

**TOSHIBA**  
Leading Innovation >>>



***Aplio 400***

PICTURE PERFECT ULTRASOUND



## PRECISION, CONTROL AND AN AMAZINGLY CLEAR PICTURE

Aplio™ 400 delivers in every way. Ensuring every examination has an optimal result, it provides you with unsurpassed image quality, superior productivity, and an ergonomic workplace with fully customizable console.

Meeting your day to day demands with ease, Aplio 400 is designed to grow with your practice as your patient workload develops or changes. Thanks to its software-driven raw data platform, advanced clinical applications can be added to your Aplio 400 as you need them. Specialist tools, expert volume imaging functions and groundbreaking quantification options allow you to build your Aplio to perfectly suit your clinical needs at all times.

Every aspect of Aplio 400 has been optimized to facilitate better workflow, ensuring maximum productivity from the very first day. The high-quality parts and responsible design of the system will provide you with life-long, outstanding value on your purchase.

Aplio's unique core technologies provide an unmatched level of clinical precision, departmental productivity and ease of use, allowing you to get your diagnosis quicker and with higher confidence.



**High Density  
Beamforming**



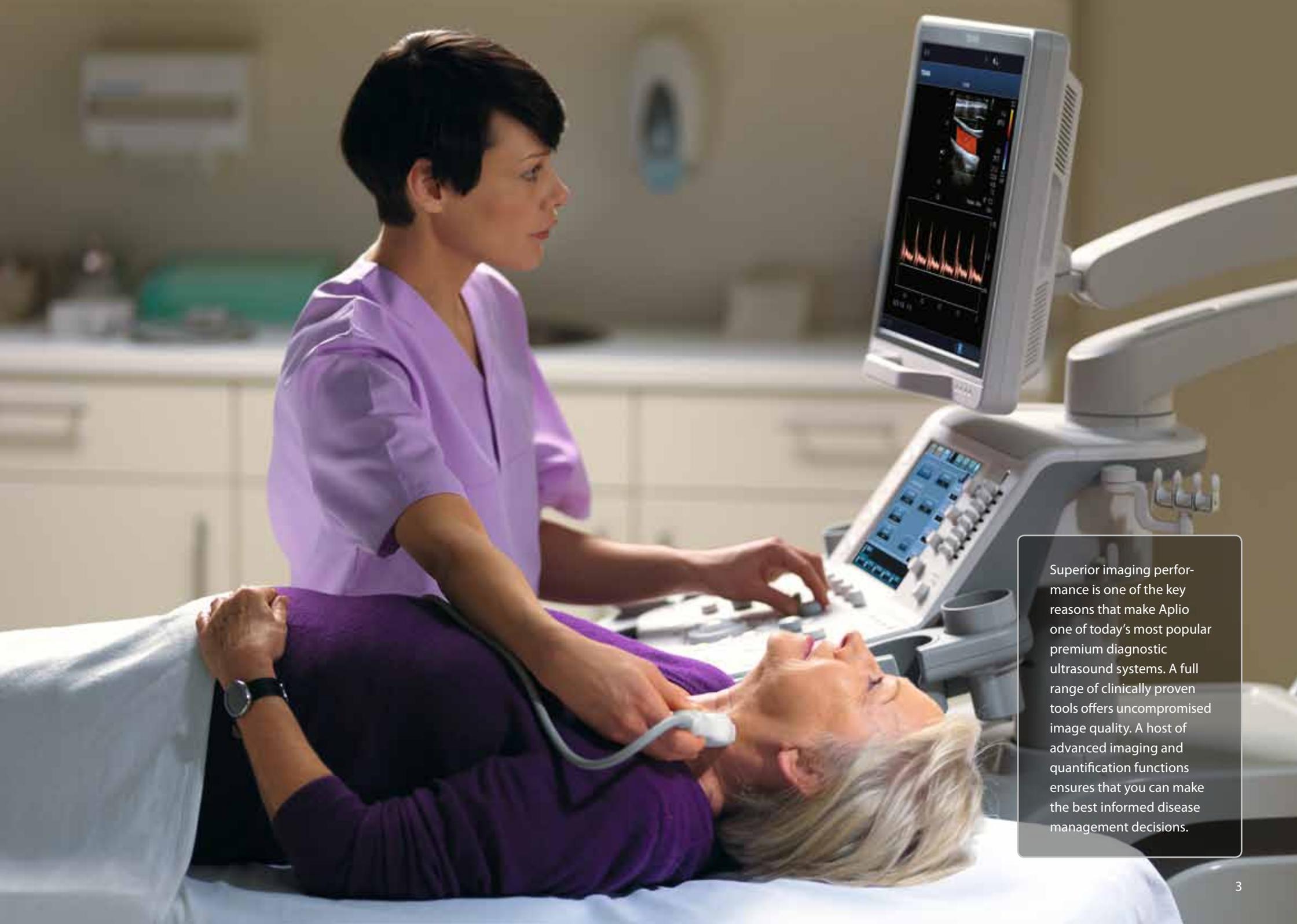
**High Density  
Rendering**



**Realtime  
Application**



**iStyle+  
Productivity**



Superior imaging performance is one of the key reasons that make Aplio one of today's most popular premium diagnostic ultrasound systems. A full range of clinically proven tools offers uncompromised image quality. A host of advanced imaging and quantification functions ensures that you can make the best informed disease management decisions.



