

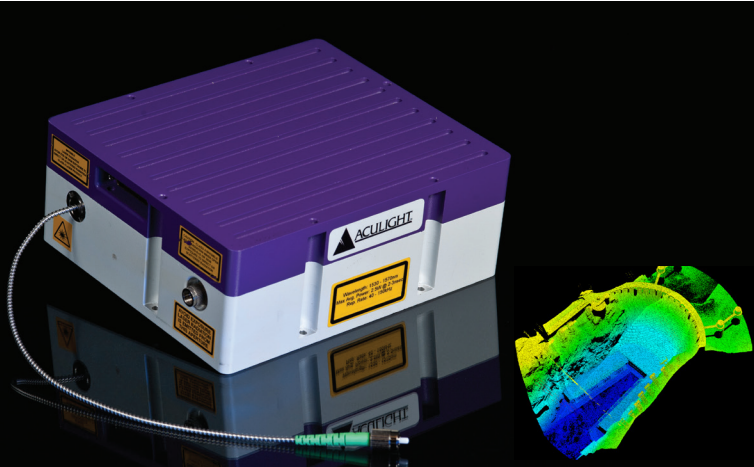


PERSEUS™ 1.54 MICRON PULSED FIBER LASER

For Airborne Lidar Mapping Applications

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

Aculight's Perseus 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 Perseus is no exception. The 1.54 micron, high-power, pulsed fiber laser generates short pulses, 2.5-4 ns, over a wide range of repetition rates from 6-750 kHz.



Enabling Technology

Perseus' 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 60 μ J of pulse energy are available in a fiber output with $M^2 < 1.3$.

Typical Performance and Characteristics

- **Wavelength:** 1.541 μ m
- **Peak power:** Up to 15kW
- **Pulse width:** 2.5 to 4 ns
- **Pulse energy:** Up to 60 μ J
- **Average power:** Up to 6W
- **Beam quality:** $M^2 < 1.3$
- **PRF (kHz):** 6 to 750
- **Polarization:** Random
- **Electrical power:** 18 - 36 VDC
- **Trigger:** TTL or LVDS
- **Dimensions:** 2.6"H x 6"W x 7"D
- **Weight:** < 7.6 lbs
- **Cooling:** Conduction
- **Operating temperature:** -10°C to 60°C

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

Applications

- Light detection and ranging (LADAR)/ Ranging
- Surveillance
- Mapping
- Sensing
- Seed for power amplifier

Features

- Fully self contained
- High beam quality
- Optical trigger out (TO)
- Ultra low jitter
- -10°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-461E
- **Power & Control:** Micro-D, 37 pin
- **Cooling:** Optional heat sink and fans available

