

## 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 include Anti-virus & Firewall
- Secured operating system



#### Access control

Strengthened surveillance for tracking the access of patient information

- Account management
- Enhanced audit trail



#### Data protection

Encryption functions for safeguarding data whether at-rest or in-transit

- Data protection
- Transmission security

- \* This product, features, options and transducers are not commercially available in all countries. Due to regulatory reasons their future availability cannot be guaranteed. Please contact your local sales network for further details.
- \* Elite is not a product name but is Samsung's marketing terminology. This term may vary by country, time and model.
- \* S-Vue Transducer™ is not the name of a function, but is the name of Samsung's advanced transducer technology.
- \* In Canada and USA, strain value for ElastoScan is not applied.
- \* Crystal Clear Cycle™ is not the name of a function, but is Samsung's marketing terminology.
- \* This product is a medical device, please read the user manual carefully before use.
- \* Optical Disk Drive is not available for this product.

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.

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CE 0123

# Vision of a new dimension

## Ultrasound system WS80A with Elite



CT-WS80A with Elite V4.01-OB-IMC-200123-EN

Scan code or visit  
[www.samsunghealthcare.com](http://www.samsunghealthcare.com)  
to learn more



**EXPERIENCE**  
A New Healthcare  
Solution

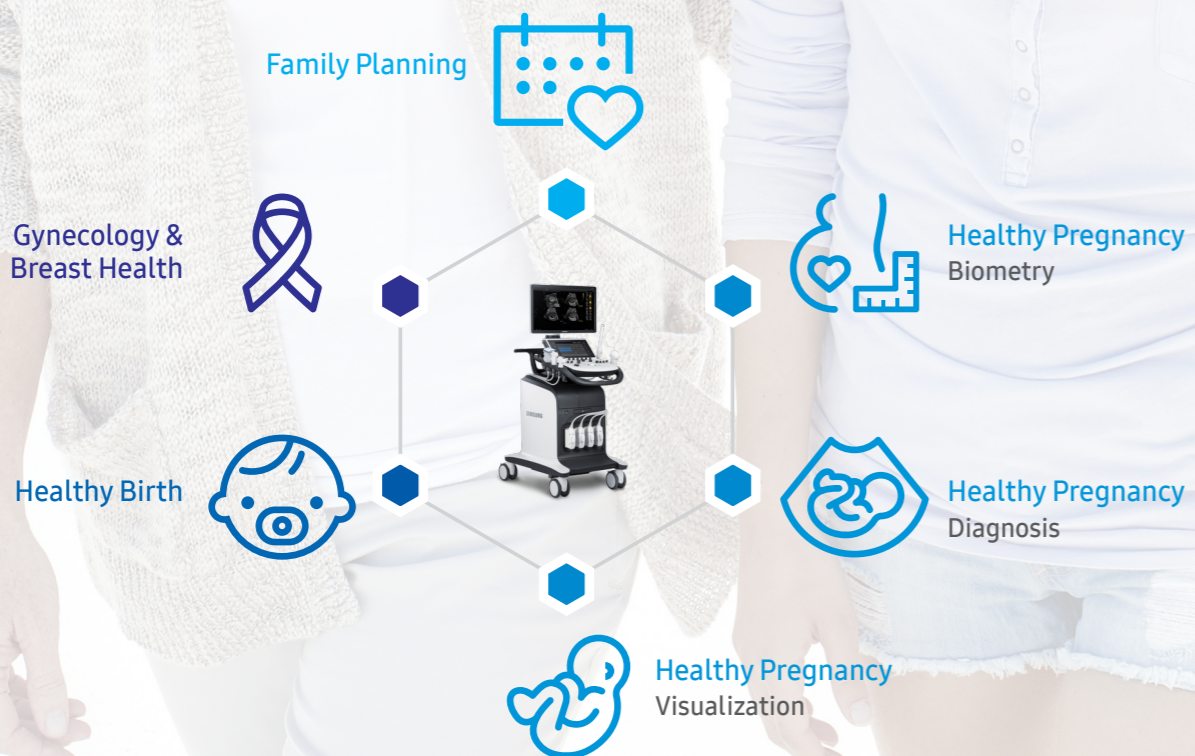
**SAMSUNG**



# CRYSTAL CLEAR CYCLE™

Samsung's Commitment to Life-long Healthcare for Women

Crystal Clear Cycle™, an integrated solution for women's health issues, represents Samsung's commitment to ensuring life-long healthcare for women. The Crystal Clear Cycle™ categorizes the most significant health events for women into six stages and provides effective diagnostic solutions at each stage. The WS80A with Elite is the premium system that covers all six stages with effective diagnostic solutions. Built with high-quality imaging and innovative features, it supports healthcare professionals in making faster and more accurate decisions for women's health issues.



