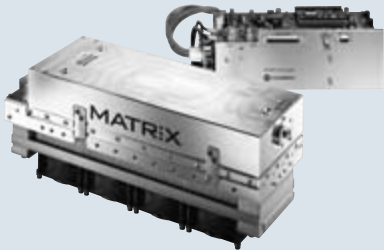




MATRIX 1064 and 532

Solid-State, Q-Switched Laser

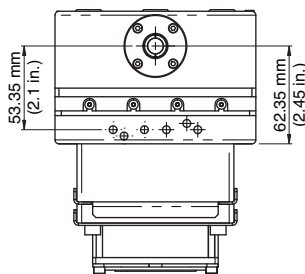


Features

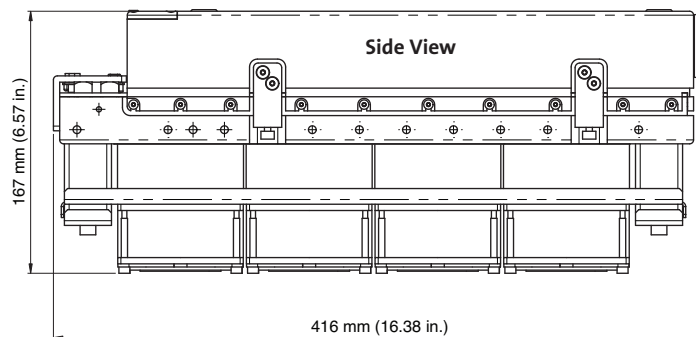
- Superior optical performance
- PermAlign™ solder-bonded optics technology for permanent optimal alignment and ultra-robustness
- AAA™ (Aluminum-free Active Area) pump diodes for unmatched lifetime
- Robot-assisted, clean room built and hermetically sealed
- Compact, air-cooled design for easy OEM integration (water cooling optional)
- Best reliability, lifetime and unit-to-unit consistency

Mechanical Specifications

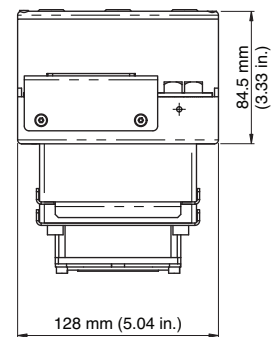
Laser Head



Front View



Side View



Rear View



Top View

Superior Reliability & Performance

MATRIX™ 1064 and 532

Solid-State, Q-Switched Laser

System Specifications

	1064-10-30 ¹	1064-7-10 ²	532-7-30	532-8-100
Average Power (W)	10 at 30 kHz	7 at 10 kHz	7 at 30 kHz	8 at 100 kHz
Pulse Repetition Rate (kHz)(single shot)	up to 100	up to 30	up to 100	up to 200
Recommended Power Range	20 to 100%	20 to 100%	80 to 100%	80 to 100%
Pulse Duration (nsec)	<40	<60	<20	<35
Pulse Energy Stability (rms)	<1.5%	<1.5% at 5 kHz	<2%	<2%
Beam Parameters (nominal)	0.55 mm and <3 mrad	0.55 mm and <3 mrad	0.23 mm and <4.5 mrad	0.23 mm and <4.5 mrad
Circularity	>90%			
Spatial Mode	TEM ₀₀			
Output Power Stability (8h/±3°)	±2%			
Temperature Range	15 to 50°C (baseplate)			
Maximum Heat Load (W)	<350			
Static Alignment	±0.2 mm, ±2 mrad			
Maximum Warm-Up Times	<20 minutes cold start <5 minutes from warm start			

Environmental Specifications

	Operating	Non-operating
Temperature	15°C to 40°C	(-20°C to 50°C)
Altitude	0 to 10,000 ft.	0 to 45,000 ft.
Rel. Humidity (non-condensing)	0 to 90%	0 to 95%
Shock	±1g EN 60068-2-6	6 ms EN 60068-2-26

Power Supply Specifications

Power Supply Dimensions (H x W x D)	100 x 131 x 335 mm (3.9 x 5.2 x 13.2 in.) open-frame PCB; can be mounted in 3HE 19 in. rack mount
External Control	RS-232 interface, TTL QS control
Input Power Requirements	
Input Voltage	90 to 240 VAC, 50 to 60 Hz
Input Power	750 VA (max.), ≤350 VA (typ.)

¹ 1064 - Wavelength (nm); 10 - Specified Power (W); 30 - Specified Pulse Repetition Rate (kHz).

² 1064 - Wavelength (nm); 7 - Specified Power (W); 10 - Specified Pulse Repetition Rate (kHz).

Coherent follows a policy of continuous product improvement. Specifications are subject to change without notice.

Coherent's scientific and industrial lasers are certified to comply with the Federal Regulations (21 CFR Subchapter J) as administered by the Center for Devices and Radiological Health on all systems ordered for shipment after August 2, 1976.

Coherent offers a limited warranty for all MATRIX lasers. For full details of this warranty coverage, please refer to the Service section at www.Coherent.com or contact your local Sales or Service Representative.



www.Coherent.com

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