

# CORELIGHT<sup>®</sup> Series Fiber Laser Modules



CORELIGHT Series fiber laser modules are compact ytterbium fiber lasers that offer straightforward integration into new and existing manufacturing tools and use a customer's existing power and control system for cost efficiency. Module control and monitoring are accomplished through analog and Ethernet communication ports. Multiple, user-accessible, real-time system logs assure detailed operational history is available for review at any time.

Each CORELIGHT Series module incorporates Lumentum-patented ST2\* high-brightness and ultra-compact diode pump modules resulting in an environmentally friendly design taking up to 50% less space and achieving industry-leading electrical-to-optical efficiency.

CORELIGHT Series modules enable exceptionally high-speed cutting, welding, material deposition, and many other OEM macromaterial processing applications. Ideal for processing steel, aluminum, copper, brass, and many other metals, CORELIGHT Series modules offer installation and operational flexibility to meet the most demanding requirements.

\* 200 W fiber-coupled diode pump laser module.

#### **Key Features**

- Compact and powerful design – industry-leading brightness
- Strong back-reflection immunity – fast processing of reflective materials
- Flexible modular approach – enables easy integration into new and existing tools

#### **Applications**

Macro-material processing including:

- 2D, 3D metal cutting
- Welding
- Additive manufacturing
- Remote cutting

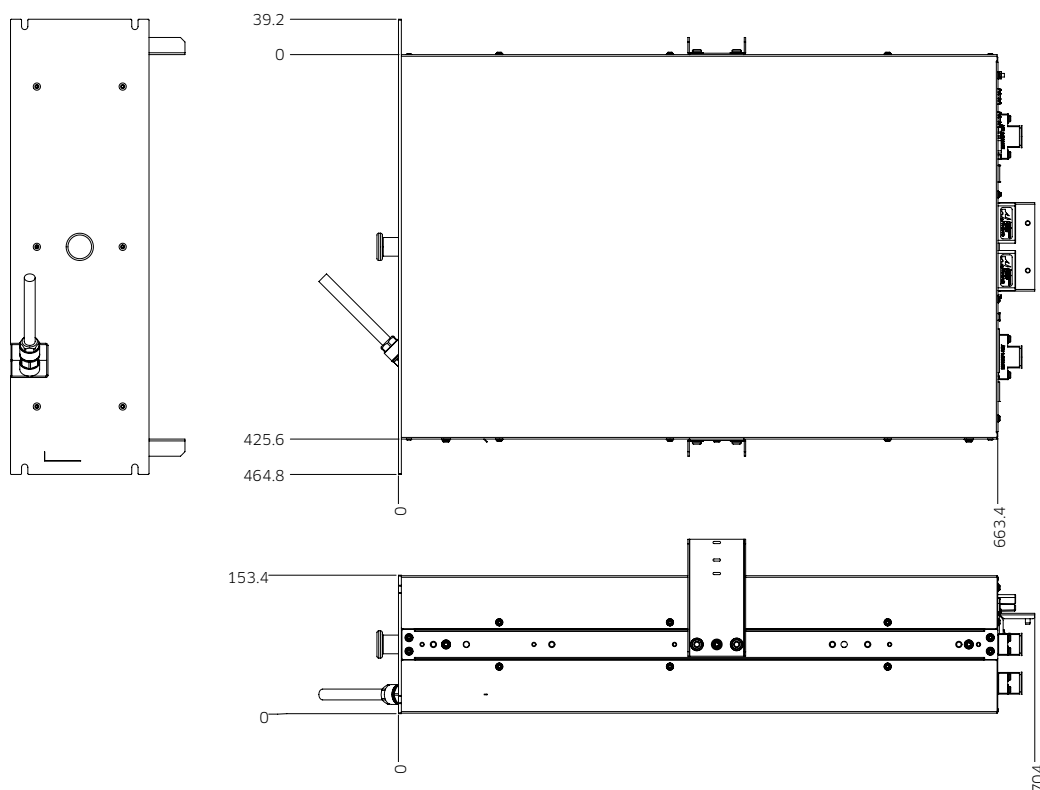
#### **Regulatory Compliance**

- CE
- JIG 101 Level A
- RoHS

**Specifications**

Parameter	CORELIGHTYLE3005	CORELIGHTYLE4005
Output power	3150 W minimum	4200 W minimum
Center wavelength	1080 nm	
Beam parameter product	50 μm fiber output	1.5 mm mrad typical
	100 μm fiber output	3.5 mm mrad typical
Communication	Analog/Ethernet	
Modulation frequency	10 kHz minimum	
Modulation depth	98% minimum	
DC to optical efficiency	25% minimum	
Power monitor accuracy	10%	
Output fiber length	20 m	
Output fiber core diameter	50 μm or 100 μm	
Optical output termination	QBH compatible	
Aiming beam (650 nm)	Class 2M	
<b>Environmental</b>		
Operating air temp (non-condensing)	5 to 40°C	
Non-operating air temp (non-condensing)	-10 to 65°C	
Shock (non-operating, 3-axis)	±8 g each axis; 11 ms duration	
Vibration (non-operating)	1 g rms vertical axis; random frequency, 1 hour duration	

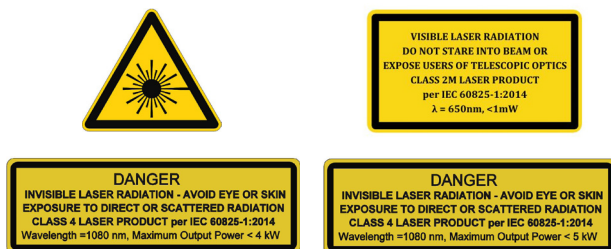
**Dimensions Diagram (mm)**



### Laser Safety

Operating this product in a manner inconsistent with intended usage and specifications may result in hazardous radiation exposure.

CORELIGHT Series fiber laser modules are Class 4 laser products per international standard IEC 60825-1:2014 3rd edition. As a Class 4 laser product, the laser output beam (invisible and visible) emitted from the laser head aperture is extremely hazardous.



### Ordering Information

For more information on this or other products and their availability, please contact your local Lumentum account manager or Lumentum directly at [customer.service@lumentum.com](mailto:customer.service@lumentum.com).

Description	Part Number
3 kW fiber laser modules, 50 μm fiber output	22176170
3 kW fiber laser modules, 100 μm fiber output	22176178
4 kW fiber laser modules, 50 μm fiber output	22167843
4 kW fiber laser modules 100 μm fiber output	22167845



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