

VGEN-SP Fiber Laser

HIGH PEAK POWER AND NARROW LINEWIDTH FOR HIGH PERFORMANCE IN LIDAR AND RANGE-FINDINGS APPLICATIONS

The VGEN-SP Advantage

- Up to 20 W average output power
- Up to 40 kW peak power
- 35–700 kHz (tunable) repetition rate
- Narrow line width down to sub 100 pm
- Tested at altitude up to 8,000 m (35.6 kpa) with maximum peak power
- High PRF enables higher scanning and data acquisition rates



Incorporating state-of-the-art laser technology, Spectra-Physics' VGEN-SP lasers provide top performance in technically demanding LIDAR and range-finding applications. The VGEN-SP series of Ytterbium fiber lasers in MOPA configuration offers clients a constant high peak power over a wide range of pulse repetition rate values for stable high performance.

Providing high beam quality, low beam divergence, high peak power and high pulse energy, VGEN-SP 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 VGEN-SP series is easily deployed. Housed in a robust assembly that meets industrial standards and fitted with a metal armored fiber cable, VGEN-SP lasers deliver a high quality, near diffraction-limited output beam. The lasers' solid construction is maintenance free and reliable, ensuring long-life operation at low operational cost. VGEN-SP LIDAR lasers are rugged and can stand up to the tough conditions and requirements of airborne LIDAR applications for a robust and stable platform.

Applications

- LIDAR and LADAR
- Range finding
- Spectroscopy

Short Pulse, 3 ns¹



1. Typically measured performance; not a guaranteed or warranted specification.

VGEN-SP Fiber Laser

Specifications¹

	VGEN-SP-15-10	VGEN-SP-NL-15-10	VGEN-SP-NL-25-10	VGEN-SP-NL-25-20	VGEN-SP-NL-40-10	VGEN-SP-NL-40-20
Operational Mode	Short Pulse					
Wavelength	1064 nm					
Average Output Power	10 W			20 W	10 W	20 W
Repetition Rate	35–200 kHz	35–700 kHz				
Pulse Width (*Tunable)	5–50* ns ²	<3 ns				
Linewidth	<1 nm			<0.1 nm		
Peak Power (Max)	10 kW			25 kW	40 kW	
Pulse Energy (Max)	200 µJ			75 µJ	100 µJ	
General Characteristics						
Operational Voltage	12, 24 VDC optional					
Operating Temperature	0–50°C					
Dimensions	45 × 120 × 275 mm					
Weight	2.3 kg					
Wall-Plug Efficiency	>20%					
Fiber Length	50 cm					
Output Fiber Collimator	6 ± 1 mm diameter (other options available)					
Output Beam Parameters	M ² <1.3					

1. Due to our continuous improvement, all specifications are subject to change without notice.

About Spectra-Physics Tel Aviv

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

In the industrial field, the company develops and manufactures pulsed Ytterbium, Thulium, Erbium, Green and UV fiber-lasers for such applications as micromachining, fine processing and marking. Spectra-Physics Tel Aviv's short pulse versions are also implemented in LIDAR and range-finding.



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