



GE HealthCare

Versana Balance™

Ultrasound system

Specification sheet

Versana Balance ultrasound helps you provide reliable care with no compromise on quality. This practical, competent system delivers comprehensive scanning for diagnosis and monitoring in private clinics, GP offices, and other primary care settings. Designed for clinicians who have used ultrasound and wish to upgrade their capability, the affordable Versana Balance combines design, workflow and features developed to meet users' demanding requirements.



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General specifications

Dimensions and weight

Height with monitor	<ul style="list-style-type: none">• Fixed<ul style="list-style-type: none">– 1375 mm (51.3 in)• Height adjustable<ul style="list-style-type: none">– Max. 1500 mm (59.1 in)– Min. 1340 mm (52.7 in)
Width	<ul style="list-style-type: none">• Keyboard: 585 mm (23.0 in)• Caster: 513 mm (20.2 in)
Depth	<ul style="list-style-type: none">• Maximum: 670 mm (26.4 in)• Caster: 580 mm (22.8 in)
Weight (no peripherals)	Less than 60 kg

Electrical power

Voltage 100 – 240 VAC
Frequency 50/60 Hz
Power consumption maximum of 350 VA with peripherals

Control Design

Max. 4 active probe ports
Integrated SSD (512 GB)
Integrated speakers
Probe holders, removable for cleaning and washing
Gel holder, removable for cleaning and washing
Gel warmer
Front and rear handles
Probe cable management slots
Easily removable air filters
Wheels: Locking mechanism that provides rolling lock and caster swivel lock

User interface

Operator keyboard

Height adjustable (configuration dependent)
Full alphanumeric keypad covered with washable protection film
8 TGC pods
21.5" (476.1 x 267.8 mm) 1920 x 1080 high-resolution LED backlit

Monitor

Fixed monitor arm
Tilt/rotate/pan
Tilt angle: +25°/-90°
Rotate angle: -90°, +90°
Brightness/contrast/color temperature adjustment
Fold-down for transportation

System overview

System specifications

Operating system	Windows® 10
Fast boot up time	<25 seconds
Cold boot up time	<120 seconds

Applications

Abdominal
Obstetrical
Gynecological
Small parts
Musculoskeletal
Vascular/peripheral vascular
Urological
Pediatric
Cardiac
Thoracic
Transcranial
Transvaginal
Transrectal
Interventional guidance

Scanning methods

Electronic convex
Electronic linear
Electronic micro convex

System overview *(cont.)*

Scanning methods *(cont.)*

Electronic sector

Mechanical volume sweep

Transducer type

Convex array

Linear array

Microconvex array

Sector phased array

Volume probe (4D)

Operating modes

B-Mode

Coded Harmonic Imaging

M-Mode

Color M-Mode

Color Flow Mode (CFM)

Power Doppler Imaging (PDI)

Directional PDI

PW Doppler with high PRF

System standard features

Installation wizard

Whizz

CrossXBeam™

SRI-HD (High Definition Speckle Reduction Imaging)

B-Steer

Coded Harmonic Imaging

Virtual Convex

Patient information database

Image Archive on integrated SSD

Raw Data Analysis

Voice comments

Real-time automatic Doppler calculations

OB Calculations

Fetal Trending

Multi-gestational calculations

Hip dysplasia calculations

Gynecological Calculations

Vascular Calculations

Breast Productivity

Urological Calculations

Renal calculations

Cardiac calculations

On-board reporting package

Network storage

Remote capability: RSVP

My Trainer

Scan Assistant

Standby

QAnalysis

System options

CW Doppler Mode

Anatomical and Curved M-Mode (AMM and Curved AMM)

LOGIQ™ View

Advanced 3D (Easy 3D)

B-Flow (B-Flow color)

Tissue Velocity Imaging (TVI)

TVM

Auto Bladder (Dynamic image optimization, Auto Measurement and Auto Annotation)

Stress Echo

Scan Coach

Auto EF

Sono Biometry (BPD/ HC/ AC/ HL/ FL)

Static 3D/Real-time 4D

Auto IMT

System options *(cont.)*

TUI	
Thyroid productivity	A package in thyroid measurement including measurement and relevant description (Includes TI-RADS® ACR)
Needle recognition	
Follow-up Tool	
WhizzLabel	
Elastography	
BreastCare	
Vocal	
Contrast	
LI-RADS	

Peripheral options

Sony UP-D898MD B/W thermal printer
Sony UP-D898DC B/W thermal Printer
Sony UP-D25MD Color thermal printer
1-pedal and 3-pedal type footswitch
USB stick
External USB HDD
DVD RW kit
USB wireless adaptor: Sales availability varies in different countries
ECG Module
HP Office 200 printer
Bluetooth® adapter
Barcode scanner

Display modes

Live and stored display format	
Widescreen	<ul style="list-style-type: none"> Full size and split screen Both with thumbnails for still and Cine
Review image format	4x4 and thumbnails for still and Cine
Simultaneous capability	<ul style="list-style-type: none"> Dual B (B/B) B + PW/M Real-time triplex mode (B + CFM/ PDI + PW) B + CFM/PDI B + CFM + M B + B-Flow/ B-Flow Color

Live and stored display format *(cont.)*

Zoom	Write (HD)/read up to 67X
Colorized Image	<ul style="list-style-type: none"> Colorized B Colorized M Colorized CW Colorized 4D Colorized B-Flow Colorized PW Colorized 3D
Timeline display	<ul style="list-style-type: none"> Independent dual B/PW or CW display Display format <ul style="list-style-type: none"> Top/bottom selectable format (Size: 1/2:1/2; 1/3:2/3; 2/3:1/3) Side/side selectable format (Size: 1/2:1/2; 1/4:3/4; TL only)
LOGIQ View	
Virtual Convex	
TUI (Tomography Ultrasound Imaging)	

Selectable alternating modes

B/M/PW/CW/CF/PDI/TVI/TVD
B + B
B + M
B + PW/CW
B + CFM/PDI
B + CFM /PDI + PW /CW
B + TVI
B + TVI + TVD
Multi-image split screen (quad screen)
Live/Frozen
Independent CINE playback

Display annotation

General user interface	
Patient name: First, last (up to 64 total characters)	
Patient ID (Up to 64 characters)	
Other ID (Up to 64 characters)	
Age, gender and date of birth	
Hospital name	
Date format:	<ul style="list-style-type: none"> MM/DD/YYYY DD/MM/YYYY 4 types selectable YYYY/MM/DD YYYY-MM-DD

Display annotation *(cont.)*

General user interface *(cont.)*

Time format: • 24 hours
2 types selectable • 12 hours

Gestational age from • LMP • GA
• EDD • BBT

Displayed acoustic output • TI_s: Thermal Index Soft Tissue
• TI_c: Thermal Index Cranial (Bone)
• TI_b: Thermal Index Bone
• MI: Mechanical Index

