Relentless Innovation
for your diagnostic confidence

SAMSUNG

R20

Deep Insight, Confident Decision

Visit website

The R20 is more than just an ultrasound system –
it is a comprehensive solution, meticulously designed to support healthcare professionals at every stage of patient care, from initial screening and diagnosis to intervention and beyond. With leading image quality, AI-enhanced clinical tools, effortless workflow, and intuitive, user-centric design, the R20 empowers healthcare professionals to focus on what matters most: delivering accurate and confident care. Additionally, the R20 offers tailored configurations that align with your specific operational needs. This advanced ultrasound system not only enhances the user experience but also sets a new standard of excellence in patient care, ensuring consistent quality from start to finish.

Key highlights

Leading-edge imaging for every care stage, all patients, everywhere

Equipped with a next-generation imaging engine, advanced GPU, and a wide OLED monitor, the R20 delivers outstanding performance and high-resolution images.

Strengthens every decision with intelligent clinical tools

Empowered by AI solutions and advanced tools,
the R20 enhances clinicians' confidence across various diagnostic scenarios.

Effortless workflow, focus more on patients

Automated functions drastically reduce exam time, while an intuitive, radiology-optimized UX/UI improves daily workflow and operational ease.

Designed for you, perfected for full-body imaging

With its intuitive layout, user-friendly interface, and refined design, the R20 is built to support clinicians across all applications and body types — enabling flexible scanning with confidence and comfort.

Leading-edge imaging for every care stage, all patients, everywhere

The R20 delivers exceptional image clarity—even in technically challenging cases and across diverse patient types. With optimized contrast, sharpness, and uniformity, it helps ensure reliable, high-resolution imaging for confident clinical decisions.

Advancing core imaging to new frontiers

3rd Harmonic

Reducing artifacts and revealing hidden details with clarity

Dynamic adaptive image processing

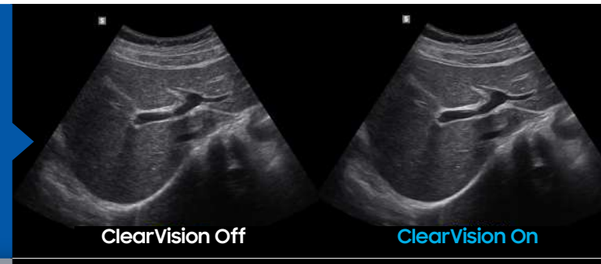
Uncompromised clarity –
both in motion and in real-time ultrasound

NextGen software beamforming

Achieve clear images from near to far areas
while ensuring excellent penetration

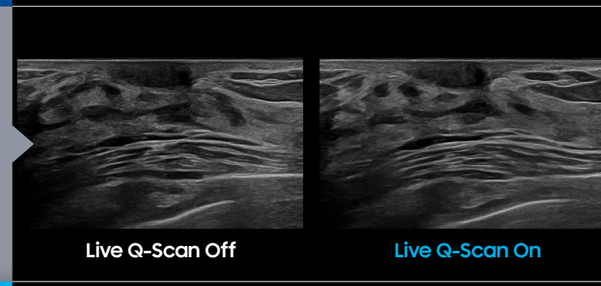
Noise reduction with edge enhancement

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.



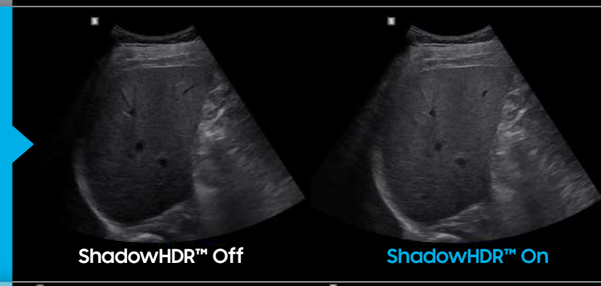
Auto optimization of B-mode image in real-time

Live Q-Scan during the scan, the brightness and uniformity of the B-mode image are automatically adjusted in real time to provide optimal image quality for each organ and region, helping to improve diagnosis and workflow.



