

HITACHI
Inspire the Next

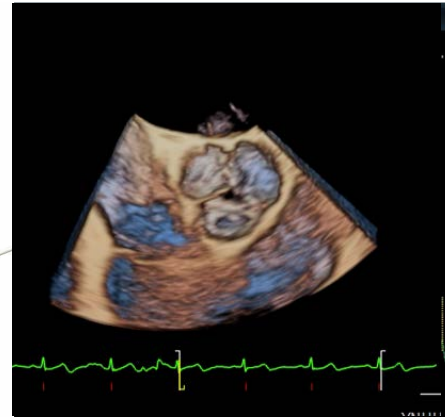


LISENDO 880

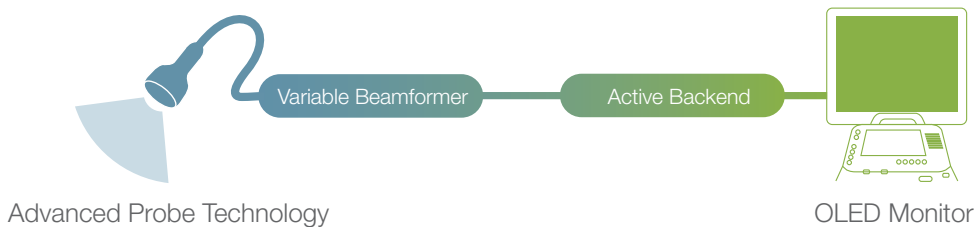
Redefining the Vision for
Cardiovascular Ultrasound

the next level
of cardiovascular ultrasound

Pure Image Technology



The advanced architecture of the Lisendo 880 offers state of the art probe technology for 2D and 3D imaging, a high performance OLED display, premium image optimization parameters such as eFocus and Pure Symphonic Architecture to capture the subtlest of changes and produce the highest-quality “sound”.

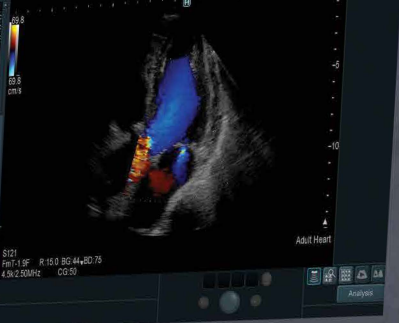




HITACHI

Hitachi Healthcare Americas

- 1. 2D
- 2. 2D/Color
- 3. PLAX(LV)
- 4. PLAX(RV)
- 5. PLAX(LV) (reflow)
- 6. PLAX(RV) (reflow)
- 7. PLAX(TV)
- 8. PLAX(TV)
- 9. SAX-Base
- 10. SAX-Base
- 11. SAX-Apex
- 12. SAX-AD
- 13. SAX-MQ
- 14. SAX-PA
- 15. SAX-PA
- 16. Apical(LV)
- 17. Apical(LV)
- 18. Apical(LV)
- 19. Apical(LV-TV)
- 20. Apical(LV-TV)
- 21. Apical(LV-TV)
- 22. Apical(LV)
- 23. Apical(LV) (OT)