% of maximum power output

Probe name

Map name

Probe orientation

Depth scale marker

Lateral scale marker

Focal zone marker

Image depth

Zoom depth

B-Mode

Gain

Dynamic range

Imaging frequency

Edge enhance

Frame average

Frame rate

Gray map

SRI-HD

CrossXBeam

Color Flow Mode

Line density

Frame average

Packet size

Color velocity range and baseline

Color threshold marker

Color gain

Inversion

Frequency

PDI mode

Line Density

Frame Average

Packet Size

Directional PDI

Color Velocity Range and Baseline

Power Threshold Marker

PDI Gain

Inversion

B-Flow/B-Flow Color Mode

Gain

Background

SRI HD

Accumulation

Flow Type/Model

Rejection

Colorize

Edge Enhance

Gray Map

Frame Average

Power Output

Sensitivity/PRI

Dynamic Range

Frequency

Suppression

Flash Suppression

Edge Enhancement

Threshold

Map Compress

Map

Wall Filter

Transparency

Display annotation *(cont.)*

M-Mode

Gain

Dynamic Range (Use the Dynamic Range of B-Mode)

Time Scale

AMM

Doppler Mode

Gain

Angle Correct

Sample Volume Depth and Sample Volume Length

Wall Filter

Baseline

Spectrum Inversion

Time Scale/Sweep Speed

Scale

Doppler Frequency

3D/4D

Tile/Mix

Active Curve

Reset Curve

Lower Threshold

Volume Angle

B Quality

3D Orient

Render Mode

Colorize

Direction

Rend 1 Gray

Rend 2 Gray

Adv. Rend

Transparency

Ref Image

Cut Mode

Cut Depth

Depth

Rotational Angle

3D/4D *(cont.)*

Step Angle

Rotation Axis

Start Angle

End Angle

Loop Speed

Easy 3D

Utilities

Texture

Gray Surface

Render

Threshold1

Threshold2

Scan Distance

Colorize

Advanced 3D

DefineAxis

Group Planes

Reslice

Tile

General system parameters

System setup

10 pre-programmable categories

User programmable preset capability

Factory default preset data

Languages English, Latin American Spanish, French, German, Italian, Brazilian Portuguese, Chinese (simplified), Swedish, Russian, Norwegian, Danish, Dutch, Finnish

OB report formats

Tokyo Univ., Osaka Univ., USA, Europe, and ASUM

User defined annotations

Body patterns

Customized comment home position

General system parameters *(cont.)*

System scanning parameters

Digital Agile Beamformer Architecture
7,411,810 system processing channels
Max. Frame Rate: 1790 fps, probes and modes dependent
Displayed Imaging Depth: 1 – 33 cm
Minimum Depth of Field: 0 – 1 cm, probe dependent
Maximum Depth of Field: 0 – 33 cm, probe dependent
Transmission Focus: 1 – 8 Focal Points selectable, probe and application dependent
Quad Beamforming
Continuous Dynamic Receive Focus/Aperture
Multi-Frequency/Wideband Technology
Frequency Range: 1.7 to 18 MHz
256 Shades of Gray
269 dB systematic Dynamic Range
Adjustable Field of View (FOV): Up to 168 degree, probe dependent
Image Reverse: Right/Left
Image Rotation of 0°, 90°, 180°, 270°

B-Mode

Acoustic power output	0 – 100%, 2, 5 and 10 steps
Gain	From 0 – 90 dB, 1 dB per step
Adjustable dynamic range	36 – 96 dB, 3 or 6 dB per step
Frame averaging	8 steps
Maximum frame rate	≥ 1449 fps
Gray scale map	6 or 8 types, probe and application dependent
B colorization	9 types
Frequency	Up to 4 selectable, probe dependent
Line density	992, 5 – 7 steps, probe dependent
Line density zoom	5 – 7 steps, probe dependent
Thermal index	TIC, TIS, TIB
Image reverse	On/off
Focus number	8 steps

B-Mode *(cont.)*

Focus width	3 types
Suppression	6 steps
Edge enhance	7 steps
Rejection	Up to 9 steps, probe dependent
Steered linear	±12°, ±15°, probe dependent
Scanning size (FOV or angle, probe dependent)	
SRI-HD	Up to 8 levels selectable
CrossXBeam	Up to 9 angles selectable, probe dependent
Depth	1 – 33 cm, 0.5, 1 or 2 cm per step, probe dependent

Coded Harmonic Imaging

Available on all probes

Line density	5 or 6 steps, probe dependent
Line density zoom	5 or 6 steps, probe dependent
Suppression	6 steps
Edge enhance	7 steps
Gray map	6 or 8 types, probe and application dependent
Tint map	9 types
Gain	0 – 90 dB, 1 dB per step
Dynamic range	51 – 78 dB, 3 dB per step; 36 – 48 dB/78 – 96 dB, 6 dB per step;
Rejection	Up to 9 steps, probe dependent
Frequency	Up to 4 steps, probe dependent

SRI-HD

High Definition Speckle Reduction Imaging provides multiple levels of speckle reduction

Compatible with side-by-side DualView display

Compatible with all linear, convex and sector transducers

Compatible with B-Mode, 3D/4D imaging

General system parameters *(cont.)*

CrossXBeam

Provides 3, 5, 7, 9 of spatial compounding

Live side-by-side DualView display

Compatible with

- Color Mode
- SRI-HD
- Virtual Convex

- PW
- Coded Harmonic Imaging

Available on 4C-RS, L6-12-RS, E8C-RS, E8Cs-RS, 8C-RS, RAB2-6-RS, 12L-RS, LK760-RS, L8-18i-RS

Color Flow mode

Baseline 0 – 100%, 10% per step

Invert Off/on

CF/PDI focus depth Default pre-settable for 10 – 100% of ROI in depth, 15% or 20% per step

CF/PDI flash suppression 5 steps

CF/PDI angle steer 0, $\pm 10^\circ$, $\pm 15^\circ$, $\pm 20^\circ$, probe dependent

Packet size 8 – 24, probe and application dependent

Line density 5 steps

Line density zoom 5 steps

Frame average 7 steps

Maximum frame rate ≥ 1449 fps

PRF 0.1 – 27.8 KHz

Spatial filter 6 steps

Gain 0 – 40 dB, 0.5 dB per step

Wall filter 4 steps, probe and application dependent

Scanning size (FOV or angle) Probe dependent

CF/PDI vertical size (mm) of ROI Default pre-settable

CF/PDI center depth (mm) of ROI Default pre-settable

CF/PDI frequency Up to 5 steps, probe dependent

Color maps, including velocity-variance maps 19 types, probe and application dependent

