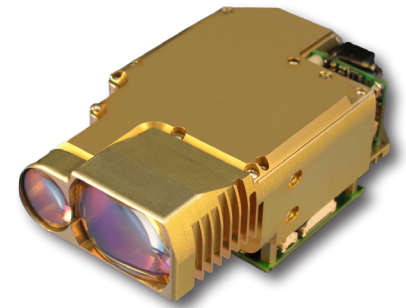




# DIODE-PUMPED EYE-SAFE LASER RANGE FINDER

## DP-ELRF I MLRF

DP-ELRF I MLRF	
<b>System</b>	
Max Range	See Figure 1
Min Range	50 m
Boresight Accuracy (relative to nominal emission axis)	$\leq \pm 200 \mu\text{rad}$ at ambient temperature
Boresight Retention Over Operating Temperature (relative to initial factory alignment)	$\leq \pm 150 \mu\text{rad}$ at ambient temperature
MTBF	11,000 hours (uninhabited airborne cargo environment @ 40 °C - system powered and firing 25% of time)
	7,500 hours (composite wheeled environment @ 50 °C - system powered and firing 25% of time)
<b>Laser</b>	
Wavelength	1535 nm $\pm$ 5
Class	Class 1 IAW ANSI-Z136.1-2007
Pulse Rate	$\leq 1$ Hz Nominal
Laser Shot Life	> 1,000,000 Shots
Beam Divergence	Note: 1
Energy Output	Note: 1
Pulse Width	Note: 1
<b>Receiver</b>	
Range Resolution	1 m
Range Accuracy	50 to 300 m Target 7 m 1 $\sigma$ , 301 to 10,000 m Target Range: 4 m 1 $\sigma$
Range Logic	First / Last
Multi-Target Discrimination	$\geq 25$ m
Detector Type	Note: 1
Receiver Sensitivity	Note: 1
<b>Mechanical</b>	
Weight	$\leq 470$ g (1.04 lb)
Dimensions	126.5 mm (4.98 in) x 686.1 mm (2.68 in) x 49.3 mm (1.94 in)
Environmental Enclosure	Open frame
<b>Electrical</b>	
Communications Protocol	RS-232 Std (RS-422 and RS-485 available)
Input Voltage	14 VDC to 32 VDC
Power Consumption	$\leq 20$ W
<b>Environmental</b>	
Operating Temperature	-40 °C (-40 °F) to +71 °C (+159.8 °F)
Environmental Standards	MIL-STD-810F and MIL-STD-461F

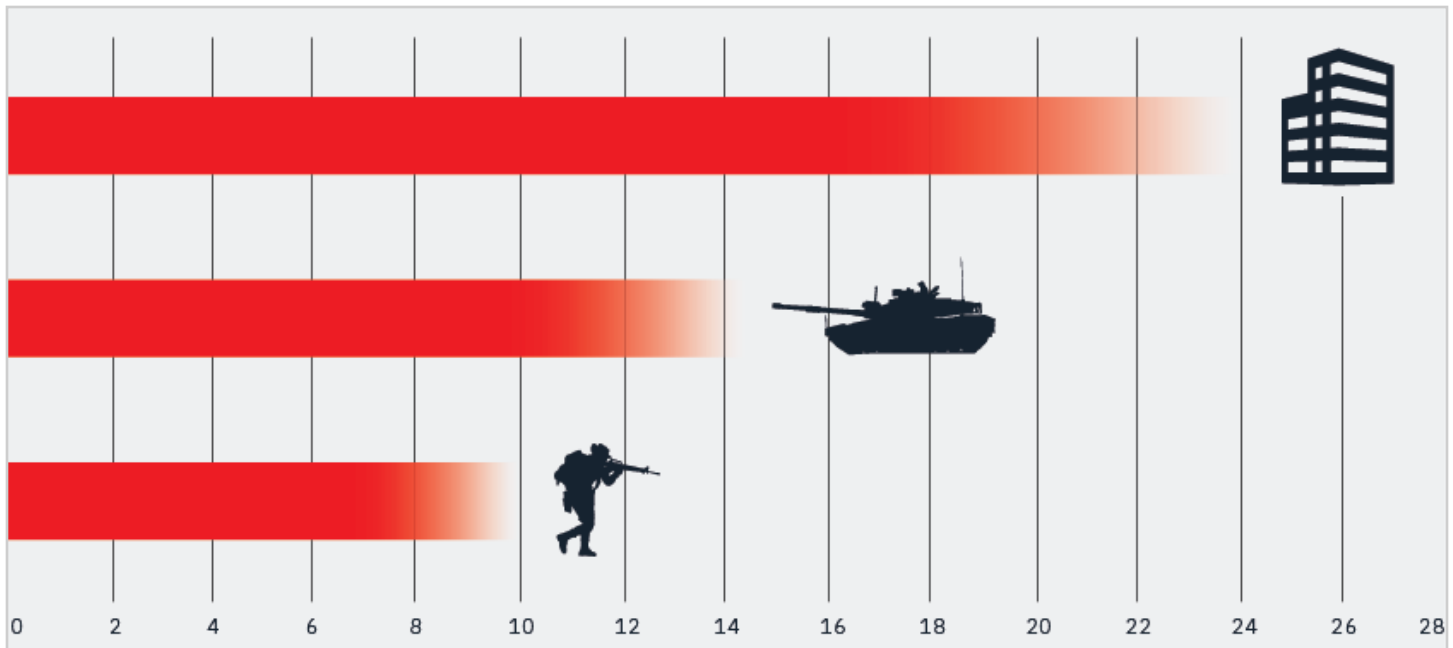


The Miniature Laser Range Finder (MLRF) is smallest and lightest member of the our Diode-Pumped Eye-Safe Laser Range Finder product family. Weighing less than 470 grams, firing with nominal 5 mJ output energy, optimized beam divergence, and sensitive APD receiver, the MLRF provides even the most demanding users with exceptional performance in a ruggedized, lightweight compact package.

NOTE 1: These parameters, together and in combination with the atmospheric and target characteristics shown, provide the user with the achievable range performance shown in Figure 1 as seen on page 2.

L3Harris a global leader in defense technologies and services. We are an ISO 9001 certified full-service designer and manufacturer of military grade Eye-Safe Laser Range Finder, Laser Designator, and Multi-Function Laser Systems.

Figure 1: Ranging Performance Using Various Targets (FAR  $\leq$  0.1 %)



## FEATURES

The DP-ELRF I MLRF provides up to 20 km ranging capability, 39.9 km range gate and 5 mJ nominal energy. Total weight is < 470 gm measuring 5 in L x 2.7 in W x 1.9 in H. This laser range finder features diode-Pumped Erbium: Glass, Avalanche Photo Diode Detector (APD), Pulse Repetition Frequency  $\leq$  1 Hz Nominal, 14 to 32 VDC and a MIL-STD Tested Environment.

### Diode-Pumped Eye-Safe Laser Range Finder

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Cleared by DoD/OSR for public release under 15-S-2562 on 9/21/15. Export of this product is regulated by the U.S. Department of State in accordance with guidelines of "International Traffic in Arms Regulations (ITAR)" per Title 22, Code of Federal Regulations, Parts 120-130.



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