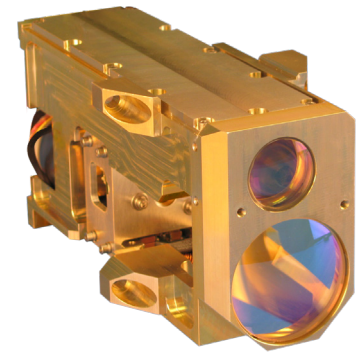




# DIODE-PUMPED EYE-SAFE LASER RANGE FINDER

## DP-ELRF II

<b>System</b>	
Max Range	See Figure 1
Min Range	50 m
Transmitter Boresight Accuracy (relative to nominal emission axis)	$\leq \pm 1.0$ mrad/axis at ambient
Boresight Retention Over Operating Temperature (relative to initial factory alignment)	$\leq \pm 100$ $\mu$ rad (all environments)
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	$\leq 2$ Hz
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	5 to 300 m Target 7 m 1 $\sigma$ , 300 to 10,000 m Target Range: 4 m 1 $\sigma$
Range Logic	First / Second / Last
Multi-Target Discrimination	$\geq 25$
Detector Type	Note: 1
Receiver Sensitivity	Note: 1
<b>Mechanical</b>	
Weight	$\leq 5.44$ kg (2.0 lb)
Dimensions	188.0 mm (7.40 in) x 88.4 mm (3.48 in) x 72.4 mm (2.85 in)
Environmental Enclosure	Open frame
<b>Electrical</b>	
Communications Protocol	RS-232 Std (RS-422 and RS-485 available)
Input Voltage	12 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

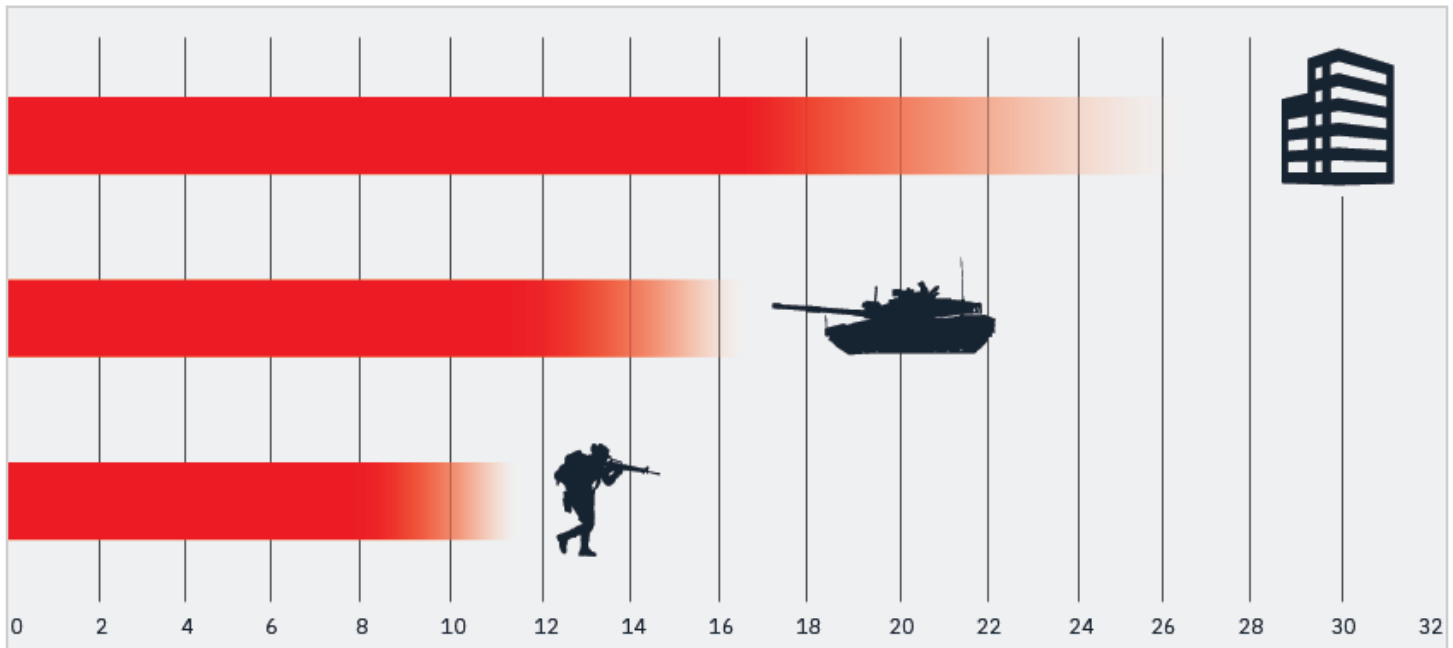


The Diode-Pumped Eye-Safe Laser Range Finder (DP-ELRF) II is a Class 1 eye-safe, long-range laser range finder with improvements that extend capabilities beyond L3Harris's legacy flash-lamp product line. Improvements to laser beam divergence, laser boresight retention, system shot-life and receiver sensitivity result in superior product performance even in the most demanding operational environments. The improved DP-ELRF II maintains constant Class 1 eye-safe operation and ruggedized environmental hardening.

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.

A global leader in defense technologies and services, L3Harris is 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 II provides up to 20 km ranging capability, 5 mJ nominal energy, diode-pumped Erbium:Glass, pulse Repetition Frequency  $\leq$  2 Hz,  $\leq$  450  $\mu$ rad beam divergence and Avalanche Photo Diode Detector (APD). This laser range finder is ANSI-Z136.1-2007 and IEC 60825-1 Class 1 Eye-Safe and features a single connector interface for power and communication.

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

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