

CLI-30

# FLIR CLI-30

## 30 W VCSEL-Based Compact Laser Illuminator

FLIR's VCSEL-based Compact Laser Illuminator (CLI) is a high power, pulsed laser illuminator capable of up to 30 W of peak output power. Designed for SWaP-sensitive platforms, the CLI provides speckle-free illumination through use of FLIR's proprietary VCSEL technology in a passively cooled compact package. Currently available in the NIR band at 860 nm and the SWIR band at 1060 nm, the CLI is controlled through a serial port and operates from 8 up to 1000 Hz. Various fixed beam divergences are offered. Designed as an OEM component, FLIR can customize the design to fit your specific requirements.

### KEY FEATURES

- Uses proprietary Vertical-Cavity, Surface-Emitting Laser (VCSEL) technology
- Improved eye safety from VCSELs over conventional laser diodes
- 30 W peak output power, 2 power set points, variable brightness control
- Speckle-free, high-quality illumination
- Passively cooled
- Removable optic for fixed beam divergences from 3-30°
- Programmable frequency and pulse width operation

### PLATFORMS

- Handheld
- Unmanned Vehicles
- Fixed Mount
- Gimbaled

### APPLICATIONS

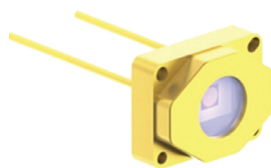
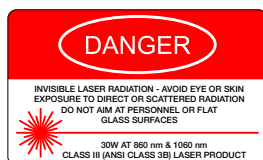
- Traffic Illumination
- Border Control Surveillance
- Law Enforcement / Security
- Industrial
- LED replacement for longer range, brighter, and higher efficiency illumination

## Specifications

Parameter	Value
Wavelengths	860 nm or 1060 nm
Output Power (max.)	30 W
Output Laser Settings	Programmable: HI and LO power levels, frequency, pulse width
Output Laser Control	Via UART command control or follows strobe
Brightness Control	Via UART command control or subject to PWM signal
System Efficiency	20%
Operating Frequency	8 – 1000 Hz
Max Pulse Width	13 ms
Max Operating Duty Cycle	10%
Beam Divergence	3°-30° fixed divergence via screw-on lens mount
Beam Pattern	Top hat
Laser Classification	Class 3B
Electrical Parameters	
Input Power Supply	21 – 48 V
Strobe	Input or output
Pulse width modulation	Brightness control via PWM signal
Control interface	Via UART or Strobe/PWM
Mechanical	
Dimensions (L x W x H)	102.3 x 21.5 x 15.1 mm, not including lens mount
System Weight	50 grams
Environmental	
Operation Temperature	0°C to +80°C
Storage Temperature	-55°C to +85°C

## Related Package Assemblies *( VCSEL in High-Power Package)*

Available Wavelengths	860	1060
Laser Output Power (QCW)	30 W	30 W
Conversion Efficiency	+28%	+26%
Threshold Current	9 A	9 A
Operating Current	40 A	46 A
Operating Voltage	2.7 V	2.5 V
FWHM Divergence	30°	12°
Package	HP-TO	HP-TO



High-Power VCSEL Array Package

**PORTLAND**  
Corporate Headquarters  
FLIR Systems, Inc.  
27700 SW Parkway Ave.  
Wilsonville, OR 97070  
USA  
PH: +1 866.477.3687

**VENTURA**  
FLIR Electro-Optical Components  
2223 Eastman Ave, Suite B  
Ventura, CA 93003  
PH: +1 805.642.4645  
eocinfo@flir.com

www.flir.com  
NASDAQ: FLIR

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