S121
PRF: 1.50 R: 15.0 80.4+AD 75
4.9V 2.50MHz
CG 50

Adult Heart

LISENDO 880

Redefining the Vision for Cardiovascular Ultrasound

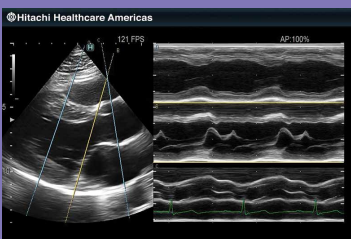
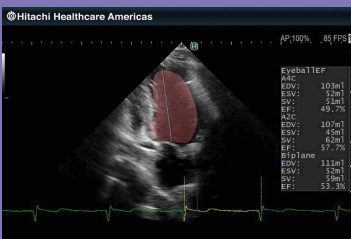
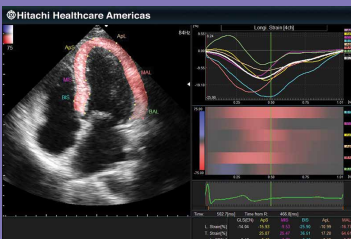
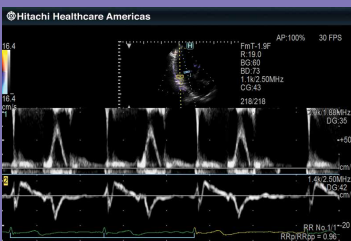
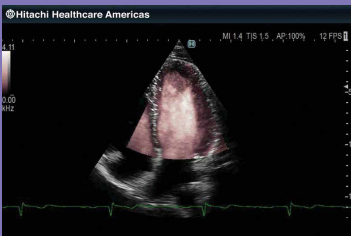
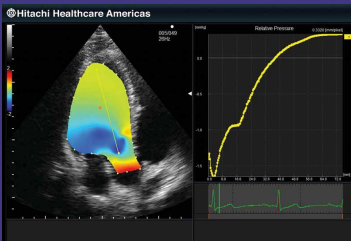
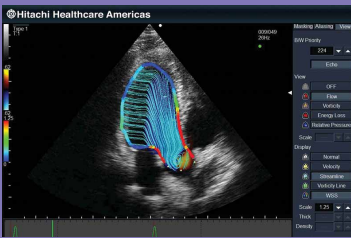
Since their inception, today's ultrasound systems have progressed to become essential medical devices for all levels of cardiovascular care. The Lisendo 880 is Hitachi's premium 2D and 3D diagnostic ultrasound solution for cardiologists in any clinical setting. The Lisendo 880 platform is redefining the vision for cardiac ultrasound by providing exceptional clinical performance with state-of-the-art analysis and features.

The Lisendo 880 is our most advanced ultrasound system offering premium 2D and 3D cardiovascular applications. Features such as dynamic 3D evaluation, LV eFlow, Dual Gate Doppler, Eyeball EF, 2DTT, and FAM, provide solutions for your most difficult clinical challenges. Additionally, applications like VFM, eTracking and Wave Intensity move hemodynamic evaluations beyond the basics.



LISENDO 880

Redefining the Vision for
Cardiovascular Ultrasound



ADVANCED HEMODYNAMIC EVALUATION USING
OUR HDAnalytics™ PROVIDES PREMIUM
ANALYSIS FOR YOUR CARDIOVASCULAR PATIENTS

Your Application

VFM

Vector Flow Mapping evaluates hemodynamics in the heart in a whole new way, identifying flow direction, vorticity, energy loss, wall stress, and relative pressure with one loop capture.

LV eFLOW

LV eFLOW is a noninvasive, high-definition blood flow imaging mode which drastically improves spatial and temporal resolution to improve visualization of the endocardial border in the left ventricle with higher sensitivity and resolution than with conventional methods. LV eFlow may change a technically difficult study into a diagnostic study without using contrast.

Dual Gate Doppler

Enables observation of Doppler waveforms from two separate locations simultaneously. Measurements such as the E/e' ratio, isovolumetric contraction and relaxation times and evaluation of dyssynchrony in septal and lateral walls, can be obtained during the same heart cycle, eliminating beat-to-beat variation.

2D Tissue Tracking (2DTT)

Provides precise quantification of left strain and strain rate for the left and right ventricles and the left atrium to visualize, quantify and analyze regional and global myocardial mechanics using 2D speckle tracking.

Eyeball EF

Automatic tracing of the endocardium in both apical 2 and 4 chamber images based on a built-in database of multiple tracings. Provides real time Biplane ejection fraction and left ventricular volume. Fast activation and quick assessment for evaluating overall left ventricular function

Free Angular M-Mode (FAM)

Three M-Mode lines can be set at any position and angle simultaneously, for diagnostic evaluation of wall and valve motion from multiple points within the same heart cycle.

