

ULTIMUS^{9E}

UltraFast Intelligent Ultrasound



VINNO Technology (Suzhou) Co., Ltd.

No. 65 Xinqing Road, Suzhou Industrial Park, 215123, Jiangsu, China

Tel: +86 512 62873806

Fax: +86 512 62873801

Email: vinno@vinno.com

Website: www.vinno.com

VINNO reserves the rights to revise the technical specifications if needed.

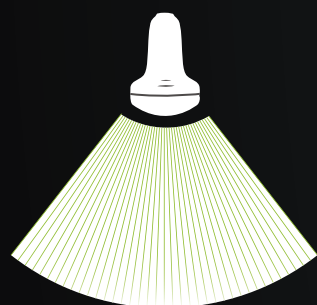


Scan for
product video

Version 1.51.30

ULTIMUS

The Ultimus 9E is equipped with VINNO's revolutionary MUSE platform, with the unique Tri-modal Imaging Acquisition (TIA). Its flexibility and powerful processing allow the system intelligently apply the most appropriate imaging acquisition mode from 3 modalities: Line acquisition, Zone acquisition and Multi-plane acquisition, to reconstruct the best imaging presentation.



Line acquisition



Zone acquisition



Multi-plane acquisition

Powered by
MUSE





Fast

Performed by multiple tilted plane waves at imaging frame rates up to 20,000 per second, is averagely 300 times faster than conventional. This speed allows for a full new range of applications and innovations in ultrasound imaging.

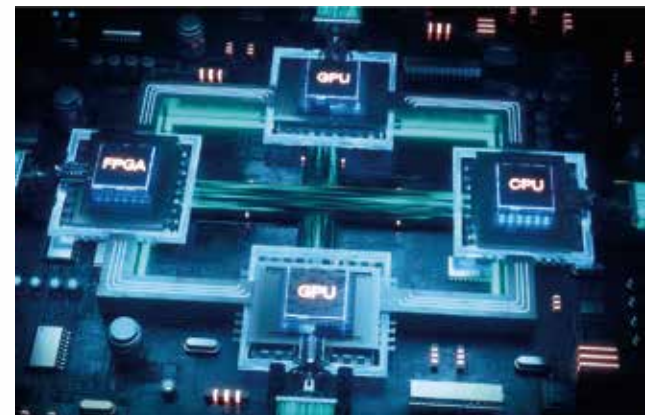




Forefront

enhanced Parallel Processing Chain (ePPC)

Built upon the ePPC, MUSE technology leverages the processing power of 2 GPUs combining with FPGA & CPU as a software-based beamforming Heterogeneous System Architecture (HSA), to enable full parallelization of image formation. Eachinsonification can therefore lead to a full image.

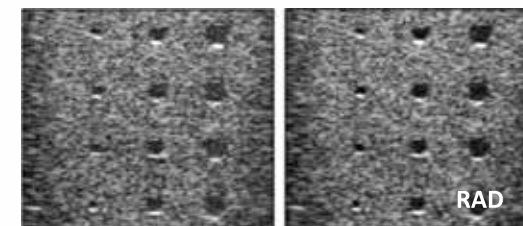


Ultimate Image Processing



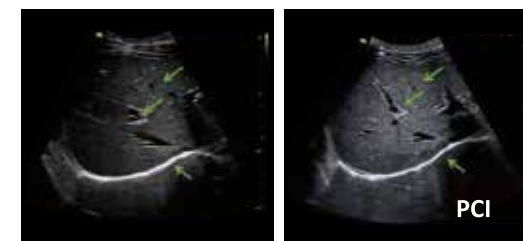
Real-time Adaptive De-noising (RAD)

The innovative acquisition technique combines multiple plane wave transmit signals to excel the conventional transmit performance. This improves the signal-to-noise ratio by about 8 decibels and results in a significant noise reduced data without compromising the frame rate.



