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Resona R9

Premium Ultrasound System for Radiology

A new leap for precision ultrasound

Powered by ZST+

A new leap for precision ultrasound

Nowadays, more and more challenging cases and heavy workloads are driving senior radiologists to explore new ways to become more confident and productive in their clinical practice. Additionally, increasing demands for minimally invasive treatments demand greater precision and safety for interventional ultrasound procedures.

Whether they are routine or difficult cases, Resona R9 has been designed for radiologists to take a new leap for precision ultrasound. Powered by the revolutionary ZONE Sonography® Technology (ZST), Resona R9's advanced ZST+ platform elevates ultrasound image quality to a higher level through zone acquisition and channel data processing.

Resona R9 provides more advanced tools for confident diagnoses. High frame rate CEUS and high frame rate STE bring you new tools to enhance diagnostic confidence, while automated tools like Smart Breast and Smart HRI help to accelerate your daily workflow. For interventional ultrasound, the exclusive uHIT solution enables comprehensive fusion-based 3D percutaneous ablation with greater precision and security. If precision diagnostic and interventional ultrasound is all you need, Resona R9 is the key to taking a new leap.

It rises.

With core platform advantages of ZST+

The channel data based ZST+ is an extraordinary innovation, representing an ultrasound evolution, transforming ultrasound metrics from conventional beamforming to channel data based processing. Equipped with advanced algorithms, ZST+ is able to deliver exceptional image quality in a variety of clinical scenarios. Financially, this living technology provides you non-stop improvements that deliver extraordinary investment value.

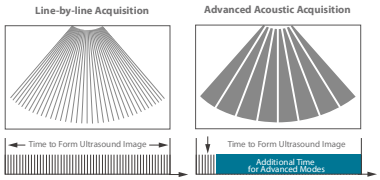
Powered by ZST+

Total Recall Imaging

As ZST+ captures and stores the complete acoustic raw data set, Total Recall Imaging allows the system to perform retrospective processing on channel data and also permits users to modify numerous imaging parameters on stored images to maximize clinical output.

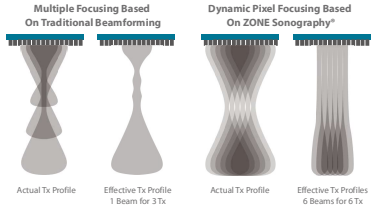
Advanced Acoustic Acquisition

By transmitting and receiving a relatively smaller number of large zones, Advanced Acoustic Acquisition extracts more information from each acquisition and is 10 times faster than a conventional line-by-line beamforming method.



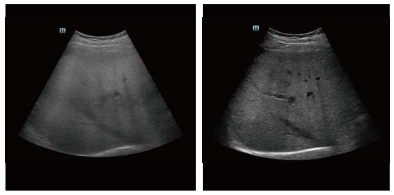
Dynamic Pixel Focusing

Dynamic Pixel Focusing technology allows the Resona R9 to achieve high levels of uniformity at the pixel level throughout the entire field of view. Now there's no need to adjust focal positions to achieve uniformity across patient exams.



Sound Speed Compensation

By retrospectively analyzing complete channel data stored in channel data memory, the Resona R9 is able to automatically choose the optimal sound speed to improve image accuracy even with tissue variation, allowing for adaptive tissue-specific optimization.

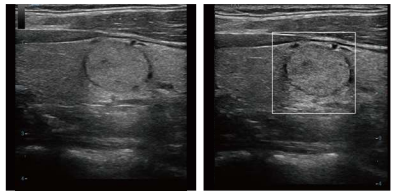


SSC OFF SSC ON

Enhanced Channel Data Processing

Channel data based ZST+ provides Enhanced Channel Data Processing for greatly improved imaging clarity. Through multiple and retrospective channel data processing, it makes the best use of acoustic information for image improvement.

- **HD Scope:** higher definition image within ROI.

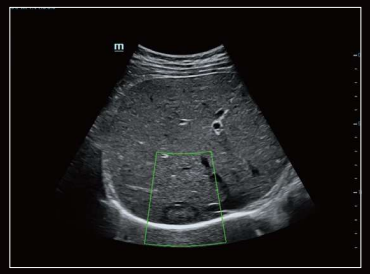


HD Scope OFF HD Scope ON

It releases.