FLEXIBILITY



Seamless Workflow

The Lisendo 880 was designed to provide maximum scanning comfort, along with state-of-the-art technology to help you complete your exams more easily. The systems flexible positioning, including an adjustable panel height and a four point articulating arm, support comfortable operation while the operation panel enables ergonomic function adjustment as a part of our intuitive user interface. Our Smart Cardiac Measurements provide automated analysis to enhance examination efficiency. The Lisendo 880 delivers seamless workflow users expect in a premium ultrasound system.

LISENDO 880 ERGONOMICS

The importance of ergonomically designed ultrasound systems cannot be understated. The Lisendo 880 continues our commitment to design systems to minimize repetitive stress while maximizing flexibility across your hospital.

AUTOMATED ANATOMICAL AND STRUCTURAL INTELLIGENT MEASUREMENT

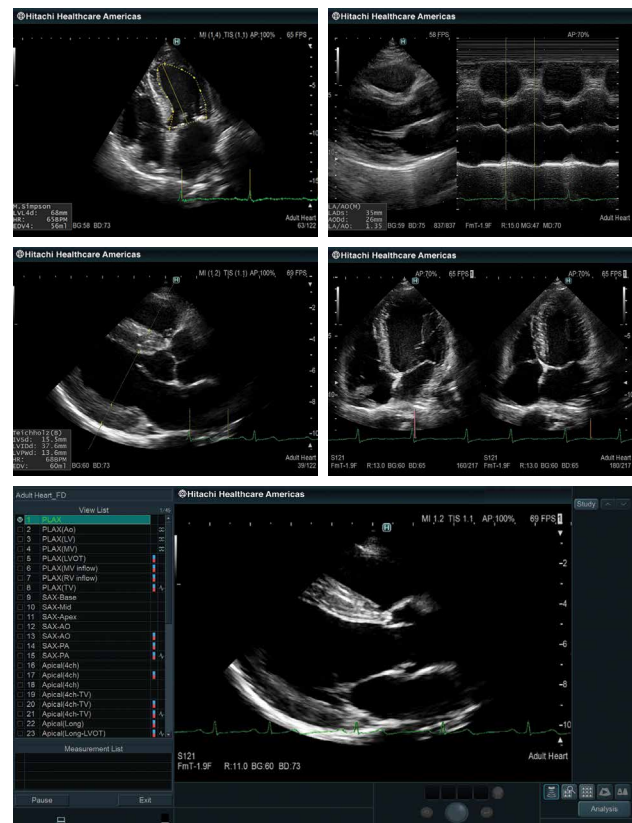
Auto LV, LA, and RA Volumes and FAC Left Ventricular, Left Atrium and Right Atrium volumes and the Fractional Area Change in the Right Ventricle are automatically measured

Auto LA/Ao LA diameter in systole and Aortic diameter in Diastole are detected and measured automatically

Auto EF Automated Teichholz ejection fraction is measured in 2D or M-Mode.

Beat Mode Automated detection of End Diastolic & End Systolic frames based on the R wave

Protocol Assistant Move through your study protocol efficiently with automated progressions of modes, measurements, and annotations.



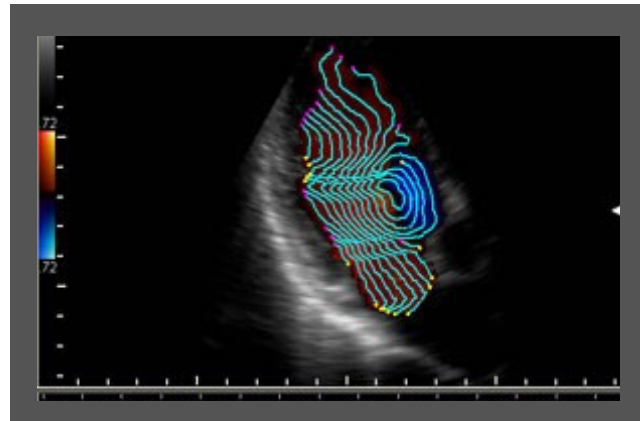
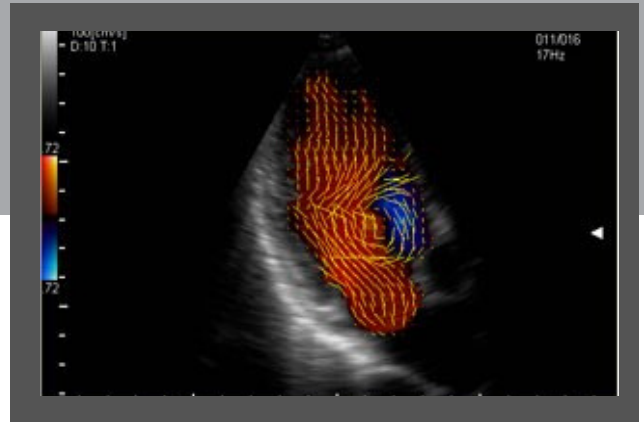
LISENDO 880

