

Samsung Medison is a global leading medical devices company. Founded in 1985, the company now sells cutting-edge medical devices including diagnostic ultrasound, digital X-ray and blood analyzer, around the world. The company has attracted global attention in the medical field with its R&D capabilities and advanced technologies. In 2011, Samsung Medison became an affiliate company of Samsung Electronics, integrating its IT, image processing, semiconductor and communication technologies into medical devices.

CT-RS80A with Prestige-FTW-150515-EN

* S-Vue and S-Vision are not function-names but stand for Samsung technology of premium image performance.

* S-Tracking is not a function name but a package of Clear Track and Virtual Track.

Pushing the boundaries

Ultrasound system RS80A with Prestige



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SAMSUNG

Enhanced technologies expand capabilities

The advanced technical capabilities that the RS80A with Prestige features are built on the successes of Samsung technologies, including superior image quality, while offering exclusive options. The features such as S-Fusion, and S-Shearwave provide diagnostic confidence and user convenience in challenging practices.



High-resolution images for confident diagnoses

S-Vision beamformer

The S-Vision beamformer demonstrates a clearer image that receives returning signals through a sophisticated digital filtering system resulting in reduced side lobes, less noise and artifact. It enhances the image quality with better clarity and consistent results.

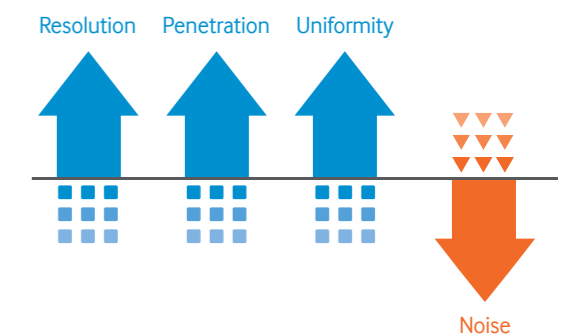


Conventional

RS80A with Prestige

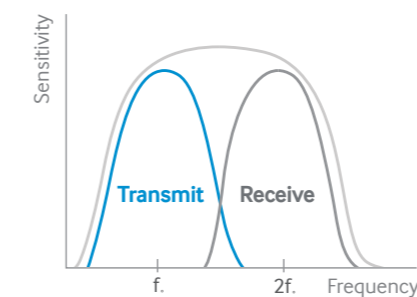
S-Vision imaging engine

With the S-Vision imaging engine built on the RS80A with Prestige, the digital signals demonstrate clear, detailed resolution and tissue uniformity for various types of applications in general imaging.



S-Vue transducer (CA1-7A, CV1-8A)

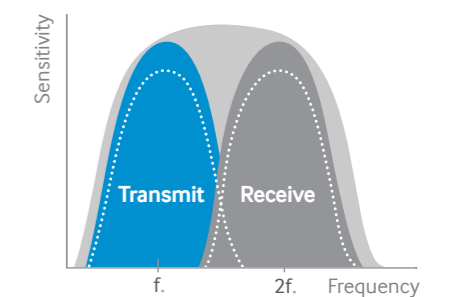
The S-Vue transducer provides a larger bandwidth and higher sensitivity both in transmit and receive capabilities. The combination of the new S-Vision Beamformer with the S-Vue transducer allows easier visualization of difficult-to-image pathologies. In addition, the ergonomically designed S-Vue transducer fits well in the hand and is easy to handle.



Transmit/Receive at conventional transducer



S-Vue transducer



Transmit/Receive at S-Vue transducer

* Compared with the conventional Samsung transducers

Samsung pushes the boundaries of ultrasound technology. With leading technologies like **S-Fusion** and **S-Tracking**, you can expect **accuracy in interventional procedures**.



Essential tools for interventional procedures

S-Fusion

S-Fusion enables simultaneous localization of a lesion with a real-time ultrasound image supported by other modalities' 3D-Datasets. Since the image fusion method still faces challenges such as relatively long registration time and low accuracy of registration, fusion speed and accuracy are the strength of Samsung's proprietary S-Fusion and it enables the system to be ready for advanced clinical applications.

