TELEMED ultrasound

ArtUs EXT

High-end Echo Color Doppler
for clinical diagnostics and research

The future in ultrasound.
A new concept

PC-Based open architecture ultrasound platform

www.telemedultrasound.com

The power to look inside

ArtUs EXT-1H

ArtUs EXT is an innovative PC-based, open-architecture, Color Doppler system.

It is the latest expression of TELEMED technologies dedicated to scientific research and clinical diagnostics.

It opens new frontiers for the evolution of beamforming, Image Processing and Quantitative Ultrasound Imaging techniques.

Scanning Methods

Linear

Microconvex

Convex

Phased Array

Scanning Modes

B, 2B, 4B, BM, M,
iTHI, B-Steer, Compound, Wide View, Parallel Beamforming
Color Doppler: CFM, PDI, DPDI,
PW Spectral Doppler, HPRF,
Duplex, Triplex

Options for research

IN/OUT Synch Triggers
RF Data digital out

TELEMED
ULTRASOUND MEDICAL SYSTEMS

CE

Open architecture

Reliable, expandable, flexible.

Specialized in ultrasound imaging, TELEMED provides PC-based systems.
The innovation lies in the open architecture of its platform and the migration from hardware to software of all control as well as signal and image processing functions. This allows advanced ultrasound imaging modes and the integration of research tools available on high profile instruments: Parallel Beamforming, Spatial Compound Imaging, Virtual Convex – Extended View Imaging, Tissue Harmonic Imaging – iTHI Pulse Inversion technology, Digital Doppler Multi-Beam Processing, Automatic Image Optimization, Advanced Speckle Reduction Imaging, Raw-Data, Advanced Dynamic Focalization, etc...

About us

TELEMED Uab, founded in 1992 as a research institute, is a high-tech company dedicated to the development, design and manufacture of open-architecture, PC-based ultrasound imaging systems for clinical diagnostics and scientific research. Since 1995, it has been operating in the OEM market providing know-how and hardware/software technologies to companies in the field of ultrasound instrumentation.
TELEMED Medical Systems is partner of TELEMED Uab.

Delivering TELEMED quality and reliability, you can always expect more with the ArtUs EXT system. The platform is compatible with a variety of options and future free updates for long-term investment protection.

Service that Fits Your Practice.

TELEMED offers a variety of service plans that suit the needs of many different healthcare environments – delivering both superior support and valuable cost savings for any size clinic or medical setting.
TELEMED coverage options provide protection from unexpected costs as well as fast and attentive service.

ArtUs EXT-1H
Experience the future

ArtUs represents the synthesis of Telemed's commitment to the pursuit of excellence, with the adoption of the latest technological solutions:
Full digital beamformer, Parallel Beamforming, Advanced Spatial Compound (linear and convex), Tissue Harmonics with Pulse Inversion technology (iTHI), WideView imaging (linear and convex), Advanced Speckle Reduction Imaging, Digital Doppler Multi-Beam Processing, Raw Data, etc...

