

SPECIFICATIE TEHNICA COMPELTAT

Model: VERSANA ACTIV; PN: H48402BA; Producator: GE Medical System; Tara: China in conlucrare cu Franta

CARACTERISITICI	DA	NU	OBSERVATII
A) UNITATEA ECOGRAFICA CU URMATOARELE CARACTERISTICI MINIME: Echipament de ultrasonografie multidisciplinar, portabil conceput pentru examinari abdominale, de obstetrica, ginecologice, de urologie, musculoscheletale, vasculare, urologice, pediatrie, cardiace, transcraniene si de partilor moi	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 1: Product description: Versana Active™ R1.5 ultrasound system delivers the imaging capability of a console in a hand carried, lightweight package that enables you to actively take your system to your patients, on premises or remote facilities. This reliable system brings the agility of a laptop unit with capability for attaching it to a cart. Adaptable to cover a broad range of everyday exams, it is easy to carry to clinics and physician offices. Conform Versana Active R1.5 Specification Sheet – Pag. 3: 3. System overview, 3.01 Applications: Abdominal, Obstetrical, Gynecological, Small parts, Musculoskeletal, Vascular/peripheral vascular, Urological, Pediatric, Cardiac, Thoracic, Transcranial, Transvaginal, Transrectal
CARACTERISTICI CONSTRUCTIVE, STRUCTURALE SI DIMENSIONALE Sistem portabil cu urmatoarele caractereistici:	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 1: Product description: Versana Active™ R1.5 ultrasound system delivers the imaging capability of a console in a hand carried, lightweight package that enables you to actively take your system to your patients, on premises or remote facilities.
Dimensiuni reduse pentru o usoara manipulare: sa nu depaseasca maxim 6x40x40cm	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 3: 1. General specifications, 1.01 Dimensions and weight: Height: 58 mm, Width: 390 mm, Length: 362 mm
Greutatea sistemului sa nu depaseasca 5,5 kg cu baterie	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 3: 1. General specifications, 1.01 Dimensions and weight: Weight (no Peripherals): 5.0 kg with battery
Consum maxim: 210VA - inclusiv cu periferice	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 3: 1. General specifications, 1.02 Electrical power: Power consumption: No more than 200 VA with peripherals
Panoul de comanda sa dispuna de tastatura alfanumerica ce prezinta film de protectie usor de spalata/sterilizat	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 3: 2. User interface, 2.01 Operator keyboard: Full alphanumeric keypad covered with washable protection film
Sistemul prezinta difuzoare integrate pentru frecvente joase ce asigura o acustica fidela	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 3: 1. General specifications, 1.03 Console design: Integrated speakers
Sa dispuna de minim 8 potentiometrii fizici pentru reglarea TGC	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 3: 2. User interface, 2.01 Operator keyboard: 8 TGC pods
Sistemul sa dispuna de memorie SSD de minimum 250 GB	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 3: 1. General specifications, 1.03 Console design: Integrated SSD (256 GB standard)/(1T option)
DESCRIEREA CONSOLEI			
Monitor cu rezolutia de minim 1920x1080 pentru vizualizarea in conditii optime a imaginilor achizitionate	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 3: 2. User interface, 2.02 Monitor: 15.6" (344.16 x 193.59 mm) high resolution LCD (1920 x 1080 pixels)
Diagonala monitorului este minimum 15.5 inch	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 3: 2. User interface, 2.02 Monitor: 15.6" (344.16 x 193.59 mm) high resolution LCD (1920 x 1080 pixels)
Posibilitate de modificare a luminozitatii si contrastului monitorului	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 3: 2. User interface, 2.02 Monitor: Brightness/ contrast/ color temperature adjustment
INTERFATA CU UTILIZATORUL			
Pentru optimizarea fluxului de lucru, interfața software oferă posibilitatea de a edita profiluri individuale de utilizator pentru personalizarea preferințelor	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 8: 10. General system parameters, 10.01 System setup: 10 Pre-programmable Categories, User Programmable Preset Capability, Factory Default Preset Data
Dispune de posibilitate de upgradare cu soft ce permite comunicarea DICOM	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 4: 5. System options: DICOM 3.0 Connectivity
Echipamentul dispune de platforma ce ofera utilizatorului accesarea rapida la suportul tehnic direct autorizat de producator,avand un timp de raspuns de maxim 10 minute in vederea remedierii problemelor care apar in domeniul de aplicatii.	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 13: General system parameters, 10.34 InSite Exc: InSite Exc is a direct link with a GE Online Service Engineer, Applications Support Engineer or a Request for Service. Conform InSite Brochure – Pag. 1: Engineer Response/ Diagnosis: Digital (Broadband): < 5 min iLinq™
Aceasta platforma permite accesul de la distanta chiar si in cazul service-ului cu o estimare de 6 ore in vederea rezolvarii problemelor tehnice.	DA		Conform InSite Brochure – Pag. 1: Repair Time (Avg): Digital (Broadband): 5 hr InSite™
MODURI DE OPERARE (Fundamentale si Derivate din cele fundamentale)			
Moduri de functionare fundamentale:	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 3: 3. System overview, 3.04 Operating modes: B-Mode, Coded Harmonic Imaging, M-Mode, Color Flow mode (CFM), Power Doppler Imaging (PDI), PW Doppler with high PRF
Mod de tip M cu urmatoarele caracteristici:	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 3: 3. System overview, 3.04 Operating modes: M-Mode Conform Versana Active R1.5 Specification Sheet – pag. 10 - 10.09 M-Mode
- cel putin 15 tipuri de harti selectabile	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 10: 10. General system parameters, 10.09 M-Mode: Gray scale map: 6 or 8 types, probe dependent; Colorization: 9 types
- eliminarea de pe ecran a ecourilor de nivel scăzut cauzate de zgomot reglabil in minimum 5 pasi	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 10: 10. General system parameters, 10.09 M-Mode: Rejection: 6 steps

- viteza de derulare reglabila in minimum 7 pasi	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 10: 10. General system parameters, 10.09 M-Mode: Sweep Speed: 8 steps
- amplificarea se poate regla cu pasul de 1 dB	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 10: 10. General system parameters, 10.09 M-Mode: Gain: - 20 - 20 dB, 1 dB per step
- compresia imaginii poate fi realizată în minim 12 pași	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 10: 10. General system parameters, 10.09 M-Mode: Compression: 13 steps
- prezintă minim 8 tipuri de colorație	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 10: 10. General system parameters, 10.09 M-Mode: Colorization: 9 types
Mod B(2D) ce prezinta urmatoarele caracteristici:	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 3: 3. System overview, 3.04 Operating modes: B-Mode Conform Versana Active R1.5 Specification Sheet – pag. 8 - 10.03 B-Mode
- filtru de evidentiere a marginilor tesuturilor: cel putin 6 nivele de reglare	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 8: 10. General system parameters, 10.03 B-Mode: Edge enhance: 7 steps
- filtru temporal ce are ca scop afisarea unei imagini uniforme: cel putin 6 nivele de reglare	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 8: 10. General system parameters, 10.03 B-Mode: Frame averaging: 8 steps
- focalizare selectiva: cel putin 7 zone	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 8: 10. General system parameters, 10.03 B-Mode: Focus number: 8 steps
- cel putin 15 tipuri de harti selectabile	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 8: 10. General system parameters, 10.03 B-Mode: Gray scale map: 6 or 8 types, probe probe and application dependent, B Colorization: 9 types
- adancimea maxima de scanare depaseste 30 cm	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 8: 10. General system parameters, 10.03 B-Mode: Depth: 1-33 cm, 0.5,1 or 2 cm per step, probe dependent
- amplificare ajustabila in pasi de 1 dB	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 8: 10. General system parameters, 10.03 B-Mode: Gain: From 0 – 90 dB, 1 dB per step
- posibilitate de inversare a imaginii	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 8: 10. General system parameters, 10.03 B-Mode: Image reverse: On/off
- unghiul de înclinare poate ajunge până la $\pm 15^\circ$, în funcție de traductorul utilizat	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 8: 10. General system parameters, 10.03 B-Mode: Steered linear: $\pm 12^\circ$, $\pm 15^\circ$, probe dependent
- compunerea spațială poate fi realizată din minim 7 unghiuri, în funcție de traductorul utilizat	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 8: 10. General system parameters, 10.03 B-Mode: CrossXBeam: Up to 9 angles selectable, probe dependent
Mod Doppler Color ce prezinta urmatoarele caracteristici:	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 3: 3. System overview, 3.04 Operating modes: Color Flow mode (CFM) Conform Versana Active R1.5 Specification Sheet – pag. 9 - 10.07 Color Flow Mode
- filtru temporal ce are ca scop afisarea unei imagini uniforme: cel putin 6 nivele de reglare	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 9: 10. General system parameters, 10.07 Color Flow Mode: Frame average: 7 steps
-filtru spatial cu cel putin 5 nivele de reglare	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 8: 10. General system parameters, 10.07 Color Flow Mode: Spatial filter: 6 steps
- PRF color reglabil ce acopera in totalitate intervalul (0.12- 27) KHz	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 9: 10. General system parameters, 10.07 Color Flow Mode: PRF: 0.1 – 27.2 KHz
- amplificare ajustabila in pasi de 0.5 dB	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 9: 10. General system parameters, 10.07 Color Flow Mode: Gain: 0 – 40 dB, 0.5 dB per step
- înclinarea casutei color cel putin pana la +/-20°	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 9: 10. General system parameters, 10.07 Color Flow Mode: CF/PDI angle steer 0, $\pm 10^\circ$, $\pm 15^\circ$, $\pm 20^\circ$, probe dependent
- pragul de culoare se poate ajusta cu cel putin 10 nivele de reglare	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 9: 10. General system parameters, 10.07 Color Flow Mode: Color threshold: 0 – 100%, 10% per step
- harti de culoare: cel putin 19 tipuri selectabile	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 9: 10. General system parameters, 10.07 Color Flow Mode: Color maps, including velocity variance maps: 20 types, probe and application dependent
-filtru de perete reglabil in 4 pasi	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 9: 10. General system parameters, 10.07 Color Flow Mode: Wall filter: 4 steps, probe and application dependent
- linia de bază poate fi modificată din 10 în 10%	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 9: 10. General system parameters, 10.07 Color Flow Mode: Baseline: 0 – 100%, 10% per step
- frecvența modificabilă în cel puțin 4 pași	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 9: 10. General system parameters, 10.07 Color Flow Mode: CF/PDI frequency: Up to 5 steps, probe dependent
- posibilitate de inversare a codării color	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 9: 10. General system parameters, 10.07 Color Flow Mode: Invert: Off/on
Mod Power Doppler ce prezinta urmatoarele caracteristici:	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 3: 3. System overview, 3.04 Operating modes: Power Doppler Imaging (PDI) Conform Versana Active R1.5 Specification Sheet – pag. 9 - 10.08 Power Doppler Imaging Mode
- cel putin 13 tipuri de harti selectabile	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 9: 10. General system parameters, 10.08 Power Doppler Imaging Mode: PDI map: 14 types
- amplificare ajustabila in pasi de 0.5 dB	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 9: 10. General system parameters, 10.08 Power Doppler Imaging Mode: Gain: 0 – 40 dB, 0.5 dB per step

- inversarea codarii color: On/Off	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 9: 10. General system parameters, 10.08 Power Doppler Imaging Mode: Invert: On/Off
- filtru temporal ce are ca scop afisarea unei imagini uniforme: cel putin 6 nivele de reglare	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 9: 10. General system parameters, 10.08 Power Doppler Imaging Mode: Frame average: 7 steps
- PRF reglabil ce acopera in totalitate intervalul (0.12 - 25) kHz	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 9: 10. General system parameters, 10.08 Power Doppler Imaging Mode: PRF: 0.1 – 26 KHz
-filtru de perete reglabil in 4 pasi	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 9: 10. General system parameters, 10.08 Power Doppler Imaging Mode: Wall filter: 4 steps, probe and application dependent
-filtru spatial cu cel putin 5 nivele de reglare	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 9: 10. General system parameters, 10.08 Power Doppler Imaging Mode: Spatial filter: 6 steps
- unghiul de înclinare poate ajunge până la +/-20°	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 9: 10. General system parameters, 10.08 Power Doppler Imaging Mode: CF/PDI angle steer: 0, ±10°, ±15°, ±20°, probe dependent
Mod Doppler cu unda pulsata ce prezinta urmatoarele caracteristici:	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 3: 3. System overview, 3.04 Operating modes: PW Doppler with high PRF Conform Versana Active R1.5 Specification Sheet – pag. 10 - 10.11 Pulse Wave Doppler Mode
- Doppler Spectral Pulsat cu HPRF	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 3: 3. System overview, 3.04 Operating modes: PW Doppler with high PRF
- PRF reglabil in totalitate pe intervalul de (0.32 - 27.5) kHz	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 10: 10. General system parameters, 10.11 Pulse Wave Doppler Mode: PRF: 0.3 – 27.9 KHz
- posibilitate de trasare automata a anvelopei spectrale in timp real dar si in freeze	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 10: 10. General system parameters, 10.11 Pulse Wave Doppler Mode: Auto Calcs/Doppler Auto Trace: Off, Frozen, Live
-filtru de perete reglabil de catre utilizator in cel putin 25 de pasi	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 10: 10. General system parameters, 10.11 Pulse Wave Doppler Mode: Wall filter: 5.5 – 5000 Hz, 27 steps, probe dependent
-linia de baza se poate ajusta cu cel putin 10 nivele	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 10: 10. General system parameters, 10.11 Pulse Wave Doppler Mode: Baseline shift: 11 steps
- posibilitate de corectie de unghi cu pasul de un grad pana la +/-90 grade	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 10: 10. General system parameters, 10.11 Pulse Wave Doppler Mode: Angle correction: -90° 90°, 1° per step
-masuratorile acopera in totalitate intervalul de viteze de (0.12 - 7010) cm/s	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 10: 10. General system parameters, 10.11 Pulse Wave Doppler Mode: Velocity scale range: 0.1 – 7011 cm/s
-posibilitatea de lucru simultana - duplex mode	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 10: 10. General system parameters, 10.11 Pulse Wave Doppler Mode: Simultaneous: Off (PW only)/on
-posibilitate de inversare a spectrului	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 10: 10. General system parameters, 10.11 Pulse Wave Doppler Mode: Spectrum inversion: Off/on
- pana la 7 harti de gri selectabile si minim 5 color	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 10: 10. General system parameters, 10.11 Pulse Wave Doppler Mode: Gray scale map: Up to 8 types, PW colorization: Up to 6 types
- posibilitate de ajustare a unghiului pana la minim 19 grade	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 10: 10. General system parameters, 10.11 Pulse Wave Doppler Mode: PW angle steer: 0, ±10°, ±15°, ±20° (use angle steer of B-Mode), probe dependent
- minimum 7 pasi de reglare pentru viteza de derulare	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 10: 10. General system parameters, 10.11 Pulse Wave Doppler Mode: Sweep speed: 0 – 7, 8 steps
- posibilitate de realizare automată a calculelor în timp real și în freeze	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 10: 10. General system parameters, 10.11 Pulse Wave Doppler Mode: Auto Calcs/Doppler Auto Trace: Off, Frozen, Live
- adâncimea maximă de scanare depășește 32 cm	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 10: 10. General system parameters, 10.11 Pulse Wave Doppler Mode: Sample volume depth: 0.1 – 33 cm, probe dependent
Posibilitate de upgradare cu mod Doppler Continuu	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 3: 3. System overview, 3.04 Operating modes: CW Doppler mode (option) Conform Versana Active R1.5 Specification Sheet – pag. 10 - 10.12 Continues Wave Doppler Mode
- sa dispuna de cel putin 7 harti de gri si 5 color	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 10: 10. General system parameters, 10.12 Continues Wave Doppler Mode: Gray scale map: 8 types, Spectral color: 6 types
-posibilitate de reglare a unghiului pana la +/- 90 grade in pasi de 1	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 10: 10. General system parameters, 10.12 Continues Wave Doppler Mode: Angle correct: -90° – 90°, 1° per step
- sa permita masuratori de viteză minim de la 0.25 pana la 6100 cm/s	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 10: 10. General system parameters, 10.12 Continues Wave Doppler Mode: CW-Mode includes: Velocity scale range: 0.2 – 6105 cm/s
- sa dispuna de posibilitate de trasare automata a anvelopei spectrale in timp real si in freeze cu posibilitate de reglare a sensibilitatii	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 10: 10. General system parameters, 10.12 Continues Wave Doppler Mode: CW-Mode includes: Auto Calcs/Doppler Auto Trace: Frozen, Live, Off; Trace sensitivity: 0 - 40, 2 per step
- filtrul de perete poate fi reglat în minim 25 de pași	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 10: 10. General system parameters, 10.12 Continues Wave Doppler Mode: Wall filter: 5.5 – 5000 Hz, 27 steps, dependent on probe and application

- să permită inversarea spectrului	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 10: 10. General system parameters, 10.12 Continues Wave Doppler Mode: CW-Mode includes: Spectrum inversion: On, off
Moduri de funcționare derivate și/sau combinate din cele fundamentale:			
- mod M Color	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 3: 3. System overview, 3.04 Operating modes: Color M-Mode
- poate dispune de upgradare cu mod tip M Anatomic cu posibilitatea plasării cursorului în orice plan disponibil pentru bucle cine atât în timp real cât și pentru cele stocate	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 3: 3. System overview, 3.04 Operating modes: Anatomical M-Mode (option) Conform Versana Active R1.5 Specification Sheet – Pag. 10: 10. General system parameters, 10.10 Anatomical M-Mode (option): M-Mode cursor adjustable at any plane, Can be activated from a Cine loop from a live or stored image
- mod cu Armonici Codate cu următoarele caracteristici:	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 8: 10. General system parameters, 10.04 Coded Harmonic Imaging: Coded Phase Inversion Harmonic Imaging
- intensificarea marginilor poate fi reglată în minim 6 pași	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 8: 10. General system parameters, 10.04 Coded Harmonic Imaging: Edge enhance: 7 steps
- selectarea a minim 7 hărți de gri	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 8: 10. General system parameters, 10.04 Coded Harmonic Imaging: Gray scale map: 6 or 8 types, probe and application dependent
- cel puțin 8 hărți color	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 8: 10. General system parameters, 10.04 Coded Harmonic Imaging: Tint map: 9 types
- amplificarea să poată fi reglată în pași de 1 dB	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 9: 10. General system parameters, 10.04 Coded Harmonic Imaging: Gain: 0 – 90 dB, 1 dB per step
Are capacitatea de a funcționa cu 3 moduri de lucru active în același timp (triplex)	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 5: 7. Display modes, 7.01 Live and stored display format: Simultaneous capability: Real-time triplex mode +(B + CFM/ PDI+PW)
Zoom de până la 60 de ori	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 5: 7. Display modes, 7.01 Live and stored display format: Zoom: Write (HD)/read 67X
Adâncimea minimă de scanare: 0.5 cm	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 8: 10. General system parameters, 10.02 System scanning parameters: Minimum Depth of Field: 0-1 cm, probe dependent
Adâncimea maximă de scanare: 33 cm	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 8: 10. General system parameters, 10.02 System scanning parameters: Maximum Depth of Field: 0-33 cm, probe dependent
TIPURI DE TRADUCTORI COMPATIBILI CU ECOGRAFUL			
Traductori de tip:			
- convex acoperă în întregime domeniul 2.1 - 9.8 MHz	DA		Conform Versana Active R1.5 Transducer Guide, Pag. 2, 3 – 4C-RS: Frequency Range: 2.0 – 5.0 MHz, 8C-RS: Frequency Range: 4.2 – 10.0 MHz
- micro-convex endocavitar 2D ce prezintă câmpul de vizualizare de peste 164°	DA		Conform Versana Active R1.5 Transducer Guide, Pag. 2 – E8CS-RS: FOV: 168°
- liniar ce acoperă în întregime domeniul 4.2 -13 MHz	DA		Conform Versana Active R1.5 Transducer Guide, Pag. 2 – L6-12-RS: Frequency Range: 4.0 – 13.0 MHz
- tip "Hockey Stick" acoperă în întregime domeniul de frecvență 6.8 - 18 MHz	DA		Conform Versana Active R1.5 Transducer Guide, Pag. 3 – L8-18i-RS: Frequency Range: 6.7 – 18.0 MHz
- sectorial arie fazată acoperă în întregime domeniul 1.8 - 12 MHz	DA		Conform Versana Active R1.5 Transducer Guide, Pag. 2 – 3sC-RS: Frequency Range: 1.7 – 4.0 MHz, 12S-RS: Frequency Range: 4.1 – 12.0 MHz
- sa fie compatibil cu sonde de tip sectorial ce dispun de câmp de vizualizare mare, până la minimum 118 grade pentru achiziția completă a cordului și evitarea fragmentării examinării	DA		Conform Versana Active R1.5 Transducer Guide, Pag. 2 – 3sC-RS: FOV: 120°
- traductor volumetric 4D	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 3: 3.03 Transducer type: Volume Probe (4D)
OBTINEREA ȘI AFISAREA IMAGINII			
În funcție de ecogenitatea structurii analizate și timp, echipamentul prezintă posibilitatea de modificare liniară a coeficientului de amplificare	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 14: 10. General system parameters, 10.36 Controls available while "live": B/M-Mode: Gain, TGC
Echipament ce prezintă formator de unde digital	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 8: 10. General system parameters, 10.02 System scanning parameters: Digital Agile Beamformer Architecture
Echipamentul dispune de minim 223.000 canale efective de procesare	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 8: 10. General system parameters, 10.02 System scanning parameters: 223907 system processing channels
Gama dinamică a sistemului este de peste 265 dB	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 8: 10. General system parameters, 10.02 System scanning parameters: 269 dB systematic Dynamic Range
Rata de reimprospatare a sistemului în modul 2D este de minim 1.750 frame-uri (cadre/imagini) pe secundă	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 8: 10. General system parameters, 10.02 System scanning parameters: Max. Frame Rate: 1790 fps, probe dependents and modes
Sistemul să fie capabil să proceseze frecvențe de la 1.8 până la 18 MHz	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 8: 10. General system parameters, 10.02 System scanning parameters: Frequency Range: 1.7 to 18 MHz
Posibilitatea de modificare a poziției imaginii stânga/dreapta, și rotație minimă 0, 90, 180, 270 grade	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 8: 10. General system parameters, 10.02 System scanning parameters: Image Rotation of 0° 90° 180° 270°
Cu ajutorul unui singur buton, utilizatorul poate face următoarele optimizări în mod automat în funcție de ecogenitatea structurii examinate cu următoarele moduri de lucru:	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 13: 10. General system parameters, 10.35 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.