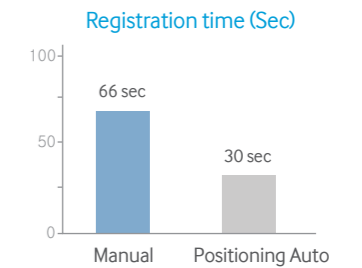


Positioning Auto-registration



S-Fusion with CEUS+

S-Fusion imaging takes up to 66 seconds. Especially for Positioning Auto-registration, fusion imaging only takes about 30 seconds. It provides easy and fast registration by placing the transducer on the epigastrium and precise alignment, which allows you to focus on the interventional procedure.



* Above result is an average value of internal tests.

S-Tracking

S-Tracking increases the rate of accuracy during interventional procedures by providing the simulated path of the needle and the target mark in the live ultrasound image. Clear Track, one of two functions provided by S-Tracking, secures the accuracy by using a specialized needle with a sensor tip. Virtual Track uses general needles during the procedure, providing both accuracy and economic benefit.



Clear Track

* Above features may not be available for use in some countries.

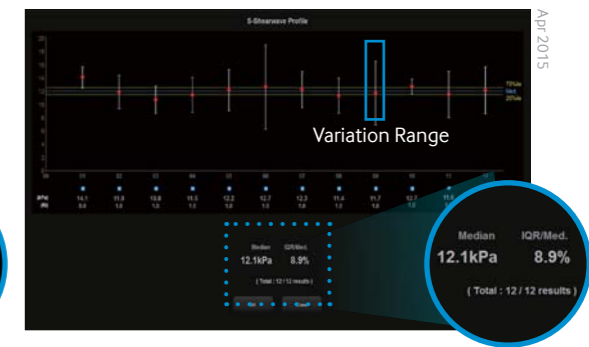
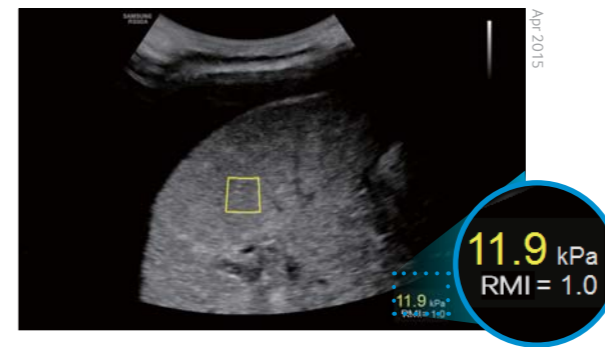
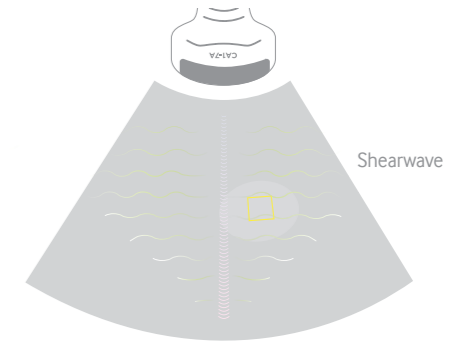
With advanced technologies like **S-Shearwave** and **CEUS+** the number of biopsies can be reduced, lesions become **visible** and **examinations are easier to perform**.



Cutting-edge technology for diagnostic challenges

S-Shearwave

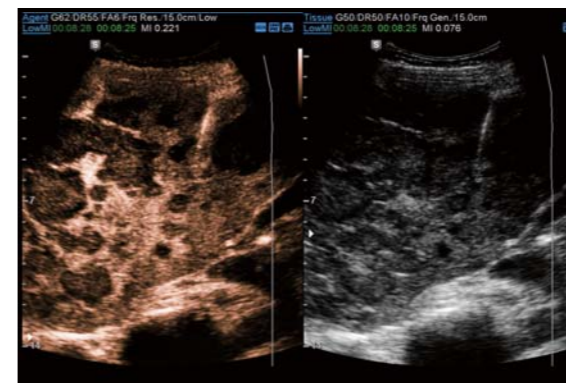
S-Shearwave detects the velocity of the shearwave propagated through the targeted lesion and displays the numerical measurement of stiffness in kPa or m/s together with a Reliable Measurement Index (RMI)*. Also it provides Variation Range (VR), a range of value, that intuitively shows the uniformity of tissue stiffness in the Region of Interest (ROI). The wider range means the less tissue stiffness uniformity. In the profile window, the user can easily edit each measurement value depending on its Reliable Measurement Index. S-Shearwave helps to reduce the number of conventional liver biopsies by providing quantitative tissue characteristic information.



