

Air-Cooled, Diode-Pumped Nd:YVO₄ Laser Marking Systems

The Q-Mark Osprey series of markers/ engravers are ideal for a wide range of marking and engraving processes, producing superior results at high processing speeds.

The Q-Mark Osprey is particularly suited for marking thermally sensitive materials, such as plastics and polymers. It excels at producing high contrast marks on metals, such as steel and anodized aluminum.

The integrated Q-Mark Osprey marking/ engraving system consists of a laser system, scan head with all drive electronics, a computer system, and Q-Mark Design Commander software.



1064-20-L

1064-14-0

532-8-0

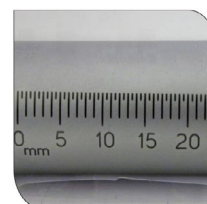
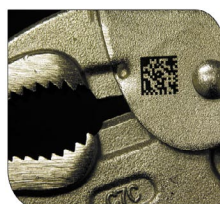
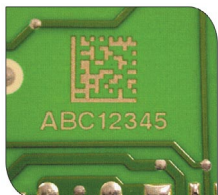
355-2-0



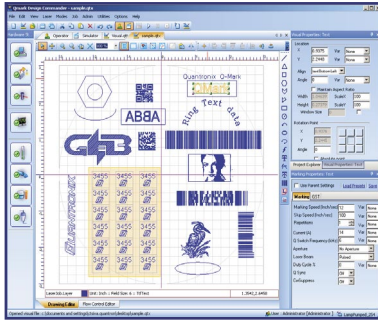
- Air-cooled – no water required
- 4U rack mounted electronics
- Includes industrial grade computer (3U)
- Full featured Design Commander software
- Optional I/O ports for integration with any external devices
- Ultra compact design
- High contrast and high speed
- Low operating cost
- Easy integration to production lines and individual workstations

Application Fields

- Stainless Steel Annealing
- Metal Etching
- Backlit Button Ablation
- Plastics Marking
- Ceramics Marking
- IC/PCB Marking
- Wafer Marking
- Packaging Coding



Mark Design Commander



- Drag-and-Drop design of text, barcodes, logos and more
- Drawing aids such as snapping, aligning and positioning
- Use of Windows True Type fonts with various filling capabilities and font manipulations
- Proprietary fonts optimized for high-quality marking and fast processing speeds
- Support for 50+ types of 1D and 2D barcodes
- Single-step conversion of 100+ raster and vector file formats
- Tray marking with support for individual component offsets and rotation
- Tiling feature for marking objects larger than field size and for cylinder marking with rotary indexer
- Data sharing through external interfaces such as RS232, TCP/IP, ODBC, FILE I/O, Digital I/O, etc.
- Multiple programming modes (Visual Editor, Command Editor, Operator Window) to accommodate all types of users and marking workflows
- Graphical flow control editor for easy marking process control and external integration
- Unicode support for marking/engraving in Eastern languages
- Multi-language support available

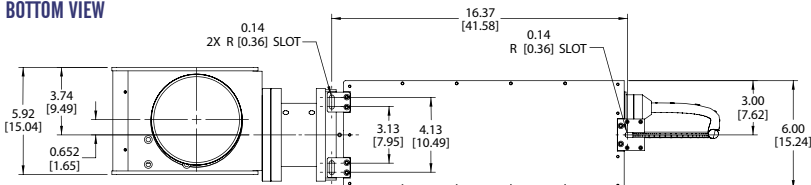
TECHNICAL DATA

LASER	MODEL	1064-20-L	1064-14-0	532-8-0	355-2-0
	Wavelength (nm)	1064	1064	532	355
	Output Power (W)	20 (CW)	14 (CW)	8 (CW)	2 (CW)
	Pulse Width (ns) (Typical)	25	25	25	18
	Maximum Repetition Rate (kHz)	130	130	130	130
	Mode Type	Low order mode	TEM ₀₀	TEM ₀₀	TEM ₀₀
	Beam Quality (M²)	M ² < 1.4	M ² < 1.4	M ² < 1.4	M ² < 1.4
	Power Stability (%RMS)	2.0	2.0	2.0	3.0
	Beam Pointing Stability (µrad)	30			
	Marking Field	3.6" x 3.6" (92 mm x 92 mm); other sizes available upon request			
	Working Distance	160 mm			
	Repeatability	±35 µm	±35 µm	±25 µm	±25 µm
	Galvo Mirror Size	15 mm; other sizes available upon request			
Dimensions (L x W x H, Laser + Scanhead)	27.86 x 6.74 x 7.68 in (70.75 cm x 17.11 cm x 19.52 cm)				
Weight (Laser + Scanhead)	32 lbs (14.5 kg)				
CONTROL UNIT / COMPUTER	Dimensions (L x W x H)	Control Unit: 20.00 x 19.00 x 5.22 in (50.8 x 48.3 x 13.3 cm) Computer: 21.60 x 19.00 x 5.28 in (54.9 x 48.3 x 13.4 cm)			
	Weight	Control Unit: 45 lbs (20.5 kg) / Computer: 30 lbs (13.6 kg)			
CONNECTIONS, CONSUMPTION, SETUP	Electrical Service	Single Phase 100-264 VAC, 50/60 Hz			
	Typical Power Consumption	Laser Consumption: up to 800 W / Computer Consumption: up to 300 W			
	Cooling	Air-Cooled			
	Operating Temperature Range	15-35°C			
	Relative Humidity	8-80%, non-condensing			

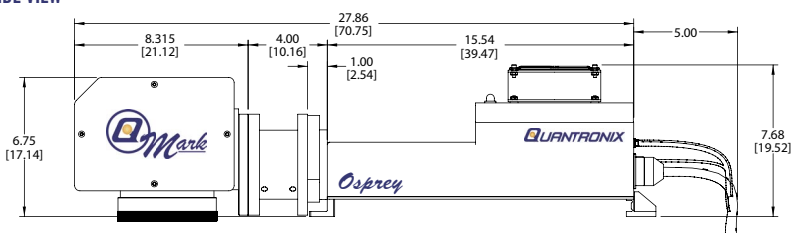
PHYSICAL LAYOUT

All dimensions are in inches [cm]

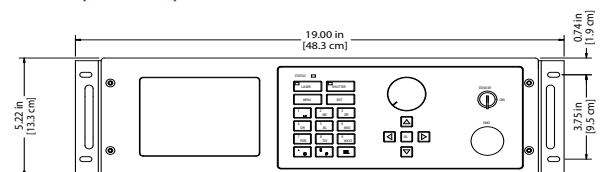
BOTTOM VIEW



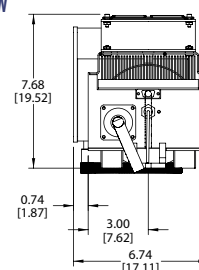
SIDE VIEW



CONTROL UNIT (FRONT VIEW)



BACK VIEW



Quantronix Corp.
41 Research Way
East Setauket, NY 11733
Tel: (631) 784-6100
Fax: (631) 784-6101
qinfo@quantronixlasers.com
www.quantronixlasers.com
DS07177074.5

Due to continuous improvement, all specifications subject to change.