Transparent map 5 steps

Color threshold 0 – 100%, 10% per step

Accumulation 8 steps

Power Doppler Imaging mode

PDI map 14 types

CF/PDI focus depth Default pre-settable for 10 – 100% of ROI in depth, 15% or 20% per step

CF/PDI acoustic output 0 – 100%, 2%, 5% or 10% per step

CF/PDI angle steer 0, $\pm 10^\circ$, $\pm 15^\circ$, $\pm 20^\circ$, probe dependent

Packet size 8 – 24, probe and application dependent

Spatial filter 6 steps

Frame average 7 steps

PRF 0.1 – 27.8 KHz

Power threshold 0 – 100%, 10% per step

Gain 0 – 40 dB, 0.5 dB per step

Wall filter 4 steps, probe and application dependent

CF/PDI frequency Up to 5 steps, probe dependent

Transparent map 5 steps

Invert On/off

Accumulation 8 steps

M-Mode

Gain -20 – 20 dB, 1 dB per step

Gray scale map 6 or 8 types, probe dependent

Colorization 9 types

Scanning size (FOV or angle, probe dependent, see probe specifications)

Rejection 6 steps

Compression 13 steps

Sweep Speed 8 steps

M/PW display format Vert 1/3B, Vert 1/2B, Vert 2/3B, Horiz 1/2B, Horiz 1/4B, TL only

Anatomical M-Mode (option)

M-Mode cursor adjustable at any plane

Can be activated from a Cine loop from a live or stored image

Measure and analysis capability

Available with Color Flow mode

General system parameters *(cont.)*

Pulse Wave Doppler Mode

Acoustic power	0 – 100%, 2, 5 and 10 steps
Gain	0 – 85 dB, 1 dB per step
Gray scale map	Up to 8 types
PRF	0.3 – 27.9 KHz
Transmit frequency	1.7 – 10 MHz, probe dependent
Wall filter	5.5 – 5000 Hz, 27 steps, probe dependent
PW colorization	Up to 6 types
Velocity scale range	0.1 – 7011 cm/s
Sample volume depth	0.1 – 33 cm, probe dependent
Sweep speed	0 – 7, 8 steps
SV gate	1, 2, 3, 4, 5, 6, 7, 8, 10, 12, 14, 16 mm
Angle correction	-90° – 90°, 1° per step
M/PW display format	Vert 1/3B, Vert 1/2B, Vert 2/3B, Horiz 1/2B, Horiz 1/4B, TL only
Spectrum inversion	Off/on
Simultaneous	Off (PW only)/on
PW angle steer	0, ±10°, ±15°, ±20° (use angle steer of B-Mode), probe dependent
Trace method	Off, Max, Mean
Baseline shift	11 steps
Auto Calcs/Doppler Auto Trace	Off, Frozen, Live
Compression	0.5 – 2.4 (0.5, 0.7, 0.9, 1, 1.1, 1.4, 1.6, 2, 2.4)
Trace direction	Above, Below, Both
Trace sensitivity	0 – 40, 2 per step

Continues Wave Doppler Mode

Gray scale map	8 types
Baseline	11 steps
Angle correct	-90° – 90°, 1° per step
Spectral color	6 types
Invert	Off/on
Cycles to average/ Spectral averaging	5 steps
Gain	0 – 85 dB, 1 dB per step

Continues Wave Doppler Mode *(cont.)*

Wall filter 5.5 – 5000 Hz, 27 steps, probe and application dependent

CW-Mode includes

- Transmit frequency: 1.9, 4.2, 5.0, 6.2 MHz
- CW colorization: Tint map A/B/C/D/E/F
- Velocity scale range: 0.2 – 6105 cm/s
- Spectrum inversion
- Trace method: Max, Mean, Off
- Auto Calcs/Doppler Auto Trace: Frozen, Live, Off
- Trace direction: Above, Below, Both

Trace sensitivity: 0 – 40, 2 per step

Cine memory/image memory

384 MB of Cine memory

Selectable Cine sequence for Cine review

Maximum number of cine loops 410691 images

Cine loop capacity

- B-Mode: 919 seconds
- M-Mode: 423 seconds
- CFM Mode: 4,978 seconds
- PW Mode: 27,983 seconds
- CW Mode: 27,962 seconds

Prospective Cine mark

Measurements/calculations and annotations on Cine playback

Scrolling timeline memory

Dual image Cine display

Quad image Cine display

Cine gauge and Cine image number display

Cine review loop

Cine review speed 11 steps (11, 13, 14, 17, 22, 25, 31, 48, 100, 200, 400%)

Image storage

On-board database of patient information

Conversion to formats JPEG, AVI, WMV

Live image and stored image side-by-side display

Reload of archived data sets

Network storage support for Import, Export, DICOM Read, SaveAs

General system parameters *(cont.)*

Image storage *(cont.)*

- | | |
|-----------------|---|
| Storage formats | <ul style="list-style-type: none"> • DICOM – compressed/uncompressed, single/multi-frame, with/without Raw Data • Export JPEG, WMV (MPEG 4) and AVI formats • DICOM still image storage size: ~3.9 MB • Display format: Full size, 4 x 4 and thumbnails |
|-----------------|---|

- | | |
|-----------------|--|
| Storage devices | <ul style="list-style-type: none"> • Internal hard drive partition of 299 GB for image storage • External USB HDD and USB memory stick support for Import, Export, DICOM Read, SaveAs • CD-RW storage: 700 MB • DVD storage: -R (4.4 GB) |
|-----------------|--|

Connectivity and DICOM

- | | |
|-----------------------------|---|
| Ethernet network connection | <ul style="list-style-type: none"> • DICOM 3.0 • Verify • Print • Store • Modality worklist • Storage commitment • Modality Performed Procedure Step (MPPS) • Query/retrieve • Structured reporting template (Can be compared to vascular and OB standard) • RSVP Remote capability |
|-----------------------------|---|

Virtual Convex

Provides a convex field of view

Compatible with CrossXBeam for linear transducers

Available on linear and sector transducers

LOGIQ View (option)

Extended Field of View Imaging

Available on 4C-RS, L6-12-RS, 8C-RS, 3Sc-RS, E8C-RS, E8Cs-RS, 6S-RS, LK760-RS, 12L-RS, RAB2-6-RS, 12S-RS, L8-18i-RS probes

For use in B-Mode

CrossXBeam is available on linear probes

Auto detection of scan direction

LOGIQ View (Option) *(cont.)*

Post-process zoom

Rotation

Auto fit on monitor

Measurements in B-Mode

Up to 60 cm scan length

Easy 3D (Option)

Allows unlimited rotation and planar translations

3D reconstruction from Cine sweep

Threshold1: 0 – 255

Utilities: Average off/Average light/Average medium/Average Strong

Grey surface: Off/On

Scan distance: 1.0 – 15.0

Threshold2: 0 – 255

Colorize: 0 – 360

Advanced 3D (Option)

