

# AIXPLORED MACH 30 AND AIXPLORED MACH 20

Intelligence and Innovation in Ultrasound



**SUPERSONIC**  
imagine

# THE RANGE OF POSSIBILITIES

Addressing your expectations with UltraFast™ innovations



**Aixplorer MACH® 30 and MACH 20** ultrasound systems leverage 10 years of clinical expertise to help you handle exams with ease and confidence.

Powered by the next generation of UltraFast™ imaging and featuring streamlined ergonomics, **both efficiency and comfort are maximized.**

**The exceptional image combined with access to advanced capabilities delivers optimized performance** to face everyday situations today while being ready for tomorrow.



# DESIGNED TO BE THE NEW STANDARD

Enhanced productivity and visual comfort for optimal performance



**Aixplorer MACH 30 and MACH 20** offer innovative design and function.

- Full HD screens - enhanced image uniformity, deeper blacks and refined detail.
- Intuitive control panel with revolutionary SonicPad™ improves user experience and workflow.
- Reduced footprint allows for the use in limited workspaces.
- Optimized cooling fan architecture results in silent operation.



## SONICPAD

SuperSonic Imagine is the first to introduce a multi-touch track-pad on an ultrasound device.

Shortcuts and intuitive gestures lead to maximum efficiency and exam time reduction up to 32%.\*

SonicPad also allows you to reduce hand and arm movements of up to 77% per exam.\*

*\* Comparative study conducted by SuperSonic Imagine in 2018.*

# SONICPURE

Image quality for improved diagnostic confidence



Innovative transducer designs and powerful capabilities of unique UltraFast™ architecture — which optimize signal-to-noise ratio at each step of signal processing — offer imaging at a new standard, enhancing diagnostic information.

Designed to fit the needs of radiologists, a portfolio of advanced features is available to add clinical value and improve everyday workflow:

- **SuperCompound** for smoother images with reduced speckle
- **SuperRes** for enhanced delineation of structures to improve lesion conspicuity
- **TissueTuner** for clear and precise images adjusted to tissue type
- **AutoTGC** for instant gain optimization of every pixel of an image

## ULTRAFast IMAGING

The UltraFast™ technology allows for the capture of images 200 times faster than conventional ultrasound.

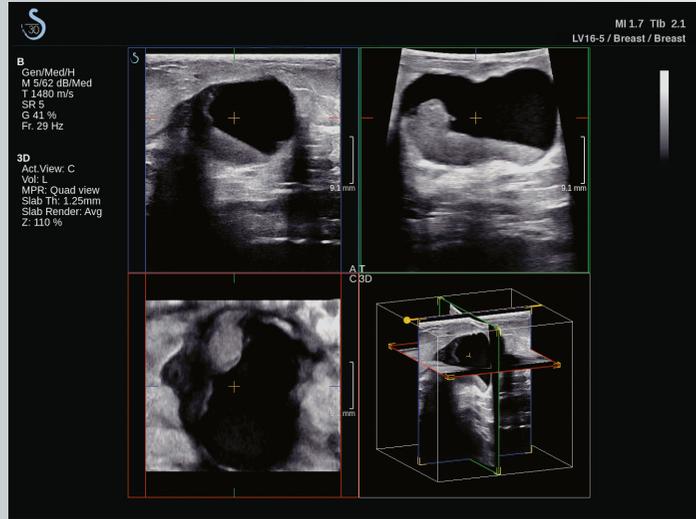
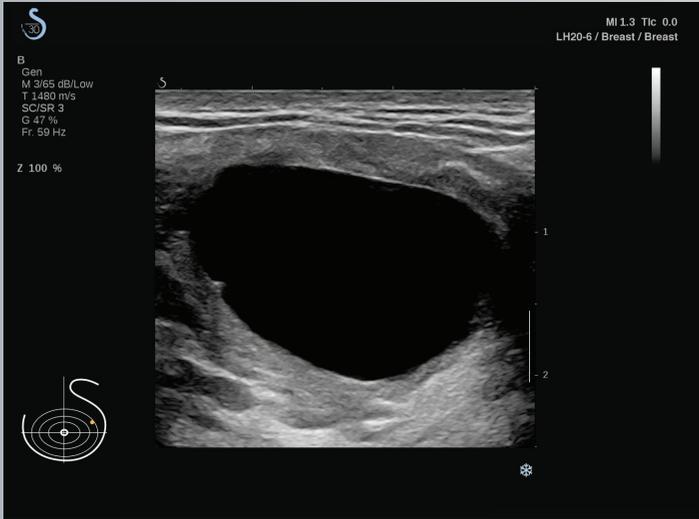
In addition to obtaining diagnostic B-mode information, this unparalleled technology has led to several innovations that offer new possibilities for patient management.

