

VAMC NORTH CHICAGO, IL
PO# 556-B38178

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APLIO 500 ULTRASOUND IMAGING SYSTEM

Toshiba's flagship ultrasound system, the Aplio™ 500, features industry-first, technological developments that provide premium image quality and operator effectiveness never before available.

High-density beamformer architecture uses the most advanced digital signal-processing technology and forms the foundation for advanced, real-time imaging applications and breakthrough technologies to see more and do more in the diagnosis and treatment of patients.

High density rendering enables comprehensive 3-D/4-D imaging to extend diagnostic capabilities, delivering unrivaled detail and resolution.

iStyle™+ Productivity Suite features the industry's most customizable user interface, along with numerous other workflow automation tools designed for operator comfort, efficiency and effectiveness.

STANDARD COMPONENTS

- Aplio 500 Ultrasound Imaging System
- Tissue Doppler Imaging (TDI)
- ApliPure+™
- Differential Tissue Harmonic Imaging (D-THI)
- Precision Imaging
- Quick Start Presets
- Quick Scan
- Trapezoid Imaging
- Advanced Dynamic Flow™ (ADF)
- Tissue Specific Optimization (TSO)
- Auto-Intima Media Thickness (A-IMT)
- 19" LCD monitor with articulated arm and handle
- Built-in DVD/CD drive with writer
- 5 USB Ports

KEY FEATURES

Extraordinary Image Quality

Toshiba's new image architecture - **High-Density Beamformer** - provides unprecedented image resolution and detail. This enables Aplio to deliver information quickly and reliably through an array of unique imaging technologies, including the following:

Next-Generation Precision Imaging

A multi-resolution signal-processing technique that enhances the definition of structures and sharpens borders to separate clinical information from clutter and noise for a more accurate representation of patient anatomy.

Differential Tissue Harmonic Imaging (D-THI)

An exclusive Toshiba patented technology, D-THI works with BT technology transducers. It provides improved visualization and definition of lesions, cysts and subtle tissue characteristics while scanning at increased depth and on difficult-to-image patients.

ApliPure™

The next generation of real-time compound-imaging technology. ApliPure uses simultaneous spatial and frequency compounding to deliver images of outstanding clarity and detail.

Tissue Specific Optimization (TSO)

Automatically corrects for the speed of sound through different tissues; particularly helpful for difficult-to-image patients.

Advanced Dynamic Flow

Provides high-resolution color imaging of micro-vessels within tumors and organs. Provides superior resolution compared to conventional color or power Doppler by applying the same ultra-high bandwidth normally used in grayscale to Doppler signal processing.

High Density Rendering

3-D/4-D volume imaging provides an ultra-high-level of 3-D detail and resolution. Captures volume data sets at high-volume rates for shorter exam times and greater productivity.

Auto-IMT

Provides a measurement of the intima-media thickness of the arterial wall to detect the presence and track the progression of atherosclerotic disease.

Outstanding Operability

iStyle+ Productivity Suite automates workflow and optimizes ergonomics.

Customizable User Interface

The main panel and touch-control screen (TCS) is fully customizable. Virtually all keys can be reassigned to meet individual needs, reduce learning curves and operator fatigue, and enhance workflow.

Quick Start Presets

Streamline workflow with the fully programmable sub-presets menu, which allow you to optimize image quality and color flow for a specific clinical target with a single touch of a button.

Quick Scan

Optimize 2-D image quality in all modes with a single touch. Equalizes thousands of image points, forming an image with balanced tissue brightness throughout the field-of-view.

Reliance Technology Protection Program

This quotation includes the Reliance Technology Protection Program for a full 36 months from the time of purchase.

Included in the plan is one software update per year to keep customers at the latest technology level. Hardware upgrades and options not covered. Whenever possible, installation will coincide with the preventive maintenance.

GENERAL HARDWARE DESCRIPTION

Display

- 19" LCD monitor with articulated arm and handle
- Programmable, touch-command screen restores preset adjustments with one touch

Main Panel

- Fully adjustable to provide ideal interaction whether sitting or standing.
Moves:
 - Up and down
 - In and out
 - Side to side
- Functions grouped around central palm controller
- Customizable to application demands and user preferences
- Programmable main panel, screen layout and touch-control screen menu
- Advanced imaging and application presets

Transducers

- Ergonomic, lightweight transducers with innovative shapes and super-flexible cables designed for superior image quality
- Six probe holders eliminate transducer changeover time
- Four active ports provide convenient transducer access for faster exams and increased throughput

Connectivity

Extensive communication and data management capabilities enable seamless integration into hospital and research environments including the following DICOM functions:

- Media Storage
- Verification
- Storage
- Print
- Storage Commitment
- MULTI FRAME (Network Transfer)
- MWM (Modality Worklist Management)
- Query/Retrieve
- MPPS (Modality Performed Procedure Step)
- Structured Reporting

Image Maker Express

The Image Maker Express is an online marketing resource designed exclusively for Toshiba customers that helps create outreach programs to generate awareness about imaging services.