Define axis: Select 2 points as start and end point of long axis

Group planes: Off/Main/Parallel/Angular

Reslice: Cube/Virtual Rescan/Cubic Plane

Tile: 1/2/4/6

Static 3D/Real-time 4D (option)

Available on RAB2-6-RS

Acquisition modes	<ul style="list-style-type: none"> • Static 3D • Real-time 4D
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Visualization modes	<ul style="list-style-type: none"> • 3D rendering (diverse surface and intensity projection modes) • Sectional planes (3 section planes perpendicular to each other) • TUI
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Render Mode	Surface Texture, Surface Smooth, Transp. Max, Transp. Min, Transp. X-ray, Mix Mode of two render modes
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Display format	<ul style="list-style-type: none"> • Quad: A-/B-/C-Plane/3D • Dual: A-Plane/3D • Single: 3D
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Curved 3-point render start

General system parameters *(cont.)*

Static 3D/Real-time 4D (option) *(cont.)*

3D Movie	<ul style="list-style-type: none"> • Loop Speed: 6 – 400 • Run/stop • Scalpel: 3D cut tool • Cut mode: Inside Contour/Outside Contour/Inside Box/Outside Box/Small Eraser/Big Eraser • Cut depth: Full/User Defined • Depth: 0 – 1000 • 3D rotation Cine • Rotational angle: 30 – 360° • Step angle: 1 – 15° • Rotation axis: X/Y • 3D volume review • Start frame: Define start frame • End frame: Define end frame
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TUI: Tomographic Ultrasound Imaging	<ul style="list-style-type: none"> • Display format: 1x1/1x2/2x2/3x3/4x4 • Slices: 3 – 19 • Slices distance: 0.5 – 40 mm
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Real-time 4D	<ul style="list-style-type: none"> • 4D Volume Cine • LoopSpeed: 6-400 • Run/Stop
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Niche

VOCAL (option): Virtual Organ Computer-aided Analysis

B-Flow (option)

Available on 4C-RS, L6-12-RS, 12L-RS

Background	On/off
Sensitivity/PRI	1 – 50, 17 steps
Line density	5 steps
Edge enhance	7 steps
Frame average	0 – 7, 8 steps
Gray scale map	8 maps
Tint map	5 maps
Dynamic range	36 – 96 dB, 16 steps
Rejection	6 steps
Gain	0 – 90 dB range, 1 dB per step
B-Flow Color	
Accumulation	8 levels

TVI (option)

Myocardial Doppler imaging with color overlay on tissue image

Available on the sector probes

Tissue color overlay can be removed to show just the 2D image, still retaining the tissue velocity information

QAnalysis: Multiple Time Motion trace display from selected points in the myocardium

TVM (option)

TVI with M-Mode active

Available on the sector probes

Provides both myocardium motion velocity and direction

Stress Echo (option)

Advanced and flexible Stress Echo examination capabilities

- Provides exercise and pharmacological protocol templates
- 8 default templates
- Template editor for user configuration of existing templates or creation of new templates
- Reference scan display during acquisition for stress level

Comparison (dual screen)

- Baseline level/previous level selectable
- Raw data continuous capture
- Over 87.5 seconds available
- Wall motion scoring (bullseye and segmental)
- Smart stress: Automatically set up various scanning parameters (geometry, frequency, gain, etc.) according to same projection on previous level

Follow-up Tool (option)

The Follow-up Tool is intended to more accurately perform serial scans on a patient, and compare the images of a previous ultrasound exam with the current exam.

Needle recognition (option)

Needle recognition allows you to obtain precise needle imaging in the dashed box. It is available with probes on L6-12-RS, 12L-RS, 4C-RS.

General system parameters *(cont.)*

Scan Coach (option)

Scan Coach is a contextual reference tool. It is with clinical guidance for scan plane acquisition and references for anatomical structures. It can be displayed on-demand by the user. Clinical reference images and animations to depict information related to each step. It covers five applications.

- Abdomen
- Obstetrics
- Gynecology
- Cardiology
- Vascular

My Trainer

Abstracted from basic user manual, it lists out FAQs from customers and instructs customer how to solve problems by themselves timely.

Battery (option)

The lithium ion battery provides power when an AC power source is not available. About 15 minutes of battery life can be expected with fully charged battery in use to supply power to the system.

Scan Assistant

Scan Assistant provides an automated exam script that moves you through an exam step-by-step. This allows you to focus on performing the exam rather than on controlling the system and can help you to increase consistency while reducing keystrokes.

RSVP

RSVP is a direct link with a GE HealthCare Online Service Engineer or Applications Support Engineer or a Request for Service.

Whizz

Whizz will continuously optimize the brightness, contrast and uniformity of B-Mode images when scanning different tissues. Whizz in PW/CW Doppler Mode optimizes the spectral data. Auto adjusts the Velocity Scale/PRF (live imaging only), baseline shift, and invert (if preset). Upon deactivation, the spectrum is still optimized.

Whizz CF Mode

Whizz CF Mode dynamically optimizes CF mode parameters in real time, enabling optimal, consistent image quality and measurements.

Whizz Label

Whizz Label can simplify the workflow by annotating ultrasound images automatically for documentation purposes similar to manual annotation of ultrasound images.

V-Live

V-Live offers the ability to customize light source directions in 3D mode, enabling focused clarity, on targeted region of interest.

Lateral Gain Compensation (LGC)

To set Lateral Gain Compensation values based on LGC curves defined by a user; By laterally adjusting the received signal intensity, the uniformity of a B-Mode image intensity is optimized in lateral direction.

Elastography (option)

Available on 4C-RS, L6-12-RS, 12L-RS, E8Cs-RS

- Frame reject: 0 – 8
- Axial smoothing: 0 – 4
- Noise reject: 0 – 8
- Sample Volume: 0 – 4, probe dependent
- Lateral smoothing: 0 – 4
- Window: 0 – 8
- Map: 8
- Frame average: 0 – 10
- Line Density: 0 – 4
- Soft compress: 0 – 10
- Hard compress: 0 – 10

LI-RADS ACR (option)

The Ultrasound Liver Imaging Reporting And Data System (US LI-RADS) is a standardized system for imaging technique, interpretation, reporting, and data collection for screening or surveillance ultrasound exams in patients at risk for developing hepatocellular carcinoma (HCC).

e-Delivery

Electronic software delivery. As part of the product lifecycle management, GE HealthCare regularly analyzes and integrates software updates into our products.

Probe Check

Probe assessment tool that evaluates probe elements to monitor potential probe deterioration over probe life cycle.

