SPECIFICATIONS
for
Diagnostic Ultrasound System

ARIELTATA Prologue

MODEL: ARIELTATA PROLOGUE
Scanning Method
• Electronic Convex
• Electronic Linear
(Steered linear scanning and Trapezoidal scan are Possible.*)
• Electronic Phased Array Sector
* Probe dependent.

Operating Modes
• B-mode(Fundamental, FmT, WbT)
• M-mode(Fundamental, FmT, WbT)
• D : Spectral Doppler mode (PW, HPRF-PW), CW
• Color Flow mode
• Power Doppler mode (Directional Power Doppler)
• eFlow mode (Directional eFLOW)
• TDI(Tissue Doppler Imaging)

Image Display Modes *
• B : gray-scale imaging
• Dual B (Right/Left or Up/down)
• Quad B
• M
• B and M
• D : Spectral Doppler mode (PW, HPRF-PW), CW
• B and D
• B (Color Flow)
• B (Power Doppler)
• B (eFLOW)
• Dual B (Color Flow) (Right/Left or Up/down)
• Quad B (Color Flow)
• Dual B (Power Doppler) (Right/Left or Up/down)
• Quad B (Power Doppler)
• Dual B (eFLOW) (Right/Left or Up/down)
• Quad B (eFLOW)
• M (Color Flow)
• M (Power Doppler)
• M (eFLOW)
• B (Color flow) and M (Color flow)
• B (Power Doppler) and M (Power Doppler)
• B (eFlow) and M (eFLOW)
• B (Color flow) and D
• B (Power Doppler) and D
• B (eFLOW) and D
• TDI (Tissue Doppler Imaging)
• B(Color Flow) and D simultaneous real-time display
  (Triplex mode)
• B(Power Doppler) and D simultaneous real-time display
  (Triplex mode)
• B(eFLOW) and D simultaneous real-time display
  (Triplex mode)
• B and B(Color Flow) simultaneous real-time display
  (Dual Flow)
• B and B(Power Doppler) simultaneous real-time display
  (Dual Flow)
• B and B(eFLOW) simultaneous real-time display
  (Dual Flow)
• Dynamic Slow-motion Display :
It is possible to display a real-time image and a slow-motion image side by side.
  Dual B
  Dual B(Color flow)
  Dual B (Power Doppler)
  Dual B(eFLOW)
* Probe dependent.

Beamformer
Multi processing high-speed digital beam former
14-bit A/D converter (16384 gray levels)
Sampling rate: Equivalent to 320 MHz
Delay precision: 1/64λ at minimum in both transmission and reception
Ultrasound Frequency: 1.0-18.0 MHz*
* Probe dependent

Tissue Harmonic Imaging
Filter-method Tissue Harmonic Imaging(FmT) *
Wideband Tissue Harmonic Imaging(WbT) *
* Probe dependent

Tissue Adaptive Technology
Sound Speed adjustment :
1400 through 1650m/s(10m/s step)

Focusing
Lateral direction
Transmission: Multi-stage transmission focus of up to 3 stages out of 8 stages
Reception: PixelFocus
Slice direction
Acoustic lens

Beam signal processing
Dynamic apodization

System Dynamic Range
265dB

System Processing Channels
249,984 Channels

Frame rate
Max. 882 frames/s or more*
* Depends on probe and parameter setting

**User Interface**
Home button
Software switch by touch panel

**Home Screen**
- New Patient, Scan Condition, History and so on can be selected.

**Scan Condition Screen**
- Any preset is appropriate to patient and region by body diagram and body type can be called up.

