To request any additional information please contact us at:

Email: sales@axcelphotonics.com

Phone: (508) 481-9200

Features

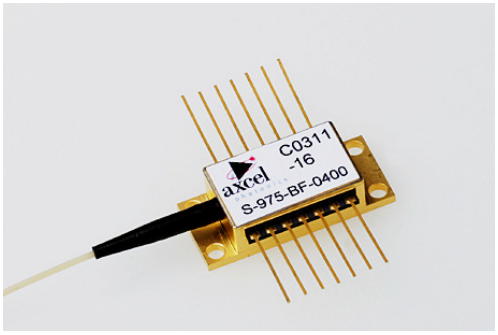
- Up to 180mW CW output power.
- High Quality, Reliability, & Performance

Applications

- Fiber Lasers
- Laser pumping
- Laser Ranging

Product Specifications

915nm Single-Mode 14-Pin Butterfly Module Laser Diodes



Description:

High brightness, high quality, and high reliability are the foundation of our single mode product line. Axcel's 915nm single mode laser modules are available with up to 180mW of continuous output power from a 14-pin butterfly packaged fiber. All chips are mounted on a 2.1mm COS within the package and come standard with an internal thermistor, TEC, and photodiode. Axcel's trademark laser chip design offers un-measurable degradation and long lifetimes that make our chips among the most reliable in the industry today. Our 915nm single mode line serves a broad range of applications, most notably fiber laser pumping and laser ranging.

Please view our website for mechanical drawings of our module packages.

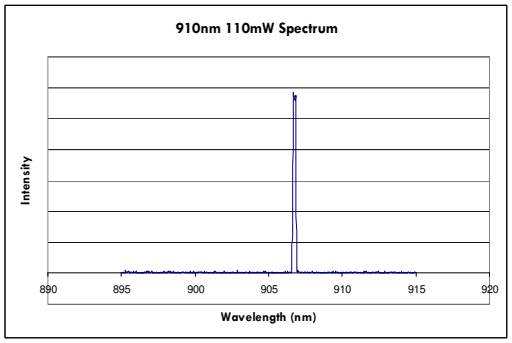
Standard Product Specifications for Single-Mode 915nm Butterfly modules

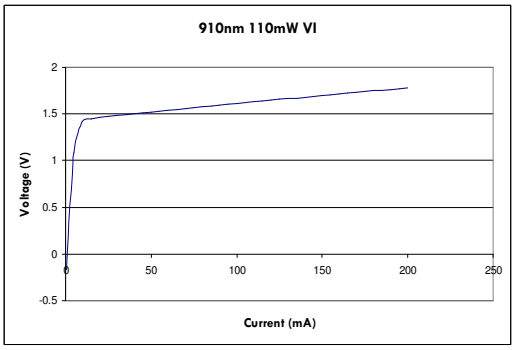
Parameter	Unit	180mW		
		Min.	Typ	Max.
Wavelength	nm	910	915	920
Spectrum FWHM	nm		0.5	2.0
Operating Power (P_o)	mW	-	200	-
Operating Current (I_o)	mA	-	340	390
Operating Voltage (V_o)	V	-	2.1	2.5
Kink-Free Power	mW	220	-	-
Lifetime	hour	100,000	-	-
Threshold (I_{th})	mA	-	30	50
Slope Efficiency (dP/dI)	W/A	0.55	0.63	-
TEC Voltage	V	-	-	3.2
TEC Current	A	-	-	2.0
Storage Temperature	°C	-40	-	80
Operating Temperature (T_{op})	°C	-20	25	70
Lead Soldering Temp. (5 sec)	°C	-	-	250

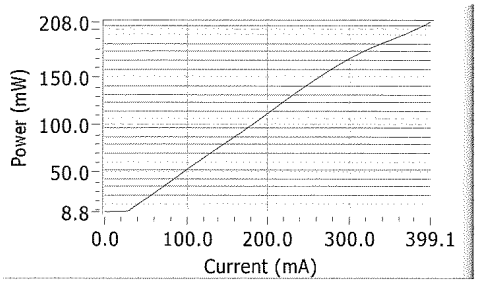
Note: 1) Specifications are subject to change without notice.

2) All Axcel Photonics products are TE polarized

915nm Single Mode Butterfly Module Performance Data Graphs







CW L-I, dL/dI curve

Determining Your Product number: MM—WWW—PPPP—XYZ—(custom add-ons)

(package)-(wavelength)-(power)-(options)

Package:

BF 14-pin Butterfly

Wavelength:

915 915nm

Power Options:

110 110mW

180 180mW

X Option (aperture size)

S Single-mode

P PM fiber

Y Option (wavelength tolerance)

5 ±5 nm

Z Option (additional options)

0 none

Please note: These are our standard product configurations. Other options may be available, please inquire about any additional options that you may require when

Standard Product Configurations

110mW Series

BF-915-0110-P50

180mW Series

BF-915-0180-P50

Safety

Caution: Laser light emitted from any diode laser is invisible and may be harmful to the human eye. Avoid looking directly into the diode laser aperture when the device is in operation.

Note: The use of optical instruments with this product will increase eye hazard.

ESD Caution

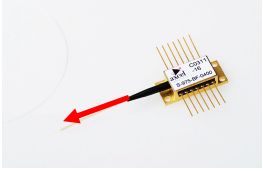
Always handle diode lasers with extreme care to prevent electrostatic discharge, the primary cause of unexpected diode failure. You can prevent ESD by always wearing wrist straps, grounding all applicable work surfaces, and following extremely rigorous anti-static techniques when handling diode lasers.

Operating Considerations

Operating the diode laser outside of its maximum ratings may cause device failure or a safety hazard. Power supplies used with the component must be employed such that the maximum peak optical power cannot be exceeded. CW diode lasers may be damaged by excessive drive current or switching transients. When using power supplies, the diode laser should be connected with the main power on and the output voltage at zero. The current should be increased slowly while monitoring the diode laser output power and the drive current. Device degradation accelerates with increased temperature, and therefore careful attention to minimize the case temperature is advised. A proper heat-sink for the diode laser on a thermal radiator will greatly enhance laser life.

Power Output Danger Label

WARNING! Invisible laser radiation is emitted from devices as shown below



21 CFR 1040.10 Compliance

Because of the small size of these devices, each of the labels shown are attached to the individual shipping container. They are illustrated here to comply with 21 CFR 1040.10 as applicable under the Radiation Control for Health and Safety Act of 1968.