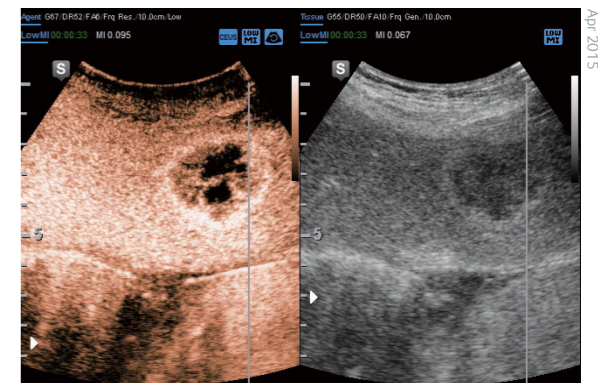
* Reliable Measurement Index (RMI): An indicator that computes the reliability of the calculated stiffness to support the selection of optimal measurements.

CEUS+

CEUS+ technology uses the unique properties of ultrasound contrast agents. When excited with a Low MI the oscillating micro bubbles reflect both the basic frequencies and harmonic signals. In the CEUS+ harmonic image on the left the perfused parts are displayed and on the right side a conventional B-Mode image.



Liver metastasis needle biopsy



Liver metastasis arterial phase

* Above features may not be available for use in some countries.

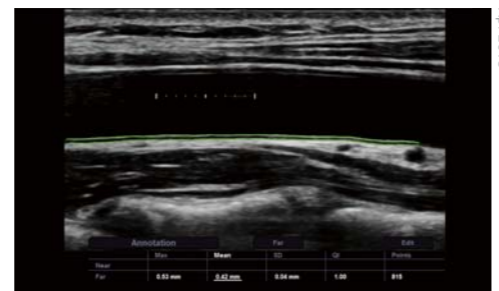
Advances that minimize risk

Early detection of cardiovascular diseases and risk for stroke



Auto IMT+

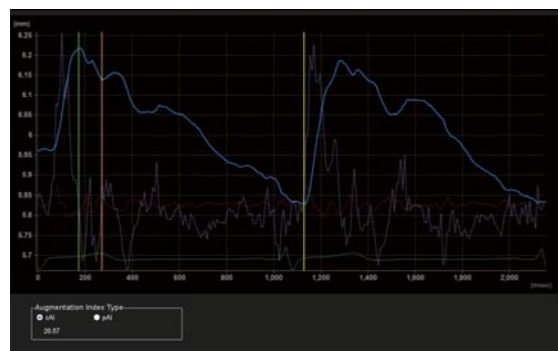
Auto IMT+™ is a screening tool that analyzes a patient's risk of stroke and heart disease. It allows easy intra-media thickness measurement of both the anterior and posterior wall of the common carotid by clicking a button. This simple procedure enhances exam productivity and adds diagnostic value.



IMT (Intra-Media Thickness) measured with Auto IMT+™

Arterial Analysis

Arterial Analysis detects functional changes of vessels, providing measurement values such as the stiffness and intra-media thickness. Since the functional changes occur before morphological changes, this technology supports the early detection of cardiovascular diseases.



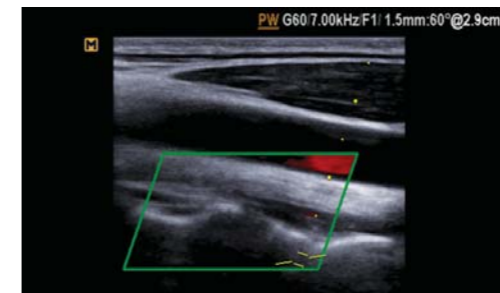
Augmentation index

Parameter	Value
Mean IMT	0.72 mm
Max IMT	1.18 mm
Quality Ind	0.28
Arterial Comp	0.09
Elastic Modulus	101.22
Young's Elastic Mod	140.73
Pulse Wave V (B)	6.00
Agreement Index(C)	20.67

