

VGEN-SP Fiber Lasers

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
- Comply with MIL-STD-801F Method 500.4

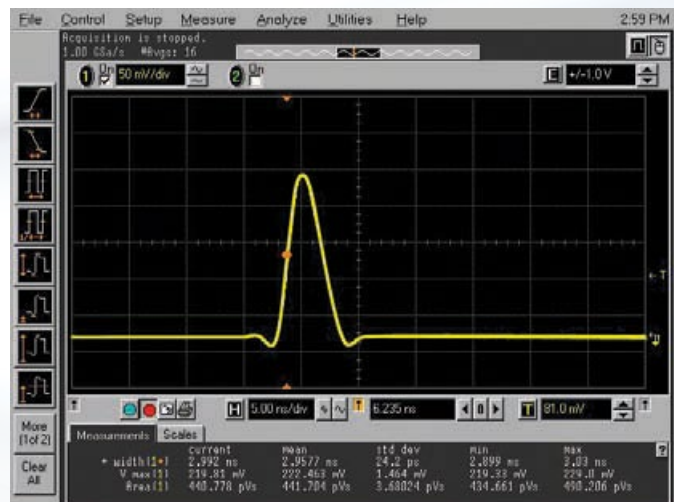


Incorporating state-of-the-art laser technology, Spectra-Physics' VGEN-SP lasers provide top performance in technically demanding LIDAR and range-finding applications. VGEN-SP series of Ytterbium fiber lasers in MOPA configuration offers a constant high peak power over a wide range of pulse repetition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

Offering high beam quality, low beam divergence, high peak power and high pulse energy, the VGEN-SP series is competitively priced and offers the full range of specifications to meet a wide spectrum 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 laser's solid construction is maintenance free and reliable, ensuring long-life operation at low operational cost. VGEN-SP lasers are rugged and can stand up to the tough conditions and requirements of airborne LIDAR applications for a robust and stable platform.

Short Pulse, 3 ns¹



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

Applications

- LIDAR and LADAR
- Range finding
- Spectroscopy

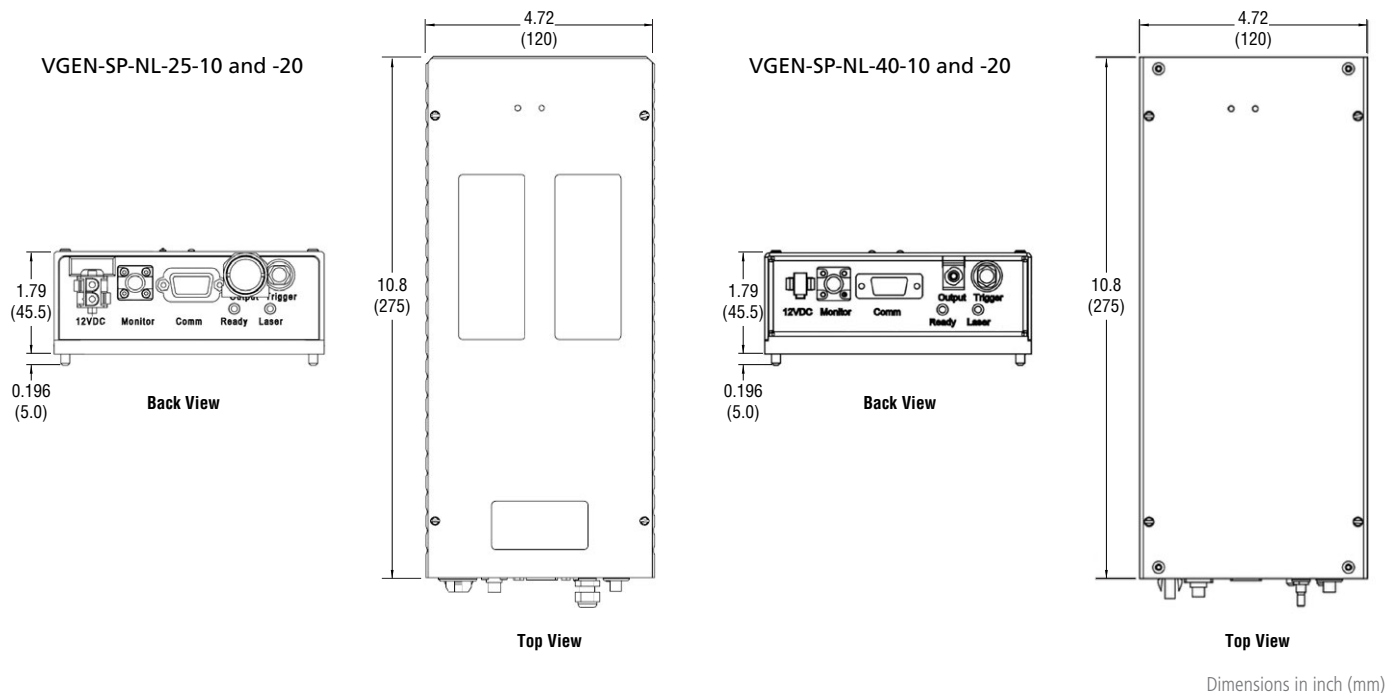
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Specifications¹

	VGEN-SP-NL-25-10	VGEN-SP-NL-25-20	VGEN-SP-NL-40-10	VGEN-SP-NL-40-20
Operational Mode	Short Pulsed			
Wavelength	1064 nm			
Average Output Power	10 W	20 W	10 W	20 W
Repetition Rate	35–700 kHz			
Pulse Width (Tunable)	<3 ns			
Linewidth	<0.1 nm			
Peak Power (Max)	25 kW		40 kW	
Pulse Energy (Max)	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.

VGEN-SP Dimensions



www.spectra-physics.com

3635 Peterson Way, Santa Clara, CA 95054, USA

PHONE: 1-800-775-5273 1-408-980-4300 FAX: 1-408-980-6921 EMAIL: sales@spectra-physics.com

Belgium +32-(0)800-11 257
China +86-10-6267-0065
France +33-(0)1-60-91-68-68
Germany / Austria / Switzerland +49-(0)6151-708-0
Japan +81-3-3794-5511

belgium@newport.com
info@spectra-physics.com.cn
france@newport.com
germany@newport.com
spectra-physics@splasers.co.jp

Korea +82-31-8069-2401
Netherlands +31-(0)30 6592111
Singapore +65-6664-0040
Taiwan +886 -(0)2-2508-4977
United Kingdom +44-1235-432-710

korea@spectra-physics.com
netherlands@newport.com
sales.sg@newport.com
sales@newport.com.tw
uk@newport.com