**History Screen**
- Displayed as small thumbnail images and same condition can be applied by selected image.

**B-mode**
- Display Gray Scale: 256 levels
- Scanning area:
  100% to 25%, 5% step
- Zoom
  The Maximum magnification is 16 times (probe dependent)
- Depth range selections*:
  2.0/2.5/3.0/3.5/4.0/4.5/5.0 and 1 cm-step increment from 5.0 to 30.0 and 35, 40.0 cm
  * Probe dependent
- Scanning Angle: Max. 200deg
- Longitudinal and lateral inversion
- Rotation: By 90 degrees (probe dependent)
- Frame rate (Line density): 3 selections
- Gain*: 10 to 90 dB
- TGC (Time gain control) — gain versus depth curve:
  8 steps and reset function
- LGC(lateral gain control):
  Gain versus angle curve:
  4 selections (Sector Probe only)
- Dynamic range*:
  23 steps (36-96 dB)
  (It is possible to select the indication between dynamic range in dB and number of steps.)
- AGC—Suppression of brightness saturation and Edge Enhancement: 16 steps
- Relief: 4 steps
- FTC: On/Off
- Persistence: 16 steps
- Smoothing: 16 steps (off, 1 through 15)
- Gamma curve:
  Curve: 5 kinds
  Rejection: 64 steps
- Gray map: 5 kinds
- Auto-optimizer: Available
- TGC curve memory: 8 steps
- Compound Imaging (possible by selected linear and convex probes): Max. ±20 degrees, 5 degrees Step
- B Steer function*2:
  Max. ±20 degrees, 5 degrees step
- Trapezoidal scan (possible by selected linear probes)
  Max. ±30 degrees, 5 degrees step
  (Probe dependent)
- Adaptive Image Processing (AIP)
- Silky Image Processing (SIP)
- Needle Emphasis*2
- Full Image: Enlarge US image
- Mirror Inversion Display: Switch around US image and menu area
- Touch Guide: Display of touch gesture operation in each Mode
Supported Mode: B, Color flow, PW and M-mode
  *1 Gain and Dynamic range can be changed after freezing
  *2 Probe dependent

**M-mode:**
- Sweep method: Moving bar
- Sweep speed*: 1:
  25.0, 33.3, 50.0, 66.7, 100.0, 150.0, 200.0mm/s
- Gain*: 1: B-gain ±30 dB
- Dynamic Range*: 1: 23 steps (36-96dB: Indication can be selected between dynamic range and number of steps.)
- AGC—Suppression of brightness saturation: 16 steps (including relief processing)
- Relief: 4 steps
- FTC: On/Off
- FAM*2 (Free Angular M-mode)
  Up to 3 M-mode cursors can be set omni-directionally at any position on a B-mode image.
  It is possible to reconstruct M-mode images from line-data B-mode images stored in the SSD
  (Available after freezing.)
  *1 Gain, Dynamic Range and sweep speed are changeable after freezing
**Spectral Doppler:**
- Display: Power spectrum
- Frequency analysis system: FFT System
- Real-time Doppler Auto Trace
- Doppler methods:
  - PW (Pulsed Wave) Doppler
  - HPRF (High Pulse Repetition Frequency) PW Doppler
  - CW (Continuous Wave) Doppler
- Reference frequencies*:
  - 2.00, 2.11, 2.50, 3.08, 3.64, 4.00, 4.44, 5.00, 5.71, 6.67, 8.00 MHz
- *Probe dependent
- CW: 2.00 MHz
- Pulse Repetition Frequency:
  - PW: 0.32 to 19.84 kHz
- Analysis rate:
  - CW: 1.3 to 41.67 kHz
- Max. velocity range:
  - PW: -7.08 to 0 or 0 to +7.08 m/s (2.0 MHz reference freq., 0 degree, with base line shift)
  - CW: -15.9 to 0 or 0 to +15.9 m/sec (2.0 MHz reference freq., 0 degree, with base line shift)
- Base line shift*: Up to double velocity
- Steerable CW Doppler: Possible (probe dependent)
- Steered linear scanning:
  - Max. ±20 degrees, 5 degrees step
- Spectrum inversion*:
- Angle correction*:
  - Up to ±80 degrees, presettable
- Automated angle correction in Color Flow mode
- Sample volume size for PW Doppler: 0.5 – 20 mm
- Wall motion filter:
  - Manual: 50, 100, 200, 400, 800 or 1600 Hz
  - Auto: Varies in 12 steps
- Doppler gain: 0 - 50 dB
- Dynamic Range*: 16 steps
- Black-and-white inversion*:
- Auto-Optimizer
  (Optimization of velocity range and baseline shift)
- Audio output:
  - Built-in loudspeaker: Monaural
- PW Sound ON function
- *1 Base line shift, Spectrum inversion, Angle correction, Dynamic range adjustment, and Black-and-white inversion are possible after freezing.