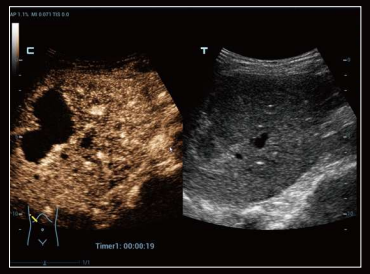
A new standard of image clarity

Better vision means deeper understanding. Based on the cutting-edge ZST+ platform, Resona R9 redefines a new standard of image performance to meet the needs of challenging clinical practices.

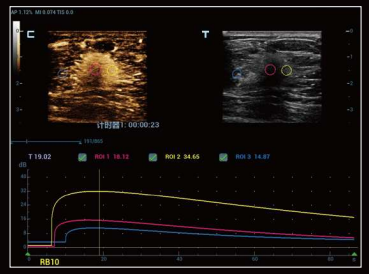


Liver Mass with HD Scope

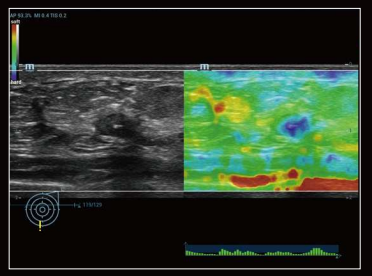
Hyperplasia Of Mammary Glands



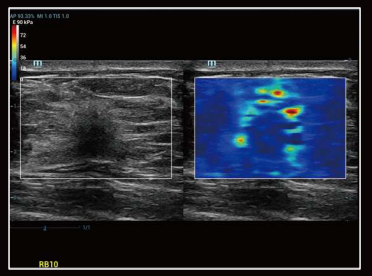
CEUS of Liver Hemagioma



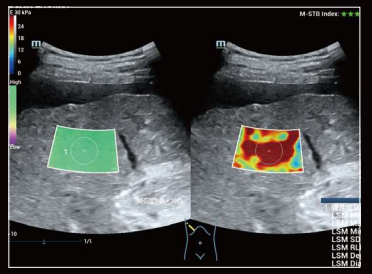
CEUS TIC of Breast Carcinoma



Strain Elastography of Breast Mass

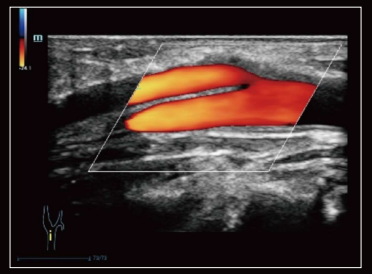


STE of Breast Carcinoma



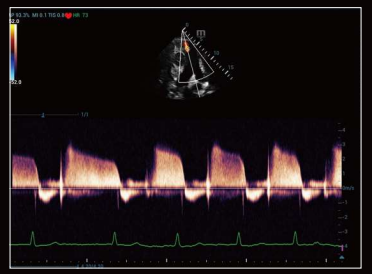
STE of Liver Cirrhosis

Glazing Flow of Renal Artery

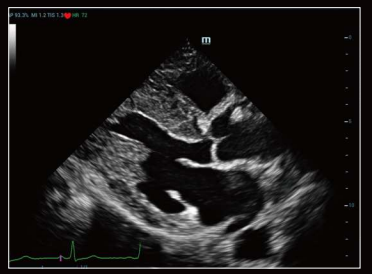


CCA and Jugular Vein

CCA IMT



Cardiac Pulmonary Regurgitation



Cardiac HCM

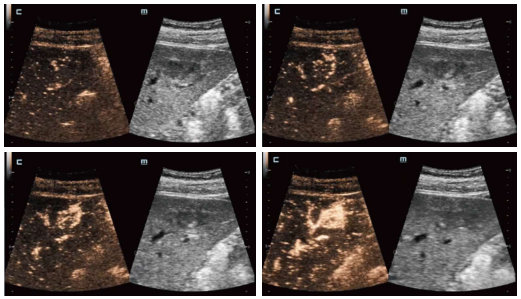
It progresses.

Innovative clinical tools for confident diagnosis

Advanced CEUS

With UWN+ Contrast Imaging, Plane-Wave-Based CEUS, Micro Flow Enhancement and the new High Frame Rate CEUS (HiFR CEUS) technologies, Resona R9's advanced CEUS portfolio defines a new, unprecedented way to assess perfusion dynamics and angiogenesis in a wide range of clinical applications.

