



**About DLC**

**Contact Us**

**Our Vision**

**Products:**

**Industrial  
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

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Fax: 541-773-1705

Email: [mike.r@diodelaserconcepts.com](mailto:mike.r@diodelaserconcepts.com)

*An ISO 9001 Registered Company*

# About Diode Laser Concepts:

## The Reliability Leader of Diode Laser Module Manufacturers.

Diode 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 [Mike Robinson](#) and [Paul Bonsi](#), 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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# Vision Statement:

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

This statement was the starting point of **DLC** and continues to be our focus. [Mike Robinson](#) and [Paul 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:
  - Wavelengths
  - Beam Configurations
  - 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

Diode 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 to the laser diode.

**Unmatched Product Reliability**  
**Unsurpassed Customer Service**  
**Competitive Pricing**  
**Two Year Warranty**

ELLIPTICAL BEAMS

| Beam Size<br>@<br>Exit<br>Aperture | Wavelength | Laser<br>Power<br>Rating | Output Power/<br>Laser Class | Operating Current<br>(Typical/Maximum) | Part Number<br>(1) | Module<br>Length<br>(L) |
|------------------------------------|------------|--------------------------|------------------------------|----------------------------------------|--------------------|-------------------------|
| 5.0mm x<br>1.2mm                   | 635nm      | 5mW                      | 4.2mW/IIIa                   | 60mA/85mA                              | FAY-IS3-50         | 2.10in.                 |
|                                    | 635nm      | 5mW                      | 0.97mW/II                    | 55mA/85mA                              | FAY-IS3-10         | 2.10in.                 |
|                                    | 635nm      | 10mW                     | 8.0mW/IIIb                   | 75mA/95mA                              | FAY-IS3-80         | 2.10in.                 |
|                                    | 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.                 |
| 6.2mm x<br>1.2mm                   | 635nm      | 5mW                      | 4.2mW/IIIa                   | 60mA/85mA                              | FAY-IS3-5G         | 2.20in.                 |
|                                    | 635nm      | 5mW                      | 0.97mW/II                    | 55mA/85mA                              | FAY-IS3-1G         | 2.20in.                 |
|                                    | 635nm      | 10mW                     | 8.0mW/IIIb                   | 75mA/95mA                              | FAY-IS3-8G         | 2.20in.                 |
|                                    | 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<br>@<br>Exit<br>Aperture | Wavelength | Laser<br>Power<br>Rating | Output<br>Power/<br>Laser Class | Operating Current<br>(Typical/Maximum) | Part Number<br>(1) | Module<br>Length<br>(L) |
|------------------------------------|------------|--------------------------|---------------------------------|----------------------------------------|--------------------|-------------------------|
| 3.0mm                              | 635nm      | 5mW                      | .97mW/II                        | 55mA/85mA                              | FAY-IS3-1R         | 2.70in.                 |
|                                    | 635nm      | 10mW                     | 2.1mW/IIIa                      | 75mA/95mA                              | FAY-IS3-8R         | 2.70in.                 |
|                                    | 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

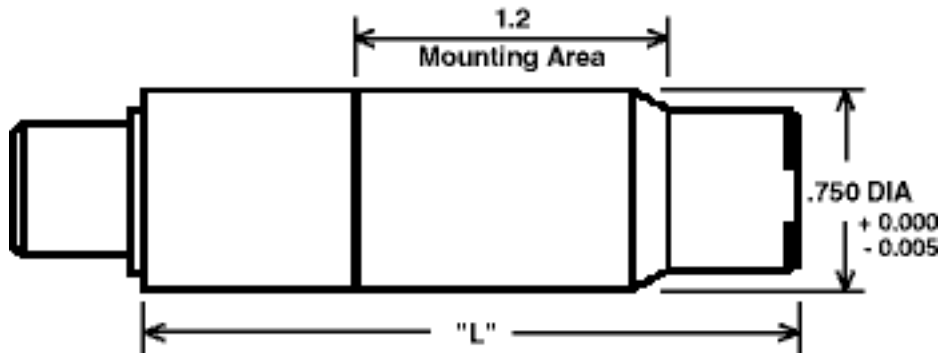
| Full Fan<br>Angle | Wavelength | Laser<br>Power<br>Rating | Laser<br>Class | Operating Current<br>(Typical/Maximum) | Part Number<br>(1) | Module<br>Length<br>(L) |
|-------------------|------------|--------------------------|----------------|----------------------------------------|--------------------|-------------------------|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

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

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

|                        |                          |
|------------------------|--------------------------|
| 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.