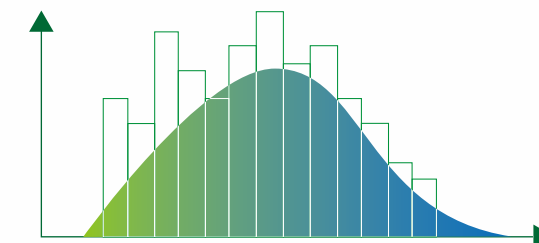
Planar Compound Imaging (PCI)

The received signals from the scan fields are time-shifted and compounded to pixel level of the entire field of view. This retrospective transmit field focus localization technique results in 20% more acoustic data acquired to form images with superior lateral border definition and contrast resolution than conventional compound imaging.



Dynamic Signal Enhancement (DSE)

The weak signals from the far field are enhanced multiple times when the signals are combined, providing increased lateral resolution and contrast at the greater depths of field.



Fluent

Microvascular Flow Imaging

Super Micro Flow (SMF)

SMF leverages plane wave imaging and advanced computing to enhance wall filtering, enabling better detection of low-speed blood flow and clearer microvascular visualization.



Thyroid SMF + VLuminous Flow



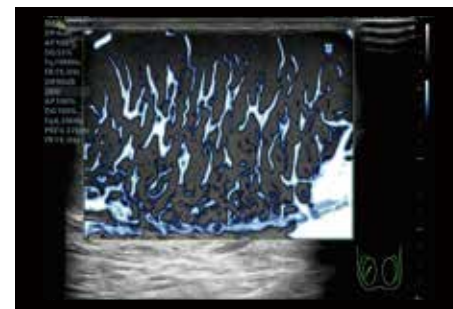
Lymph nodes SMF



Liver SMF



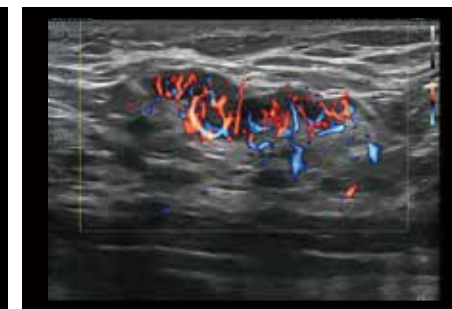
Kidney SMF + VLuminous Flow



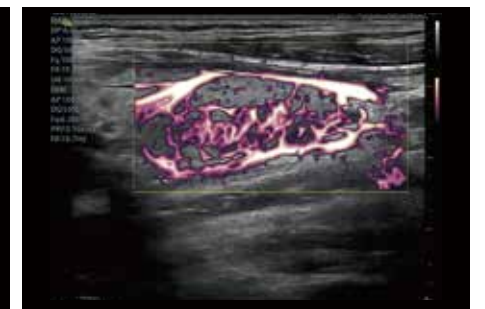
Testicle SMF



Liver, SMF



Breast, cSMF



Thyroid, aSMF

Clinical Values

Small Parts imaging: Inflammation & microvascular assessment (e.g., thyroid, breast, testis)

Abdominal imaging: Perfusion evaluation & vascular patterns in organs (e.g., liver, kidney) → Ideal for transplant monitoring and superficial lesion detection

cSMF demonstrates flow and grayscale information with high temporal and spatial resolution simultaneously. aSMF reveals the finest vasculature with high sensitivity by removing anatomical background information.



