

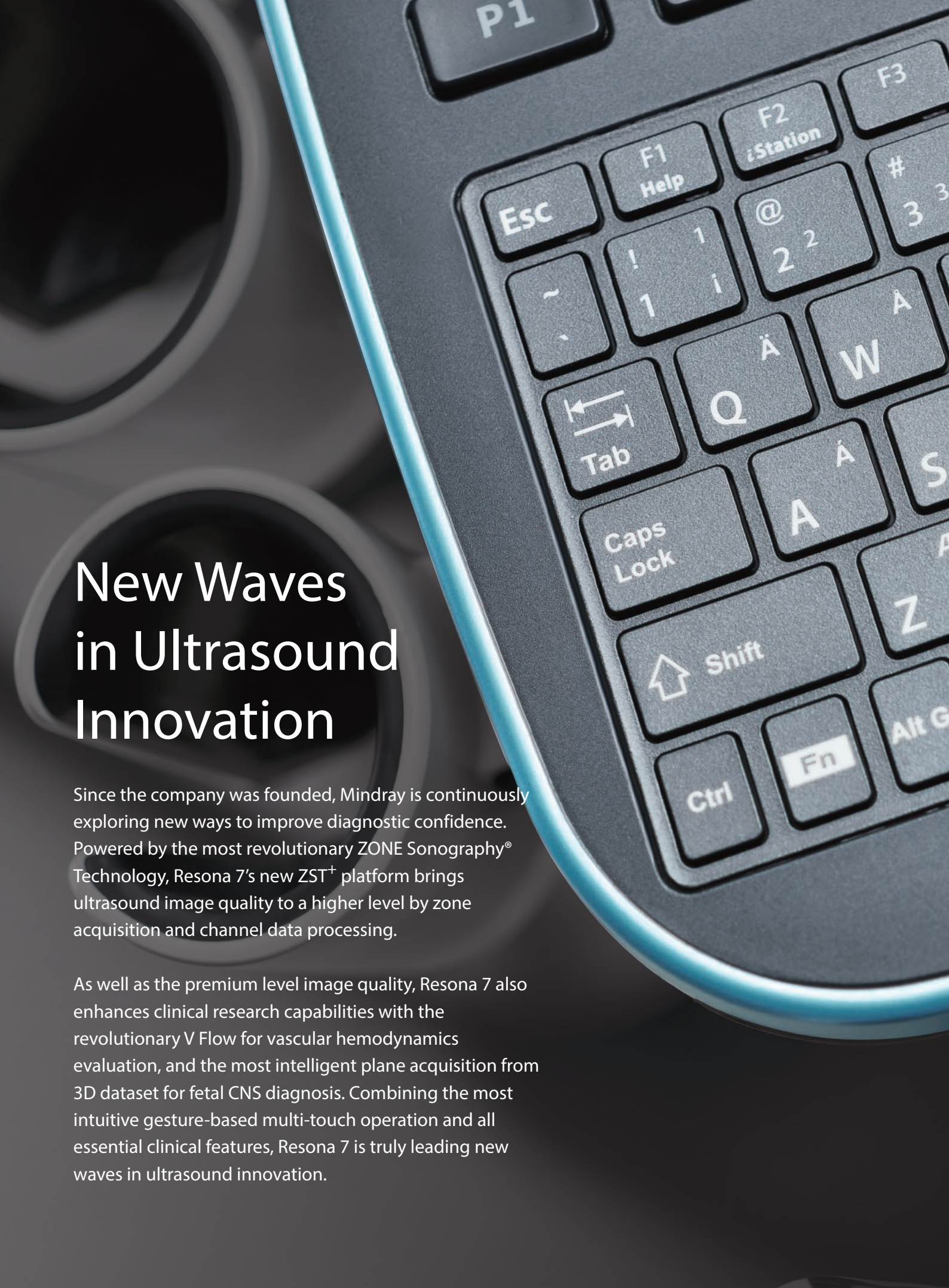
**mindray**  
healthcare within reach

## Resona 7

Premium Ultrasound System

New Waves in Ultrasound Innovation





# New Waves in Ultrasound Innovation

Since the company was founded, Mindray is continuously exploring new ways to improve diagnostic confidence. Powered by the most revolutionary ZONE Sonography® Technology, Resona 7's new ZST<sup>+</sup> platform brings ultrasound image quality to a higher level by zone acquisition and channel data processing.

