

# Iradion® Infinity Series

Ceramic CO<sub>2</sub> Lasers, Model 15XX



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 rise and fall time and great optical characteristics.

<b>Feature</b>	<b>Benefit</b>
Pure ceramic	No contamination, no leaks
Low thermal expansion	Enhanced laser stability
Fast driver electronics	Quick rise and fall time
High efficiency	Air cooled up to 120 Watts
30% fewer parts	Higher reliability
Adjustable power <1 W to MAX	Flexibility
Long lifetime	No need to ever refill tube
OEM configurations available	Optimized for your application

**IRADION**  
Ceramic Core CO<sub>2</sub> Lasers

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

# Specifications

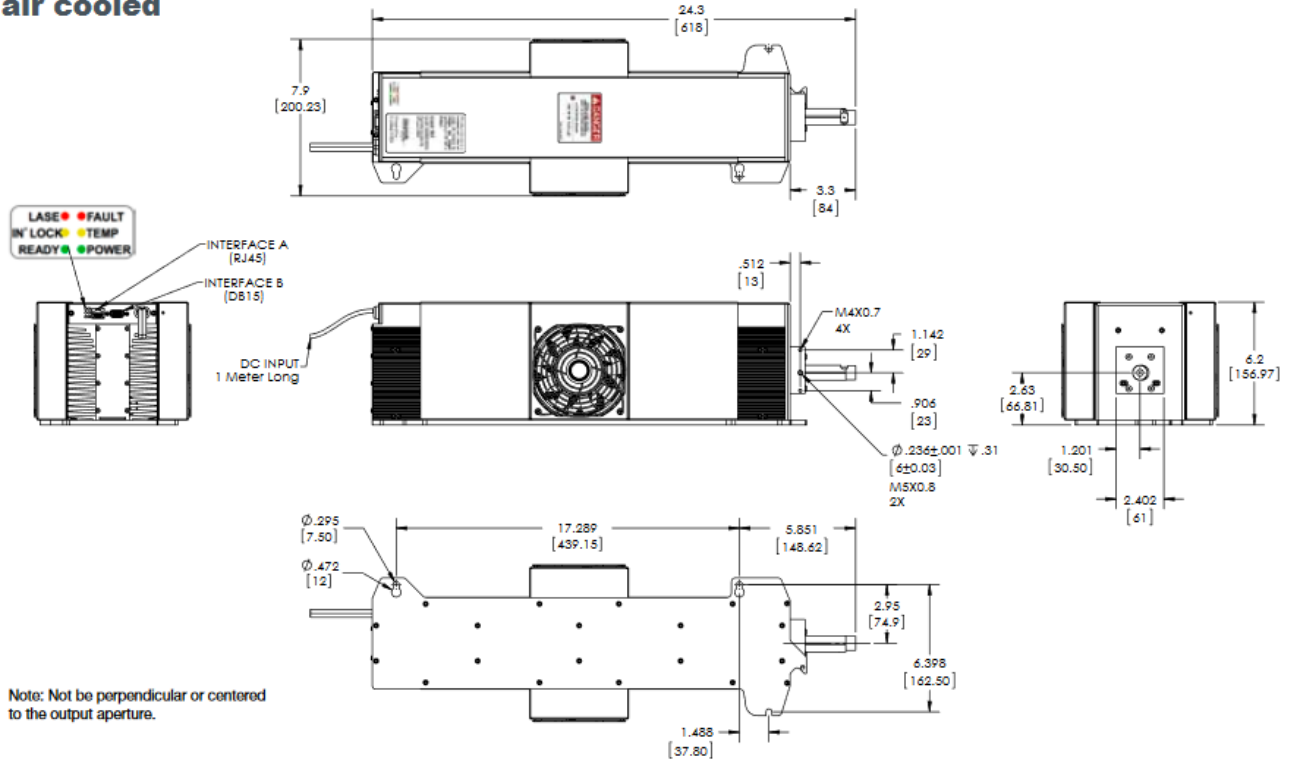
Infinity 15XX* Models	154-9.3 $\mu$ m	155	156-9.3 $\mu$ m	156	158	1510	1512
Rated Optical Power (Watts)	40	50	60	60	80	100	120
Mode Quality (M2)	$\leq 1.2$	$\leq 1.2$	$\leq 1.2$	$\leq 1.2$	$\leq 1.2$	$\leq 1.2$	$\leq 1.2$
Beam Ellipticity	$< 1.2:1$	$< 1.2:1$	$< 1.2:1$	$< 1.2:1$	$< 1.2:1$	$< 1.2:1$	$< 1.2:1$
Beam Diameter (mm) $1/e^2$	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Beam Divergence (mrad, full angle)	$<7$	$<7$	$<7$	$<7$	$<7$	$<7$	$<7$
Wavelength ( $\mu$ m)	9.3	10.2, 10.6	9.3	10.2, 10.6	10.2, 10.6	10.2, 10.6	10.2, 10.6
Rise Time ( $\mu$ s)	$<75$	$<75$	$<75$	$<75$	$<75$	$<75$	$<75$
Power Stability, Fan Cooled (% from Cold)	$<\pm 7\%$	$<\pm 5\%$	$<\pm 7\%$	$<\pm 5\%$	$<\pm 5\%$	$<\pm 5\%$	$<\pm 5\%$
Power Stability, Water Cooled (% from Cold)	$<\pm 5\%$	$<\pm 3\%$	$<\pm 5\%$	$<\pm 3\%$	$<\pm 3\%$	$<\pm 3\%$	$<\pm 3\%$
Polarization	Random	Random	Random	Random	Random	Random	Random
Cooling	Air, fan, water	Air, fan, water	Air, fan, water	Air, fan, water	Air, fan, water	Air, fan, water	Air, fan, water
Input Power (Watts)	1125	900	1500	1000	1125	1500	1500
Input Voltage / Current	45V / 25A	36V / 25A	50V / 30A	40V / 25A	45V / 25A	50V / 30A	50V / 30A
Weight (kg/lbs)	14.7 / 32.4	14.7 / 32.4	14.7 / 32.4	14.7 / 32.4	14.7 / 32.4	14.7 / 32.4	14.7 / 32.4

