



Portable, Flexible and Dependable



Portable Ultrasound Solution for Vet

Introduction

ASUS Ultrasound Imaging System (LU700 series) is a software-based ultrasound solution enabling trained healthcare professionals and veterinarians to visualize anatomical structures and fluids. Easy-to-use interface and handheld availability meet requirements of use in clinical purposes and home/ community healthcare environments.

Applications

- Small animal
- Middle animal
- Small canine
- Medium canine
- Large canine
- Feline
- Porcine
- Ovine
- Bovine
- Equine
- Mouse
- Rabbit

System Overview

System Architecture

- 12 bit ADC with sample rate 50MHz
- 32 channel ADC system
- Adjustable FPS design
- Wireless (Wi-Fi)/ wired USB 3.0 transmission
- Battery continuously operating time up to 4 hours, charging time 5-6 hours

Imaging Modes

- B mode
- M mode
- Color Flow*
- Power Doppler*
- Pulsed Wave*

Imaging Parameters and Functions

- Depth
- Frequency
- Gain
- Persistence
- Enhancement
- C mode TGC
- Dynamic Range
- Gray Map
- Freeze Timer
- Color PRF
- Color Sensitive
- Color Angle

*Optional



Workflow

APP Home Page

- Quick access to scan via QR code
- Create patient profile
- Probe connection review

Output Display

- Menu
- Scan modes
- On-screen display of parameters
- Freeze
 - Annotates/Body mark/Save image/Measure/Make video
- Clinical application presets[£]
 - LU700L (Linear, L10-5): 6
 - LU700C (Convex, C5-2): 7
 - LU710M (MicroConvex): 9
 - LU710PA(Phased array): 2
 - LU710E(Endocavity): 2

Exam Documentation

- Wi-Fi uses include DICOM networking, exporting exams/images, and network shared drive connection for specific server/cloud
- **USB port uses include connecting the transducer[§], supporting data transfer, and charging**

*Optional

[§] Support only Windows app and partial Android devices

[£]allow to create own preset

Cineloop Review

- Images for retrospective review and image selection/save
- Acquisition and storage depend on compatible smart device memory

- Scan Info.
- Mechanical Index (MI)
- Thermal Index (TI)
- Depth
- Adjust TGC
- On-display centerline marker
- Save image and video
- Full screen
- End exam
- Battery status icon

Connectivity

- Data storage on the device
- Configurable barcode reader APP
- DICOM image store*
- Extensive image management capability (ASUS DICOM Viewer)*
- Able to export in PC format (MP4/PNG/JPEG images)

Probes



Probes	LU700L Vet	LU700C Vet	LU710M Vet	LU710PA	LU710E Vet
Types of array	Linear	Convex	Micro Convex	Phased Array	Endocavity
Frequency	5-10MHz	2-5MHz	4-8MHz	1.7-3.7MHz	4.0-8.5MHz
Depth	12cm	25cm	12cm	18cm	15cm
Application					
Small animal			⊙		
Middle animal		⊙	⊙	⊙	
Small canine			⊙	⊙	
Medium canine		⊙	⊙	⊙	
Large canine		⊙	⊙	⊙	⊙
Feline			⊙	⊙	⊙
Porcine		⊙	⊙	⊙	⊙
Ovine		⊙	⊙	⊙	⊙
Bovine		⊙	⊙	⊙	⊙
Equine	⊙	⊙	⊙	⊙	⊙
Mouse			⊙	⊙	
Rabbit			⊙	⊙	

Physical Specifications

Product Classification

- The device with transducers: Class IIa/ internally powered ME equipment
- Transducers: Type BF applied parts, IPX1

Battery

- UN 38.3, Lithium Battery Transportation
- EN IEC 62133

Acoustic Standards

- EN IEC 60601-2-37:2008/AMD1:2015, Medical electrical equipment, Part 2-37, Particular requirements for the basic safety and essential performance of ultrasonic medical diagnostic and monitoring equipment