As well as the premium level image quality, Resona 7 also enhances clinical research capabilities with the revolutionary V Flow for vascular hemodynamics evaluation, and the most intelligent plane acquisition from 3D dataset for fetal CNS diagnosis. Combining the most intuitive gesture-based multi-touch operation and all essential clinical features, Resona 7 is truly leading new waves in ultrasound innovation.





# It rises.

## With core platform advantages of ZST<sup>+</sup>

The channel data based ZST<sup>+</sup> is an extraordinary innovation, representing an ultrasound evolution. Transforming ultrasound metrics from conventional beamforming to channel data based processing, ZST<sup>+</sup> is able to deliver multiple imaging advances: Advanced Acoustic Acquisition, Dynamic Pixel Focusing, Sound Speed Compensation, Enhanced Channel Data Processing and Total Recall Imaging.

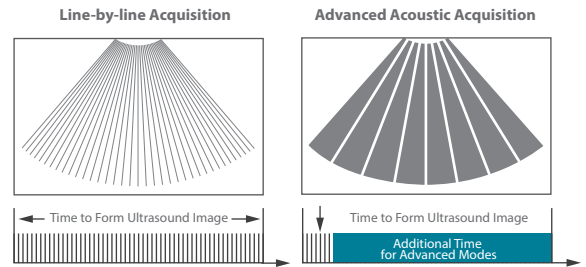
Powered by **ZST<sup>+</sup>**





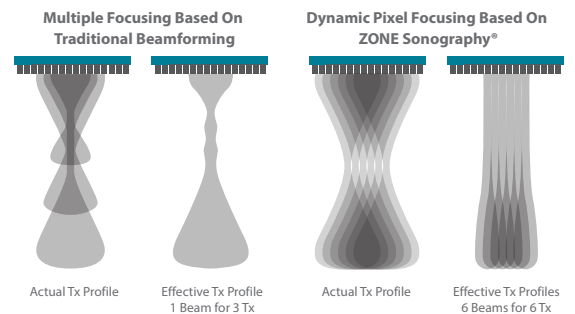
### Advanced Acoustic Acquisition

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



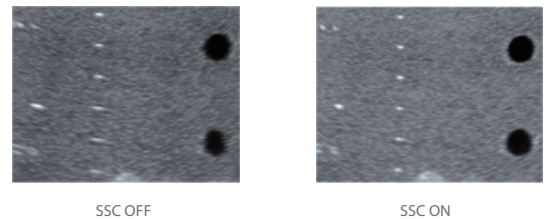
### Dynamic Pixel Focusing

Dynamic Pixel Focusing technology allows the Resona 7 to achieve extreme uniformity in pixel level throughout the whole field of view. Now there's no need to adjust the focal positions to achieve uniformity across patient exams.



### Sound Speed Compensation

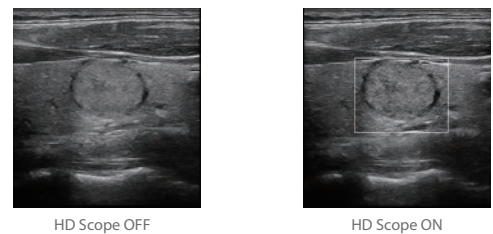
By retrospectively analyzing complete channel data stored in channel data memory, the Resona 7 is able to intelligently choose the optimal sound speed to improve image accuracy even with tissue variation, allowing for adaptive tissue-specific optimization.



