

Manufacturer
Fujifilm Visualsonics

Model
VEVO F2 LAZR-X



Photoacoustic Imaging System



Multi-Mode In Vivo Imaging System with Ultra-High Frequency and Photoacoustic Capabilities

Photoacoustic imaging is a mode of non-invasive biomedical imaging based on the [photoacoustic effect](#).

The VEVO F2 LAZR-X system combines optical Imaging with the depth and high resolution of ultrasound technology.

It is equipped with two ultrasound transducers, a prismatic multi-wavelength laser, a touch-screen display, a needle guide for precise injections, and a heated platform with ECG, respiratory frequency and rectal temperature monitorization.

It allows:

- Visualization of target substances within the samples/animals/tissues, etc.
- Rapid acquisition of images (2D and 3D images), for the visualization of dynamic processes (700 images/s) with high resolutions (down to 50 μm).
- Extended range of frequencies between 10 MHz and 46 MHz offering the possibility of clinical studies with deep penetration (up to 42 mm).

Is non-invasive and non-ionizing technique.



Photoacoustic Imaging System

Technical specifications:

Ultrasound Transducers	UHF 22x	UHF 46x
Center Frequency (MHz)	15	30
Bandwidth (MHz)	22-10	46-20
Axial Resolution (μm)	100	50
Frame Rate (Hz)	161	282
Footprint (mm)	37 x 7.5	20 x 5
Image Width (max mm)	31.9	15.3
Image Depth (max mm)	42	20
Compatible Optical Fiber(s)	Narrow, Medium, Wide	Narrow

- LU-NV-E Laser Unit:
 - Port 1 (680-970 nm, ≥ 36 mJ); laser class 4
 - Port 2 (1200-2000 nm ≥ 10 mJ); laser class 4
- Platform SM200 with temperature control for mice
 - Electrocardiography (ECG) sensors
 - Rectal temperature probe
 - Oxygen mask
 - Samsung Galaxy S8 display tablet
- Imaging modes:
 - 2D and 3D B-mode Ultrasound imaging
 - 2D and 3D Photoacoustic imaging
- Protection box Vevo LAZRTIGHT
- Vevo Image-Guided injection system
- Software acquisition: Vevo LAB



Equipment financed by: