

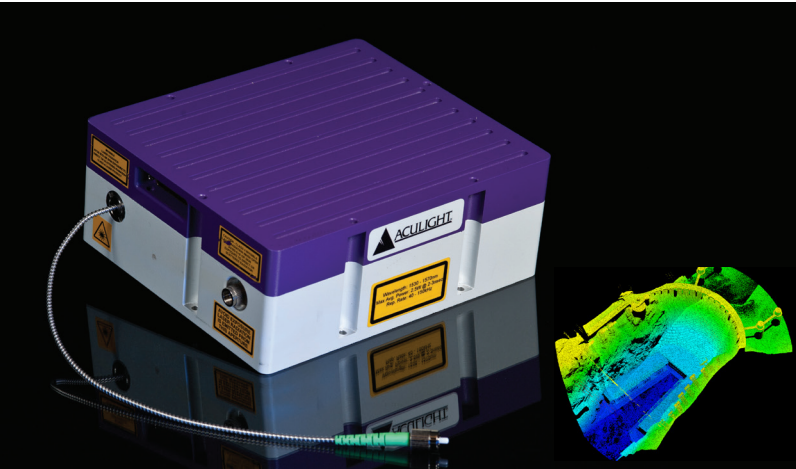


TELESTO™ 1 MICRON PULSED FIBER LASERS

For Airborne Lidar Mapping Applications

Imagine the ability to generate precise light in a compact, environmentally hardened package.

Aculight's Telesto does just that. As one of the industry's leading laser development centers, Lockheed Martin Aculight is recognized around the world for its robust, reliable and innovative lasers. And Telesto is no exception. The 1 micron, high-power, pulsed fiber laser generates short pulses, 3-5 ns, over a wide range of repetition rates from 20-750 kHz.



Enabling Technology

Telesto offers exceptional beam quality and is fully self contained, making it ideally suited for deployment in ground or aerial vehicle sensors. Up to 6W of average power and 90 μ J of pulse energy are available in a fiber output with $M^2 < 1.5$.

Typical Performance and Characteristics

- Wavelength: 1.064 μ m
- Pulse duration: 3-5 ns
- Average power: Up to 6W
- Pulse energy: Up to 90 μ J
- Peak power: Up to 25 kW
- Beam quality: $M^2 < 1.5$
- Polarization: Linear*
- Polarization extinction ratio: > 15 dB
- Pulse repetition frequency: 20-750 kHz
- Electrical power: 18-36 VDC
- Dimensions: 2.6"H x 6"W x 7"D
- Weight: < 8 lb
- Cooling: Conduction
- Operating temperature: 0°C to 60°C

*Linear polarization only available up to 15 kW peak power

Lockheed Martin

Mission Systems and Training
300 M Street, SE
Washington, DC 20003
www.lockheedmartin.com/mst

Copyright ©2014 Lockheed Martin Corporation
All rights reserved
PIRA# OWG201201006
0039240



VISIBLE AND INVISIBLE LASER RADIATION
AVOID EYE OR SKIN EXPOSURE TO
DIRECT OR SCATTERED RADIATION
CLASS 4 LASER PRODUCT

Applications

- Laser Detection and Ranging (LADAR)/Rangefinding
- Surveillance
- Mapping
- Sensing
- Nonlinear optics conversion

Features

- Fully self-contained
- High beam quality
- Optical trigger out (T_0)
- Ultra low jitter
- 0°C to 60°C operation
- Environmentally sealed package

Interfaces

Item	Specification
Delivery fiber connector	FC/APC
Delivery fiber length	30 cm standard, Optional 1.0 m (limited availability)
Optical trigger (T_0)	FC/UPC
Collimator	Optional 4.5 mm, 7.8 mm or 9.0 mm
Power conditioning	MIL-STD-704F, MIL-STD-1275B
Power & Control	Micro-D, 37 pin
Cooling	Optional heat sink and fans available

