

LOGIQ 500 PRO SERIES

DIGITAL ULTRASOUND SYSTEM



GE Medical Systems

PROfessionalism, PRO to meet your highest

With the LOGIQ PRO Series, GE has once again set new standards for clinical performance. The LOGIQ 500 PRO Series is the latest example. Distinguished by excellent image quality, ease of use and advanced applications, this system is designed to address your need for diagnostic confidence, cost-efficiency and long-term investment protection.

PROfessionalism

Helps ensure diagnostic confidence

- *Digital Beamformer with Parallel Processing*
- *High Frequency Micron Imaging*
- *Doppler Sensitivity*
- *Maximum Resolution Flow*

PROductivity

Maximizes patient throughput

- *Automatic Tissue Optimization*
- *Real-time Doppler Auto Calcs*
- *Adaptive, programmable user-interface*
- *Image management*
- *DICOM*
- *Triplex Imaging*
- *Adaptive Color Enhancement*



This image demonstrates excellent near to far field resolution by using a Digital Beamformer.



This parasternal long-axis view of the left heart makes evident the benefits of migrating technology like Tissue Harmonic Imaging.

Productivity and PROgress performance standards

PROgress

Key to Tomorrow

- *Active Matrix Array transducers*
- *Pulsatile Flow Detection*
- *Integrated 3D View*
- *Tissue Harmonic Imaging*
- *GE commitment to continuing breakthroughs*



Using Pulsatile Flow Detection (PFD), you can differentiate between pulsatile flow in the Liver arteries (green) and non-pulsatile flow in the Portal vein at one glance.

LOGIQ 500 PRO SERIES :

PROFESSIONAL PRODUCTIVE PROGRESSIVE

CAPABILITIES THAT ARE TRULY WORLD-CLASS

Around the world, GE scientists and engineers have long been focusing on achieving one primary goal: developing ultrasound technologies that improve your diagnostic confidence. We have combined the unique capabilities offered by each of our Research and Development centers with the guidance of the luminary clinicians who serve on our global Advisory Councils.

The result: A series of annual technological breakthroughs that can be migrated across the LOGIQ product line – breakthroughs that are demonstrable in images, solve clinically relevant problems, and have broad clinical application.



GE Medical Systems - USA.

By developing such revolutionary capabilities as Automatic Tissue Optimization and Active Matrix Arrays, our Milwaukee advanced product development center has set new standards for advanced ultrasound technology.

GE Medical Systems - Japan.

Our advanced development center in Japan is responsible for making ultrasound more mobile and user-friendly than ever before – and for developing such innovations as Triplex Imaging and Pulsatile Flow Detection.

GE Vingmed - Norway.

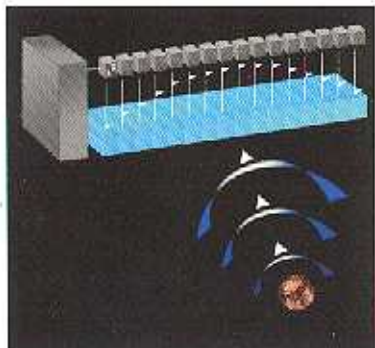
Major contributions to ultrasound imaging, such as innovations in Doppler and transducer technology, have made GE Vingmed synonymous with advanced echocardiography.

Simply the right choice



PROfessionalism:

DIGITAL BEAMFORMER

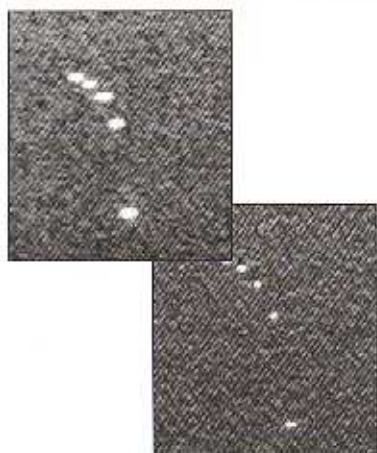


WITH PARALLEL PROCESSING

A digital beamformer with a unique parallel processor doubles the information captured, providing higher frame rates and increased sensitivity in color Doppler.

Maximum Resolution Ultrasound expands dynamic range for better contrast sensitivity and provides wideband transducer technology with multi frequency capabilities, for increased resolution and greater diagnostic confidence.

