# Tough, durable, and reliable

## Ultrasound Imaging System

**(Model: LU800)** for VET (Model: LU800) is a software-based 128ch ultrasound solution enabling qualified and trained healthcare professionals to visualize anatomical structures and fluid. Easy-to-use interface and handheld availability meet requirements of use in clinical purposes and home/ community healthcare environment.

## 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
- 128 channel ADC system
- Adjustable FPS design
- Wireless (Wi-Fi)/ wired USB3.0 transmission.
- Battery continuously operating time up to 2.5 hours, Charging 2 hours to 80%. Full charging time 5-6 hours

## Imaging Modes

- B mode
- M mode
- Color Flow
- Power Doppler
- PW Doppler

## Imaging Parameters and Functions

- Depth
- Freq
- Gain
- Persistence
- Enhancement
- C mode TGC
- Dynamic range
- Gray Map
- Freeze Timer
- Color PRF
- Color Sensitive
- Color Angle
- Cineloop
- 2B mode
- Voice Control

# Workflow

## APP Home Page

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

## Cineloop Review

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

## Output Display

- Menu
- Scan modes
- On-screen display of parameters
- Freeze
  Annotates / Body mark / Save image / Measure / Make video
- Scan Info.
- Mechanical Index (MI)
- Thermal Index (TI)
- Depth
- Adjust TGC
- On-display centerline marker
- Save image and video
- Full screen
- Battery status

## 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

## Connectivity

- Data storage on 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) via direct/indirect connection to PC

# SPEC

| Probes | LU800L | LU800C | LU800M | LU800PA | LU800E |
|---|---|---|---|---|---|
| Types of array | Linear | Convex | Micro Convex | Phased Array | Endocavity |
| Frequency | 4-12.5MHz | 2-5MHz | 3.6-8.5MHz | 1.3-3.7MHz | 3.6-8.5MHz |
| Depth | 12.6cm | 30cm | 15cm | 30cm | 15cm |
| FOV | N/A | 60° | 100° | 90° | 151° |
| Weight | 270g | 305g | 265g | 280g | 295g |
| Application | | | | | |
| Small animal | - | - | • | - | - |
| Middle animal | - | • | • | • | - |
| Small canine | - | - | • | • | - |
| Medium canine | - | • | • | • | - |
| Large canine | - | • | • | • | • |
| Feline | - | - | • | • | • |
| Porcine | - | • | • | • | • |
| Ovine | - | • | • | • | • |
| Bovine | - | • | • | • | • |
| Equine | • | • | • | • | • |
| Mouse | - | - | • | • | - |
| Rabbit | - | - | • | • | - |

*optional

# Physical Specifications

## Product Classification

- The device with transducers: Class II / internally powered ME equipment
- Transducers: Type BF applied parts, IP44

## 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

Making medical care more intelligent. ASUS Smart Health comprises of a team experienced innovators who use advanced algorithms and medical image processing to create integrated solution for smart medical equipment.ASUS offers a variety of mobile medical equipment that serve as the basis of the Internet of Medical Things (IoMT) to enhance the onsite diagnostic efficiency of medical professionals.

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