## High Density Beamforming

## ENJOY THE PERFECT PICTURE EVERYDAY

At Toshiba we believe that only the best image quality allows a diagnosis to happen quickly and with confidence. Each of our unique imaging technologies provides you with better image quality by reducing noise, strengthening signal and improving visualization. Aplio's revolutionary High Density Beamformer uses the most advanced digital signal processing to control the ultrasonic beams more precisely and flexibly than any other system.



### Perfect transducers for perfect diagnostics

Designed to minimize operator stress and to increase efficiency, our lightweight transducers feature outstanding clinical versatility, ergonomic shapes and thin, super-flexible cables. From standard models to specialty probes – all of Aplio's transducers deliver superb image quality and respond with highest flexibility to the widest range of clinical applications.



### Precision Imaging

With Aplio's new and enhanced Precision Imaging technology you can experience ultrasound imaging as close to reality as never before. From widespread areas to fine details in layers and boundaries Precision Imaging reveals more clinical detail for a faster and safer diagnosis. Precision Imaging delivers outstandingly smooth images with significantly sharpened outline of lesions, enhanced image uniformity and reduced clutter.

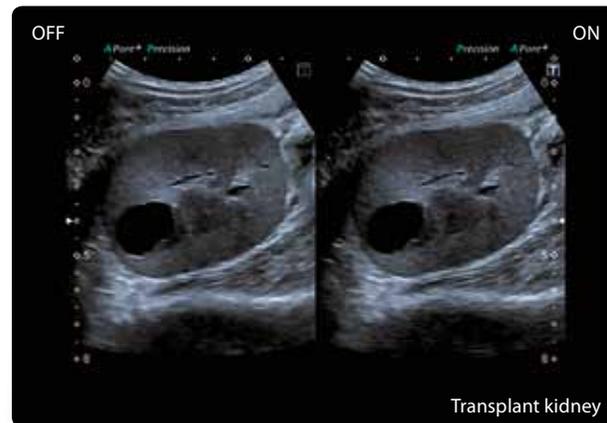
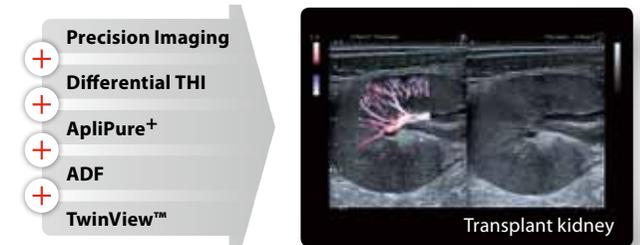
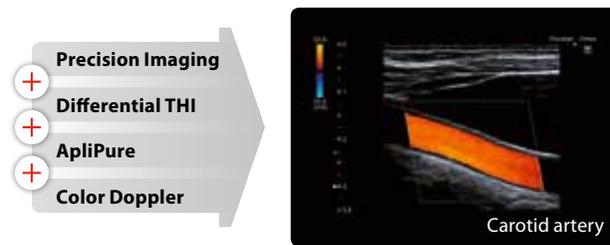
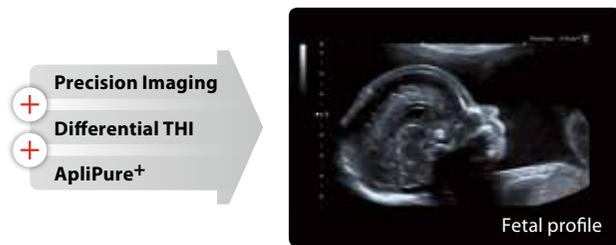


