

460-B28004

XR-US, VAMC WILMINGTON, DE

**ULTRASOUND
SYSTEM - CARDIAC**

CARDIOVASCULAR
ULTRASOUND IMAGING SYSTEM

DICOM

TISSUE ENHANCEMENT 2-D / 3-D

WALL MOTION TRACKING 2-D / 3-D

NON-IMAGING CONTINUOUS WAVE
TRANSDUCER

MULTI-FREQUENCY SECTOR
TRANSDUCER, CARDIAC

PST-25SX WITH CARDIAC 4-D KIT

4-D MULTI-FREQUENCY SECTOR
TRANSDUCER, CARDIAC

UHC 3D ECHOCARDIOLOGY TRAINING
COURSE SDMS CME - TUITION ONLY

CARDIAC 4-D KIT

ULTRAEXTEND WORKSTATION PACKAGE
- CARDIOLOGY

ULTRAEXTEND SOFTWARE

ADVANCED CARDIAC SOFTWARE
PACKAGE

HP WORKSTATION WITH 19" LCD
MONITOR

SERVICE UTILITY

SERVICE TOOL (USB FLASH DRIVE 32 GB)

- Includes 12 month Service Warranty.

ULTRASOUND SYSTEM -- CARDIAC

ultrasound system for cardiology with pace-setting, technological developments that meet the highest clinical standards. Artida features ultra-high-resolution imaging and proprietary 3-D speckle tracking for delay-free, easy, 4-D volume navigation and advanced wall-motion assessment. The system's outstanding clinical performance is powered by SmartCore™ technology, which acquires and processes large volumes of high-quality data.

Designed for comfort and convenience, Artida meets OSHA's ergonomic recommendations to reduce operator fatigue, speed exams and minimize work-related injuries. This includes newly designed SmartFocus transducers – light, small probes that provide superior image quality – and a fully customizable and moveable main panel, which also enhances workflow. Advanced imaging techniques also enhance workflow and improve standardization of studies.

Aplio Artida is well suited for high-performance routine examinations as well as research and quantification purposes with a broad range of innovative techniques that enhance workflow and productivity. This includes standard imaging software packages for cardiology applications and enhanced clinical and operation performance for 2-D and 4-D applications.

STANDARD COMPONENTS

- Aplio Artida Ultrasound Imaging System
- 19" LCD monitor with articulated arm and handle
- Tissue enhancement
- Wall motion tracking
- ApliPure™
- Differential Tissue harmonics
- Quick Scan
- Tissue Doppler Imaging
- CWD unit
- Physio signal unit
- DICOM:
 - Medium Storage (Still/Multi Frame)
 - Verification
 - Storage (Still/Multi Frame)
 - 3-D/Stress SOP
 - Storage Commitment
 - MWM (Modality Worklist Management)
 - MPPS (Modality Performed Procedure Step)
 - Structured Reporting

KEY FEATURES

Ergonomics and Workflow

Artida is the first ultrasound system to meet OSHA's ergonomic recommendations. The main panel and TCS is fully customizable so it can be programmed exactly to meet individual needs, reducing learning curves and operator fatigue and enhancing workflow.

The system's real-time 4-D imaging was designed for easy operation with streamlined workflow using a light, small probe for both patient and sonographer comfort. All transducers are newly designed for both superior image quality and ergonomics.

Display

- 19" LCD monitor with articulated arm and handle
- Programmable touch command screen restores preset adjustments with one touch
- Four different spectral Doppler display formats ensure user flexibility

Main Panel

- Fully adjustable; moves up and down, in and out, side-to-side providing ideal interaction whether sitting or standing
- Functions grouped around central palm controller
- Customizable to application demands and user preferences
- Programmable main panel, screen layout and touch control screen menu
- Key switches arranged for one-hand operation
- Advanced imaging and application presets

Transducers

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

Additional Features

- All-wheel drive chassis with central steering and braking system for easy maneuverability
- A large storage drawer, paperwork tray and gel holders help keep accessories handy and well organized

Advanced Technology Features

SmartCore™ Technology

A new architecture that provides the system's raw processing power to perform highly complex data operations in real time, resulting in unparalleled image quality and sensitivity. SmartCore:

- Drives the beamformer and transducers,
- Provides high-quality data to the display, and
- Powers the advanced applications that make this data meaningful.

MultiCast Beamformer

Creates the ultrasound beam that scans 2-D and 4-D anatomy quicker and more accurately, resulting in excellent sensitivity and resolution. Simultaneously generates wave patterns that focus at different depths, allowing dual focal points in an image without sacrificing frame rate and enabling greatly improved color Doppler performance.

SmartFocus Transducers

With SmartFocus, Toshiba introduces genuine 4-D technology for the first time to conventional 2-D imaging transducers. A significantly finer and more uniform ultrasonic beam in all three dimensions results in superb image quality from the very near to the far field in smaller, more ergonomic designs.

SmartSlice

Artida brings best-of-breed cardiac 4-D imaging to everyday clinical use with intuitive SmartSlice functions that allow operators to cut, slice and position the 4-D volume quickly and conveniently.

- A variety of volume acquisition modes provides the freedom and flexibility to easily acquire and store 4-D volumes as raw data.
- The easy-to-use volume navigation is totally delay-free and enables fast and accurate review of the volumes at any time.