### Enhanced Channel Data Processing

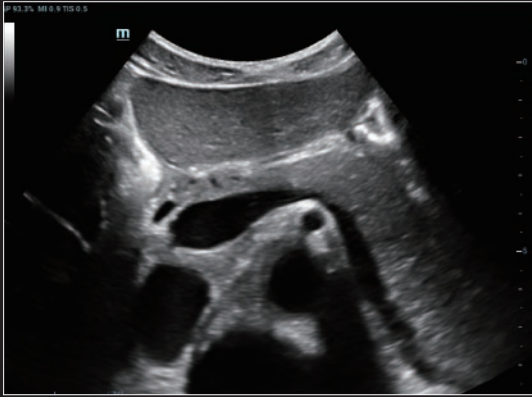
Channel data based ZST<sup>+</sup> provides Enhanced Channel Data Processing for greatly improved imaging clarity. By multiple and retrospective channel data processing, it makes the best use of acoustic information for image improvement.

- **HD Scope:** higher definition image within ROI.
- **Coherent Spatial Synthesis:** further improved image quality of spatial compound.

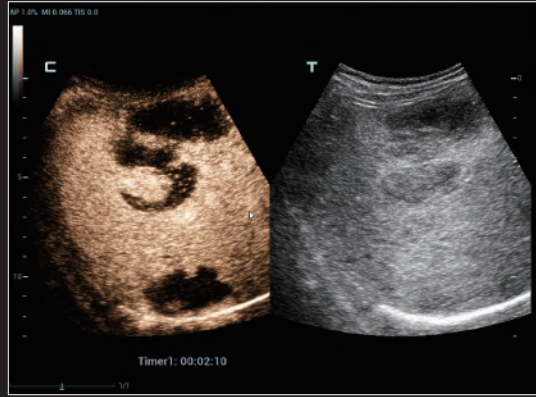


### Total Recall Imaging

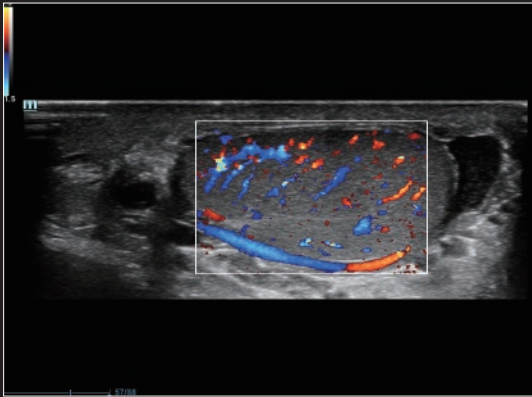
As ZST<sup>+</sup> captures and stores the complete acoustic raw data set, Total Recall Imaging allows system to do retrospective processing on channel data and also permits users to modify numerous imaging parameters on stored images to maximize clinical output.