General system parameters *(cont.)*

Contrast agency detection (option) *(cont.)*

- Available on 4C-RS
- Line density: 0, 1, 2, 3, 4
 - SRI HD: 0, 1, 2
 - Suppression: 0, 1, 2, 3, 4, 5
 - Frame average: 0, 1, 2, 3, 4, 5, 6, 7
 - Dynamic range: 36 – 96 dB
 - Rotation: Up/down
 - Modes: General, Resolution and Penetration, Frequencies
 - Display tissue image and contrast-enhanced image simultaneously in split screen
 - 2 contrast timers
 - Time delay: 0.3 – 10 seconds
 - Accumulation mode: 8 steps
 - Maximum Enhance Mode: On/Off
 - Gray scale map: 10 types
 - Colorization: On/Off, 6 steps
 - Flash
 - Time Intensity Curve (TIC) Analysis
 - Auto MI control
 - Time trigger scan: 0.3 – 10 seconds; from 0.5 seconds to 10 seconds, 0.5 seconds per step
 - Flash/burst mode
 - Contrast tech: AM
 - Single view/dual view
 - Visualization: Contrast, Tissue
 - Hybrid Contrast
 - Hybrid map: 6 types

Controls available while “live”

Write Zoom

- | | | |
|----------|--|--|
| B/M-Mode | <ul style="list-style-type: none"> • Gain • Dynamic Range • Transmission Focus Position • Line Density Control • Sweep Speed for M-Mode | <ul style="list-style-type: none"> • TGC • Acoustic Output • Transmission Focus Number • Number of Angles for CrossXBeam |
|----------|--|--|

- | | | |
|---------|---|---|
| PW-Mode | <ul style="list-style-type: none"> • Gain • Acoustic Output • Transmission Frequency • Scale • Wall Filter | <ul style="list-style-type: none"> • Sample Volume Gate – Length – Depth • Volume |
|---------|---|---|

Controls available while “live” *(cont.)*

- | | | |
|-----------------|---|--|
| Color Flow Mode | <ul style="list-style-type: none"> • CFM Gain • Acoustic Output • Wall Filter • Line Density • CFM Frame Average | <ul style="list-style-type: none"> • CFM Velocity Range • Packet Size • CFM Spatial Filter • Frequency/Velocity Baseline Shift |
|-----------------|---|--|

Controls available on Freeze or Recall

SRI-HD

CrossXBeam – Display non-compounded and compounded image simultaneously in split screen

Easy 3D reconstruction from a stored Cine loop

CrossXBeam is disabled on Freeze or Recall

TGC

Colorized B and M

Frame average (loops only)

Dynamic range

Anatomical M-Mode

Gray Map

Post gain

Baseline shift (PW, CW)

Sweep speed

Compression

Rejection

Colorized spectrum

Display format

Angle Correct

Quick Angle Correct

Overall gain (loops and stills)

Color map

Transparency map

CFM display threshold

Invert for Color/Doppler

Measurements/calculations

General B-Mode

Depth and distance

Circumference (ellipse/trace)

Area (ellipse/trace)

Volume

% Stenosis (area or diameter)

Angle between 2 lines

General M-Mode

M-Depth

Distance

Time

Slope

Heart rate

General Doppler measurements/calculations

Velocity

Time

A/B ratio (velocities)

PS (Peak Systole)

ED (End Diastole)

PS/ED (PS/ED ratio)

ED/PS (ED/PS ratio)

AT (Acceleration Time)

ACCEL (Acceleration)

TAMAX (Time Averaged Maximum Velocity)

Volume Flow (TAMEAN and vessel area)

Heart Rate

PI (Pulsatility Index)

RI (Resistivity Index)

Real-time Doppler Auto measurements/calculations

PS (Peak Systole)

ED (End Diastole)

MD (Minimum Diastole)

PI (Pulsatility Index)

RI (Resistivity Index)

Real-time Doppler Auto measurements/calculations (cont.)

AT (Acceleration Time)

ACC (Acceleration)

PS/ED (PS/ED Ratio)

ED/PS (ED/PS Ratio)

HR (Heart Rate)

TAMAX (Time Averaged Maximum Velocity)

PVAL (Peak Velocity Value)

Volume Flow (TAMEAN and Vessel Area)

OB measurements/calculations

Gestational age by

- GS (Gestational Sac)
- CRL (Crown Rump Length)
- FL (Femur Length)
- BPD (Biparietal Diameter)
- AC (Abdominal Circumference)
- HC (Head Circumference)
- APTD x TTD (Anterior/Posterior Trunk Diameter by Transverse Trunk Diameter)

Trunk Diameter

- FTA (Fetal Trunk Cross-sectional Area)
- HL (Humerus Length)
- BD (Binocular Distance)
- FT (Foot Length)
- OFD (Occipital Frontal Diameter)
- TAD (Transverse Abdominal Diameter)
- TCD (Transverse Cerebellum Diameter)
- THD (Thorax Transverse Diameter)
- TIB (Tibia Length)
- ULNA (Ulna Length)

Estimated Fetal Weight (EFW) by

- AC, BPD
- AC, FL, HC
- AC, BPD, FL, HC

Calculations and ratios

- FL/BPD
- FL/HC
- CI (Cephalic Index)
- CTAR (Cardio-Thoracic Area Ratio)

SonoBiometry

- BPD
- AC
- FL
- HC
- HL

Measurements/calculations by: ASUM, ASUM 01, Berkowitz, Bertagnoli, Brenner, Campbell, CFEF, Chitty, Eik-Nes, Eriksen, Goldstein, Hadlock, Hansmann, Hellman, Hill, Hohler, Jeanty, JSUM, Kurtz, Mayden, Mercer, Merz, Moore, Nelson, Osaka, Paris, Rempen, Robinson, Shepard, Shepard/Warsoff, Tokyo, Tokyo/Shinozuka, Yarkoni

Fetal graphical trending

Growth percentiles

Multi-gestational calculations

Measurements/calculations *(cont.)*

OB measurements/calculations *(cont.)*

Fetal qualitative description (anatomical survey)

Fetal Environmental Description (Biophysical profile)

Programmable OB tables

Over 20 selectable OB calculations

Expanded worksheets

GYN measurements/calculations

Right ovary length, width, height

Left ovary length, width, height

Uterus length, width, height

Cervix length, trace

Ovarian volume

ENDO (Endometrial thickness)

Ovarian RI

Uterine RI

Follicular measurements

Vascular measurements/calculations

DCCA (Distal Common Carotid Artery)

MCCA (Mid Common Carotid Artery)

PCCA (Proximal Common Carotid Artery)

DICA (Distal Internal Carotid Artery)

MICA (Mid Internal Carotid Artery)

PICA (Proximal Internal Carotid Artery)

DECA (Distal External Carotid Artery)

PECA (Proximal External Carotid Artery)

