



# SonoSite M-Turbo



Capture quality video clips up to 60 seconds long



Battery-powered and wireless capabilities for true mobility



PC- and Mac-friendly for effortless data management with 2 high-speed USB 2.0 ports

Backlit keyboard is easier on the eyes



Magnesium case for lightweight strength

Weighs 7.5 lbs./3.4 kg with battery

## AT A GLANCE

- Premium image quality
- Drop tested at 3 feet/91.4 cm
- Splash resistant user interface
- Quick boot-up time
- Easy to operate
- No annual service contract



TECHNOLOGY DRIVEN  
5-YEAR STANDARD WARRANTY  
MADE IN THE USA

# High Resolution Imaging Across the Point of Care

Engineered for striking image quality, durability and ease of use, the M-Turbo® ultrasound system, has earned customer satisfaction ratings of 99%\*. Proprietary algorithms optimize multiple imaging parameters so you get essential information quickly and easily.

## Turbo Technology

**SonoADAPT™ Tissue Optimization** – eliminating complicated manipulation of multiple controls.

**SonoHD™ Imaging Technology** – reducing speckle noise and other image artifacts while preserving and sharpening tissue information.

**SonoMB™ Multi-beam Imaging** – increasing resolution of small structures and enhancing border delineation.

**Advanced Needle Visualization** – aiding needle visualization while maintaining striking image quality of the target and surrounding anatomy.

**ColorHD™ Technology** – increasing color performance, sensitivity and frame rates for more diagnostic information.

### Point-of-Care Applications

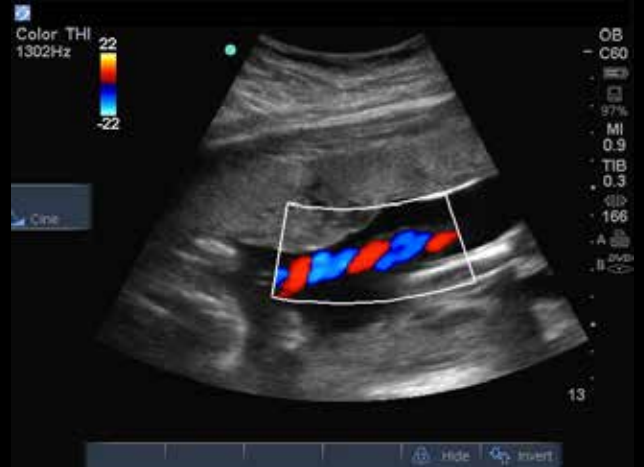
Anesthesia, Critical Care, Cardiology, Cardiovascular Disease Management, Emergency Medicine, Musculoskeletal, OB/Gyn, Radiology, Vascular, Surgery, Vet Imaging, Women's Health