- **HiFR CEUS**: 4-17 times faster than traditional CEUS, enables more detailed vascular structure and perfusion character visualization in arterial phase, particularly useful in differentiating benign and malignant tumor.
- **Micro Flow Enhancement**: Delineates the detailed microvascular structure of tumors for early cancer diagnosis and provides independent prognostic data for clinical staging.

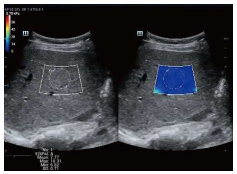


Liver HCC in arterial phase
HiFR CEUS：37 FPS

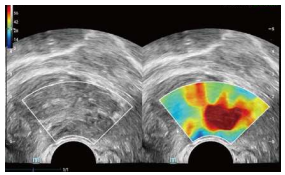
Comprehensive Elastography

Resona R9's comprehensive shear wave (STE/STQ) and strain elastography (NTE) imaging provide you tissue stiffness information from head-to-toe. High frame rate STE enables smoother and more consistent STE, bringing more confidence in diagnosis. The exclusive elasticity tools enable dedicated shell analysis and better motion control.

- **Full application**: Thyroid, breast, abdomen, MSK and prostate
- **Complete STE/STQ/NTE**: Comprehensive 2D real-time shear wave, point shear wave and strain elastography
- **High-performance shear wave**: High frame rate STE, with good penetration and high reproducibility, zero cooling time
- **Exclusive elasticity tools**: Shell analysis for infiltration area assessment, M-STB index for motion control



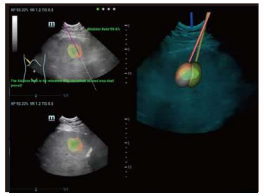
STE of Liver Fibrosis



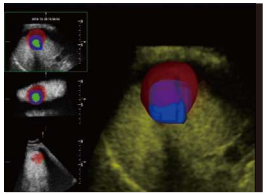
STE of Prostate Carcinoma

Ultrasound-guided Hepatic Interventional Therapy (uHIT)

The advanced fusion-based 3D ablation tool elevates your liver percutaneous ablation procedure to the next level. The 3D ablation planning and 3D ablation guidance enable more accurate and intuitive 3D view planning with less experience dependency. The 3D ablation instantly provides 3D ablation assessments with no dead ends.



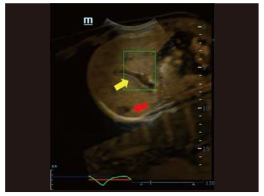
Two needle 3D ablation planning in HCC uHIT Navi



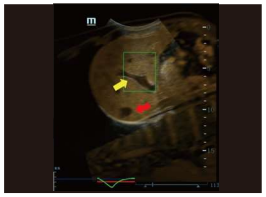
3D ablation evaluation in RFA uHIT evaluation

iFusion with Respiration Compensation

Bringing the precision of fusion imaging to a new level, Mindray's pioneering, innovative and exclusive respiration compensation technology - supported by a sensitive magnetic motion sensor with accuracy to the millimeter can help eliminate distortion and fusion inaccuracy caused by patient respiration.



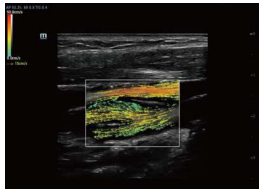
iFusion without Respiration Compensation



iFusion with Respiration Compensation

V Flow

V Flow (Vector Flow) is a novel approach to vascular hemodynamic analysis. V Flow uses color-coded vector arrows to indicate the velocity's magnitude and direction of blood cells. With an ultra-high frame rate, it provides extremely vivid, accurate and angle-independent visualization of complex vascular hemodynamics profiles. With comprehensive data information, V Flow is an invaluable tool for vascular clinical research.