- optimizarea automata continua a imaginii in modul B in ceea ce priveste uniformitatea, luminozitatea si contrastul	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 13: 10. General system parameters, 10.35 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.
- optimizarea automata in modul spectral PW cat si CW care regleaza linia de bază, ajusteaza scala si PRF-ul.	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 13: 10. General system parameters, 10.35 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.
Focalizare dinamica continua in receptie	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 8: 10. General system parameters, 10.02 System scanning parameters: Continuous Dynamic Receive Focus/Aperture
Focalizare selectiva in transmisie cu cel putin 7 zone	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 8: 10. General system parameters, 10.02 System scanning parameters: Transmission Focus: 1 - 8 Focal Points selectable, probe dependent and application
Tehnică adaptiva de analiza comparativă a tuturor pixelilor ce permite reducerea artefactelor si îmbunătățește calitatea imaginii, permițând o vizualizare mai precisă a detaliilor morfologice	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 9: 10. General system parameters, 10.05 SRI-HD: High Definition Speckle Reduction Imaging Provides multiple levels of speckle reduction
- permite vizualizare duală	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 9: 10. General system parameters, 10.05 SRI-HD: High Definition Speckle Reduction Imaging Provides multiple levels of speckle reduction; Compatible with side-by-side DualView display
Aceasta tehnica de imbunatatire a imaginii este compatibila cu toti traductorii liniari, convecși si sectoriali. Poate fi folosita cu urmatoarele moduri de lucru:	DA		Conform Versana Active R1.5 Specification Sheet – Pag.9: 10. General system parameters, 10.05 SRI-HD: Compatible with all linear, convex and sector transducers
- modul 2D (mod B)	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 9: 10. General system parameters, 10.05 SRI-HD: Compatible with B-Mode, 3D/4D imaging
- mod 3D/4D	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 9: 10. General system parameters, 10.05 SRI-HD: Compatible with B-Mode, 3D/4D imaging
Tehnologie de interpolare a cadrelor aflate sub cel putin 8 unghiuri/planuri diferite de vizualizare pentru reducerea semnificativa a zgomotului de fond din imagine.Prezinta compatibilitate cu urmatoarele moduri de lucru/tehnici:	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 9: 10. General system parameters, 10.06 CrossXBeam: Provides 3, 5, 7, 9 of spatial compounding
- modul Color	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 9: 10. General system parameters, 10.06 CrossXBeam: Compatible with: Color Mode, PW, SRI-HD, Coded Harmonic Imaging, Virtual Convex
- modul Doppler Pulsat	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 9: 10. General system parameters, 10.06 CrossXBeam: Compatible with: Color Mode, PW, SRI-HD, Coded Harmonic Imaging, Virtual Convex
-tehnica adaptiva pentru inlaturarea artefactelor	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 9: 10. General system parameters, 10.06 CrossXBeam: Compatible with: Color Mode, PW, SRI-HD, Coded Harmonic Imaging, Virtual Convex
- modul de lucru cu armonici	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 9: 10. General system parameters, 10.06 CrossXBeam: Compatible with: Color Mode, PW, SRI-HD, Coded Harmonic Imaging, Virtual Convex
- tehnica de largire a campului vizual	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 9: 10. General system parameters, 10.06 CrossXBeam: Compatible with: Color Mode, PW, SRI-HD, Coded Harmonic Imaging, Virtual Convex
Tehnologia de interpolare a cadrelor poate fi folosita la examinare pacientului cu traductor de tipul liniar, convex, intraoperator, endocavitar.	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 9: 10. General system parameters, 10.06 CrossXBeam: Available on 4C-RS, L6-12-RS, E8C-RS, E8Cs-RS, 8C-RS, L8-18i RS, 9L-RS, 12L-RS, LK760-RS
Echipamentul prezintă posibilitatea lărgirii câmpului vizual la funcționarea tuturor traductorii liniari si sectoriali, în scopul afișării pe ecran a unor zone suplimentare de țesut	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 11: 10. General system parameters, 10.16 Virtual convex: Provides a convex field of view, Available on linear and sector transducers
Aceasta tehnica de largire a campului vizual este compatibila cu tehnologia de interpolare a cadrelor	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 11: 10. General system parameters, 10.16 Virtual convex: Compatible with CrossXBeam for linear transducers
Dispune de posibilitate de upgradare cu metoda de investigare ce permite vizualizarea in ansamblu a unor zone largi de scanare de peste 55 cm lungime	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 11: 10. General system parameters, 10.17 LOGIQView (option): Extended Field of View Imaging, Up to 60 cm scan length
Aceasta tehnologie permite atat selectarea automata a celei mai bune pozitii din ecran cat si detectarea automata a directiei de scanare, precum si posibilitate de zoom si rotire	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 11: 10. General system parameters, 10.17 LOGIQView (option): Auto detection of scan direction, Post-process zoom, Rotation, Auto fit on monitor
Aceasta tehnologie sa fie compatibila cu traductori de tip convex, liniar, endocavitar, sectorial	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 11: 10. General system parameters, 10.17 LOGIQView (option): Available on 4C-RS, L6-12-RS, 8C-RS, 3Sc-RS, E8C-RS, E8Cs-RS, L8-18i RS, 6S-RS, LK760-RS, 12L-RS, 9L-RS,12S -RS probes
Posibilitate de upgrade cu modul de vizualizare a acului de biopsie pentru sondele de tip liniar si convex	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 13: 10. General system parameters, 10.29 Needle recognition (option): Needle recognition allows you to obtain precise needle imaging in the dashed box. It is available with probeson on L6-12-RS ,12L-RS, 4C-RS, 9L-RS.
STOCAREA IMAGINII:	DA		

Permite salvarea datelor in formatul brut, ceea ce inseamna ca imaginile sunt captate inaintea lanțului de procesare, permițând utilizatorilor să efectueze următoarele modificări chiar după terminarea examenului ca o re-scanare virtuala mai amănunțită:	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 4: 4. System standard features: Raw Data Analysis Conform Versana Active R1.5 Specification Sheet – pag. 11 - 10.14 Image storage: Storage formats: DICOM compressed /uncompressed, single/ multi frame, with /without raw data
- posibilitate de modificare a gamei dinamice, gainului pentru imaginile stocate	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 14: 10. General system parameters, 10.37 Controls available on Freeze or Recall: Dynamic range, Anatomical M-Mode, Post gain, Overall gain (loops and stills)
- corectie de unghi, viteza de derulare, harti de culoare, si pozitia liniei de baza pentru imaginile Doppler Spectral	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 14: 10. General system parameters, 10.37 Controls available on Freeze or Recall: Gray Map, Baseline shift (PW, CW), Sweep speed, Angle Correct, Color map, Quick Angle Correct
Permite stocarea de date in memoria temporara de tip CINE (memoria imaginilor) si pe memoria de lunga durata	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 10: 10. General system parameters, 10.13 Cine memory/image memory: 384 MB of Cine memory Conform Versana Active R1.5 Specification Sheet – Pag. 11: 10. General system parameters, 10.14: Image storage: Storage devices: Internal hard drive partition of 100 GB (256 GB Console), and 814 GB (1 TB Console option) for image storage
Informatiile stocate in baza de date de pacienti au posibilitatea de fi exportate cel putin in urmatoarele formate:	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 11: 10. General system parameters, 10.14 Image storage: Storage formats: Export JPEG, WMV (MPEG 4) and AVI formats
- tip JPEG	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 11: 10. General system parameters, 10.14 Image storage: Storage formats: Export JPEG, WMV (MPEG 4) and AVI formats
- tip WMV, MPEG 4	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 11: 10. General system parameters, 10.14 Image storage: Storage formats: Export JPEG, WMV (MPEG 4) and AVI formats
- tip AVI	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 11: 10. General system parameters, 10.14 Image storage: Storage formats: Export JPEG, WMV (MPEG 4) and AVI formats
CARACTERISTICILE MEMORIEI CINE (memoria imaginilor)			
Dispune de spatiu de stocare al datelor in mod ciclic, in memoria imaginilor de peste 380 MB	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 10: 10. General system parameters, 10.13 Cine memory/image memory: 384 MB of Cine memory
Secventele memoriei imaginilor se pot vizualiza in mod dual si in 4 imagini simultan	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 10: 10. General system parameters, 10.13 Cine memory/image memory: Dual image Cine display, Quad image Cine display
Fiecare cadru din memoria imaginilor se identifica printr-un numar	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 11: 10. General system parameters, 10.13 Cine memory/image memory: Cine gauge and Cine image number display
Lungimea buclei CINE permite a fi selectata de utilizator	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 10: 10. General system parameters, 10.13 Cine memory/image memory: Selectable Cine sequence for Cine review
Pe baza fiecarui cadru din memoria imaginilor se pot realiza atat masuratori, calcule cat si adnotari utilizand traductor de tip convex	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 10: 10. General system parameters, 10.13 Cine memory/image memory: Measurements/calculations and annotations on Cine playback
COMPATIBILITATEA CU ALTE DISPOZITIVE DE STOCARE			
Permite atasarea unor dispozitive de stocare gen: USB	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 11: 10. General system parameters, 10.14 Image storage: Storage devices: External USB HDD and USB memory stick support for Import, Export, DICOM Read, SaveAs, and MPEGvue
DVD-R si CD-R	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 11: 10. General system parameters, 10.14 Image storage: CD RW storage: 700 MB, DVD storage: R (4.7 GB)
TEHNOLOGII SI PROGRAME DE EXAMINARE SPECIALE			
Echipamentul prezinta posibilitate de upgradare cu modul ce permite achizitionarea unui volum utilizand traductor de tip convex 2D	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 11: 10. General system parameters, 10.18 Easy 3D (option): 3D reconstruction from Cine sweep
- permite rotație nelimitată	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 11: 10. General system parameters, 10.18 Easy 3D (option): Allows unlimited rotation and planar translations
- permite translații planare nelimitate	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 11: 10. General system parameters, 10.18 Easy 3D (option): Allows unlimited rotation and planar translations
- distanța de scanare să fie cuprinsă între 1.3 - 14.5	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 11: 10. General system parameters, 10.18 Easy 3D (option): Scan distance: 1.0 – 15.0
Posibilitate de upgrade cu modul de achizitie volum 3D ce permite manipularea si procesarea datelor achizitionate	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 11: 10. General system parameters, 10.19 Advanced 3D (option): Define axis: Select 2 points as start and end point of long axis
În cazul imaginii 3D reconstruită, echipamentul permite utilizatorului procesarea acesteia pentru afișarea în următoarele moduri: maxim, minim sau radiologic	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 12: 10. General system parameters, 10.20 Static 3D/Real-time 4D (option): Render Mode: Surface Texture, Surface Smooth, Transp. Max, Transp. Min, Transp. X-ray, Mix Mode of two render modes
- post-procesarea volumelor reconstruite este posibilă prin diverse instrumente software care pot înlătura reconstrucțiile afectate de artefacte și pe cele ale structurilor ce nu prezintă interes	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 12: 10. General system parameters, 10.20 Static 3D/Real-time 4D (option): 3D Movie: Scalpel: 3D cut tool
- prezintă posibilitatea de a selecta viteza de rotire a imaginilor 3D	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 11: 10. General system parameters, 10.18 Easy 3D (option): Allows unlimited rotation and planar translations

Echipamentul permite afișarea simultană pe ecran a cel puțin 18 slice-uri tomoeografice	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 12: 10. General system parameters, 10.20 Static 3D/Real-time 4D (option): TUI: Tomographic Ultrasound Imaging: Slices: 3-19
- distanța minimă dintre două slice-uri este reglabilă în plaja 1 - 40 mm	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 12: 10. General system parameters, 10.20 Static 3D/Real-time 4D (option): TUI: Tomographic Ultrasound Imaging: Slices distance: 0.5 – 40 mm
Dispune de posibilitate de upgradare cu mod ce calculeaza grosimea intimei media bazandu-se pe detectarea automata a conturului dintr-o regiune de interes de-a lungul peretului vasului.	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 4: 5. System options: Auto IMT
Dispune de pachet de editare a rapoartelor ce poate include sabloane standard si/sau personalizabile de catre utilizator	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 4: 4. System standard features: On-board reporting package
Dispune de posibilitate de upgradare cu modul avansat de ecografie de stres cu protocoale farmacologice și de exerciții prezentand urmatoarele caracteristici:	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 13: 10. General system parameters, 10.26 Stress Echo (option): Advanced and flexible stress echo examination capabilities: Provides exercise and pharmacological protocol templates
- dispune de peste 7 tipare de protocoale din fabrica	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 13: 10. General system parameters, 10.26 Stress Echo (option): Advanced and flexible stress echo examination capabilities: 8 default templates
- afisarea rezultatului este prezentata sub forma de "ochi-de-bou" (bull's-eye) sau segmental.	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 13: 10. General system parameters, 10.26 Stress Echo (option): Comparison (dual screen): Wall motion scoring (bull's eye and segmental)
- permite vizualizare duală	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 13: 10. General system parameters, 10.26 Stress Echo (option): Comparison (dual screen)
-sistem inteligent pentru setarea automata a parametrilor de scanare conform examenului anterior (frecventa, amplificarea, gain) pentru scanarea in aceleasi conditii la momente diferite de timp	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 13: 10. General system parameters, 10.26 Stress Echo (option): Comparison (dual screen): Smart stress: Automatically set up various scanning parameters (geometry, frequency, gain, etc.) according to same projection on previous level
- permite crearea de protocoale noi in functie de preferintele utilizatorului si se pot modifica cele standard existente	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 13: 10. General system parameters, 10.26 Stress Echo (option): Template editor for user configuration of existing templates or creation of new templates
Sistemul permite upgrade cu modul pentru analiza fractiei de ejectie in mod automat	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 4: 5. System options: Auto EF
Posibilitate de upgradare cu modul pentru evaluarea elasticitatii tesuturilor - elastografie de tip strain cu modul complementar de semi-cuantificare a rezultatelor, disponibil pentru sondele liniare cu posibilitatea de modificare a regiunii de analiza si selectarea din minim 7 harti	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 12: 10. General system parameters, 10.21 Elastography (option): Available on L6-12-RS, 9L-RS, 12L-RS, Semi-quantification: Map: 8
- permite reglarea nivelului de zgomot în minim 6 pași	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 12: 10. General system parameters, 10.21 Elastography (option): Semi – quantification: Noise reject: 0-8
- densitatea de linie poate fi optimizată în minim 3 pași	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 12: 10. General system parameters, 10.21 Elastography (option): Semi – quantification: Line Density: 0-4
Posibilitate de upgrade cu modul de scanare specializat pentru procedurile de screening al sanului, cu protocoale ghidate, masuratori, corelate la sistemul de date și raportare în imagistica sânelui BI-RADS	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 13: 10. General system parameters, 10.28 Breast care (option): Breast care is a customizable workflow designed for breast scanning. With its guiding, user can complete various modes of imaging, measurement, lesion BI RADS® classification, and find positive area efficiently. That's an easy reference in the device when patient is in subsequent visit.
Posibilitate de upgrade cu tehnică pentru comparare a imaginilor dintr-un studiu curent cu imagini provenite din studii anterioare pentru analiza evolutiei unei patologii	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 13: 10. General system parameters, 10.27 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.
Posibilitate de upgrade cu modul de analiza a velocitatilor tisulare si codare color in cazul studiului Doppler al miocardului cu posibilitate de analiza multipla a miscarii in functie de timp, afisate din puncte selectate din miocard	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 13: 10. General system parameters, 10.24 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
- disponibil pe traductori sectoriali	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 13: 10. General system parameters, 10.24 TVI (option): Myocardial Doppler imaging with color overlay on tissue image, Available on the sector probes
Posibilitate de upgrade cu modul de analiza tisulara ce lucreaza impreuna cu modul M pentru evaluarea velocitatii miscarii miocardului precum si a directiei	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 13: 10. General system parameters, 10.25 TVM (option): TVI with M-Mode active, Available on the sector probes, Provides both myocardium motion velocity and direction
Posibilitate de upgrade cu modul de masurare a urmatorilor parametri: circumferinta abdominala, diametriul biparietal, circumferinta craniului si lungimea femurului	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 4: 5. System options: Sono Biometry (BPD/HC/AC/HL/FL)
Posibilitate de upgrade ce ofera utilizatorului suport pas cu pas in vederea scanarii pentru achizitia corecta a structurilor anatomice cu imagini de referinta, ilustrații și animatii 3D pentru aplicatii de abdomen, obstetrica, ginecologie, cardiologie si vasculare	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 13: 10. General system parameters, 10.30 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 & animations to depict information related to each step. It covers five applications: Abdomen, Obstetrics, Gynecology, Cardiology, Vascular
Sistemul să permită upgrade cu modul de contrast pentru sonde convexe	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 12: 10. General system parameters, 10.22 Contrast agency detection (option) – Available on 4C

Dispune de modul de asistare a scanării în vederea îmbunătățirii fluxului de lucru permițând crearea de protocoale standardizate	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 13: 10. General system parameters, 10.33 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.
Pentru un flux de lucru rapid, sistemul permite înregistrarea vocala a comentariilor în timpul examinării	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 4: 4. System standard features: Voice comments
Mod ce cuprinde abstract din manualul de operare, imagini și videoclipuri care îl ajută pe utilizator să rezolve problemele precum: reglarea monitorului, manipularea trackball-ului, conectarea perifericelor, managementul traductorilor, utilizarea sistemului dar și alte întrebări cu răspunsuri utile.	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 13: 10. General system parameters, 10.31 MyTrainer: Abstracted from basic user manual, it lists out FAQs from customers and instructs customer how to solve problems by themselves timely
Tehnologie opțională de afisare a intensității fluxurilor sangvine, independentă de unghiul de interogare a razei ultrasunetelor, în vederea vizualizării cu exactitate a informație hemodinamică. Aceasta tehnologie va dispune de rezoluție spațială similară cu cea a scalei modului 2D și permite afisarea informației pe întreaga suprafață de scanare. Metoda concepută pentru studiul și analiza stenozei vasculare, hematoamelor, trombozelor, fistulei AV, activității nodulilor, perfuziei renale, morfologiei plăgilor arteriale, turbulențelor arterei carotide și a eventualelor sinoase, diferențierii vaselor cu fluxuri mici, tiroida etc. - disponibilă pe traductori liniari și convecși	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 12: 10. General system parameters, 10.23 B-Flow (option) Conform Versana Active R1.5 Customer Presentation, pag 7: World-class imaging - B-Flow
- opțiuni de on/off a background-ului	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 12: 10. General system parameters, 10.23 B-Flow (option): Available on 4C-RS, L6-12-RS, 12L-RS, 9L-RS
- sensibilitatea poate fi reglată în minim 15 pași	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 12: 10. General system parameters, 10.23 B-Flow (option): Background: On/off
- cel puțin 7 hărți de gri și 3 de culoare	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 12: 10. General system parameters, 10.23 B-Flow (option): Sensitivity/ PRI: 1-50, 17 steps
- amplificarea poate fi reglată în pași de 1 dB	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 12: 10. General system parameters, 10.23 B-Flow (option): Tint map: 5 maps, Gray scale map: 8 maps
Posibilitate de upgrade cu modul de măsurare automată a volumului vezicii cu optimizare a imaginii și adnotări automate	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 12: 10. General system parameters, 10.23 B-Flow (option): Gain: 0-90 dB range, 1 dB per step
Posibilitate de upgrade pachet de măsurători specifice pentru tiroida ce include clasificare TI RADS	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 4: 5. System options: Auto Bladder (Dynamic image optimization, Auto measurement and Auto annotation) Conform Versana Active R1.5 Specification Sheet – pag. 16 - 11.08 Urological calculations Volume (Auto bladder volume)
CONECTIVITATE SI TRANSFER DE DATE Ecograful permite conectarea la rețea prin cablu cu conector de tipul RJ45	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 4: 5. System options: Thyroid productivity: A package in thyroid measurement with including measurement and relevant description (Includes TI RADS ACR)
Permite conectare HDMI și S-Video	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 22: 16. Inputs and outputs, 16.01 Inputs and outputs: 1000 BASE-TX Ethernet (RJ45)
Detine MPPS (ofera posibilitatea de efectuare a procedurii pas cu pas – măsurare precisă a distanței, ariei și volumului)	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 22: 16. Inputs and outputs, 16.01 Inputs and outputs: HDMI output (1920 x 1080 resolution), S-video and composite output with optional adapter
Posibilitate de upgrade cu baterie pentru scanarea în condiții normale de funcționare când sistemul nu este conectat la o sursă de alimentare	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 11: 10. General system parameters, 10.15 Connectivity and DICOM: Ethernet network connection: Modality Performed Procedure Step (MPPS)
Posibilitate de conexiune pentru transferul datelor minim 4 porturi USB	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 13: 10. General system parameters, 10.32 Battery (option): The lithium ion battery provides power when an AC power source is not available.
	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 22: 16. Inputs and outputs, 16.01 Inputs and outputs: 4 USB ports
B) CONFIGURATIE DE LIVRARE:			
B.1) Consola ecografica multidisciplinara indeplineste toate cerintele de la punctul A)	DA		
B.2) Traductori:	DA		
1 bucata traductor de tip convex pentru aplicatii abdominale, vasculare, obstetrice-ginecologice si urologice, musculoscheletale si de pediatrie ce prezinta urmatoarele caracteristici:	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 19 : 13.Probes: 13.01 4C-RS Convex probe; Applications: Abdominal, OB/GYN, Vascular, Urological, Thoracic, Pediatric, MSK
- banda de frecvențe de lucru acoperă minimum intervalul: 2 - 4.7 MHz	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 19 : 13.Probes: 13.01 4C-RS probe; B-Mode imaging frequency: 2.0, 3.0, 4.0, 5.0 MHz
- câmp vizual de minim 56°	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 19 : 13.Probes: 13.01 4C-RS probe; FOV: 58°
- permite lucrul cu 4 frecvențe diferite în transmisie pentru modul B	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 19 : 13.Probes: 13.01 4C-RS probe; B-Mode imaging frequency: 2.0, 3.0, 4.0, 5.0 MHz
- permite lucrul cu 3 frecvențe diferite în transmisie pentru modul Doppler Color/Doppler Pulsat/Power Doppler	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 19 : 13.Probes: 13.01 4C-RS probe; CFM/PDI/PWD frequency: 2.0 MHz (CFM/PDI), 2.5, 2.8, 3.3 MHz
- prezintă posibilitatea de upgradare cu kit de biopsie			Conform Versana Active R1.5 Specification Sheet – Pag. 19 : 13.Probes: 13.01 4C-RS probe; Biopsy guide: Multi-angle, reusable bracket
1 bucata traductor de tip liniar pentru aplicatii vasculare, parti moi si pediatrie, musculoscheletale ce prezinta urmatoarele caracteristici:	DA		Conform Versana Active R1.5 Specification sheet, Pag. 20: 13. Probes: 13.11 9L-RS Linear probe; Applications: Vascular, Small parts, Pediatrics, MSK, Abdominal, Thoracic
- banda de frecvențe de lucru acoperă minimum intervalul: 4.3 - 10 MHz	DA		Conform Versana Active R1.5 Specification sheet, Pag. 20: 13. Probes: 13.11 9L-RS Linear probe; Harmonic imaging frequency: 6.0, 8.0, 10.0 MHz; CFM/PDI/PWD frequency: 4.0, 5.0 MHz
- minim 190 elemente	DA		Conform Versana Active R1.5 Specification sheet, Pag. 20: 13. Probes: 13.11 9L-RS Linear probe; Number of elements: 192
sa dispuna de posibilitatea de inclinare a planului de scanare pana la +/- 19 grade	DA		Conform Versana Active R1.5 Specification sheet, Pag. 20: 13. Probes: 13.11 9L-RS Linear probe; Steered angle: ±20°

- permite lucrul cu 3 frecvente diferite in transmisie pentru modul B	DA		Conform Versana Active R1.5 Specification sheet, Pag. 20: 13. Probes: 13.11 9L-RS Linear probe; B-Mode imaging frequency: 5.0, 7.0, 9.0 MHz
- permite lucrul cu 2 frecvente diferite in transmisie pentru modul Doppler Color/Doppler Pulsat/Power Doppler	DA		Conform Versana Active R1.5 Specification sheet, Pag. 20: 13. Probes: 13.11 9L-RS Linear probe; CFM/PDI/PWD frequency: 4.0, 5.0 MHz
- prezinta posibilitatea de upgradare cu kit de biopsie	DA		Conform Versana Active R1.5 Specification sheet, Pag. 20: 13. Probes: 13.11 9L-RS Linear probe; Biopsy guide: Multi-angle, reusable bracket
B.3) PERIFERICE SI ACCESORII			
Dispune de printer termic alb-negru	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 4: 6. Peripheral Options: Sony UP-D898MD B/W thermal printer
Dispune de cărucior cu toate suporturile necesare pentru conectarea sistemului si a accesoriilor periferice. Să fie produs de către producatorul echipamentului ecografic.	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 11: 10.14 General system parameters, 10.14 Image storage: Storage devices: Internal hard drive partition of 100 GB (256 GB console), and 814 GB (1TB Console option) for image storage
Dispune de posibilitatea de upgradare pentru extinderea memoriei cu pana la 1TB	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 4: 6. Peripheral Options: Bluetooth adapter
Prezinta posibilitatea de upgradare pentru conectarea echipamentului prin bluetooth	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 4: 6. Peripheral Options: USB Wireless adaptor: sales availability varies in different countries
Prezinta posibilitatea de upgradare prin atasarea unui adaptor pentru conectarea sistemului la retea wireless	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 4: 6. Peripheral Options: ECG Module
Prezinta posibilitatea de upgradare pentru atasarea Kitului ECG	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 21: 14. Cart: 14.04 3PP (optional) : The advanced cart is compatible with optional three external probe port extensions
Prezintă posibilitate de conectare la cărucior ce dispune de minim 2 extensii de conectare a traductorilor	DA		Conform Versana Active R1.5 Specification Sheet – Pag. 21: 14. Cart: 14.07 Big Battery (optional): Big battery case offers extended battery supply
Căruciorul dispune de opțiune de extindere a alimentării cu baterie	DA		
C) GARANTIE SI CONDITII DE SERVICE			
Garantie - 36 luni	DA		
Timp de răspuns la solicitare în perioada de garanție cel mult 48 ore la sediul beneficiarului / locația de instalare	DA		
C.1) SERVICE POSTGARANTIE			
Post-garanție: 8 ani	DA		
Timp de răspuns la solicitare în perioada de garanție cel mult 72 ore la sediul beneficiarului / locația de instalare	DA		
D) SERVICII CONEXE			
Transportul, instalarea, punerea în funcțiune și instruirea personalului se realizează cu personal specializat, cad în sarcina furnizorului și nu implică costuri suplimentare pentru beneficiar, fiind incluse în oferta financiară	DA		
Instalare și punere în funcțiune de către personal autorizat si instruit de producator	DA		
Instruire personal medical si tehnic la sediul beneficiarului în locația de instalare	DA		
E) TERMEN DE LIVRARE			
10 de zile de la primirea comenzii	DA		



Versana Active

R1.5

Ultrasound System

Specification sheet

February 14, 2020

Rev. 1

Product description

Versana Active™ R1.5 ultrasound system delivers the imaging capability of a console in a hand-carried, lightweight package that enables you to actively take your system to your patients, on premises or remote facilities. This reliable system brings the agility of a laptop unit with capability for attaching it to a cart. Adaptable to cover a broad range of everyday exams, it is easy to carry to clinics and physician offices.



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1. General specifications

1.01 Dimensions and weight

Height	58 mm
Width	390 mm
Length	362 mm
Weight (no Peripherals)	5.0 kg with battery

1.02 Electrical power

Voltage: 100 – 240 VAC

Frequency: 50/60 Hz

Power consumption	• No more than 200 VA with peripherals • No more than 450 VA with peripherals (with advanced cart)
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1.03 Console design

1 in built active probe ports

Integrated SSD (256 GB standard)/(1T option)

Integrated speakers

2. User interface

2.01 Operator keyboard

Full alphanumeric keypad covered with washable protection film

8 TGC pods

2.02 Monitor

15.6" (344.16 x 193.59 mm) high-resolution LCD
(1920 x 1080 pixels)

Brightness/contrast/color temperature adjustment

3. System overview

3.01 Applications

Abdominal

Obstetrical

Gynecological

Small parts

Musculoskeletal

Vascular/peripheral vascular

Urological

Pediatric

Applications (cont.)