## Powered by CrystalLive™

CrystalLive™ is a new ultrasound imaging engine applied to Samsung's sophisticated image processing technologies. WS80A with Elite incorporates CrystalLive™ 3D and CrystalLive™ Color, Samsung's advanced 3D rendering and color technologies, to provide improved visualization and structure expression.



### CrystalLive™ 3D

#### Margin enhancement with HDVI™

High Definition Volume Imaging™ (HDVI™) is a volume rendering technology that improves visualization of edges and small structures in volume data. HDVI™ provides upgraded marginal expression and image saturation with dedicated image sets for 3D/4D.

※ Optional Extra



Cleft lip in 3D

#### Improved structural description with AmbientLight

※ Optional Extra

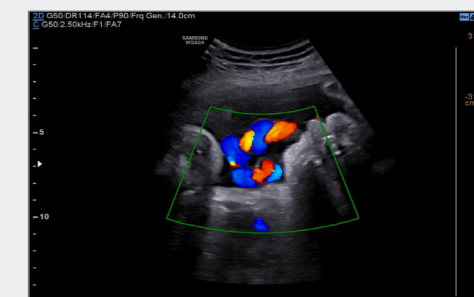
Creating intricately graduated shades, AmbientLight improves depth expression of the surface. This 3D rendering feature is especially useful to see fetal face or hands in detail.



Fetal face with different shades in AmbientLight

### CrystalLive™ Color

CrystalLive™ Color, Samsung's advanced blood flow imaging technologies in color mode, enhances the visualization and hemodynamics of the blood flow.



Umbilical cord

# Crystal clear image from advanced imaging technologies

The crystal clear image quality of WS80A with Elite is built upon the successes of Samsung technologies. Samsung's advanced imaging technologies deliver diagnostic confidence when diagnosing challenging patients.

## ClearVision

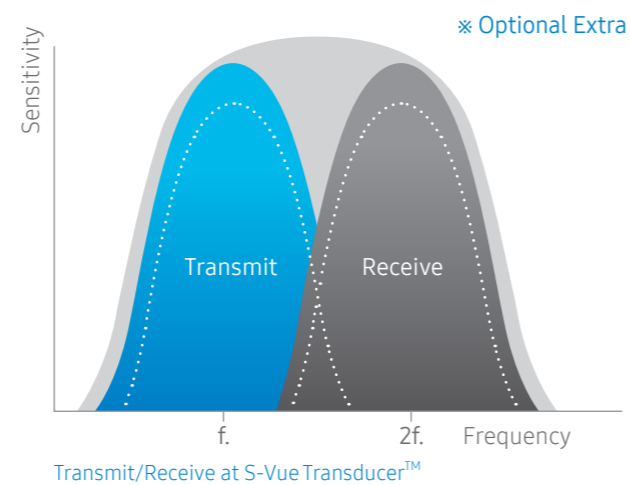
The noise reduction filter improves edge enhancement and creates sharper 2D images for optimal diagnostic performance. In addition, ClearVision provides application-specific optimization and advanced temporal resolution in live scan mode.

## S-Harmonic™

S-Harmonic™ mitigates the signal noise, enhances contrast, and provides uniform image performance of overall image area from near-to-far.

## S-Vue Transducer™

S-Vue Transducer™ provides more efficient piezoelectric properties, resulting in wider bandwidths that enable better penetration and higher quality resolution.



\* Compared with the conventional Samsung transducers.  
\* The image is for illustrational purposes only and might differ from the actual performance of the device.

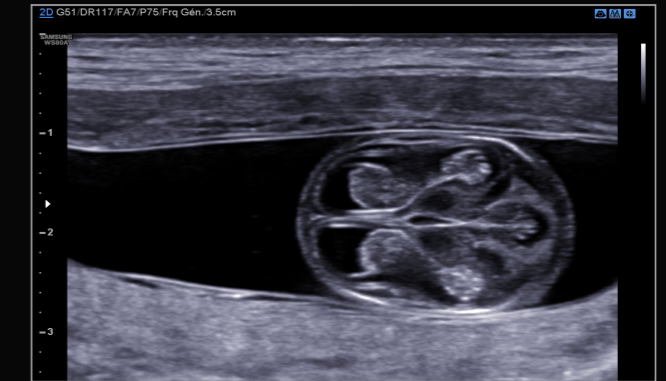
## Wide angle endocavity transducer

The new wide angle endocavity transducer (E3-12A) offers a field-of-view up to 210° allowing greater visualization of pelvic anatomy. It is often possible to visualize the entire cervix and uterus in normal anatomy as well as viewing left-right symmetry in the transverse plane.