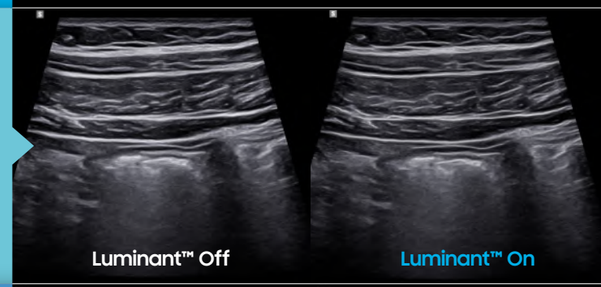
Unparalleled shadow suppression

ShadowHDR™ selectively applies high-frequency and low-frequency of the ultrasound to identify shadow areas such as intercostal space where attenuation occurs.



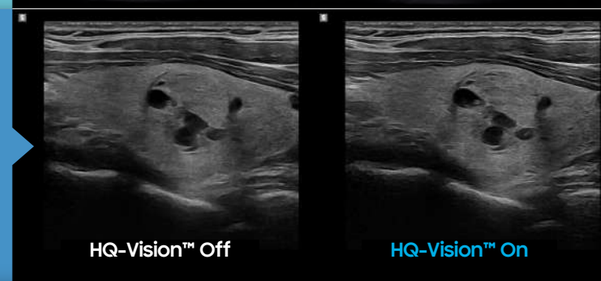
3D-like edge visualization for unmatched clarity

Luminant™ is a function that visualizes the boundary of a 2D image in three dimensional-like to help understand the boundary of structures.



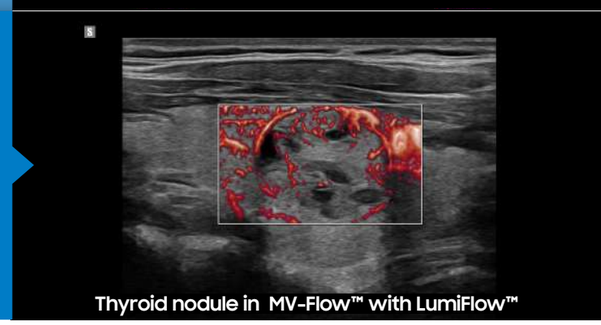
Blurry areas cleaned up instantly

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



Visualization of slow flow in microvascular structures

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.



Strengthens every decision with intelligent clinical tools

With real-time AI capabilities, the R20 delivers differentiated solutions for general imaging ultrasound. It highlights areas of interest during screening to reduce the risk of oversight and minimizes diagnostic variation across users — enhancing clinical confidence regardless of experience level.

Abdomen

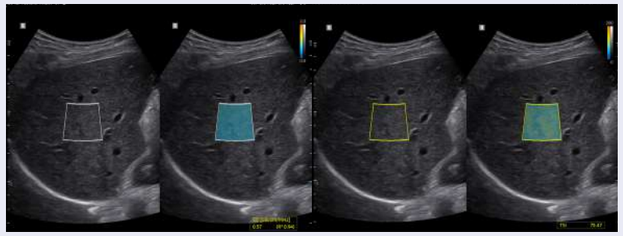
Real-time AI. Smart detection of liver regions of interest

Live LiverAssist™[1], a feature based on Deep Learning technology, detects interested areas in real-time during liver scanning and displays the location of lesions to assist healthcare professionals in diagnosis.

Quantitative measurement of liver fat

TAI™[1] **(Tissue Attenuation Imaging)** provides quantitative tissue attenuation measurement to assess steatotic liver changes.

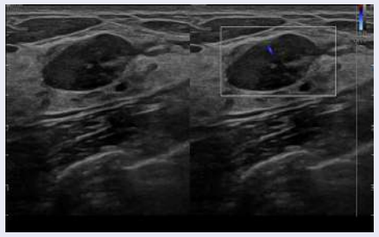
TSI™[1] **(Tissue Scatter distribution Imaging)** provides quantitative tissue scatter distribution measurement to assess steatotic liver changes.



