V-GEN ELECTRO OPTICS LTD

Your Fiber Laser Partner

Industrial Pulsed Fiber Lasers

General:

V-Gen's VPFL lasers are short-pulse, Ytterbium fiber lasers in MOPA configuration. Incorporating leading edge technology, the VPFL series provides top performance in a wide range of precision-intensive industrial applications such as marking, micromachining, scribing and more.

An all-fiber system, the VPFL'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 applications.

With low weight and small size, the VPFL is easily deployed. Housed in a robust assembly that meets industrial standards and fitted with a metal armored fiber cable, VPFL 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.

Highlights:

- OEM ready
- Maintenance free for cost-saving operation
- Low weight and small size for easy deployment
- Simple setting of parameters and system testing by PC or handheld computer
- Complies with the industry standard
- Tunable parameters for wide range of operations

Applications:

- Marking
- Material processing
- Micromachining
- Scribing
- Thin film cutting
- Solar cell and Silicone scribing and processing

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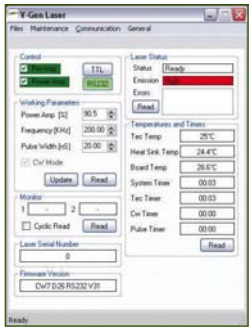
Main features:

- RS232 and TTL interfaces
- Up to 1 mJ pulse energy
- Up to 20 W average output power
- Up to 10 kW peak power
- 100 – 200 nsec (tunable) pulse width (5 – 50 nsec for ISP version)
- 5 – 100 kHz (tunable) repetition rate (up to 500 kHz for ISP version)
- High wall plug efficiency (>20%)
- High beam quality (M^2<1.35)
- Forced air for efficient system cooling
- Optional output isolators, collimators and focusers

VPFL Unit W/O Heat-Sink

Evaluation kit



PC user application

Parameter	Unit	VPFL-2500	VPFL-5000	VPFL-10000	VPFL-ISP-10000	VPFL-20000
Operational mode	Pulse					
Wavelength	nm	1060 - 1080				
Ave. output power	Watts	2.5	5	10	10	20
Repetition rate (tunable)	kHz	5-50	10-50	20-100	50-500	20-100
Pulse width (tunable)	nsec	100-200			5-50	100-200
Pulse energy (max)	µJ	500			200	1000
Peak power (max)	kW	5			10	10
General Parameters						
Operational voltage	VDC	12 VDC (the system includes auto-range AC-DC power supply)				
Operating temp.	°C	0 - 40				
Dimensions	mm	300 x 120 x 90				290 x 210 x 100
Weight	Kg	4.3				5
Wall-plug efficiency	%	> 20				
Fiber length	cm	200 (other options available)				
Output fiber collimator	mm	8 mm diameter (other options available)				
Output beam parameters		M^2 < 1.35				M^2 < 1.5

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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