### ApliPure+

ApliPure™+ combines the advantages of spatial and frequency compounding to provide you with images of unsurpassed uniformity and detail while preserving clinically significant markers such as shadows behind echo-dense objects. ApliPure+ delivers increased imaging contrast and reduced speckle noise to improve visualization.

## Unprecedented detail for a more precise diagnosis

Each of our unique imaging technologies provides you with better image quality by reducing noise, strengthening signal and improving visualization. All functions work hand in hand with other imaging modes for even greater uniformity within each application.



### Differential Tissue Harmonics

Differential Tissue Harmonic Imaging takes outstanding tissue definition deeper than ever before. By simultaneously transmitting two frequencies in a single pulse Differential Tissue Harmonics provides images of unsurpassed spatial resolution and contrast, alongside with greatly increased penetration.

### Speckle Reduction (SR)

While a specific speckle pattern can contain important information about the tissue being imaged, speckle can at the same time degrade the visibility of fine detail and low-contrast lesions. Aplio's Speckle Reduction feature reduces speckle noise effectively without sacrificing imaging resolution. As a result it will bring out more detail for a safer and faster diagnosis.

### Advanced Dynamic Flow™ (ADF)

Advanced Dynamic Flow adds superior spatial resolution to color Doppler imaging to reveal minute vasculature and complex flow patterns with unprecedented accuracy and detail. With ADF you can display flow directionally and accurately at high frame rates, while maintaining the full B-mode image quality.



## High Density Rendering



### Volume imaging transducer

A complete range of volume imaging transducers is available for Aplio. Their compact and lightweight design delivers outstanding image quality in an ergonomic housing.

# A NEW DIMENSION OF IMAGING AND INTERVENTION

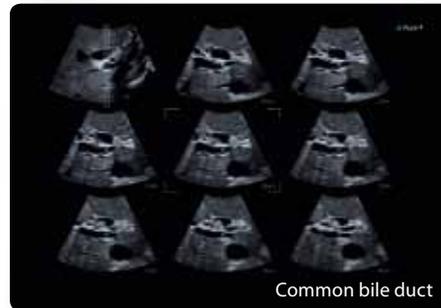
Aplio's comprehensive 3D/4D volume imaging suite extends your diagnostic capabilities into the next dimension of imaging and intervention by providing accurate renderings and arbitrary volume cuts in realtime or offline. Aplio's new High Density Volume Rendering Engine gives you extraordinary image quality at high volume rates for uncompromised workflow and clinical result.



Fetal face

### Surface Rendering

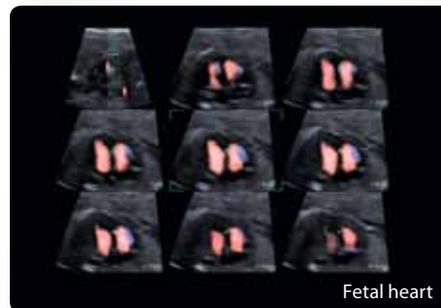
Surface Rendering adds a visual 3D effect to volumetric data to display the surface of anatomical structures in a natural, easy to understand manner. The technique provides outstanding delineation of detail and enhances the visual impression of structure and cavities. This can prove especially helpful when collaborating with referring clinicians or communicating the clinical results to the patient.