Measurement table of Arterial Analysis

Advanced QuickScan™

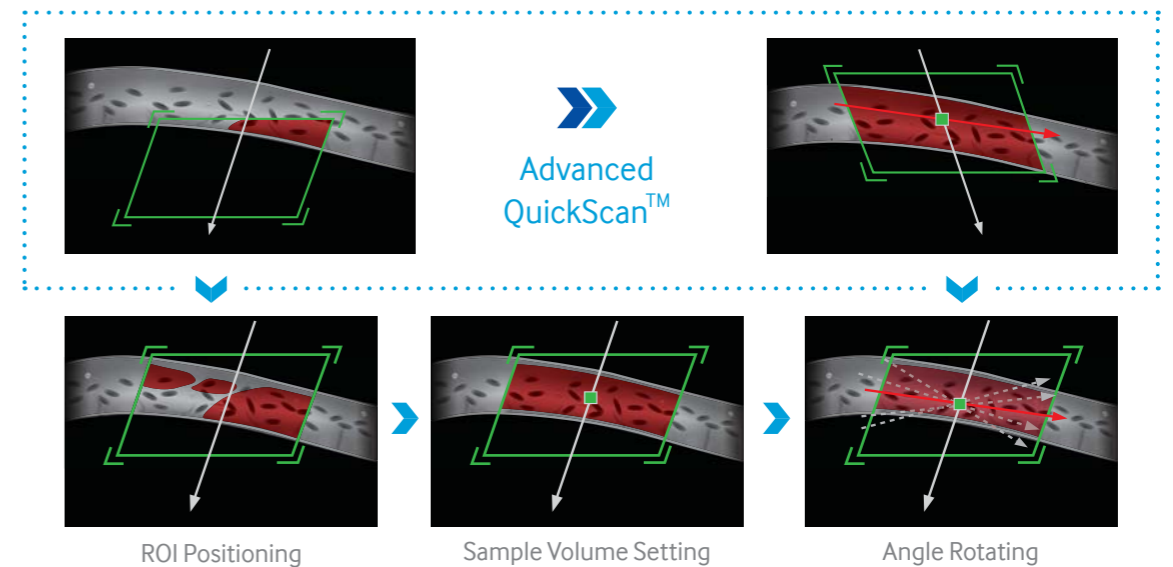
Advanced QuickScan™ technology provides intuitive optimization of gray scale and Doppler parameters. One touch of the QuickScan™ button elevates efficiency and workflow by adjusting functions including color gain and color box location.



CCA Doppler without QuickScan™

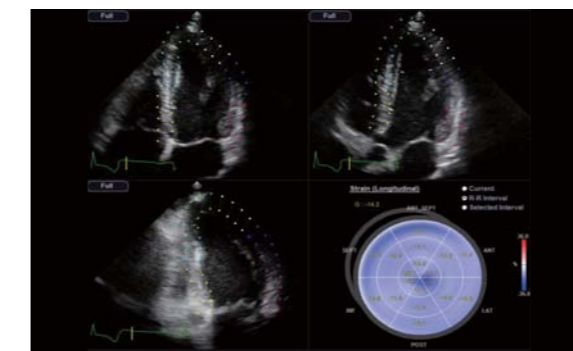


CCA Doppler with QuickScan™



Strain+

Strain+ quantitatively displays a Bull's Eye which shows left ventricular motion and dyssynchrony at a glance.



Strain+

Stress Echo

The Stress Echo package includes wall motion scoring and reporting. It includes exercise Stress Echo, pharmacologic Stress Echo, diastolic Stress Echo and free programmable Stress Echo.



Stress Echo

* Above features may not be available for use in some countries.

