

# M-TURBO®

## SYSTEM SPECIFICATIONS



# THE M-TURBO® ULTRASOUND SYSTEM FROM SONOSITE



### SYSTEM SPECIFICATIONS:

<b>System weight</b>	3.04 kg/6.7 lbs.
<b>Dimensions</b>	30.2 cm x 27.4 cm x 7.9 cm /11.9" x 10.8" x 3.1" (L x W x H)
<b>Display</b>	26.4 cm/10.4" diagonal LCD (NTSC or PAL)
<b>Architecture</b>	All-digital broadband
<b>Dynamic range</b>	Up to 165 dB
<b>Gray scale</b>	256 shades
<b>HIPAA compliance</b>	Comprehensive tool set

### IMAGING MODES AND PROCESSING:

#### Broadband, Multifrequency Imaging:

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

#### Image processing:

- SonoADAPT™ Tissue Optimisation
- SonoHD™ Imaging Technology
- Advanced Needle Visualisation (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, DVD, 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

### APPLICATION SPECIFIC CALCULATIONS:

**OB/GYN/Fertility:** Diameter/ellipse measurements, volume, ten follicle measurements, estimated foetal 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)



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### ONBOARD IMAGE AND CLIP STORAGE/REVIEW:

- 8 GB internal Flash memory storage capability  
Potential to store 30,000 images or 960 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

### 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

### 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 AND WIRELESS:

**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™ Image Manager – 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 are: MPEG-4 (H.264), JPEG, BMP, and HTML
- SonoSite® Education Key™ training video compatible

### SonoSite Workflow Solutions (SWS™):

- A suite of specialised tools to streamline exam management for billing, credentialing, EMR and image archiving

### 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 PERIPHERALS:

**Printers:** Medical-grade black and white or colour

**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**

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# M-TURBO®

## TRANSDUCERS
















# READY FOR A COMPLETE RANGE OF APPLICATIONS



SonoSite designs, manufactures and tests transducers in-house with real-world customer needs in mind. Our transducers exceed stringent military specifications for drop testing and splash resistance, so you can use them with confidence in the most demanding of environments. Maybe that's why SonoSite is the only ultrasound company to offer an industry leading five-year warranty on the transducers it manufactures.



<p><b>L38xi</b></p>  <p><b>10-5MHz Linear</b></p> <p>Applications:</p> <ul style="list-style-type: none"> <li>breast</li> <li>CIMT</li> <li>musculoskeletal</li> <li>nerve</li> <li>small parts</li> <li>vascular</li> <li>venous</li> </ul> <p>Scan depth:</p> <p>9 cm</p>	<p><b>HFL38x</b></p>  <p><b>13-6MHz Linear</b></p> <p>Applications:</p> <ul style="list-style-type: none"> <li>breast</li> <li>CIMT</li> <li>musculoskeletal</li> <li>nerve</li> <li>small parts</li> <li>vascular</li> <li>venous</li> </ul> <p>Scan depth:</p> <p>6 cm</p>	<p><b>HFL50x</b></p>  <p><b>15-6MHz Linear</b></p> <p>Applications:</p> <ul style="list-style-type: none"> <li>breast</li> <li>musculoskeletal</li> <li>nerve</li> <li>small parts</li> </ul> <p>Scan depth:</p> <p>6 cm</p>	<p><b>L25x</b></p>  <p><b>13-6MHz Linear</b></p> <p>Applications:</p> <ul style="list-style-type: none"> <li>musculoskeletal</li> <li>nerve</li> <li>superficial</li> <li>vascular</li> <li>venous</li> <li>ophthalmic</li> </ul> <p>Scan depth:</p> <p>6 cm</p>	<p><b>C11x</b></p>  <p><b>8-5MHz Curved</b></p> <p>Applications:</p> <ul style="list-style-type: none"> <li>abdominal</li> <li>neonatal</li> <li>nerve</li> <li>vascular</li> <li>cardiology (Vet)</li> </ul> <p>Scan depth:</p> <p>10 cm</p>	<p><b>C60x</b></p>  <p><b>5-2MHz Curved</b></p> <p>Applications:</p> <ul style="list-style-type: none"> <li>abdominal</li> <li>musculoskeletal</li> <li>nerve</li> <li>ob</li> <li>gyn</li> </ul> <p>Scan depth:</p> <p>32 cm</p>
<p><b>ICTx</b></p>  <p><b>8-5MHz Curved</b></p> <p>Applications:</p> <ul style="list-style-type: none"> <li>ob</li> <li>gyn</li> </ul> <p>Scan depth:</p> <p>13 cm</p>	<p><b>P21x</b></p>  <p><b>5-1MHz Phased</b></p> <p>Applications:</p> <ul style="list-style-type: none"> <li>abdominal</li> <li>cardiology</li> <li>ob</li> <li>orbital</li> <li>TCD</li> </ul> <p>Scan depth:</p> <p>35 cm</p>	<p><b>P10x</b></p>  <p><b>8-4MHz Phased</b></p> <p>Applications:</p> <ul style="list-style-type: none"> <li>paed. abdominal</li> <li>paed. cardiology</li> <li>neonatal head</li> </ul> <p>Scan depth:</p> <p>14 cm</p>	<p><b>SLAx</b></p>  <p><b>13-6MHz Linear</b></p> <p>Applications:</p> <ul style="list-style-type: none"> <li>musculoskeletal</li> <li>nerve</li> <li>superficial</li> <li>vascular</li> <li>venous</li> </ul> <p>Scan depth:</p> <p>6 cm</p>	<p><b>TOEx/TEEx</b></p>  <p><b>8-3MHz Multi</b></p> <p>Applications:</p> <ul style="list-style-type: none"> <li>adult cardiology</li> <li>multiplane transoesophageal 180° rotation of the imaging plane, providing a 360° field of view</li> </ul> <p>Scan depth:</p> <p>18 cm</p>	<p><b>D2x</b></p>  <p><b>2MHz Pencil</b></p> <p>Applications:</p> <ul style="list-style-type: none"> <li>cardiology (CW)</li> </ul> <p>Scan depth:</p> <p>N/A</p>
<p><b>L52x (Vet)</b></p>  <p><b>10-5MHz Linear</b></p> <p>Applications:</p> <ul style="list-style-type: none"> <li>musculoskeletal</li> <li>ob</li> <li>vascular</li> </ul> <p>Scan depth:</p> <p>15 cm</p>	<p>Needle guide kits available with the following transducers – L38xi, HFL38x, HFL50x, C60x, ICTx, P10x and P21x. A transverse needle guide is available with the L25x transducer.</p> <p>For detailed information, please visit <a href="http://www.sonosite.com/products/m-turbo">www.sonosite.com/products/m-turbo</a> or speak with your SonoSite customer representative.</p> <p>M-Turbo, SonoSite, the SonoSite logo, and other trademarks not owned by third parties are registered or unregistered intellectual property of SonoSite, Inc., a subsidiary of FUJIFILM.</p>				



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