Cardiac

Thoracic

Transcranial

Transvaginal

Transrectal

3.02 Scanning methods

Electronic convex

Electronic linear

Electronic micro convex

Electronic sector

Mechanical volume sweep

3.03 Transducertype

Convex array

Linear array

Microconvex array

Sector phased array

Volume Probe(4D)

3.04 Operating modes

B-Mode

Coded Harmonic Imaging

M-Mode

Anatomical M-Mode (option)

Curved AMM (option)

Color M-Mode

Color Flow mode (CFM)

Power Doppler Imaging (PDI)

Directional PDI

B-Flow™ (B-Flow Color) (option)

PW Doppler with high PRF

CW Doppler mode (option)

Contrast agency detection (option)

TVI mode (option)

Elastography (option)

3D/4D volume modes (option)

4. System standard features

Installation wizard
Whizz
CrossXBeam™
SRI-HD (High Definition Speckle Reduction Imaging)
B-Steer
Coded Phase Inversion Harmonic Imaging
Virtual Convex
Patient information database
Image Archive on integrated HDD
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
MPEGvue
Network storage
Remote capability: RSvP
My Trainer
Scan Assistant
Standby
QAnalysis

5. System options

CW Doppler
Anatomical M-Mode
Curved AMM
LOGIQ View

5. System options *(cont.)*

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	
Auto IMT	
Breast Care	
Thyroid productivity	A package in thyroid measurement with including measurement and relevant description (Includes TI-RADS ACR)
Needle recognition	
Follow-up tool	
DICOM® 3.0 Connectivity	
Tricefy™ Uplink	
Contrast agency detection	
Elastography	
Static 3D/Real-time 4D: TUI	

6. Peripheral Options

Sony UP-D898MD B/W thermal printer
Sony UP-D25MD Color thermal printer
Sony UP-D898DC B/W 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

7. Display modes

7.01 Live and stored display format

Widescreen	• Full size and split screen • Both with thumbnails for still and Cine
Review image format	4x4 and thumbnails for still and Cine
Simultaneous capability	• Dual B (B/B) • B + CFM/PDI • B + PW/M • B + CFM + M • Real-time triplex mode (B + CFM/PDI+PW) • B + B-Flow/B-Flow Color
Zoom	Write (HD)/read 67X
Colorized Image	• Colorized B • Colorized B-Flow • Colorized M • Colorized PW • Colorized CW • Colorized 3D
Timeline display	• Independent dual B/PW or CW display • Display Format – 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)
Others	• Virtual Convex • LOGIQ View • TUI (Tomography Ultrasound Imaging)

8. 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

9. Display annotation

9.01 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:
3 types selectable

- MM/DD/YYYY
- DD/MM/YYYY
- YYYY/MM/DD

Time format:
2 types selectable

- 24 hours
- 12 hours

Gestational age from

- LMP
- EDD
- GA
- BBT

Displayed Acoustic Output

- TIs: Thermal Index Soft Tissue
- TIc: Thermal Index Cranial (Bone)
- TIb: 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

9.02 B-Mode

Gain

Dynamic range

Imaging frequency

Edge enhance

Frame average

Frame rate

Gray map

SRI-HD

CrossXBeam

9. Display annotation *(cont.)*

9.03 Color Flow Mode

Line density

Frame average

Packet size

Color velocity range and baseline

Color threshold marker

Color gain

Inversion

Frequency

9.04 PDI Mode

Line density

Frame average

Packet size

Directional PDI

Color velocity range and baseline

Power threshold marker

PDI Gain

Inversion

9.05 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

9.05 B-Flow/B-Flow Color Mode *(cont.)*

Enhance

Threshold

Map Compress

Map

Wall Filter

Transparency

9.06 M-Mode

Gain

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

Time Scale

AMM

9.07 Doppler Mode

Gain

Angle Correct

Sample Volume Depth and Sample Volume Length

Wall Filter

Velocity and/or Frequency Scale

Spectrum Inversion

Time Scale

Scale

Doppler Frequency

9.08 Elastography

Frequency

Soft Compress

Hard Compress

Scale

9.09 Contrast

Visualization

Contrast Clock1

Contrast Clock2

Contrast Only

Dual View

9. Display annotation *(cont.)*

9.09 Contrast *(cont.)*

Trigger Off

Time Delay

Dynamic Range

Frequency

SRI HD

Colorize

Gray Map

Frame Average

Line Density

Accumulation

Hybrid Map

Visualization

Flash

ContrastTech

Max Enhance

Contrast Only

Target MI

9.10 Easy 3D

Utilities

Texture

Gray Surface

Render

Threshold1

Threshold2

Scan Distance

Colorize

9.11 Advanced 3D

DefineAxis

Group Planes

Reslice

Tile

9.12 3D/4D

Tile/Mix

Active Curve

Reset Curve

Lower Threshold

Volume Angle

B Quality

3D Orient

Render Mode

Colorize

Direction

Render 1 Gray

Render 2 Gray

Adv. Render

Transparency

Ref Image

Cut Mode

Cut Depth

Depth

Rotational Angle

Step Angle

Rotation Axis

Start Angle

End Angle

Loop Speed

10. General system parameters

10.01 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
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OB Report Formats

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

User defined annotations

Body patterns

10.02 System scanning parameters

Digital Agile Beamformer Architecture

223907 system processing channels

Max. Frame Rate: 1790 fps, probe dependent and modes

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 dependent and application

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°

10.03 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
Gray scale map	6 or 8 types, probe and application dependent
B colorization	9 types
Frequency	Up to 4 selectable, probe dependent
Line density	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
Focus width	3 types
Suppression	6 steps
Edge enhance	7 steps
Rejection	6 steps
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

10.04 Coded Harmonic Imaging

Coded Phase Inversion 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 scale map	6 or 8 types, probe and application dependent
Tint map	9 types

10. General system parameters

(cont.)

10.04 Coded Harmonic Imaging (cont.)

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	6 steps
Frequency	Up to 4 steps, probe dependent

10.05 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

10.06 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, L8-18i-RS, 9L-RS, 12L-RS, LK760-RS

10.07 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
PRF	0.1 – 27.2 KHz
Spatial filter	6 steps
Gain	0 – 40 dB, 0.5 dB per step

10.07 Color Flow Mode (cont.)

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	20 types, probe and application dependent
Transparent map	5 steps
Color threshold	0 – 100%, 10% per step
Accumulation	8 steps

10.08 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 – 26 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

10. General system parameters

(cont.)

10.09 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

10.10 Anatomical M-Mode (option)

M-Mode cursor adjustable at anyplane
Can be activated from a Cine loop from a live or stored image
Measure and analysis capability
Available with Color Flow mode
Curved AMM

10.11 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

10.11 Pulse Wave Doppler Mode (cont.)

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

10.12 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
Wall filter	5.5 – 5000 Hz, 27 steps, dependent on probe and application
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: On, off • 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

10.13 Cine memory/image memory

384 MB of Cine memory
Selectable Cine sequence for Cine review
Prospective Cine mark
Measurements/calculations and annotations on Cine playback
Scrolling timeline memory
Dual image Cine display
Quad image Cine display

10. General system parameters

(cont.)

10.13 Cine memory/image memory (cont.)

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%)
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10.14 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, DICOMRead, SaveAs, MPEGvue

Storage formats	- 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, 4x4 and thumbnails
-----------------	---

Storage devices	- Internal hard drive partition of 100 GB (256 GB Console), and 814 GB (1 TB Console option) for image storage - External USB HDD and USB memory stick support for Import, Export, DICOM Read, SaveAs, and MPEGvue - CD-RW storage: 700 MB - DVD storage: -R (4.7 GB)
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10.15 Connectivity and DICOM

Ethernet network connection	- DICOM 3.0 (option) - 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) - Remote capability InSite™ Exc
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10.16 Virtual convex

Provides a convex field of view

Compatible with CrossXBeam for linear transducers

Available on linear and sector transducers

10.17 LOGIQView (option)

Extended Field of View Imaging

Available on 4C-RS, L6-12-RS, 8C-RS, 3Sc-RS, E8C-RS, E8Cs-RS, L8-18i-RS, 6S-RS, LK760-RS, 12L-RS, 9L-RS, 12S-RS, RAB2-6-RS probes

For use in B-Mode

CrossXBeam is available on linear probes

Auto detection of scan direction

Post-process zoom

Rotation

Auto fit on monitor

Measurements in B-Mode

Up to 60 cm scan length

10.18 Easy 3D (option)

Allows unlimited rotation and planar translations

3D reconstruction from Cine sweep

Utilities: Average off/Average light/Average medium/Average strong

Gray surface: Off/on

Threshold1: 0 – 255

Threshold2: 0 – 255

Scan distance: 1.0 – 15.0

Colorize: 0 – 360

10.19 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

10. General system parameters

(cont.)

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

Available on RAB2-6-RS

Acquisition modes	• Static 3D • Real-time 4D
Visualization modes	• 3D rendering (diverse surface and intensity projection modes) • Sectional planes (3 section planes perpendicular to each other) • TUI
Render Mode	Surface Texture, Surface Smooth, Transp. Max, Transp. Min, Transp. X-ray, Mix Mode of two render modes
Display format	• Quad: A-/B-/ C-Plane/3D • Dual: A-Plane/3D • Single: 3D

Curved 3-point render start

3D Movie	• 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
TUI: Tomographic Ultrasound Imaging	• Display format: 1x1/1x2/2x2/3x3 • Slices: 3 – 19 • Slices distance: 0.5 – 40 mm
Real-time 4D	• 4D Volume Cine • LoopSpeed:6-400 • Run/Stop

10.21 Elastography (option)

Available on L6-12-RS, 9L-RS, 12L-RS

Semi-quantification	• 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
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10.22 Contrast agency detection (option)

Available on 4C

	• Line density: 0 – 4 • SRI HD: 0 – 2 • Suppression: 0 – 5 • Frame average: 0 – 7 • Dynamic range: 36 – 96 dB • Rotation: Up/down • Modes/Frequency: Pen (Penetration), Gen (General) and Pes (Resolution) and • Display tissue image and contrast-enhanced image simultaneously in split screen • 2 contrast timers • Time delay: 0.3 – 10 seconds • Accumulation mode: 8 steps • Max Enhance: On/Off • Gray map: 10 types
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10.23 B-Flow (option)

Available on 4C-RS, L6-12-RS, 12L-RS, 9L-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

10. General system parameters

(cont.)

10.24 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

10.25 TVM (option)

TVI with M-Mode active

Available on the sector probes

Provides both myocardium motion velocity and direction

10.26 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 (dualscreen)

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

10.27 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.

10.28 Breast care (option)

Breast care is a customizable workflow designed for breast scanning. With its guiding, user can complete various modes of imaging, measurement, lesion BI-RADS® classification, and find positive area efficiently. That's an easy reference in the device when patient is in subsequent visit.

10.29 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, 9L-RS.

10.30 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 & animations to depict information related to each step. It covers five applications.

- Abdomen
- Obstetrics
- Gynecology
- Cardiology
- Vascular

10.31 MyTrainer

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

10.32 Battery (option)

The lithium ion battery provides power when an AC power source is not available.

10.33 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.

10.34 InSite Exc

InSite Exc is a direct link with a GE Online Service Engineer, Applications Support Engineer or a Request for Service.

10.35 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.

10. General system parameters

(cont.)

10.36 Controls available while “live”

Write Zoom

B/M-Mode	• Gain • TGC • Dynamic Range • Acoustic Output • Transmission Focus Position • Transmission Focus Number • Line Density Control • Sweep Speed for M-Mode • Number of Angles for CrossXBeam
PW-Mode	• Gain • Acoustic Output • Transmission Frequency • Scale • Wall Filter • Sample Volume Gate – Length – Depth • Volume
Color Flow Mode	• CFM Gain • CFM Velocity Range • Acoustic Output • Wall Filter • Packet Size • Line Density • CFM Spatial Filter • CFM Frame Average • Frequency/Velocity Baseline Shift

10.37 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

10.37 Controls available on Freeze or Recall (cont.)

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

11. Measurements/calculations

11.01 General B-Mode

Depth and distance

Circumference (ellipse/trace)

Area (ellipse/trace)

Volume (ellipsoid)

% Stenosis (area or diameter)

Angle between 2 lines

11.02 General M-Mode

Depth

Distance

Time

Slope

Heart rate

11.03 General Doppler measurements/calculations

Velocity

Time

A/B ratio (velocities)

PS (Peak Systole)

ED (End Diastole)

11. Measurements/calculations

(cont.)

11.03 General Doppler measurements/calculations (cont.)

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)

11.04 Real-time Doppler auto measurements/calculations

PS (Peak Systole)

ED (End Diastole)

MD (Minimum Diastole)

PI (Pulsatility Index)

RI (Resistivity Index)

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)

11.05 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)
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Trunk Diameter	• FTA (Fetal Trunk Cross-sectional Area) • HL (Humerus Length) • BD (Binocular Distance) • FT (Foot Length) • OFD (Occipital Frontal Diameter)
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11.05 OB measurements/calculations (cont.)

Trunk Diameter (cont.)	• TAD (Transverse Abdominal Diameter) • TCD (Transverse Cerebellum Diameter) • THD (Thorax Transverse Diameter) • TIB (Tibia Length) • ULNA (Ulna Length)
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Estimated Fetal Weight (EFW) by	• AC, BPD • AC, FL, HC	• AC, BPD, FL, HC
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Calculations and ratios	• FL/BPD • CI (Cephalic Index) • FL/HC	• CTAR (Cardio-Thoracic Area Ratio)
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SonoBiometry	• BPD • AC • FL	• HC • HL
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Measurements/calculations by: ASUM, ASUM 2001, Berkowitz, Bertagnoli, Brenner, Campbell, CFEF, Chitty, Eik-Nes, Ericksen, Goldstein, Hadlock, Hansmann, Hellman, Hill, Hohler, Jeanty, JSUM, Kurtz, Mayden, Mercer, Merz, Moore, Nelson, Osaka University, Paris, Rempen, Robinson, Shepard, Shepard/Warsoff, Tokyo University, Tokyo/Shinozuka, Yarkoni

Fetal graphical trending

Growth percentiles

Multi-gestational calculations

Fetal qualitative description (anatomical survey)

Fetal Environmental Description (Biophysical profile)

Programmable OB tables

Over 20 selectable OB calculations

Expanded worksheets

11.06 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

11. Measurements/calculations

(cont.)

11.07 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

11.08 Urological calculations

Volume (Auto bladder volume)

Prostate volume

Left/right renal volume

Generic volume

Post-void bladder volume

12. Cardiac measurements/calculations

12.01 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 (AVCusp) - 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)

12.01 B-Mode measurements (cont.)

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)

12.02 M-Mode measurements

Aorta	- Aortic Root Diameter (Ao Root Diam) - Aortic Valve Diameter (AV Diam) - Aortic Valve Cusp Separation (AVCusp) - Aortic Valve Ejection Time (LVET)
Left atrium & Left ventricle	- Left Atrium Diameter to Ao Root 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	- 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)

12. Cardiac measurements/ calculations *(cont.)*

12.02 M-Mode measurements *(cont.)*

Pulmonic valve	• 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	QRS complex to end of envelope (Q-to-TV close)

12.03 Doppler mode measurements

Aortic valve	• Aortic Valve Mean Velocity (AVTrace) • Aortic Valve Velocity Time Integral (AVTrace) • Aortic Valve Mean Pressure Gradient (AVTrace) • 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 (AVTrace) • Aortic Valve Ejection Time (AVET) • Aortic Valve Area according to PHT
Left ventricle	• 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	• 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)

12.03 Doppler mode measurements *(cont.)*

Mitral valve <i>(cont.)</i>	• 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	• 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) • 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)

12. Cardiac measurements/ calculations *(cont.)*

12.03 Doppler mode measurements *(cont.)*

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) • 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)

12.03 Doppler mode measurements *(cont.)*

Tricuspid valve <i>(cont.)</i>	• 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)
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12.04 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)

12.05 Combination mode measurements

Aortic valve	• 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)
Left ventricle	Cardiac Output, Teichholz/Cubic (LVIDd, LVI Ds, HR)
Mitral valve	• Stroke Volume by Mitral Flow (MVA Planimetry, MV Trace) • Cardiac Output by Mitral Flow (MVA Planimetry, MV Trace, HR)

12. Cardiac measurements/ calculations *(cont.)*

12.06 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

13. Probes

13.01 4C-RS

Convex probe

Applications	Abdominal, OB/GYN, Vascular, Urological, Thoracic, Pediatric, MSK
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

13.02 L6-12-RS

Linear probe

Applications	Vascular, Small parts, Pediatrics, MSK, Thoracic
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

13.03 12L-RS

Linear probe

Applications	Vascular, Small parts, Pediatrics, MSK, Thoracic
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

13.04 E8Cs-RS

Endo micro convex probe

Applications	OB/GYN, Urological, Transvaginal, Transrectal
Number of elements	128
Convex radius	8.73 mm
FOV	168°
Footprint	18.6 x 13.9 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	4.0, 5.0, 6.0 MHz
Biopsy guide	Fixed angle, disposable or reusable bracket

13.05 LK760-RS

Linear probe

Applications	MSK
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	±10°
Biopsy guide	Not available

13. Probes (cont.)

13.06 E8C-RS

Endo micro convex probe

Applications	OB/GYN, Urological, Transvaginal, Transrectal
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

13.07 8C-RS

Micro convex probe

Applications	Pediatrics, Pediatric Cardiac, MSK
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

13.08 3Sc-RS

Phased array sector probe

Applications	Cardiac, Vascular, Transcranial, Thoracic, Abdominal
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

13.09 6S-RS

Phased array sector probe

Applications	Cardiac, Vascular, Transcranial, Pediatrics
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

13.10 12S-RS

Phased array sector probe

Applications	Pediatrics, Pediatric Cardiac, Vascular, Transcranial
Number of elements	96
FOV	120°
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	4.1 (CFM/PDI), 4.5, 5.0, 5.6, 6.7 MHz
CWD frequency	4.2, 5.0, 6.2 MHz
Biopsy guide	Not available

13.11 9L-RS

Linear probe

Applications	Vascular, Small parts, Pediatrics, MSK, Abdominal, Thoracic
Number of elements	192
Footprint	53 x 14.1 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	4.0, 5.0 MHz
Steered angle	±20°
Biopsy guide	Multi-angle, reusable bracket

13. Probes (cont.)

13.12 L8-18i-RS

Linear probe

Applications	MSK, Small parts, Vascular
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, 10.0 MHz
Steered angle	±20°
Biopsy guide	Not available

13.13 RAB2-6-RS

Convex Volume Probe

Applications	Abdominal, OB/GYN, Urological
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), 70° x 84° (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

14. Cart (optional)

The ergonomic trolley cart, features 4 easy on – off lockable 120 mm diameter wheels, system mounting, power cord hooks and clips for neat arrangement of power cords, probe holders with cord management holder, and gel holder.

Advanced cart features optional 3PP, 4D box, power transformer, big battery, height-adjustability.

14.01 Cart dimension

Dimensions	• Base Cart – L 555 x D 515 x H 890 mm • Advanced Cart – L 556 x D 585 x H 920 mm (Fixed) – L 556 x D 585 x H 900~1190 mm (Height-adjustable)
Weight	• Base Cart – 21 Kg • Advanced Cart – ≤ 35 Kg

14.02 Printer shelf (optional)

Dimensions	• Base Cart – L 293 x D 217 x H 122 mm • Advanced Cart – L 300 x D 204 x H 134 mm
------------	--

14.03 Cart tray (optional)

The cart tray offers storage space for accessories

Dimensions	• Base Cart – L 305 x D 222 x H 77 mm • Advanced Cart – L 343 x D 177 x H 65 mm – L 296 x D 143 x H 200 mm
------------	--

14.04 3PP (optional)

The advanced cart is compatible with optional three external probe port extensions

Dimensions: L 217 mm X D 52 mm X H 126 mm

14.05 Power Transformer(optional)

Power transformer offers external power supply

Dimensions	• Advanced Cart – L 276 x D 197 x H 106 mm
------------	---

14.06 4D Box (optional)

4D scanning function

Dimensions	• Advanced Cart – L 230 x D 87 x H 50 mm
------------	---

14.07 Big Battery (optional)

Big battery case offers extended battery supply

Dimensions	• Advanced Cart – L 206 x D 132 x H 296 mm
------------	---

14.08 ECG Module Shelf (optional)

Dimensions	• Advanced Cart – L 262 x D 70 x H 55 mm
------------	---

14.09 GYN probe holder (optional)

Horizontal positioning of endocavitary probe

Dimensions	L 217 mm X D 52 mm X H 126 mm
------------	-------------------------------

14. Cart (optional)

(cont.)

14.10 Gel Warmer (optional)

Dimensions	- Advanced Cart – L 80 x D 80 x H 155 mm
------------	---

14.11 Dimension with additional options

Dimensions	- Cart – L 555 x D 590 x H 950 mm - Advanced Cart – L 556 x D 585 x H 980 mm – L 556 x D 585 x H 960~1250 mm
------------	--

Weight	- Cart – 23 Kg - Advanced Cart – ≤ 47 Kg
--------	---

15. Trolley case

The case features 3 protective compartments for the probes, and 3 additional compartments for power adapters, cord, and manuals.

15.01 Dimension

L 495 x D 275 x H 460 mm

Weight: 4 kg

16. Inputs and outputs

16.01 Inputs and outputs

HDMI output(1920 x 1080 resolution)

S-video and composite output with optional adapter

1000 BASE-TX Ethernet (RJ45)

4 USB ports

17. Safety conformance

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

Conforms to the following standards for safety

- 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

Product may not be available in all countries and regions. Full product technical specifications is available upon request. Contact a GE Healthcare Representative for more information. Please visit www.gehealthcare.com/promotional-locations.

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March 2020
DOC2363486





Versana Active™

v1.5

Transducer Guide





4C-RS



L6-12-RS



12L-RS



9L-RS



E8C-RS



E8CS-RS



3sC-RS



6S-RS



12S-RS

Applications	Footprint	Frequency Range	FOV	Biopsy Guide
Abdominal, OB/GYN, Vascular, Urological , Thoracic, Pediatric, MSK	18.3 x 66.2 mm	2.0 – 5.0 MHz	58°	E8385NA
Vascular, Small parts, Pediatrics, MSK, Thoracic	11.4 x 47.0 mm	4.0 – 13.0 MHz	38.4 mm	H40432LC
Vascular, Small parts, Pediatrics, MSK, Thoracic	12.7 x 47.1 mm	4.2 – 13.0 MHz	38.4 mm	H48392LT H48392LL
Vascular, Small parts, Pediatrics, MSK, Abdominal, Thoracic	53 x 14.1 mm	4.0 – 10.0 MHz	44 mm	H4906BK
OB/GYN, Urological, Transvaginal, Transrectal	16.9 x 21.2 mm	4.2 – 10.0 MHz	128°	E8385MJ or H40412LN
OB/GYN, Urological, Transvaginal, Transrectal	18.6 x 13.9 mm	4.0 – 10.0 MHz	168°	E8385MJ or H40412LN
Cardiac, Vascular, Transcranial, Thoracic, Abdominal	23.7 x 18.4 mm	1.7 – 4.0 MHz	120°	H46222LC
Cardiac, Vascular, Transcranial, Pediatrics	23.5 X 16.8 mm	2.5 – 7.0 MHz	120°	not available
Pediatrics, Pediatric Cardiac, Vascular, Transcranial	17.6 x 13.2 mm	4.1 – 12.0 MHz	120°	not available



RAB2-6-RS*



8C-RS



L8-18i-RS



LK760-RS

Applications	Footprint	Frequency Range	FOV	Biopsy Guide
Abdominal, OB/GYN, Urological	62.2 x 34.0 mm	2.0 – 6.0 MHz	70° (B), 70° x 84° (Volume scan)	H48681ML
Pediatrics, Pediatric Cardiac, MSK	12.0 x 22.0 mm	4.2 – 10.0 MHz	131°	not available
MSK, Small parts, Vascular	34.8 x 11.1 mm	6.7 – 18.0 MHz	25.2 mm	not available
MSK	67.0 x 13.0 mm	3.5 – 10.0 MHz	59.9 mm	not available



*Available on Versana Active v1.5

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March 2020
DOC2296676



Versana Active™

Quick Card

5824772-100 English
Rev.2A



gehealthcare.com

Versana Active – Quick Card



Versana Active – Quick Card

- | | | |
|--------------------|-----------------------|---|
| 1 Power on/off | 11 Gain/Active | 21 Utility |
| 2 Patient | 12 Cursor | 22 User configurable keys
(P1 = Store, P2 = Print) |
| 3 Probe | 13 Clear | 23 User configurable keys (U1 – U3) |
| 4 Report | 14 Measure | 24 CHI (Coded Harmonic Imaging) |
| 5 End exam | 15 Body pattern | |
| 6 Whizz | 16 Set | |
| 7 M-Mode | 17 Depth/Zoom/Ellipse | |
| 8 PW (Pulsed Wave) | 18 Dual and Quad | |
| 9 CF (Color Flow) | 19 Freeze | |
| 10 B-Mode | 20 Scan coach | |

Entering Patient Data

1. Press the **Patient** key.
2. Enter **Patient** ID and name. (A patient ID must be entered to store images. All other entries on Patient Data screen are optional).
3. Select **Register**.
4. Exit the patient page by selecting **Scan**.

Selecting a Probe/Preset

1. Press the **Probe** key.
2. Select the preset of the exam on the screen.

Measurements

1. Press the **Measure** key. A caliper will appear on the screen for application mode.
2. Using trackball place the caliper in the appropriate position and press **Set**.
3. A second caliper will appear.
4. Using trackball place the second caliper in the appropriate position and press **Set**.

A measurement result appears with the distance measurement that you have just completed.

Repeat 1 – 4 for additional measurements.

For Velocity measurements, press **Measure** and place the caliper over the Doppler wave forms.

To change the measurement package, press **Measure**, select **Second Menu** tab on the primary menu, and then select Exam category to choose the desired application. The measurement packages for the application appears.

Preset Management

1. Press the **Probe** key on the control panel. Select the preset you want to use as a basis for the new preset. And then select **Create New** on the screen.
2. The Create New Application menu appears. Enter the name and check the “**Add to My Preset**” box, then select **Create**.
3. To view/edit the parameters for the user-defined preset, press **Utility > Preset Manager**. If you change the settings for this application, make sure to save the changes via **Overwrite** (user application).

Note: If you select Reload Factory Defaults for the user-defined application that you created, the settings for this user-defined application revert back to the factory settings for the exam category and application it was based upon.

Annotating an Image

Option 1: To add text to an image, begin typing on the keyboard.

Option 2: Pressing the **Comment** key to activate annotation function. Select desired word on the screen to select word.

To set the text position on the screen, use trackball to place the text in the desired location and press **Set**. The text color will change from green to yellow.

To edit or move set text, reselect the text with the cursor by placing the cursor over the word and select **Set**. Editable text will be green.

To change the comment package, select **More** on the screen, and choose the desired application. Press the **Comment** key and the comment packages for the application appears.

Color Doppler

1. Press the **CF** key.
2. The color box will appear over the B-Mode image.
3. You can change the gain by rotating the **Gain/Active** key or change the box size by pressing **Set** key and using the trackball to size.
4. Several Color Doppler adjustments such as Scale and Frequency can be adjusted on the primary menu.

Pulsed Wave Doppler

1. Press the **PW** key.
2. The Doppler gate will appear over the B-Mode image and display the waveform.
3. You can adjust the Sample Volume position by moving the trackball, and this will update the Doppler spectrum.
4. Several Pulsed Wave adjustments such as Scale and Baseline can be adjusted on the primary menu.
5. Press **Freeze** key and **Measure** key.
6. Select the calculation desired on the screen and place the calipers on the “**Pulsed Wave Doppler**” using the trackball and the Set key.