**DIODE LASER CONCEPTS, INC.**

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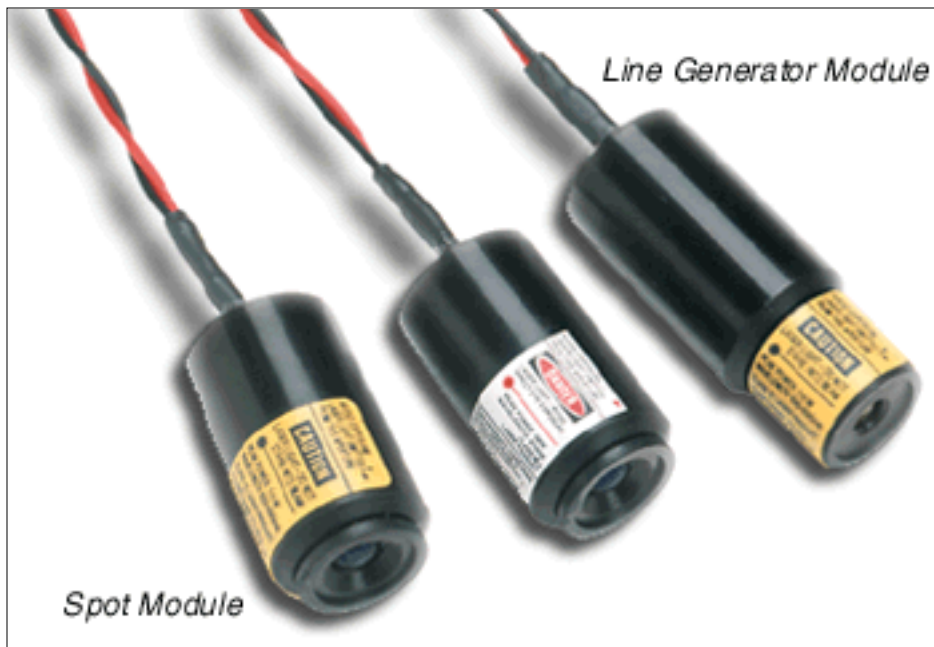
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## Visible Diode Laser Modules

- Surge, Static, and Reverse Polarity Protection
- Variety of:
  - Wavelengths
  - Beam Configurations
  - 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

Diode 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**

**EELLIPTICAL BEAMS**

| Beam Size @ Exit Aperture | Wavelength | Laser Power Rating | Output Power/ Laser Class | Operating Current (Typical/Maximum) | Part Number (1) | Module Length (L) |
|---------------------------|------------|--------------------|---------------------------|-------------------------------------|-----------------|-------------------|
| 5.0mm x 1.2mm             | 635nm      | 5mW                | 4.2mW/IIIa                | 60mA/85mA                           | FA5-RS3-50      | 1.06in            |
|                           | 635nm      | 5mW                | 0.97mW/II                 | 55mA/85mA                           | FA5-RS3-10      | 1.06in            |
|                           | 635nm      | 10mW               | 8.0mW/IIIb                | 75mA/95mA                           | FA5-RS3-80      | 1.06in            |
|                           | 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            |
| 6.2mm x 1.2mm             | 635nm      | 5mW                | 4.2mW/IIIa                | 60mA/85mA                           | FA5-RS3-5G      | 1.19in            |
|                           | 635nm      | 5mW                | 0.97mW/II                 | 55mA/85mA                           | FA5-RS3-1G      | 1.19in            |
|                           | 635nm      | 10mW               | 8.0mW/IIIb                | 75mA/95mA                           | FA5-RS3-8G      | 1.19in            |
|                           | 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) |
|---------------------------|------------|--------------------|---------------------------|-------------------------------------|-----------------|-------------------|
| 3.0mm                     | 635nm      | 5mW                | .97mW/II                  | 55mA/85mA                           | FA5-RS3-1R      | 1.66in            |
|                           | 635nm      | 10mW               | 2.1mW/IIIa                | 75mA/95mA                           | FA5-RS3-8R      | 1.66in            |
|                           | 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

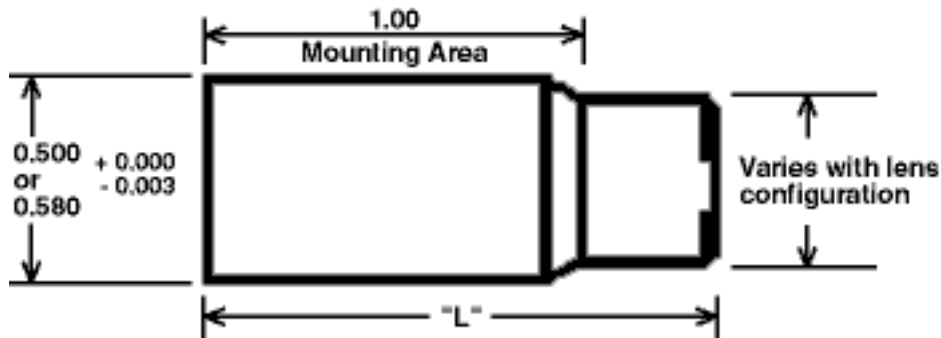
| Full Fan Angle | Wavelength | Laser Power Rating | Laser Class | Operating Current (Typical/Maximum) | Part Number (1) | Module Length (L) |
|----------------|------------|--------------------|-------------|-------------------------------------|-----------------|-------------------|
| 90 Degrees  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

