Erbium Glass Pulsed Laser

1540-1560nm up to 2 mJ pulse

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The EDGL Erbium-Doped Glass Laser emits at approximately 1535–1550 nm, an eye-safer wavelength widely used in laser rangefinding and LiDAR applications. Pumped by 980 nm laser diodes, it operates in pulsed Q-switched mode, leveraging the long upper-state lifetime of erbium glass for efficient energy storage and high pulse energy output. The laser produces clean, tail-free pulses with stable pulse energy and excellent single mode beam quality. The semiconductor pump module and laser crystal are integrated into a compact, rugged package for easy installation and system integration. A compatible driver is available for fast evaluation, and an optical filter can be incorporated into the package as an option.

The EDGL can be manufactured in the USA using domestically produced pump lasers.

Features

- Single Mode
- High Pulse Energy
- Safe for Human Eyes
- Lightweight
- Compact
- Wide Operating Temperature Range

Applications

- LiDAR
- Range Finder
- Medical Instruments

RoHS COMPLIANT

Specifications

Parameter	Min	Typical	Max	Unit
Wavelength		1535		nm
Single Pulse Energy	100		2000	µJ
Repetition Frequency	1		5000	Hz
Pulse Width	3		10	ns
Energy Stability (RMS)		3		%
Divergence Angle	≤ 11	≤ 10	≤ 9	mrad
Beam Mode		TEM_{oo}		
Working Current	8		20	A
Working Voltage	2		5	V
Weight	8		30	g
Operating Temperature	-40		+65	°C
Storage Temperature	-45		+80	°C

Note: The specifications provided are for general applications with a cost-effective approach. If you need to narrow or expand the tolerance, coverage, limit, or qualifications, please [click this link]:

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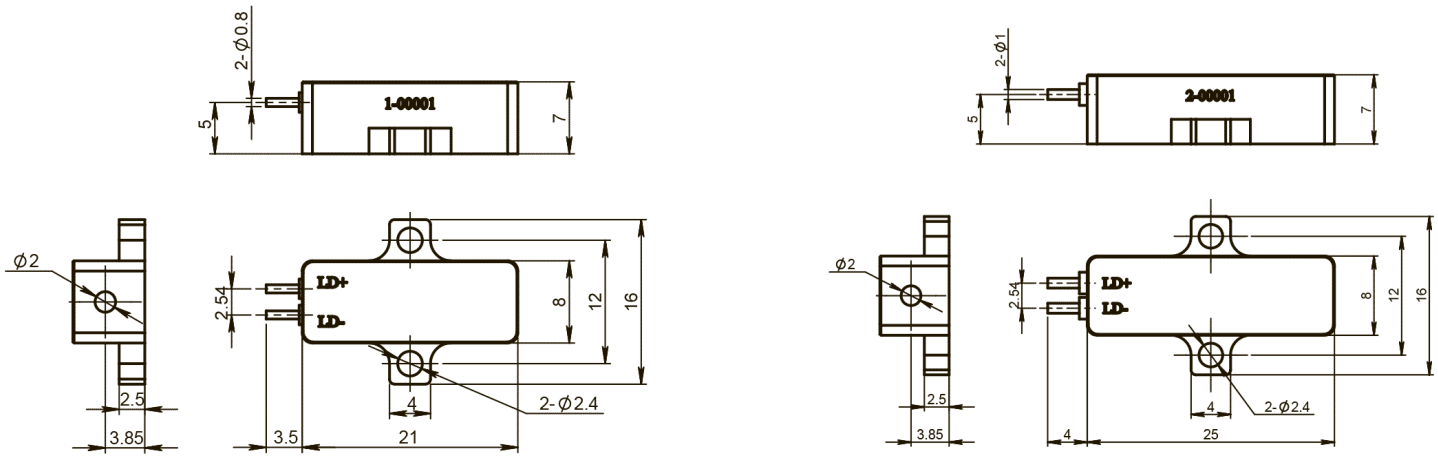
Mechanical Dimensions (mm)



*Product dimensions may change without notice. This is sometimes required for non-standard specifications.

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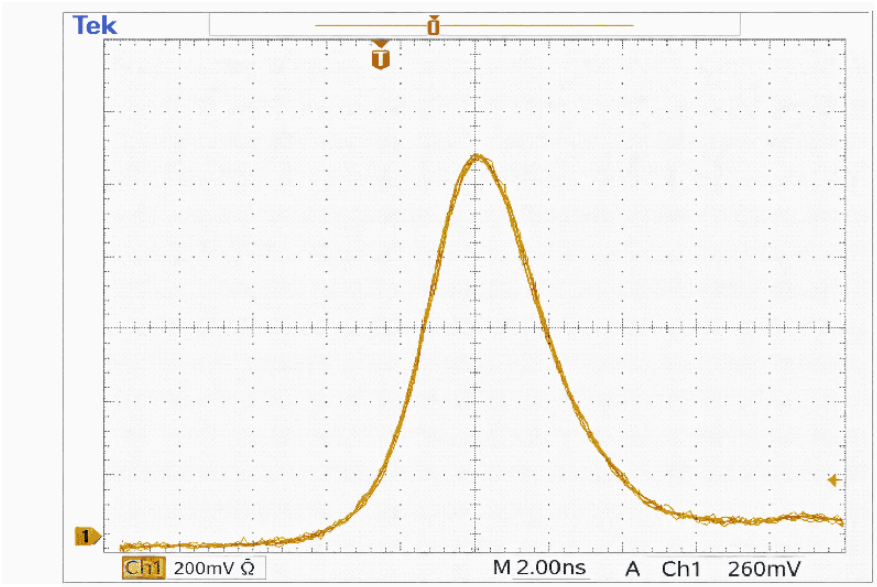
Typical pulse waveform



Spot morphology

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Ordering Information

	□□□	□	□□□□	□	□	□	
Prefix	**Pulse Power/Energy**	**Pulse Width**	**Repetition**	**Driver**	**Filter**	**Grade**	**Price (<50)**
EDGL-	100µJ = 010 200µJ = 020 300µJ = 030 500µJ = 050 800µJ = 080 1000µJ = 100 2000µJ = 200 1500µJ = 150 40µJ = 004 20µJ = 002 10µJ = 001	3ns = 3 4ns = 4 5ns = 5 6ns = 6 8ns = 8 10ns = A	10 = 0010 5 = 0005 1 = 0001 1000 = 1000 2500 = 2500 5000 = 5000	Non = 1	None = 1	Standard = 1	$381

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Laser Safety

This product meets the appropriate standard in Title 21 of the Code of Federal Regulations (CFR). FDA/CDRH Class 1M laser product. This device has been classified with the FDA/CDRH under accession number 0220191. All versions of this laser are Class 1M laser products, tested according to IEC 60825-1:2007 / EN 60825-1:2007. An additional warning for Class 1M laser products. For diverging beams, this warning shall state that viewing the laser output with certain optical instruments (for example eye loupes, magnifiers, and microscopes) within a distance of 100 mm may pose an eye hazard. For collimated beams, this warning shall state that viewing the laser output with certain instruments designed for use at a distance (for example telescopes and binoculars) may pose an eye hazard.

Wavelength = 1.3/1.5 µm.

Maximum power = 30 mW.

*Caution - Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.
*IEC is a registered trademark of the International Electrotechnical Commission.

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