M-Mode

1. Press the **M-Mode** key.
2. The M-Mode cursor will appear over the B-Mode image and display the waveform.
3. You can adjust the position of the cursor by moving the trackball, and this will update the M-Mode signal.
4. Press **Freeze** key and **Measure** key and select **HR** on the screen to make a heart rate calculation.

Split Screen

1. Press **Dual** key to display dual screen. Press to select right or left side image as live.
2. Press **Quad** key to display quad screen. Press to select desired image as live.
3. Toggle between **Dual** and **Quad** to obtain desired images or press **Freeze** key to freeze the desired side.

Saving/Printing Images

1. To save or print images, press the appropriate **P** key.
2. Print keys are set up in Utility and can be set for multiple functions (**Utility > Connectivity > Button**).
3. Press the key to set/save each value, otherwise it can't be saved.

Set SONY UP-D898MD printer as below for the best performance: Press Ready, use ↑ or ↓ to find Adjust: Bright 0, Contrast 10, Sharp 14, Gamma 2, Tone 12.

End Exam

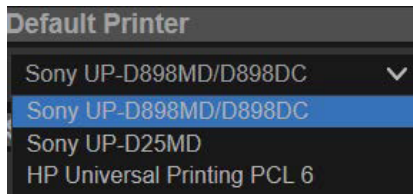
1. Press **End Exam** and the **Active Images** screen displays.
2. Select the images (still frame or cineloop) you want to store or simply select **Permanent Store** to store the images permanently.



Printing Configuration

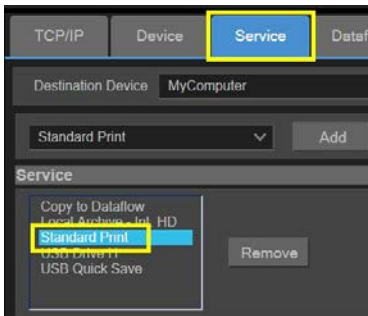
Section 1: Set up default printer

1. Press **Utility > System > Peripherals**.
2. Select report printer from the **Default Printer** pull-down menu. Press **Save**.

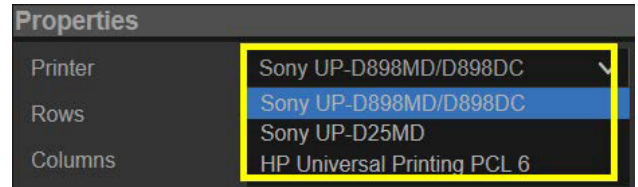


Section 2: Set up standard printer

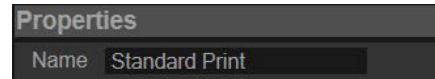
1. Connect the printer to the USB port.
2. Press **Utility > Connectivity > Service**. Add the Standard Print service.



3. Select the printer from the Printer pull-down **Properties** menu.



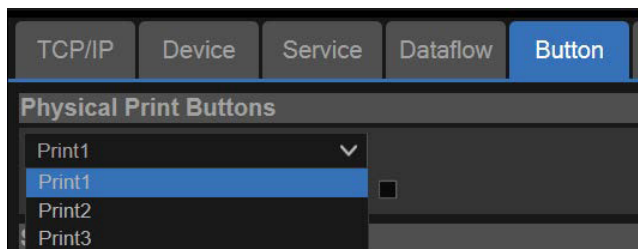
4. Type the printer name in the **Name** field. Press **Save**.



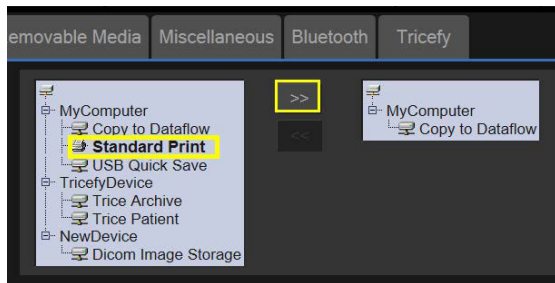
Printing Configuration *(continued)*

Section 3: Set up physical print buttons

1. Press **Utility > Connectivity > Button**.
2. Select the appropriate print key (Print1, Print2...) from the **Physical Print Buttons** section.

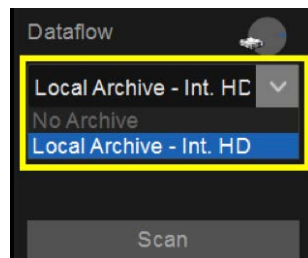


3. Select the printer from the **MyComputer** column. Press >> to move it to the right side printflow view. Press **Save**.

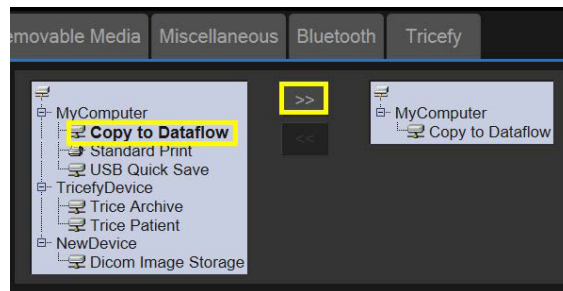


Local Archive Configuration

1. Press **Patient > Dataflow**.
2. Make sure the dataflow is Local Archive-Int. HD. If Dataflow shows No Archive, click the pull-down menu and select **Local Archive-Int. HD**.



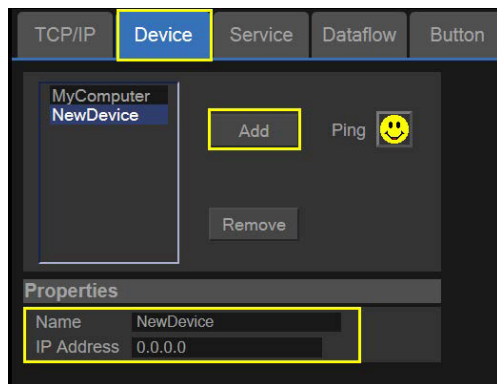
3. Select **Utility > Connectivity > Button**, then select the **Copy to Dataflow** from **MyComputer** column. Press >> to move it to the right side column. Press **Save**.



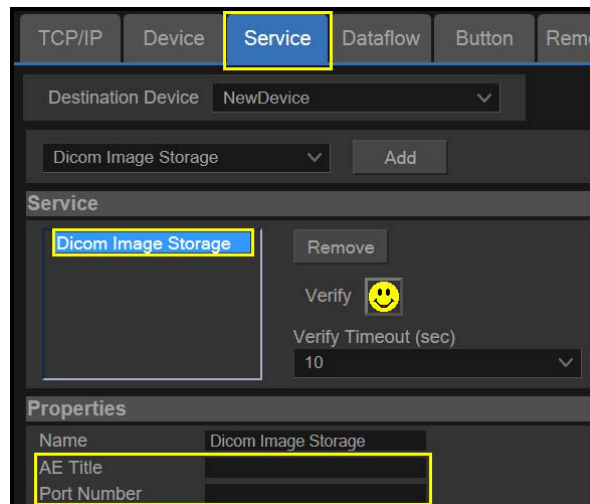
DICOM®/Network Configuration

Take DICOM Image Storage as example

1. Press **Utility > Connectivity > Device**. Press **Add** to add the **NewDevice**. Type the computer name in the **Name** field and Static **IP address** in the IP Address field. Select Ping to verify the icon changes (smiley face 😊 appears).



2. Press **Utility > Connectivity > Service**. Select **NewDevice** from the **Destination Device** pull-down menu, then select **DICOM Image Storage**. Click **Add**. Set the parameters **AE Title** and **Port Number** referring to DICOM Server in Properties column. Press **Save**. Select **Ping** to verify the icon changes (smiley face 😊 appears).



DICOM/Network Configuration

Take DICOM Image Storage as example *(continued)*

3. Press **Utility > Connectivity > Button**. Select **DICOM Image Storage** from **NewDevice** column. Press >> to move it to the right side column. Press **Save**.

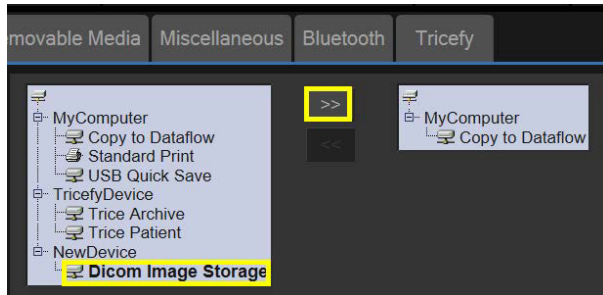


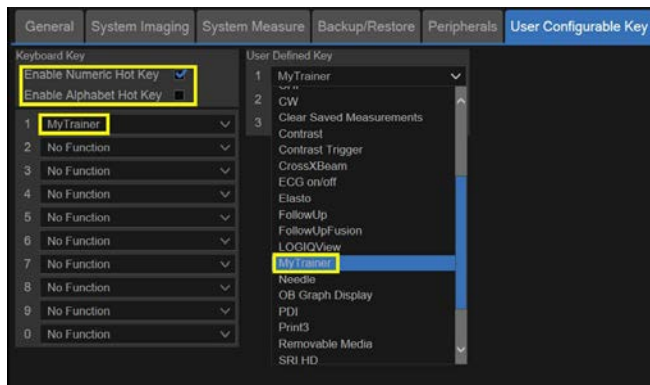
Image Optimization Lists

B-Mode Scanning Hints (Active ‘Whizz’ for better B-Mode image quality, or make further improvement as following)

If	Then
The image is too grainy	1. Increase Dynamic Range. 2. Click “Gray Map” to change the gray map setting.
The image is too soft	1. Decrease B Dynamic Range. 2. Increase B Edge Enhance. 3. Click “Gray Map” to change the gray map setting.
The image is too noisy	1. Decrease Gain. 2. Decrease B Dynamic Range. 3. Click “Gray Map” to select a gray map with more contrast.
Improve uniformity	1. Increase the number of focal zones. 2. Adjust TGC to compensate for attenuation.
Cystic imaging	1. Decrease Gain. 2. Decrease B Dynamic Range. 3. Decrease scan area. 4. Click “Focus Number” to increase number of focal zones. 5. Position focal zones properly. 6. Click “Gray Map” to change the gray map setting.
Technically difficult patients	1. Select the proper probe for the exam (larger patient, lower frequency). 2. Increase acoustic output, if necessary. 3. Maintain a lower B Dynamic Range (66 – 72). 4. Decrease scan area for faster frame rates. 5. To penetrate, select a lower frequency for the probe of choice.

How to Access My Trainer?

1. Press **Alt+H** to enter My Trainer. Or, Press **Utility > System > User Configurable Key**. Check **Enable Numeric Hot Key** or **Enable Alphabet Hot Key** to set My Trainer in the keyboard key, or set My Trainer in user defined key.



2. Press defined key to access **My Trainer**.

Versana Club Membership Registration

1. Simply register online at: www.versanaclub.net.
2. Scan below to join Versana Club now!



Learn. Network. Share.

Imagination at work

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June 2019
DOC2300547





PORTABLE ULTRASOUND FOR GENERAL PRACTICE
v1.5

Versana Active™

Care with Confidence



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INTRODUCING Versana Active

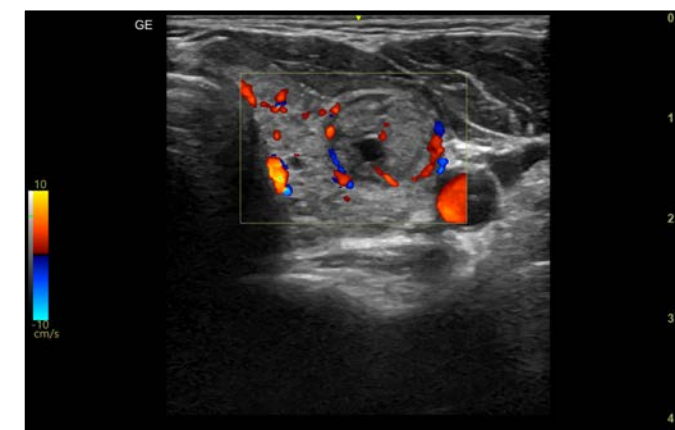
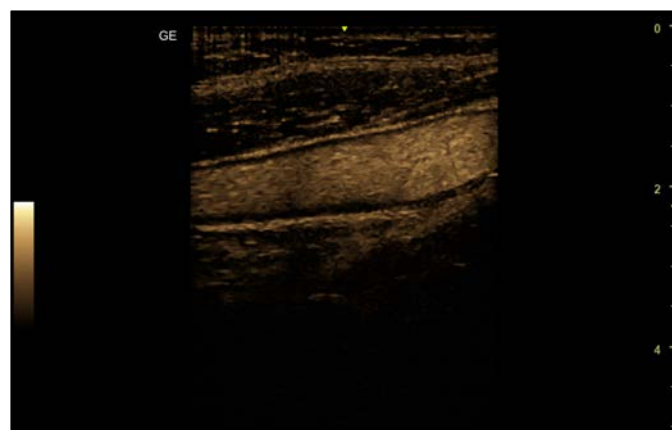
Versana Active™ ultrasound system delivers the imaging capability of a console in a hand-carried, lightweight package that enables you to actively take your system to your patients, on premises or remote facilities. This reliable system brings the agility of a laptop unit with capability for attaching to a cart. Adaptable to cover a broad range of everyday GP exams, it is easy to carry to clinics and physician offices.

This high-quality yet affordable unit comes from the GE Healthcare legacy of ultrasound imaging excellence. It combines design, workflow and features developed based on extensive research and testing to meet users' demanding requirements.

ADVANCED. CAPABLE. ADAPTABLE.

World-class ultrasound designed for peace of mind.







CHECK OUT THESE CONVENIENT FEATURES

Convenient
carrying handle



High durability

Light (5 kg/11.02 lb) and *slim* (57 mm/2.3 in)



Choice of three optional carts with height
adjustability option to suit scanning preferences†



Wide range of
probe offerings



Multiple probe
port connectivity
on carts†



†Available on Versana Active v1.5





An opportunity for growth

Versana ultrasound systems to serve you well today and set your course for the future.

Experience the strength of the GE Healthcare family

Your support team is fully trained, GE Healthcare qualified, deeply experienced, and nearby.

- Expert support during and after purchase
- In-depth staff product training
- Remote or on-site technical, clinical and network support

Customized solutions and path to growth

Versana Active can scale to suit your general practice today and grow with you. Select a basic system and software. Then choose from optional upgrades as your practice advances. Then choose from optional Versana upgrades or a wide range of specialized GE Healthcare ultrasound systems as your practice advances.

Versana Club: Learn. Network. Share.

The Versana Club community offers resources to help you expand your ultrasound knowledge and improve your practice.

- Educational offerings
- Web-based video tutorials
- Information on Versana family service solutions and products
- Up-to-date content on ultrasound and patient care
- Notices of regional ultrasound events and other news
- Access to the broader family of GE Healthcare ultrasound user clubs

Register now at www.versanaclub.net



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JB72224XX

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Care with Confidence

Versana Active is part of the Versana ultrasound family: complete solutions that help empower care without compromise by balancing capability, affordability, and reliability.



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Advanced. Capable. Adaptable. World class ultrasound designed for peace of mind.

A partner you can trust

- ✓ *World-Class imaging technology*
- ✓ *Comprehensive service and support*
- ✓ *Decades of GE heritage you can rely on*



A complete solution

- ✓ *Capable, adaptable system for the point of care*
- ✓ *Education offerings and onboard reference materials*
- ✓ *Financing options*



An opportunity for growth

- ✓ *Versana Club: Learn. Network. Share*
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- ✓ *Experience the powerful support of the GE family*



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Versana Active™

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A partner you can trust

- World-class imaging technology
- Comprehensive service and support
- Decades of GE Healthcare heritage you can rely on

World-class image quality built on GE ultrasound legacy

Like all GE Healthcare ultrasound systems, the highly dependable Versana Active™ provides imaging you can rely on to boost diagnostic confidence and support your practice over time.

- Color Doppler, Power Doppler, Pulse Wave
- Coded Phase Inversion Harmonic Imaging
- CrossXBeam™ Spatial Compounding
- Speckle Reduction Imaging (SRI)
- Multiple Line Acquisition



World-class imaging – B-Flow™

- Suppress tissue and magnify blood signal
- Visualize blood flow and vessel wall structure
- No overlay on tissue
- No angle dependence
- High resolution

B-Flow™ provides real-time visualization of vascular hemodynamics by directly visualizing blood reflectors and presenting the information in a grayscale display. GE-patented techniques boost blood echoes and suppress non-moving tissue signals.



Enhance confidence in hemodynamic profiles and assessment of vessel patency and vascular diseases

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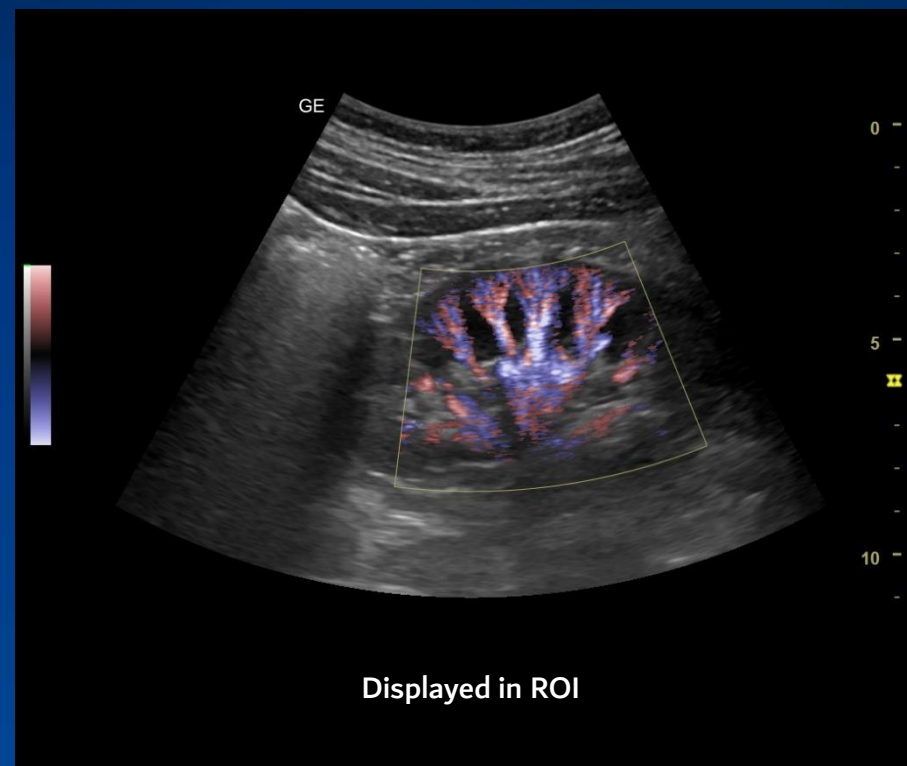
ADVANCED

CAPABLE

ADAPTABLE

World-class imaging – B-Flow™ Color

- High sensitivity for detecting smaller and shallower vessels
- Excellent axial resolution
- High frame rates
- Truly comparable lateral resolution



Enhance confidence in hemodynamic profiles and assessment of vessel patency and vascular diseases



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ADVANCED

CAPABLE

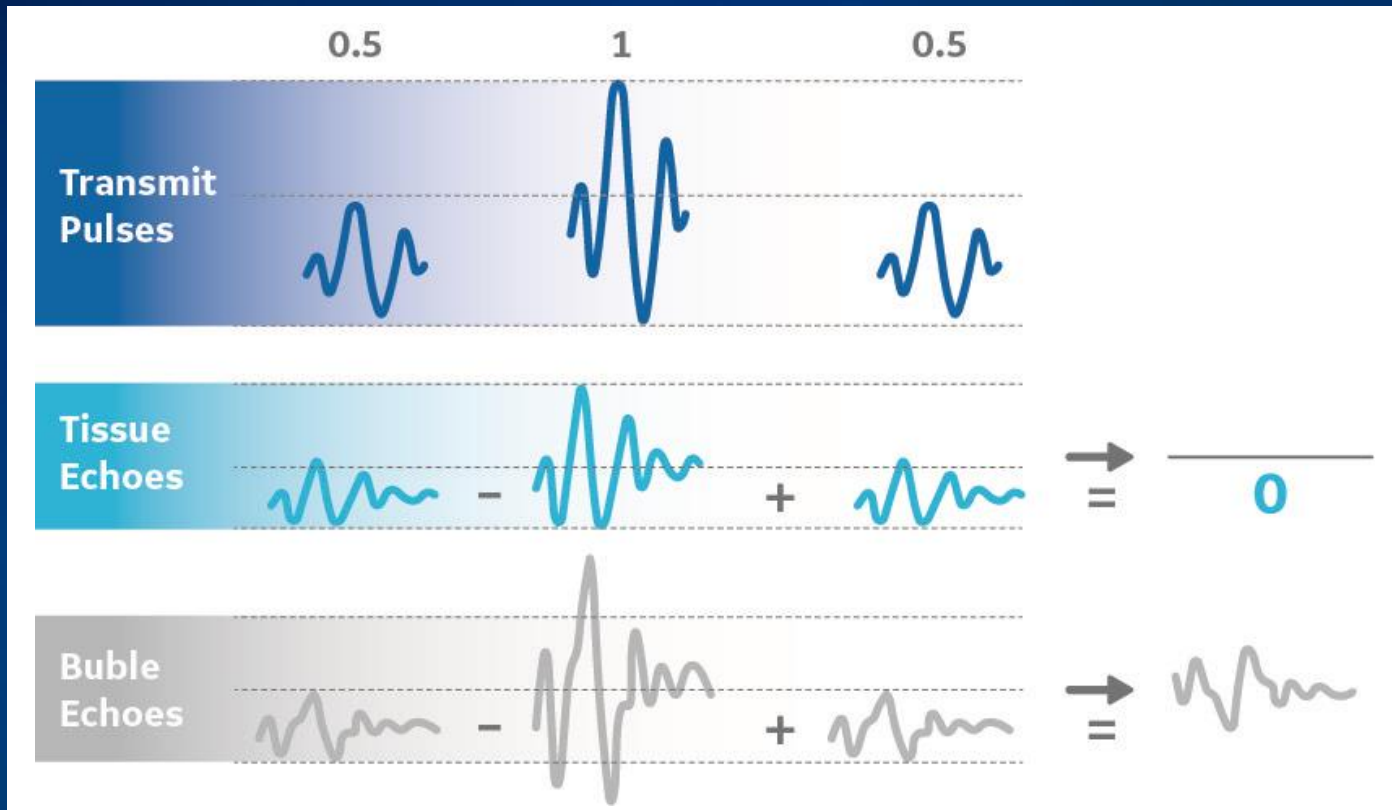
ADAPTABLE

World-class imaging

Contrast imaging: AM (amplitude modulation) technology

Fundamental imaging

- Excellent tissue suppression
- Superb contrast sensitivity
- High image uniformity



Excellent tissue suppression and super sensitivity

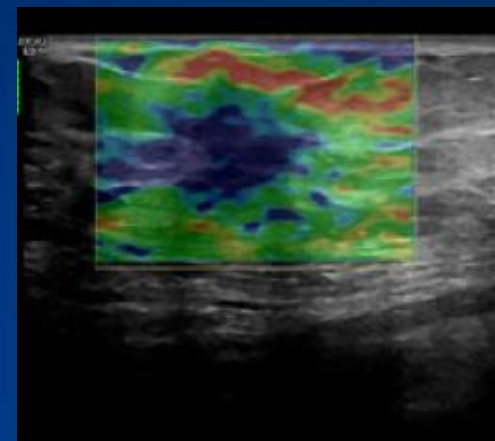
World-class imaging – Elastography

Strain Imaging Technology requires a light manual compression or patient breath hold to create tissue deformation.

- Qualitative solution
- Consistent pattern
- User- selectable color maps
- User support with pressure quality bar and graph

Applications (L6-12-RS):

- Breast
- Small parts



This soft lesion deforms under pressure.



This hard lesion does not deform under pressure.

$$\text{Elasticity} = \frac{\text{Stress}}{\text{Strain}}$$

Stress = axial force applied to lesion

Strain = tissue deformation due to applied stress



World-class imaging – TVI with Q-Analysis

Assess heart function with:

- **TVI:** Myocardial Doppler Imaging with color overlay on tissue image to assess left ventricular relaxation abnormalities
- **Q-Analysis:** Multiple Time Motion trace display from selected points in the myocardium

Available with the 3Sc-RS probe.



Evaluate heart function through myocardial motion data



A partner you can trust

Versana Active™ brings the complete dependability you expect from GE Healthcare.

A complete solution

An opportunity for growth



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Comprehensive service and support

- Expert, worry free service coverage
- Service tools including GE One Box for superb reliability with minimal downtime
- Customer-configurable InSite™ Exc remote connectivity for technical and clinical support
- Security and privacy protection for clinicians and patients; powerful PHI Encryption algorithm to secure patient data



Remote technical
and clinical support



Fast parts delivery
and GE on-site
expert service



Keep your practice
running smoothly

Dependable multi-year service coverage, plus technical support always close at hand

*Available on Versana Active v1.5



See more details in cyber security session

ADVANCED

CAPABLE

ADAPTABLE

Enhanced self and remote service features

Self-service

- QR code for system diagnosis
- Friendly log file to customers
- Installation wizard

Remote service

- Auto upload log files
- Auto analysis of log files



*Available on Versana Active v1.5

ADVANCED

CAPABLE

ADAPTABLE

GE Healthcare Heritage

Built on the GE legacy of globally respected ultrasound brands: Voluson™, Vivid™, LOGIQ™, Venue™, ABUS, Vscan™, and Versana systems help empower you to deliver high-quality patient care without compromise.



Decades of GE Healthcare heritage at your service

Voluson, Vivid, LOGIQ, Venue and Vscan are trademarks of General Electric Company.