\*Verispan surveys 2008





Abdomen - Pelvis - Free Fluid



OB Cord



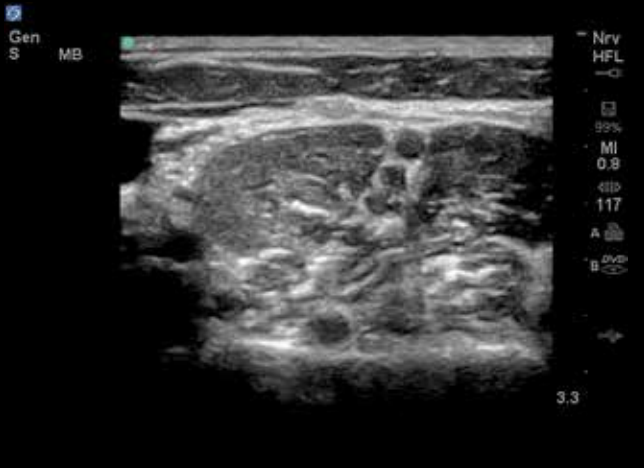
Shoulder Injection with Needle



Liver, Right Kidney



Heart Parasternal Short Axis



Brachial Plexus Nerves Root

**L38xi****10-5 MHz Linear****Applications:**

breast, IMT, musculoskeletal, nerve, small parts, vascular, venous

**Scan depth: 9 cm****HFL38x****13-6 MHz Linear****Applications:**

breast, IMT, musculoskeletal, nerve, small parts, vascular, venous

**Scan depth: 6 cm****HFL50x****15-6 MHz Linear****Applications:**

breast, musculoskeletal, nerve, small parts

**Scan depth: 6 cm****L25x****13-6 MHz Linear****Applications:**

musculoskeletal, nerve, superficial, vascular, venous, ophthalmic

**Scan depth: 6 cm****C8x****8-5 MHz Curved****Applications:**

prostate, transrectal

**Scan depth: 11.5 cm****C11x****8-5 MHz Curved****Applications:**

abdominal, neonatal, nerve, vascular, cardiology (vet)

**Scan depth: 10 cm****C60xi****5-2 MHz Curved****Applications:**

abdominal, musculoskeletal, nerve, ob, gyn

**Scan depth: 30 cm****ICTx****8-5 MHz Curved****Applications:**

ob, gyn

**Scan depth: 13 cm****P21x****5-1 MHz Phased****Applications:**

abdominal, cardiology, ob, orbital, TCD

**Scan depth: 35 cm****P10x****8-4 MHz Phased****Applications:**

ped. abdominal, ped. cardiology, neonatal head

**Scan depth: 14 cm****SLAx****13-6 MHz Linear****Applications:**

musculoskeletal, nerve, superficial vascular, venous

**Scan depth: 6 cm****TEExi****8-3 MHz Multi****Applications:**

adult cardiology, multiplane transesophageal 180° rotation of the imaging plane, providing a 360° field of view

**Scan depth: 18 cm****P11x****10-5 MHz Phased Array****Applications:**

Venous and vascular access

**Maximum Depth: 12cm****L52x (VET)****10-5 MHz Linear****Applications:**

musculoskeletal, ob, vascular

**Scan depth: 15 cm**

Needle guide kits available with the following transducers – L38xi, HFL38x, HFL50x, C8x, C60xi, ICTx, P10x and P21x. A transverse needle guide is available with the L25x transducer.

## SYSTEM SPECIFICATIONS

System weight: 7.5 lbs./3.4 kg with battery  
Dimensions: 11.9" x 10.8" x 3.1" / 30.2 cm x 27.4 cm x 7.9 cm (L x W x H)  
Display: 10.4"/26.4 cm diagonal LCD (NTSC or PAL)  
Architecture: All-digital broadband  
Dynamic range: Up to 165 dB  
Gray scale: 256 shades  
HIPAA compliance: Comprehensive tool set

## IMAGING MODES

Broadband, Multifrequency Imaging: 2D / Tissue Harmonic Imaging / M-Mode  
Velocity Color Doppler / Color Power Doppler  
PW, PW Tissue Doppler and CW  
Doppler angle, correct after freeze

## IMAGE PROCESSING

SonoADAPT™ Tissue Optimization  
SonoHD™ Imaging Technology  
Advanced Needle Visualization (SonoMBe™ Imaging)  
Dual Imaging, Duplex Imaging, 2x pan/zoom capability, Dynamic range and gain

## USER INTERFACE AND REMAPPABLE CONTROLS

Softkeys to drive advanced features  
Programmable A and B keys: each can be assigned by the user for increased ease of use  
Alphanumeric elastomeric QWERTY keyboard  
Track pad with select key for easy operation and navigation  
Doppler controls: angle, steer, scale, baseline, gain and volume  
Image acquisition keys: review, report, Clip Store, save  
Dedicated AutoGain and exam keys to allow quick activation

## TRANSDUCERS

Broadband and Multifrequency: Linear Array, Curved Array, Phased Array, Multiplane TEE and Micro-Convex  
Single Frequency: Cardiac Static Pencil