※ Optional Extra



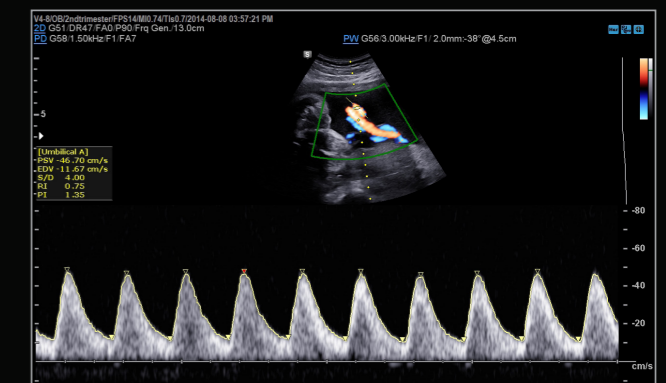
Fetal Heart in 4 chamber view \*



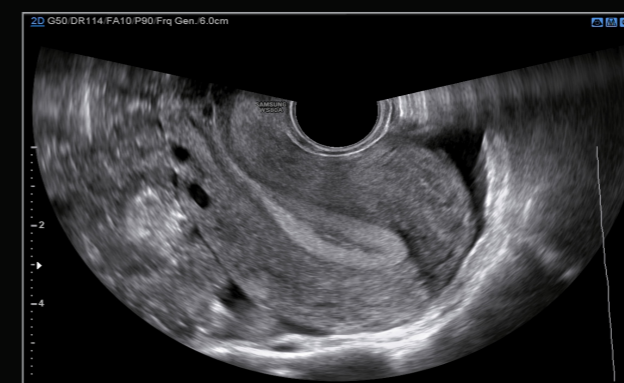
Fetal brain in ClearVision \*



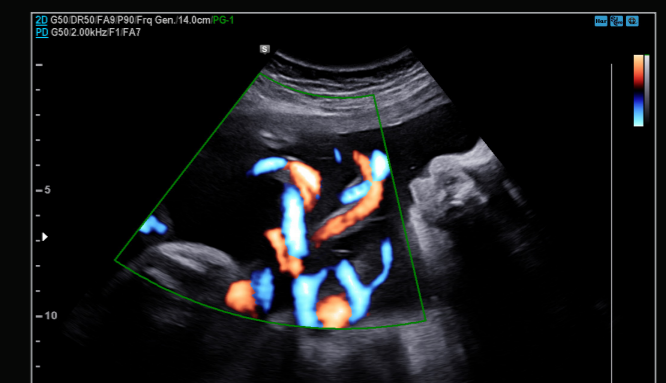
Fetal abdomen in ClearVision \*



Umbilical artery in PW \*

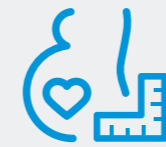


Uterus in wide angle view \*



Umbilical cord in S-Flow™ \*

\* These clinical images were acquired using the WS80A V3.00 ultrasound system.



Healthy  
Pregnancy  
Biometry

## Intuitive fetal biometry measurements

Monitor fetal health more efficiently and effectively. The semi-automated functions, 5D Limb Vol.™, 5D CNS+™, and BiometryAssist™ enable the measurement of the growth of the fetus much faster and more accurately.

**5D Limb Vol.™**  
(Fetal weight estimation)

※ Optional Extra

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.

**5D CNS+™**  
(Fetal brain measurement)

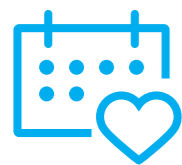
※ Optional Extra

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

**BiometryAssist™**  
(Fetal biometry estimation)

※ Optional Extra

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



Family  
Planning

## Simple screening for risk of infertility

Check and manage the risk of infertility by using 5D Follicle™ and CEUS+ in 3D/4D.