Breast

Real-time AI. Smart detection of breast regions of interest

Live BreastAssist™[1], a feature based on Deep Learning technology, detects interested areas in real-time during breast scanning and displays the location of lesions to assist healthcare professionals in diagnosis.



Precise breast assessment tool

S-Detect™[1] *for breast*, the feature, which analyzes selected lesions in the breast ultrasound study and shows the analysis data, applies BI-RADS ATLAS* (Breast Imaging-Reporting and Data System, Atlas) to provide standardized reporting; and helps diagnosis with the streamlined workflow.

* It is a registered trademark of ACR and all rights reserved by ACR.

Thyroid

Precise thyroid assessment tool

S-Detect™[1] *for thyroid*, the feature, which analyzes selected lesions in the thyroid ultrasound study and shows the analysis data, provides standardized reporting based on the ATA, BTA, EU-TIRADS, K-TIRADS, and ACR TI-RADS guidelines; and helps diagnosis with the streamlined workflow

. ATA: American Thyroid Association
. BTA: British Thyroid Association
. EU-TIRADS: European Thyroid Imaging Reporting and Data System
. K-TIRADS: Korean Thyroid Imaging Reporting and Data System
. ACR TI-RADS: American College of Radiology, Thyroid Imaging

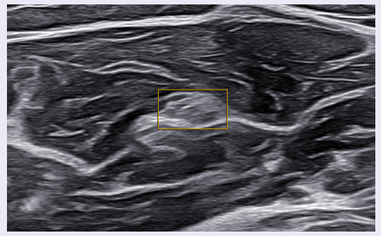
Musculoskeletal

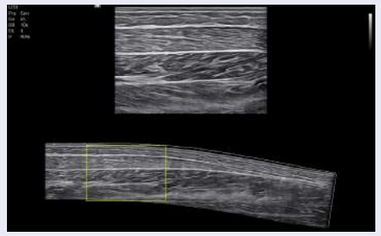
Real-time AI. Smart detection of nerve regions of interest

NerveTrack™[1], a feature based on Deep Learning technology, detects and provides information of the location of the nerve area in real-time during ultrasound scanning.

Display in extended field-of-view

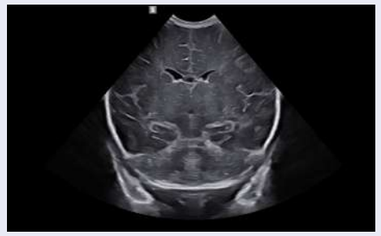
Panoramic+ imaging displays as an extended field-of-view so users can examine wide areas that do not fit into one image as a single image. Panoramic+ imaging also supports angular scanning from linear transducer data acquisition.





Pediatrics

Pediatrics dedicated, 3rd generation single crystal new transducer, CA2-13M



Effortless workflow, focus more on patients

Equipped with AI-powered automation, the R20 significantly enhances workflow speed and clinical efficiency. By minimizing keystrokes and delivering deep insights at the touch of a button, it allows clinicians to spend less time on the system — and more time focused on patient care.

Reliable quantification of tissue stiffness

S-Shearwave Imaging™[1] allows for non-invasive assessment of the stiffness of tissue/lesions in various applications such as breast, liver and MSK. The color-coded elastogram, quantitative measurements, dual or single display option, and user-selectable ROI functions are especially useful for the accurate diagnosis of breast and liver diseases. Also, S-Shearwave Imaging™ enhances workflow(EzSWI™) by recommending elastic imaging frames and ROI locations during shear wave imaging.

* EzSWI™ reduces keystrokes by approximately 70% compared to manual input.

Suggest top-notch frames

Recommend most reliable ROI

Ultrasound made personal with your user account

MyTune™ 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 the region of interest by simply clicking one button.

Predefined protocols ensure steps are followed consistently

EzExam+™ enables you to build or use a predefined protocol, and assign protocols for examinations that are regularly performed in the hospital in order to reduce the number of steps that you have to go through. For diagnosis, in particular, you can arrange the examination order according to the application using the touchscreen, and automatically apply the BodyMarker, Annotation, Measurement, etc.