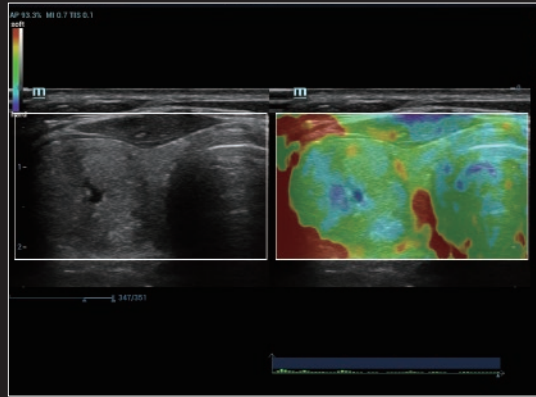
Pancreas



CEUS of Liver Lymphoma



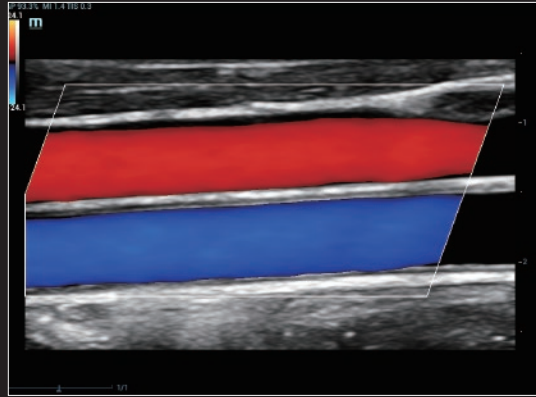
Testicle Perfusion



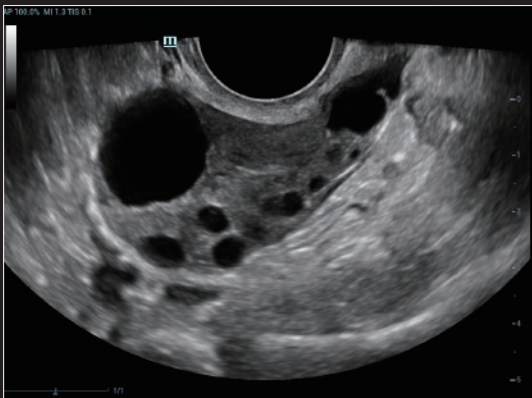
Elastography of Thyroid Mass



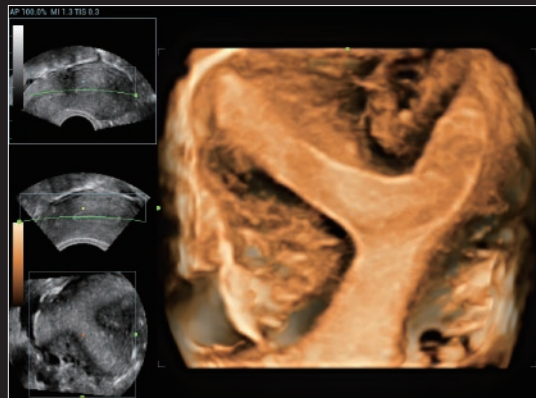
Ankle Trauma



CCA and Jugular Vein



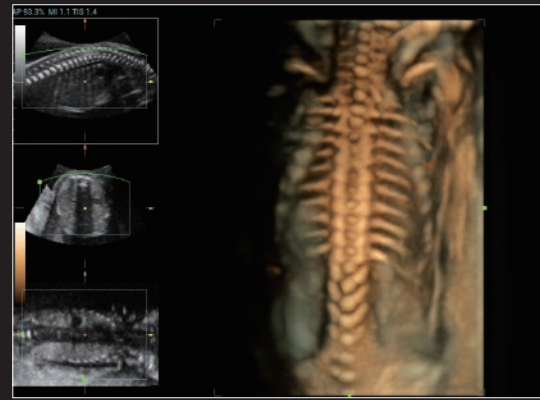
Follicles



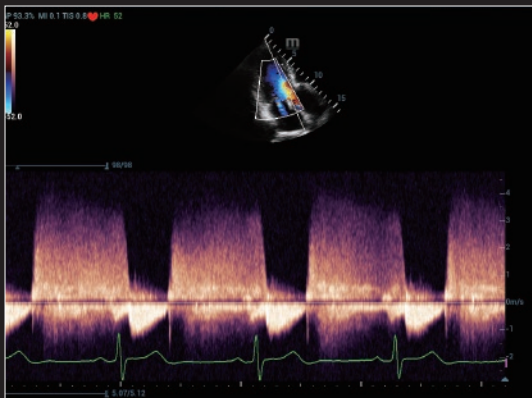
3D Uterus Septus



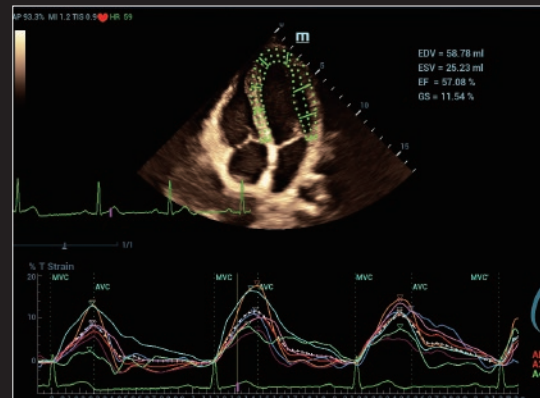
3D Fetal Face



3D Fetal Spine



Aortic Regurgitation



TT QA

# It releases.

## A new standard of image clarity

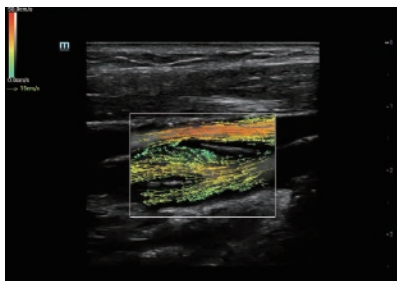
Better vision, deeper understanding. Based on the cutting-edge ZST<sup>+</sup> platform, Resona 7 redefines a new standard of image performance to meet the needs of the most challenging clinical practices.

# It progresses.

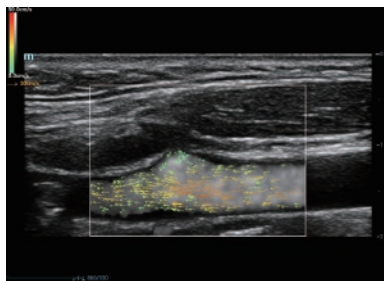
## Innovative clinical tools for confident diagnosis

### V Flow

V Flow (Vector Flow) is a novel approach for vascular hemodynamic analysis. V Flow uses color coded vector arrows