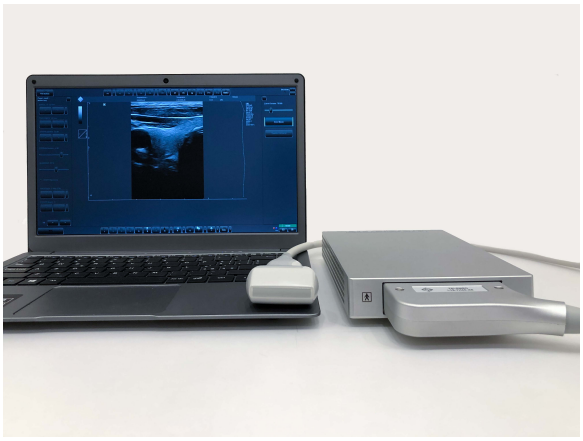
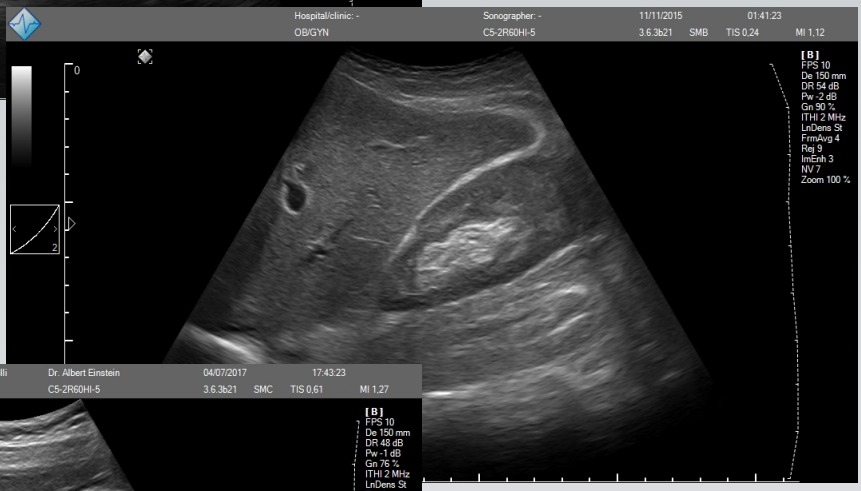


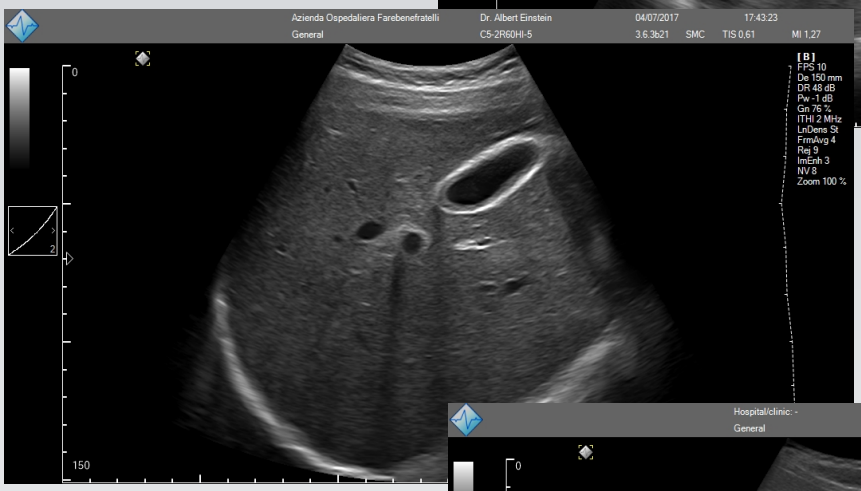
Image quality without compromise. Innovative design. Future functionality.

The system supports a wide range of high crystal density, multi-frequency wideband transducers from 1.0 to 18.0 MHz.

In Parallel Beamforming mode, the system allows a very high frame rate. Telemedicine applications allow remote control of the system for remote consultation, application training and technical support, including free software updates.
In its research version, it can be configured with I/O synchronization options, RF Data Access, etc...

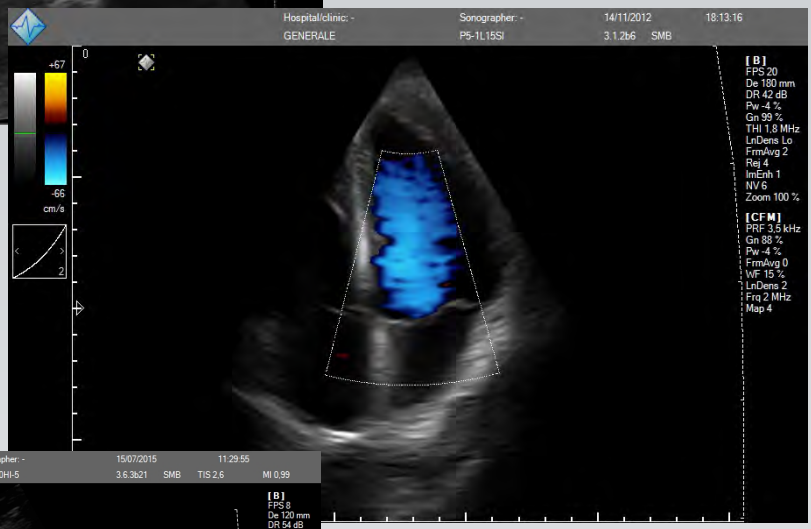
NeatView advanced speckle reduction technology enhances detail and contrast resolution.