VERT (Vertebral Velocity)

SUBCLAV (Systolic Subclavian Velocity)

Automatic IMT

Urological calculations

Volume (Auto Bladder volume)

Prostate volume

Left/right renal volume

Generic volume

Post-void bladder volume

Cardiac measurements/calculations

B-Mode measurements

Aorta

- Aortic Root Diameter (Ao Root Diam)
- Aortic Arch Diameter (Ao Arch Diam)
- Ascending Aortic Diameter (Ao Asc)
- Descending Aortic Diameter (Ao Desc Diam)
- Aorta Isthmus (Ao Isthmus)
- Aorta (Ao st junct)

Aortic valve

- Aortic Valve Cusp Separation (AV Cusp)
- Aortic Valve Area Planimetry (AVA Planimetry)
- (Trans AVA)

Left atrium

- Left Atrium Diameter (LA Diam)
- LA Length (LA Major)
- LA Width (LA Minor)
- Left Atrium Area (LAA(d), LAA(s))
- Left Atrium Volume, Single Plane, Method of Disk (LAEDV A2C, LAESV A2C) (LAEDV A4C, LAESV A4C)

Left ventricle

- Left Ventricle Volume, Teichholz/Cubic (LVIDd, LVI Ds)
- Left Ventricle Internal Diameter (LVIDd, LVI Ds)
- Left Ventricle Length (LVLd, LVLs) Left Ventricle Outflow Tract Diameter (LVOT Diam)
- Left Ventricle Posterior Wall Thickness (LVPWd, LVPWs)
- Left Ventricle Length (LV Major)
- Left Ventricle Width (LV Minor)
- Left Ventricle Outflow Tract Area (LVOT)
- Left Ventricle Mass Index (LVPWd, LVPWs)
- Ejection Fraction, Teichholz/Cube (LVIDd, LVIDs)
- Left Ventricle Posterior Wall Fractional Shortening (LVPWd, LVPWs)
- Mitral Valve
- E-Point-to-Septum Separation (EPSS)
- Mitral Valve Area Planimetry (MVA Planimetry)

Pulmonic valve

Pulmonic Diameter (Pulmonic Diam)

Right ventricle

- Right Ventricle Internal Diameter (RVIDd, RVIDs)
- Right Ventricle Outflow Tract Diameter (RVOT Diam)

System inferior vena cava

- Systemic Vein Diameter (Systemic Diam)

Cardiac measurements/calculations

(cont.)

M-Mode measurements

Aorta	<ul style="list-style-type: none"> • Aortic Root Diameter (Ao Root Diam) • Aortic Valve Diameter (AV Diam) • Aortic Valve Cusp Separation (AV Cusp) • Aortic Valve Ejection Time (LVET)
Left atrium & left ventricle	<ul style="list-style-type: none"> • Left Atrium Diameter to AoRoot Diameter Ratio (LA/Ao Ratio) • Left Atrium Diameter (LA Diam) • Left Ventricle Volume, Teichholz/Cubic (LVIDd, LVI Ds) • Left Ventricle Posterior Wall Thickness (LVPWd, LVPWs) • Left Ventricle Ejection Time (LVET) • Left Ventricle Pre-Ejection Period (LVPEP) • Interventricular Septum (IVS)
Mitral valve	<ul style="list-style-type: none"> • E-Point-to-Septum Separation (EPSS) • Mitral Valve Anterior Leaflet Excursion (D-E Excursion) • Mitral Valve D-E Slope (D-E Slope) • Mitral Valve E-F Slope (E-F Slope)
Pulmonic valve	<ul style="list-style-type: none"> • QRS complex to end of envelope (Q-to-PV close) • Right Ventricle Internal Diameter (RVIDd, RVIDs) • Right Ventricle Outflow Tract Diameter (RVOT Diam) • Right Ventricle Ejection Time (RVET) • Right Ventricle Pre-Ejection Period (RVPEP)
Tricuspid valve	<ul style="list-style-type: none"> • QRS complex to end of envelope (Q-to-TV close)

Doppler Mode measurements

Aortic valve	<ul style="list-style-type: none"> • Aortic Valve Mean Velocity (AV Trace) • Aortic Valve Velocity Time Integral (AV Trace) • Aortic Valve Mean Pressure Gradient (AV Trace) • Aortic Valve Peak Pressure Gradient (AR Vmax) • Aortic Insufficiency Peak Velocity (AR Vmax) • Aortic Insufficiency End-Diastolic Velocity (AR Trace) • Aortic Valve Peak Velocity (AV Vmax) • Aortic Valve Deceleration Time (AV Trace) • Aortic Valve Ejection Time (AVET) • Aortic Valve Area according to PHT
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Doppler Mode measurements (cont.)

Left ventricle	<ul style="list-style-type: none"> • Left Ventricle Outflow Tract Peak Pressure Gradient (VLOT Vmax) • Left Ventricle Outflow Tract Peak Velocity (LVOT Vmax) • Left Ventricle Outflow Tract Mean Pressure Gradient (LVOT Trace) • Left Ventricle Outflow Tract Velocity Time Integral (LVOT Trace) • Left Ventricle Ejection Time (LVET)
Mitral valve	<ul style="list-style-type: none"> • Mitral Valve Regurgitant Mean Velocity (MR Trace) • Mitral Regurgitant Mean Pressure Gradient (MR Trace) • Mitral Regurgitant Velocity Time Integral (MR Trace) • Mitral Valve Mean Velocity (MR Trace) • Mitral Valve Velocity Time Integral (MR Trace) • Mitral Valve Mean Pressure Gradient (MR Trace) • Mitral Regurgitant Peak Pressure Gradient (MR Vmax) • Mitral Valve Peak Pressure Gradient (MR Vmax) • Mitral Regurgitant Peak Velocity (MR Vmax) • Mitral Valve Peak Velocity (MR Vmax) • Mitral Valve Velocity Peak A (MV A Velocity) • Mitral Valve Velocity Peak E (MV E Velocity) • Mitral Valve Area according to PHT (MV PHT) • Mitral Valve E-Peak to A-Peak Ratio (A-C and D-E) (MV E/ARatio) • Mitral Valve Acceleration Time (MV ACC Time) • Mitral Valve Deceleration Time (MV Dec. Time) • Mitral Valve Acceleration Time/Deceleration Time Ratio (MVAcc/Dec. Time)
Pulmonic valve	<ul style="list-style-type: none"> • Pulmonic Insufficiency Peak Pressure Gradient (PR Vmax) • Pulmonic Insufficiency End-Diastolic Pressure Gradient (PRTrace) • Pulmonic Valve Peak Pressure Gradient (PV Vmax) • Pulmonic Insufficiency Peak Velocity (PR Vmax) • Pulmonic Insufficiency End-Diastolic Velocity (Prend Vmax)

Cardiac measurements/calculations

(cont.)