Standardized analysis and classification



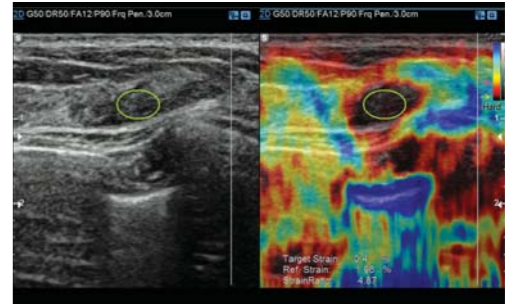
For a **better ultrasound breast assessment** Samsung offers a **wide range of useful imaging and quantitative tools**

S-Detect™ for breast

S-Detect™ employs Breast Imaging-Reporting and Data System (BI-RADS®) scores for standardized analysis and classification of suspicious lesions. By simply clicking the suspected area, it draws the lesion area and provides the characteristics of the lesion and a recommendation on whether the lesion is benign or malignant. Such technology assists in a more accurate diagnosis, while improving the efficiency of workflow and reducing the time users spend in repetitive tasks.

E-Breast™ (ElastoScan™ for breast)

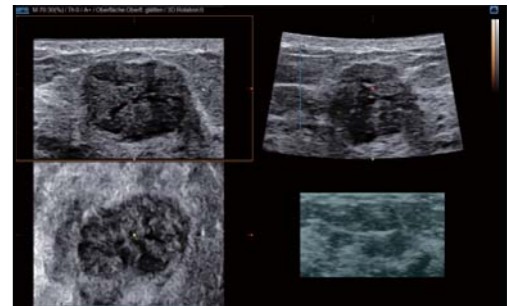
E-Breast™ is a technology that calculates the strain ratio between the selected target and surrounding fatty tissues. Unlike conventional ultrasound elastography, E-Breast™ requires only one ROI to be selected by the user. This simplified process enhances consistency and reduces the chance of error by eliminating the step of manual selection of the surrounding fatty tissue region.



Breast Parenchyma

Volume linear transducer

Multi-dimensional volume data acquired by Volume linear transducer visualizes the structure of targeted planes in a single step. It helps users to deliver more accurate and efficient diagnosis.



Fybroadenoma

* Above features may not be available for use in some countries.



Exam report with S-Detect™

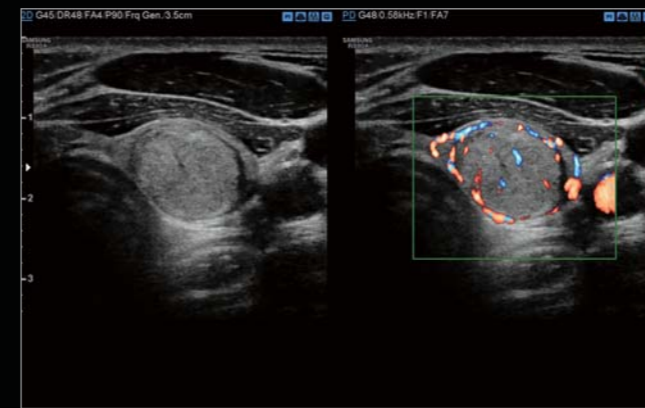
Superior image clarity with enhanced technology