**5D Follicle™**  
(Follicle measurement)

※ Optional Extra

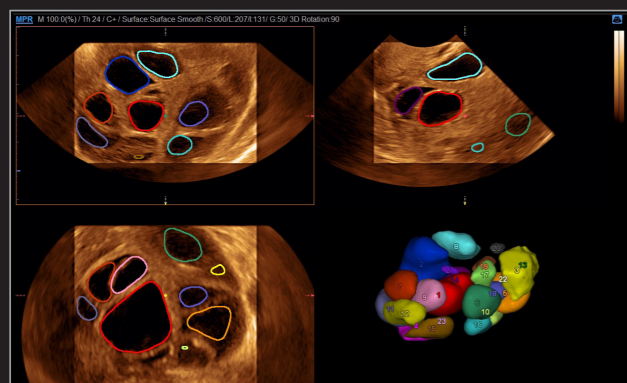
5D Follicle™ measures the size of multiple follicles and provides information on their status during OB exams.

**CEUS+ in 3D/4D \***

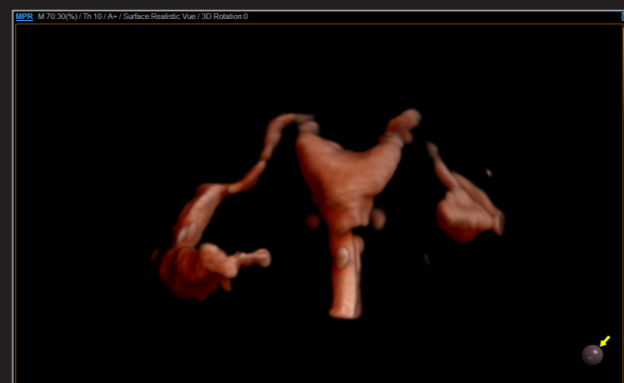
※ Optional Extra

CEUS+ can be used in 3D/4D for effective examination for patency of the fallopian tube and morphology of uterus and endometrium.

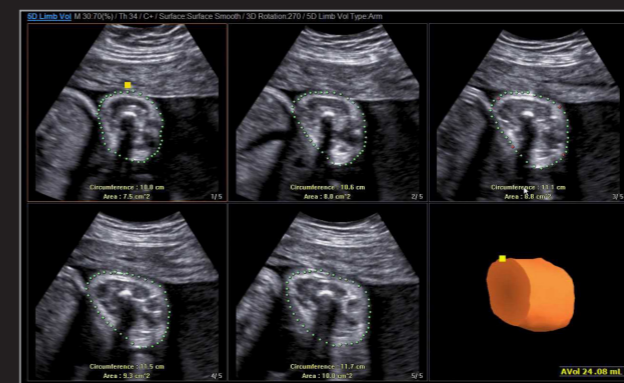
\* 'CEUS+ in 3D/4D' is not the name of function. 'CEUS+' is the name of function.  
'CEUS+' is not commercially available in all countries.



5D Follicle™ \*

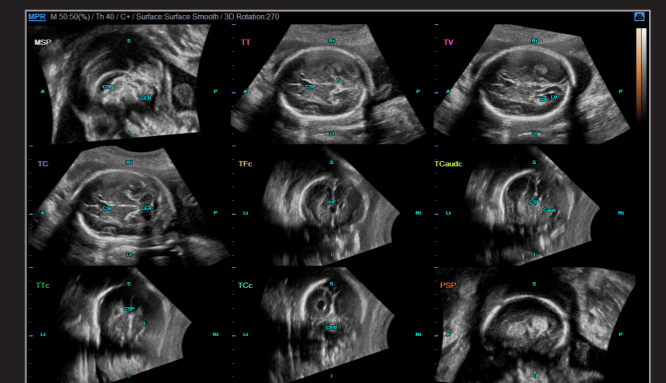


CEUS+ in 3D/4D



5D Limb Vol.™ \*

\* These clinical images were acquired using the WS80A V3.00 ultrasound system.



5D CNS+™ \*



Healthy  
Pregnancy  
Visualization

# Innovative fetal assessment

Discover Samsung's new, detailed volume imaging technology. The WS80A with Elite provides realistic 3D/4D images that enable you to see greater anatomical detail. It also includes CrystalVue Flow™, which combines morphological information and hemodynamic flow to bring greater understanding of the fetus.



Healthy  
Pregnancy  
Diagnosis

# Enhanced diagnostic confidence

With its advanced diagnostic tools, the WS80A with Elite supports your knowledge and experience to help you to make clear, confident decisions.

## 5D NT™ (Nuchal translucency measurement) \* Optional Extra

5D NT™ provides the midsagittal plane view automatically by rotating and magnifying the images when measuring the nuchal translucency (NT) of the fetus in early weeks.

