

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.

An all-fiber system, 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-SP'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

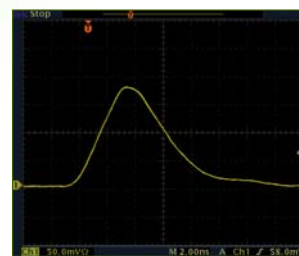
Applications:

- LIDAR and LADAR
- Range finding
- Spectroscopy



Main features:

- Up to 10 W average output power
- Up to 10 kW peak power
- 5 – 50 nsec (tunable) pulse width
- 50 – 500 kHz (tunable) repetition rate
- RS232 and TTL interfaces
- High wall plug efficiency (>20%)
- Near diffraction limited beam quality ($M^2 < 1.35$)
- Optional collimators with variety of beam diameters



Short Pulse - 5 nsec



Evaluation kit



PC user application

Parameter	Unit	VPFL-SP-2000	VPFL-SP-5000	VPFL-SP-10000
Operational mode		Short Pulse		
Wavelength	nm	1064 (other options available)		
Ave. output power	Watts	2	5	10
Repetition rate	kHz	50 - 500		
Pulse width	nsec	5 - 50		
Linewidth	nm	< 2 (@ 200 kHz & 8 nsec pulse width)		
Peak power (max)	kW	10		
Pulse energy (max)	μj	40	100	200
General Parameters				
Operational voltage	VDC	12 VDC (the system includes auto-range AC-DC power supply)		
Operating temp.	C°	0 - 40		
Dimensions	mm	275 x 120 x 45		
Weight	Kg	2		
Wall-plug efficiency	%	> 20		
Fiber length	cm	50 (other options available)		
Output fiber collimator	mm	8 mm diameter (other options available)		
Output beam parameters		$M^2 < 1.35$		

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.



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* Specifications are subject to change without prior notice