MICRONIMAGING™

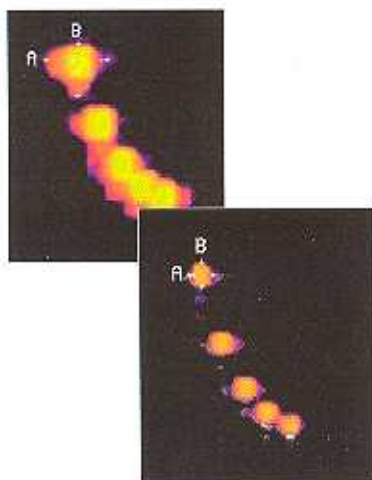


0.3-MM RESOLUTION

Micron Imaging combines high-speed digital electronics and wideband, high frequency transducers with new proprietary image processing techniques for image resolution so fine it is measured in microns.

Micron Imaging gives you the ability to see micro-fine detail from the skin line to deep (5 cm) in the target organ. This level of detail provides greater diagnostic confidence, and saves time in obtaining complete information.

MAXIMUM RESOLUTION FLOW™



SMALL-VESSEL, SLOW-FLOW IMAGING

To enhance your diagnostic confidence in complex vascular studies, the LOGIQ 500 PRO Series' MR Flow capability dramatically improves color sensitivity and resolution while letting you use multiple focal zones.

Improved color registration, smaller pixels, and more uniform resolution allow you to better visualize small vessels and slow flow.

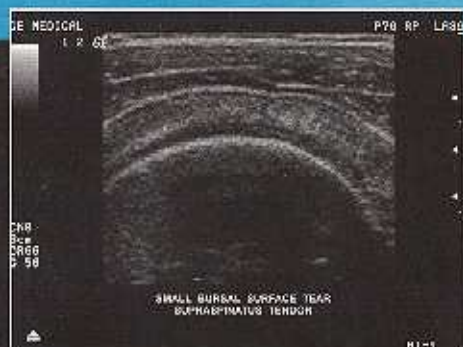
Helping to ensure your diagnostic confidence



The powerful zoom feature allows the user to focus on targeted areas without compromising image quality as demonstrated in this liver with metastatic disease.



By means of parallel signal processing, the Digital Beamformer provides true Triplex Real Time Mode, i.e. a simultaneous display of 2D Color Mode and Spectral Doppler.



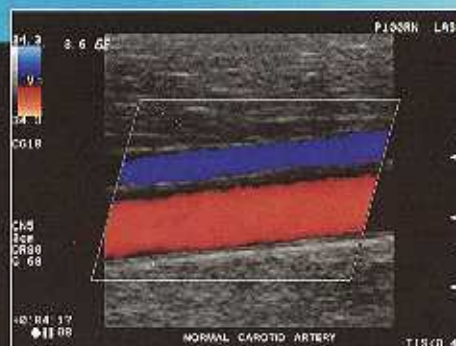
With Micron Imaging™, the LA 39 transducer delivers exquisite resolution as seen in this small Bursal surface tear of the rotator cuff.



The LA 39 transducer (6-13 MHz) with 0.3 mm resolution in small parts applications demonstrates clear capsular definition in this breast mass.

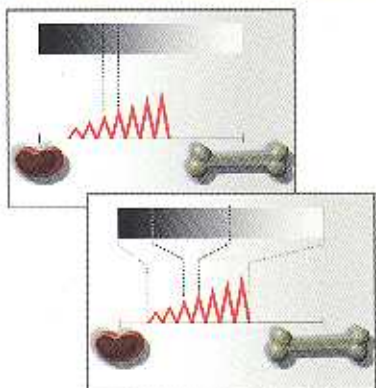


MR Flow technology provides multiple focal zones, which until now were available in B-Mode only. Thus, the spatial resolution is significantly improved without the loss of temporal resolution.



Maximum Resolution Flow™ exclusive to the GE LOGIQ series provides uniform distribution of performance with Color Doppler.

AUTOMATIC TISSUE OPTIMIZATION™ (ATO)



JUST TOUCH A BUTTON

Another GE exclusive, Automatic Tissue Optimization (ATO) automatically adjusts the imaging parameters to display the optimal image quality for the tissue type being imaged – for every patient, every exam, every operator.

Auto Tissue Optimization is not a series of presets. Instead, the system's Adaptive Processing uses actual image data to perform an instantaneous analysis of the anatomy of interest, and then applies the optimum parameters.