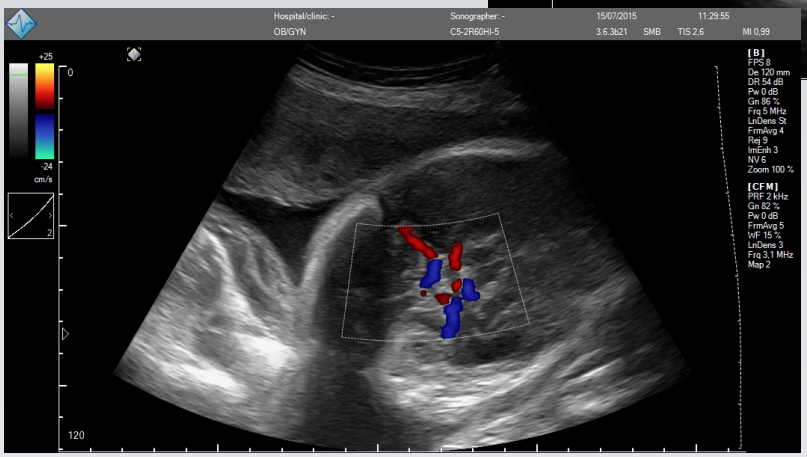


High detail resolution of liver, (with iTHI Tissue Harmonic Imaging with Pulse Inversion Technology.