Customization of frequently used functions

Touch Customization, a customizable touchscreen interface that allows the user to select a layout for each mode, and the users can freely place necessary functions to make up the layout. Users can keep focusing on the patient instead of the system.

One-button access to preset and transducer combinations

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.

Tailored precision. Automated measurement tool

AbdomenAssist™[1], a feature based on Deep Learning technology, measures the size of the interested organ, thereby reducing user variability and simplifying workflow.

* Target : Kidney, Spleen

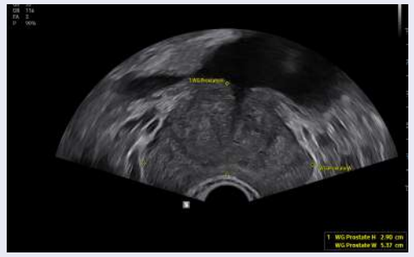
* Reduced keystrokes by approximately 33% compared to manual input.

BladderAssist™[1], a feature based on Deep Learning technology, measures the size of the bladder, thereby reducing user variability and simplifying workflow.

* Reduced keystrokes by approximately 50% compared to manual input.

ProstateAssist™[1], a feature based on Deep Learning technology, measures the size of the prostate, thereby reducing user variability and simplifying workflow.

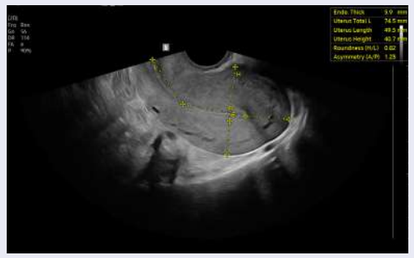
* Reduced keystrokes by approximately 50% compared to manual input.



BowelAssist™[1], a feature based on Deep Learning technology, measures the thickness of the bowel in real-time during bowel scanning, thereby reducing user variability and simplifying workflow.

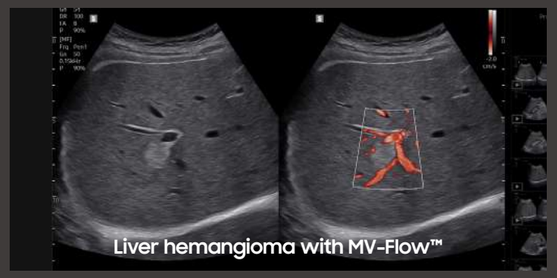
* Reduced keystrokes by approximately 80% compared to manual input.

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.