ACE AND DOPPLER AUTOCALC

AUTO CALC	
GE ULTRASOUND EUROPE	
Vmax	0.893m/s
Vmin	0.198m/s
Vd	0.198m/s
TAMAX	0.329m/s
PI	2.109
RI	0.778
S/D	4.500
AVRGE	1

GREAT RESULTS, QUICKLY ACHIEVED

Adaptive Color Enhancement™ (ACE) technology is another LOGIQ 500 PRO Series time-saver – one that virtually eliminates motion artifacts caused by breathing or probe movement, without compromising sensitivity. ACE adapts narrow-band filters automatically to signal intensity, suppressing only tissue artifacts and leaving fine detail clearly visible.

Real-Time Doppler Auto-Calc further streamlines your ability to perform Doppler calculations. Unlike conventional systems, which require manual tracing on the frozen image, Auto-Calc automatically updates and displays Doppler indices and velocity values after every heart beat.

IMAGE MANAGEMENT



FAST INTERPRETATION AND ARCHIVING

The LOGIQ 500 PRO Series offers a number of time-saving features that increase your overall productivity. For example, you can view dynamic gray-scale and color images simultaneously, side-by-side. From image archive, our multi-image display capability lets you display 4, 9 or 15 images. From this display you can easily print, delete, display, and archive on MOD.

LINQ connectivity gives you the ability to send images to DICOM 3.0 workstations and printers. Capabilities include verify, print, and store, and modality worklist. DICOM also works in the background, so you can continue to scan while your image data is being transferred.

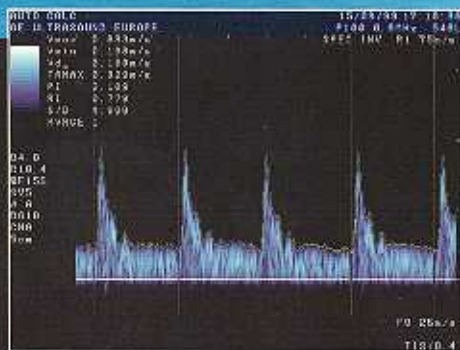
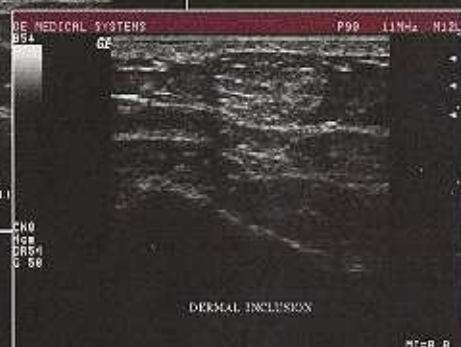
Enhancing your return on investment



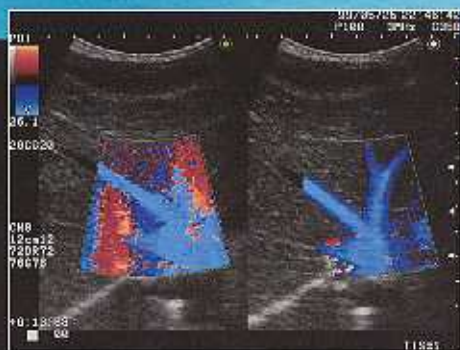
Migrating technology, Automatic Tissue Optimization provides excellent image quality with the touch of one button.



This dermal inclusion clearly demonstrates the advantages of Automatic Tissue Optimization. Subtle tissue densities are better defined.



Realtime Automatic Doppler calculations provides continuous online display of desired measurements.



Using Adaptive Color Enhancement (ACE), it is possible to selectively eliminate tissue artifacts without any impact on the Color Doppler signal. Logical result: precise display of extremely fine perfusions.

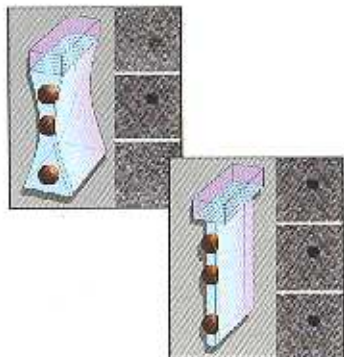


Practical display of up to 15 images in a compact format for selection of images to store on MOD.



The LA 39 delivers superb contrast resolution as visualized in this Common Carotid Artery. Note aggregate flow within the Internal Jugular Vein.

