

Ensuring Better User Experience

By integrating technological aesthetics into ergonomic product design, the Resona A20 offers clinical experts high-definition image displays and a more convenient and efficient scanning experience for clinical diagnosis. Additionally, the power solution supporting battery scanning and an electronic motor expands the clinical application scenarios of ultrasound diagnosis.



Resona A20

Premium Ultrasound System for Radiology

Reveal What Matters



Reveal What Matters

By revealing the unseen, we empower you to embark on a transformative journey of discovery and understanding, enabling a deeper comprehension of human body and the world around us.

Driven by this mission, Mindray is about to release the premium ultrasound system - Resona A20. Powered by the Acoustic Intelligence Technology platform, it has pushed ultrasound imaging performance to a new level, helping clinical experts to achieve accurate diagnosis and academic exploration. Together, we can explore new horizons and push the boundaries of medical knowledge.

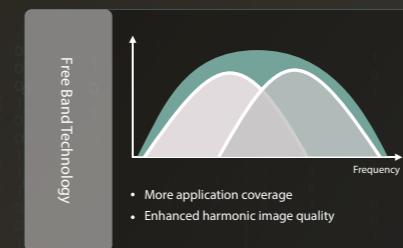
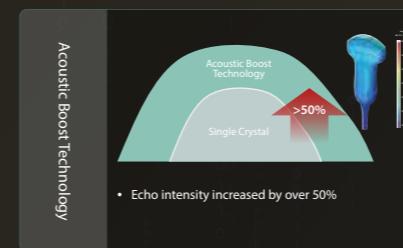


AIT Platform

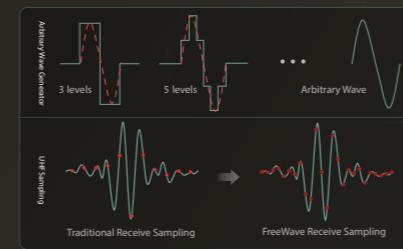
Acoustic Intelligence Technology

The AIT Platform has achieved significant advancements in acoustic and electrical data, imaging algorithms, and system computing power. High-quality acoustic and electrical data are ensured by the AFM Transducer and FreeWave Tx/Rx Technology. Additionally, FreeBeam Beamforming and FreeIQ Intelligent Image Processing technology are dedicated to faithfully revealing tissue details.

AFM Transducer Technology



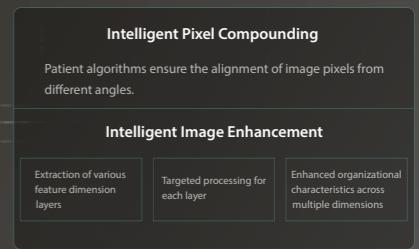
FreeWave Tx/Rx Technology



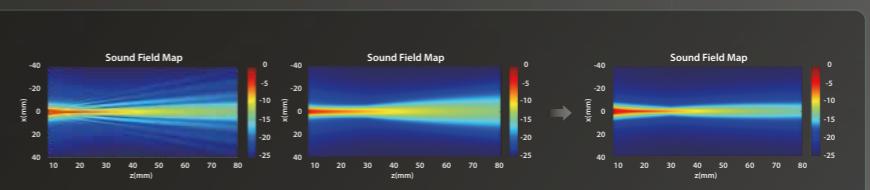
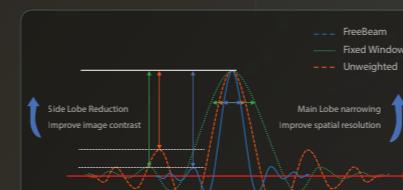
Hyper Parallel Computing



FreeIQ Processing Technology



FreeBeam Beamforming Technology



AFM Transducer
FreeWave Tx/Rx

Data

Acoustic
Intelligence
Technology

Algorithm

Computing
Power

FreeBeam Beamforming
Free IQ Image Processing

Hyper Parallel Computing

Fundamental Imaging Details

Based on the AIT platform, Resona A20 provides clinicians with superior ultrasound imaging clarity for difficult clinical disease diagnosis. HD Scope⁺ is based on the innovative adaptive beamforming technology, which further reveals the tiny details of lesions with powerful ultrasound diagnostic capabilities.

