

# FC-785 High Power Fiber Coupled Laser System



## High Power Fiber Coupled Laser System

The High Power Fiber Coupled Laser System integrates laser, fiber coupled optics, laser power supply and temperature control into housing. It is coupled with a line generator at the fiber end.

It has features of high power, perfect line uniformity and continuously adjustable line width. Line generator can be customized on request.

High Power Fiber Coupled Laser System with its stable performance, high reliability works professionally in line-scanning Raman spectroscopy system.

## FEATURES

- Output power up to 50W
- Wavelength tolerance is  $785\pm0.5\text{nm}$
- Spectral linewidth less than 0.2nm
- Lens angle of line generator is optional
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## APPLICATIONS

- Raman detection
- Industrial

## 中国长春新产业光电技术有限公司

Changchun New Industries Optoelectronics Tech. Co., Ltd

## SYSTEM SPECIFICATION\*

|                                    |              |                                                                    |
|------------------------------------|--------------|--------------------------------------------------------------------|
| Wavelength                         | nm           | <b>785</b>                                                         |
| Wavelength tolerance               | nm (typical) | <b>±0.5</b>                                                        |
| Output power                       | W            | <b>10~50</b>                                                       |
| Power stability (rms, over 4hours) |              | <0.5%, <1%, <2%                                                    |
| Laser operation mode               |              | CW                                                                 |
| Spectral linewidth (FWHM)          | nm           | 0.2 (0.1, optional)                                                |
| Fiber core diameter                | μm           | 400/ 200/ 100 (Other fiber core diameter are available on request) |
| Fiber NA                           |              | 0.22                                                               |
| Fiber connector                    |              | SMA905/FC                                                          |
| Fiber length                       | m            | 1 (Other lengths are available on request)                         |
| Expected lifetime                  | hours        | 10,000                                                             |

## ELECTRICAL SPECIFICATIONS

|                      |     |                                     |
|----------------------|-----|-------------------------------------|
| Input voltage        | VAC | 100-240                             |
| Modulation           |     | TTL modulation<br>Analog modulation |
| Modulation frequency | kHz | TTL up to 30<br>Analog up to 30     |
| Remote control       |     | RS232/ Network port                 |

## ENVIRONMENTAL CONDITIONS

|                       |    |                        |
|-----------------------|----|------------------------|
| Operating temperature | °C | 10°C to 35°C           |
| Storage temperature   | °C | -20°C to +80°C         |
| Humidity              | %  | < 90 %, non-condensing |

## LINE GENERATOR

|                                            |  |                    |
|--------------------------------------------|--|--------------------|
| Line angle                                 |  | 30°, 45°, 60°, 90° |
| Luminance uniformity                       |  | 80%                |
| Straightness error                         |  | Less than 0.5%     |
| 85% peak power proportion in cross-section |  | 95%                |
| Temperature & power stability              |  | Less than 0.5%     |

## KEYNOTES

\*All testing data under the conditions of temperature 25°C.



Line generator can be used for various applications. Lenses of line generator are available in various angles of 30°, 45°, 60°, 90° for custom applications.

## MECHANICAL SPECIFICATIONS

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Optional dimensions of laser system  
(Depending on the output power)

330x291x156mm

341x366x161mm

Material

Aluminum