High Sensitivity Color Doppler

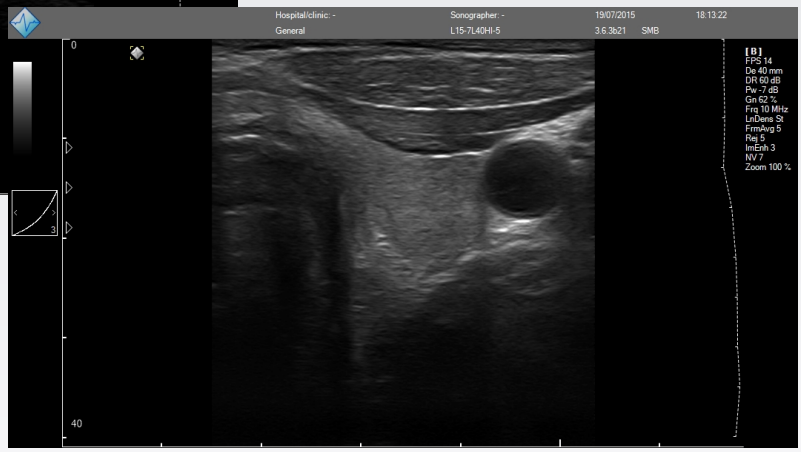


Heart
Left Ventricle
apical 4-Chamber view



Obsterics
Fetal Head Willis Circle

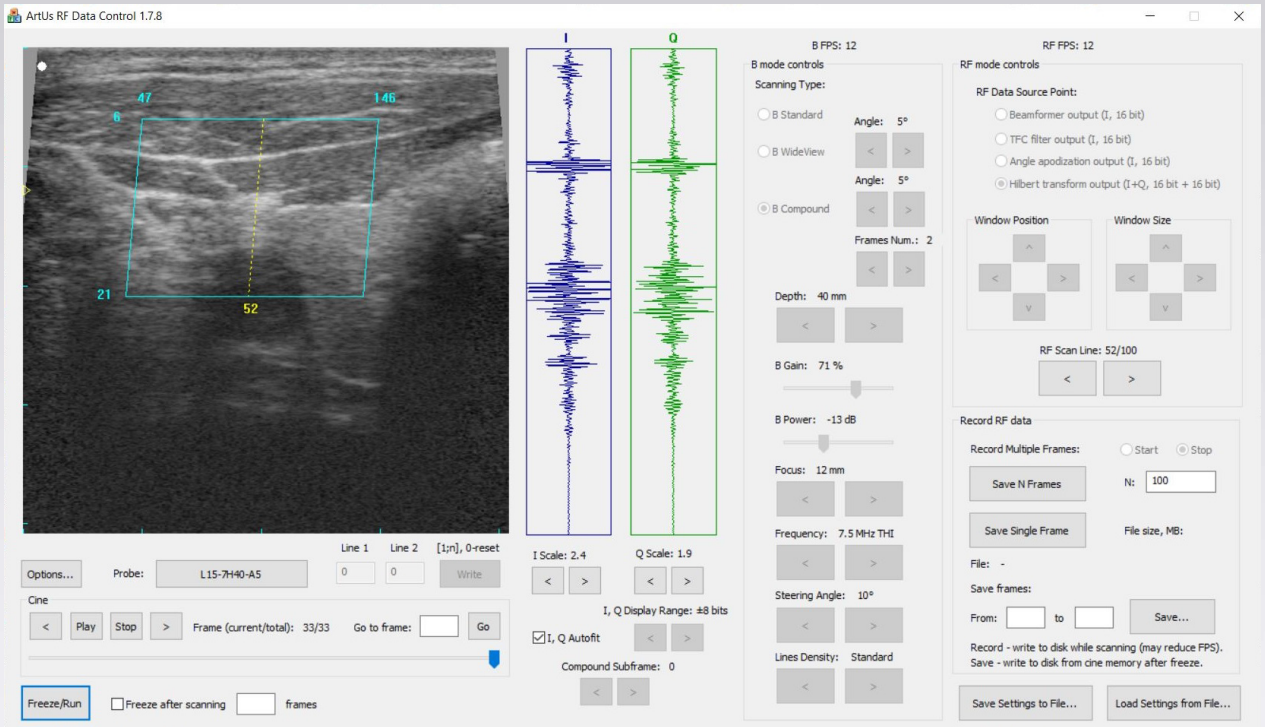
Advanced spatial compound

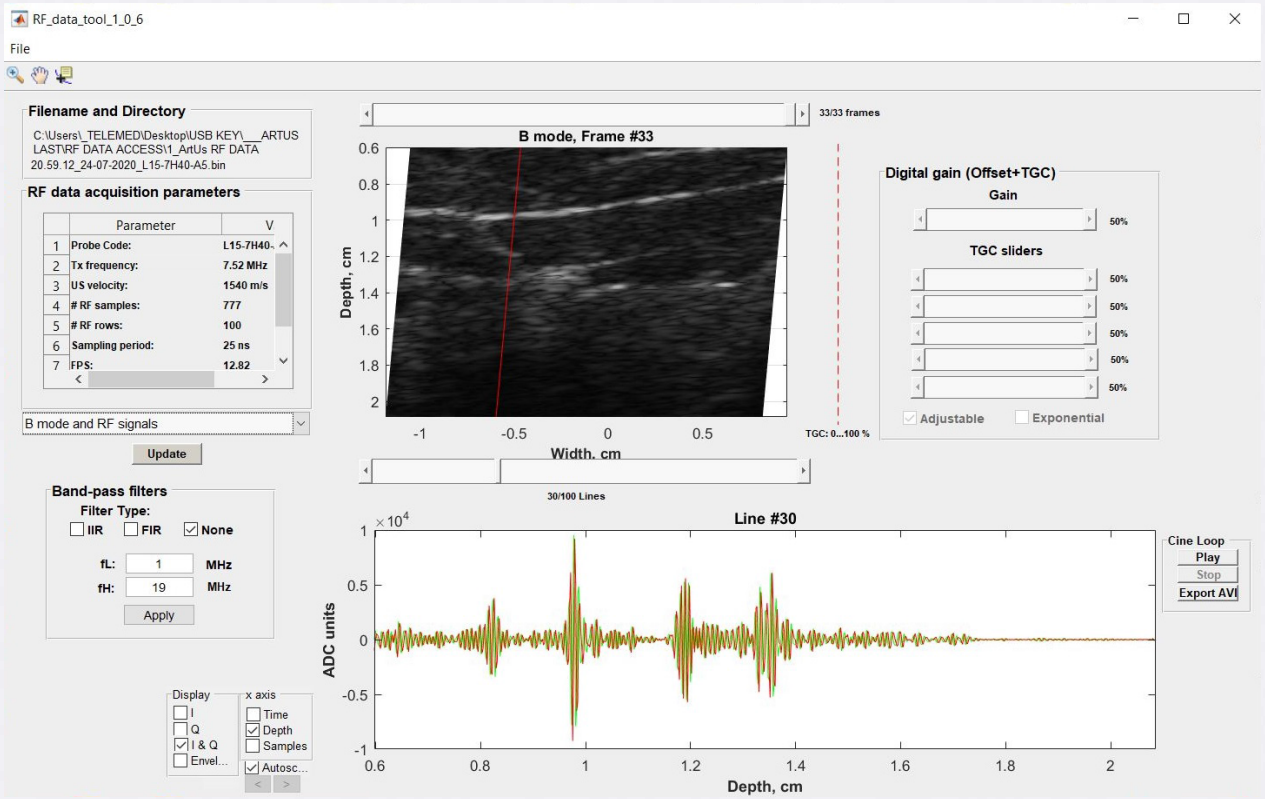


ArtUs for Research (option)

Synch Trigger Option

RF DATA ACCESS





Installing drivers and software on your PC, the system offers high performance and image quality.

ArtUs EXT can be configured as traditional trolley system, with cart, ultrasound consolle, and touch-screen monitor.

ArtUs
General Specifications

Applications
- Abdomen, OB/Gyn, Vascular, MSK, Urology/ Andrology, Small Parts, Anesthesia, Cardiology

Imaging Modes
- B mode - 2B - 4B - BM - M
  - iTHI-Tissue Harmonic with Pulse Inversion
  - Spatial Compound (linear and convex probes)
  - B-Steer,
  - Wide View Imaging
    - Virtual convex for linear probes
    - Expanded view angle for convex probes
  - Parallel Beamforming
- Color Doppler: CFM, PDI, DPDI
- PW Spectral Doppler, HPRF
- Duplex, Triplex
- Real Time RF-Data access through SDK, B-mode + RF Data (option)

Transducers
- Linear, Convex, Phased Array, Endocavitary
- Frequency Range 1.5 > 18.0 MHz
- Wide bandwidth, multifrequency
- Automatic transducer recognition

Cine Loop, images and video storing
