

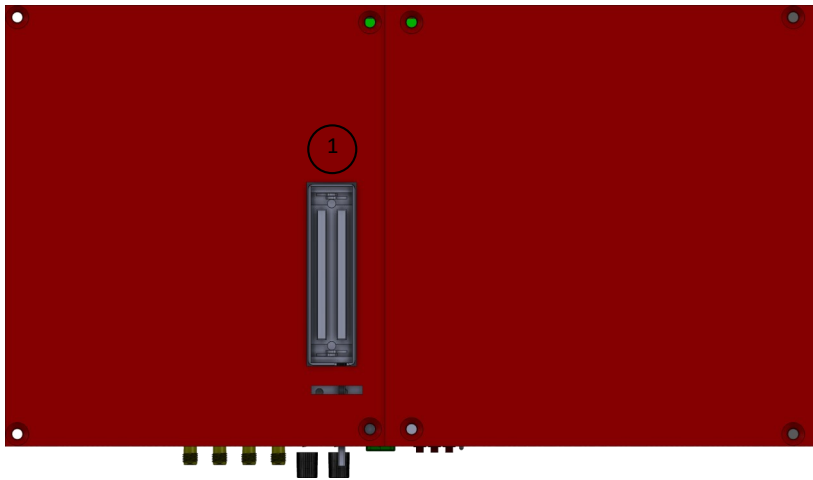
MoleculUS[™]

Ultrasonic Imaging with Chemical Analysis

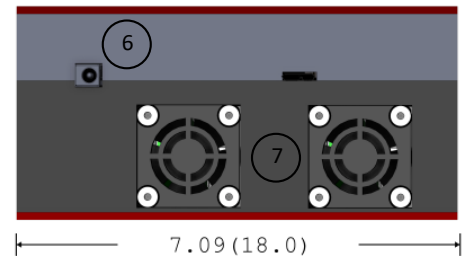
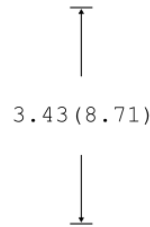
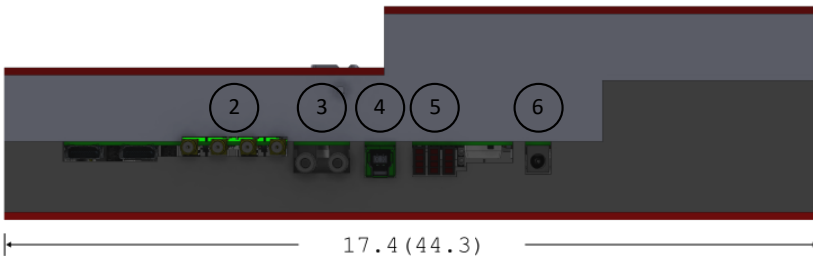


- Compact housing and USB PC connection for easy instrument integration
- Standard clinical, preprogrammed ultrasound (US) modes with toggle on/off photoacoustic (PA) mode
- PA mode utilizes optimized broadband preamplification
- Integrated TR switching between high voltage, transmit/receive US beamformer and low voltage, receive only PA optimized electronics
- Access to raw RF data for both US and PA modes
- Sync external hardware with data acquisition using electronic or optical IN/OUT trigger ports
- Standalone control software based on MATLAB[®] and backend SDK written in C++ compatible with many frontend languages such as LabView, MATLAB[®] and Python[™]

USPA Channels ⁽¹⁾	128	
PA Mode Programmable Gain ⁽²⁾	41 to 91 dB	(1) Configuration with extra 128-channels for PA mode only is available (increases housing size)
Transducer Center Frequency ⁽³⁾	1 to 18 MHz	(2) Measured with 50Ω load (actual gain depends on probe capacitance)
Sampling Rate	40 MSPS	(3) See list of available US probes or ask about third-party probe compatibility and optimization
PA Mode Input Impedance	40 kΩ	(4) Additional connector for extra 128-channels for PA mode only (128-channels per connector)
Input Connector ⁽⁴⁾	Cannon QLC-260	
Available US Modes	B, B+B, 4B, B+M, M, B-steer, compound, virtual convex, parallel beamforming, expanded view angle, color doppler (CFM), pulse wave (PW), duplex (B+PW), Triplex (B+CFM+PW), tissue harmonic imaging (THI)	



1. Single medical grade Cannon QLC-260 probe input connector for both US and PA modes
2. Two sets of programmable electrical trigger input and output (isolated SMA connectors)
3. Two optical trigger inputs for connecting patch fibers allow precise triggering from external light source
4. USB 3.0 port for high data transmission
5. Status and diagnostic LEDs
6. Two 12VDC 5A (PA mode) and 2.5A (US mode) power connectors (power supplies included)
7. Two 40 mm silent operation cooling fans



All dimensions approximate in inches (cm). Weight 5.8 lbs (2.7 kg)



Probes

A variety of probes are available that offer high resolution convex, linear, phased array and endocavity transducer configurations for applications in veterinary, abdominal, vascular, cardiac, transrectal and transvaginal USPA imaging. The probe is an integral part of MolecuUS™ as it enables the best USPA image quality.

Minimum PC Requirements: 6th generation Genuine Intel® quad-core processor, 8 GB DDR4 RAM. USB3 port on Intel® host controller, 500 GB PCIe 3.0 x4 SSD w/ heatsink, Microsoft Windows 10 64-bit Home

Recommended PC Requirements: 9th generation Genuine Intel® hexa-core processor or better, 16 GB DDR4 RAM, USB3 port on Intel® host controller, 1 TB PCIe 3.0 x4 SSD w/ heatsink (e.g. Samsung 970 Pro), Microsoft Windows 10 64-bit Pro

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All specifications are subject to change without notice.

MolecuUS™ is classified EAR99 and does not require an export license.