A complete solution

- Capable, adaptable system for the point of care
- Education to keep you ahead of the curve
- Flexible financing to enhance return on investment

Versana Active covers wide range of exams in different care areas



General Practice

Software Features:

- [Auto IMT](#)
- [Thyroid Productivity](#)
- [Scan Coach](#)
- [LOGIQ View](#)
- [Follow up Tool](#)
- [Breast Care](#)
- [Elastography](#)
- [Auto Bladder](#)
- [Easy/Advanced 3D](#)



Vascular

Software Features:

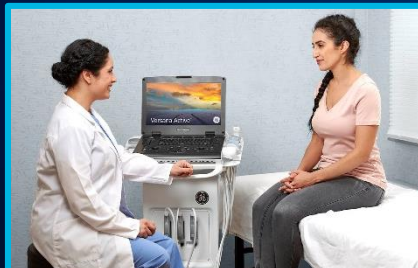
- [Needle Recognition](#)
- [B-Flow Color](#)
- [Auto IMT](#)
- [Follow up Tool](#)



Musculoskeletal

Software Features:

- [LOGIQ View](#)
- [Follow up Tool](#)
- [Easy/Advanced 3D](#)
- [Needle Recognition](#)



Pain Management

Software Features:

- [Needle Recognition](#)



Cardiac

Software Features:

- [Stress Echo](#)
- [Auto EF](#)
- [TVI](#)
- [Scan Coach](#)
- [Follow up Tool](#)



OB

Software Features:

- [SonoBiometry](#)
- [Easy/Advanced 3D](#)
- [3D/4D](#)
- [Scan Coach](#)
- [Follow up Tool](#)

A wide variety of probes gives you the versatility you need

Available in LOGIQ V series: V1, V2

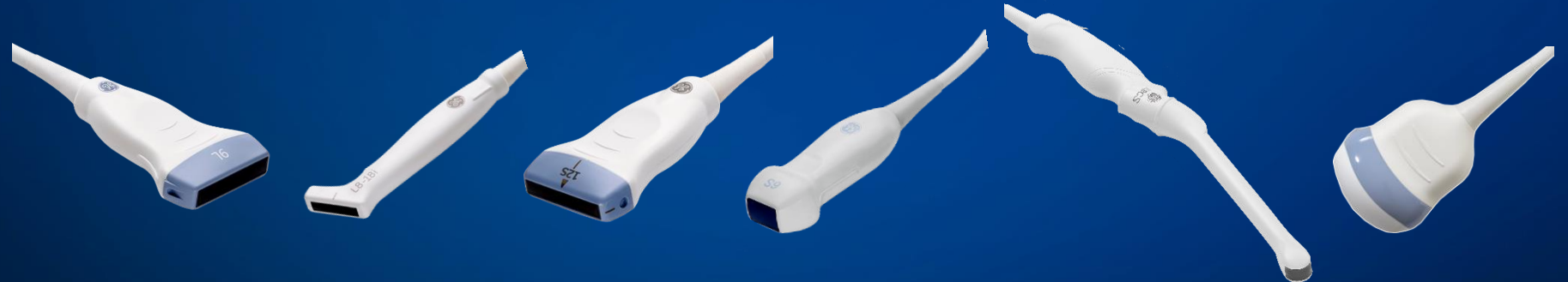
4C-RS
L6-12-RS
12L-RS
E8C-RS
3Sc-RS
8C-RS
LK760-RS

Probes for excellent imaging of every part of the anatomy



In Versana Active*

- 6S-RS
- 9L-RS
- L8-18i-RS
- 12S-RS
- E8Cs-RS
- RAB 2-6-RS*



* Available on Versana Active v1.5

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CAPABLE

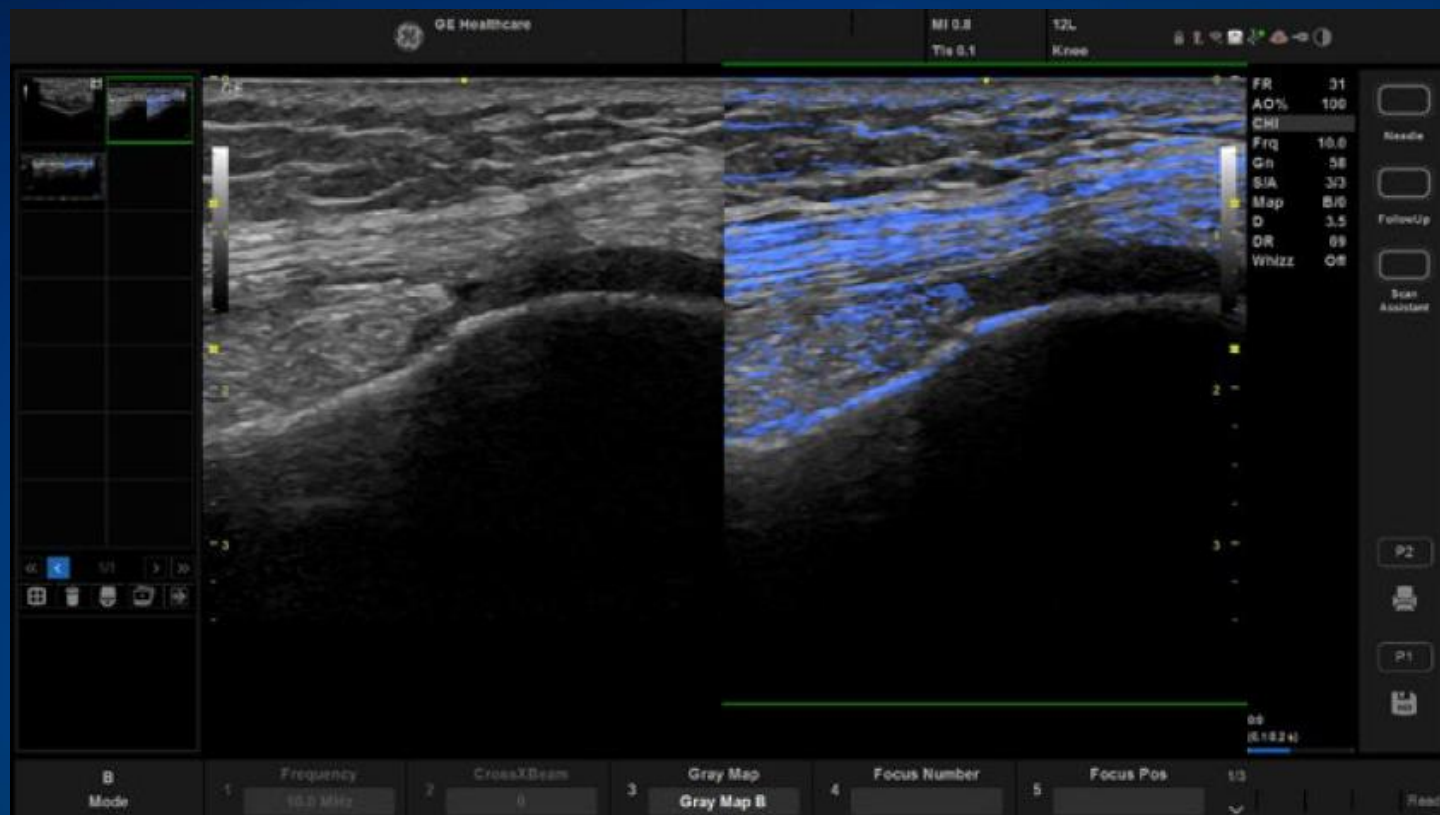
ADAPTABLE

Follow-up tool

Follow-up tool enables referencing of a prior scan to be placed in comparison to current live scan. Same parameters of previous image fuses with live image.

Follow-up Fusion enables users to align the bony landmarks or fascial planes with overlay to find the same scanning position from comparative study.

Enhancing workflow by eliminating parameter adjustments to obtain same scan images – Brings focus back to patients.

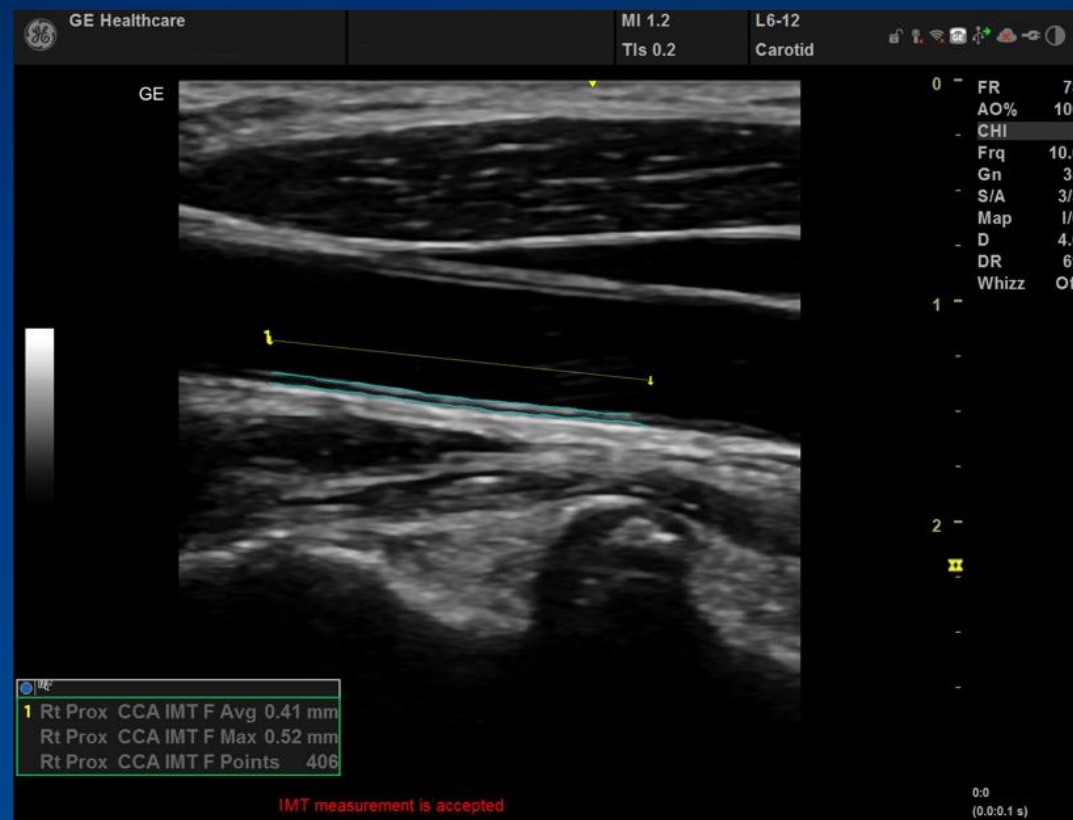


Auto IMT

Simple and easy analysis of the carotid artery with minimal keystrokes

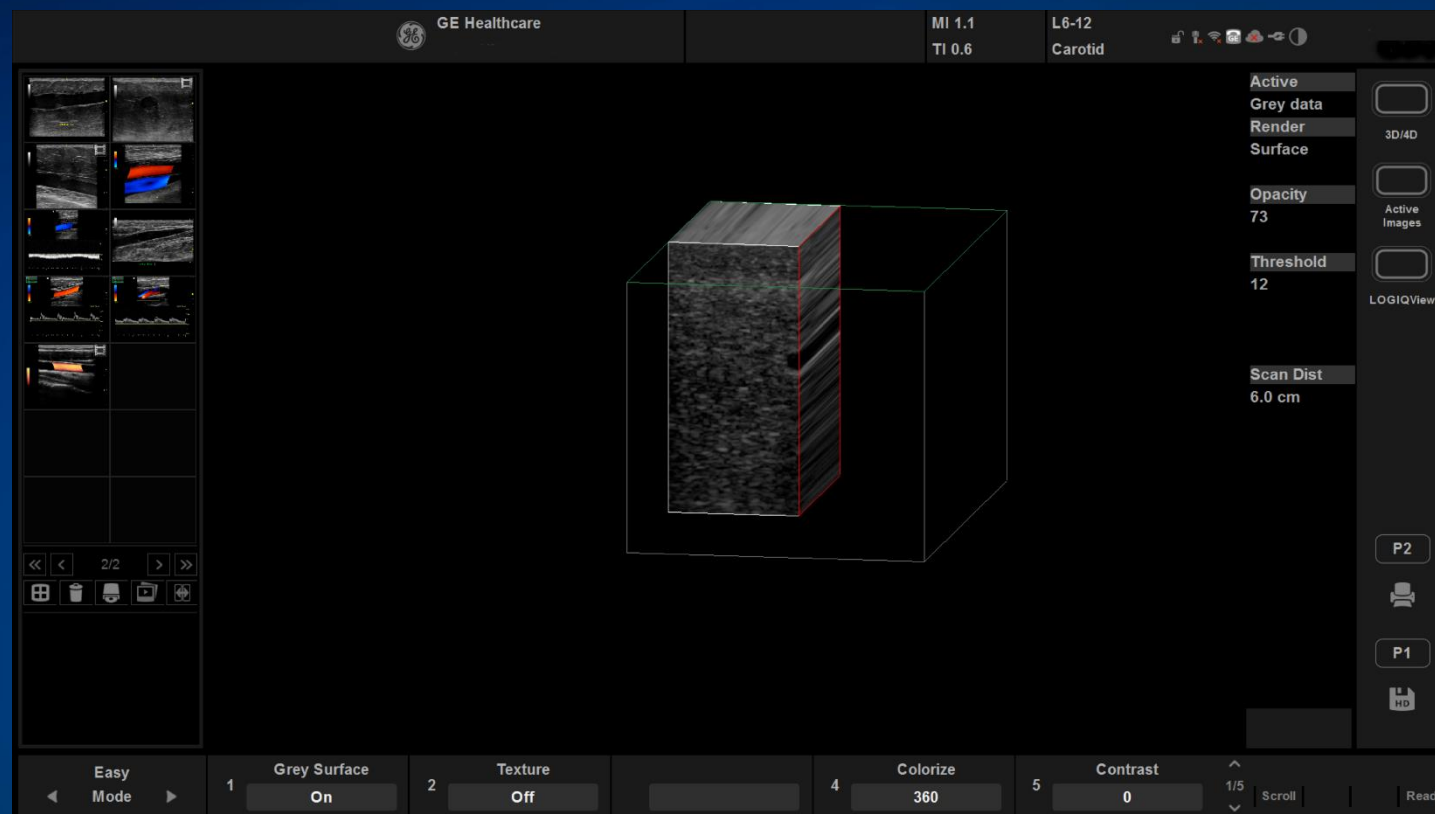
Direct export to a worksheet and report page

Save offset distance and IMT measurements to help increase reproducibility



Easy/Advanced 3D

- Scanning with a smooth, linear translation, or sector sweep.
- Easy 3D offers free hand to acquisition of black and white 3D images.
- Advanced 3D offers color Doppler free hand 3D



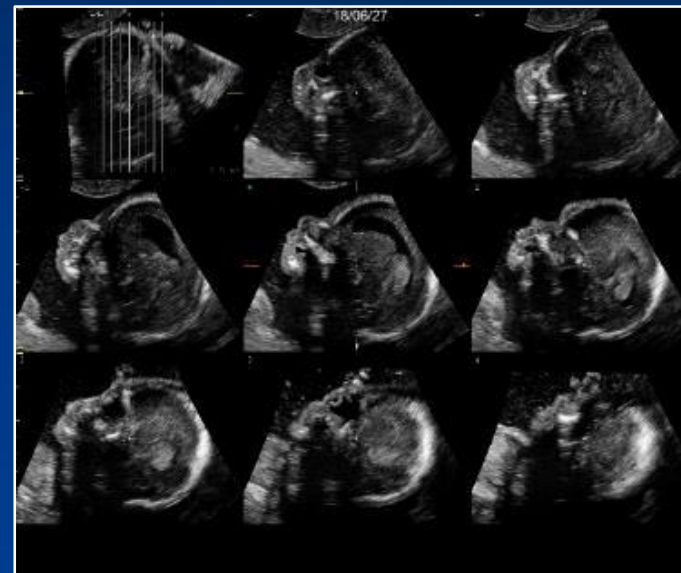
World-class imaging – 3D/4D and Render/TUI

3D/4D

4D* allows you to visualize all three image planes within a scan volume in real time; which is especially useful in OB examinations. The 4D image rendering and display provide fast reconstruction of anatomical sweeps along with continuous, high-volume acquisition of images. 4D adds the dimension of movement to a 3D image.

Tomographic Ultrasound Imaging (TUI)

Enables simultaneous view of multiple slices in a volume data set to assist in analyzing adjacent structure deformities.



Visualize, evaluate and take measurements of tissue volumes



*Available on Versana Active 1.5

ADVANCED

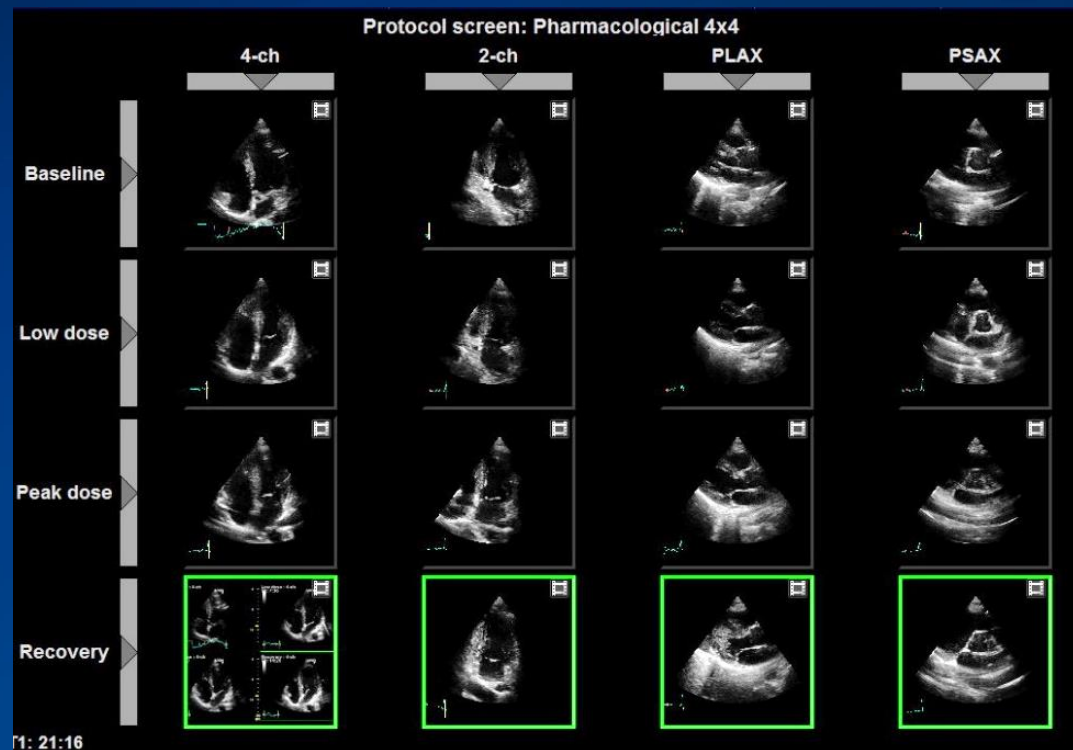
CAPABLE

ADAPTABLE

Stress Echo

Evaluate heart segment function through myocardium stress scoring and comparison

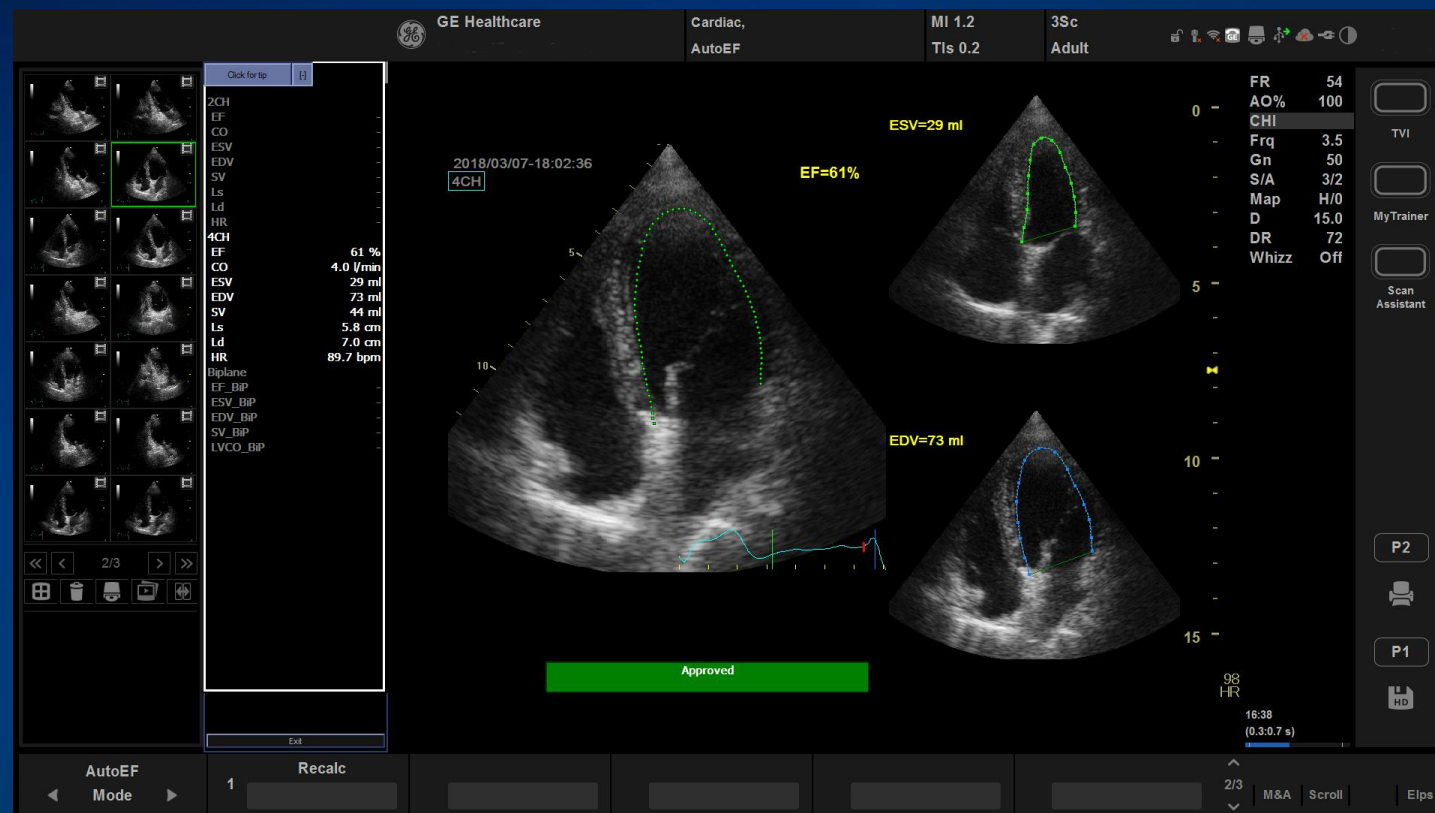
- Ability to perform image acquisition, review, image optimization, wall segment scoring and reporting
- Protocol templates:
 - Exercise
 - Pharmacological
 - Customize workflow
 - 2D/TVI analysis
 - Segment scoring
 - Segment comparison



Auto Ejection Fraction

Semi-automatic tool for measurement of global ejection fraction

- Tracks and calculates myocardial tissue deformation based on feature tracking on B-mode cine loops with ECG
- Performed on one or both apical 4-chamber and/or 2-chamber views.
- Can recalculate/redraw the endocardial border (EB), Semi-automatic Auto ROI and semi-automatic 3-point EB definition mode.

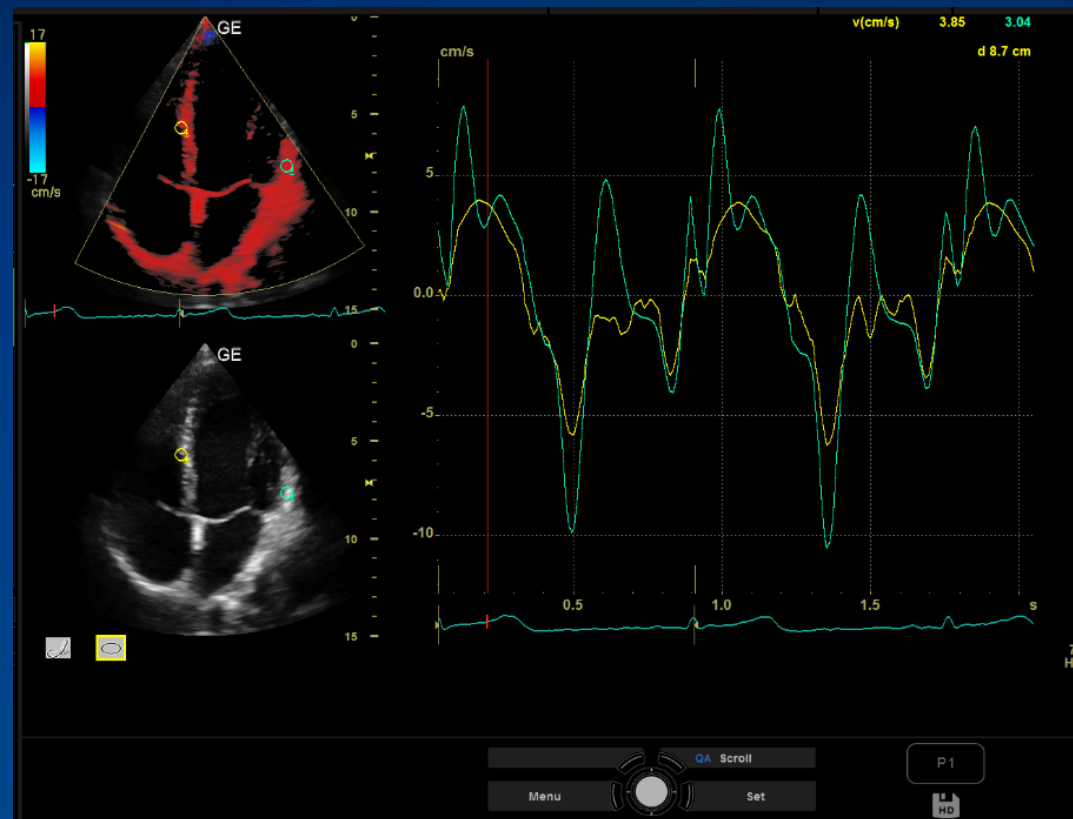


World-Class Imaging – TVI with Q-Analysis

- Assess heart function with:
- TVI: Tissue Velocity Imaging (TVI) calculates and color-codes the velocities in tissue.
- Quantitative Analysis (Q-Analysis): Enables users multiple Time Motion trace display from selected points in the myocardium

Available with the 3Sc-RS probe.

