

FLIR VPOWR

High-Power, Short-Pulse VCSELs

FLIR's VPOWR is a high-performance short-pulse laser source capable of over 50W peak powers in 10-50 nanosecond pulses. The VPOWR uses FLIR's proprietary Vertical-Cavity, Surface-Emitting Laser (VCSEL) technology, which offers high peak powers and high-brightness in a circular output beam for unmatched performance for time of flight ranging, 3D sensing, LIDAR, and gesture recognition applications. The plug and play board only requires supply power and trigger signal for operation. Custom formats and solutions area available, as well as chip on carrier or bare VCSEL die for customer integration.

KEY FEATURES

- High-brightness, low divergence beam from a single aperture
- Low-jitter compared to edge-emitting laser sources
- Directional emission beam compared to LEDs
- Easy integration and control
- Circular, uniform beam
- Output monitor
- High reliability

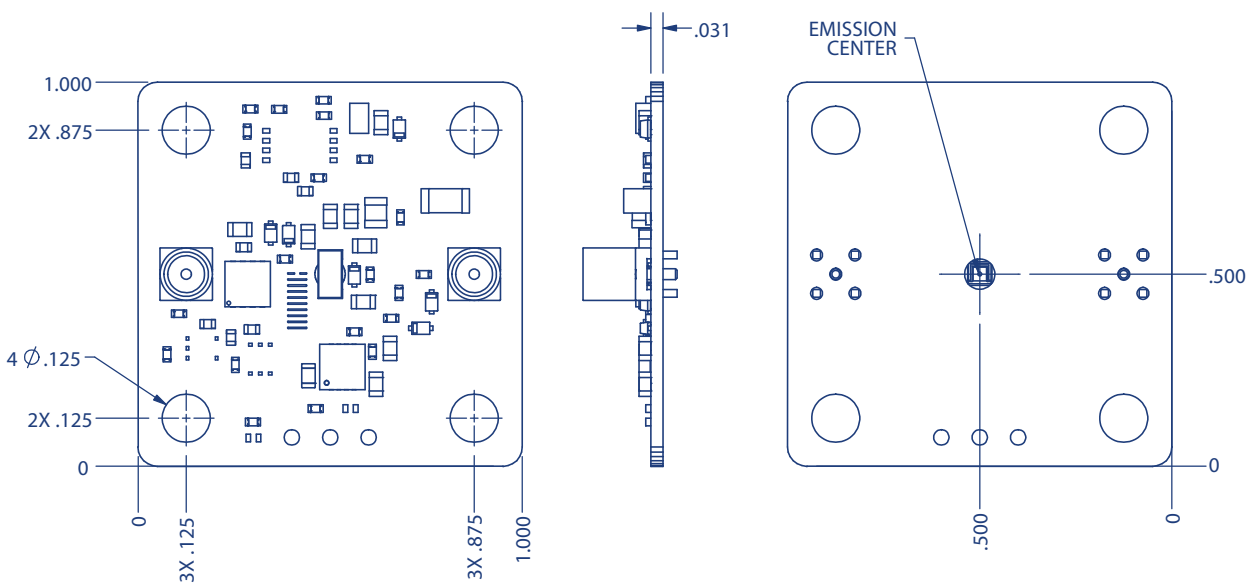
APPLICATIONS

- Rangefinders
- Gesture recognition
- Automotive sensing
- 3D Sensing
- LIDAR

Specifications

Optical Parameters	Value
Wavelength	940 nm
Peak Power	50 W
Beam Divergence (FWHM)	20°
Beam Pattern	Gaussian
Emission Diameter (circular aperture)	250 μm
Electrical Parameters	
Maximum Operating Frequency	10 kHz
Pulse Width (fixed on-board)	10-50 ns
Supply Voltage	3-5.5 V
Mechanical Parameters	
Board Dimensions (L x W)	25.4 x 25.4 mm

FLIR VPOWR Technical Illustration



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