Doppler Mode measurements (cont.)

- Pulmonic valve**
- Pulmonic Valve Peak Velocity (PV Vmax)
 - Pulmonary Artery Diastolic Pressure (PV Trace)
 - Pulmonic Insufficiency Mean Pressure Gradient (PR Trace)
 - Pulmonic Valve Mean Pressure Gradient (PV Trace)
 - Pulmonic Insufficiency Mean Square Root Velocity (PR Trace)
 - Pulmonic Insufficiency Velocity Time Integral (PR Trace)
 - Pulmonic Valve Mean Velocity (PV Trace)
 - Pulmonic Valve Velocity Time Integral (PV Trace)
 - Pulmonic Insufficiency Pressure Half Time (PR PHT)
 - Pulmonic Valve Flow Acceleration (PV Acc Time)
 - Pulmonic Valve Acceleration Time (PV Acc Time)
 - Pulmonic Valve Ejection Time (PVET)
 - QRS complex to end of envelope (Q-to-PV close)
 - Pulmonic Valve Acceleration to Ejection Time Ratio (PV Acc Time, PVET)

- Right ventricle**
- Right Ventricle Outflow Tract Peak Pressure Gradient (RVOT Vmax)
 - Right Ventricle Outflow Tract Peak Velocity (RVOT Vmax)
 - Right Ventricle Outflow Tract Velocity Time Integral (RVOT Trace)
 - Right Ventricle Ejection Time (RV Trace)
 - Stroke Volume by Pulmonic Flow (RVOT Planimetry, RVOT Trace)
 - Right Ventricle Stroke Volume Index by Pulmonic Flow (RVOT Planimetry, RVOT Trace)

- System**
- Pulmonary Artery Peak Velocity (PV Vmax)
 - Pulmonary Vein Velocity Peak A (reverse) (P Vein A)
 - Pulmonary Vein Peak Velocity (P Vein D, P Vein S)
 - Systemic Vein Peak Velocity (PDA Diastolic, PDA Systolic)
 - Ventricular Septal Defect Peak Velocity (VSD Vmax)
 - Atrial Septal Defect (ASD Diastolic, ASD Systolic)
 - Pulmonary Vein A-Wave Duration (P Vein A Dur)
 - IsoVolumetric Relaxation Time (IVRT)

12.03 Doppler Mode measurements (cont.)

- System (cont.)**
- IsoVolumetric Contraction Time (IVCT)
 - Pulmonary Vein S/D Ratio (P Vein D, P Vein S)
 - Ventricular Septal Defect Peak Pressure Gradient (VSD Vmax)
 - Pulmonic-to-Systemic Flow Ratio (Qp/Qs)
- Tricuspid valve**
- Tricuspid Regurgitant Peak Pressure Gradient (TR Vmax)
 - Tricuspid Valve Peak Pressure Gradient (TV Vmax)
 - Tricuspid Regurgitant Peak Velocity (TR Vmax)
 - Tricuspid Valve Peak Velocity (TV Vmax)
 - Tricuspid Valve Velocity Peak A (TV A Velocity)
 - Tricuspid Valve Velocity Peak E (TV E Velocity)
 - Tricuspid Regurgitant Mean Pressure Gradient (TR Trace)
 - Tricuspid Valve Mean Pressure Gradient (TV Trace)
 - Tricuspid Regurgitant Velocity Time Integral (TR Trace)
 - Tricuspid Valve Mean Velocity (TV Trace)
 - Tricuspid Valve Velocity Time Integral (TV Trace)
 - Tricuspid Valve Time to Peak (TV Acc/Dec Time)
 - Tricuspid Valve Ejection Time (TV Acc/Dec Time)
 - Tricuspid Valve A-Wave Duration (TV A Dur)
 - QRS complex to end of envelope (Q-to-TV close)
 - Tricuspid Valve Pressure Half Time (TV PHT)
 - Tricuspid Valve E-Peak to A-Peak Ratio (TV E/A Velocity)

Color Flow Mode measurements

- Aortic valve**
- Proximal Isovelocity Surface Area: Regurgitant Flow (AR Trace)
 - Proximal Isovelocity Surface Area: Regurgitant Volume Flow (AR Trace)
 - Proximal Isovelocity Surface Area: Aliased Velocity (AR Vmax)

- Mitral valve**
- Proximal Isovelocity Surface Area: Regurgitant Flow (MR Trace)
 - Proximal Isovelocity Surface Area: Regurgitant Volume Flow (MR Trace)
 - Proximal Isovelocity Surface Area: Aliased Velocity (MR Vmax)

Cardiac measurements/calculations

(cont.)

Combination Mode measurements

Aortic valve	<ul style="list-style-type: none"> Aortic Valve Area (Ao Diam., LVOT Vmax, AV Vmax) Aortic Valve Area by Continuity Equation by Peak Velocity (Ao Diam, LVOT Vmax, AV Vmax) Stroke Volume by Aortic Flow (AVA Planimetry, AV Trace) Cardiac Output by Aortic Flow (AVA Planimetry, AV Trace, HR) Aortic Valve Area by Continuity Equation VTI (Ao Diam, LVOT Vmax, AV Trace)
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Left ventricle	Cardiac Output, Teichholz/Cubic (LVIDd, LVI Ds, HR)
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Mitral valve	<ul style="list-style-type: none"> Stroke Volume by Mitral Flow (MVA Planimetry, MV Trace) Cardiac Output by Mitral Flow (MVA Planimetry, MV Trace, HR)
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Cardiac worksheet

Parameter: Lists the mode, the measurement folder and the specific measurement

Measured Value: Up to six measurement values for each item. Average, maximum, minimum, or last

Generic study in cardiology

Probes

4C-RS

Convex probe

Applications	Abdominal, OB, GYN, Vascular, Urology, Thoracic, Pediatric, MSK, Interventional Guidance
Number of elements	128
Convex radius	60 mm
FOV	58°
Footprint	66.2 x 18.3 mm
B-Mode imaging frequency	2.0, 3.0, 4.0, 5.0 MHz
Harmonic imaging frequency	3.0, 4.0, 5.0 MHz
CFM/PDI/PWD frequency	2.0 MHz (CFM/PDI) 2.5, 2.8, 3.3 MHz
Biopsy guide	Multi-angle, reusable bracket

L6-12-RS

Linear probe

Applications	Vascular, Pediatric, Small Parts, MSK, Thoracic, Interventional Guidance
Number of elements	128
Footprint	47 x 11.4 mm
B-Mode imaging frequency	6.0, 8.0, 10.0, 11.0 MHz
Harmonic imaging frequency	8.0, 10.0, 12.0, 13.0 MHz
CFM/PDI frequency	4.0, 5.0, 6.0 MHz
PWD frequency	4.0, 4.5, 5.0 MHz
Steered angle	±20°
Biopsy guide	Multi-angle, reusable bracket