Evaluate heart function through myocardial motion data



Intelligent automated productivity tools

- Fewer hard keys *
- Fewer keystrokes, shorter exams with Whizz *
- Advanced, intuitive capabilities to simplify your work



Whizz dynamic image tuning continuously optimizes the image as you scan, even as you move from one organ or area to another



Overlay **Voice Comments** on images for playback when reviewing exams



Capture standard pre- and post-stress cardiac views with **Stress Echo**



Compare current and prior exams side-by-side with the **Follow-Up Tool**

You have more time to focus on your patients

* Comparison with LOGIQ V1/V2



ADVANCED

CAPABLE

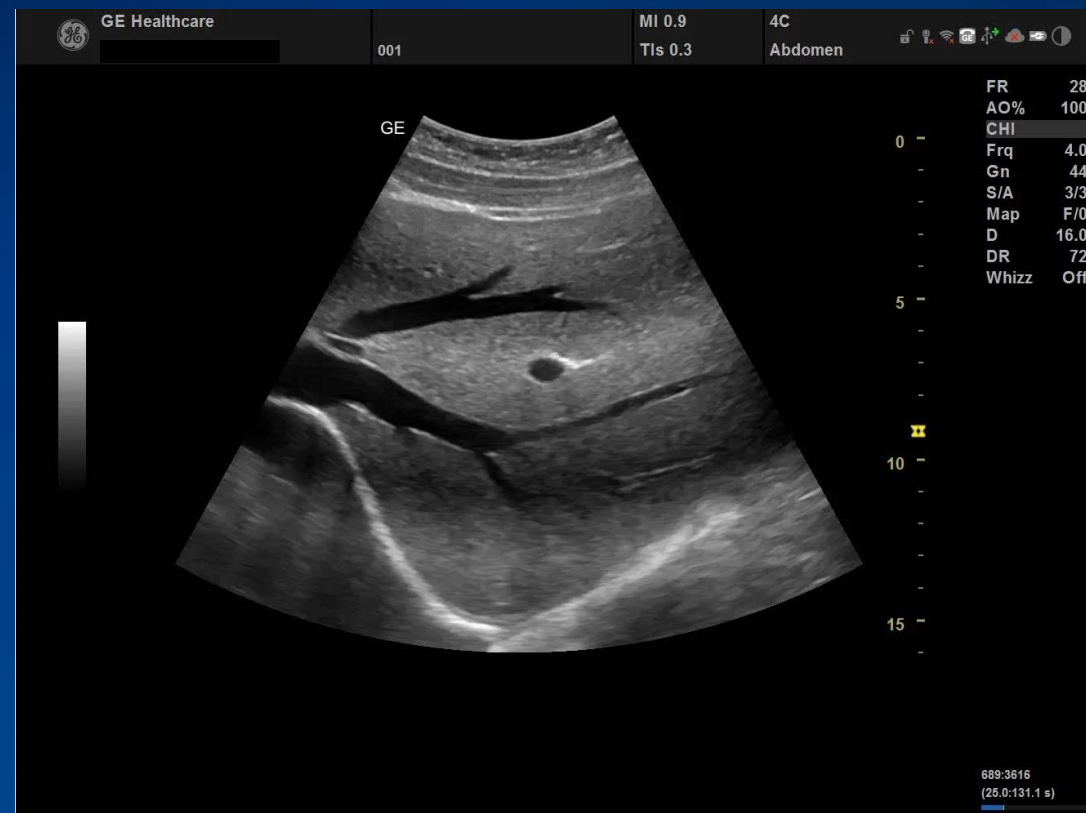
ADAPTABLE

Whizz



Whizz image tuning

- Just touch the Whizz button on your console once. Without pressing it again, Whizz continuously and automatically optimizes the image, even as you move from one organ or structure to another.
- Whizz in PW/CW mode (ASO), optimizes spectral data though adjusting velocity scale/PRF in live imaging, baseline shift, and invert (if present).



Voice Comment



- Connect a microphone, touch a screen icon, and capture hand-free recorded voice comments that are overlaid on images and saved for playback later when reviewing the exam.



Smart Clinical Features

- Thyroid productivity (with TI-RADS)
- Auto Bladder
- Breast Productivity (With Bi-Rads)
- Auto EF
- Stress Echo
- Elastography
- Contrast Auto IMT
- SonoBiometry

Complete structure recognition, contour the edge, and measure the area or volume with one click



Auto IMT

An efficient, reproducible method for carotid artery analysis



SonoBiometry

Automated fetal measurements



Auto Bladder

Auto-detect bladder border and calculate area and volume



Breast Productivity

Simplify breast exams and measure structures detected



Comparison with Logiq V1/V2
TI-RADS and BI-RADS are trademarks of the American College of Radiology.

ADVANCED

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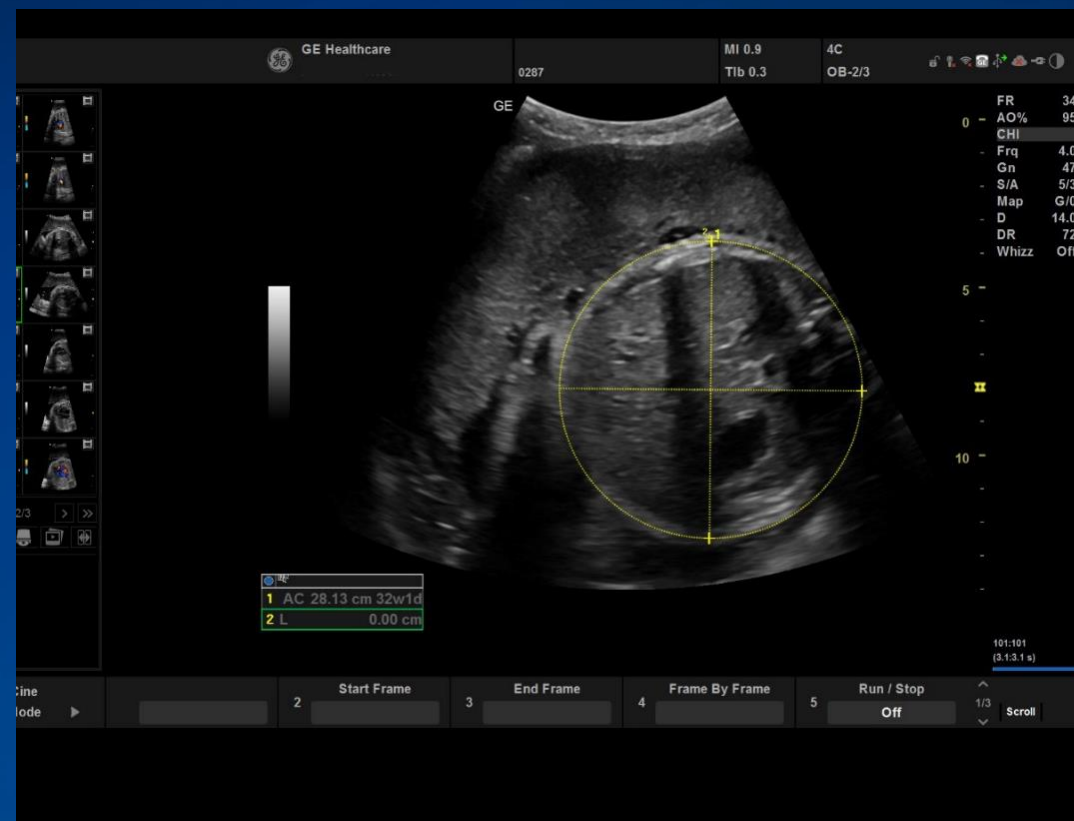
Smart Clinical Features

SonoBiometry

Automatically perform a variety of basic fetal measurements including:

- Bi-parietal diameter
- Head circumference
- Abdominal diameter
- Femur length
- Humerus Length

Acquire accurate fetal measurements with minimal keystrokes

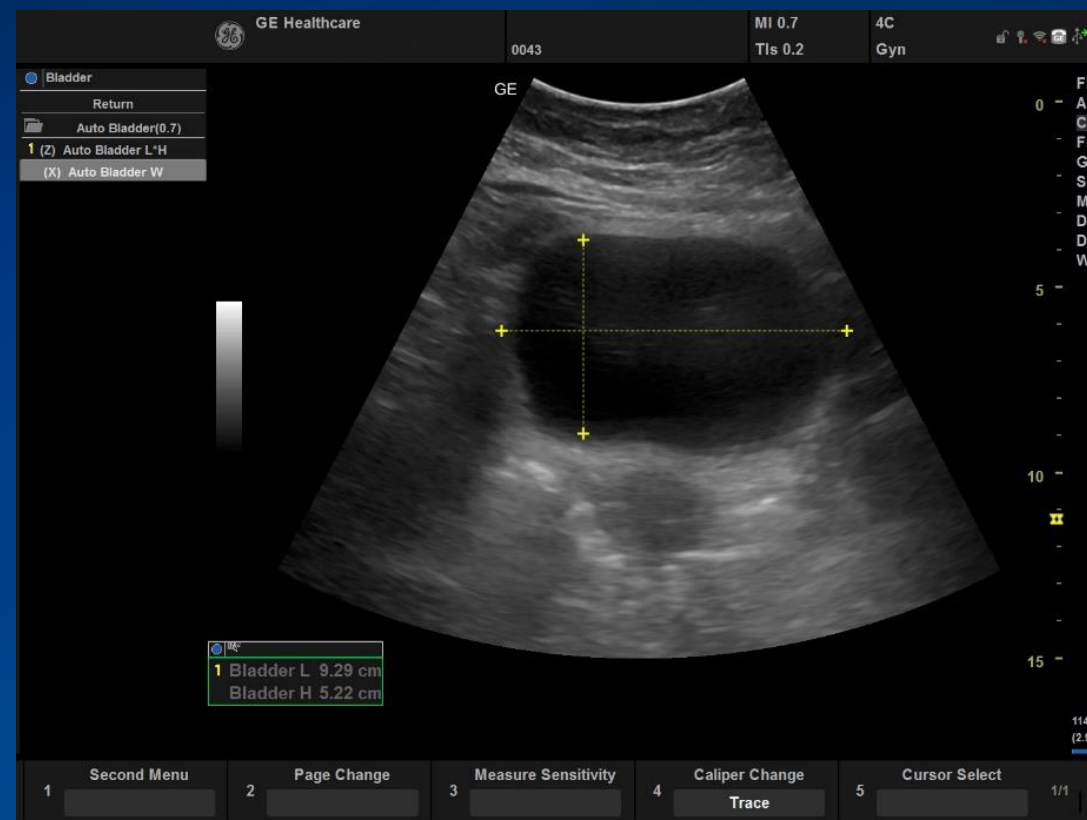


Smart Clinical Features

Auto Bladder

- Draw a Region of interest (ROI) over the bladder and get automatic volume calculations

Minimize keystrokes and get quick, accurate measurements



Smart Clinical Features

Breast Productivity

- Assess breasts while scanning
- Use Auto Contour to easily measure structures
- Describe structure characteristics in comments that feed directly into the report
- BI-RADS® included
- Enable structured categorization of lesions

Minimize keystrokes and get quick, accurate measurements



BI-RADS is a registered trademark of the American College of Radiology.

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ADAPTABLE

Smart Clinical Features

Thyroid Productivity

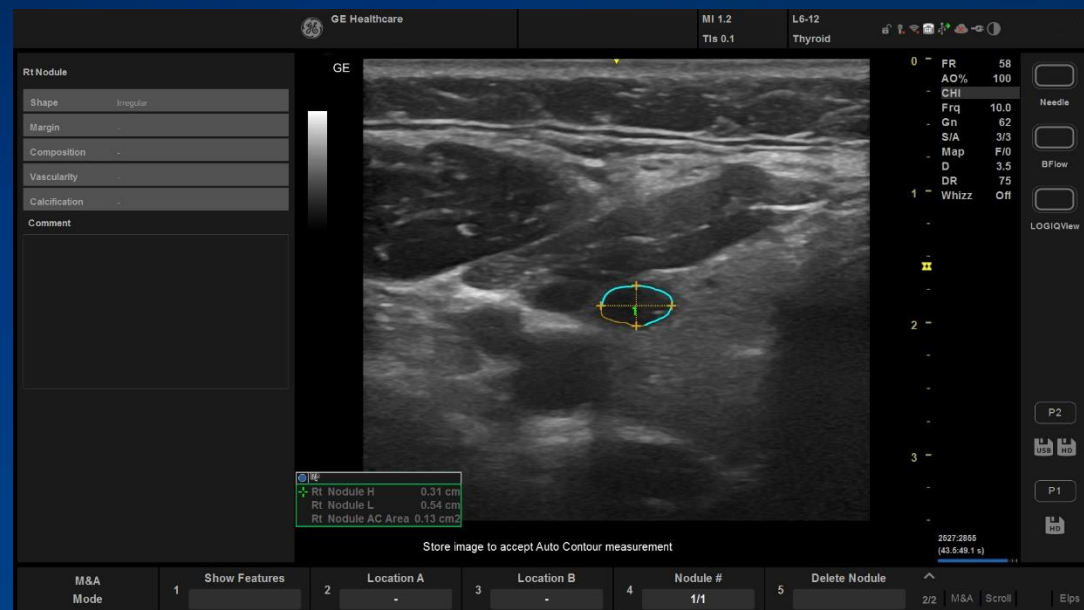
Assess Thyroid while scanning

- Describe structure characteristics in comments that feed directly into the report
- Use Auto Contour to easily measure structures

TI-RADS

- Enable structured categorization of lesions

Minimize keystrokes and get quick, accurate measurements



TI-RADS is a trademark of the American College of Radiology.

ADVANCED

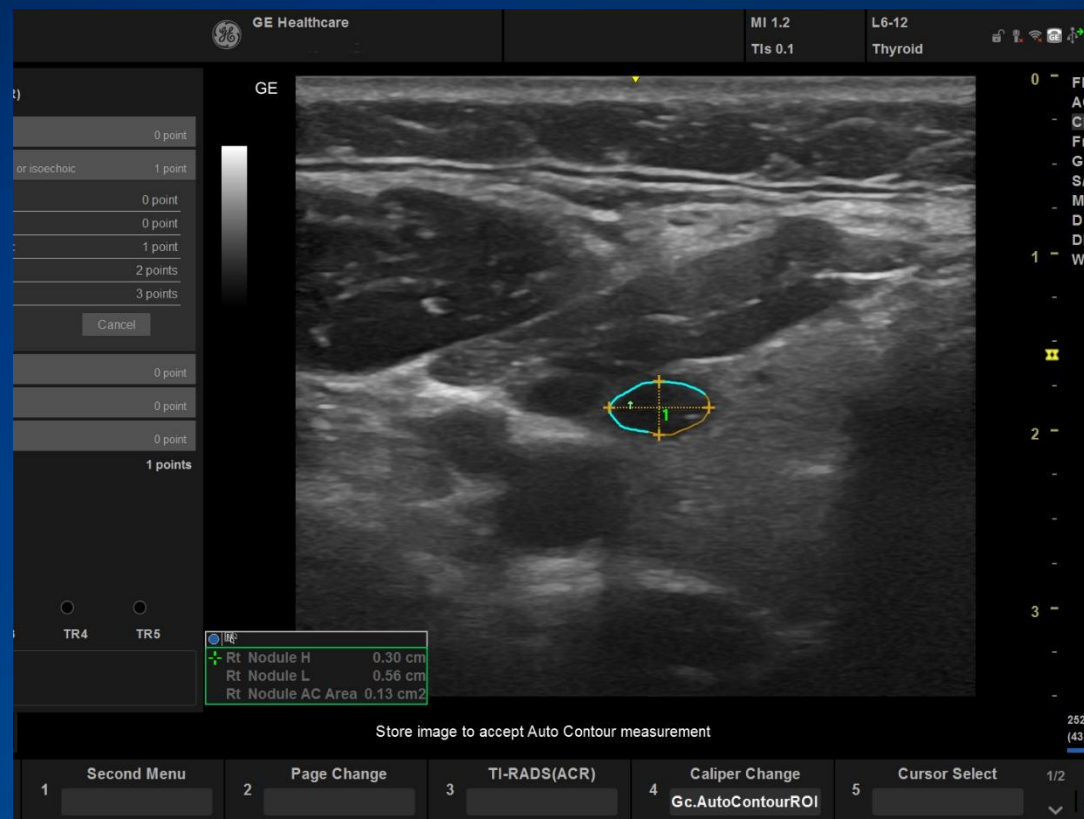
CAPABLE

ADAPTABLE

Versatile System, Simple to Use

TI-RADS™

- Thyroid-specific package allows user to enter TI-RADS™ criteria/assessment and easily enables labeling, measuring and describing nodules, lymph nodes and parathyroid.
- Enables clinicians to categorize lesions found on thyroids
- Categorizations that are recognized industrially
- Categorization determines following imaging and treatment plans
- First level diagnosis, categorization for determination on need for future imaging, FNA biopsy and treatment plans



TI-RADS is a trademark of the American College of Radiology.

ADVANCED

CAPABLE

ADAPTABLE

Smart Clinical Features

Needle Recognition

Feature that reveals the structure of a needle within anatomy, without distortion of the needle



Minimize keystrokes and get quick, accurate measurements



Smart Clinical Features

Elastography

Elastography shows the spatial distribution of tissue elasticity properties in a region of interest by estimating the strain before and after tissue distortion caused by external or internal forces.

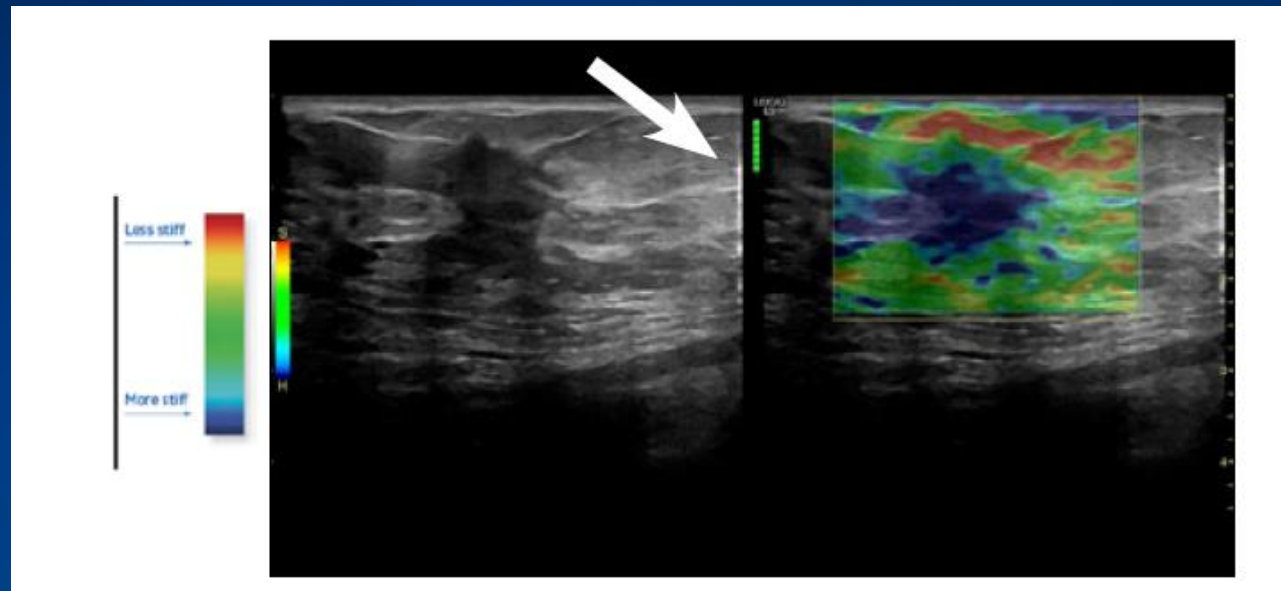
The strain estimation is filtered and scaled to provide a smooth presentation when displayed

Elastography displays firmer tissue in blue and softer tissue in red.

A quality indicator in the form of a bar or a graph provides visual feedback to monitor the compression technique and helps make elastography reproducible and easy to learn.

Available with the 12L-RS, L6-12-RS and 9L-RS probes.

Minimize keystrokes and get quick, accurate measurements



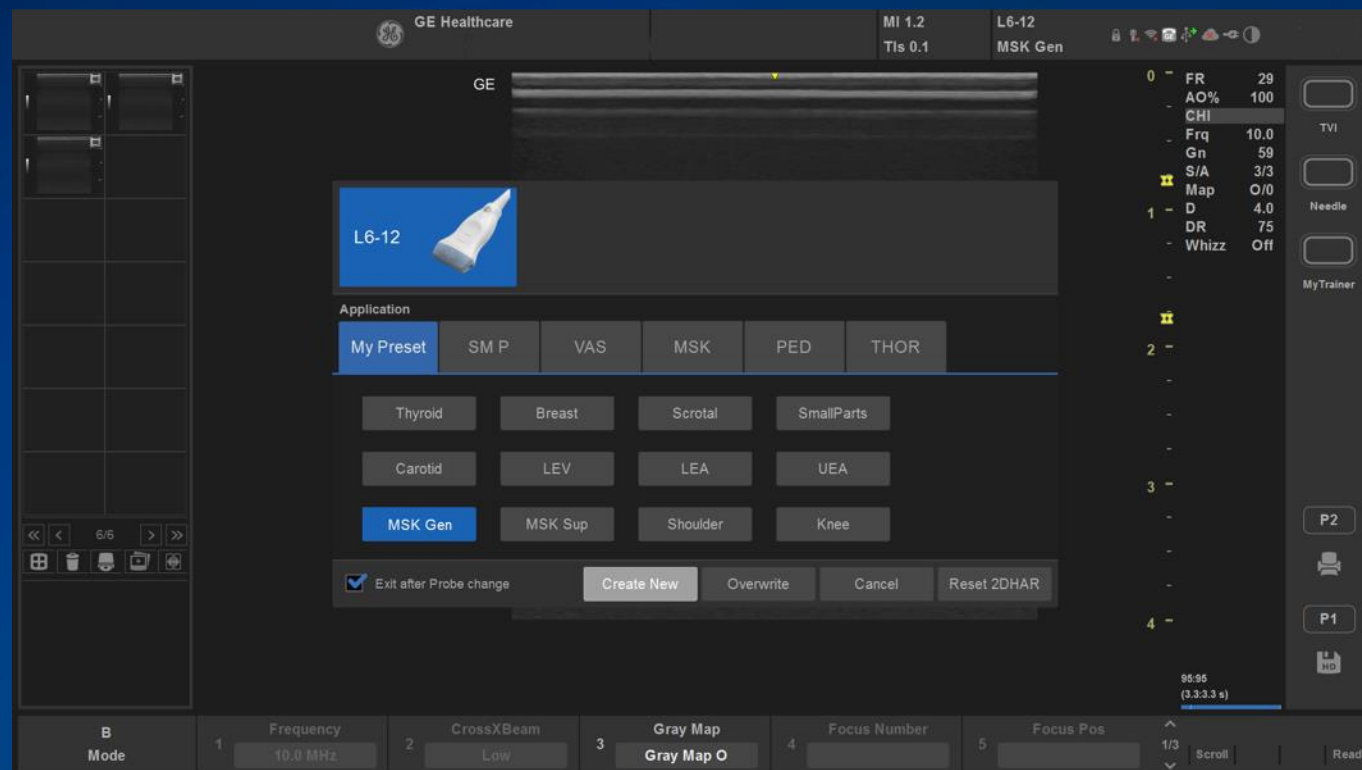
Simplify Clinical Workflow

Probe/preset selection

- With frequently used applications organized under probe selection, process of application and preset selection is simplified.

My preset

- Users can create their own “My preset” page for each probe and organize all frequently used presets in a single page regardless of application. Example: The My Preset page for the 12L-RS probe can support presets for MSK, small parts, and vascular on a single page.



Simplify Clinical Workflow

Versatile System, Simple to Use – User Interface, Workflow

Voice Comment

- Users can connect a USB microphone and record voice comments, linked with clinical images for future reference.

Monitor UI

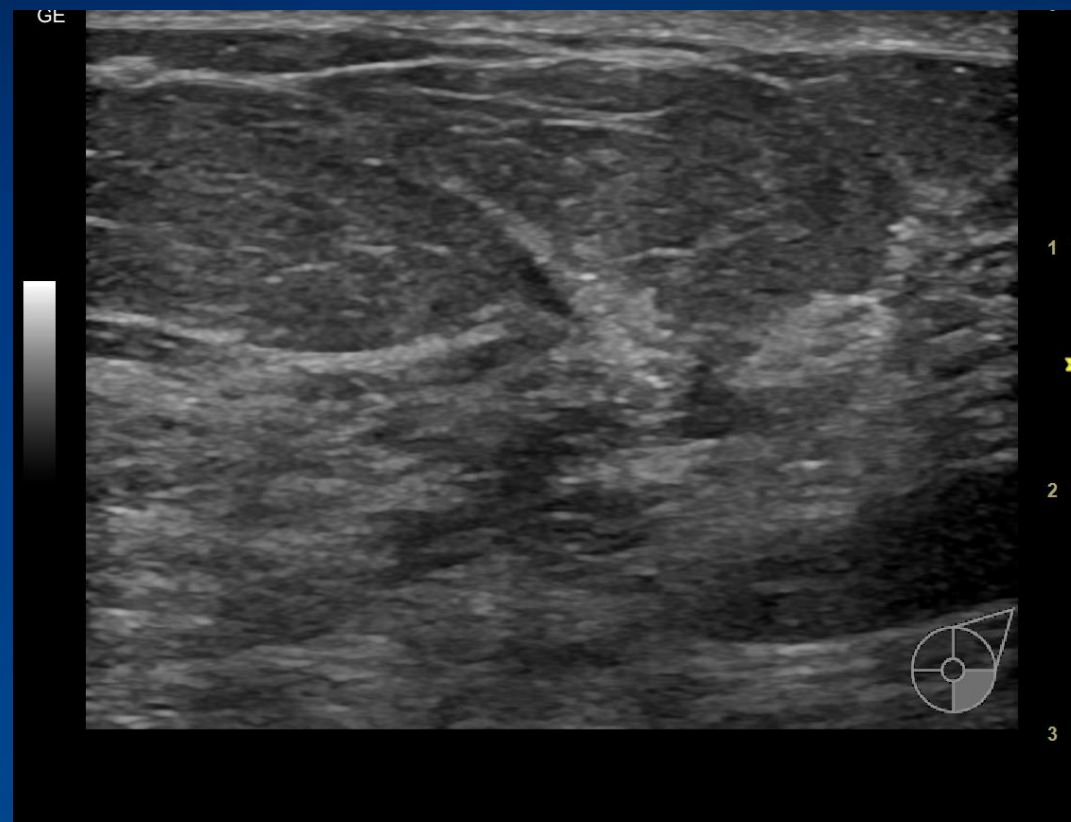
- The new-generation 16:9 monitor, is optimized for image size. It includes user-defined key labeling, print key labels (including multiple functions), for ease of use.



