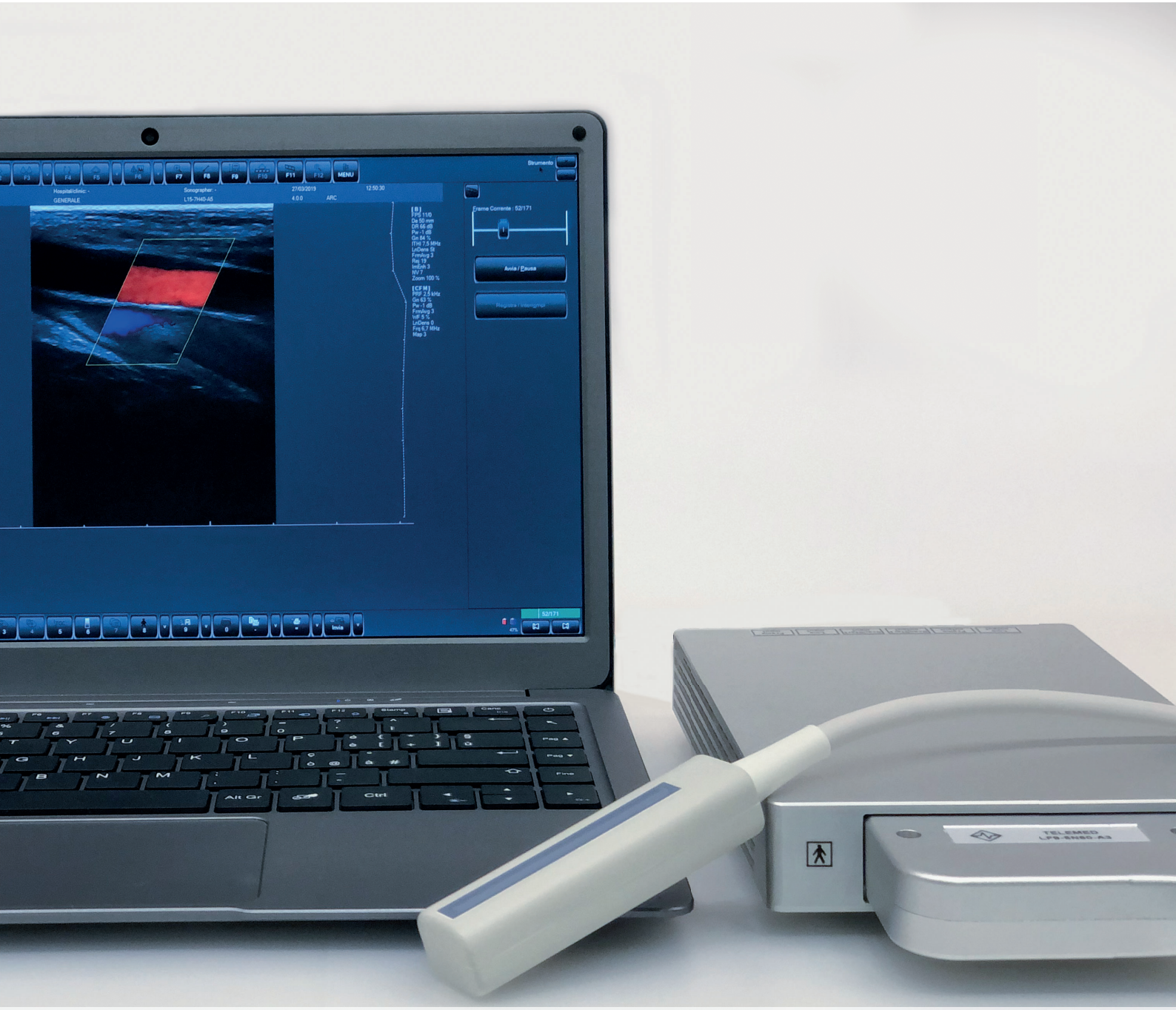
Rev. 1.0

ArtUs - Portable Utrasound Scanner



Powerful and Compact.

TELEMED

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ULTRASOUND MEDICAL SYSTEMS

Introduction

ArtUs is a top-choice ultrasound machine among leading universities and healthcare professionals, renowned for its superior performance, high frame-rate, and compact design. It provides a wide range of multifrequency probes for various medical applications.