Common bile duct

### Multi-Planar Reconstruction (MPR) and MultiView

Aplio provides you with a wealth of tools to improve visualization of complex anatomy or the extent of a given lesion. The system's MPR function allows you to review a region of interest simultaneously in three orthogonal planes accompanied by a surface rendering or box volume image. Series of cross sections generated with MultiView can help you assess lesions and associated structures efficiently.



Fetal heart

### Advanced volume imaging modes

Advanced modes can add valuable functional information to the grayscale image. With Aplio you can acquire 3D volumes with the same outstanding image quality and resolution that you are used to from 2D imaging. Additionally the system enables you to acquire color Doppler, Advanced Dynamic Flow, STIC or CEUS information in 3D with no loss in image quality or functionality.



Both the busy clinician and the patient benefit from volumetric ultrasound. A complete set of data can be acquired and stored in raw format in just a few seconds, reducing examination time to a minimum. The stored raw data can be retrieved, read and manipulated anytime later with no loss of functionality.



## Realtime Application

# ADVANCED TOOLS TO HELP YOU BETTER EVALUATE DISEASE

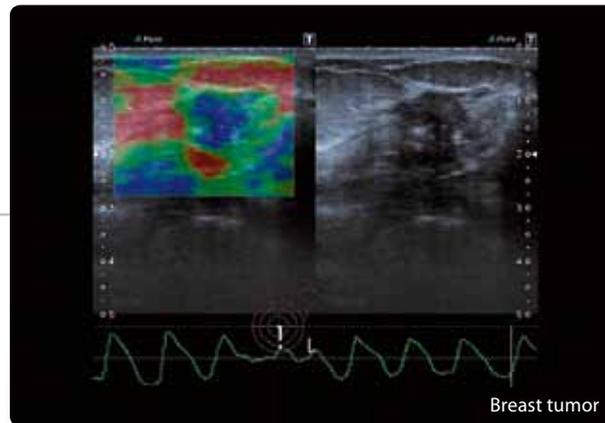
Powered by the industry's most advanced Realtime Application Platform, Aplio 400 provides you with a comprehensive range of clinically proven technologies to increase your diagnostic confidence. By giving you valuable additional information in easy to understand visual, parametric and quantitative formats, these advanced technologies can help you avoid supplementary exams to get your diagnostic answer. Thus, you can save expenses and enhance your department's productivity.



FNH

### Contrast-Enhanced Ultrasound (CEUS)

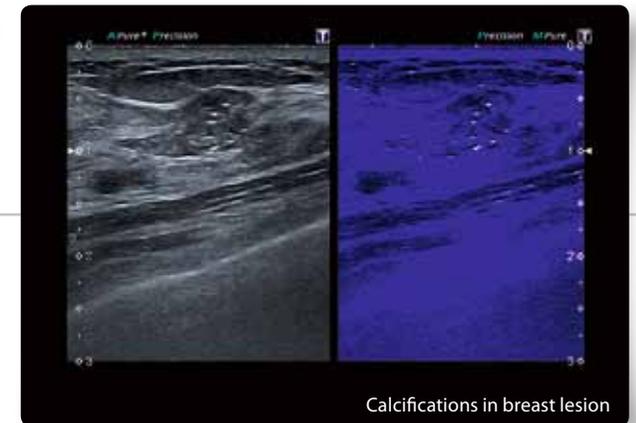
Our comprehensive contrast imaging package allows you to assess perfusion dynamics in a wide range of clinical settings. Depending on the system configuration, up to 24 transducers support contrast-enhanced studies, including an ample variety of specialized probes such as high frequency, intra-operative, intra-cavity and 3D/4D transducers.



