

**About DLC** 

Contact Us

Our Vision

Products:

Industria Laser Modules

Standard Laser Modules

Cross-Hair Laser Modules

# The Reliability Leader of Diode Laser Module Manufacturers

**DLC** is the diode laser module manufacturer of the future. We are a dynamic, innovative, and enthusiastic group of people united together by a vision to provide you with the highest quality product at a competitive cost.

We accomplish this through:

- Unmatched Product Reliability (< 0.5% Field Return Rate)
- Unsurpassed Customer Service (>97% On Time Delivery)
- Competitive Pricing
- Two Year Warranty

Contact us for pricing and availability on your application requirements.



### **DIODE LASER CONCEPTS, INC.**

4901 Industry Drive

Central Point, OR 97052

Phone: 541-773-5321 Fax: 541-773-1705

Email: mike.r@diodelaserconcepts.com

An ISO 9001 Registered Company

# **About Diode Laser Concepts:**

# The Reliability Leader of Diode Laser Module Manufacturers.

**D**iode Laser Concepts, Inc. was founded in 1992 and is situated in the beautiful Pacific Northwest. **DLC** is a manufacturing company that designs, and produces Diode Laser Modules. Our strengths are product reliability, excellent customer service with on time delivery of product, and technical innovations in our product that allow users faster, easier, and less expensive installation of our module coupled with superior reliability.

**DLC** is owned and operated by <u>Mike Robinson</u> and <u>Paul Bonsi</u>, combining with over 20 years of electro optical design and manufacturing experience with diode lasers. The driving force behind the creation of **DLC** was that company's manufacturing diode laser modules were not producing a reliable product to the customer and not delivering that product on time. The companies did not seem to want to listen to their customer and determine their needs for using diode laser technology. Mike and Paul knew how to design and manufacture reliable modules, recognized the tremendous need for this as well as the growth that will continue to occur in the market. Both men desired to own and operate their own company, so joined forces and **DLC** was born.



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Diode Laser Concepts, Inc., - Contact Info

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# **Vision Statement:**

# To Provide the most reliable product available to the diode laser module customer.

Bonsi have both experienced companies in this industry where reliability is talked about at a management level and communicated to the company with great fanfare, but when decisions are made, sales and profit drive the outcome and product reliability is forgotten. **DLC** has taken a different approach. We took 2 years to design and develop a product that is reliable in today's industrial market. To ensure continued focus on reliability, not sales, we have established a comprehensive Quality System. **DLC**'s Quality System is not a cut and paste manual that contains documents that nobody uses and ideas no one implements. Our system is originated by **DLC**, and the system is fabricated into our corporate everyday functions, including decision making and planning.

**DLC** is the reliability leader of diode laser modules because it is our Vision and is embedded in all aspects of our company. Call us today to discuss your applications.



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# **Industrial Laser Modules**

- Surge, Static, and Reverse Polarity Protection
- Variety of:
  - O Wavelengths
  - O Beam Configurations
  - O Fan Angles for Line Generation
- Hard Coat Anodization keeping the case at Neutral Potential
- Scratch Resistant Sapphire Window
- Industrial Connectors
- ALL units aimed to within a 1/4 degree of the mechanical axis

**D**iode Laser Concepts, Inc. offers the most rugged Industrial Laser Module on the market today. Our unique packaging of the Industrial Module with industry standard electrical connectors fabricated into the module body, greatly simplifies fixture modifications, moving of modules, and module upgrades or replacements. Instead of a lengthy mechanical/electrical procedure followed by an optical realignment, **DLC**'s modules can be changed in less than a minute, eliminating costly machinery down time. Our internal driver circuitry utilizes automotive electronics to provide maximum surge and static protection tot he laser diode.

Unmatched Product Reliability
Unsurpassed Customer Service
Competitive Pricing
Two Year Warranty

## **ELLIPTICAL BEAMS**

Beam Size @ Exit Aperture	Wavelength	Laser Power Rating	Output Power/ Laser Class	Operating Current (Typical/Maximum)	Part Number (1)	Module Length (L)
	635nm	5mW	4.2mW/IIIa	60mA/85mA	FAY-IS3-50	2.10in.
	635nm	5mW	0.97mW/II	55mA/85mA	FAY-IS3-10	2.10in.
5.0mm x	635nm	10mW	8.0mW/IIIb	75mA/95mA	FAY-IS3-80	2.10in.
1.2mm	635nm	15mW	12.5mW/IIIb	75mA/110mA	FAY-IS3-H0	2.10in.
	670nm	5mW	4.2mW/IIIa	40mA/70mA	FAY-IS7-50	2.10in.
	670nm	5mW	0.97mW/II	35mA/70mA	FAY-IS7-10	2.10in.
	635nm	5mW	4.2mW/IIIa	60mA/85mA	FAY-IS3-5G	2.20in.
	635nm	5mW	0.97mW/II	55mA/85mA	FAY-IS3-1G	2.20in.
6.2mm x	635nm	10mW	8.0mW/IIIb	75mA/95mA	FAY-IS3-8G	2.20in.
1.2mm	635nm	15mW	12.5mW/IIIb	75mA/110mA	FAY-IS3-HG	2.20in.
	670nm	5mW	4.2mW/IIIa	40mA/70mA	FAY-IS7-5G	2.20in.
	670nm	5mW	0.97mW/II	35mA/70mA	FAY-IS7-1G	2.20in.