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

|                                                               |                                              |
|---------------------------------------------------------------|----------------------------------------------|
| <b>VISIBLE DIODE LASER MODULES</b><br>General Specifications: |                                              |
| Voltage Required:                                             | 5.0VDC (regulated)                           |
| Aiming:<br>(to mechanical center line)                        | 1/4 degree (1/2 angle)                       |
| Line Width:<br>(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                     |

|           |                |
|-----------|----------------|
| 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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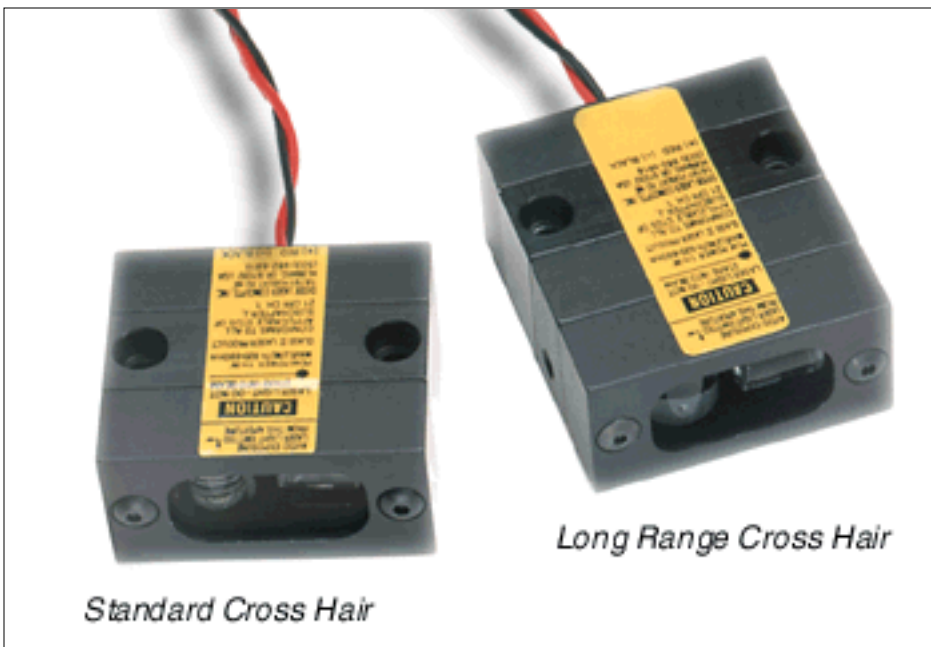
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## Cross Hair Laser Modules

- Surge, Static, and Reverse Polarity Protection
- Variety of:
  - 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            |
| 60 Degrees     | 635nm      | 5mW                | II          | 120mA/170mA                         | FAY-CH3-16      | 1.01in            |
|                | 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            |

\*\* Units also available with 2.5mm (0.1") DC power jack connector.

Consult factory

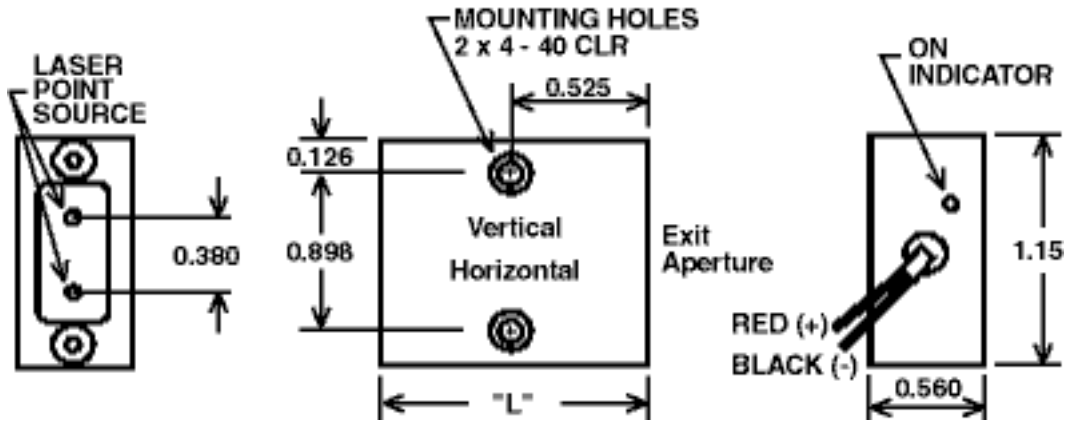
## CROSS HAIR LASER MODULES

### General Specifications:

|                                                            |                                               |
|------------------------------------------------------------|-----------------------------------------------|
| Voltage Required:                                          | 5.0VDC (regulated)                            |
| Line Width (nominal)<br>Standard Unit:<br>Long Range Unit: | 1mm (to 4' distance)<br>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                      |

Warranty:

Limited 2 year



ALL UNITS CDRH CERTIFIED EXCEPT FOR CLASS II LASER PRODUCTS  
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