The next generation of the UltraFast™ technology — introduced on Aixplorer MACH 30 and now available on Aixplorer MACH 20 — has 5x more computing power\*.

*\* In comparison with previous Aixplorer® products.*



Supported by a comprehensive family of lightweight and ergonomic transducers\*\* optimized for all exams, Aixplorer MACH 30 and MACH 20 deliver the level of performance a busy practice requires.



\*\* The transducers can be used on both Aixplorer MACH 30 et MACH 20 ultrasound systems.

# PUSHING THE BOUNDARIES OF ULTRASOUND IMAGING

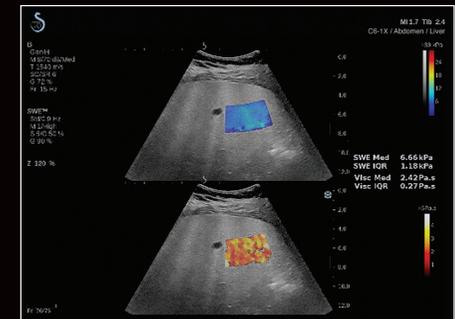
Turning technological innovations into clinical value

Over the years, SuperSonic Imagine introduced several innovative imaging modes — made possible by its UltraFast™ technology. These innovations integrate perfectly with routine workflow and deliver meaningful added value into diagnostic imaging.



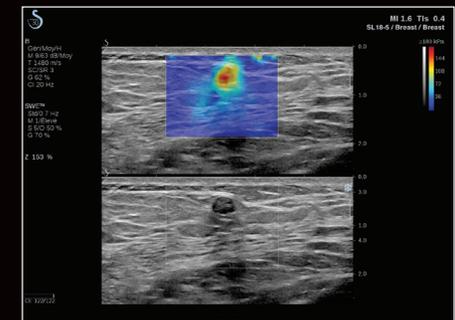
## New! LIVER ULTRASOUND MARKERS

The ability to innovate materializes once again with the introduction of unprecedented tools for non-invasive assessment of liver disease severity: Att PLUS and SSp PLUS to measure attenuation and speed of sound in the liver, and Vi PLUS to quantify liver tissue viscosity.



## SHEARWAVE PLUS

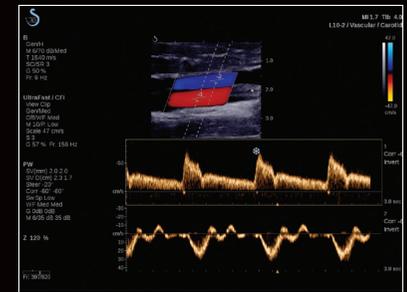
ShearWave™ Elastography (SWE) from SuperSonic Imagine is the only technique capable of visualizing, analyzing and quantifying the tissue stiffness in real-time, on all transducers. This non-invasive approach is clinically proven to be reliable and highly reproducible.



<sup>1</sup> Berg WA et al. Radiology. 2012 Feb ; 262(2) :435-49.

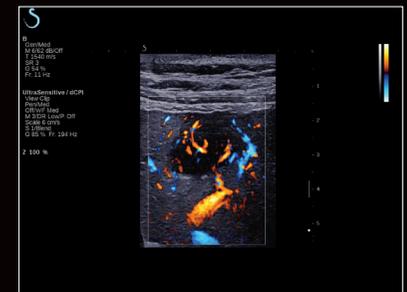
## ULTRAFAST DOPPLER

UltraFast™ Doppler combines color Doppler and pulsed Doppler with frame rates impossible with conventional Doppler. Multiple measurements made on the same acquisition allow user to gain reliability and save time.