to indicate the velocity's magnitude and direction of blood cells. With over 300 frames per second, it provides extremely vivid, accurate and angle-independent visualization of complex vascular hemodynamics profiles. With comprehensive data information, V Flow is the most valuable tool for vascular clinical research.



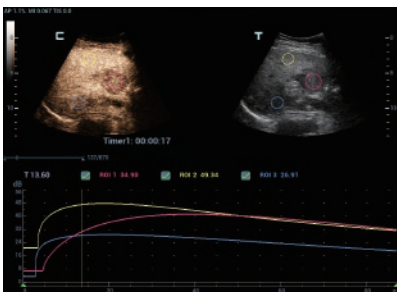
V Flow of Carotid Bulb and JV



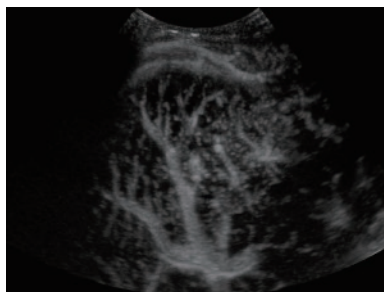
V Flow of CCA and ICA

### UWN<sup>+</sup> Contrast Imaging

UWN<sup>+</sup> (Ultra-Wideband Non-linear Plus) CEUS enables the Resona 7 to detect and utilize both 2<sup>nd</sup> harmonic and non-linear fundamental signals, generating significantly enhanced images, resulting in greater sensitivity of minor signals and longer agent duration with lower MI.



TIC Analysis of CEUS



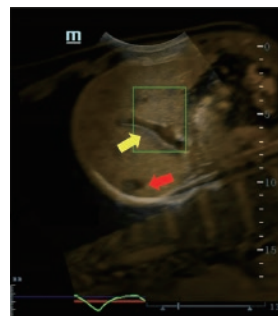
Micro Flow Enhancement





### **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 millimeter accuracy - can help eliminate distortion and fusion inaccuracy caused by patient respiration.



