



940nm Pre-Configured Fiber-Coupled Laser Diode Source 30W, Multi-Mode Output



940LD-3-4-1 / LASER-DIODE

- o 30 Watt Output Power
- o Spectral Width 6 nm
- o Open-Frame Controller, Replaceable Laser
- o 105 μ m Core Fiber-Coupled, NA 0.15, SMA905 Terminated
- o USB-Connected Operation



LASER
DIODE
SOURCES



CW LASER SOURCE SYSTEM

This 30 Watt, 940nm, CW source system is built around a highly reliable fiber-coupled laser diode. The system is preconfigured and pretested, and is delivered ready-to-run.

The CCM laser source system features open-case construction: the laser, heat-sink, and controller electronics are contained in an open case to provide access to the laser diode as application requirements evolve.. The source system is easily operated using the included GUI over USB interface, and multiple systems can be operated by the same computer.



940LD-3-4-1 / LASER-DIODE / CCM SPECIFICATIONS

Laser output specifications	Wavelength: 940 nm (\pm 5 nm) Spectral Width: 6 nm Output Power: 30 W Optical Fiber: 105 μ m Core Multimode
Laser Diode Controller Specifications	Current Range: 0 - 13 Amps Compliance Voltage Range: 0 - 23 Volts Current Stability: \pm 0.05% Laser Diode Set-Point Adjustment Resolution: 0.05 Amps Max. Modulation Rate: 100 kHz
TEC Controller	Temperature Control Range (typ): 15 - 40°C Temperature Stability (typ): 10 mK TEC Power: > 150 Watts
Modulation Specifications	Pulse Duration: 10 μ s to CW (External Source) Trigger: External Only Externally Adjustable CW Offset in Pulse Mode
User Interface and Power Input	USB with GUI Software Includes Control Software Libraries : DLLs, Hexa, Labview VI Required Power Supply : 24 VDC (not included; see below) Recommended Power Supply: EA-PS 2042-20B (from Newark)
Dimensions	238 mm x 119 mm x 112 mm



940LD-3-0-0 / LASER-DIODE SPECIFICATIONS

Optical Specifications

Wavelength: 940nm (\pm 5nm)
CW Output Power: 30 Watts
Spectral Width (FWHM): 6 nm (typ)
Wavelength shift w Temperature: 0.3 nm/ $^{\circ}$ C
Wavelength shift w Current: 0.7 nm/A
Back Reflection Isolation Stage: 1020 - 1200 nm
Back Reflection Isolation: 30 dB

Electrical Specifications

Threshold Current: 0.85 A
Operating Current: 11.5 A *
Operating Voltage: 5.0 V
Conversion Efficiency: 50%
Slope Efficiency: 2.8 W/A
* For operating currents above 6 Amps, the electrical connections must be soldered.

Fiber and Package Specifications

Fiber Core: 105 μ m, NA 0.22
Clad Diameter: 125 μ m
Buffer / Tube Diameter: 900 μ m
Min Bend Radius: 30 mm
Connector: SMA 905
Dimensions: 25 mm x 43 mm x 11 mm
Mounting Hole Dimensions: 3.2mm dia / 20 mm x 38 mm
Storage Temperature: -30 $^{\circ}$ C to 70 $^{\circ}$ C
Operating Temperature: 15 $^{\circ}$ C to 45 $^{\circ}$ C
Soldering Temperature: 260 $^{\circ}$ C (max)
Soldering Time: 10 sec (max)

DIODE LASER-BASED SOURCE

The CW laser source system is based on a robust and reliable fiber-coupled 940nm laser diode. The laser is designed to provide stable and worry-free output for long operating life times.





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PRODUCT WARRANTY

This product is sold with a full one-year warranty. It is warranted to be free from defects in material and/or workmanship for a period of one year from the date of shipment.



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