

POCKET-SIZE USB ULTRASOUND

MicrUs EXT-1H

A USB-powered, pocket-size point-of-care ultrasound system. Fanless, with transducers you can swap in seconds and full remote control from a computer.



USB-powered

No power supply needed

0.26 kg

106 × 105 × 21 mm

2–15 MHz

Transducer frequency range

Windows · Android

Echo Wave II and Echo Wave A

OVERVIEW

Ultrasound that fits in your pocket

MicrUs turns a laptop, tablet or Android device into an ultrasound system. Advanced transducer recognition lets you connect and disconnect transducers in seconds, and because MicrUs is fanless and silent, it is well suited to ultrasound-guided procedures.



KEY FEATURES

Powered by USB

Runs from the computer's USB port — ideal for mobile work, home visits and the field.

Fast transducer swap

Automatic transducer recognition: change transducers in seconds.

Fanless and silent

No moving parts — a quiet, robust companion for guided procedures.

PW Doppler

Pulsed Wave Doppler and Duplex mode for basic flow assessment.

Remote control

Full remote control from another computer opens possibilities for telemedicine and education.

Open SDK

Windows and Android SDKs for working with ultrasound data in your own software.

IMAGING MODES AND FUNCTIONS

B, B+B, 4B

B+M, M

B-steer

Spatial compounding

Trapezoid

Pulsed Wave Doppler

Duplex (B+PW)

Speckle reduction

COMPATIBLE TRANSDUCERS

Transducers for point-of-care imaging

	MODEL	FREQUENCY	SPECIFICATIONS	APPLICATIONS
	MCV9-5R10S-3 Endocavity convex	5–9 MHz	Radius 10 mm · depth 30–150 mm	Transrectal, transvaginal
	MC10-5R10S-3 Microconvex	5–10 MHz	Radius 11 mm · depth 30–150 mm	Small parts, vascular, veterinary
	MC4-2R20S-3 Microconvex	2–4 MHz	Radius 20 mm · depth 60–230 mm	Abdominal, cardiac, veterinary
	MC8-4R20S-3 Microconvex	4–8 MHz	Radius 20 mm · depth 30–150 mm	Abdominal, paediatrics, cardiac, veterinary
	C5-2R60S-3 Convex	2–5 MHz	Radius 60 mm · depth 90–230 mm	Abdominal, obstetrics, paediatrics, small parts
	L15-6L25S-3 Linear	6–15 MHz	Width 25.6 mm · depth 15–45 mm	Obstetrics, paediatrics, small parts
	L12-5L40S-3 Linear	5–12 MHz	Width 39.94 mm · depth 20–70 mm	Obstetrics, paediatrics, small parts
	LV8-4L65S-3 Linear, veterinary	4–8 MHz	Width 64 mm · depth 40–120 mm	Veterinary

Frequency bars on a common 0–16 MHz scale. The listed transducers are compatible with MicrUs EXT-1H revisions C, D and E.

IN THE BOX

- ☐ MicrUs EXT-1H beamformer
- ☐ Mini-B to Type-A USB 2.0 cable
- ☐ Power supply, 100–240 VAC, 50–60 Hz (EN 60601-1)
- ☐ Software and manuals on a USB stick

OPTIONS

- ☐ Transducers
- ☐ I/O module — up to 2 trigger signals to and from external equipment
- ☐ TELEMED SDK for Windows and Android



TECHNICAL SPECIFICATIONS

Specifications

IMAGING MODES

- B
- B+B
- 4B
- B+M
- M
- B-steer for 40mm or less linear transducers
- Compound for 40mm or less linear transducers
- Trapezoid for 40mm or less linear transducers
- Pulsed Wave Doppler (PWD)
- B+PWD (Duplex)

DISPLAY PERFORMANCE

- ultrasound image size: automatically adjustable to screen resolution
- gray scale: 256
- color scale: 256 (scanners with Color Doppler mode)
- full screen and window modes
- full motion and full size real-time ultrasound imaging, up to 300 fps (depends on scanner model, selected scan depth, scan angle, focus mode, lines density setting, computer speed)
- cineloop recording/play: several thousands frames (depends on computer memory size and scan mode)
- zoom mode: from 60% to 600% in all modes (Scan, Freeze, B, B+B, 4B, Doppler modes, M-zoom, cine and etc.)
- viewing area variable for frame rate maximizing: 6 steps
- thumbnail mode: up to 32 images
- "Freeze" mode
- "Auto Freeze" mode