iFusion without Respiration Compensation



iFusion with Respiration Compensation



# It leads.

## Forwarding smart to clinical intelligence

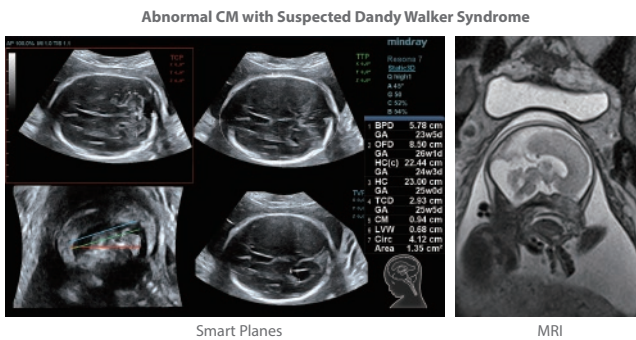
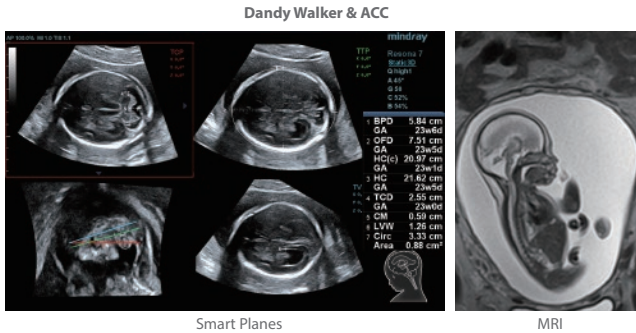
The Resona 7 elevates clinical intelligence to a new level with a complete solution that enables clinicians to manage both routine and advanced studies more efficiently, consistently, and accurately, from acquisition to calculation. As an example, Smart Planes shows exceptional intelligence in accurate diagnosis and analysis of fetal central nervous system (CNS).



## Smart Planes

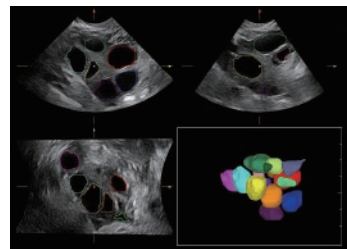
Mindray's exclusive pioneering technology positions the Resona 7 as the industry's first ultrasound system to allow fully automatic and accurate detection of the most significant planes and frequently used measurements of fetal CNS, leading to intelligent diagnosis, improved throughput, and reduced user dependency.

Smart Planes provides a user-friendly tool that greatly improves scanning efficiency through increased accuracy coupled with automated operation. With a simple button click on a 3D fetal brain volume image, the standard CNS scanning planes (MSP, TCP, TTP and TVP) and a range of related anatomical measurements (BPD, HC, OFD, TCD, CM and LVW) are obtained immediately.



## Smart FLC

Smart FLC automatically detects the number of follicles and calculates each volume from a 3D ovarian volume image, assuring accurate assessment of follicles, especially with IVF exams.



Smart FLC

## Smart OB/NT

Automatic measurements of the most frequently examined parameters, including BPD, HC, FL, AC, OFD and even NT as early as 11 weeks, are available with a single click for higher productivity and reproducibility.



Smart NT

# It senses.

## Ensuring a better user experience

The Resona 7 is designed around you. Gesture-based operation opens up a new trend in cart-based ultrasound with an agile, smart, and intuitive user experience beyond your expectations. A six-direction floating control panel with electronic height adjustment provides scanning comfort in any position. Inspired innovations drive a better user experience.