### Color Doppler Imaging
- Display patterns:
  - Velocity, Velocity + variance, Variance, Power Doppler, Directional Power Doppler, eFLOW, Directional eFlow, TDI (Tissue Doppler Imaging), TDI Power

#### Color Flow Mode
- Gradation: ±127 levels
- Reference frequencies (probe dependent):
  - 2.00, 2.11, 2.50, 3.08, 3.64, 4.00, 4.44, 5.00, 5.71, 6.67, 8.00 MHz
- Pulse repetition frequency: 0.55 ~ 9.86 kHz
- Packet Size: 3 steps
- Color area size: Variable from 100 % to 15 % continuously
- Steered linear scanning:
  - Max. ±20 degrees, 5 degrees step
- Persistence: 16 steps
- Wall Motion Reduction: 16 steps
- Color coding (Editable with color coding editor)
  - Abdomen: 5 kinds
  - Vascular: 5 kinds
  - Cardiology: 5 kinds
  - User: 5 kinds

#### Power Doppler
- Gradation: 128 levels
  (Directional Power Doppler: ±127 levels)
- Color coding: 5 kinds
- Non-display of B/W image: Possible
- Smoothing: 16 steps

#### High Resolution Power Doppler(eFLOW) Mode
- Gradation: 128 levels
  (Directional eFlow: ±127 levels)
- Color coding: 5 kinds
- Non-display of B/W image: Possible
- Smoothing: 16 steps

#### Directional Power Doppler, Directional eFLOW
Available
- Reference frequency: (Probe dependent)
  - 2.00, 2.11, 2.50, 3.08, 3.64, 4.00, 4.44, 5.00, 5.71, 6.67, 8.00 MHz
• Pulse repetition frequency: 0.55 to 9.86 kHz (Max. 16 kHz in eFLOW mode)
• Maximum velocity range: -3.5 to 0, or 0 to +3.5 m/sec (at 2.0 MHz reference frequency, with baseline shifted)
• Color base line shift: Possible up to double velocity (+127 steps)
• Gradation: ±127 levels for velocity 16 levels for variance
• Color Polarity: Normal, Invert

TDI (Tissue Doppler Imaging)
• Switching between Color flow Doppler and tissue Doppler during examination is available

Instruction Manual Display
• Instruction Manual can be displayed by PDF viewer on equipment.

Cine Memory
• Cine search and loop display

Capacity
• B mode Max. 12412 frames
• Scroll in M or D mode Standard: 10 seconds
• High-speed mutual data transfer between Cine Memory and SSD is possible.

Note: The number of storable images in a loop depends on probe type, scanning angle and other conditions.

Data Management

Image data format
• Multiple-frame (moving) image DICOM*1 (RGB[RLE/Normal], JPEG, Monochrome2*2)
AVI: Motion JPEG codec
MPEG4 : H.264(MPEG4 Part10 AVC)
MOV
Line (DICOM Hitachi Aloka Medical, LTD. private specification)
• Single-frame (still) image DICOM*1 (Palette, RGB [RLE/Normal], JPEG, Monochrome2*2)
TIFF, BMP, JPEG
*1 Option: SOP-AR-PLG-10
*2 Compatible with Monochrome2 only when transferring to a server

Image acquisition mode
• Real-time multi-frame image acquisition
Post TIME: Max. 16 seconds
Pre TIME: Max. 16 seconds
Manual:
Line data: Up to the capacity of the Cine Memory
Image data (128 lines/frame, 60 Hz):
Standard: Max. 16 seconds
• Real-time Video Clip(AVI, 30Hz) Post TIME: Max. 16 seconds
Pre TIME: Max. 16 seconds
Manual: Max. 180 seconds
• Cine loop high-speed data transfer (Line, Image) It is possible to selectively store data of arbitrary section in the Cine Memory.
• Simultaneous output to multiple media It is possible to output still image data to multiple of storage media at the touch of a button.

Image data management tool
Image viewer
Thumbnail display of stored images (1-36 images)
Check mark is put on a transferred image.
Image zoom, rotation, inversion
1:1 replay (main unit SSD or DICOM*1 storage data)
Writing into USB memory and SD card
Re-storing to media, transfer DICOM moving image transfer*1
*1 Option SOP-AR-PLG-10 is necessary

Measurement data
It is possible to store measurement data in the main unit SSD.
DICOM SR*1 (OB, cardiology, vascular, abdominal and gynecological measurements) output possible
*1 Option: SOP-AR-PLG-10 and SOP-AR-PLG-21 are necessary.