## DURABILITY

Drop-tested at 3 feet/91.4 cm

## APPLICATION SPECIFIC CALCULATIONS

OB/GYN/Fertility: Diameter/ellipse measurements, volume, ten follicle measurements, estimated fetal weight, established due date, gestational age, last menstrual period, growth charts, user-defined tables,

multiple user-selectable authors, ratios, amniotic fluid index, patient report, humerus and tibia measurement and charts

Vascular: Diameter/ellipse/trace measurements, volume, volume flow, percent diameter and area reduction, Lt/Rt CCA, ICA, ECA, ICA/CCA ratio, time average mean (TAM), peak trace, ICA/CCA ratio, angle correction, patient report

CIMT (Carotid Intima Media Thickness): Embedded SonoCalc® IMT software (optional) – automatic edge detection with mean and maximum thickness reporting

Cardiac: Automated Cardiac Output package and patient report including: ventricular, aortic and atrial measurements; ejection fraction, volume measurements, Simpson's rule, continuity equation, pressure half-time and cardiac output; PA AT, TV E, A, PHT, TVI, MV time, Pulm Veins

Transcranial Doppler (TCD): Complete TCD package including Time Average Peak (TAP)

## ONBOARD IMAGE AND CLIP STORAGE/REVIEW

16 GB encrypted, internal Flash memory storage capability. Potential to store 40,000 images or 1900 2-second clips

Clip Store capability (maximum single clip length: 60 seconds)

Clip Store capability via either number of heart cycles (using the ECG) or time base Maximum storage in ECG beats mode is 10 heart cycles. Maximum storage in time base mode is 60 seconds

Cine review up to 255 frame-by-frame images

## MEASUREMENT TOOLS, PICTOGRAMS AND ANNOTATIONS

2D: Distance calipers, ellipse and manual trace

Doppler: Velocity measurements, pressure half time, auto and manual trace

M-Mode: Distance and time measurements, heart rate calculation

User-selectable text and pictograms

User-defined, application-specific annotations

Biopsy guidelines

## EXTERNAL DATA MANAGEMENT

Q-path ultrasound management system

DICOM® Image Management (TCP/IP): Print and Store, Modality Work List, Storage Commit: Modality, Perform, Procedure Step

PC Workstation Image Management (TCP/IP, USB):

SiteLink™ – allows transfer, archiving, viewing and printing of high resolution bitmap images/clips, and batch compression to JPEG on PCs

Direct writing capability to USB 2.0 mass storage removable media (PC and MAC compatible)

Supported export formats: MPEG-4 (H.264), JPEG, BMP, and HTML

## CONNECTIVITY

S-video (in/out) to VCR for record and playback

DVI output

Composite video output (NTSC/PAL) to VCR or video printer

Audio output

Integrated speakers

Ethernet or wireless image/data transfer

USB ports (2)

RS-232 transfer

## POWER SUPPLY

System operates via battery or AC power  
Rechargeable lithium-ion battery AC: universal power adapter, 100-240 VAC, 50/60 Hz input, 15 VDC output

## EXTERNAL VIDEO AND AUDIO

S-video (in/out) to VCR or DVD for record and playback

RGB or DVI output to external LCD display

Composite video output (NTSC/PAL) to VCR or DVD, video printer or external LCD display

Audio output

Integrated speakers

## H-UNIVERSAL™ STAND AND PERIPHERALS

Transducer and gel holders

Optional Triple Transducer Connect (TTC) to quickly activate transducers electronically

Optional foot switch

Optional PowerPark and PowerPack

## OPTIONAL PERIPHERALS

Printers: Medical-grade black and white or color

External storage devices: Medical-grade DVD

External data input devices: Bar code reader

ECG module: 3-lead ECG – works with standard ECG leads and electrodes

External analog ECG input also available

USB bar code reader

**FUJIFILM**  
Value from Innovation

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