Breast tumor

### Realtime elastography

Our comprehensive elastography solution with raw data functionality assists you in localizing and assessing palpable masses with high accuracy, sensitivity and reproducibility in a wide range of clinical settings. Different degrees of tissue elasticity can be quantified or color-coded in parametric images making suspicious tissue changes quantifiable and visible in the ultrasonic image.



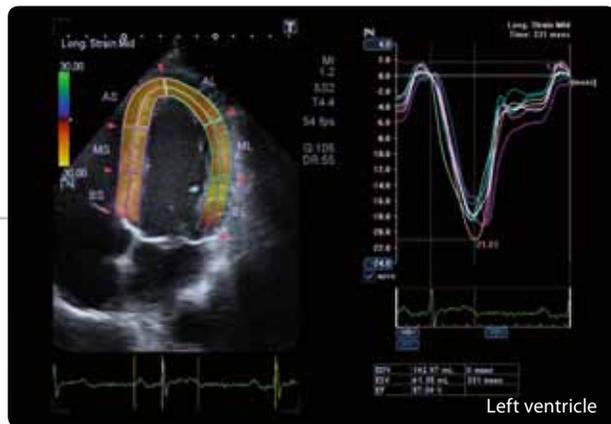
Calcifications in breast lesion

### MicroPure™

MicroPure is an innovative clinical tool that can help you identify microcalcifications, a potential marker for malignancy, in the breast and other organs. The technique highlights automatically detected calcifications as white spots in the masked 2D image. MicroPure can provide effective support for precise biopsies under realtime ultrasound control.

### UltraExtend FX

With the optional workstation you can carry out advanced analysis tasks or prospective studies with the same comfort and precision as directly on the console – anytime and anyplace needed. Moreover, using the external workstation will free your Aplio and thus can make your lab more productive.



### Wall Motion Tracking

Toshiba's proprietary speckle tracking technology provides immediate visual and quantitative access to regional myocardial wall motion with unrivalled accuracy and resolution. With Aplio you can assess and quantify parameters such as strain, strain rate or displacement during the examination or anytime later, on the console or on the workstation.



### Auto IMT

The intima-media thickness (IMT) of the carotid artery is an important parameter for assessing a patient's risk of developing cardiovascular disease. Aplio provides you with an easy to use tool to determine the thickness of the intima-media layers of the near and far arterial walls automatically at an optimal angle of incidence and in two complementary planes.



### Specialty transducers

Aplio 400 provides you with an extensive selection of specialty transducers for the widest range of clinical applications, including many advanced techniques such as elastography or CEUS. All specialty probes feature the same outstanding image quality and versatility as the standard transducers.

## PERFORMANCE MEETS INTELLIGENCE

Our unique iStyle™+ productivity suite provides you with a full host of technologies that offer ergonomic relief by reducing keystrokes, improving workflow and raising the consistency of exams. A smaller, lighter form gives you greater maneuverability while the fully configurable console and intelligent workflow support functions enable faster exams and greater productivity.

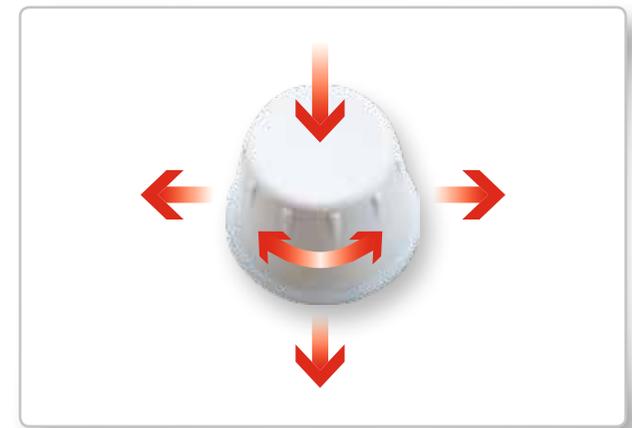


**iStyle+**  
**Productivity**



### Ergonomic user interface

Aplio 400's compact design with adjustable console and fully articulating monitor arm enables you to create an ergonomic work environment in virtually any clinical setting. The system's premium quality LCD screen with the four-axis arm can move and swivel into perfect position for better viewing and to protect you from neck, shoulder and eye strain.