Biocompatibility Standards

- EN ISO 10993-1:2009, Biological evaluation of medical devices
- EN ISO 10993-5:2009, Biological evaluation of medical devices
- ISO 10993-10:2010, Biological evaluation of medical devices

Safety Standards

- IEC 60601-1:2005+AMD1:2012 / EN 60601-1 :2006+ A1 2013 CSV Medical electrical equipment, Part 1: General requirements for basic safety and essential performance
- IEC 60601-1-2: 2014 / EN 60601-1-1 :2015 Medical electrical equipment, Part 1-2: General requirements for basic safety and essential performance, Collateral Standard: Electromagnetic Capability - Requirements and tests
- AIUM/NEMA UD 2- 2004 2009 NEMA Standards Publication UD 2-2004 (R2009) Acoustic Output Measurement Standard for Diagnostic Ultrasound Equipment, Revision 3. (Radiology)
- AIUM/NEMA UD 3- 2004 2009 NEMA Standards Publication UD 3-2004 (R2009) Standard for Real-Time Display of Thermal and Mechanical Acoustic Output Indices on Diagnostic Ultrasound Equipment
- EN IEC 62304 2006 Medical device software - Software life cycle processes
- IEC 62366-1: 2015/EN 62366-1:2015 Medical devices, Application of usability engineering to medical devices
- IEC 60601-1-6 / EN 60601-1-6 Usability
- ISO 15223-1 2016 Medical devices - Symbols to be used with medical device labels, labeling and information to be supplied
- ISO 13485:2016 Medical Devices - Quality Management Systems - Requirements for Regulatory Purposes

ASUS PACS Platform

iOS, Android and Windows App

- Annotation and measurement, save, restore, and playback : Freeze/live
- Parameter tuning: Select the scanned position of the body Image saving
- Image display and gesture: B, M, CF, PD, and PW mode
- Image saving: Save the image file in APP (DICOM, PNG, JPEG data format)
- Video recording: Provide real-time video recordings for medical professionals doing scan exams.
- Data transfer to HIS system: Depending on customers' request, the DICOM/PNG/JPEG file can be transferred from the mobile/windows/web-based platform to HIS system via API

Minimum Spec Requirement

- iOS

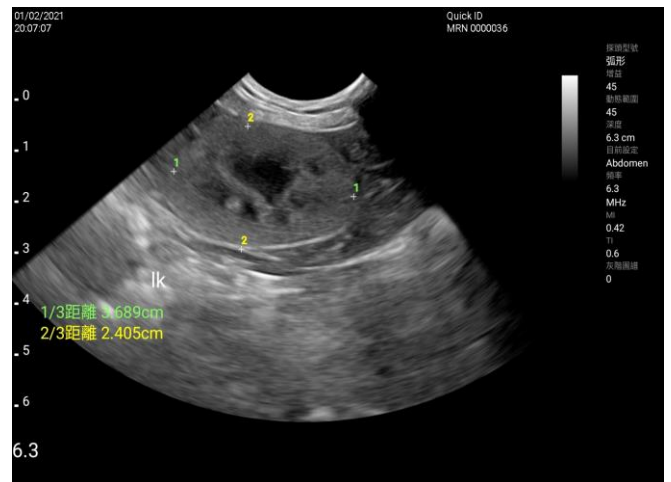
- iOS 11 or above
- iPhone 7 or above
- iPad 3 or above

- Android

- OS: Android 7.0
- CPU: Snapdragon 650 or above
- RAM: 4G or above

- Windows

- OS: Windows 10 1803 or above
- CPU: **Intel core i5-8265U/ AMD Ryzen 5 2500U (Minimum)**
Intel core i7-10850H/AMD Ryzen 7 4700U (Recommended)
- USB support
- 2.4G Wi-Fi support
- RAM 8G or above



User Scenario

ASUS Portable Ultrasound Solution is a **smart ultrasound device** that integrates seamlessly via a mobile app or Windows platform. Small in size, it is **ideal for Vet clinic or Livestock use**.

Solution

- ASUS wireless portable ultrasound device
- 4G/5G smart phone or pad (android, iOS, Windows) or gateway
- ASUS telemedicine platform