Patient data
Displayed information*
Patient information: ID (up to 64 characters), Name (up to 64 characters), Birthday, Sex
Study information: Study ID, Age, Height, Weight, Accession, Referring physician, Study description, Sonographer
* Conforms to DICOM 3.0 standard
Data storage media

- SSD: Console incorporated
  Usable space: up to about 79 GB
  (About 32,800 still images are storable.)
- USB memory*
  (USB memory port is standard.)
- SD Card*, SDHC Card*, SDXC Card*
  * Option

DICOM network communication*1

- Conformity to DICOM service class:
  Ultrasound image storage SCU
  Ultrasound multi-image storage SCU
  Storage media FSC/FSR
  Print management SCU
  Modality worklist management SCU
  MPPS (Modality performed procedure step) SCU
  Storage commitment SCU
  SR SCU*2 (OB, cardiology, vascular, abdominal and gynecological measurements)
  (For details, please refer to the DICOM Conformance Statement issued by Hitachi Aloka Medical, LTD.)
- Storage: Possible to send patient information directly to DICOM file server
- Work list management: Retrieval of patient and reservation information from hospital information system (HIS)
  NOTE: The HIS needs to be compatible with DICOM standard supplement 10. The HIS network and the DICOM network need to be linked.
- DICOM Q/R*3:
  Retrieve modalities are US and Line.
  Query keys are ID, Name, Date, Accession # and Modality. After retrieve can review by Review Function.
- Router setting: possible
- IHE (Integrated Healthcare Enterprise)
  SWF (Scheduled Work Flow)
  PIR (Patient Information Reconciliation)
  *1 Option: SOP-AR-PLG-10
  *2 Option: SOP-AR-PLG-10 and SOP-AR-PLG-21 are necessary.
  *3 Option: SOP-AR-PLG-10 and SOP-AR-PLG-59 are necessary.

Security measures

- User authentication function is available.
  3 Types of user authority can be set.

It is possible to set whether password is required or not at the start of operation.
- Teaching file can be made.
- McAfee Embedded Control2 software*
  * Option: SOP-AR-PLG-69
Measurement and Analysis

● General measurements (Available to show measurement results up to ten channels simultaneously.)

On B-mode image
- Distance (Dist, Dist-Trace)
- Area and Circumference (Trace, Ellipse, Circle)
- Volume (Spheroidal, Prolate, Area-length, BP Simpson, SP Simpson)—Automatic heart cavity trace is possible. (3-point designation method)
- Index (general purpose)
- Histogram, Angle, Hip joint angle

On M-mode image
- Velocity
- Length (amplitude)
- Time interval
- Heart rate
- Index (general purpose)

On spectral Doppler
- Velocity, Acceleration (or deceleration),
- Mean flow velocity, Pressure gradient
- RI: Resistance index,
- PI: Pulsatility index
- Pressure half time
- Heart rate
- Dop. Caliper measurement
- Index (general purpose)
- Time interval
- Stenotic flow measurement
- Regurgitant flow measurement
- D. Trace

On B/D mode
- Blood Flow volume
- SV/CO

On B(Flow) mode
- Blood Flow volume *
- * Option: SOP-AR-PLG-7

Others
- Guide message
- User’s calculation

● Obstetrical measurements & calculations

- Gestational age, Fetal weight
- Fetal Doppler measurements
- Fetal cardiac function measurements
- Placenta, Fetus cardiac (MCA, UmA, UtA, OvA, PLI, D-Ao)
- Amniotic fluid index (AFI,AFP,AFV)

Cervical length
- Supports multiple pregnancy
- Growth analysis function (display of past measurement data)
- Automated NT measurement *
  * Option: SOP-AR-PLG-42

● Gynecological measurements & calculations

- Uterus measurements
- Endometrial thickness
- Cervical measurements
- Ovary measurements
- Follicular measurements (Volume measurement by 3-axis measurement is possible.)
- Urinary bladder measurements
- Uterine artery, Ovarian artery measurements

● Cardiac analysis

B mode
- LV Volume measurements
  - Area-length, Simpson (Disc),
  - BP Ellipse, Modified Simpson, Bullet, Pombo, Teichholz, Gibson)—Automatic heart cavity trace is possible. (3-point)
- Valve area measurements (AVA, MVA)
- LA/AO
- Ratio
- Right ventricle measurements
- LV myocardial mass
- IVC (inferior vena cava) measurement
- Left/right atrium volume

