QUANTRONIX®
An Excel Technology Company

Q-Mark Osprey Series Air-Cooled Diode-Pumped Nd: YVO_4 Marking Systems

1064 nm **532 nm** **355 nm**

The Q-Mark Osprey series of markers/ engravers are ideal for a wide range of marking and engraving processes on any material, from annealing, to surface etching to deep engraving. The Q-Mark Osprey is designed to produce fine, detailed marking and engraving at high processing speeds.

The Q-Mark Osprey is also ideal for marking thermally sensitive materials, such as plastics and polymers. The result: materials that have typically required harmonic lasers can now be processed with the Q-Mark Osprey IR.

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.



Specifications	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 (30 kHz)	2 (20 kHz)
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 (M^2)	4.5	1.2	1.2	1.3
Power Stability (%rms)	2.0	2.0	2.0	3.0
Beam Pointing Stability (µrad)	30	30	30	30
Marking Field* (mm)	152 x 152	152 x 152	84 x 84	121 x 121
Working Distance (mm)	205	205	161	275
Repeatability (µm)	±10	±10	±10	±10
Galvo Mirror Size* (mm)	12	12	12	12

** Other scan lenses and mirror sizes available on request*

Highlights

Performance

High Power 20 W @ 1064 nm (IR)
8 W @ 532 nm (Green)
2 W @ 355 nm (UV)

Air-cooled – no water required

Hermetically sealed laser head to protect optics

4U rack mounted electronics

Includes industrial grade computer (3U)

Full featured Design Commander software with graphical point and click interface

Optional I/O ports for integration with any external devices

Easy-to-use Marking System for:

- *Precipitation (black) marking on steel and titanium*
- *Ablation marking of anodized aluminum*
- *Thermal marking on plastics and semiconductors*
- *Etching marks on all metals and plastics*

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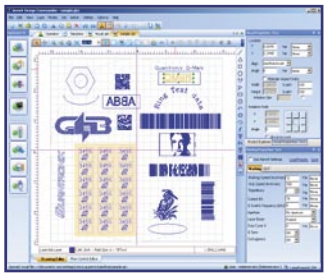
QMark Design Commander



- *Intuitive and user friendly CAD-oriented operating software*
- *Powerful command based low level program editor for advanced users*
- *Single step conversion of 100+ raster and vector file formats (DXF,PLT,AI,BMP etc...)*
- *Direct use of Windows TTF fonts and dynamic filling capabilities*
- *50+ Quantronix Laser marking optimized vector fonts*
- *50+ 1D and 2D barcodes marking*
- *Serialization, Date Codes and Lot Codes*
- *Laser path optimization, simulation and alignment*
- *Graphical flow control editor for external device integration and process control*
- *External interface with RS232, TCP/IP, ODBC, FILE I/O, Digital I/O etc.*

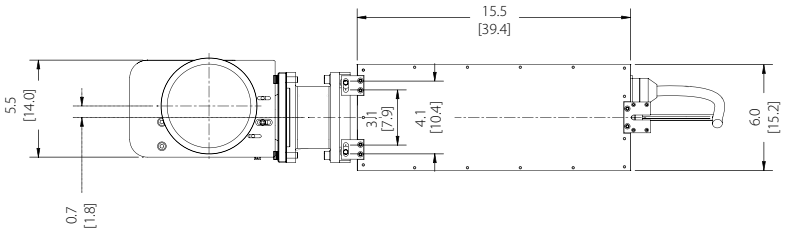
Mechanical & Utilities Requirements

Size & Weight	Laser Head & Scanner (L x W x H)	28.4 x 6.4 x 7.5 in 72.1 x 16.3 x 19.1 cm 32 lbs (14.5 kg)
	Power Supply (W x H x D)	19 x 7 x 20.3 in 48.3 x 17.8 x 51.6 cm 45 lbs (20.5 kg)
	Computer (L x W x H)	19 x 5.28 x 21.6 in 48.3 x 13.4 x 54.9 cm 30 lbs (13.6 kg)
Electrical Service	Single Phase	110 V ± 10% or 220 V ± 10% (50-60 Hz)
	Typical Laser Power Consumption	500 W
	Computer Power Consumption	300 W
Umbilical Length		10.0 ft (3 m) - Longer on request
Environmental	Operating Temperature Range	15 - 35°C
	Storage Temperature Range	-20°C - 50°C
	Relative Humidity	8 - 80%, non condensing

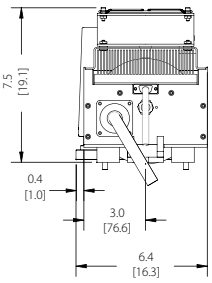
Laser Head Physical Layout

All dimensions are in inches [cm]

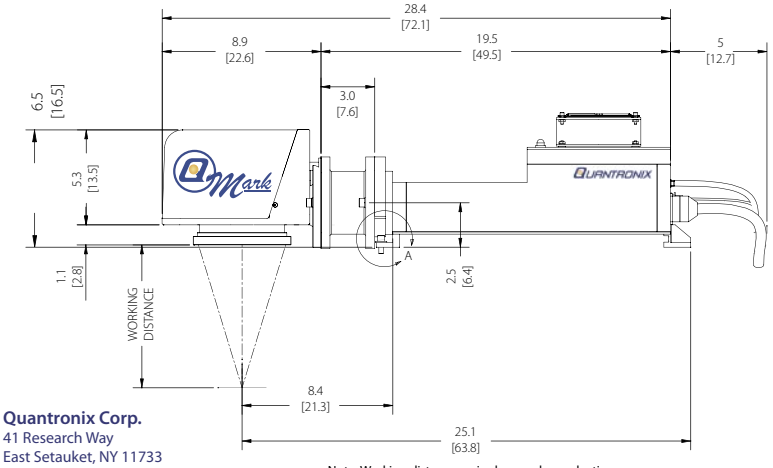
Bottom View



Back View

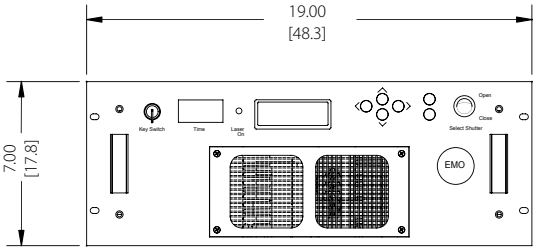


Side View



Note: Working distance varies by scan lens selection

Power Supply



Depth
(including cord connections)
26
[66.0]

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ISO 9001:2000

DANGER
LASER VISIBLE AND/OR INVISIBLE RADIATION AVOID EYE OR SKIN EXPOSURE TO DIRECT OR SCATTERED RADIATION
Nd:YVO4/CW/Q-Switched 1064/532/355 nm
100 W Maximum
Class IV Laser Product