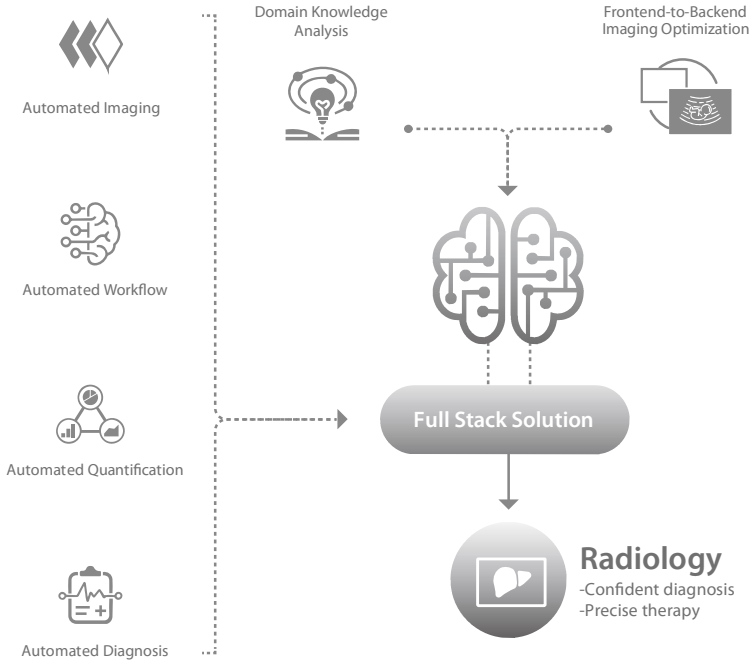
V Flow of Carotid Bulb and JV

V Flow of CCA and ICA

It leads.

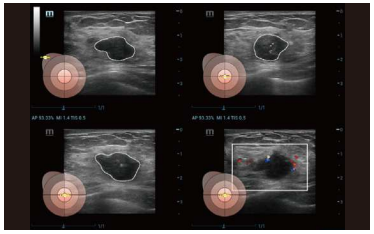
Forwarding smart to clinical routine

The Resona R9 elevates clinical routine to a new level with automated solutions that enable clinicians to manage both routine and advanced studies more efficiently, consistently, and accurately, from acquisition to calculation. As an example, Smart Breast provides an automated workflow for accurate breast ultrasound classification and reporting.



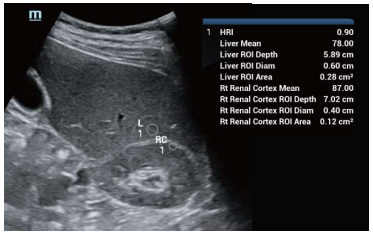
Smart Breast

Smart Breast is an automated breast ultrasound classification and reporting tool to make your clinical routine of breast ultrasounds more accurate and productive, while 4-planes based BI-RADS analysis enables more comprehensive and accurate breast lesion classification. Meanwhile, the streamlined automated workflow enables more productive breast scanning.



Smart HRI

Smart HRI is an automated liver steatosis assessment tool that works by automatically calculating brightness of the liver relative to the renal cortex in B mode. Quantitative analysis of fatty liver delivers more reliable and accurate data than traditional qualitative estimation. Additionally, one-push-button liver and renal cortex recognition enables fast and easy-to-use liver steatosis assessment.



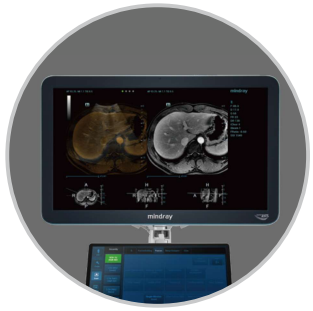
It senses.

Ensuring a better user experience

The Resona R9 is designed around you. The 13.3" high resolution gesture control touch screen enables an agile, smart, and intuitive user experience beyond your expectations. Its silence scan reduces acoustic pressure in clinical routine by up to 44%. The standby battery provides power for the system for up to 24 hours in standby mode. Inspired innovations drive a better user experience.

13.3" gesture control touch screen
High resolution(1920x1080) LCD
anti-glare touch screen

Six-direction floating control panel
With electronic control height adjustment



High resolution LED monitor
with wide angle of view

Silence scan reduces acoustic pressure
in clinical routine by up to 44%*

Standby battery
Standby mode for up to 24 hours

*Data on file, compared with the previous version, results may vary in different test environments.

It resonates.

With innovation, better diagnosis, and healthier lives

Healthcare is, and will remain, one of the pressing challenges facing humanity across the globe. Technology, the core driver in many diverse industries, is transforming healthcare, bringing it to a new level of resonance with unprecedented clinical precision, diagnostic confidence, and patient safety and satisfaction. The same is true for ultrasound technology.

With more than 20 years' experience in ultrasound development, Mindray constantly endeavors to integrate advanced, reliable ultrasound technology to create products of amazing quality, for increasingly enhanced clinical confidence and patient care. Medical minds think alike. By making ultrasound technology better, we are making lives better.