- Recording and storing thousands of images and video files to a disk
- Save formats: AVI, JPEG, BMP, PNG, TIFF, XLSX, DICOM, DICOM JPEG, Raw Data (TPD and TVD)
- Review, processing and measurements available on previously stored images and cine loops

Functions
- Mouse / trackball / keyboard / ultrasound consolle, touch-screen display
- Unlimited programmable presets; presets can be uploaded also from saved raw data images/video
- Customizable User Interface
- Multi-language support
- Patients reporting and archive

System Architecture
- PC-based software driven architecture, USB 3.0 connection to PC
- High-speed software image processing
- NeatView advanced Speckle Reduction Imaging

General measurements
- B-mode: distance, length, circumference, area, volume, angle, stenosis %
- M-mode: distance, time, velocity, heart rate, stenosis %
- PW Spectral Doppler: velocity, PG, PI, RI, ect.
- PW Doppler automatic tracing and calculations

Calculation packages
- General, abdominal, obstetrics, gynecology, cardiology urology, endocrinology, vascular

Computer Configuration
- Desktop, notebook o tablet
- CPU i3 - i5 - i7 1,8GHz 2Gb RAM or better
- OS Windows XP / 7 / 8 / 10 (32-64 bit)

Ultrasound Software
- Echo Wave II Software & Drivers Package
- Free Telemed software upgrades