Striking images for confidence

Abdomen


Liver hemangioma with MV-Flow™

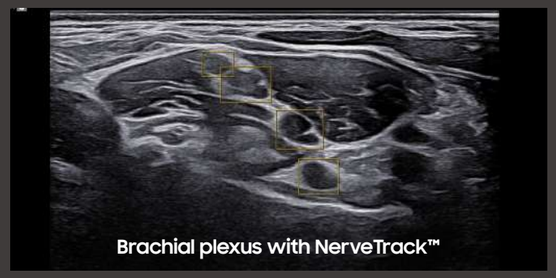
Acute cholecystitis

GB and liver hemangioma with 3rd Harmonic

Kidney with MV-Flow™

Musculoskeletal

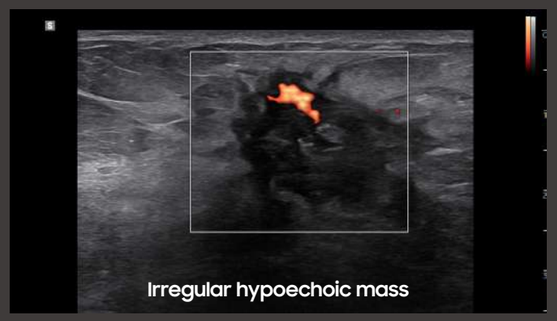
Finger with DualLive


Brachial plexus with NerveTrack™

Calf with HQ-Vision™

Plantar

Breast


Irregular hypoechoic mass

Breast mass with Live BreastAssist™

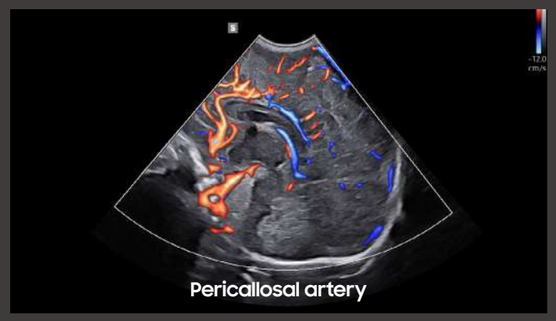
Thyroid

Thyroid trapezoidal view

Suspicious lesion with Color

Pediatrics

Liver


Pericallosal artery

Bowel

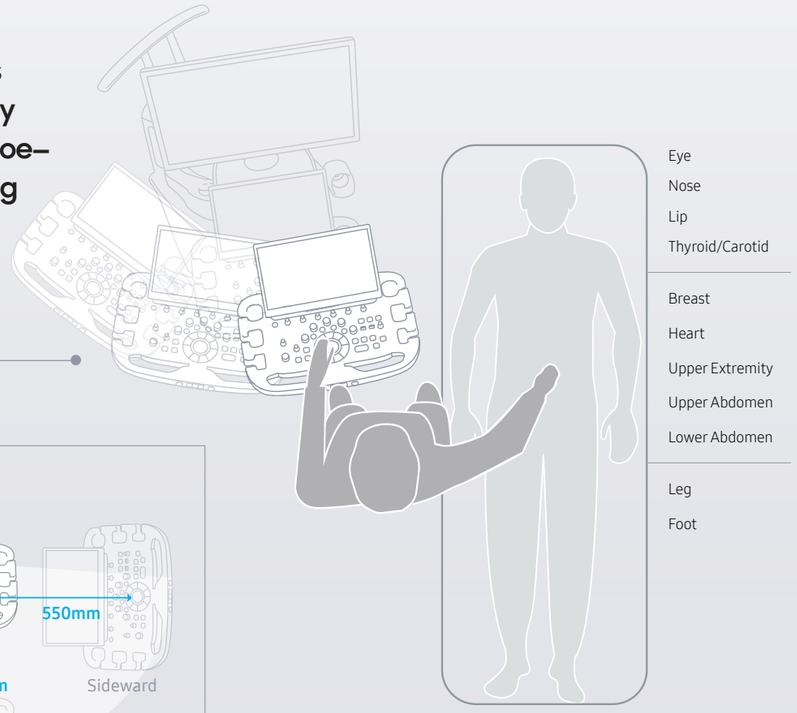
Diverticulitis with MV-Flow™

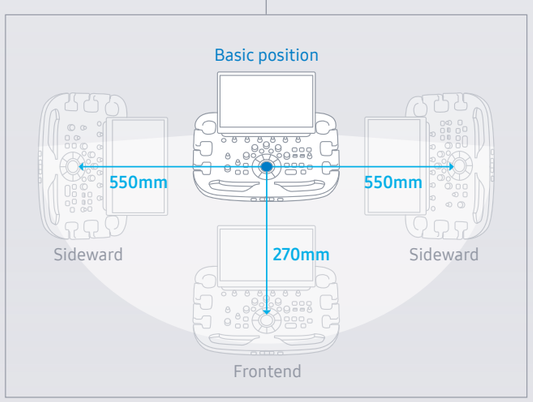
Stomach with trapezoidal view

Designed for you, perfected for full-body imaging

Every curve, every control—crafted with clinicians in mind. The R20 combines elegant design with intuitive usability, offering full-body coverage and seamless maneuverability. Because great design isn't just about how it looks, but how effortlessly it works for you.