#### **ROUND BEAMS**

Beam Size @ Exit Aperture	Wavelength	Laser Power Rating	Output Power/ Laser Class	Operating Current (Typical/Maximum)	Part Number (1)	Module Length (L)
	635nm	5mW	.97mW/II	55mA/85mA	FAY-IS3-1R	2.70in.
3.0mm	635nm	10mW	2.1mW/IIIa	75mA/95mA	FAY-IS3-8R	2.70in.
3.011111	635nm	15mW	3.1mW/IIIa	75mA/110mA	FAY-IS3-HR	2.70in.
	670nm	5mW	.97mW/II	35mA/70mA	FAY-IS7-1R	2.70in.

#### **INDUSTRIAL LINE GENERATORS**

Full Fan Angle	Wavelength	Laser Power Rating	Laser Class	Operating Current (Typical/Maximum)	Part Number (1)	Module Length (L)

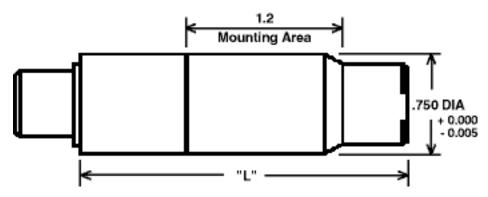
	635nm	5mW	II	55mA/85mA	FAY-IL3-19	2.50in
90 Degrees	635nm	10mW	II	75mA/95mA	FAY-IL3-89	2.50in
90 Degrees	635nm	15mW	II	75mA/110mA	FAY-IL3-H9	2.50in
	670nm	5mW	II	35mA/70mA	FAY-IL7-19	2.50in
	635nm	5mW	II	55mA/85mA	FAY-IL3-16	2.50in
60 Dogrado	635nm	10mW	II	75mA/95mA	FAY-IL3-86	2.50in
60 Degrees	635nm	15mW	II	75mA/110mA	FAY-IL3-H6	2.50in
	670nm	5mW	II	35mA/70mA	FAY-IL7-16	2.50in
	635nm	5mW	II	55mA/85mA	FAY-IL3-14	2.50in
45 Degrees	635nm	10mW	II	75mA/95mA	FAY-IL3-84	2.50in
45 Degrees	635nm	15mW	II	75mA/110mA	FAY-IL3-H4	2.50in
	670nm	5mW	II	35mA/70mA	FAY-IL7-14	2.50in
	635nm	5mW	II	55mA/85mA	FAY-IL3-11	2.50in
10 Degrees	635nm	10mW	II	75mA/95mA	FAY-IL3-81	2.50in
To Deglees	635nm	15mW	II	75mA/110mA	FAY-IL3-H1	2.50in
	670nm	5mW	II	35mA/70mA	FAY-IL7-11	2.50in

(1) Part numbers listed are for modules with the Industrial Screw-on connector. For Modules with the 2.5mm (.1") DC Power Jack Connector, place a "D" at the end of the part number (**EXAMPLE: FAY-IL3-16D**)

INDUSTRIAL LASER MODULES General Specifications:						
Voltage Required:	5.0VDC (regulated)					
Aiming: (to mechanical center line)	1/4 degree (1/2 angle)					
Line Width: (Line Generators)	1mm (nominal)					
Emissions Indicator:	Red LED					
Case:	@ Neutral Potential					
Internal Electronics:	Static, Surge and Reverse Polarity Protected					

Diode Laser Concepts, Inc., - Products: Industrial Laser Modules

Operating Temperature:	-10 deg. C to +50 deg. C
Storage Temperature:	-40 deg. C to +80 deg. C
Warranty:	Limited 2 year



ALL UNITS CDRH CERTIFIED EXCEPT FOR CLASS IIIb LASER PRODUCTS MADE IN THE USA

For a "printer friendly" version.