Versatile System, Simple to Use

Workflow Design – Breast Care

- **Breast Care**, an effective tool for high volume breast evaluation centers, provides step-by-step guidance for breast scanning. Using Scan Assistant functionality, it can integrate all modes, measurement and BI-RADS® score in sequence, reducing keystrokes. The workflow identifies the steps for a breast scan. For subsequent breast scans with a previous findings, the finding is highlighted in the previous breast care summary for easy recognition.



BI-RADS is a registered trademark of the American College of Radiology.

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ADAPTABLE

Adaptable ergonomic design

Crystal Clear Display

15 inches, 16:9 widescreen
LED backlit monitor

Base Cart

DVD and Printer shelf (Optional)
Paper Tray (Optional)

Advanced Cart*

Fixed / Height adjustable (4 configurations available)
3 Probe ports (Optional)
Big battery kit with 3x battery cells (Optional)
4D (Optional)
DVD and Printer shelf (Optional)
Paper Tray (Optional)
ECG module shelf (Optional)

Ergonomic features for clinician and patient comfort**

* Available on Versana Active v1.5.

** Optional features which may vary from country to country.



ADVANCED

CAPABLE

ADAPTABLE

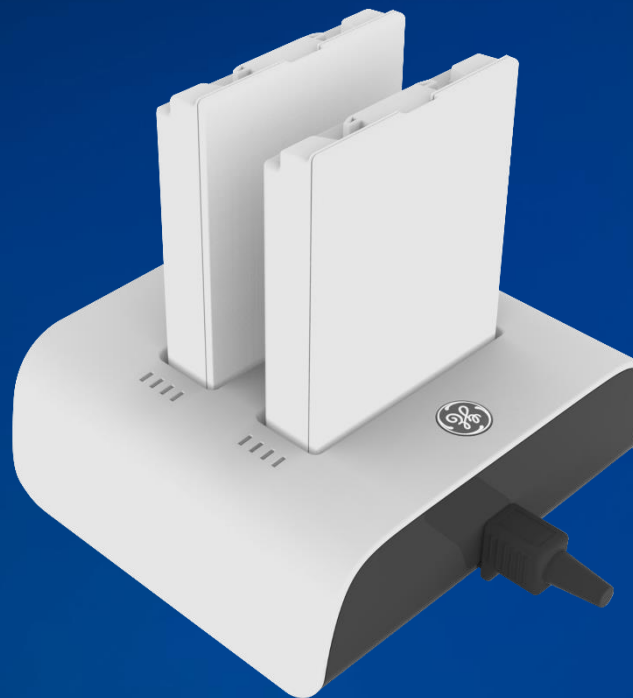
Enhanced Usability*

Hardware Configurations

- Advanced carts available in 4 configurations
- Fixed
- Height adjustable
- Height adjustable with 3PP Port
- Height adjustable with 4D Module

Usability

- 3 Probe port connectivity*
- Big battery (With optional 1-3 battery cells)*
- Easy installation printer and printer shelves*
- ECG Module shelf*
- Video adapter (S-Video & Composite video)*
- Spare battery charger (Power bank functionality)*



*

* Available on Versana Active v1.5

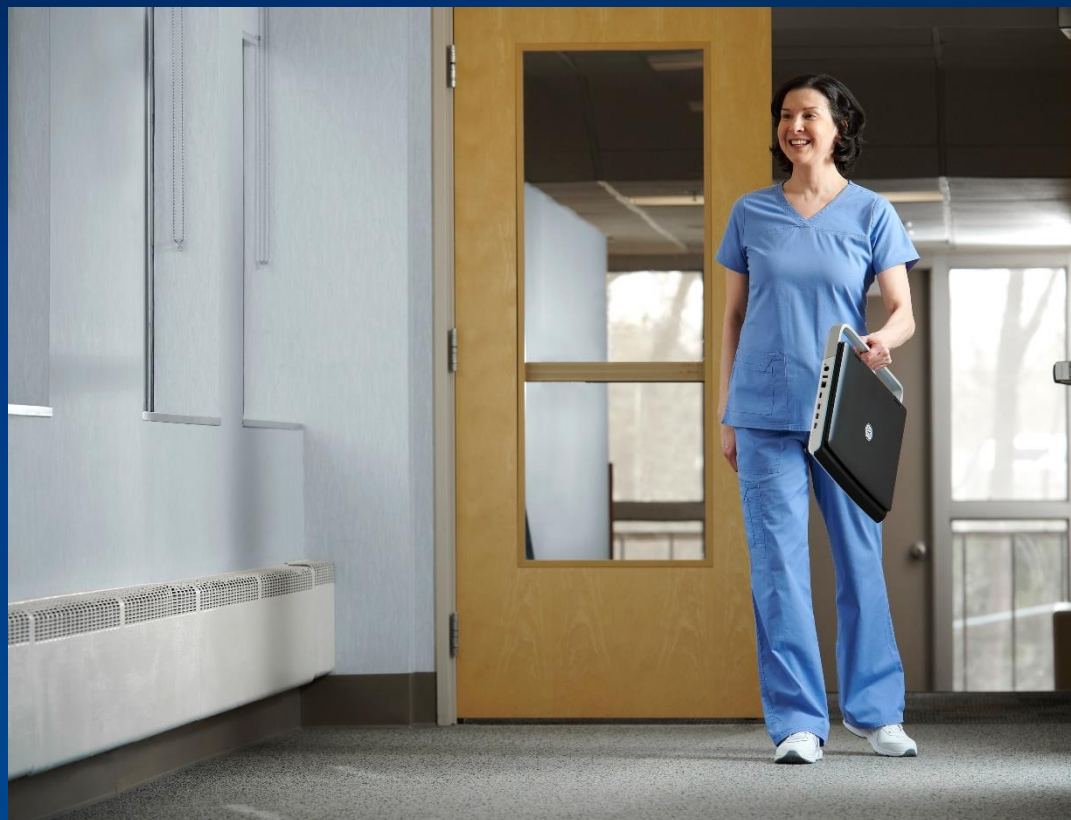
ADVANCED

CAPABLE

ADAPTABLE

Perpetual battery life by design*

Versana Active helps improve productivity and patient care by giving you the flexibility of unlimited battery. Designed with perpetual battery life to meet users' needs.



* External batteries can be charged remotely and changed while system is on.

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Simple to use

Hardware configurations

- High-resolution 15.3" LED backlit monitor
- 256 GB SSD / 1 TB SSD
- Backlit Keyboard
- 5KG light weight portable system
- 4D Ready (functionality available on Advanced cart)*

Connectivity method

- Wireless and LAN connect
- Bluetooth transfer of local image to Android mobile terminal hold in most countries*
- DICOM® 3.0 for image store and peripheral media connection
- GE InSite™ Exc for system self-inspection, remote system diagnostics, online upgrade, online restore/back up updated InSite with enhanced functionality*
- Tricefy™ Uplink for examination results sharing and archiving via Cloud**

* Available on Versana Active v1.5
DICOM is a trademark of the National Electrical Manufacturers Association.

**Tricefy trademarks are registered trademarks of Trice Imaging, Inc.
InSite is a trademark of General Electric Company.



Everything for your daily convenient and confident diagnosis

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Education to stay ahead of the curve

Product training modules help you get a fast start with your Versana Active ultrasound.

Local product and clinical educational offerings will help you gain comfort and proficiency with your system.

- On-board reference material for quick, anytime, on-the-spot support
- Product training to help you get started confidently with Versana Active
- Clinical offerings to advance your ultrasound skills and enhance patient care



Scan Coach

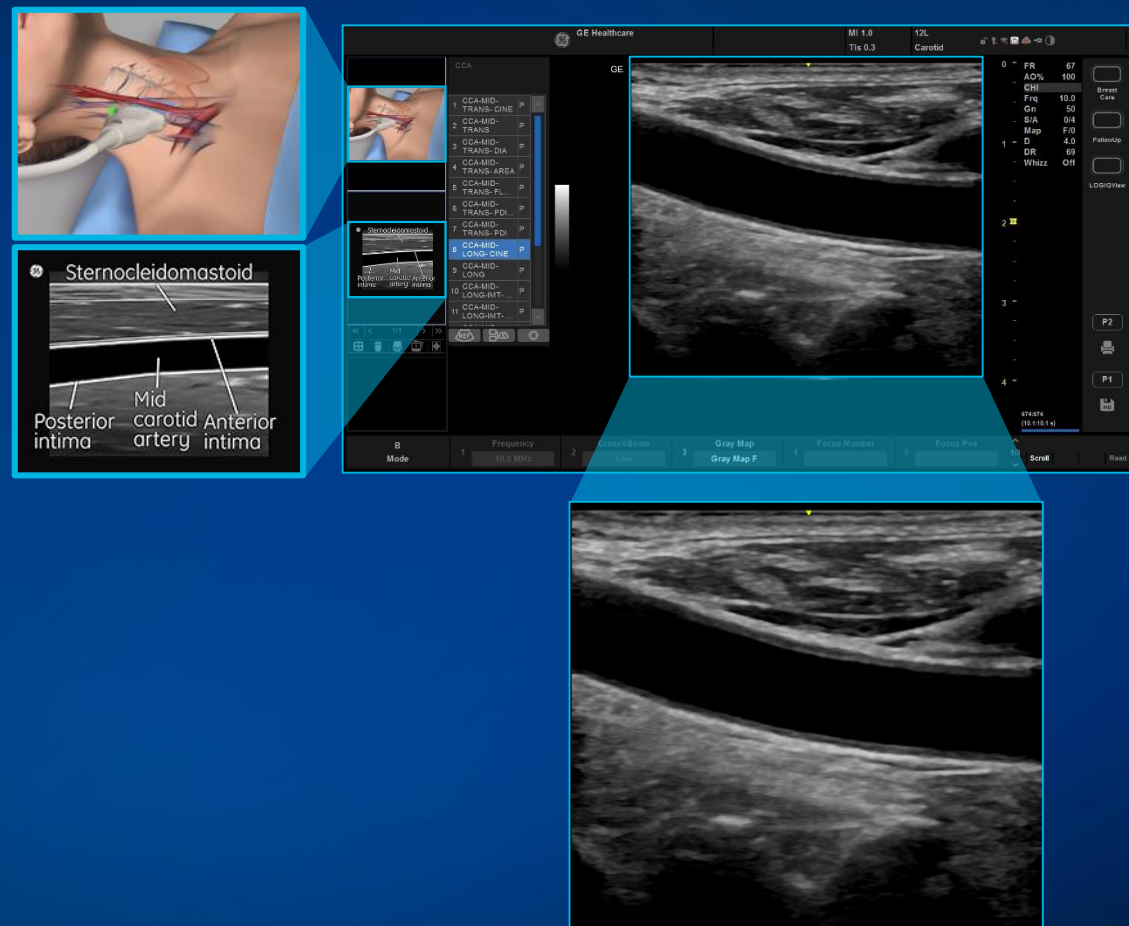
Access reference information during live scanning

453
REFERENCE
IMAGES

729
ILLUSTRATIONS

176
3D ANIMATIONS*

* For various basic and advanced protocols across obstetrics, gynecological, abdominal, cardiac and carotid applications.

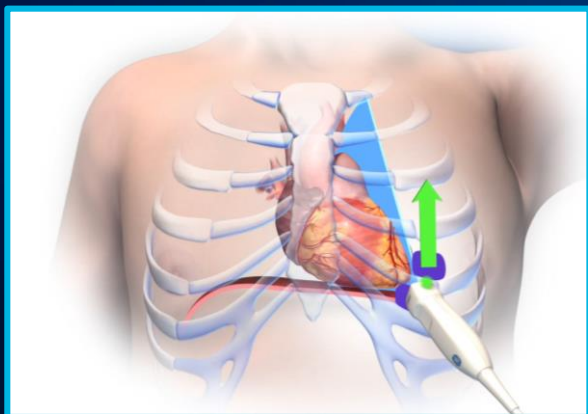
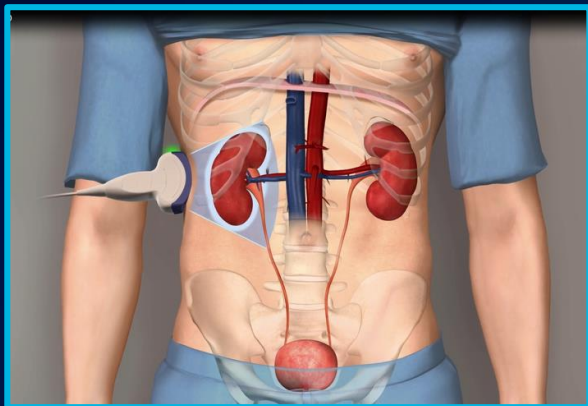


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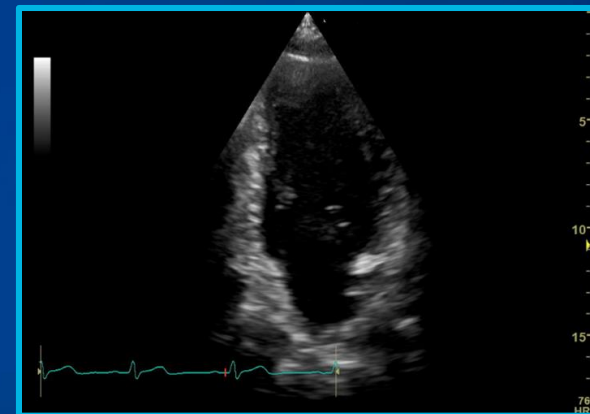
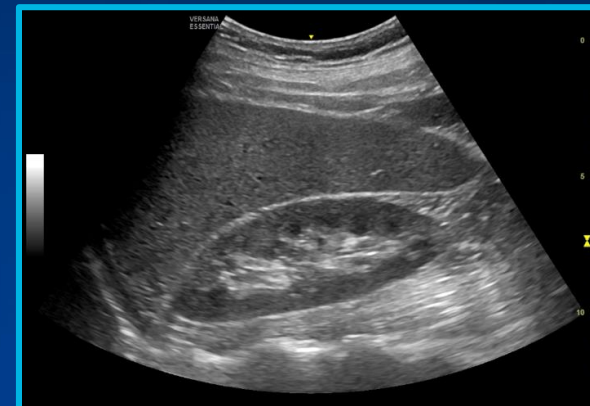
Scan Coach: Clinical information for immediate reference



3D animation shows the ultrasound beam within the anatomy for excellent visualization



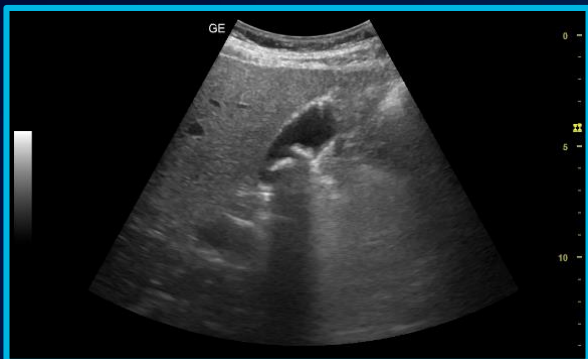
Schematic drawings show select anatomical landmarks on the target scan plane



Reference clinical images show the target scan plane



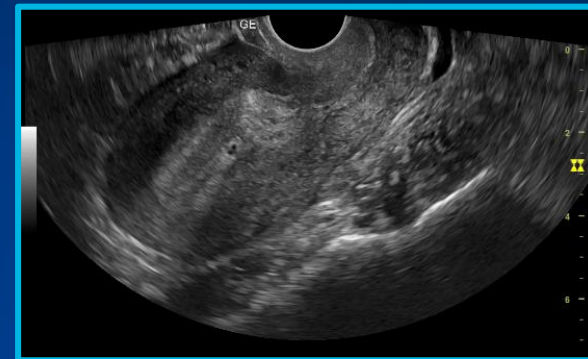
Scan Coach – Applications



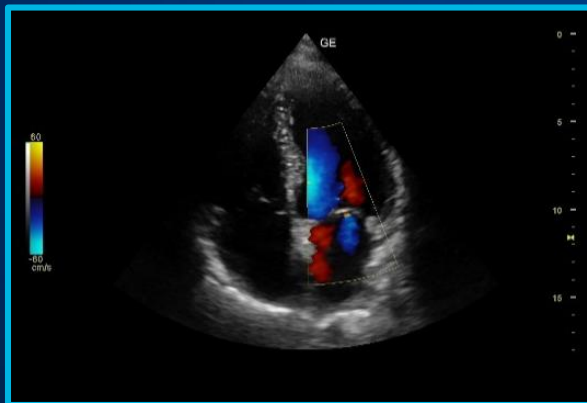
Abdomen



Obstetrics



Gynecology



Cardiology



Vascular

A valuable tool for your clinical needs



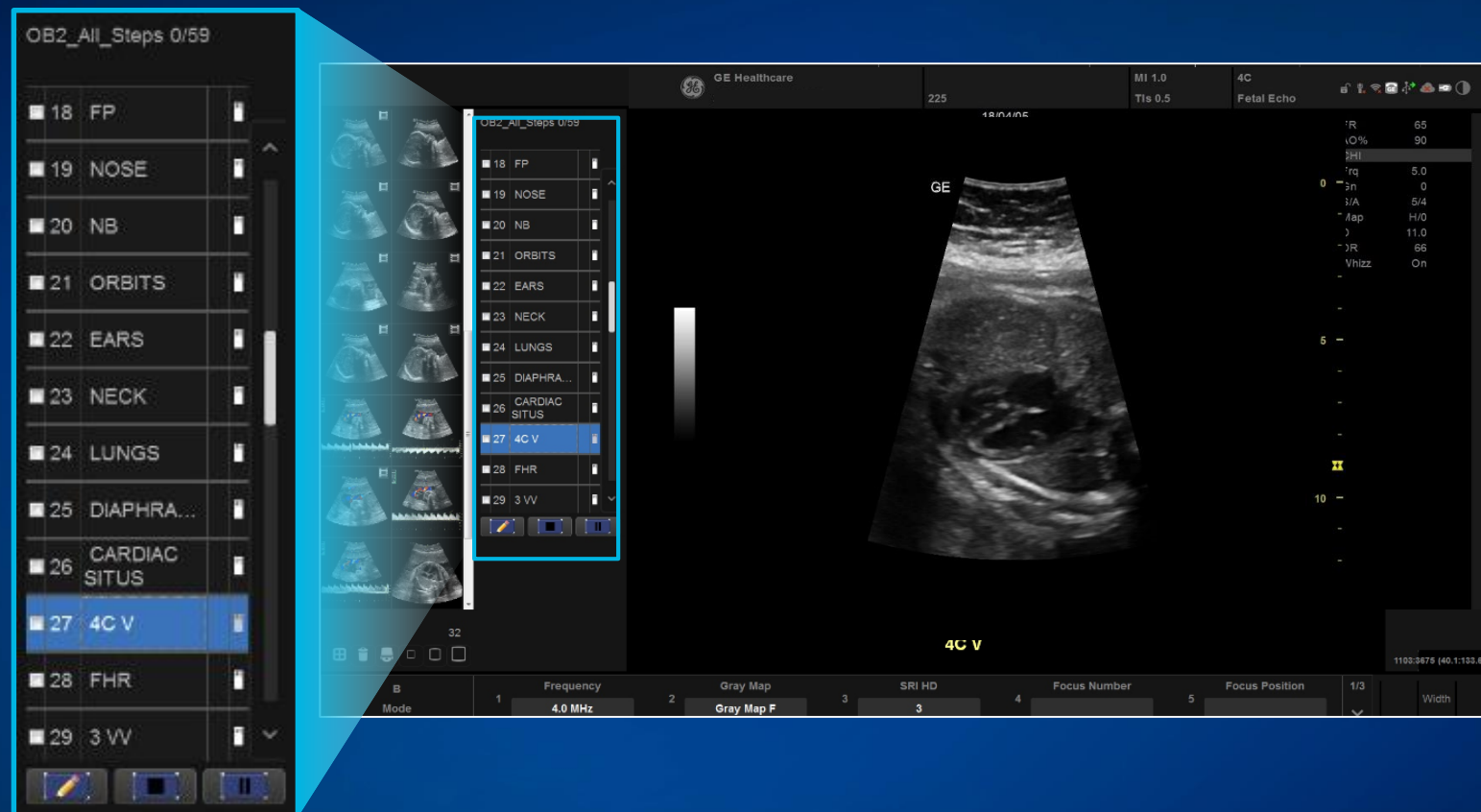
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Scan Assistant

- Guidelines-based exam protocols
- Reminders of key anatomical landmarks
- Basic and advanced protocols for obstetric, gynecological and abdominal scans



Reduce keystrokes and standardize the scan process; avoid missing major steps



Educational videos and tutorials

- Grow your skills with expert instruction
- View demonstrations of methodology
- Learn to use advanced hardware and software features



My Trainer

On-board modules to get you up to speed fast

- Quick answers to frequent product questions
- Selections from the basic user manual
- Screen shots, pictures and video



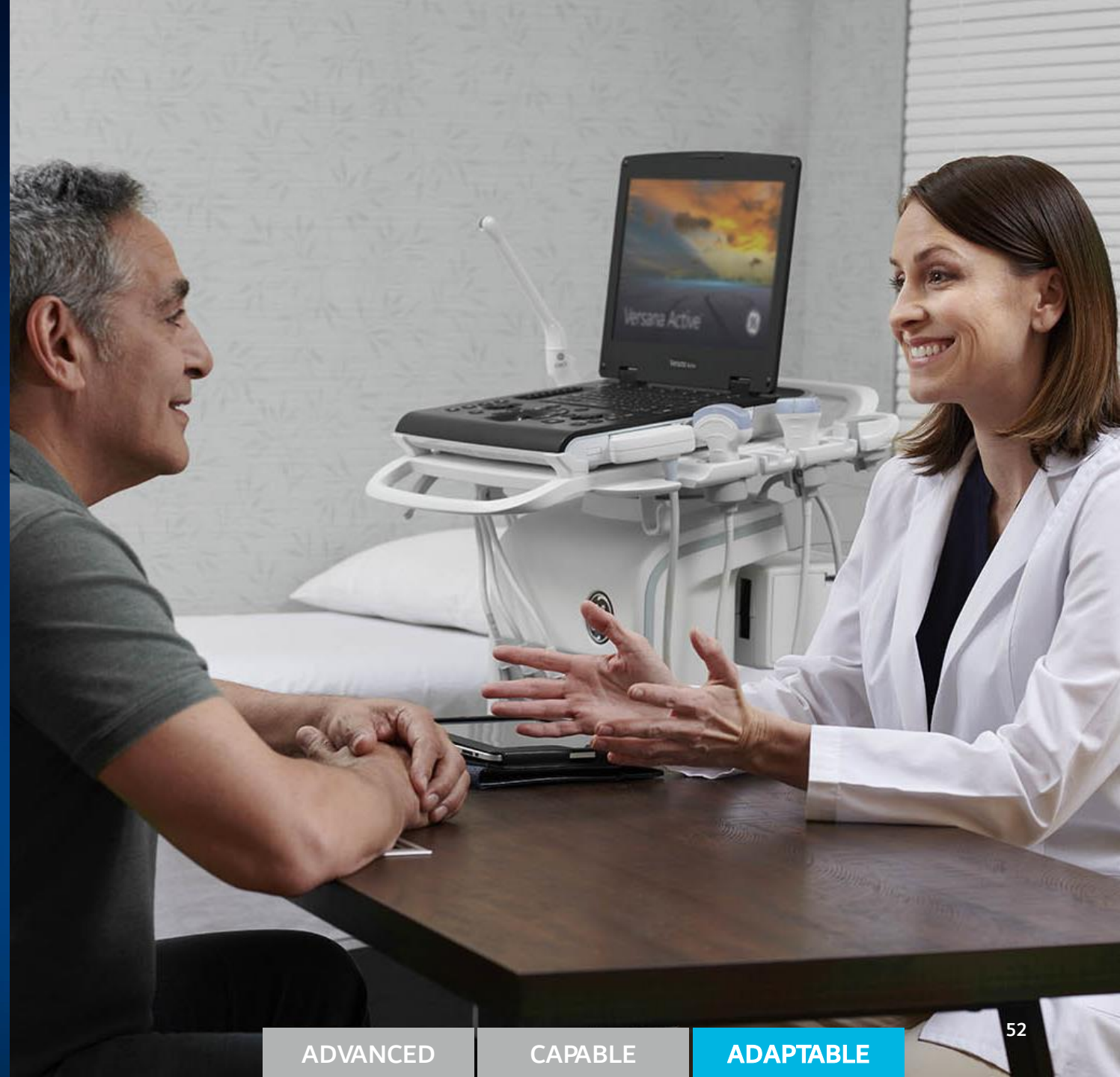
Financing options to enhance ROI

PLACE HOLDER FOR REGIONS TO ADD THEIR LOCAL FINANCING OPTIONS

Versana Active™ is configurable and upgradable to grow with you and meet your needs – today and tomorrow.

- Covering most of your daily applications
- Flexibility of hardware configurations
- Software options for diverse applications
- Connectivity options to link you with others in the digital world

Versana Active is a trademark of General Electric Company.



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An opportunity for growth

- Versana Club: Learn. Network. Share.
- Expert support during and after purchase
- Customized solutions and path to growth

Versana Club

Learn. Network. Share.