GB stones



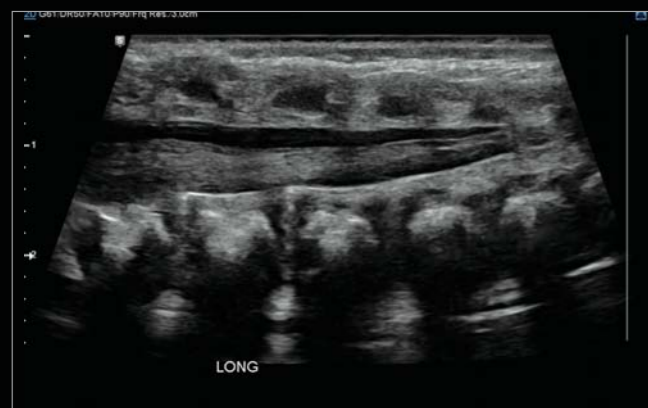
Kidney transplantation



Thyroid nodule



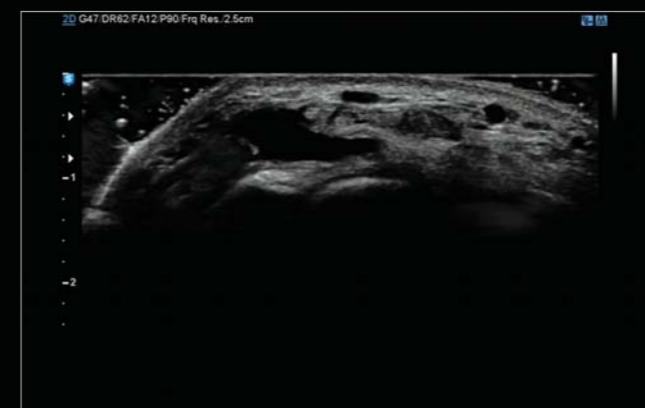
Thyroid nodule



Pediatric spine



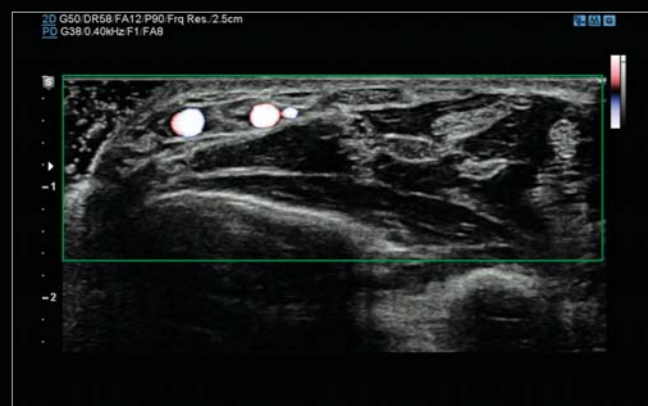
Finger ganglion



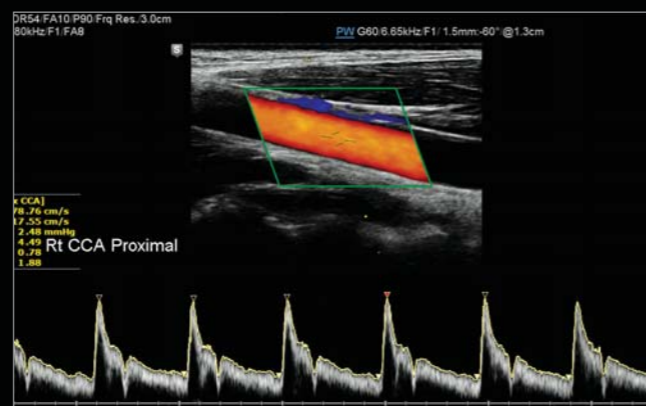
Wrist ganglion



Quadriceps



Wrist vessel



Carotid artery



Panoramic



4 Chambers

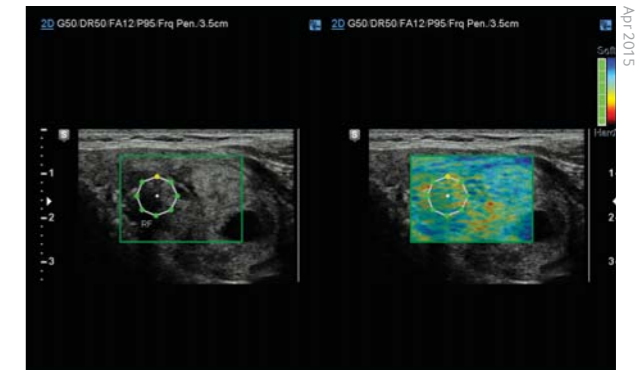
Count on Samsung for an easy alliance between user and technology. Streamlined processes with EZ-Exam+™ and the convenience provided by Natural Vue ensure an optimum user experience.



Uncompromising quality and ease of use

E-Thyroid™ (ElastoScan™ for thyroid)

E-Thyroid™ provides an assessment of thyroid lesions by incorporating an index for suspicious areas. E-Thyroid™ images are generated using pulsations from the adjacent Carotid Artery, eliminating the need for manual transducer compression and offering greater consistency.



Thyroid ElastoScan™ nodule

Natural Vue

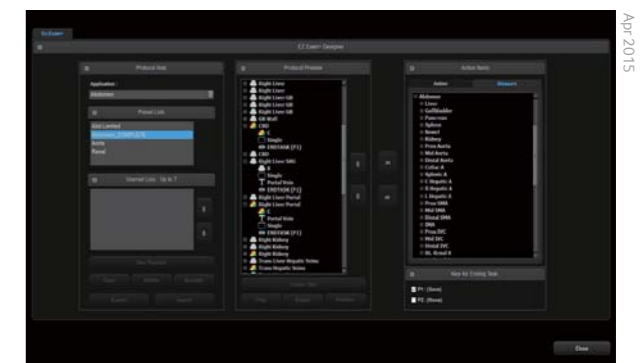
The 3D Natural Vue delivers a realistic view of the surface. It offers morphological information, including form, size and location of the Region of Interest (ROI) compared to 2D images.