- Includes positioning and messaging guides to help strategize communications efforts and tactics
- Contains product information, ready-to-use collaterals and ideas for creating custom materials to promote new imaging capabilities

Image Maker Express provides access to:

- Product images
- Clinical images
- PowerPoint presentations
- Sample brochures
- Sample press releases
- Marketing strategy tutorials
- Tips on effective presentations
- Updates at www.imagemaker.toshiba.com/express

*Offerings may vary per product

APPLICATIONS SUPPORT

Developed with customer input, Toshiba's innovative support programs have resulted in increased customer satisfaction. These include the following:

Technical Assistance

Customer support specialists are available 24/7 to help resolve technical issues in real time. Application support specialists are also available to assist staff with protocol and image-quality issues.

Local Customer Teams

A single call mobilizes a local team of Toshiba customer engineers. With an average of 10 years of Toshiba experience and 105 hours of specialized training, they can resolve almost any performance issue.

Parts Support

A complete inventory of product parts is ready for shipment when and where they are needed, any time of day or night.

Training

Included with the purchase of Aplio is training conducted by Toshiba applications specialists registered with the American Registry of Diagnostic Medical Sonographers (ARDMS).

Training includes:

- Two days of on-site applications training
- One day of on-site follow-up applications training

Clinical Education Program

Toshiba customers receive access to the CME resources on SonoWorld via SonoBucks vouchers. Toshiba makes the SonoBucks vouchers available as an add-on to equipment and service sales, allowing customers to make a one-stop purchase of both products and education.

Additional On-Site Training

Available for purchase.

COMPONENT SUMMARY:

APLIO™ 500 ULTRASOUND IMAGING SYSTEM

DICOM

Supports a variety of timed and gated multi-frame DICOM capabilities including:

- Verification SCU/SCP
- Storage SCU
- Modality Worklist Management SCU to support operations with HIS/RIS systems
- Storage SCU to allow studies to be stored to Aplio from remote systems such as Storage Commitment SCU and MPPS SCU workflow management and data

RELIANCE TECHNOLOGY PROTECTION PROGRAM

ULTRASOUND ADVANTAGE TRADE-IN PROMO

DYNAMIC MICRO-SLICE KIT

Produces highly enhanced detail resolution by electronically focusing the ultrasound beam in the elevation plane.

Used in conjunction with the 1.5D array transducer PLT-1204BX, multi-frequency linear transducer with Micro-Slice.

MULTI-FREQUENCY LINEAR TRANSDUCER WITH MICRO-SLICE

High frequency 1.5D linear array transducer for superb detail resolution

Model: PLT-1204BX

Applicable systems: SSA-790A in which UIHV-790A V3.0 or later and USMS-790A V3.0 or later are installed

Imaging frequencies: 14.0/12.0/9.3/8.0/7.2/T14.0/T12.0/T10.0/T8.0/T7.0/
D-THI: 18.0/14.0/13.0 MHz

Doppler Frequencies: 10.0/8.9/8.8/7.3/7.2/6.2/6.1/5.3 MHz

Applicable modes: B/PS-THI/D-THI/CDI/TDI/ADF/PWD/
ApliPure/ApliPure+

Biopsy adapter: Same as for PLT-1204AX: CIVCO 680-088 (TG-4)

DYNAMIC MICRO-SLICE SOFTWARE

Matrix array technology for fine beam forming focuses not only in the lateral and axial planes, but also in the depth or elevation plane.

Prerequisite: UIHV-A500A

HV POWER UNIT

Enables dynamic Micro-Slice capabilities with PLT-1204BX, multi-frequency linear transducer.

MECHANICAL 4-D KIT / MD-TEE KIT

A motor-control board required to run the 4-D transducers and motorized multi-plane transesophageal echocardiography package (PET-512MC).

MICRO-FREQUENCY ENDOCAVITARY TRANSDUCER

High-frequency endocavitary transducer for 3-D and 4-D endovaginal and transrectal applications. This transducer delivers unsurpassed bandwidth and sensitivity while increasing penetration and spatial resolution.

Specifications:

- Imaging frequencies:
8.8/7.3/5.8/4.7/3.6/T8.0/T7.2/T6.6/T6.0/T5.6 MHz
- D-THI frequencies: 7.0/6.0 MHz
- Doppler frequencies: 6.7/6.6/6.2/5.0/4.2/3.6/3.3 MHz
- Scan angle: 160 degrees

Prerequisite: UIMV-A500A

ELASTOGRAPHY SOFTWARE

Real-time elastography technology provides a visual representation of the elasticity of lesions following manual compressions.

MICRO PURE IMAGING

A micro-calcification visualization technology that detects isolated high-echo regions by checking correlation with the surrounding tissues. The detected region is displayed white against other tissues, which are displayed blue.

Supported transducers:

- PLT-1204BT multi-frequency linear transducer, small parts
- PLT-1204BX multi-frequency linear transducer with Micro-Slice
- PLT-805AT multi-frequency linear transducer

PANORAMIC VIEW

- Allows for the evaluation of vessels, organs and anatomy in a large field-of-view.
- Provides for the collection of more comprehensive data sets for evaluating or identifying enlarged masses, soft tissue abnormalities and foreign bodies.
- Scans at a continuous speed without the need for probe attachments.