NORTHROP GRUMMAN

Patara™ HP YLF

FEATURES AND BENEFITS

GREEN Nd:YLF DPSS LASER SYSTEM

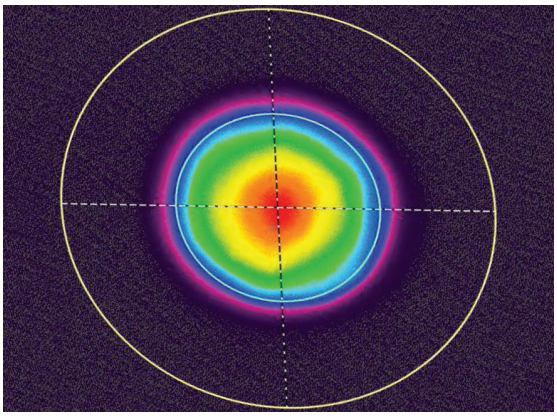
- Up to 50 mJ @ 1 kHz, 527 nm
- Single oscillator design
- Sealed laser head
- Long life diode bars
- Superior long term and pulse-to-pulse stability
- eDrive™ control electronics with digital remote control
- Low maintenance

The Patara™ laser system is a diode-pumped solid-state (DPSS) laser system that is offered with up to 50 mJ of pulse energy at 527 nm. It is rugged, reliable, and is easily integrated into original equipment.

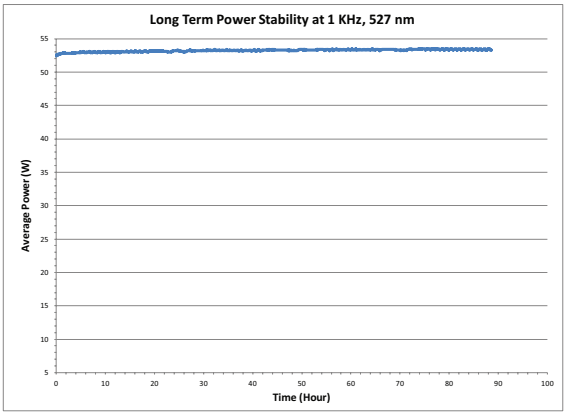
The Patara laser is economically priced, features long life laser diode bars and is ideally suited for use in scientific, R&D, and industrial manufacturing applications.

Patara lasers feature field proven Northrop Grumman® DPSS gain modules with versions that can operate TEM_{00} or multimode, and are powered by the eDrive™ Nitro controller.

We offer custom Patara laser cavity designs for specific application requirements. Please contact CEO® for more information.



Typical far field beam profile of PA-050-QMGF, 527nm @ 1kHz.

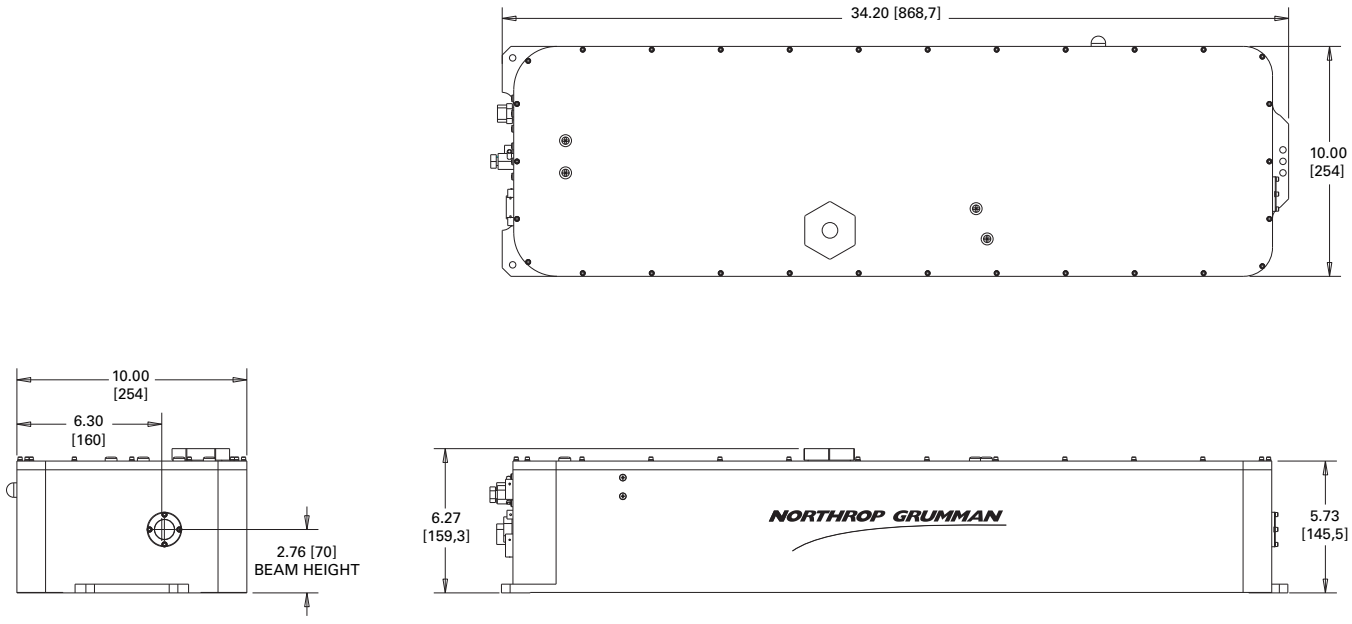


Power stability of PA-050-QMGF over 88 hours, 527nm @ 1kHz

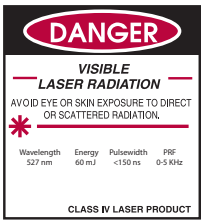
Patara™ HP YLF

PATARA™ SPECIFICATIONS

Specifications				
Parameter	Configurations			Units
Model	PA-030-QMGF	PA-040-QMGF	PA-050-QMGF	—
Laser Type	DPSS Nd:YLF	DPSS Nd:YLF	DPSS Nd:YLF	—
Wavelength	527	527	527	nm
Repetition Rate	Single shot to 5	Single shot to 5	Single shot to 5	kHz
Pulse Energy @ 1kHz	30	40	50	mJ
Spatial Mode	Multimode	Multimode	Multimode	—
Beam Diameter @ Output Window @ 1 kHz	< 3.5	< 3.5	< 3.5	mm
Beam Quality (M^2) @ 1 kHz	< 25	< 25	< 25	—
Beam Divergence (Full Angle) @ 1 kHz	< 8.0	< 8.0	< 8.0	mrad
Beam Pointing Stability	< 50	< 50	< 50	µrad
Pulse Width (FWHM) @ 1 kHz	< 150	< 150	< 150	nsec
Pulse-to-Pulse Stability @1 kHz	< 0.5	< 0.5	< 0.5	% rms
Output Power Stability Over 8 hr @ 1 kHz	< 1.0	< 1.0	< 1.0	% rms
Polarization	Horizontal	Horizontal	Horizontal	—
Electrical @ 50/60 Hz (Auto Ranging)	85-264	85-264	190-250	VAC
Operating Temperature (non-condensing)	18-30	18-30	18-30	˚C
Cooling @ 20˚C	1000 @ 2.0	1500 @ 2.0	1500 @ 2.0	W @ GPM



Dimensions in inches [cm]



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