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An ISO 9001 Registered Company



# **Visible Diode Laser Modules**

- Surge, Static, and Reverse Polarity Protection
- Variety of:
  - O Wavelengths
  - O Beam Configurations
  - O Fan Angles for Line Generation
- Hard Coat Anodization keeping the case at Neutral Potential
- ALL units aimed to within a 1/4 degree of the mechanical axis

**D**iode Laser Concepts, Inc. offers the most versatile Laser Module on the market today. We offer a variety of wavelengths, beam configurations, and fan angles for line generation. Modules consist of a Type III, Class 3 hard coat anodized aluminum case at neutral potential electrically, on/off LED indicator, and 7 inch wire leads. Units also available with a scratch resistant sapphire window. Our internal driver circuitry utilizes automotive electronics to provide maximum surge and static protection to the laser diode. **DLC** also precisely aligns all the optics at the factory eliminating costly set up time.

Unmatched Product Reliability
Unsurpassed Customer Service
Competitive Pricing
Two Year Warranty

**ELIPTICAL BEAMS** 

Beam Size @ Exit Aperture	Wavelength	Laser Power Rating	Output Power/ Laser Class	Operating Current (Typical/Maximum)	Part Number (1)	Module Length (L)
	635nm	5mW	4.2mW/IIIa	60mA/85mA	FA5-RS3-50	1.06in
	635nm	5mW	0.97mW/II	55mA/85mA	FA5-RS3-10	1.06in
5.0mm x	635nm	10mW	8.0mW/IIIb	75mA/95mA	FA5-RS3-80	1.06in
1.2mm	635nm	15mW	12.5mW/IIIb	75mA/110mA	FA5-RS3-H0	1.06in
	670nm	5mW	4.2mW/IIIa	40mA/70mA	FA5-RS7-50	1.06in
	670nm	5mW	0.97mW/II	35mA/70mA	FA5-RS7-10	1.06in
	635nm	5mW	4.2mW/IIIa	60mA/85mA	FA5-RS3-5G	1.19in
	635nm	5mW	0.97mW/II	55mA/85mA	FA5-RS3-1G	1.19in
6.2mm x	635nm	10mW	8.0mW/IIIb	75mA/95mA	FA5-RS3-8G	1.19in
1.2mm	635nm	15mW	12.5mW/IIIb	75mA/110mA	FA5-RS3-HG	1.19in
	670nm	5mW	4.2mW/IIIa	40mA/70mA	FA5-RS7-5G	1.19in
	670nm	5mW	0.97mW/II	35mA/70mA	FA5-RS7-1G	1.19in

# **ROUND BEAMS**

Beam Size @ Exit Aperture	Wavelength	Laser Power Rating	Output Power/ Laser Class	Operating Current (Typical/Maximum)	Part Number (1)	Module Length (L)
	635nm	5mW	.97mW/II	55mA/85mA	FA5-RS3-1R	1.66in
3.0mm	635nm	10mW	2.1mW/IIIa	75mA/95mA	FA5-RS3-8R	1.66in
3.011111	635nm	15mW	3.1mW/IIIa	75mA/110mA	FA5-RS3-HR	1.66in
	670nm	5mW	.97mW/II	35mA/70mA	FA5-RS7-1R	1.66in

#### **LINE GENERATORS**

Full Fan Angle	Wavelength	Laser Power Rating	Laser Class	Operating Current (Typical/Maximum)	Part Number (1)	Module Length (L)
	635nm	5mW	II	55mA/85mA	FA5-RL3-19	1.46in
00 Degrees	635nm	10mW	II	75mA/95mA	FA5-RL3-89	1.46in
90 Degrees	635nm	15mW	II	75mA/110mA	FA5-RL3-H9	1.46in

	670nm	5mW	II	35mA/70mA	FA5-RL7-19	1.46in
	635nm	5mW	II	55mA/85mA	FA5-RL3-16	1.46in
CO Degrado	635nm	10mW	II	75mA/95mA	FA5-RL3-86	1.46in
60 Degrees	635nm	15mW	II	75mA/110mA	FA5-RL3-H6	1.46in
	670nm	5mW	II	35mA/70mA	FA5-RL7-16	1.46in
	635nm	5mW	II	55mA/85mA	FA5-RL3-14	1.46in
45 Dograda	635nm	10mW	II	75mA/95mA	FA5-RL3-84	1.46in
45 Degrees	635nm	15mW	II	75mA/110mA	FA5-RL3-H4	1.46in
	670nm	5mW	II	35mA/70mA	FA5-RL7-14	1.46in
	635nm	5mW	II	55mA/85mA	FA5-RL3-11	1.46in
10 Dogrado	635nm	10mW	II	75mA/95mA	FA5-RL3-81	1.46in
10 Degrees	635nm	15mW	II	75mA/110mA	FA5-RL3-H1	1.46in
	670nm	5mW	II	35mA/70mA	FA5-RL7-11	1.46in

