



# CORELIGHT® Series Fiber Laser Engines



#### **D-A-CH**

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CORELIGHT Series fiber laser engines, based on highly advanced, compact ytterbium fiber laser modules, offer straightforward integration into new and existing manufacturing tools and use a customer's existing power and control system for cost efficiency. Engine control and monitoring are accomplished through analog, RS-232, 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 engines 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 engines 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

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**Specifications**

Parameter	CORELIGHT YLE2005	CORELIGHT YLE3005	CORELIGHT YLE4005	CORELIGHT YLE6005	CORELIGHT YLE9005
Output power	2100 W minimum	3150 W minimum	4200 W minimum	6300 W minimum	9450 W minimum
Center wavelength	1080 nm				
Beam parameter product	1.5 mm mrad maximum	1.5 mm mrad maximum	3.0 mm mrad maximum	3.0 mm mrad maximum	3.0 mm mrad maximum
Communication	Analog/Ethernet/RS232				
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				
Optical output termination	QBH compatible				
Aiming beam (650 nm)	Class 2M				
<b>Environmental</b>					
Operating air temp (non-condensing)	5 to 55°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				

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## Laser Safety

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

CORELIGHT Series fiber laser engines 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

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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
2 kW fiber laser engine	22101491
3 kW fiber laser engine	22101492
4 kW fiber laser engine	22101494
6 kW fiber laser engine	22101496
9 kW fiber laser engine	22128145



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