GB mass in Natural Vue
* Image provided by JY Lee at SNUH

EZ-Exam+™

EZ-Exam+™ transforms multiple ultrasound investigation steps into a streamlined process. It enables users to build a fast and convenient diagnostic environment by storing optimized, preferred protocols with the EZ-Exam+™ function control.



Set up display of EZ-Exam+™

* Above features may not available for use in some countries.

Designed for your convenience



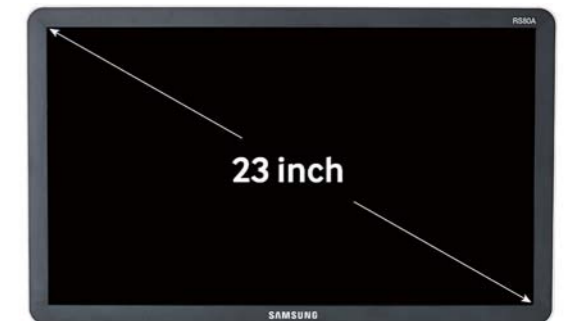
Folding monitor

The folding monitor enables safe and secure transport.



23-inch LED display

The RS80A with Prestige features a 23-inch high definition LED display delivering excellent contrast resolution, image clarity and vibrant color in any lighting condition.



13.3-inch tilting touch screen

The tilting touch screen adjusts to accommodate user viewing preference in any scanning environment.



Simplified console design

The simplified control panel including 3D Navigator and intuitive grouping of console buttons streamlines system interaction for efficient patient scanning.



6 way adjustable control panel

The RS80A with Prestige's 6 way adjustable control panel optimizes the work environment to reduce repetitive stress. Upon power down the control panel returns to home position for easier mobility.



Swivel lock

A single pedal controls a swivel lock mechanism to conveniently secure the console in place and accommodates efficient movement during a variety of scanning procedures.



Comprehensive selection of transducers

Curved array transducers

* S-Vue transducer



CA1-7A

- Application : abdomen, obstetrics, gynecology, contrast
- Field of View : 70°

CA2-8A

- Application : abdomen, obstetrics, gynecology
- Field of View : 58°

CF4-9

- Application : pediatric, vascular
- Field of View : 92°

Linear array transducers



LA4-18B

- Application : small parts, vascular, musculoskeletal
- Field of View : 37.5mm

L3-12A

- Application : small parts, vascular, musculoskeletal
- Field of View : 50mm

LA3-16A

- Application : small parts, vascular, musculoskeletal
- Field of View : 38.4mm

LA2-9A

- Application : small parts, vascular, musculoskeletal, abdomen
- Field of View : 44.16mm



L7-16

- Application : small parts, vascular, musculoskeletal
- Field of View : 38.4mm

LA3-16AI

- Application : musculoskeletal
- Field of View : 25.6mm

Volume transducers

* S-Vue transducer



CV1-8A

- Application : abdomen, obstetrics, gynecology
- Field of View : 72°

V5-9

- Application : obstetrics, gynecology, urology
- Field of View : 150.6°

V4-8

- Application : abdomen, obstetrics, gynecology
- Field of View : 76°

LV3-14A

- Application : musculoskeletal, small parts, vascular
- Field of View : 38.4mm

Endocavity transducer



E3-12A

- Application : obstetrics, gynecology, urology
- Field of View : 210°

Phased array transducers



PM1-6A

- Application : cardiac, TCD, abdomen
- Field of View : 90°

PA3-8B

- Application : cardiac, pediatric, abdomen
- Field of View : 90°

PA4-12B

- Application : cardiac, pediatric
- Field of View : 90°

CW transducers



CW6.0

- Application : cardiac

DP2B

- Application : cardiac

* Above options may not available for use in some countries.