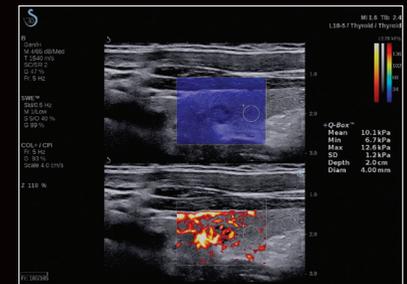
## ANGIO PL.U.S.

Angio PL.U.S. is a color mode that offers enhanced sensitivity and resolution of blood flow. Angio PL.U.S. provides the possibility to explore microvasculature without the use of a contrast agent.



## TRIVU

TriVu is a real-time imaging mode that allows you to display morphology (B-mode), stiffness (SWE PLUS) and flow information (equivalent to Angio PL.U.S.), all in the same image, simultaneously. TriVu is the answer to confident and timely diagnosis.



## NEEDLE PL.U.S.

Needle PL.U.S. allows you not only to visualize the needle but also predicts its trajectory. This real-time imaging mode allows you to perform biopsies with precision and confidence, without loss of B-mode information.



# WOMEN'S HEALTH

Complete solution  
for breast imaging



With over 200 publications in peer-reviewed medical journals, SWE has been proven to be a complementary tool for:

- Breast lesion diagnosis and characterization<sup>1</sup>
- Biopsy planning<sup>2</sup> and treatment
- Therapy monitoring<sup>3</sup> and prognostics

SuperSonic Imagine continues to be at the forefront of ultrasound innovation for the improvement of breast imaging and disease management.

- Excellent B-mode image quality with **incredible definition in both fundamental and harmonic imaging modes.**
- **Transducer family adapted to every exam** and to every breast morphology, including the 3D imaging
- **Optimized penetration settings** to visualize structures at variable depths and in dense breasts
- **Innovations backed by strong clinical evidence:** ShearWave PLUS, Angio PL.U.S., TriVu et Needle PL.U.S.



<sup>1</sup> Berg WA et al. *Radiology*. 2012 Feb ; 262(2) :435-49. / <sup>2</sup> Mullen R et al. *Clin Radiology*. 2014 Dec; 69(12):1259-63. / <sup>3</sup> Lee SH et al. *Am Surg Oncol*. 2015 Dec; 22 Suppl 3:376-84.

# LIVER HEALTH

Comprehensive patient  
management



The utility of SWE in the management of patients with chronic liver disease has been demonstrated in more than 160 publications for:

- Evaluation<sup>4</sup> and diagnosis<sup>5</sup> of hepatic fibrosis
- Follow-up and monitoring of patients.

Aixplorer MACH 30 and MACH 20 offer a suite of diagnostic imaging tools for non-invasive assessment and follow-up of liver diseases. Using a single equipment, morphological, hemodynamic, elasticity and perfusion analysis are now possible.

- Excellent B-mode image quality with **penetration up to 45 cm**
- **One versatile probe to meet the needs of all body types** and one probe dedicated specifically to pediatric patients
- **Innovations on the way to becoming essential biomarkers:** ShearWave PLUS, UltraFast™ Doppler, Angio PL.U.S., Att PLUS, SSp PLUS and Vi PLUS
- **Advanced features** to facilitate results analysis and exchange of data between medical departments: customizable reports, recommended threshold values, connectivity options



<sup>4</sup> Gao et al. *Radiology*. 2018 Jul 24;172479. doi: 10.1148/radiol.2018172479. | <sup>5</sup> Garcovich M et al. *Radiology*. - 2017 Jun;283(3):820-827.

# GENERAL IMAGING

Performance and versatility everyday

No matter the clinical applications, our wide range of unique tools can meet the diverse challenges of radiologists.

