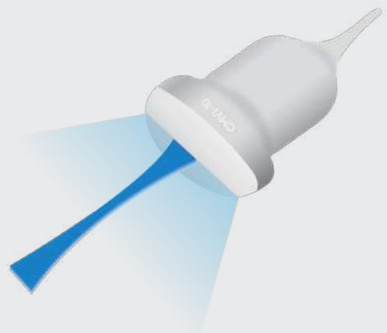
## Phased array transducer

Abdomen, Cardiac, Pediatric, Vascular, TCD, Thoracic

## CMV1-10 matrix transducer

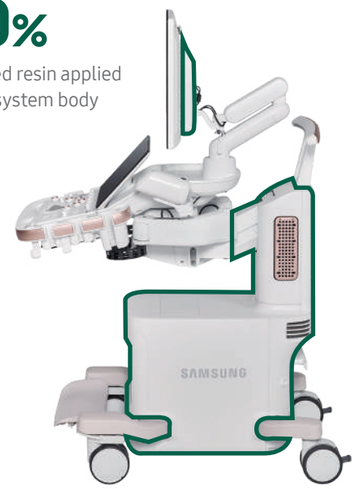
Exceptional image quality starts with cutting-edge transducer technology. Utilizing advanced matrix array technology, CMV1-10 helps healthcare professionals with high-resolution and penetration imaging. Samsung transducer enhances performance across 2D, 3D, and color imaging, ensuring precise diagnoses.

**Higher resolution** + **Deeper penetration** + **Light weight**

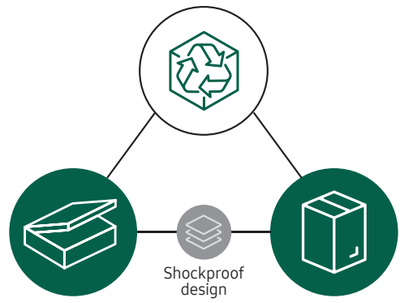


HERA Z20, meticulously crafted from eco-conscious components, exemplifies our unwavering commitment to environmental sustainability and healthcare. By incorporating recycled resin and eco-conscious paper packaging, we are proud to reduce carbon footprints, revealing our dedication to healthcare innovation 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



# 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.

CT-HERA Z20-v1.01-DesignStick-20250701-EN

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