Specifications are preliminary and subject to change without notice

# Outline Drawings

1 Meter  
Power Cord

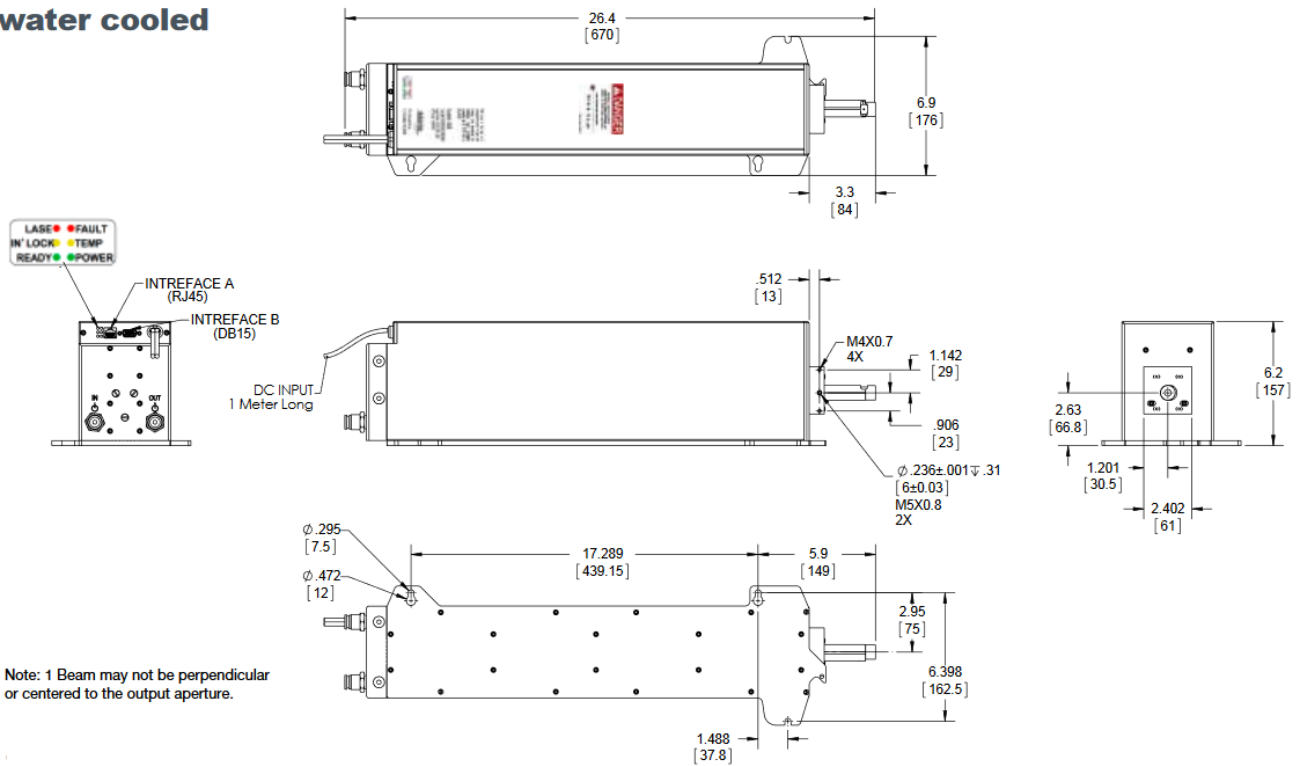
## Dimensions air cooled



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**water cooled**



Note: 1 Beam may not be perpendicular or centered to the output aperture.

**Order Information: 15XX\***

\*Model designator:

F = for fan cooled

W = for water cooled

A = for air cooled (no fans)

Example: 60 Watts water cooled 156W

Patents: US 7460577 B2  
US 8295319 B2



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

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