Power supply
- 100~240 VAC, 50~60 Hz AD

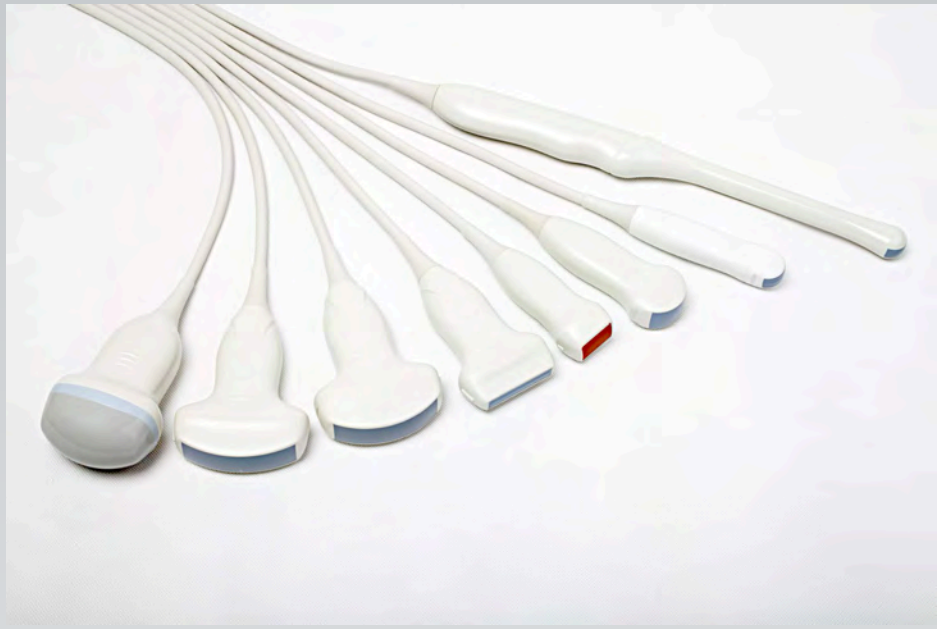
Dimensions, weight
- ArtUs EXT-1H cm 13,6 x 19,7 x 2,8 - 0,6 kg

Transducers

High Resolution. Excellent image quality

Telemed is at the forefront for innovation, design and development of the transducers technology.
It is available a wide range of transducers: high crystals density, high sensitivity, wide range of frequencies up to 18 MHz.
Each transducer is carefully designed with the most advanced technology to provide high resolution, excellent image quality, and to ensure reliability and durability.

Type Code	Frequency Range MHz	No. Elements	Field of View Radius, degrees / mm	Applications
Convex				
C5-2H60-A5	2.0 - 5.0	192	R60	Abdomen, Ob/Gyn, Paediatrics
C6-2H50-A5	2.0 - 6.0	single crystal	R50	Abdomen, Ob/Gyn, Paediatrics
Linear				
L15-7H40-A5	7.0 - 15.0	192	40 mm	Small Parts, MSK, Vascular, Paediatrics
L12-5N40-A4	5.0 - 12.0	128	40 mm	Small Parts, MSK, Vascular, Paediatrics
L18-7H30-A5	7.0 - 18.0	192	30 mm	Small Parts, Superficial Scans
LV8-5N60-A2	5.0 - 8.0	128	60 mm flat	MSK, Small Parts
LF9-5N60-A3	5.0 - 9.0	128	60 mm flat	MSK, Small Parts
LF11-5H60-A3	5.0 - 11.0	192	60 mm flat	MSK, Small Parts



Type Code	Frequency Range MHz	No. Elements	Field of View Radius, degrees/ mm	Applications
Endocavitary - End-Fire				
MCV9-5N10-A3	5.0 - 9.0	128	R10	Transvaginal, Transrectal
Phased Array - Electronic Sector				
P5-1S15-A6	1.5 - 5.0	64	90°	Cardiology, Abdomen, Transcranial
P8-3S10-A6	3.0 - 8.0	64	90°	Cardiology, Paediatrics

TELEMED
ULTRASOUND MEDICAL SYSTEMS

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