- Resources to help expand your knowledge and improve your practice.
- Image sharing with your peers
- Web-based tutorials
- Product and service news
- Event announcements
- Access to other GE ultrasound clubs

Subscribe to
www.versanaclub.net



Software options provide more possibilities to address your clinical needs

Standard

- B/M/PW
- CF/PDI
- Color M
- CHI
- AO
- CrossXBeam™
- SRI
- B-Steer
- Virtual Convex
- Report template
- Scan Assistant
- MyTrainer
- Report

Optional

- B-Flow™/B-Flow Color
- Contrast
- LOGIQ™ View
- Elastography

Clinic imaging

- CW
- TVI
- AMM
- Curved AMM
- Auto-EF
- StressEcho*
- Auto IMT**

Cardiac tools

- 4D***
- SonoBiometry
- Easy3D
- Advanced 3D

OBG tools

- Scan Coach
- DICOM®

- Whizz
- Voice Comments
- Auto Bladder
- Needle recognition
- BreastCare 2.0
- Breast Productivity (With BI-RADS®)
- Thyroid Productivity (with TI-RADS™)
- Follow-up Tool
- Seamless compatibility with Tricefy™ Uplink



*Available on cardiac units. Please check with sales representatives on availability in your region.

**This service is provided by Trice Imaging, Inc.

***Available on Versana Active 1.5

Tricefy trademarks are trademarks of Trice Imaging, Inc.

CrossXBeam, B-Flow, and LOGIQ are trademarks of General Electric Company.

DICOM is the registered trademark of the National Electrical Manufacturers Association.

BI-RADS and TI-RADS are trademarks of the American College of Radiology.

Experience the power of the GE Healthcare family

With Versana Active, you gain more than the well-known GE Healthcare quality and reliability – you set your medical center up for growth.

- Access to GE Healthcare experts
- Access to GE Healthcare ultrasound users





A pathway for growth

When you're ready to take the next step and explore your growth potential, we can help you choose a new GE ultrasound system to achieve your goals.



A pathway for growth

When you're ready to take the next step and explore your growth potential, we can help you choose a new GE Healthcare ultrasound system to achieve your goals.





LOGIQ™ View

LOGIQ View allows real-time representation of long anatomical areas.

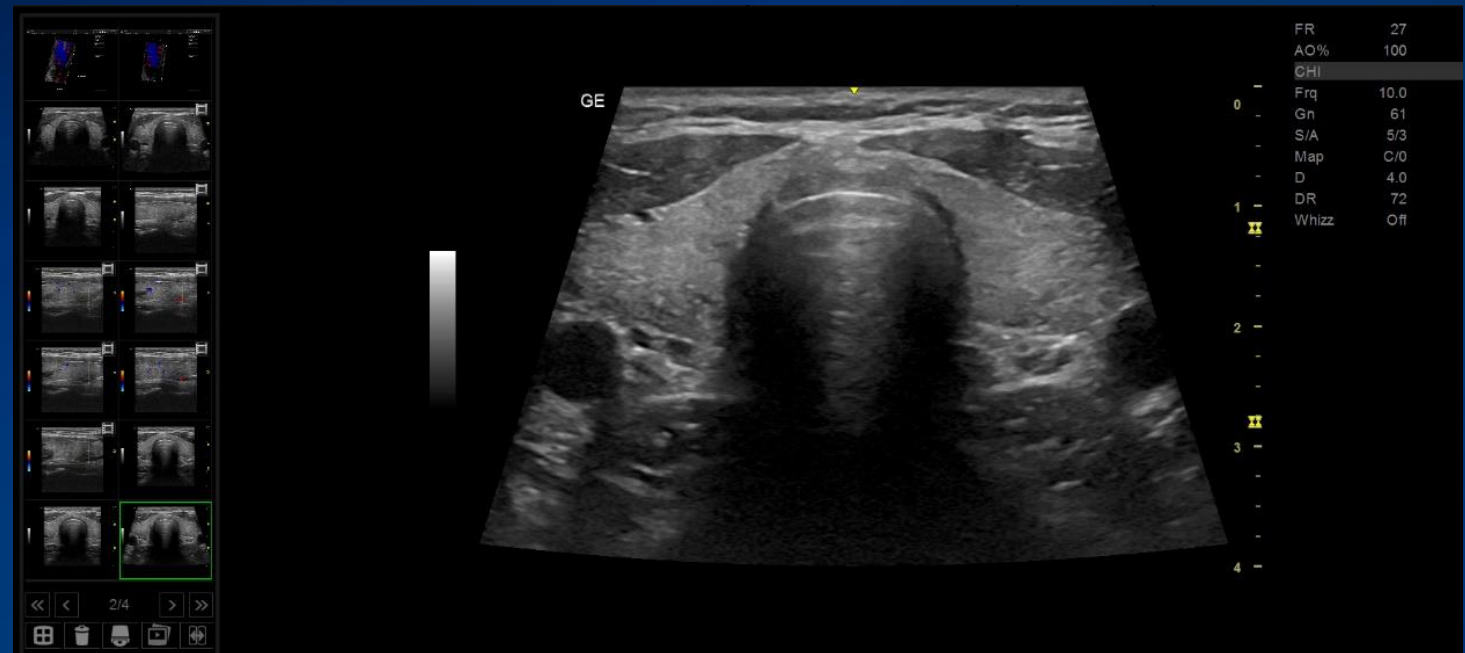
Available with all probes

- Combine with CrossXBeam when using linear probe
- Auto detection of scan direction
- Up to 60 cm scan length



Virtual convex

- Provides a convex field of view on linear and sector probes
- Compatible with CrossXBeam
- Available on linear and sector transducers

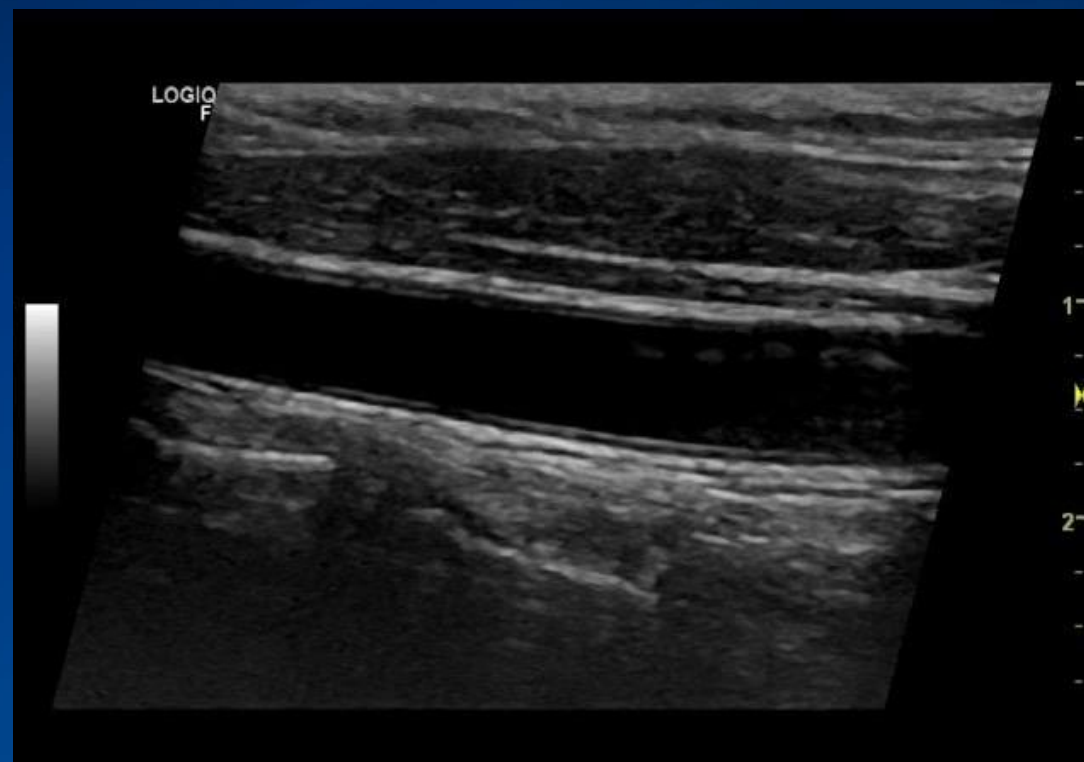


View large anatomy with a larger field of view while maintaining image quality

B-Steer

The B-Steer feature enables enhanced visualization of needle structures during interventional procedures and helps to improve diagnostic confidence in case of anisotropy in musculoskeletal studies (e.g. tendons insertions)

- Available on linear probe
- Quick one-button operation



* Images taken with LOGIQ F system. Image quality may not be representative in final product.

Coded Phase Inversion Harmonic Imaging

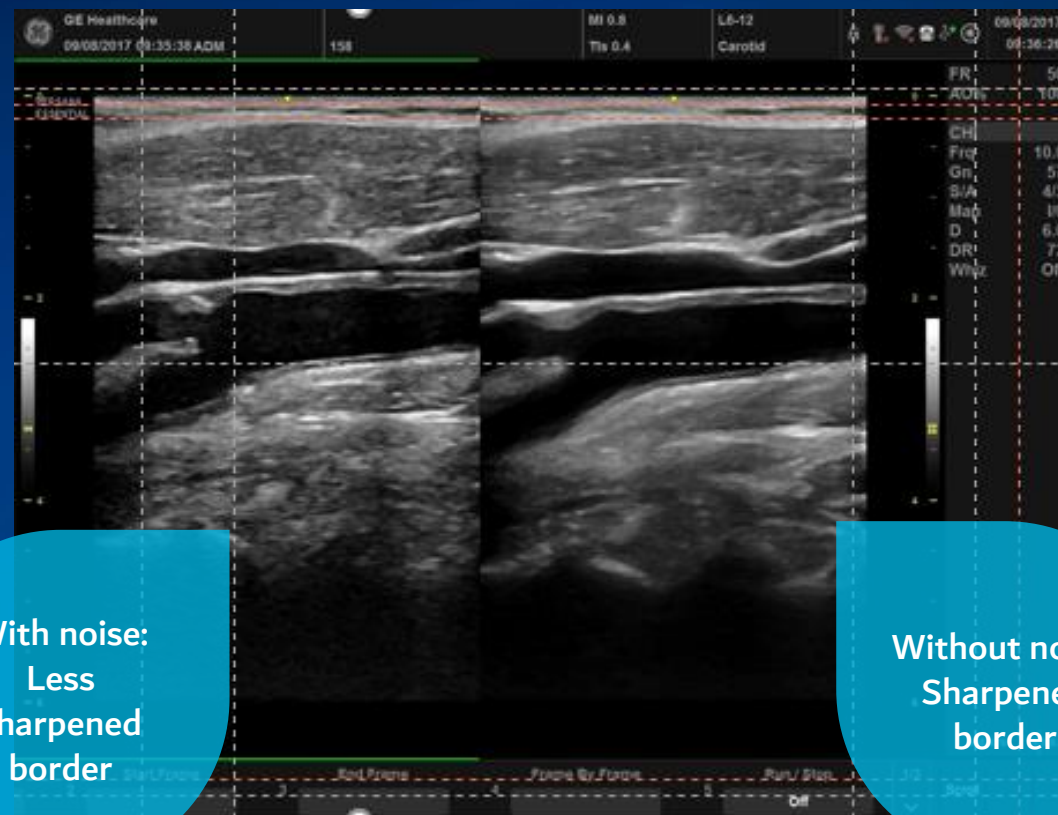
Click image to view illustration.



Helps improve image quality and capture more information during exams

CrossXBeam™ Spatial Compounding

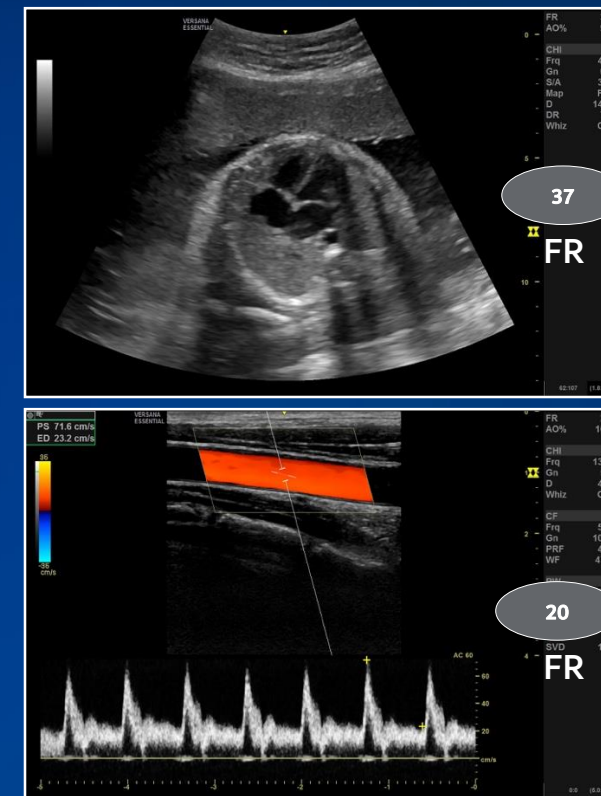
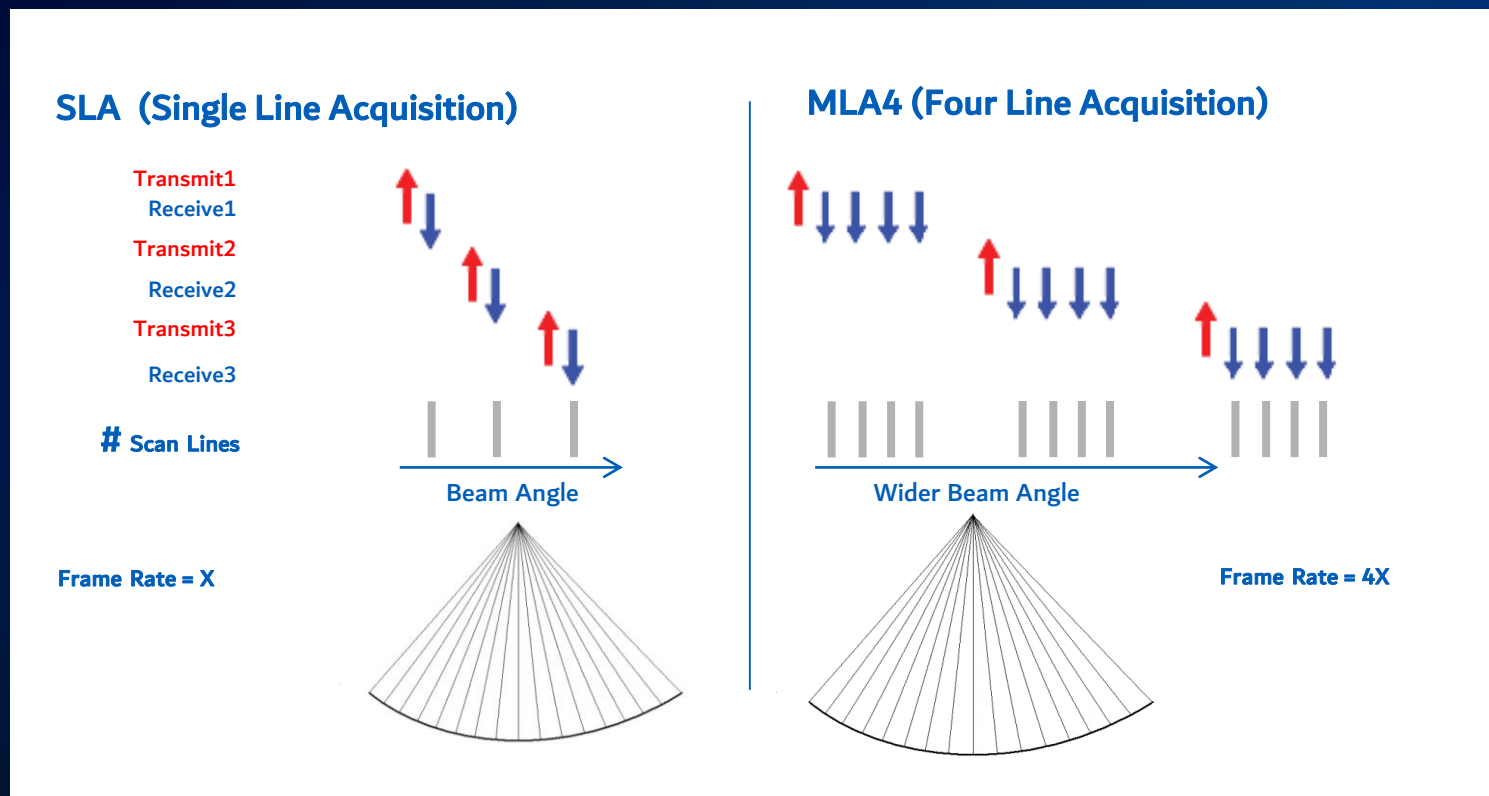
- Improves contrast/tissue differentiation
- Sharpens borders and interfaces
- Cuts clutter artifact for hard-to-scan patients



With noise:
Less
sharpened
border

Without noise:
Sharpened
border

Multiple line acquisition



Delivers more data and simplifies viewing of moving structures and blood flow

Versatile system, simple to use

Workflow design – Breast Care

Breast Care, an effective tool for high volume breast evaluation centers, provides step-by-step guidance for breast scanning. Using Scan Assistant functionality, it can integrate all modes, measurement and BI-RADS® score in sequence, reducing keystrokes. The workflow identifies the steps for a breast scan. For subsequent breast scans with a previous findings, the finding is highlighted in the previous breast care summary for easy recognition.



DECLARATION OF CONFORMITY

Following the provisions of the medical devices directive 93/42/EEC, Annex II
and of the directive 2011/65/EU, and of the directive 2014/53/EU

We

Manufacturer

GE Medical Systems (China) Co., Ltd.
No. 19, Changjiang Road
WuXi National Hi-Tech Dev. Zone
214028 Jiangsu China

EU Authorized Representative

GE Medical Systems SCS
283 rue de la Minière
78530 BUC, France

Declare under our sole responsibility that the device:

Versana Active

Ultrasound system, imaging, general-purpose

Ref: see addendum

GMDN Code: **40761**

Classification rule (93/42/EEC Annex IX): **10** **Class IIa**

To which this declaration relates, is in conformity with the requirements of the medical devices directive 93/42/EEC which apply to it and with the requirements of the directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

Wuxi, 10-February-2020

Gao, Gan *Gao Gan*
Lead Engineer, Safety and regulatory

This EC declaration of conformity supersedes the previous declaration dated 23-Oct-2019



This conformity is based on the following elements:

- For the directive 93/42/EEC (MDD)
 - Technical Documentation/DHF Ref./ réf: **DOC2285657/ DOC2097186**, of the product to which this declaration relates
 - EC Certificate: approval of full quality assurance system (Annex II of the directive 93/42 EEC) delivered by **TÜV Rheinland LGA Products GmbH** (Notified Body 0197) / Certificate N HD 60145949 0001
 - harmonized standards applied on the product to which this declaration relates
 - EN 60601-1:2006+A1:2013+A11:2011+A12:2014 Medical electrical equipment - Part 1: General requirements for basic safety and essential performance
 - EN 60601-1-2:2015 Medical electrical equipment - Part 1-2: General requirements for basic safety and essential performance - Collateral standard: Electromagnetic disturbances- Requirements and tests
 - EN 60601-1-6:2010+ A1:2015 Medical electrical equipment - Part 1-6: General requirements for basic safety and essential performance - Collateral standard: Usability
 - EN 60601-2-37:2008+A1:2015 Medical electrical equipment - Part 2-37: Particular requirements for the basic safety and essential performance of ultrasonic medical diagnostic and monitoring equipment
 - EN 62366:2008 + A1:2015 Medical devices - Application of usability engineering to medical devices
 - EN 62304:2006 + A1:2015 Medical device software - Software life-cycle processes
 - EN 1041:2008 + A1:2013 Information supplied by the manufacturer of medical devices
 - EN ISO 15223-1:2016 Medical devices - Symbols to be used with medical device labels, labelling and information to be supplied - Part 1: General requirements
- For the directive 2011/65/EU (RoHS)
 - Technical Documentation/DHF Ref./ réf: **DOC2285657/ DOC2097186**, of the product to which this declaration relates
- For the directive 2014/53/EU (Radio Equipment Directive)
 - Technical Documentation/DHF Ref./ réf: **DOC2285657/ DOC2097186**, of the product to which this declaration relates
 - harmonized standards applied on the product to which this declaration relates:
 - Health & Safety (Directive 2014/53/EU Art. 3(1)(a)): EN 60601-1:2006+A1:2013+A11:2011+A12:2014 per Directive 93/42/EEC;
 - EMC (Directive 2014/53/EU Art.3(1)(b)): EN 60601-1-2: 2015 per Directive 93/42/EEC;
 - Radio Spectrum (Directive 2014/53/EU Art.3(2)): EN 300 328 v 2.1.1 (2016-11); EN301 893 v2.1.1 (2017-05) - as declared in DOC2007709.

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**ADDENDUM TO THE DECLARATION OF CONFORMITY DOC2285658****Versana Active configurations – Consoles and Options**

CONSOLE Name with description	GEHC Part ^[1]	REF # ^[2]	GEHC Cat # ^[3]
VSN Active	5808541	Versana Active	H48402BA
VSN Active with 1T SSD	5808541	Versana Active	H48412BP
Console options ^[4]		GEHC Cat # ^[3]	
VSN A Scan Coach		H48402BP	
VSN A SonoBiometry		H48402BR	
VSN A TVI		H48402BE	
VSN A Auto IMT		H48402BT	
VSN A AMM		H48402BD	
VSN A Easy/Adv_3D		H48402BZ	
VSN A LOGIQ View		H48402BH	
VSN A DICOM		H48402BB	
VSN A CWD		H48402BC	
VSN A Needle rec		H48402BK	
VSN A B-Flow™		H48402BF	
VSN A AutoEF		H48402BS	
VSN A Follow-up Tool		H48402BN	
VSN A Thyroid productivity		H48402BY	
VSN A Tricify		H48412BB	
VSN A Auto Bladder		H48402BW	
VSN A Stress Echo		H48402BL	
VSN A BreastCare		H48402BM	
VSN A Contrast		H48402BG	
VSN A Elastography		H48402BJ	
CWD Hardware Option		H48102BM	
1T SSD		H48442BE	
isolation USB for commercial printer		H48242BC	
VSN A Base Cart		H48432BW	
Cart Paper Tray		H48442BH	
Printer and DVD Shelf		H48442BJ	
Power Cord Europe		H48482AF	
Power Cord China		H48482AK	
Power Cord India		H48482AH	
Power Cord Argentina		H48482AC	
Power Cord UK		H48482AG	
Power Cord Denmark		H48482AM	
Power Cord Switzerland		H48482AD	
Power Cord Australia		H48482AE	
Power Cord USA		H48482AL	
Power Cord Brazil		H48482AN	
Power Cord Israel		H48482AJ	
Power Cord Japan		H48482AB	

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**Versana Active – Probes and Accessories**

Probes and Accessories ^[5]	TYPE ^[6]	GEHC Cat # ^[3]
4C-RS probe	BF	H4000SR
L6-12-RS probe	BF	H48062AC
3Sc-RS probe	BF	H45041DL
8C-RS probe	BF	H40402LS
E8C-RS probe	BF	H40402LN
E8Cs-RS probe	BF	H48062AF
6S-RS probe	BF	H45021RP
12L-RS probe	BF	H40402LY
LK760-RS probe	BF	H44901AF
L8-18i-RS probe	BF	H40462LF
12S-RS probe	CF	H44901AB
9L-RS probe	BF	H40442LL
4C-RS Biopsy Kit	N/A	E8385NA
L6-12-RS Biopsy Kit	N/A	H40432LC
3Sc-RS Biopsy Kit	N/A	H46222LC
E8C-RS Biopsy Kit	N/A	E8385MJ
E8C-RS Reusable Biopsy Kit	N/A	H40412LN
12L Transverse bracket	N/A	H48392LL
Infinite 12L biopsy kit	N/A	H48392LT
Biopsy Kit for 9L-RS	N/A	H4906BK
Power adapter wo cord (ACDC only)	N/A	H48442BB
VSN A Spare Battery	N/A	H48442BC

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**Versana Active – Peripherals**

Peripherals ^[5]	GEHC Cat # ^[3]
SONY UPD25 Color Printer USA Kit	H48542LZ
SONY UPD25 Color Printer EUP Kit	H48552LA
SONY UPD25 Color Printer CHN Kit	H48542LY
SONY UPD25 Color Printer JPN Kit	H48552LB
SONY UPD25 Color Printer Brazil Kit	H48312AN
BW PRINTER (UP-D898MD) USA	H48492AF
BW PRINTER (UP-D898MD) EU	H48492AG
BW PRINTER (UP-D898MD) CHN	H48492AH
BW PRINTER (UP-D898MD) JPN	H48492AJ
BW PRINTER (UP-D898MD) BRA	H48492AK
898 printer paper	H41402LS
Footswitch MKF 2-MED USB GP26	H41642LS
1-Peadi type footswitch 'Whanam FSU-1000'	H41882LD
32G USB MEMORY STICK	H48442BK
1TB mobile USB HDD	H48492AB
Transcend TS8XDVDS-K DVDRW	H48442BG
USB ECG Module (IEC)-MFG Germany	H48502AR
USB ECG Module (AHA)-MFG Israel	H41852LK
USB ECG Module (IEC)-MFG Israel	H41852LL
ECG ASSY w/ Chinese Label	H41852LM
wireless Adaptor	H48832AC

Versana Active – Vet Consoles and Options

Vet Consoles and Options	GEHC Cat # ^[3]
Vet probe caution label except Japan	H48492AW
Vet probe caution label	H48992LR
VSN A Vet kits	H48442BA
VSN A Vet	H48412BC

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Notes used in the tables :

- ¹ **GEHC Part #** identifies the device(s) in the manufacturer's design, manufacturing and service documentation.
- ² **REF #** is usually affixed to the device(s) in the form of a product identification or model on the rating label.
- ³ **GEHC Cat #** identifies the device(s) in the manufacturer's catalog and is usually included on commercial documents like sale contract, order processing documents and shipping documents.
- ⁴ **Console options** are not CE marked in their own right, but covered by the CE mark of Versana Active
- ⁵ **Probes, Accessories and Peripherals** may carry the CE-mark and, when applicable, the Notified Body number corresponding to the EC Declaration under which the products are CE-marked by their manufacturer.
GE Medical Systems (China) Co., Ltd. has verified the mutual compatibility of the devices in combination with Versana Active and included relevant information to users with the Versana Active instructions for use. This activity was subject to appropriate methods of internal control and inspection.
- ⁶ **Type** identifies the degree of protection against electric shock for each probe, as labeled on the probe itself.

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