## 5D Heart Color™ (Fetal heart examination) \* Optional Extra

The function provides 9 standard planes of the heart by using the fetal STIC data as well as important information about fetal heart development in an easy and accurate way in accordance with the AIUM guideline. In addition, it offers dedicated Preset, Predictive Cursor, Diagnostic Alert, and heart Diastole/Systole timepoints.



Image courtesy of Imperial College London, UK

## RealisticVue™ \* Optional Extra

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.

## CrystalVue™ \* Optional Extra

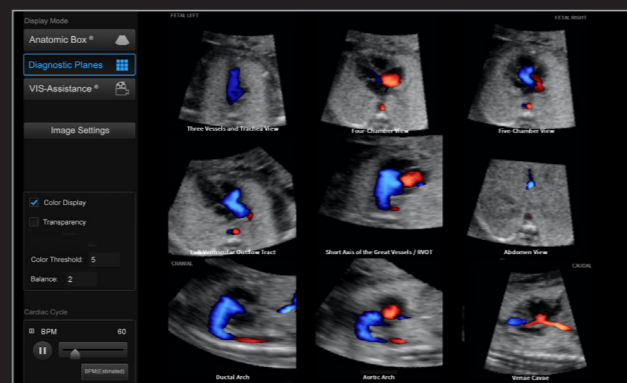
CrystalVue™ is an advanced volume rendering technology that enhances visualization of both internal and external structures in a single rendered image using a combination of intensity, gradient and position.

## CrystalVue Flow™ \* Optional Extra

CrystalVue Flow™ is a volume rendering technology that provides additional information of blood flow morphology based on the CrystalVue™ features that visualizes the internal structures by projecting the 3D data, providing better understanding in the anatomic structures and surrounding vascular vessels.



5D NT™ \*



5D Heart Color™ \*

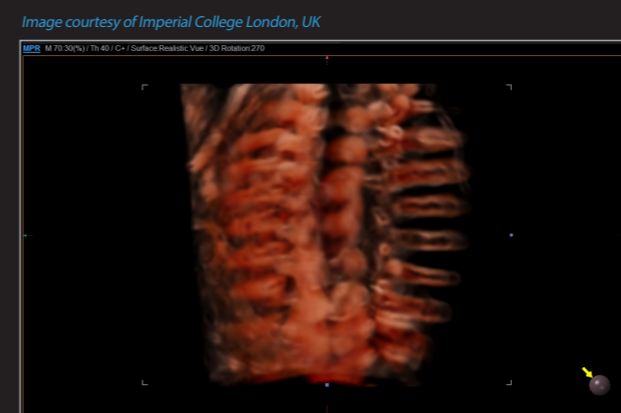


Image courtesy of Imperial College London, UK

CrystalVue™

\* These clinical images were acquired using the WS80A V3.00 ultrasound system.



Image courtesy of Imperial College London, UK

CrystalVue™



Gynecology & Breast Health

# Intelligent solutions for women's health

Even in complex cases, Samsung's intelligent solutions, such as S-Detect™ and IOTA-ADNEX, help you to make management decisions clearer and easier.

S-Detect™ (S-Detect™ for breast)

※ Optional Extra

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.

IOTA-ADNEX (Ovarian tumor classification)

※ Optional Extra

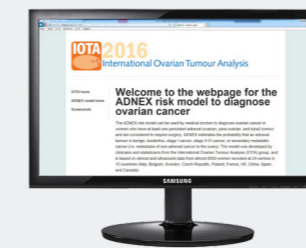
IOTA-ADNEX (International Ovarian Tumour Analysis-Assessment of Different NEoplasias in the adnexa) applies ADNEX\* model, an ovarian tumor classification solution of IOTA Group, to the system, and can perform all procedures from the initial scan to the final report in the ultrasound diagnosis system. When two ultrasound prediction factors are measured, the measurements are automatically populated and the classification result from the 5-step ADNEX model for ovarian tumors is provided.

\* Assessment of different neoplasias in the adnexa

\*\* International Ovarian Tumor Analysis

\*\*\* 2 ultrasound predictors:

- 1) Maximal Diameter of the Lesion (mm),
- 2) Maximal Diameter of the Largest Solid Part (mm)



ADNEX risk model in PC



ADNEX risk model in the Samsung ultrasound system



Intuitive result report in the Samsung ultrasound system



Healthy Birth

## Highly detailed information

E-Cervix™ provides highly detailed information which can be helpful for healthy deliveries. And the wide range of Neonatal/Pediatric transducers enables excellent detailed resolution and more efficient scanning of newborn babies and children.