Applications

- Primary Care
- Vascular Access
- Anesthesia
- Andrology
- Brest
- Vascular
- Cardiology
- Surgey
- Muscoloskeletal
- Abdominal
- Urology
- OB/GYN
- Lungs
- Pediatrics

System Overview

Imaging Modes

- B, B+B, 4B, B+M, M
- B-mode:
  - B-steer for linear probes
  - Compound - linear / convex probes
  - Virtual convex - linear probes
  - Expanded view angle - convex probes
- Color Doppler (CFM)
- Power Doppler (PDI)
- Directional Power Doppler (DPDI)
- Pulsed Wave Doppler (PWD)
- B+PWD (Duplex)
- B+CFM/PDI/DPDI+PWD (Triplex)
- Parallel beam forming
- Inverted Tissue Harmonic (ITHI)
- Tissue Harmonic (THI)
- B-live + B-live
- Beamformed RF data access through SDK library and set of research software (Python, MATLAB, LabView)

Transducers

Multi-frequency transducers from 1.5 to 18.0 MHz.

- Linear
- Convex
- Microconvex
- Phased Array sectorial

Scanning depth: 2 – 40 cm

Models

ArtUs EXT-1H

One probe port

ArtUs EXT-2H

Two probe ports

Probes - Linear

L12-5N40-A4

Frequency: 5.0 – 12.0 MHz
Scan widh: 40mm
Scan depth: 20-120 mm
Applications: Vascular, Small Parts, MSK/Neurol., Pediatrics

L15-7H40-A5

Frequency: 7.0 – 15.0 MHz
Scan widh: 40mm
Scan depth: 20-100 mm
Applications: Vascular, Small Parts, MSK/Neurol., Pediatrics

L18-7H30-A5

Frequency: 7.0 – 18.0 MHz
Scan widh: 30mm
Scan depth: 20-100 mm
Applications: Vascular, Small Parts, MSK/Neurol., Pediatrics

LF9-5N60-A3

Frequency: 5.0 – 9.0 MHz
Scan widh: 60mm
Scan depth: 20-150 mm
Applications: muscle movement studies.

LF11-5H60-A3

Frequency: 5.0 – 11.0 MHz
Scan widh: 60mm
Scan depth: 20-120 mm
Applications: muscle movement studies.

Probes - Convex / Microconvex

C5-2H60A-5

Frequency: 2.0 – 5.0 MHz
Radius: 60mm
Scan depth: 30-300 mm
Applications: Abdomen, OB/GYN, Pediatrics

C6-1H50-A5

Frequency: 1.0 – 6.0 MHz
Radius: 50mm
Scan depth: 40-400 mm
Applications: Abdomen, OB/GYN, Pediatrics

MCV9-5N10-A3

Frequency: 5.0 – 9.0 MHz
Radius: 10mm
Scan depth: 30-150 mm
Applications: Transrectal, Transvaginal

Probes - Phased Array

P5-1S15-A6

Frequency: 1.0 – 5.0 MHz
Scan depth: 50-300 mm
Applications: Abdomen, Cardiology

Physical Specifications

Dimensions

ArtUs EXT-1H: 136 x 200 x 34

ArtUs EXT-2H: 140 x 204.5 x 62

Power Supply

- External power supply,
  100-240V AC, 50-60 Hz

Weight

ArtUs EXT-1H: 0.77 kg.

ArtUs EXT-2H: 1.12 kg.

Connectivity

- USB 3.0

Warranty

ArtUs: 2 years

Probes: 1 year

Certifications

CE Mark.

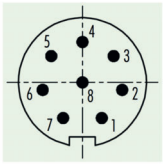
FDA Mark.

Research Tools

Intuitive tools for the Python, MATLAB, and LabView environments, enhanced by detailed documentation and understandable instructions, thus enabling a significant reduction in the learning curve.

I/O Module

The ArtUs can be equipped with additional connectors for synchronizing the system with other equipment. (I/O Module is an optional feature.)



DLL for MATLAB and Python

Dynamic link library (DLL) that allows you to call SDK functions and perform real-time image and data acquisition from other programs such as MATLAB, Python, and Labview.

SDK – Software developement kit

The Ultrasound Scanning Software Development SDK is a versatile programming library for developing ultrasound scanning software on Windows for all TELEMED systems, and on Android for MicrUs and MicrUs Pro. This SDK is free for OEM partners and developers under an NDA with the manufacturer.

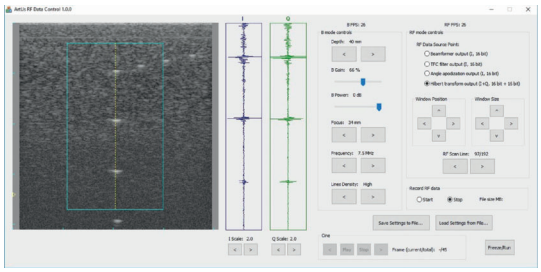
Research Tools

RF Module

The RF Module (Artus only) allows you to receive real-time RF data and record RF data to files. (RF Module is an optional feature.)