M mode
- Pombo, Teichholz, Gibson
- Mitral valve measurements
- LA/Ao measurements
- Tricuspid valve measurements
- Pulmonary valve measurements
- IVC (inferior vena cava) measurement
- CRT measurement (Asynchrony evaluation)

Doppler mode
- LVOT (left ventricle outflow tract) flow
- RVOT (right ventricle outflow tract) flow
- Trans-mitral flow
- Regurgitant flow (AR, PR, MR, TR)
- Stenotic flow (AS, PS, MS, TS)
- Portal vein flow
- Coronary flow
- CRT measurement (Asynchrony evaluation)

Color flow mode
PISA measurement
Blood Flow volume *
* Option: SOP-AR-PLG-7

TDI
TDI PW MA
Time to Onset measurement
Time to Peak measurement
Mid wall FS

- Vascular analysis
  Carotid artery:
  - CCA (common carotid artery)
  - ICA (internal carotid artery)
  - ECA (external carotid artery)
  - BIFUR (Bifurcation of carotid artery)
  - VERT (Vertebral artery)
  % Stenosis area
  % Stenosis diameter
  IMT (Intima-media thickness)
  Automated IMT Measurement*
  * Option: SOP-AR-PLG-38
  Measurements of arteries and venous in extremities:
  - Lower extremity artery flow
  - Lower extremity venous flow
  - Upper extremity artery flow
  - Upper extremity venous flow
  - Transcranial Doppler measurements

- Urological measurements & calculations
  Prostate volume: PSA volume, PRS Slice volume
  Bladder volume
  Seminal vesicle
  Testicle volume
  Renal volume
  Cortical thickness
  Adrenal gland measurement
  Renal pelvis measurement
  Renal artery Doppler measurements (pulsatility index, resistance index)

- Abdominal measurements
  B mode
  - Gall bladder
  - Common bile duct
  - Liver
  - Pancreas
  - Kidney
  - Spleen

  SOL (Space Occupying Lesion)
  Vessel diameter (aorta, portal vein)
  Stenotic rate (diameter, area)

  Doppler mode
  - Abdominal aortic flow
  - Blood Flow of blood vessels in Liver
  - Portal vein flow
  - Gut tract membrane aorta blood velocity
  - Blood Flow volume
  - Shunt flow

  B/D mode
  - Flow volume

  B mode
  - Lesion (Breast)
  - D/W ratio
  - NT distance
  - Thyroid volume
  - Isthmus Thickness

  Doppler mode
  - Breast Doppler flow
  - Thyroid Doppler flow

- Report Functions
  Obstetrical report
  Gynecological report
  Cardiac function report
  Vascular report
  IMT (Intima-Media Thickness) report
  Breast report
  Thyroid report
  Urological report
  Abdominal measurements report

  Auto Highlight abnormal values

  It is possible to recall past measurement reports.
  Examination data history can be plotted on the report.

  Output of measurement values in CSV file is possible.
  Measurement values to server by DICOM SR* is possible.

- User’s calculation
  30 equations can be set for each application
  User-assignable terms: 60 words possible
  *Option: SOP-AR-PLG-10 and SOP-AR-PLG-21 are necessary.
### Other Functions

**Automated IMT Measurement**
It is possible to automatically extract max IMT, min IMT and mean IMT by simply setting ROI (region of interest) on a long-axis view of the vessel. In addition, the thicknesses at 3 points, i.e., the point at max IMT, and the points at 1cm on the right and left of the max IMT, can be automatically detected and averaged.
* Option: SOP-AR-PLG-38

**Automated NT Measurement**
It is possible to automatically extract the nuchal translucency thickness (NT) by simply setting ROI (region of interest). In addition, thicknesses at max NT, Mean NT can be automatically calculated.
* Option: SOP-AR-PLG-42

**SIP (Silky Image Processing)**
Smooth images can be displayed with the combination of border emphasis and noise removal processing.