— 21.5"  
high resolution LED  
monitor

— 12.1"  
tilting multi-gesture  
touch screen

— 6  
direction floating control  
panel

— Gel warmer with  
temperature control

— Pinless transducer  
with light indicator

— Central and swivel lock



A. Power



Volume

P1 P2 P3 P4 Elasto Fusion Contrast iWorks

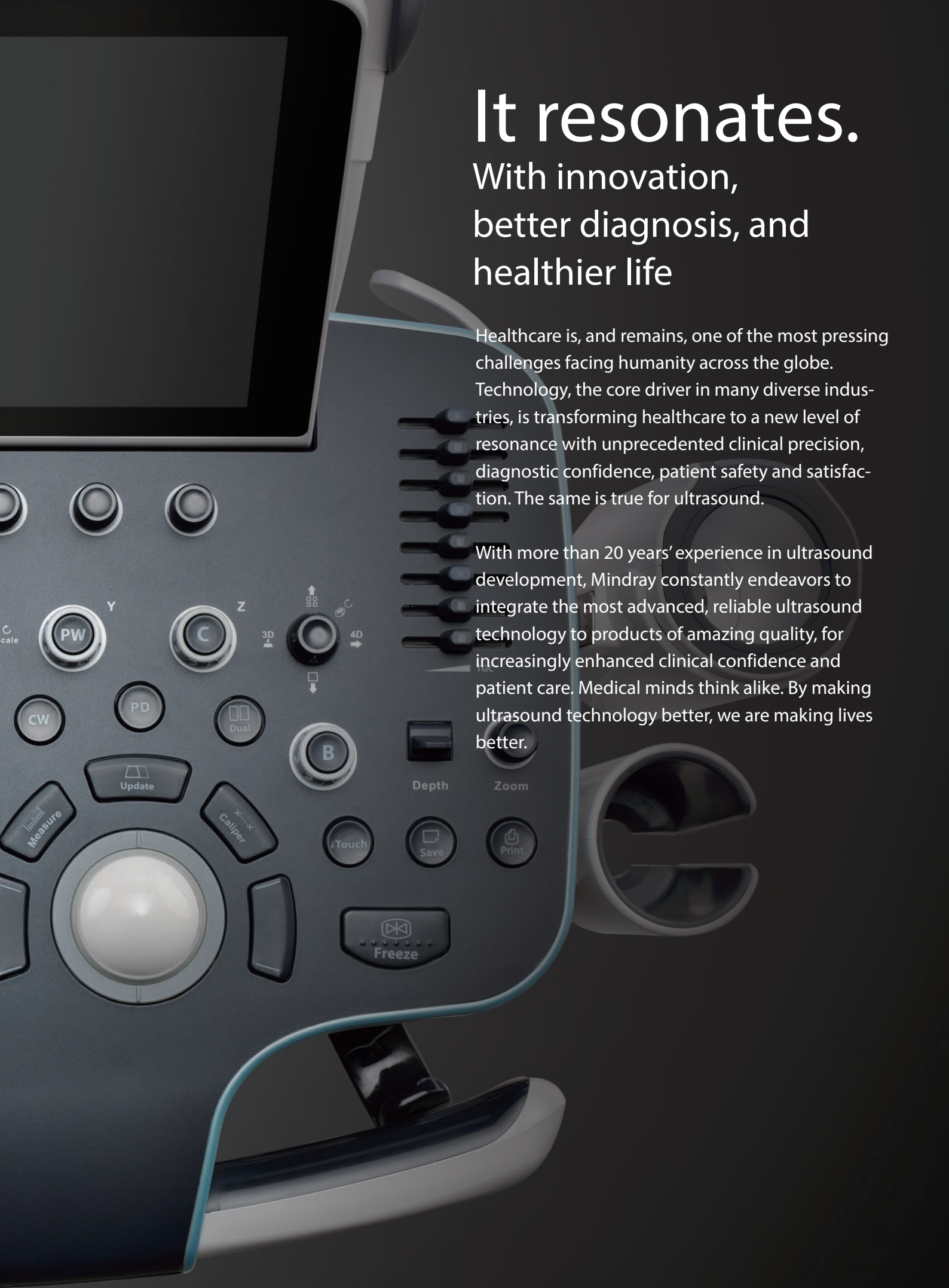
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~	! 1	@ 2	# 3	\$ 4	% 5	^ 6	& 7	* 8	( 9	) 0	- ¥	+ ÷	←	Back
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Ctrl	Fn	Alt Gr	Del	ABC Comment			Body Mark	Arrow	Home	Home	↓ PgDn	→	End	



Baseline







# It resonates.

With innovation,  
better diagnosis, and  
healthier life

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

With more than 20 years' experience in ultrasound development, Mindray constantly endeavors to integrate the most advanced, reliable ultrasound technology to 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.



With over 20 years of experience, Mindray hosts a wide range of ultrasound imaging solutions including cart-based and portable systems. Being exported to over 190 countries, Mindray ultrasound systems are today being used by medical professionals for general as well as highly dedicated clinical utility. With a global R&D base spanning over Asia, Europe and America, the ultrasound solutions by Mindray are a result of an integral cooperation with the medical community, allowing for the ultrasound systems to be extremely user centric in terms of performance and usability. Mindray is well positioned to become one of the leading ultrasound imaging solutions provider.

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