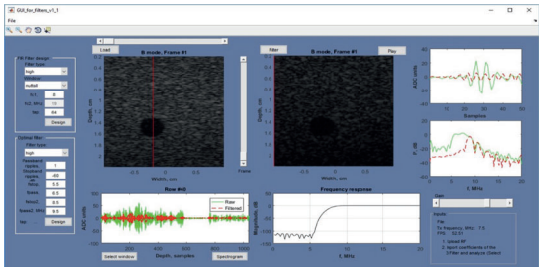
ArtUs RF Data Control for C++, Python, MATLAB and LabVIEW

The RF Data Control tool allows you to control most ultrasonic scanning parameters, receive real-time RF data and record RF data to files. (Require RF Module option)



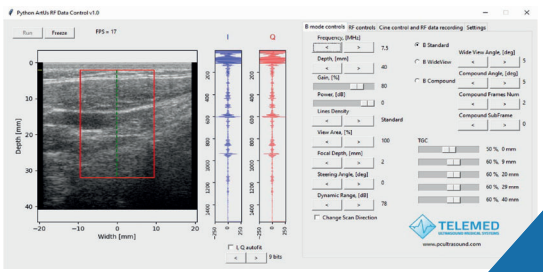
ArtUs RF Tools Package

RF tools and MATLAB scripts for importing and reviewing annotated RF data offline. It also provides a collection of scripts that illustrate the processing steps of conventional RF signals, typically used in B-mode image formation.



Python scripts package

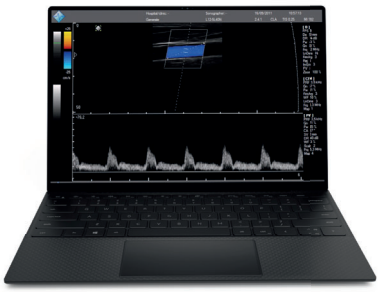
RF tools and MATLAB scripts for importing and reviewing annotated RF data offline. It also provides a collection of scripts that illustrate the processing steps of conventional RF signals, typically used in B-mode image formation.



Ultrasound Software

Telemed software keeps getting better, always adding new features to make using ultrasound easier. You can download all updates for free, and there's no need to pay for a subscription.

Windows - Echo Wave II



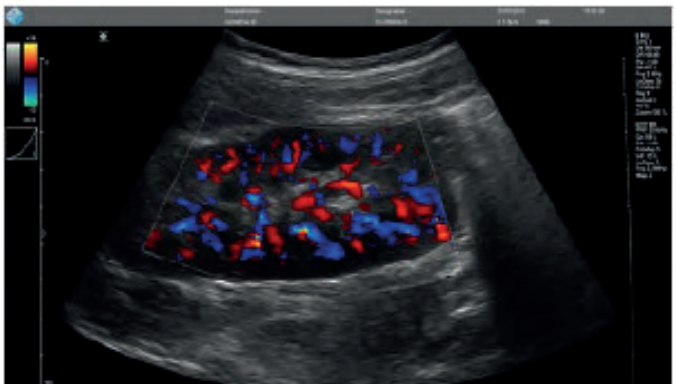
Windows - Echo Wave II touch

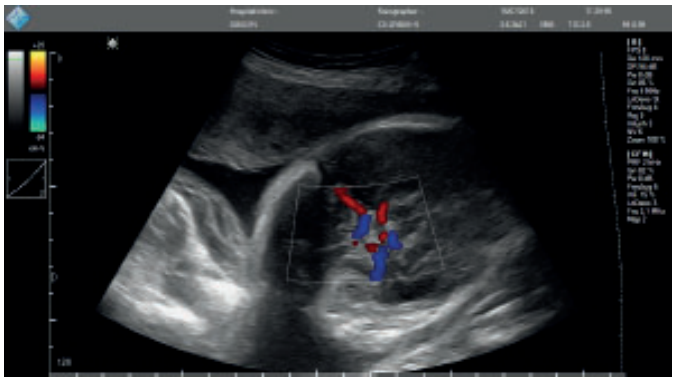
Imaging Parameters and Functions

- lines density control
- TGC Control
- dynamic range
- overall gain control
- M – mode sweep speed control
- acoustic power control
- variable frame averaging
- brightness, contrast
- advanced gamma control, fixed and custom curves
- scan direction, rotation, up-down controls
- negative / positive control
- bi-linear interpolation
- echo enhancement control
- noise rejection function
- speckle reduction