## MUSCLES AND TENDONS

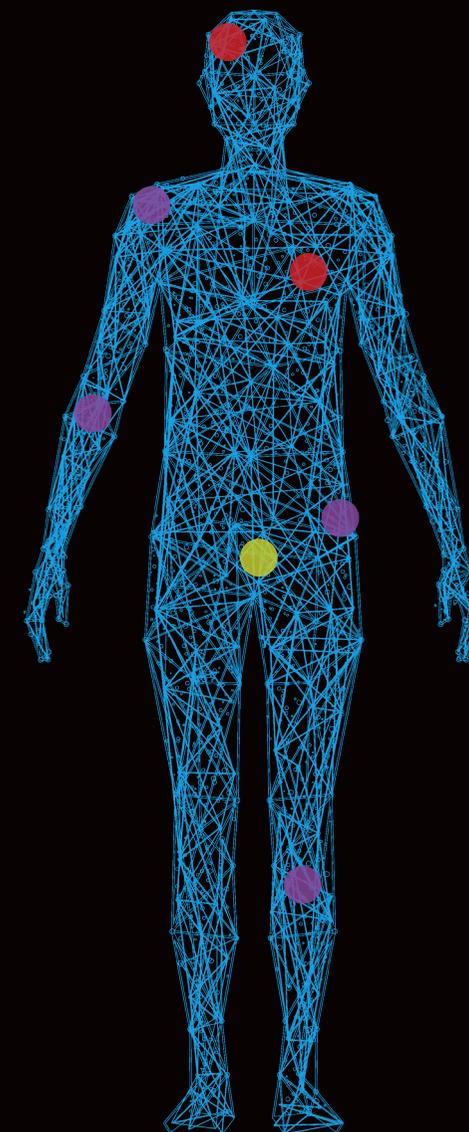
Elastography ShearWave PLUS with its unique and even higher ability to analyze tissue stiffness (up to 1,200 kPa or 20 m/s), and in real time, is an asset for tendinopathy assessment and muscle disorders quantification. By adding innovative imaging modes, such as Angio PL.U.S. and Needle PL.U.S., ultrasound exams benefit from complementary diagnostic information.

## MEN'S HEALTH

In addition to conventional ultrasound modes, ShearWave PLUS in real time and Angio PL.U.S. make ultrasound a true multi-parametric modality. Thus it can be used for the detection and characterization of prostate and testicular lesions. Targeted biopsies can also be performed with confidence and precision.

## VASCULAR EXPLORATION

UltraFast architecture offers unique performance in vascular imaging. Detection of transient hemodynamic flows by UltraFast Doppler and displaying of microvasculature with Angio PL.U.S. contribute to the evaluation of global cardiovascular risk.



# CONNECTED EXPERIENCE

Online services in complete security



**Aixplorer MACH 30 and MACH 20** facilitate exchanges and ensure that information is always available in the right place at the right time.

- On-time intervention through remote system monitoring and diagnostics
- Access to new options and features with an online software update
- Disk encryption at installation to protect patients personal data
- Password-requiring login to ensure that user preferences are preserved
- DICOM compatibility and multiple connection ports for more flexibility



Contact us to learn more  
about our range of products  
and to make your choice.

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Indications for Use: The SuperSonic Imagine Aixplorer MACH<sup>®</sup> range ultrasound diagnostic systems and transducers are intended for general purpose pulse echo ultrasound imaging, soft tissue viscoelasticity imaging and Doppler fluid flow analysis of the human body. The Aixplorer MACH<sup>®</sup> ultrasound diagnostic systems are indicated for use in the following applications, for imaging and measurement of anatomical structures: Abdominal, Small Organs, Musculoskeletal, Superficial Musculoskeletal, Vascular, Peripheral Vascular, Intraoperative, OB-GYN, Pelvic, Pediatric, Transrectal, Transvaginal, Urology, Neonatal/Adult Cephalic and Non-invasive Cardiac. In addition, the SuperSonic Imagine Aixplorer MACH<sup>®</sup> ultrasound diagnostic systems and associated transducers are intended for: measurements of abdominal anatomical structures; measurements of broadband shear wave speed, and tissue stiffness in internal structures of the liver and the spleen; measurements of brightness ratio between liver and kidney; visualization of abdominal vascularization, microvascularization and perfusion; quantification of abdominal vascularization and perfusion. The shear wave speed, beam attenuation, viscosity and stiffness measurements, the brightness ratio, the visualization of vascularization, microvascularization and perfusion, the quantification of vascularization and perfusion may be used as an aid to clinical management of adult and pediatric patients with liver disease. It is intended for use by licensed personnel qualified to direct the use of the medical ultrasound devices. CE certificate no. 26415, FDA cleared K180572.