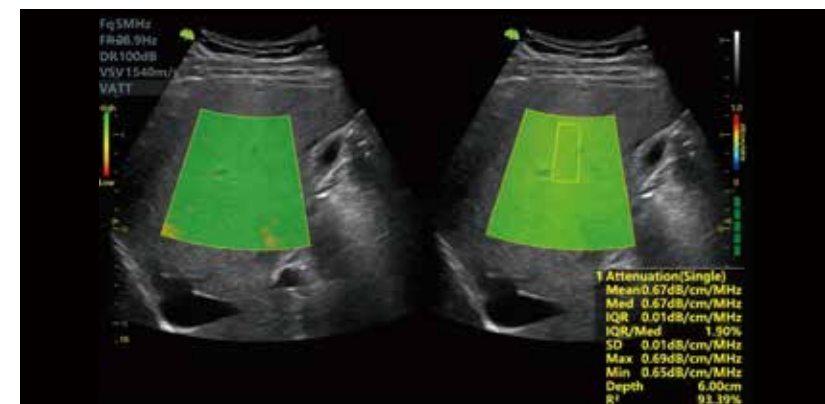
Fluent

Precision Makes Confidence

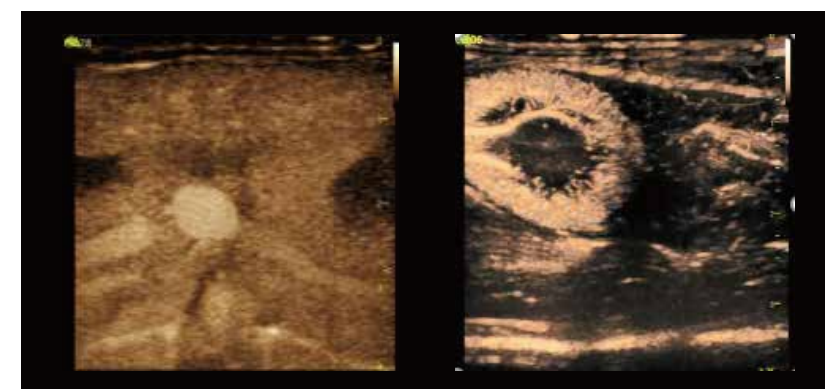


VShear⁺: Powered by Muse Platform, VShear⁺ allows more sensitive tissue detection by capturing every shear wave motion details at ultrafast frame rates, which delivers great stability and accuracy during live scanning.

pVShear: Localized, quantitative measurements of tissue stiffness at a specific point within the tissue.



VATT: an innovative tool that may assist clinicians in assessing the degree of steatosis. The early characterization of an existent steatosis is important for a reliable prognosis as well as for an effective therapy. VATT provides a color-coded visualization of the frequency- dependent attenuation coefficient in liver tissue.



CBI⁺: An advanced, highly sensitive contrast bubble imaging which enhances real time vessels visualization significantly based on ultra-fast frame rate and outstanding 2D performance/penetration.

MCP (Micro Contrast Perfusion): By dynamically accumulating blood flow perfusion, MCP has greater sensitivity of minor signals, providing exceptional details throughout arterial, portal and late phase scanning.

Faith

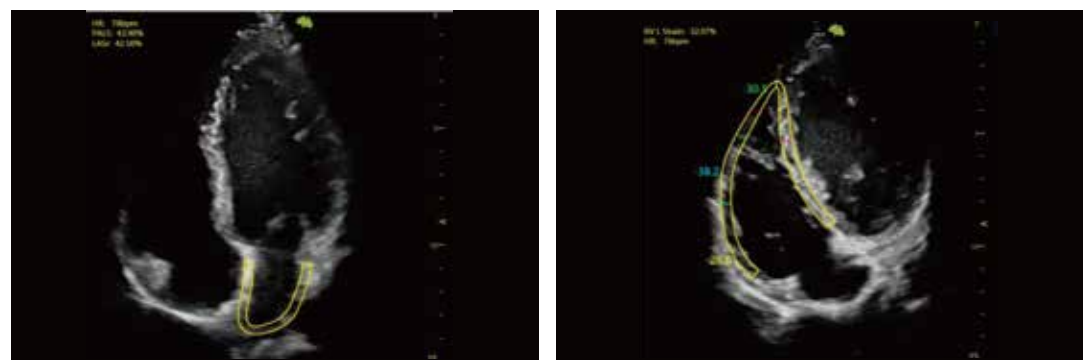
Advanced Performance for Diagnostic Confidence

Multi Doppler

Displays two Doppler waveforms from separate sample gates in the same cardiac cycle, enabling faster and more accurate evaluations of LV diastolic dysfunction and carotid stenosis. Options include PW/PW, PW/TDI, TDI/TDI.