12L-RS

Linear probe

Applications	Vascular, Pediatric, Small Parts, MSK, Thoracic, Interventional Guidance
Number of elements	192
Footprint	47.1 x 12.7 mm
B-Mode imaging frequency	6.0, 8.0, 10.0, 12.0 MHz
Harmonic imaging frequency	8.0, 10.0, 12.0, 13.0 MHz
CFM/PDI/PWD frequency	4.2, 6.3, 7.7 MHz
Steered angle	±20°
Biopsy guide	Multi-angle, reusable bracket

L8-18i-RS

Linear probe

Applications	Vascular, Small Parts, MSK Superficial
Number of elements	168
Footprint	34.8 X 11.1 mm
B-Mode imaging frequency	8.0, 12.0, 14.0, 16.0 MHz
Harmonic imaging frequency	9.0, 15.0, 18.0 MHz
CFM/PDI/PWD frequency	6.7, 8.3, 10 MHz
Steered angle	±20°
Biopsy guide	Not available

Probes *(cont.)*

LK760-RS

Linear probe

Applications MSK, Interventional Guidance

Number of elements 128

Footprint 67.0 x 13.0 mm

B-Mode imaging frequency 5.0, 7.0, 9.0 MHz

Harmonic imaging frequency 6.0, 8.0, 10.0 MHz

CFM/PDI/PWD frequency 3.5, 4.2, 5.0 MHz

Steered angle $\pm 10^\circ$

Biopsy guide Not available

E8C-RS

Endo micro convex probe

Applications OB, GYN, Urology, Transvaginal, Transrectal, Interventional Guidance

Number of elements 128

Convex radius 10.73 mm

FOV 128°

Footprint 16.9 x 21.2 mm

B-Mode imaging frequency 6.0, 8.0, 10.0 MHz

Harmonic imaging frequency 7.0, 8.0, 10.0 MHz

CFM/PDI/PWD frequency 4.2, 5.0, 6.3 MHz

Biopsy guide Fixed angle, disposable or reusable bracket

8C-RS

Micro convex probe

Applications Pediatric, MSK, Cardiac, Pediatric, Transcranial, Interventional Guidance

Number of elements 128

Convex radius 10.73 mm

FOV 131°

Footprint 22.0 x 12.0 mm

B-Mode imaging frequency 6.0, 8.0, 10.0 MHz

Harmonic imaging frequency 6.0, 7.0, 8.0, 10.0 MHz

CFM/PDI/PWD frequency 4.2, 5.0, 6.3 MHz

Biopsy guide Not available

3Sc-RS

Phased array sector probe

Applications Cardiac, Abdominal, Vascular, Transcranial, Thoracic, Interventional Guidance

Number of elements 64

FOV 120°

Footprint 23.7 x 18.4 mm

B-Mode imaging frequency 2.0, 3.0, 4.0 MHz

Harmonic imaging frequency 3.0, 3.2, 3.5, 4.0 MHz

CFM/PDI/PWD frequency 1.7, 2.0, 2.5, 3.3 MHz

CWD frequency 1.9 MHz

Biopsy guide Multi-angle, reusable bracket

6S-RS

Phased array sector probe

Applications Cardiac Pediatric, Vascular, Pediatric, Transcranial, Interventional Guidance

Number of elements 64

FOV 120°

Footprint 23.5 x 16.8 mm

B-Mode imaging frequency 4.0, 5.0, 6.0 MHz

Harmonic imaging frequency 4.0, 5.0, 6.0, 7.0 MHz

CFM/PDI/PWD frequency 2.5 (CFM/PDI), 3.0, 4.0, 4.5 MHz

CWD frequency 4.2 MHz

Biopsy guide Not available

Probes *(cont.)*

RAB2-6-RS

Convex Volume Probe

Applications	Abdominal, OB, GYN, Urology, Interventional Guidance
Number of elements	128
Convex radius	47.1 mm
Footprint	62.2 x 34.0 mm
Volume sweep radius	24.11 mm
FOV	70° (B), 84° x 70° (volume scan)
B-Mode imaging frequency	3.0, 4.0, 5.0 MHz
Harmonic imaging frequency	4.0, 5.0, 6.0 MHz
CFM/PDI/PWD frequency	2.0, 2.5, 3.0, 4.0 MHz
Biopsy guide	Multi-angle, reusable bracket
Sweep speed	450°/s

E8CS-RS

Endo micro convex probe

Applications	OB, GYN, Urology, Transvaginal, Transrectal, Interventional Guidance
Number of elements	128
Convex radius	8.73 mm
Footprint	18.6 x 13.9 mm
FOV	168°
B-Mode imaging frequency	6.0, 8.0, 10.0 MHz
Harmonic imaging frequency	7.0, 8.0, 10.0 MHz
CFM/PDI/PWD frequency	4.0, 5.0, 6.0 MHz
Biopsy guide	Fixed angle, disposable or reusable bracket

12S-RS

Phased array sector probe

Applications	Vascular, Pediatric, Cardiac, Pediatric, Transcranial, Interventional Guidance
Number of elements	96
Footprint	17.6 x 13.2 mm
B-Mode imaging frequency	6.0, 8.0, 10.0, 11.0 MHz
Harmonic imaging frequency	9.0, 10.0, 12.0 MHz
CFM/PDI/PWD frequency	4.19 (CF/PDI), 4.5, 5.0, 5.6, 6.7 MHz
CW frequency	4.2, 5.0, 6.2 MHz
Biopsy guide	Not available

Inputs and outputs

CVBS output (RCA)

S-Video output

VGA output (1920 x 1080 resolution)

HDMI output (1920 x 1080 resolution)

Audio line-out (RCA)

Ethernet (RJ45)

USB (3x in rear, 1 beside keyboard)

Safety conformance

The Versana Balance is CE marked to Council Directive 93/42/EEC on medical devices

Conforms to the following standards for safety	<ul style="list-style-type: none">• IEC 60601-1 Medical electrical equipment – Part 1: General requirements for basic safety and essential performance• IEC 60601-1-2 Medical electrical equipment – Part 1-2: General requirements for basic safety and essential performance – Collateral Standard: Electromagnetic disturbances – requirements and tests EMC Emissions Group 1 Class A device requirements as per CISPR 11• IEC 60601-2-37 Medical electrical equipment – Part 2-37: Particular requirements for the basic safety and essential performance of ultrasonic medical diagnostic and monitoring equipment• ISO 10993-1 Biological evaluation of medical devices – Part 1 Evaluation and testing within a risk management process• EN 62366-1 Medical devices –Part 1: Application of usability engineering to medical devices
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