**FAM** (Free Angular M-mode)
Up to 3 M-mode cursors can be set omni-directionally at any position on a B-mode image. It is possible to reconstruct M-mode images from line-data B-mode images stored in the SSD (Available after freezing.).
* Option: SOP-AR-PLG-5

**B Flow Profile Measurement**
* Option: SOP-AR-PLG-7

**McAfee Embedded Control 2 software**
* Option: SOP-AR-PLG-69

**Foot Switch**
* Option

### General Specification

**Acoustic Power**
- 0 to 100%, continuously changeable

**Preset Function**
- 57 separate programs for specific clinical applications and/or users
- User programmable and/or factory default settings
- Factory default settings: 42 kinds

**Characters and graphic displays**
- Character input area:
  - ID, name, age, sex, retained text
- Automatic Annotation Labeling:
  - 120 words or more (User registration is possible.)
- Body mark: 69 kinds
  - Body mark editor to create user's body mark:
    - 20 kinds
- It is possible to create any body mark with probe mark editor: 4 kinds
- Movement of displayed position: Possible
- Fetal body mark: Rotatable
  - L and R display

**Active Probe Ports**
- For electronic scanning probes: 1

**Touch Panel Display**
- 11.6-inch LCD Monitor
- Resolution : 1080p60 (FHD : 1920 × 1080)
- Tilt is possible.

**Input / Output signal**

**Back End Module**
- USB3.0: 1 ports
  - (USB memory stick can be connected)
- SD card: 1slot
  - (SDHC and SDXC can be connected)
- HDMI Out: 1 port
- Ethernet: 1 port
  - BASE/T or 100 BASE/TX, (automatically switched)
- Wi-Fi and Bluetooth: only wireless equipment
  - BE-FE: IEEE802.11ac 5 [GHz] W52
    - Frequency band : 5150-5250 [MHz]
    - Wireless Data Rates : Up to 70 [Mbps]
    - Security : WPA2-PSK(AES)
  - BE-Hospital : IEEE802.11n 2.4 [GHz]
    - Security: Selectable from wireless network configuration in Windows OS
  - BE-FE: Bluetooth3.0+EDR(2.4 [GHz], Class2)
Front End Module
- Foot Switch: 1 port (USB2.0)

Safety Regulation
- IEC 60601-1 Ed.3.0: 2005, Class I, Type BF

Environmental Requirements
Operation
- Temperature: +10 to +40 degrees C
  (But, in case of using Backend in hand +10 to +35 degrees C)
- Relative Humidity: 30 to 75% (non condensing)
- Atmospheric pressure: 700 to 1060 hPa
- Altitude: Max. 3000m or less

In Storage/transportation
- Temperature: -10 to +50 degrees C
- Relative Humidity: 10 to 90% (non condensing)
- Atmospheric pressure: 700 to 1060 hPa

Power Requirement
- Voltage: 100-120V/ 200-240V
- Frequency: 50 or 60 Hz, Max. 200 VA

Dimensions
- Height: 75-260 mm
- Width: 296 mm
- Depth: 260 mm

Weight
- Approximately 4.5 kg

Battery
An on-board battery allows examinations to be performed even when an external power source is not available, and the main unit can be moved without turning the power off.

Front End Battery
- Model L-BT-5
  ( Made in TOCAD ENERGY CO LTD )
- Type Lithium ion battery
- Output power 71 Wh
- Actual time used Approx. 60 min
  - It fluctuates by the terms of use.
    For example, environmental temperature.
  - Capacity (drive time) of Battery decreases by repeating discharge and charge, battery is a component needing switching.

- Cycle life: 500 cycles
- Charging time
  - After the battery power is depleted, the time it will take to fully charge the battery by using the AC adapter: Approx. 180 min
    (ambient temperature of 20~30°C, It fluctuates by the terms of charging time.)
  - View current battery status Displayed as an icon on the LCD monitor

Back End Battery
- Model L-BT-7
  ( Made in TOCAD ENERGY CO LTD )
- Type Lithium ion battery
- Output power 34 Wh
- Actual time used Approx. 60 min
  - It fluctuates by the terms of use.
    For example, environmental temperature.
  - Capacity (drive time) of Battery decreases by repeating discharge and charge, battery is a component needing switching.

- Cycle life: 500 cycles
- Charging time
  - After the battery power is depleted, the time it will take to fully charge the battery by using the AC adapter: Approx. 180 min
    (ambient temperature of 20~30°C, It fluctuates by the terms of charging time.)
  - View current battery status Displayed as an icon percentage on the LCD monitor
# System Configuration