E-Cervix™ (ElastoScan™ for Cervix)

※ Optional Extra

E-Cervix™ measures stiffness of the cervical area. E-Cervix™ uses elasticity images that help predicting preterm birth and induced labor, enhancing the reproductivity and reducing inter-observer variation by using sum of various elastograms acquired for several seconds.

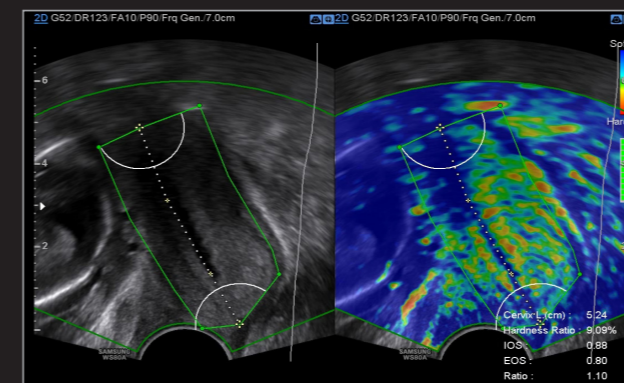
Neonatal/Pediatric transducers

※ Optional Extra

Highly advanced transducers allow for excellent detailed resolution and more efficient scanning.



Samsung Ultrasound System WS80A with Elite



E-Cervix™

\* These clinical images were acquired using the WS80A V3.00 ultrasound system.



S-Detect™ \*

# Designed for your convenience

With design aspects that enable clinicians to focus on imaging through features such as the large LED monitor and digital TGC, WS80A with Elite reduces stress when operating the system. It provides a comfortable environment as well as a streamlined user interface.

## 1 23-inch LED monitor

The WS80A with Elite features a 23-inch full HD LED display, delivering excellent contrast resolution, image clarity and vibrant color in any lighting condition.



## 2 10.1-inch touchscreen

The Samsung 10.1-inch touchscreen is highly sensitive, allowing for an efficient interaction during the examination.



## 3 Default gel warmer

Two-level adjustable gel warmer maintains ultrasound gel at a comfortable temperature.



## 4 Transducer cable holders

Users can arrange the transducer cables neatly on the 2 hangers on either side of the system.



## 5 Adjustable control panel

Smooth up and down lift allows you to adjust the system to your preferred height without straining.



## 6 EC transducer holders \* Optional Extra

It provides EC transducer holder for stable mounting of the endocavity transducer when performing gynecological scanning.



# Comprehensive selection of transducers

## S-Vue Transducer™

### Curved array transducers



**CA2-9A**

- Application : abdomen, obstetrics, gynecology



**CA3-10A**

- Application : abdomen, obstetrics, gynecology, pediatric



**CA1-7A**

- Application : abdomen, obstetrics, gynecology, musculoskeletal

### Volume transducer



**CV1-8A**

- Application : abdomen, obstetrics, gynecology

### Curved array transducers



**CA2-8A**

- Application : abdomen, obstetrics, gynecology



**CF4-9**

- Application : pediatric, vascular



**C2-6**

- Application : abdomen, obstetrics, gynecology



**SC1-6**

- Application : abdomen, obstetrics, gynecology

### Volume transducers



**LV3-14A**

- Application : small parts, musculoskeletal, vascular



**V4-8**

- Application : abdomen, obstetrics, gynecology



**V5-9**

- Application : obstetrics, gynecology, urology



**EV3-10B**

- Application : obstetrics, gynecology, urology

### Linear array transducers



**LA2-9A**

- Application : small parts, vascular, abdomen, musculoskeletal



**LA4-18B**

- Application : small parts, vascular, musculoskeletal



**LA3-16A**

- Application : small parts, vascular, musculoskeletal



**L5-13**

- Application : small parts, vascular, musculoskeletal



**LA3-16AI**

- Application : musculoskeletal



**LM4-15B**

- Application : small parts



**L3-12A**

- Application : small parts, vascular, obstetrics, musculoskeletal, abdomen

### Endocavity transducers



**EA2-11B**

- Application : obstetrics, gynecology, urology



**VR5-9**

- Application : obstetrics, gynecology, urology

### Phased array transducers



**PM1-6A**

- Application : abdomen, cardiac, TCD



**PE2-4**

- Application : abdomen, cardiac, TCD



**PA3-8B**

- Application : abdomen, pediatric, cardiac



**PA4-12B**

- Application : cardiac, pediatric