Redefining the Vision for
Cardiovascular Ultrasound

Vector Flow Mapping

Vector Flow Mapping (VFM) is a novel application that allows users to assess cardiovascular blood flow distribution in an observation plane. This unique, non-invasive technique, is derived from the Color Doppler velocity data and Tissue Speckle Tracking and generates the velocity vectors on the 2D image. Until now, only data received in the direction of the beam were extracted from the Doppler information. By using new mathematical methods, we are able to estimate the radial (perpendicular) component and display the flow distribution without angle dependency. This hemodynamic quantification tool allows clinicians to visualize, measure and analyze different parameters from the blood flow distribution such as:

- Velocity Vectors
- Flow Stream Lines and Vortices
- Vector Profiles & Velocity Profiles
- Velocity, Flow & Time Flow Curves
- Vortex Flow rates
- Energy Loss
- Relative Pressure
- Wall Shear Stress



Recent VFM Publications

A Network-based 'Phenomics' Approach for Discovering Patient Subtypes from High-Throughput Cardiac Imaging Data - Aung Sun Cho MD, PhD; Sirish Shrestha MS; Nobuyuki Kagiyama MD, PhD; Lan Hu RN, MPH; Yasir AbdulGhaffar MD; Grace Casaclang-Verzosa MD; Irfan Zeb MD; Partho P. Sengupta MD, DM, FACC, FASE

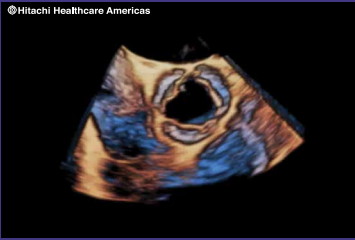
Right Ventricular Dissipative Energy Loss Detected by Vector Flow Mapping in Children: Characteristics of Normal Values - Zhongxiu Chen MD, PhD Yajiao Li MD Chen Li MD, PhD Hong Tang MD Hui Wang MD Yue Zhong MD, PhD Yuyan Cai MD, PhD Li Rao MD, PhD

Unique Energy Loss Patterns and Correlation with Vortex Formation From Infancy Through Young Adulthood Kristian Becker, Jennifer Cohen, Santosh Uppu, Partho P. Sengupta, Jen Lie Yau and Shubhika Srivastava

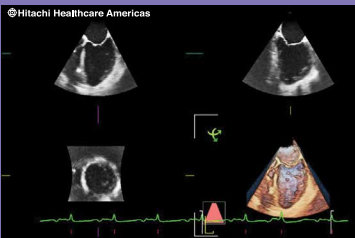


LISENDO 880

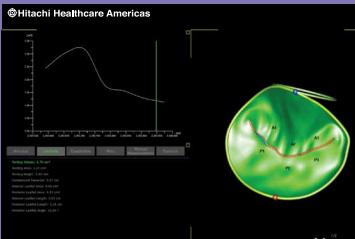
Redefining the Vision for
Cardiovascular Ultrasound



Premium 3D and 4D Ultrasound for Cardiology



The Lisendo 880 offers exceptional transthoracic and transesophageal 3D imaging and provides a comprehensive set of data for your 4D analysis



BiPlane

Evaluate two live orthogonal planes simultaneously in 2D for comprehensive anatomical views.

