

CORELIGHT™ Series Fiber Laser Engines



Key Features

- **Compact and powerful design — industry-leading 2.1 kW optical output per module**
- **Strong back-reflection immunity — fast processing of reflective materials**
- **Flexible modular approach — enables easy integration into new and existing tools**

Applications

Macromaterial processing including:

- Metal cutting
- Welding
- Material deposition

Regulatory Compliance

- CE
- JIG 101 Level A
- RoHS

CORELIGHT Series 2.1 kW and 4.2 kW fiber laser engines, based on highly advanced, compact 2.1 kW 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 2.1 kW module incorporates JDSU-patented ST Series* 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.

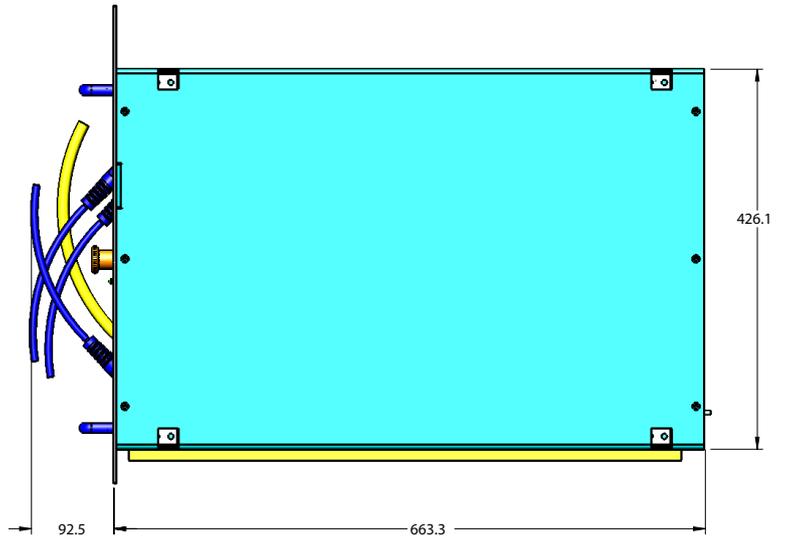
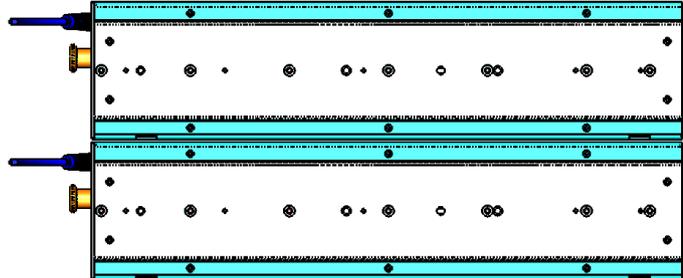
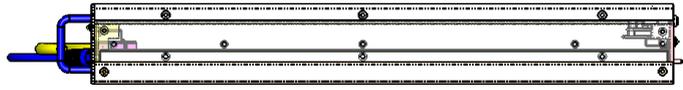
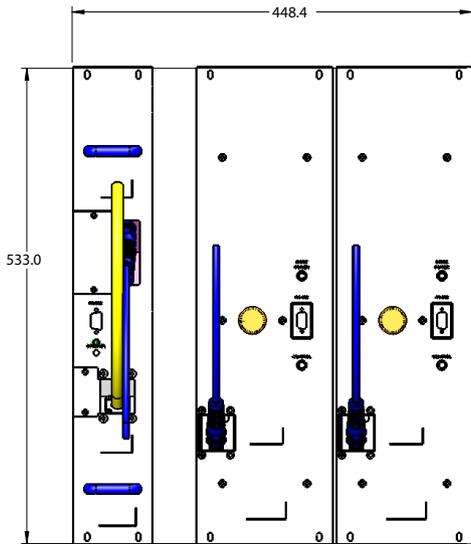
CORELIGHT Series engines enable exceptionally high-speed cutting, welding, material deposition, and many other OEM macromaterial processing applications. Ideal for processing steel, aluminum, copper, brass, and many other metals, CORELIGHT Series engines offer installation and operational flexibility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

* 140 W fiber-coupled diode pump laser module

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Dimensions

Specifications in millimeters unless otherwise noted.



Specifications

Parameter		CORELIGHT YLE 2100	CORELIGHT YLE 4200
Output power	Minimum	2100 W	4200 W
Center wavelength		1080 nm	1080 nm
Beam parameter product	Maximum	1.4 mm mrad	3.0 mm mrad
Communication		Analog/Ethernet/RS232	Analog/Ethernet/RS232
Modulation frequency	Minimum	10 kHz	10 kHz
Modulation depth	Minimum	98%	98%
DC to optical efficiency	Minimum	25%	25%
Power monitor accuracy		10%	10%
Output termination type		LLK-B	LLK-B
Environmental			
Operating air temp (non-condensing)		5 to 55°C	5 to 55°C
Non-operating air temp (non-condensing)		-10 to 65°C	-10 to 65°C
Shock (non-operating, 3-axis)		±18 g each axis; 11 ms duration	±18 g each axis; 11 ms duration
Vibration (non-operating)		1 g rms vertical axis; random frequency, 1 hour duration	1 g rms vertical axis; random frequency, 1 hour duration

Ordering Information

For more information on this or other products and their availability, please contact your local JDSU account manager or JDSU directly at 1-800-498-JDSU (5378) in North America and +800-5378-JDSU worldwide, or via e-mail at customer.service@jdsu.com.

Description	Part Number
2.1 kW fiber laser engine	21174140
4.2 kW fiber laser engine	21174141