**ARIETTA Prologue with 11.6" LCD monitor**

<table>
<thead>
<tr>
<th>Optional Software (License Key)</th>
<th>Optional Hardware</th>
<th>Optional Hardware</th>
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<tbody>
<tr>
<td>Free Angular M-mode function software</td>
<td>Probe tray</td>
<td>Footswitch</td>
</tr>
<tr>
<td>SOP-AR-PLG-5</td>
<td>MP-FX-AR-PLG-1</td>
<td>MKF2 1S/1S-MED HID GP25</td>
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<tr>
<td>B Flow Profile Measurement software</td>
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<td>SOP-AR-PLG-7</td>
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<td>DICOM Network Communication software</td>
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<td>SOP-AR-PLG-10</td>
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<td>DICOM Structured Report software</td>
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<td>SOP-AR-PLG-21</td>
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<td>DICOM Query/Retrieve software</td>
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<td>SOP-AR-PLG-59</td>
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<td>Automated IMT measurement software</td>
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<td>SOP-AR-PLG-38</td>
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<td>Automated NT measurement software</td>
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<td>SOP-AR-PLG-42</td>
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<td>SOP-AR-PLG-69</td>
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</table>

- **Cart**
  - RMT-AR-PLG

- **Basket**
  - EP-AR-PLG-4

- **Right side probe holder Unit**
  - MP-FX-AR-PRE-2-R
  - MP-PH-AR70-2B

- **Left side probe holder Unit**
  - MP-FX-AR-PRE-2-L
  - MP-PH-AR70-4B

- **Large probe holder**
  - (left side, right front side)
  - MP-PH-AR70-5
  - (right side, left front side)
  - MP-PH-AR70-6

- **Endo-cavity Probe holder**
  - MP-PH-AR70-8

- **Endo-cavity Probe holder bracket**
  - MKF2 1S/1S-MED HID GP25
## OPTIONAL PROBES

### Electronic convex sector probes

<table>
<thead>
<tr>
<th>Application (description)</th>
<th>Model</th>
<th>Frequency Range (MHz)</th>
<th>Scanning angle (degrees)</th>
<th>Optional accessories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abdominal</td>
<td>C251</td>
<td>5.0 - 1.0</td>
<td>70</td>
<td>_</td>
</tr>
<tr>
<td>Abdominal</td>
<td>C35</td>
<td>8.0 - 2.0</td>
<td>70</td>
<td>_</td>
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<tr>
<td>Abdominal</td>
<td>C22P</td>
<td>6.0 - 1.0</td>
<td>74</td>
<td>Puncture Adapter EZU-PA7C2 (^1) MP-2824</td>
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<tr>
<td>Intraoperative</td>
<td>C42K</td>
<td>10.0 - 4.0</td>
<td>65</td>
<td>Puncture Adapter MP-2458 MP-2783</td>
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<tr>
<td>Transvaginal</td>
<td>C41V1</td>
<td>10.0 – 2.0</td>
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### Electronic linear probes

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<th>Model</th>
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<th>Scanning width (mm)</th>
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<tbody>
<tr>
<td>Peripheral vessel</td>
<td>L441</td>
<td>12.0 - 2.0</td>
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<tr>
<td>Small Organ</td>
<td>L64</td>
<td>18.0 - 5.0</td>
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<td>Puncture Adapter EZU-PA7L3 (^2)</td>
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<tr>
<td>Intraoperative</td>
<td>L53K</td>
<td>15.0 - 3.0</td>
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<td>Waterproof case WP-001</td>
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### Electronic phased array sector probes

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<th>Scanning angle (degrees)</th>
<th>Optional accessories</th>
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</thead>
<tbody>
<tr>
<td>Cardiac Adult</td>
<td>S211</td>
<td>5.0 - 1.0</td>
<td>90</td>
<td>_</td>
</tr>
</tbody>
</table>

\(^1\) 610-608 or 610-692 or 610-901 (CIVCO Medical Instruments) of Needle Guide Kit is necessary to use needle. 
\(^2\) 610-608 or 610-901 (CIVCO Medical Instruments) of Needle Guide Kit is necessary to use needle.
### Probes and available functions

THI: Tissue Harmonic Imaging, FmT: Filter Method Tissue Harmonic Imaging, WbT: Wide-band Tissue Harmonic Imaging

<table>
<thead>
<tr>
<th>Probes</th>
<th>THI.</th>
<th>TDI</th>
<th>eFLOW</th>
<th>Compound</th>
<th>Trapezoid</th>
<th>B Steer</th>
<th>Puncture Guide line</th>
<th>Needle Emphasis</th>
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<tr>
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<tr>
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### Probes and available option

<table>
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<th>Option Probes</th>
<th>FAM</th>
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<tr>
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