Strain Imaging LV/RV/LA

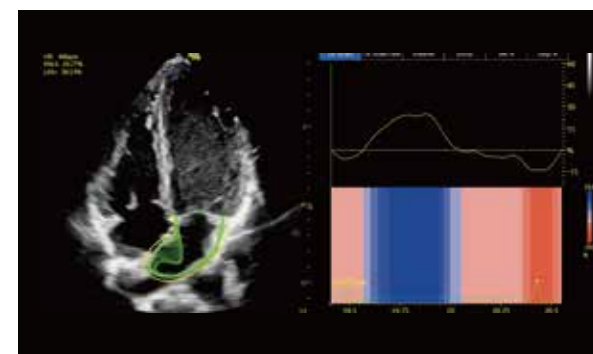
Semi-automated deformation quantification of LV/RV/LA using angle-independent speckle tracking for precise myocardial movement evaluation, allowing simple, fast, and reproducible measurements with editable automation.



LA/RV newly enabled in A4C view

VVI (Velocity Vector Imaging)

Angle-independent 2D speckle-tracking for precise myocardial motion assessment, providing real-time evaluation of LV/RV/LA motion to detect cardiac abnormalities like heart failure.



AMAS (Automatic Measurement of Arterial Stiffness)

Calculates and evaluates arterial stiffness to screen and monitor carotid atherosclerosis, helping prevent strokes and sudden diseases.



ULTRASENSE Intelligent Solution



Ultrasound Makes Sense!



Image Optimization

- Auto Optimization
- TIA (Tri-module Image Acquisition)



Radiology

- VAid Breast
- VAid Thyroid
- VAid Liver
- VAid GB
- VAid HRI



Women's Health

- VAim Follicle
- VAim OB/ VMind OB
- VAim Pevic
- VAim Hip
- VAim AFI
- Auto En.



Cardiovascular

- Auto EF
- Live IMT
- VAid Carotid Plaque
- Live Track



Future



Ultimate Intelligent in Real-time

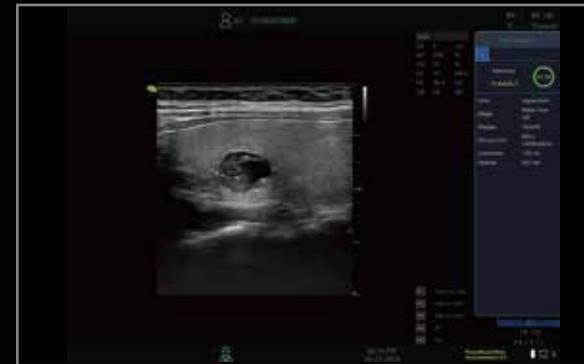
VAid Breast

Increases breast diagnosis accuracy and productivity in real-time or stored images, enabling automatic lesion detection, measurement, and BI-RADS categorization.



VAid Thyroid

Non-invasive thyroid nodule detection and assessment with automatic lesion recognition and TI-RADS categorization, improving diagnostic accuracy and efficiency.



VAid Liver

Automatically detects common focal and diffuse liver conditions with one click, displaying quantitative analysis and enhancing diagnostic accuracy.



VAid HRI

One click to quantify liver steatosis by comparing liver and renal cortex echogenicity, providing automated measurements and Hepa to Renal Index (Li/RC) calculation.



VAid GB

Auto-measurement of gall bladder lesions in real-time or static mode, aiding diagnosis of common conditions and enhancing diagnostic confidence.



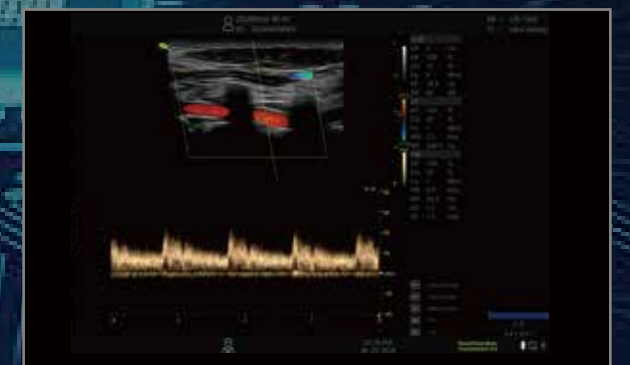
VAid Carotid Plaque

Automatically identifies, describes, and measures carotid plaques using deep learning to enhance stroke risk assessment and facilitate preventive measures.