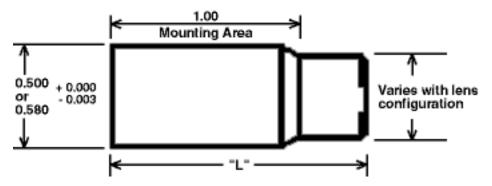
(1) Part numbers listed are for Modules with a 0.500 in. diameter For .580 in. diameters replace FA5 with FAY (**EXAMPLE: FAY-RS3-50**)

Options: Scratch resistant sapphire window

VISIBLE DIODE LASER MODULES General Specifications:						
Voltage Required:	5.0VDC (regulated)					
Aiming: (to mechanical center line)	1/4 degree (1/2 angle)					
Line Width: (Line Generators)	1mm (nominal)					
Emissions Indicator:	Green LED					
Case:	@ Neutral Potential					
Internal Electronics:	Static, Surge and Reverse Polarity Protected					
Wire Leads:	7in. long; (+) red, (-) black					
Operating Temperature:	-10 deg. C to +80 deg. C					
Storage Temperature:	-40 deg. C to +80 deg. C					

Diode Laser Concepts, Inc., - Products: Visible Diode Laser Modules

Warranty: Limited 2 year



ALL UNITS CDRH CERTIFIED EXCEPT FOR CLASS IIIb LASER PRODUCTS MADE IN THE USA

For a "printer friendly" version.



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# **Cross Hair Laser Modules**

- Surge, Static, and Reverse Polarity Protection
- Variety of:
  - O Wavelengths
  - Fan Angles
- Anodized Aircraft Aluminum
- Dust Protective Window
- ALL units CDRH certified as a Class II Laser Product

Diode Laser Concepts, Inc. offers one of the smallest diode laser Cross Hair Modules of its kind. Measuring just 1.15" x 0.56" x 1.01" (1.35" for Long Range Module), **DLC**'s dual source Cross Hair Module gives twice the brightness of single source units, while still qualifying as a Class II Laser Product. **DLC**'s unique alignment of the cross hair gives the effect of coming from a single point source. Units are prealigned at the factory for exceptional line quality and orthogonality eliminating costly set-up time. Our internal driver circuitry utilizes automotive electronics to provide maximum surge and static protection to the laser diode.

Unmatched Product Reliability
Unsurpassed Customer Service
Competitive Pricing
Two Year Warranty

#### **STANDARD**

Full Fan Angle	Wavelength	Laser Power Rating	Laser Class	Operating Current (Typical/Maximum)	Part Number (1)	Module Length (L)
90 Degrees	635nm	5mW	II	120mA/170mA	FAY-CH3-19	1.01in
	635nm	10mW	II	160mA/190mA	FAY-CH3-89	1.01in
	670nm	15mW	II	70mA/140mA	FAY-CH7-19	1.01in
	635nm	5mW	II	120mA/170mA	FAY-CH3-16	1.01in
60 Degrees	635nm	10mW	II	160mA/190mA	FAY-CH3-86	1.01in
	670nm	15mW	II	70mA/140mA	FAY-CH7-16	1.01in

## **LONG RANGE**

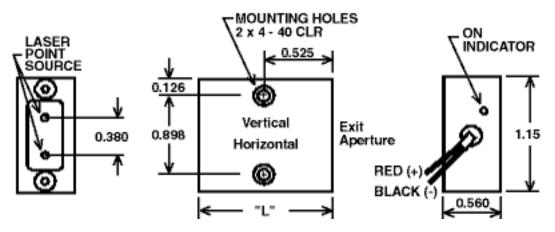
Full Fan Angle	Wavelength	Laser Power Rating	Laser Class	Operating Current (Typical/Maximum)	Part Number (1)	Module Length (L)
45 Degrees	635nm	5mW	II	120mA/190mA	FAY-PC3-14	1.35in
	635nm	10mW	II	160mA/190mA	FAY-PC3-84	1.35in
	670nm	15mW	II	70mA/140mA	FAY-PC7-14	1.35in

<sup>\*\*</sup> Units also available with 2.5mm (0.1") DC power jack connector. Consult factory

CROSS HAIR LASER MODULES General Specifications:				
Voltage Required:	5.0VDC (regulated)			
Line Width (nominal) Standard Unit: Long Range Unit:	1mm (to 4' distance) 1mm (to 15' distance)			
Emissions Indicator:	Red LED			
Case:	@ Neutral Potential			
Internal Electronics:	Static, Surge and Reverse Polarity Protected			
Wire Leads:	7in. long; (+) red, (-) black			
Operating Temperature:	-10 deg. C to +50 deg. C			
Storage Temperature:	-40 deg. C to +80 deg. C			

Diode Laser Concepts, Inc., - Products: Cross Hair Laser Modules

Warranty: Limited 2 year



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