Quantification

With Wall Motion Tracking technology, Artida ushers in a new era of dyssynchrony imaging and advanced cardiac quantification. Wall Motion Tracking:

- Is angle independent, so it provides immediate visual as well as reliable quantitative access to regional myocardial wall motion in 2-D and 3-D.
- Enables access and quantification of standard parameters such as strain, strain rate or displacement.
- Enables access and quantification of advanced myocardial motion patterns such as rotation, twist and torsion, making it an excellent tool in echocardiographic LV assessment and resynchronization therapy.

For raw data, Aplio Artida offers a selection of advanced measurement and analysis packages and post-measurement options resulting in greater diagnostic confidence.

Connectivity

Aplio Artida supports DICOM service classes. Its extensive communication and data management facilities enable seamless integration into hospital and research environments including communication with:

- HIS/RIS systems
- Conversion to PC format
- IHE & HIPAA

SPECIAL SOFTWARE FEATURES

ApliPure

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

- Enables faster image acquisition, greater clarity, and reduced speckle
- Based on real-time image acquisition using either fundamental or pulse subtraction THI frequencies
- Render alone or with color Doppler, pulse-wave Doppler

Differential Tissue Harmonics (D-THI)

Exclusive to Toshiba and a patented technology, D-THI is applicable to transducers with BT Technology. Sends two frequencies simultaneously for differential frequency generation to obtain high-sensitivity and high-resolution images.

Quick Scan

For one-button optimization of the 2-D image. Equalizes thousands of image points, forming an image with balanced tissue brightness throughout the field of view.

Tissue Enhancement Mode

This offers a smoother, clearer ultrasound image than was previously achievable. The noise is effectively suppressed, and the uniformity of the image and the visibility of the myocardium is greatly improved.

APPLICATIONS SUPPORT

Training

All training is conducted by Toshiba applications specialists registered with the American Registry of Diagnostic Medical Sonographers (ARDMS). Two days of on-site applications training, plus one day of follow-up applications, for a total of three days are provided with the purchase of an Aplio system.

Clinical Education Program

Toshiba customers will 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:

Additional On-site training available for purchase.

Applications support is available by phone on the toll-free ASSIST line.

COMPONENT SUMMARY:

CARDIOVASCULAR ULTRASOUND IMAGING

SYSTEM

DICOM

Provides:

- 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 Storage Commitment SCU and MPPS SCU workflow management and data security
- Supports a variety of timed and gated multiframe DICOM capabilities

TISSUE ENHANCEMENT 2-D / 3-D

The new tissue enhancement mode:

- Produces superior image quality
- Reduces noise in difficult patients for clearer views of the endocardium and apex

WALL MOTION TRACKING 2-D / 3-D

Sophisticated and easy-to-use, this software performs various analyses for 2-D/3-D speckle tracking including:

- Tissue strain imaging
- Displacement imaging
- Rotation, Twist , and Torsion
- Dyssynchrony imaging

NON-IMAGING CONTINUOUS WAVE TRANSDUCER

Doppler Frequency: 2.0 MHz

MULTI-FREQUENCY SECTOR TRANSDUCER, CARDIAC

For adult echocardiography applications.

Imaging Frequencies: 2.0/2.7/3.4/4.1/4.8/T2.8/T3.2/T3.6/T4.0/T4.4 MHz

Doppler Frequencies : 3.1/3.0/2.8/2.5/2.2/2.0 MHz

PST-25SX WITH CARDIAC 4-D KIT

4-D MULTI-FREQUENCY SECTOR TRANSDUCER, CARDIAC

For adult echocardiography 4D applications.

Frequencies: 3.0/2.5/2.0/T4.0/T3.5/T3.0/T2.0 MHz

Prerequisite: USVC-880A needed

UHC 3D ECHOCARDIOLOGY TRAINING COURSE SDMS CME - TUITION ONLY

This course is for those customers who have purchased an Artida 3-D Ultrasound Scanner. The course will be held by the UHC Education Center in Cleveland, OH. It requires 2 days on-site.

Coursework includes:

- Principles of 3-D/4-D echo, basic 3-D cardiac anatomy, clinical indications, image review and workflow from acquisition to post processing on the Artida system
- The major focus of the course will be manipulation and interpretation of various basic and advanced 3-D echo studies

- 2 days on-site coursework will include didactic sessions, guided review and continuous participation in scanning
- All physicians eligible, but designed for cardiologists and sonographers seeking 3-D echocardiography training
- SDMS CME certification UHC Education Center

The following expense is included:

- Tuition only for 3-D Echocardiographic education (Travel not included)

CARDIAC 4-D KIT

This option allows users to observe the myocardium in 3-D or 4-D display mode when used in combination with a dedicated transducer (PST-25SX).

ULTRAEXTEND WORKSTATION PACKAGE - CARDIOLOGY

The ultrasound UltraExtend Workstation Package is connected to Artida, Aplio XG, or Xario XG through DICOM via the institutions PACS/Server, enabling the use of image filing, measurement, and basic reporting functions. In addition, the processing of raw cardiac 4-D images can be performed on UltraExtend utilizing Advanced Cardiology Package (ACP) (UWCP-900A).

- Stress Echo, 3-D tools, and 2-D/3-D Wall Motion Tracking are included with the Advanced Cardiology Package (ACP).
- UltraExtend is intended to be used in an internal network environment.

ULTRAEXTEND SOFTWARE

ADVANCED CARDIAC SOFTWARE PACKAGE

HP WORKSTATION WITH 19" LCD MONITOR

SERVICE UTILITY

SERVICE TOOL (USB FLASH DRIVE 32 GB)