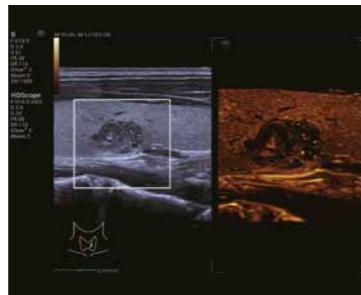
AFM Transducers

Mindray's next-generation transducers incorporate advanced technologies to enhance energy conversion efficiency, provide ultra-wideband coverage, and improve acoustic focusing capabilities, ensuring precise clinical diagnoses.

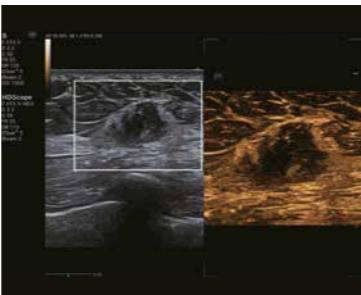


HD Scope⁺

Powered by FreeBeam beamforming technology from the AIT platform, HD Scope⁺ can extract more effective echo information. Depending on specific clinical needs, target-focused image enhancement is achieved using FreeIQ processing technology. HD Scope⁺ and B-mode provide dual live imaging, revealing intricate details of lesions for deeper clinical insights.



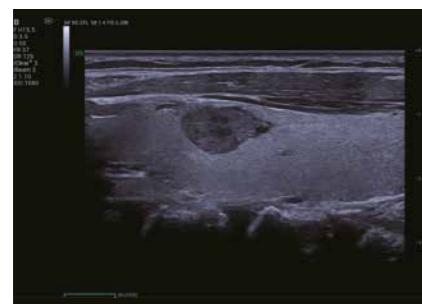
Thyroid Nodule



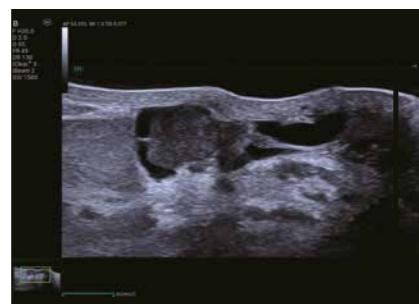
Breast Lesion

Ultra High Frequency Imaging

Resona A20's 18MHz, 24MHz and 33MHz transducers with AFM Transducer Technology are able to provide intricate details and definition of lesions for a wide range of applications.



Thyroid Nodule LM18-5WU



Breast Intraductal Papilla LM24-6WU



Median Nerve L33-8U

Microcirculation Information

Advancements in ultrasound technology have significantly broadened the scope of observable blood flow with unprecedented clarity. Resona A20 achieves this breakthrough based on the integration of cutting-edge techniques such as UMA, HiFR CEUS and Super Resolution CEUS. Ultimately they will enable clinical professionals to perform early detection of microcirculatory alterations in pathological lesions and rapid assessment of therapeutic responses, thereby improving patient outcomes through timely diagnosis and treatment decision support.

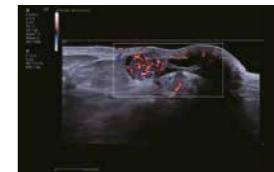
UMA

The newly upgraded UMA captures minute low-speed blood flow with high sensitivity, high spatial resolution, and excellent motion artifact control. This enhancement has the potential to significantly improve diagnostic efficiency for organ perfusion evaluation and Tumor vascular architecture evaluation.

High sensitivity

High resolution

Better motion artifacts control



Breast Intraductal Papilla UMA



Renal vascularity UMA

HiFR CEUS

HiFR CEUS offers ultra-fast imaging compared to traditional methods. By capturing detailed perfusion in the arterial phase, it enhances tumor diagnosis and the study of perfusion morphology.