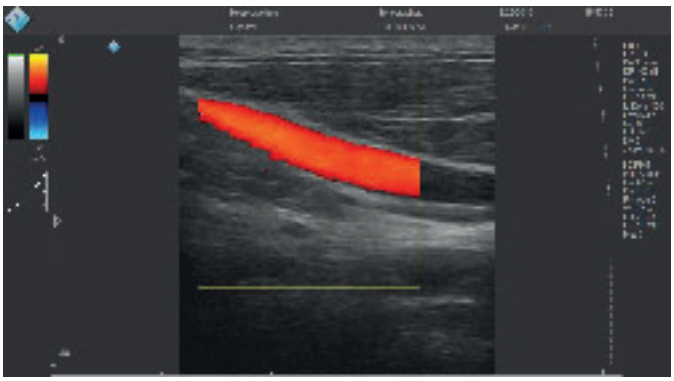
  PureView, NeatView, QuickView

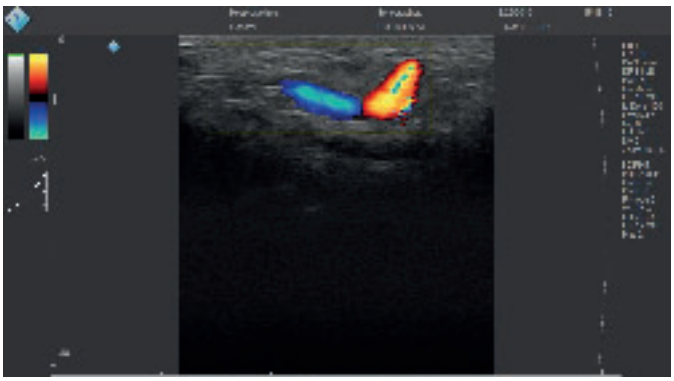
Clinical Images

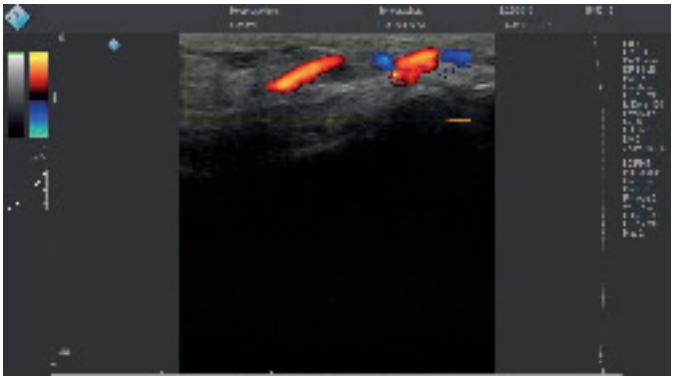


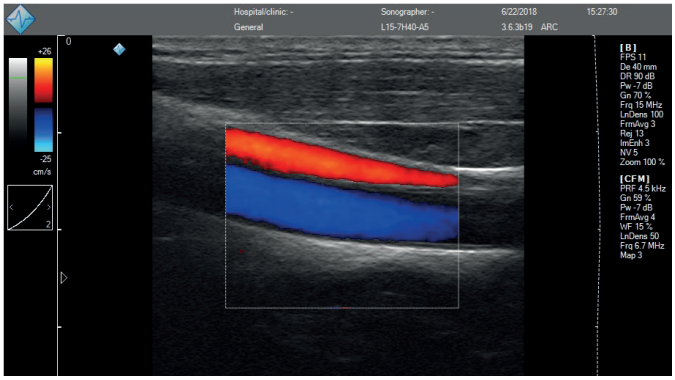


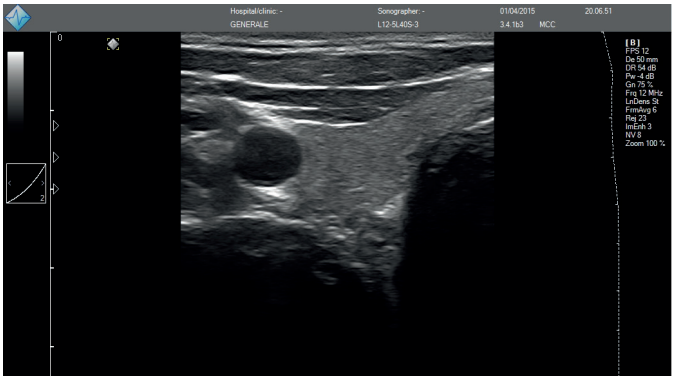
Clinical Images

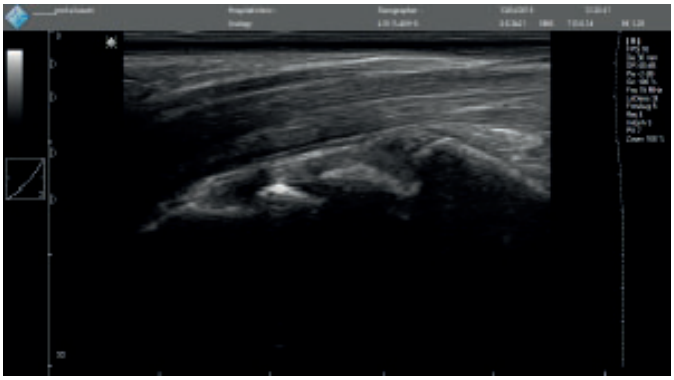












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