

LIDAR Pulsed Fiber Lasers

General

Incorporating state-of-the-art laser technology, V-Gen's VPFL-SP lasers provide top performance in technically demanding LIDAR and range-finding applications.

V-Gen's VPFL-SP series of Ytterbium fiber lasers in MOPA configuration offer clients a constant high peak power over a wide range of pulse repetition rate values for stable high performance.

The VPFL-SP's RS232/TTL control interface is designed for simple operation and precise tuning of laser parameters -- output power, pulse energy, repetition rate and pulse width. Offering high beam quality, small spot and high pulse energy, V-Gen's lasers are competitively priced yet offer the full range of specifications to meet a wide range of LIDAR applications.

With low weight and small size, the VPFL-SP is easily deployed. Housed in a robust assembly that meets industrial standards and fitted with a metal armored fiber cable, VPFL-SP lasers deliver a high quality, near diffraction-limited output beam. The VPFL's solid construction is maintenance free and reliable, ensuring long-life operation at low operational cost.

V-Gen's VPFL-SP lasers are rugged and can stand up to the tough conditions and requirements of airborne LIDAR applications for a robust, stable platform.

Highlights

- OEM ready
- Tunable parameters for wide range of operations
- Maintenance free for cost-saving operation
- Low weight and small size for easy deployment
- Simple parameter setting and system testing by PC or hand-held computer
- Very short pulse for higher measurement resolution

Application

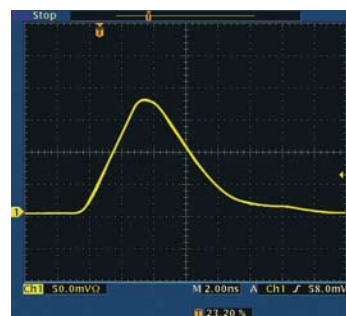
- LIDAR and LADAR
- Range finding
- Spectroscopy




Main features

- Up to 10W average output power
- Up to 25kW peak power
- Tunable pulse width down to 3nsec
- 35-500 kHz (tunable) repetition rate
- Narrow line width down to sub 100pm
- RS232 and TTL interfaces
- High wall plug efficiency (>20%)
- Near diffraction limited beam quality ($M^2 < 1.3$)
- Optional collimators with variety of beam diameters

Short Pulse-5nsec



 Tablet optional wireless control

PARAMETER	UNIT	VPFL-SP-2000	VPFL-SP-5000	VPFL-SP-10000	VPFL-SP-15-10000	VPFL-SPNL-15-10000	VPFL-SPNL-25-10000
Operational mode		Short Pulse					
Wavelength	nm	1064 (other options available)					
Ave. output power	Watts	2	5	10			
Repetition rate	kHz	35-200			35-500		
Pulse width (tunable*)	nsec	5-50*			<3 (other options available)		
Linewidth	nm	<1			<0.1		
Peak power (max)	kW	10			15	25	
Pulse energy (max)	μJ	40	100	200			
GENERAL PARAMETERS							
Operational voltage	VDC	12VDC (auto-range AC-DC power supply), 24VDC optional					
Operating temp.	°C	5-40					
Dimensions	mm	275x120x45					
Weight	Kg	2					
Wall-plug efficiency	%	>20					
Fiber length	cm	50					
Output fiber collimator	mm	6mm diameter (other options available)			5mm diameter (other options available)		
Output beam parameters		$M^2 < 1.3$					

Specifications are subject to change without prior notice

About V-Gen

V-Gen develops, manufactures and markets high quality innovative laser systems for a wide range of industrial and medical applications. The company's laser systems are the product of extensive experience and the cutting edge know-how that V-Gen's professional team has developed over the years.

In the industrial field the company develops and manufactures pulsed Ytterbium fiber-lasers for such applications as marking and micro-machining. V-Gen's short pulse versions are primarily implemented in LIDAR and range-finding. In the medical field, V-Gen develops and manufactures diode lasers for photodynamic therapy (PDT).

V-Gen relies upon a qualified and professional distribution network to market and sell its products around the world. With a broad international base of installed systems, V-Gen laser solutions have earned the company a reputation for quality, reliability and innovation.