6-8 times faster CEUS

More clear perfusion details in the arterial phase

Study on perfusion morphology of tumors



HCC HiFR CEUS

Super Resolution CEUS

Powered by the AIT platform, the Resona A20 delivers an all-in-one integrated solution for super-resolution imaging, a capability previously difficult to achieve. SR CEUS reveals the intricate microcirculation details of lesions at the micron level, aiding in microcirculatory perfusion studies in oncology.

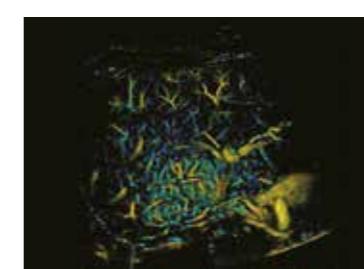
Micron level resolution

Microvascular detection capabilities

Quantification tools



Focal Nodular Hyperplasia | Density Map



Focal Nodular Hyperplasia | Direction Map



Focal Nodular Hyperplasia | Velocity Map

Biological Character Assessment

The integration of biological character analysis into ultrasound imaging has brought about a revolution for non-invasive, quantitative understanding of tissue properties and pathological changes. Resona A20 leverages state of the art techniques such as Sound Touch Elastography, STVi, USAT and M Reference to extract tissue stiffness, viscosity and attenuation information. Furthermore Mindray's multi-parametric ultrasound solution integrates these comprehensive tools together in real time, elevating clinical assessment from single parameter evaluation to Multi-parametric combined analysis, ensuring more objective and accurate diagnoses.

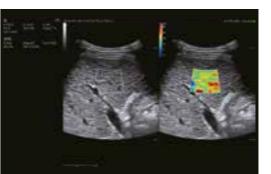
Sound Touch Elastography

STE pushes the boundaries of image performance. With multiple quality control and intelligent tools, it intuitively and quantitatively evaluates tissue stiffness, making it highly effective for liver fibrosis and breast tumor assessments.

Superior imaging performance

Multiple quality control tools

Smart tools



Liver Cirrhosis STE

STVi

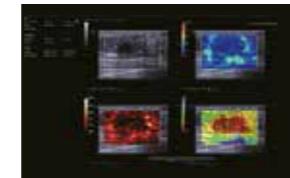
STVi enables the quantitative evaluation of tissue viscosity and provides real-time multi-parameter imaging, offering a more comprehensive approach to imaging diagnosis and quantitative analysis of chronic liver disease, breast lesions, and other conditions.

Dual quantitative coefficients

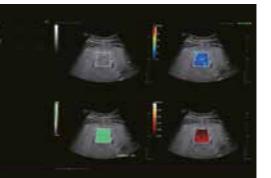
Multiple quantification tools

Chronic liver disease assessment

Breast tumor assessment



Breast Lesion STVi



Liver Fibrosis STVi

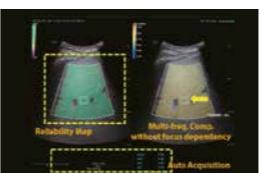
USAT

The USAT is a novel technology designed for non-invasive, quantitative assessment of liver fat content. It makes use of bio-acoustic imaging to provide real-time visualization, accurate measurements of hepatic steatosis, offering significant feasibility over traditional methods like liver biopsy.

More consistent measurements

More intuitive quality control

More efficient acquisition



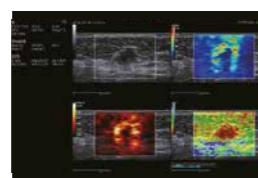
M Reference

M Reference is a multi-parametric combined analysis tool that enables real-time, same-slice, and same-screen MPUS diagnosis. Unlike traditional single ultrasound imaging, it offers multi-dimensional diagnostic information and quantitative evaluation indicators for diseases.