3D Zoom

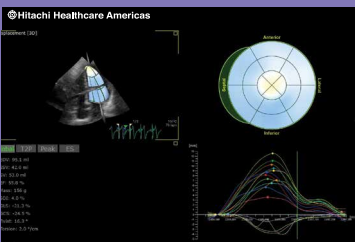
High resolution 3D volume acquisition for anatomical analysis and data from an anatomical region of interest.

Active 3D and Active 3D Color

Live 3D display within a volume of interest, with or without high resolution live color Doppler.

Wide Angle 3D

Full volume imaging evaluation in live 3D.



4D Cardio-View™1

An intuitive solution to review and analyze 3D Echo data. The software features the unique navigation tool D'art™, which in just two clicks enables you to generate your preferred 3D view. Even complex cardiac morphologies can be completely visualized in a 3D view.

4D LV-Analysis1

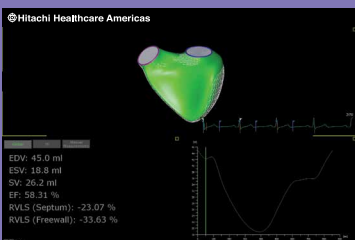
Provides a full assessment of the LV including Volumes, EF, Strain and dyssynchrony with no more effort than the current routine methods and shows a high correlation with MRI results.

4D MV-Assessment1

Allows a dynamic analysis of the anatomical structures of the mitral valve, annulus and the closure line of the two leaflets.

4D RV-Function1

Provides a comprehensive evaluation of the right ventricle including volumes and strain analysis. It provides EDV, ESV, RVEF, SV, RVLS, TAPSE and FAC.



Our Astrella CV-Linq workstation offers our 4D analytics for powerful support for your offline analysis.

- ASTRELLA is a registered trademark of Hitachi, Ltd. in Japan and other countries
- ASTRELLA CV-Linq is TOMTEC-ARENA™ manufactured by TOMTEC IMAGING SYSTEMS GMBH, with interface to modules of Hitachi, Ltd.
- TOMTEC-ARENA, D.art and 4D CARDIO-VIEW are trademarks of TOMTEC in Germany and/or other countries.
- *2 is a module of TOMTEC-ARENA™.

Hitachi Healthcare Americas

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www.hitachihealthcare.com 800.800.3106

SPECIALTY TRANSDUCERS

LISENDO 880

Redefining the Vision for
Cardiovascular Ultrasound



S121 **Single Crystal Adult**
5 - 1 MHz | 90°



S31 **Single Crystal Pediatric**
9 - 2 MHz | 90°



S42 **High Frequency Neonatal**
14 - 3 MHz | 90°



C251 **Fetal, Vascular**
5 - 1 MHz | 70°



C252 **Single Crystal Abdomen**
6-1 MHz | 70°



C35 **High Frequency Fetal**
8 - 2 MHz | 70°



L34 **Low Frequency, Vascular**
7 - 3 MHz | 38 mm



L441 **Mid Frequency, Vascular**
12 - 2 MHz | 38 mm

SPECIALTY TRANSDUCERS

LISENDO 880

Redefining the Vision for Cardiovascular Ultrasound



L53K

Superficial Vascular
Hockey-Stick Linear Array
15 – 3 MHz | 25 mm Width | Linear



L64

High Frequency, Vascular
18 – 5 MHz | 38 mm



UST-2266-5

Independent,
Pencil Type CW Doppler
5 MHz



UST-2265-2

Independent
CW Doppler
2 MHz



S3ESEL

TEE Adult
8 – 2 MHz | 90°



MXT1

MXS2ESLL1
3D TEE
10 – 1 MHz | 90°



MXS1

3D TTE
5 – 1 MHz | 90°



SML44

CMUT
22 – 2 MHz | 38 mm

the next level
of cardiovascular ultrasound

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DM# 119132 V3
(MP0518-25)

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