### 3D multifunctional keys

Aplio's 3D multifunctional keys offer four degrees of freedom for outstanding usability. Their mode-sensitive function is fully programmable and displayed in the adjacent touch screen in an easy to understand manner.



### Fully programmable console

You can customize Aplio's console to suit your clinical needs and personal preferences simply by reassigning functions to the keys of your choice. This results in better reach, fewer keystrokes and a shorter learning curve. The mode-sensitive touch screen, which is now also programmable, enables direct access to complex measurements, labels and advanced functions.



### Quick Start clinical settings

Changing presets during an exam can disrupt your workflow, because system settings need to be optimized from scratch. The fully programmable Quick Start menu allows you to adjust only the relevant parameter set at a single touch of a button. All other settings remain untouched. This way you can easily adjust the system to any specific clinical target while ensuring a smooth, uninterrupted workflow.



### QuickScan image optimization

QuickScan allows you to achieve greater consistency in your exams by ensuring that superb image quality is the benchmark at all times. With a simple push of a button you can automatically optimise image quality in 2D and spectral Doppler modes with acoustic precision while suppressing unnecessary noise and clutter in echo-weak regions.



### Quick Assist protocols

Aplio's protocol assistant provides a reliable method to ensure that the same exam is performed from patient to patient. Once activated the tool automatically launches a clear, easy to read on-screen menu that will guide you through your exam. Always anticipating your next step, the protocol assistant allows you to focus even more on the image and the patient. Aplio's protocol assistant can be customized based on your department's scanning procedures.



From imaging to quantification, from reporting to archiving, Toshiba provides a full spectrum solution that helps you manage routine and advanced clinical studies more efficiently.

Thanks to the system's embedded raw data functionality you can review, analyze, report and archive your clinical data anytime with no loss of functionality. Aplio is designed to embrace open network standards to facilitate easy integration in the widest variety of network environments.

Additionally, to ensure the system's continuous high performance, we offer a range of support services our customers have consistently rated best in the industry.



### DICOM networking

Aplio is designed to embrace open network standards to facilitate easy integration in the widest variety of network environments. With full DICOM connectivity including all major service classes, embedded 3D/4D raw data functionality and IHE compliance, Aplio integrates seamlessly into virtually all networked clinical environments.



### Managing your study data

Aplio's fully integrated patient and image management system allows you to review and manage your studies conveniently onboard before sending it to PACS for reporting or archiving, including image and raw data as well as structured reports. And if a study is not performed in the exact order, Aplio's shuffle feature allows you to place the images into the correct order before sending them to PACS for reading.



### Exporting your clinical data

Aplio ships standard with a DVD writer and USB connection for study documentation and data export. The unit can be equipped with integrated medical printers or a DVD recorder for onboard study documentation. A digital video interface is available to connect your Aplio to external devices such as additional monitors.



### Reporting options

Aplio provides comprehensive onboard facilities allowing you to semi-automatically generate reports including measurements, charts, clinical images, as well as text. Reports are customizable to meet your department's standards and formats. If you prefer to do your reporting offline, we offer a wide range of workstation and connectivity solutions.

### UltraExtend FX

Our external workstation solution gives you full access to your clinical data and diagnostic tool set wherever and whenever needed. With embedded raw data functionality and a host of clinical tools you can review, analyze, report and archive your data quickly and easily.



# TOSHIBA AND THE ENVIRONMENT

## Good for our planet, right for our customers

Caring for the earth and its people is at the heart of everything Toshiba does – and one of the many ways we innovate. Toshiba's passion for safeguarding the earth is enshrined in our Environmental Vision 2050, whereby we seek to improve our eco-efficiency by a factor of ten over the next four decades through strict monitoring of energy usage, continuous improvement of manufacturing processes and eco-conscious product development.

Far from being a distant goal, the Environmental Vision 2050 sets tangible milestones year by year. These include the reduction in emission of CO<sub>2</sub> and other greenhouse gases, and the complete phasing out of certain hazardous substances from our products.