The control panel adjusts easily to support full-body scanning–from head to toe–with minimal repositioning





Easily adjustable height range enables comfortable ultrasound operation while standing or sitting

Wider view, true black color, deeper contrast with 27" OLED monitor

Tilts to your ideal angle while minimizing glare with the 15.6" touchscreen

One-touch system lock/unlock, no need for individual wheel locking

The emotional LED lighting aids transducer mounting in dim settings

The new gel warmer prevents collisions and can be mounted on either side

Spacious compartments for trays, printers, and tools

Foot-operated rear caster lock

Broad diagnostic coverage with versatile transducer support

Linear Array Transducers

Abdomen, MSK, OB, Pediatric, Small Parts, Thoracic, Vascular

Abdomen, MSK, Pediatric, Small Parts, Vascular

Abdomen, MSK, Pediatric, Small Parts, Vascular

Abdomen, MSK, Pediatric, Small Parts, Vascular, OB, Thoracic

MSK, Pediatric, Small Parts, Vascular

Intraoperative, MSK, Pediatric, Small Parts, Vascular

Curved Array Transducers

Abdomen, GYN, MSK, OB, Pediatric, Thoracic, Urology, Vascular

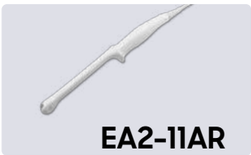
Abdomen, GYN, MSK, OB, Pediatric, Thoracic, Urology, Vascular

* Sensor implemented

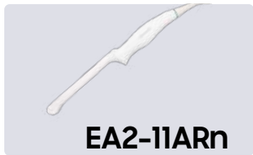
Abdomen, GYN, MSK, OB, Pediatric, Thoracic, Urology, Vascular

Abdomen, Pediatric, TCD, Vascular

Endocavity Transducers



GYN, OB, Urology



GYN, OB, Urology

* Sensor implemented

GYN, OB, Urology

GYN, OB, Urology

Volume Transducers

Abdomen, GYN, OB, Urology

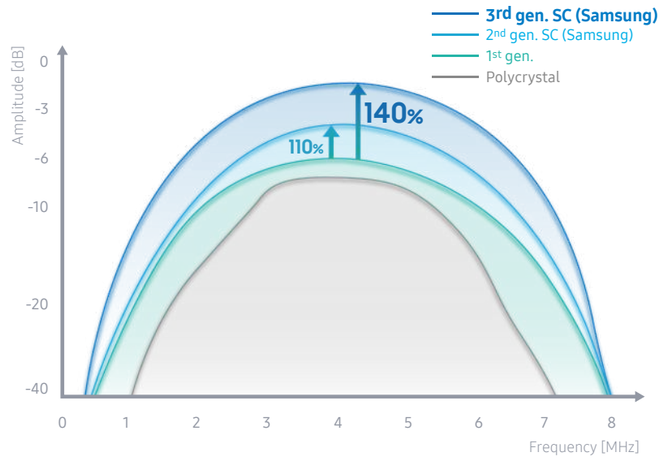
GYN, OB, Urology

Phased Array Transducer

Abdomen, Cardiac, Pediatric, TCD, Thoracic, Vascular

Applied 3rd generation single crystal transducer[2]

Deeper penetration
Enhanced spatial resolution



Sustainable by design

50%
Recycled resin on system body

Eco-conscious paper packaging

Energy saving features

* Real-time power consumption dashboard
* Auto on/off control & usage alerts
* Battery life optimization mode

Integrated IT solutions for ultrasound ecosystems

Real-time image sharing solution

SonoSync™ 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.

Centralized management system

S-Hub is a solution for comprehensive ultrasound system management, enhancing the operational efficiency of sonographers, Biomed/service engineers, and hospital administrators. Sonographers can save time by reducing repetitive tasks, engineers no longer require manual data backup one by one, and hospital staff can obtain real-time asset status monitoring via the dashboard.

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

theSUITE Samsung Ultrasound Institute of Technology and Education

Learn without limits!
Explore our diverse ultrasound training and educational contents tailored just for you.

Visit theSUITE

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.
2. The acoustic amplitude may increase by up to 40%, potentially leading to an equivalent 40% improvement in the signal-to-noise (SNR). Additionally, the amplitude has been optimized with consideration for human safety. The 3rd generation single crystal is applied exclusively to the CA2-13M transducer.

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CT-R20-BROCOLLI-20250618-EN