FALCON 157 - OEM VERSION

Ultra compact diode-pumped pulsed 1.57 µm laser

MAIN FEATURES

- Highly ruggedized diode-pumped solid-state laser (up to 60 g shock)
- Ultra compact & portable with battery operation
- <<Eye safe>> wavelength
- Sealed for operation in harsh environments
- Proven drop-resistance up to 1 meter
- Customized electronics integration upon request
- Beam quality optimized for focusability

MAIN APPLICATIONS

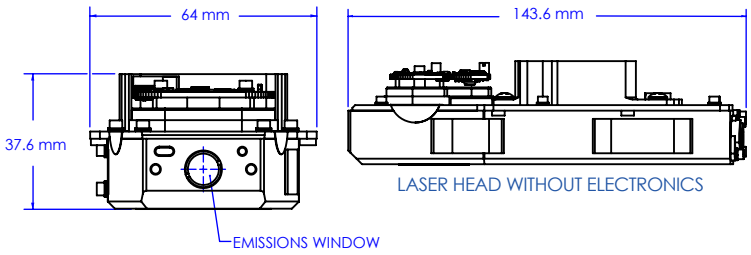
- **LIBS**
- **BIOTECHNOLOGY**
- **SPECTROSCOPY**
- **RANGING**
- **SENSING**

SPECIFICATIONS

FALCON 157	Collimated	Focused
Wavelength (µm)	1.57	
Repetition rate (Hz)	Up to 40 (1)	
Energy per pulse (mJ)	4.5	
Pulse duration (ns) (2)	< 6	
Beam diameter (mm)	1.2 ± 0.5 (3)	< 0.14 (4)
Beam divergence (mrad) (5)	< 8	N/A
M2, focusability (times diffraction limit)	N/A	<5
Pulse to pulse energy stability (% RMS)	< 2.5	
Operation mode	Burst / Continuous	
Power requirements (nominal)	+24 VDC, 25 W +3.3 VDC, 1 W	
Cooling	Passive convection 25 W	
Operating temperature (°C)	5 to 35	
Storage temperature (°C)	- 40 to 80	
Laser head sealing	IP 66 sealed Do not submerge in water	
Vibration and shock	Complies with MIL-STD-810 (6)	

(1) Active cooling required for 40 Hz continuous operation
(2) Measured at FWHM with fast photodiode and 1 GHz scope
(3) D4σ at output window
(4) Waist diameter located 17 mm from the Falcon front interface
(5) D4σ, full angle
(6) up to 60 g shock

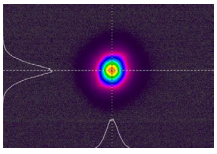
Laser head

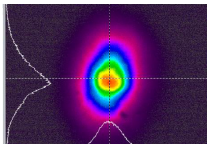


Electronics

Contact Lumibird for customized electronics integration

Typical beam profiles


Near field collimated


Far field collimated

www.quantel-laser.com

Many options and configurations are available. Please contact Lumibird to find the best match for your needs and compatibility between options.

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WARNING
INVISIBLE LASER RADIATION
AVOID EXPOSURE TO BEAM
CLASS 3B LASER PRODUCT
1574nm 4nsec 10mJ

RoHS