## Design, manufacturing and shipment

### No sustainability without quality

By manufacturing high quality diagnostic imaging equipment that lasts, we ensure that you can enjoy working with your machine over many years. Our software-driven platforms are easy to upgrade to keep you abreast of new diagnostic tools for a long time. Since its commercial introduction in 2001, we have provided more than 20 upgrades to our Aplio series of products, each of them with significant impact on diagnostic performance and clinical workflow.

And while we continuously work to improve the performance of our equipment, we drive down consumption of energy and resources at the same time. To further reduce weight and resources we now provide all software options for our ultrasound equipment by electronic license keys, and the system's user manuals ship standard in electronic format. All transducer boxes are size-optimized and made from recycled cardboard.

## Product use

### Energy efficiency is the key

A major part of the greenhouse gas emissions our medical imaging systems produce accrue while you scan your patients. Therefore we design our products to be outstandingly energy efficient, and even to recycle energy wherever possible. Take for instance our Aquilion One CT scanner. While braking its gantry, 25 % of the energy used to set it into rotation can be recovered and stored for the next scan.

In addition to all our efforts to manufacture energy efficient products, conscious use of the equipment can help significantly to minimize its overall ecological impact. For instance, when you do not use the system for a longer period of time, you can shut it down or put it in standby mode. Together, you and us, we can make a difference.

## Refurbishment and recycling

### End of use is not the end of life

Because outstanding quality lasts, your Toshiba medical imaging equipment remains of high value even after you replace it with new equipment. Our SecondLife refurbishment program helps to maximize the life span of our equipment by enabling you to sell or buy used equipment of the same high quality as our new machines.

Moreover, we make sure that most spare parts remain available up to 7 years after discontinuation of a product. But when the time comes, our medical imaging equipment is designed for easy disassembly and recovery of materials to minimize the environmental impact also at the end of its life cycle.



## GLOBAL INNOVATION BY DESIGN

For over 130 years Toshiba's research and development has improved the health and welfare of people around the world. Today, Toshiba Medical Systems offers a full range of diagnostic imaging products and is a reliable service partner in more than 110 countries. In accordance with our Made for Life™ commitment, we will continue to develop innovations that improve patient care and provide lasting quality for a lifetime of value.



### WHY TOSHIBA?

#### Innovation

Toshiba is a world leader and innovator in high technology, spanning information & communications systems, digital consumer products, electronic devices, and medical imaging systems. Year on year we file thousands of patents, leading the way within each industry sector making innovation a key part of the Toshiba fabric.

#### Quality

At Toshiba quality and reliability is at the heart of everything we do. With technologies and products being developed in more than 30 R&D laboratories and over 300 subsidiary companies across the globe Toshiba engineers are dedicated to develop the best-performing, most reliable and environmentally friendly product solutions for you.

#### Design

Our product design is driven by customer feedback and the close consultation with industry visionaries and opinion leaders. Our award-winning Corporate Design Center has over 50 years of experience in developing appealing products and industry-leading solutions.

#### Partnership

Making sure your systems deliver from day one is an important part of our relationship. Whether you need onsite or offsite training, we can provide options that work best for you. Experienced clinical application specialists will help you maximize the potential of your new equipment.

#### Environment

With Environmental Vision 2050, Toshiba announced its commitment and determination to contribute to a better environment by emphasizing the stable supply of reliable energy and mitigation of climate change as well as by creating new value in harmony with the Earth.

# *Aplio*



**TOSHIBA MEDICAL SYSTEMS CORPORATION**

<http://www.toshibamedicalsystems.com>

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Toshiba Medical Systems Corporation meets internationally recognized standards for Quality Management System ISO 9001, ISO 13485.  
Toshiba Medical Systems Corporation Nasu Operations meets the Environmental Management System standard, ISO 14001.

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Some features presented in this brochure may not be commercially available on all systems shown or may require the purchase of additional options.  
Please contact your local Toshiba representative for details.

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