SCANNING METHODS

2-31 cm

TRANSDUCERS

from 2,0 MHz to 15,0 MHz

COLOR DOPPLER (CFM / PDI / DPDI)

no Color Doppler

PULSED WAVE DOPPLER (PWD)

- PRF values: 1-10 kHz
- wall filter settings: 16 steps (2%-20% PRF)

FOCUSING

- transmit: variable, 8 zones
- receive: point to point, dynamic

AUTOMATIC IMAGE OPTIMIZATION

- B-image gain
- B-image dynamic range
- B-image TGC sliders

PROCESSING

- lines density control for better resolution
- 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 and structure improvement PureView, NeatView, QuickView
- iContrast (ArtUs, ArtUs Compact)
- Adaptive Gain (ArtUs, ArtUs Compact)

DICOM

- Verification SCU
- Modality Worklist (MWL) SCU
- Modality Performed Procedure Step (MPPS) SCU
- Store SCU (images, cines)
- Print SCU (grayscale, color)

For more information see Echo Wave II Software DICOM Conformance Statement

FUNCTIONS

- mouse / trackball / keyboard operation
- image and video save / load:
 - AVI ○ MP4 ○ JPG ○ BMP ○ PNG ○ TIF ○ XLSX
 - DCM (DICOM uncompressed) ○ DCM (DICOM-JPEG RGB/YBR)
 - DCM (DICOM-JPEG RGB/YBR Video) ○ TPD (Telemed Picture Data)
 - TVD (Telemed Video Data)
- unlimited programmable presets for clinically specific imaging
- vascular puncture guidelines
- biopsy guidelines
- brachytherapy/biopsy grids
- anatomical icons with transducer position indicator
- direct e-mail sending with image or video attachment via Internet
- DICOM file push to server
- printing on system printer
- TV output via computer display adapter
- multi-monitor support
- full screen and window mode

INTERFACE CUSTOMIZATION

- the set of predefined skin schemes for software interface
- the set of predefined buttons images
- multilanguage support, languages:
 - Chinese ○ English ○ French ○ German ○ Italian ○ Korean
 - Lithuanian ○ Magyar ○ Polish ○ Romanian ○ Russian
 - Spanish
- B+M, B+PW/CW layout position, size
- ultrasound area size
- font size

MEASUREMENTS AND CALCULATIONS

- General measurements and calculations: B, M modes
- PW/CW cardiology measurements and calculations

Human packages:

- General
- Musculoskeletal
- Obstetrics / Gynecology (OB / GYN)
- Gynecology (GYN)
- Abdominal
- Urology
- Endocrinology
- Vascular
- Cardiology

Veterinary packages:

Canine OB · Feline OB · Ovine OB · Bovine OB · Equine OB · Llama OB ·
Goat OB · Animal Cardiology

Full lists of measurements and calculations:

www.pcultrasound.com/products/products_ewii/

POWER

- directly from USB port (if connected to USB 3.0)
- external power supply, 100-240V AC, 50-60 Hz

DIMENSIONS AND WEIGHT

- aluminium enclosure
- dimensions W x D x H, mm: 106 x 105 x 21
- weight, kg: 0.26

ULTRASOUND SOFTWARE

- TELEMED Drivers Package (32/64-bit Windows)
- Echo Wave II software (32/64-bit Windows)
- SDK documentation / sample code (available by agreement)
- Echo Wave II start-up time: 25 sec (i7 2.66 GHz, 8 Gb RAM)

RECOMMENDED COMPUTER CONFIGURATION

- Windows based computer
- HD/Full HD screen resolution, IPS technology
- CPU: Intel i5/i7/i9 2.0 GHz or faster
- 8 Gb RAM or more
- 256 Gb internal Solid State Drive (SSD)
- USB connector: USB 2.0 (Type-A)
- OS: Windows 10/11 (all versions 32/64-bit)

Let's find the right ultrasound solution for you

Request a quotation, ask about options and transducers, or find a TELEMED distributor near you.

ADDRESS

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