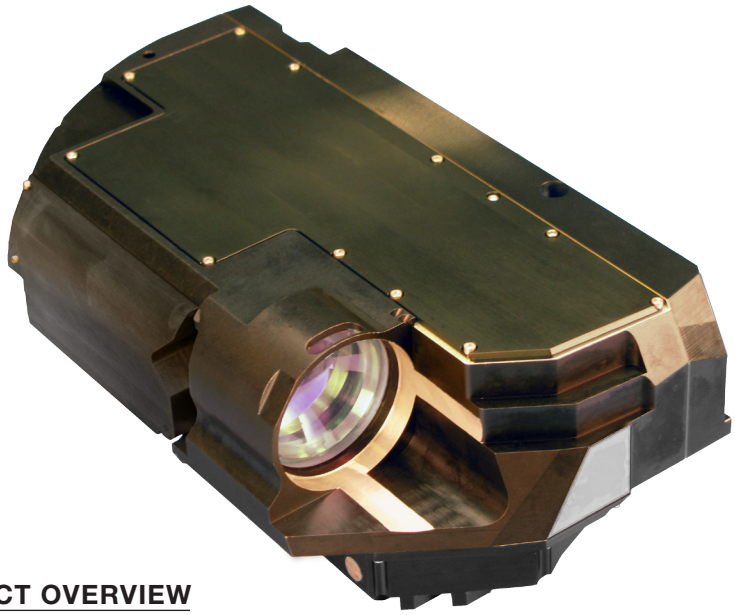
FIREFLY LRF/D

Laser Rangefinder/Designator (LRF/D)



PRODUCT OVERVIEW

The L-3 ALST Laser RangeFinder/Designator (LRF/D) combines the capabilities of Diode-Pumped ELRF-3 and the Elite Target Designator into a compact ruggedized module. The LRF/D module utilizes a common aperture for range finding in the 1535 nm or 1064 nm wavelengths, and target designation in the 1064 nm wavelength. Diode-Pumped resonators; robust electronics and advanced optics provide high MTBF, low power consumption and extended ranging and target designation capabilities. With a single connector for power and communications interface, self-contained thermal management system and three point fixed mounting system, the LRF/D module offers simple and versatile system integration options.

FEATURES

Dual Diode-Pumped Lasers:

- Class 4 ND:YAG designator 1064 nm ≥120 mJ
- Class 1 Erbium:Glass rangefinder 1535 nm ≥ 5 mJ

NATO I, II AND STANAG 3733 code compliant

Compact, Ruggedized Design:

- Common aperture for target ranging and designation
- Ranging capability in either wavelength
- -40°C to +71°C operating temperature
- 42,000 ft. operational ceiling
- Integrated thermal management permitting extended or multiple back-to-back engagements
- Optional external boresight adjustment

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SYSTEM SPECIFICATIONS

Detector Type	Avalanche Photo Diode Detector (APD)
Laser Co-Boresight Retention	≤ 0.15 mrad
Input Voltage	28 VDC IAW MIL-STD-704F (22-29 VDC)
Weight	< 7 lb
Dimensions	264mm X 138mm X 85mm
MTBF	≥ 4500 hours
Operating Temperature	-40°C to +71°C IAW MIL-STD-810F
Storage Temperature	+55°C to +85°C IAW MIL-STD-810F
Temperature Shock	+5°C / minute
Humidity	+60°C 95% RH IAW MIL-STD-810F
EMI/EMC	IAW MIL-STD-461E

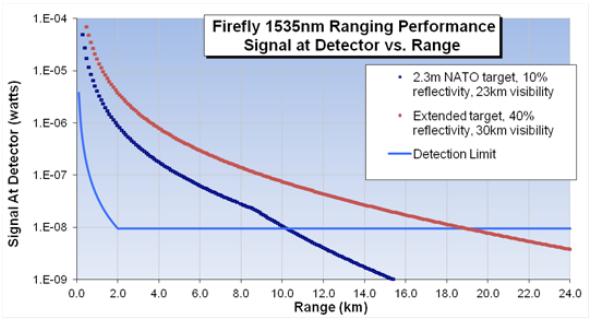
ABOUT L-3 ALST

Part of L-3 Communications, a global leader in defense technologies and services, Advanced Laser Systems Technology (ALST) is a full service designer and manufacturer of military grade Eyesafe Laser Rangefinder, Laser Designator, and Multi-Function Laser systems.

An ISO 9001 certified quality organization, L-3 ALST has a quarter century of past performance providing system integrators and primes with open frame OEM modules and housed LRUs (line replaceable units) in a variety of configurations.

L-3 ALST's products are listed under category XII(b) of the United States Munitions List. International Traffic In Arms Regulations (ITAR) requires a valid export license prior to technical or hardware shipments or transmissions of information.

LASER RANGEFINDER SPECIFICATIONS		LASER DESIGNATOR SPECIFICATIONS
Laser Type	Diode-Pumped Erbium:Glass	Diode-Pumped ND:YAG
Wavelength	1535 nm	1064 nm
Beam Divergence	≤300 µrad	≤180 µrad
Pulse Rate	1 Hz Continuous (2 Hz burst mode)	10 Hz to 20Hz
Eye-Safety	Class 1 (IAW ANSI and IEC)	Class 4
Range Gate Max/Min	30 km / 100 m	30 km / 300 m
Range Accuracy	±2 m	±2 m
Multi-target Discrimination	Distinct targets with 30 m separation	Distinct targets with 30 m separation
False Alarm Rate	.1%	.1%
Laser Pulse Energy	4-9 mJ	80 to 140 mJ
Pulse Width	22 ns ±4 ns	16 ns ±5 ns
Boresight Stability	0.200 mrad for a +/- 20 °C variation	≤ 25 µrad



Warrior Systems

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