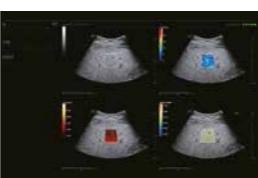
Multi-parametric combined analysis

Multi-parametric quantification tools

Real-time, one-screen assessments

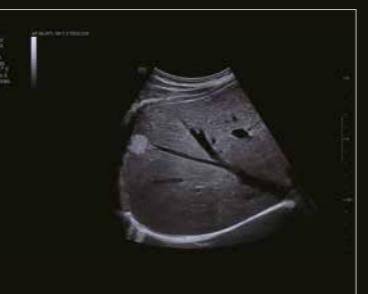


Multi-parametric combined analysis



Multi-parametric quantification tools

A New Level of Image Clarity



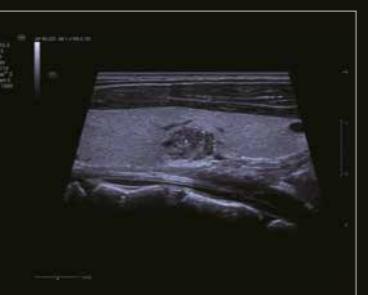
Hemangioma
B Mode



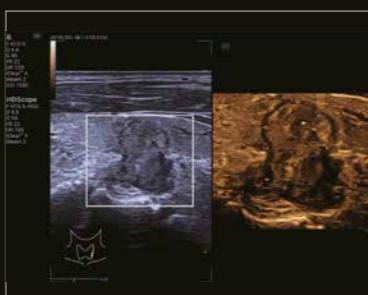
Hemangioma
HD Scope⁺



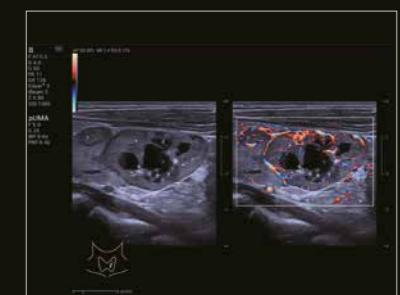
Liver Cancer
UMA



Thyroid Nodule
B Mode



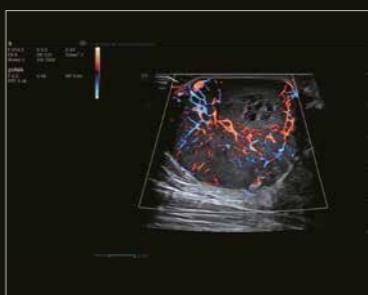
Thyroid Nodule
HD Scope⁺



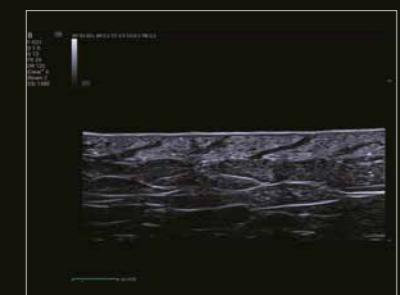
Thyroid Nodule
UMA



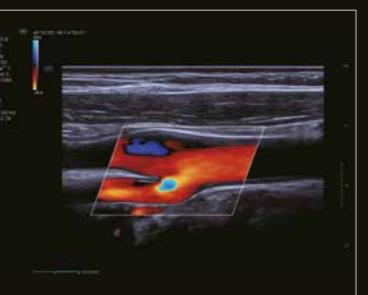
Breast Cancer
B Mode



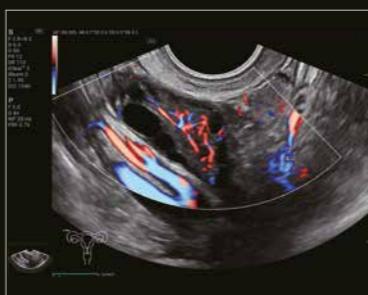
Metastatic Lymph Node
UMA



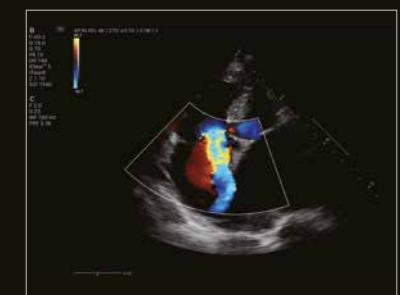
Hair Follicles
B Mode



Carotid Duplex
CDFI



Ovarian Blood Flow
Power Doppler



Cardiac Regurgitation
CDFI