Live Track

Provides fast, intelligent vascular imaging optimization with one-touch operation, self-tracking, and efficient workflow.





Full-stack Intelligence for Women and Neonates' Health

VMind OB

VMind OB offers an absolute extensive obstetric screening approach, by harnessing the power of deep learning techniques. VMind OB automatically captures and stores the standard planes with fetal biometric measurement in real-time, based on ISUOG practice guideline. VMind OB is so far the only intelligent obstetric screening tool offers up to 31 standard planes.

UltraDiagnosable Women and Neonates' Health

Full - stack Intelligence



Pre-pregnancy

Accurate assessment of follicles for IVF exam

- Auto Follicle
- Auto En.
- VAim Follicle



Pregnancy

Truly intelligent obstetric screening tools

- Auto IT
- Auto NT
- VAim OB
- VMind OB
- VAim AFI



Postpartum recovery

Automatic 2D/3D measurement for pelvic floor disorder diagnosis

- VAim Pelvic



Neonates

Automatic measurement for Graf classification

- VAim Hip

Future

VAim AFI

Automated Amniotic Fluid Index measurement enhances prenatal ultrasound efficiency and accuracy, saving time and improving diagnostic reliability for fetal health monitoring.



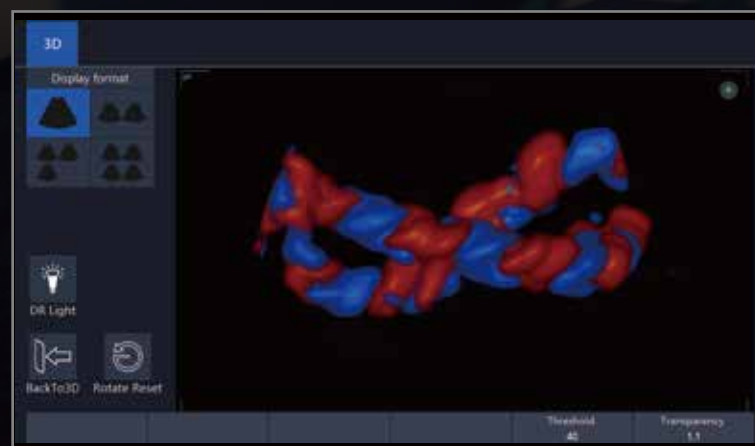
Auto En.

Uses deep learning for automatic, accurate endometrial thickness measurement, facilitating timely and precise clinical assessments and reducing scan time.



Color 3D

Uses advanced technology for improved visualization and structure expression, aiding in the understanding of vascular networks like the umbilical cord and fetal heart.



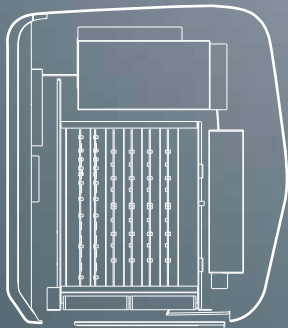
Light Lab

3D rendering technology allows customizable virtual light sources to display internal structures more clearly, enhancing three-dimensional perception.



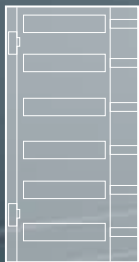
Ergonomic Design for Ultimate Convenience

The Ultimus 9E ultrasound system was developed with a keen focus on ergonomics, imaging performance and streamlined workflow to ensure clinicians have better diagnostic efficiency and focus on the patients.



Space Capsule

The excellent heating dissipation ability, anti-electromagnetic interference and noise isolation ensure the system deliver its best performance.



Extensive Probe Port

Five active ports plus 1 parking port for your extensive application needs. The water and dust prevention cover along with pinless probe connector, to the greatest extent for transducer protection from the possible damage during the daily use.

1



2

Large-viewing Monitor

With 24" high-resolution LED monitor provides about 25% more lateral viewing information for a larger image display.

3



4

Highly-sensitive Touch screen

A high-sensitivity full-HD touch screen with 60 degree tiltable angle, customizable interface, to make viewing and workflow significantly easy.

5



Ergonomic Console

One button access on the console panel for easy adjustment from left to the right, up and down, providing scanning comfort in any position.

