Aixplorer™ MultiWave Ultrasound System
An Innovation in Breast Ultrasound Imaging
The new wave in breast ultrasound

Aixplorer™ is a next-generation ultrasound system designed specifically for breast imaging. It is the only commercially available system with MultiWave technology, which delivers two waves to better characterize tissue: one wave to ensure impeccable B-mode image quality and ShearWave™ Elastography to display real-time, true tissue elasticity. As a result, Aixplorer can significantly enhance the diagnostic information available to clinicians.

Aixplorer’s SonicSoftware™, the power behind MultiWave technology, benefits from a combination of the most advanced technology in the graphic games industry and the latest generation of multi-core processors to provide an ultrasound system with enhanced speed, accuracy and flexibility. The effect of this innovation is superior B-mode image clarity and an open door to new imaging modalities.

Aixplorer was developed by a team of world-renowned ultrasound industry leaders with your scanning needs in mind. The cutting edge ergonomic design, intuitive control and touch panels, and ultra lightweight transducers and cable are just some of the innovative design features incorporated to optimize the way you work.

The Query/Retrieve function allows technologists to easily retrieve and display prior images.
Impeccable Image Quality
with Extraordinary Features

Aixplorer introduces a new platform that advances the science of ultrasound imaging. SonicSoftware™ is a unique architecture that shifts ultrasound processing from hardware to software, enhancing speed, accuracy and flexibility. With SonicSoftware, Aixplorer provides improved lesion characterization through clarity, improved conspicuity and better delineation of normal and abnormal structures. The use of dual processors contributes to Aixplorer’s superior B-mode image quality, even in simultaneous modes such as Color Flow or Power Doppler.

Aixplorer incorporates several innovative software processing features to increase diagnostic confidence through industry-leading image quality.

**SuperCompound™ – Designed for Clarity**
Never before has spatial compounding been so clear and fast. SuperCompound has up to 9 beam steered angles of insonification that are combined into one single image, all captured in SonicSoftware. This technology provides you with images that have incredible definition and continuity of tissue borders, reduced speckle and amazing contrast resolution.

**SuperRes™ – Improving Conspicuity**
Aixplorer offers powerful proprietary adaptive image processing reducing speckle and enhancing borders without compromising spatial resolution. Novel to the industry, SuperRes offers 4 levels of adjustment to improve conspicuity of tissue.

**TissueTuner™ – Speed of Sound Corrector**
All breasts are different and Aixplorer recognizes this, offering you 5 settings of tissue density to adjust the systems parameters to accurately match the speed of sound in the tissue being scanned. Tissue Tuner increases lateral and contrast resolution, resulting in sharper borders and a better delineation of normal and abnormal structures.

**Tissue Harmonic Imaging**
Our broadband technology delivers extremely high resolution Tissue Harmonic Imaging which significantly reduces image artifacts and provides better contrast resolution. This technology can increase your diagnostic confidence.

**Auto TGC**
Auto TGC provides a unique single touch function to obtain uniform brightness while optimizing time gain compensation automatically. This easy-to-use feature places the latest technology at your fingertips to deliver consistent image quality. In addition, Aixplorer has Manual Touch TGC controls that are activated from the touch screen.

**Color Doppler**
Aixplorer Broadband Color Doppler delivers sensitive flow imaging in both superficial and deep structures. As an industry first, simultaneously while in Color Flow imaging, Super Compound can be selected to insure excellent B-mode image quality is retained.
Sophisticated Features
for Intuitive Use

Aixplorer introduces a next-generation operator control panel. This modern and intuitive control panel will enable operators to deliver consistent, high-quality images that increase exam quality and improve workflow. The new Query/Retrieve function allows technologists to easily retrieve and display prior images, enhancing productivity and streamlining workflow.

Aixplorer is at the forefront of ergonomics and provides the optimal working conditions for your clinical team. From the height-adjustable control panel to the integrated palm rests, Aixplorer offers an array of design features essential for reducing the chance of work-related injury.
Real-Time ShearWave™ Elastography for True Local Tissue Assessment

Imaging true tissue elasticity can provide important additional information about the lesion. With its patented ShearWave™ Elastography, Aixplorer is the only system that can generate; capture and compute shear wave velocity to display a real-time, color-coded map that illustrates true local tissue elasticity.

Previous generations of strain/stress elastography requires the operator to manipulate the transducer, making the results subjective and operator dependent. Aixplorer’s patented ShearWave elastography removes operator variability by simultaneously using ultrasound and shear waves to compute and display a tissue stiffness map. As a result, Aixplorer provides reproducible results that are user-skill independent, making it easier to assess, compare and follow a lesion over time.

SonicTouch™
SonicTouch is a safe, patented technology that enables the creation of shear waves in the body. With the Aixplorer SuperTransducer family a shear wave is generated within tissue by sending focused ultrasound waves. Pulses are successively focused at different depths in tissue at supersonic speed. The resulting waves are naturally enhanced in a Mach Cone form which increases shear wave propagation efficiency.

UltraFast™ Imaging
UltraFast Imaging is a revolutionary technology that captures the shear wave propagation in tissue. To capture a shear wave, acquisition rates must be at least 5,000 Hz. Aixplorer functions at speeds of up to 20,000 Hz.

UltraFast Imaging speeds are created by transferring beam formation and scan conversion to software and introducing parallel processing. One complete B-mode image can be generated from one flat insonification at an acquisition rate of up to 20,000 frames per second.

ShearWave™ Elastography Map
Aixplorer produces an elastography map, which shows the elasticity or stiffness in tissue by color. Stiff lesions appear as red, while soft lesions appear as blue. The two-dimensional map can be displayed in several formats.
Septated Cysts within dense breast tissue

Solid lesion with irregular borders and shadowing

Intraductal Papilloma

3D Coronal multi-plane display

Retroareolar visualization of ducts

Solid lesion with ShearWave Elastography

Exceptional image quality
When you purchase an Aixplorer™ MultiWave Ultrasound System, you purchase so much more than a best-in-class product. You also gain the resources and comprehensive solutions of a global company committed to helping you maximize your investment every step of the way. We are driven to provide superior products and service by raising the bar on support before, during, and after the sales through our dedicated teams.

When your system is delivered, one of our Clinical education specialists will visit your site to provide comprehensive hands-on training. This knowledgeable resource will continue to be available to you whenever you have a question or need additional assistance.

We are committed to providing you with ongoing support, from our educational opportunities in our own Ellenbogen Center for Health Sciences Education and at other locations around the world, to on-line CME events*, to our robust customer service support.

Hologic is singularly dedicated to women’s healthcare. Our commitment to finding and fighting breast cancer is unmatched by any other company. And we are just getting started.

**So please join us. Together we can improve the lives of women everywhere.**

* Supported by unrestricted educational grants by Hologic.
Hologic is defining the standard of care in women's health. Our technologies help doctors see better, know sooner, reach further and touch more lives. At Hologic, we turn passion into action, and action into change.