ACTIVE MATRIX ARRAYS™

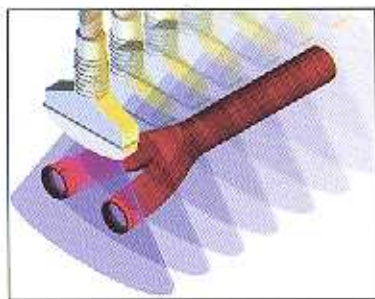


ULTRA-THIN-SLICE IMAGING

GE's Active Matrix Array technology provides uniform resolution and image quality throughout all scanning depths.

Transducers using Active Matrix Array technology add the critical element of control over slice thickness, and therefore over elevational resolution. This means you achieve not only the penetration you need, but also uniformly excellent resolution from near-field through far-field without volume averaging artifact.

3D VIEW AND TISSUE HARMONICS

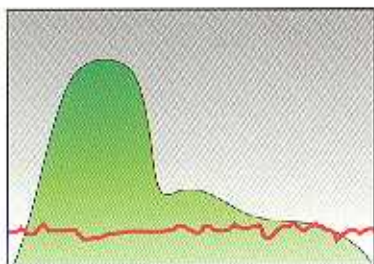


FAST AND EASY TO USE

Accurate display of three-dimensional data is now quick and easy to use thanks to our 3D View™ capability. Using advanced adaptive processing techniques, 3D View provides a 3D rendering of the anatomy of interest.

To improve your evaluations of difficult-to-scan patients, the LOGIQ 500 PRO Series also offers Tissue Harmonic Imaging. Tissue Harmonic Imaging leverages the LOGIQ 500 PRO Series' wideband technology to receive a high frequency harmonic of the transmit pulse to provide better spatial and contrast resolution.

PULSATILE FLOW DETECTION (PFD)



STREAMLINED FLOW ANALYSIS

The LOGIQ 500 PRO Series equips you with an innovative new technique called Pulsatile Flow Detection (PFD), to help you distinguish between pulsatile and continuous flow. PFD makes it easier to differentiate parallel flow, especially when the flows of interest are running in the same direction. PFD also helps facilitate faster placement of the Doppler sample volume.

Positioning your facility at technology's forefront



The M12L Active Matrix Array provides unsurpassed image clarity in high frequency imaging, evident in this small testicular mass.



The M12L Active Matrix Array transducer provides superior clinical utility in high frequency imaging as seen in this solid Breast mass.



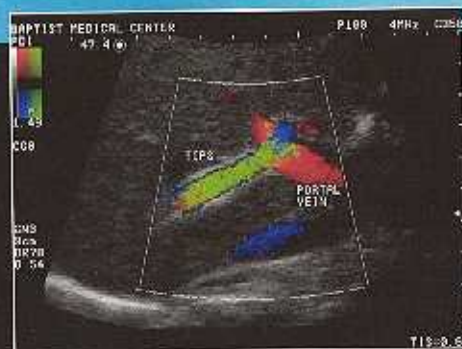
3D imaging with maximum pixel projection demonstrates normal facial features within this second trimester fetus.



Use of Tissue Harmonic Imaging (THI) in cardiology with a difficult to scan patient. (Left hand side native image, right hand side with THI)



Pulsatile vs. non-pulsatile flow states can quickly be differentiated with the use of Pulsatile Flow Detection, demonstrated in this normal native Kidney.



Pulsatile Flow Detection (PFD) clearly demonstrates the different hemodynamic flow states in the Portal vein and TIPS shunt.

THE LOGIQ 500 PRO SERIES

BACKED BY COMPLETE SUPPORT

The LOGIQ 500 PRO Series is just one more example of the breakthroughs evolving regularly from the scientists and clinicians at GE Ultrasound – breakthroughs designed to provide you with unmatched clinical utility, image quality, and department-wide productivity.

As with all our imaging systems, you are backed by complete GE support. This includes comprehensive on-site and on-going training including access to our innovative educational materials (including CME credits in the U.S.) through www.geultrasound.com.

You have the security of knowing that your system is the product of Six Sigma strategies, a philosophy of achieving world-class performance by meeting our customers' most exacting standards of quality. We also provide unsurpassed service, both on-site and via our pioneering InSite remote diagnostic service and support.

A century of support

GE Medical Systems is a world leader in diagnostic imaging products and support. For more than 100 years, healthcare providers have relied on GE for high-quality imaging technology, services and productivity solutions.

No matter what challenges your healthcare system faces, you can always count on GE to help you deliver care of the highest quality.

Ask your GE representative for details today.



The LOGIQ 500 PRO Series is another product of our Six Sigma quality strategy.



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