

> **FEATURES AND BENEFITS**

DPSS LASER SYSTEM



- SilentLight DPSS module technology for ultra stable TEM₀₀ operation
- Sealed laser head
- Long life diode bars
- Output beam characteristics maintained over power operating range

The Patara laser system is an all-new diode-pumped solid-state (DPSS) laser system that is offered with up to 20 Watts of output power at 532nm. It is rugged, reliable, and is easily integrated into original equipment.

The Patara laser is economically priced, features long life diode bars and is ideally suited for use in industrial manufacturing applications.

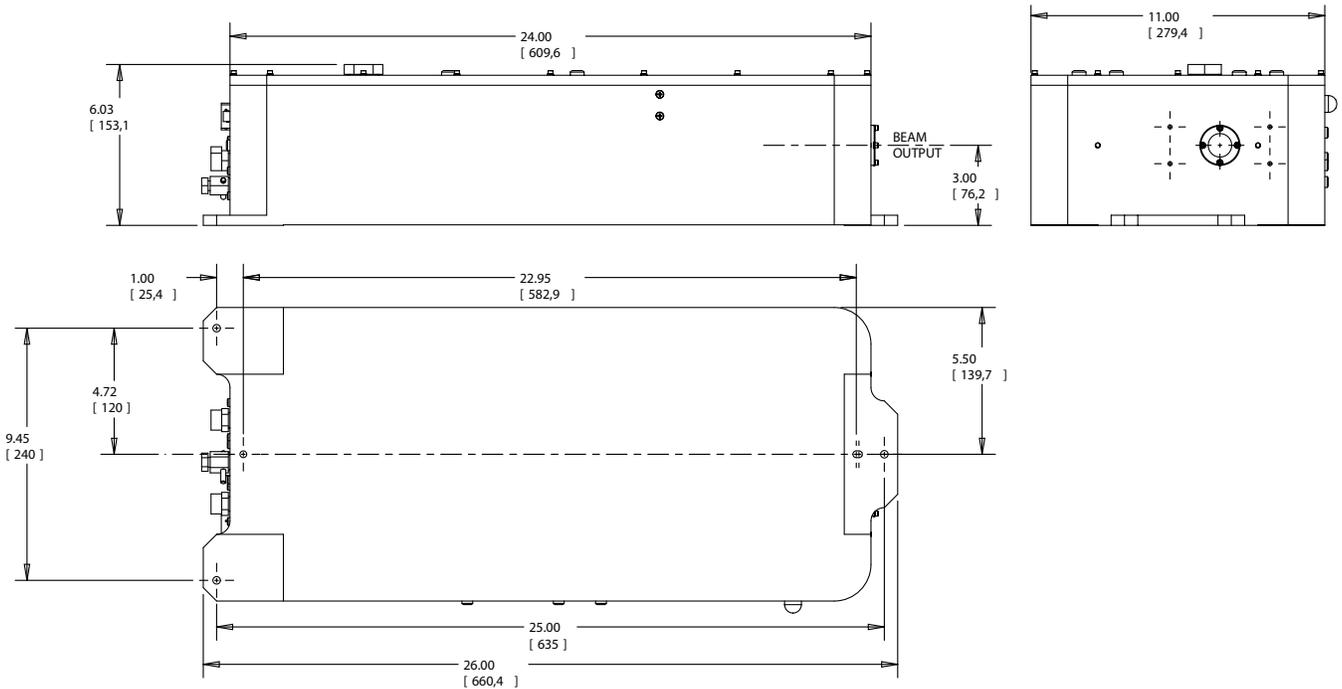
Patara lasers come standard with field proven Northrop Grumman DPSS gain modules, with versions that can operate TEM₀₀ or multimode, and powered by the eDrive Nitro controller.

We offer a laser cavity design service using our modeling software to create customer specific Patara laser systems. Please contact CEO for more information.

PATARA SPECIFICATIONS

Patara Specifications*				
Parameter	Configurations			Units
Model	PA-020-QT	PA-016-QTG	PA-020-QTG	—
Laser Type	DPSS Nd:YAG	DPSS Nd:YAG	DPSS Nd:YAG	—
Wavelength	1064	532	532	nm
Repetition Rate	5 to 30	4 to 15	4 to 15	kHz
Output	20 @ 10 kHz	16 @ 9 kHz	20 @ 9 kHz	W
Spatial Mode	TEM ₀₀	TEM ₀₀	TEM ₀₀	—
Beam Diameter @ Output Window	< 1.5 @ 10 KHz	< 0.9 @ 9 kHz	< 0.9 @ 9 kHz	mm
Beam Quality (M ²)	< 1.3 @ 10 kHz	< 1.3 @ 9 kHz	< 1.3 @ 9 kHz	—
Beam Divergence (Full Angle)	< 1.7 @ 10 kHz	< 1.7 @ 9 kHz	< 1.7 @ 9 kHz	mrad
Pulse Width (FWHM)	< 100	< 80 @ 9 kHz	< 80 @ 9 kHz	nsec
Pulse-to-Pulse Stability	< 1.5 @ 5 kHz	< 1.5 @ 9 kHz	< 1.5 @ 9 kHz	% rms
Output Stability Over 8 hr	< 3 @ 10 kHz	< 3 @ 9 kHz	< 3 @ 9 kHz	% rms
Polarization	Linear	Horizontal	Horizontal	—
Electrical @ 50/60 Hz (Auto Ranging)	85-264	85-264	85-264	VAC
Operating Temperature (non-condensing)	18-30°C	18-30°C	18-30°C	°C
Dimensions	26 x 11 x 6	26 x 11 x 6	26 x 11 x 6	in
Cooling @ 20°C	500 @ 1.5	500 @ 1.5	500 @ 1.5	W @ GPM
Pump Module	RBA24T-1C2-CA1	RBA24T-1C2-CA1	RBA24T-1C2-CA1	—

*Preliminary Specifications - Please contact CEO® if you require different specifications



Copyright © 2009 Northrop Grumman Cutting Edge Optronics All Rights Reserved. Northrop Grumman Cutting Edge Optronics reserves the right to change product design and specifications at any time without notice. No license is granted by implication or otherwise under any patents or patent rights of Northrop Grumman Cutting Edge Optronics or others. No responsibility is assumed for the use of these products, nor for any infringement on the rights of others resulting from the use of these products. Information contained herein is believed to be reliable and accurate. Laser diode product components are intended for use in a user-devised end system. However, these products are capable of emitting Class IV radiation. Extreme care must be exercised during their operation. Only persons familiar with the appropriate safety precautions should operate a laser product. Directly viewing the laser beam or exposure to specular reflections must be avoided. Serious injury may result if any part of the body is exposed to the beam. The eye is extremely sensitive to the infrared radiation and therefore, proper eyewear must be worn at all times. Use of optical instruments with these products may increase eye hazard. Always wear proper eye protection when operating.

This Product is covered by one or more of the following Patents: 5,898,211 5,985,684 5,913,108 6,310,900 Other US and Foreign Patents Pending.

DANGER

VISIBLE LASER RADIATION

AVOID EYE OR SKIN EXPOSURE TO DIRECT OR SCATTERED RADIATION.

Type	Wavelength	Energy	Pulsewidth	PRF
YAG	532 nm	7 mJ	60 ns	4-15 Hz
YVO4	532 nm	3 mJ	30 ns	10-50 Hz

CLASS IV LASER PRODUCT

Rev. C 08/12 ISO 9001:2008 REGISTERED