

# Iradion® Infinity

Ceramic Core, Integrated RF, CO<sub>2</sub> Lasers

MADE **in** USA



The new **Iradion Infinity** CO<sub>2</sub> laser series combines the exceptional performance of a monolithic ceramic resonator with the latest RF design into a single integrated package.

The result is a compact, efficient, and powerful laser with fast pulsing and great optical Characteristics.

- The ceramic core provides reliability and stability. No RF feed-through or internal Components to wear on each other, and no metal components are directly exposed to the discharge plasma.
- Iradion's gas filling technology provides fast rise and fall times allowing rapid processing for table or galvometer based systems.
- Customer defined OEM configurations for cooling, mounting and optical delivery are possible.

[www.iradion.com](http://www.iradion.com)

**IRADION**

Laser, Inc.

# Specifications

Model	Infinity 40	Infinity 60	Infinity 80	Infinity 100
Rated Optical Power	40	60	80	100
Mode Quality (M2)	≤1.2	≤1.2	≤1.2	≤1.2
Beam Ellipticity	<1.2:1	<1.2:1	<1.2:1	<1.2:1
Beam Diameter (mm) 1/e2	2,5	2,5	2,5	2,5
Beam Divergence (mR, full angle)	5,2	5,2	5,2	5,2
Wavelength (μM)	10.57-10.63	10.57-10.63	10.57-10.63	10.57-10.63
Rise Time (μS)	<75	<75	<75	<75
Power Stability from cold (%)	<±6%	<±6%	<±6%	<±6%
Polarization	Random	Random	Random	Random
Cooling	Air or	Air Wateror	Air Wateror	Air Wateror
Input power (Watts)	640	960	1200	1400
Input Voltage / Current	32V / 20A	40V / 24A	45V / 24A	50V / 28A
Weight (Kg / Lbs.)	14.7 / 32.4	14.7 / 32.4	14.7 / 32.4	14.7 / 32.4

Power ratings for the air cooled version are derated above 25°C  
 Specifications are preliminary and subject to change without notice.

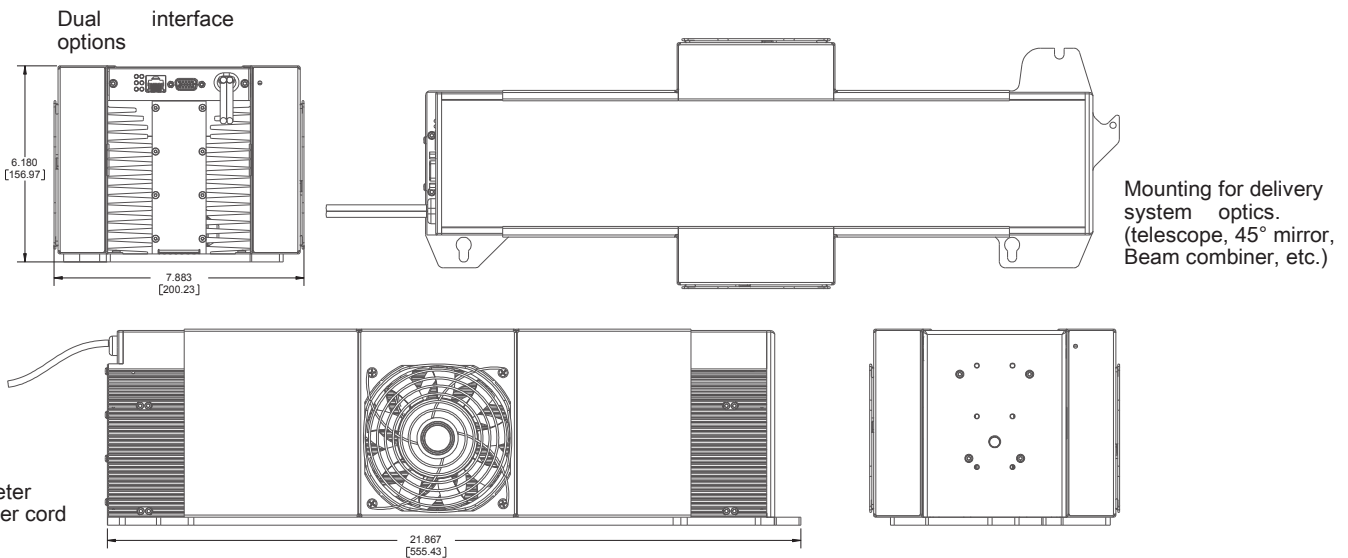
# Laser Interface

Connectors:	15 pin D	RJ45
Fire command	Yes	Yes
Interlock	Yes	Yes
Fault signal	Yes	Yes
RS232 comm*	Yes	Yes
Ready signal	Yes	No
Key Switch control	Yes	No
Forward RF sig.	Yes	No
Reflected RF sig.	Yes	No
Lase Light signal	Yes	No
Temperature Warn	Yes	No

\* The laser control card can be monitored via RS232 communications.  
 A variety of signals, laser information, and the temperature can be interfaced to your host controller.

### Indicator lights:

- LASE           ● ●   FAULT
- IN LOCK       ● ●   TEMP
- READY         ● ●   POWER



# Iradion Infinity Series

Type	integrated HF	air cooled	water cooled	integrated beam shaper	Class 4
Infinity 40	•	•	•	•	•
Infinity 60	•	•	•	•	•
Infinity 80	•	•	•	•	•
Infinity 100	•	•	•	•	•

Patents US 7460577 B2  
 US 8295319 B2  
 US 2012/0219028 A1



Iradion Laser, Inc., 51 Industrial Dr.  
 N. Smithfield, RI 02896  
 Tel: 401-762-5100 • Fax: 401-762-5111  
**www.iradion.com**



Invisible Laser Radiation  
 Avoid eye Skin exposure to direct  
 Or scattered radiation.  
 Class 4 Laser Product

