

High Power Fiber Coupled Laser System



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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.

The user can choose the wavelengths depending on the application and material to be inspected.

High Power Fiber Coupled Laser System with its stable performance, high reliability works professionally in long distance transmission, road detection, railway detection, tunnel detection, etc.

FEATURES

- Output power up to 150W
- Wavelengths from 785 to 1710nm
- TTL modulation up to 30kHz
- Analog modulation up to 30kHz

APPLICATIONS

- Long distance transmission
- Road detection
- Railway detection
- Tunnel detection

SYSTEM SPECIFICATION*

Wavelength	nm	785	808	852	915	940	980	1060	1470	1550	1710
Wavelength tolerance	nm (typical)	±5	±5	±10	±5	±5	±10	±10	±10	±10	±20
Output power	W	5	100	8	150	150	150	30	15	15	6
Power stability (rms, over 4hours)		<1%, <2%, <3%									
Laser operation mode		CW									
Fiber core diameter	μm	400/ 200 (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 Analog modulation
Modulation frequency	kHz	TTL up to 30 Analog up to 30

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 corss-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 to display a uniform straight reference line for use in alignment, construction and process control. It can be customized on request. Lenses of line generator are available in fan angles of 30°, 45°, 60° and 90° for custom applications.

MECHANICAL SPECIFICATIONS

Optional dimensions of laser system

(Depending on the output power and wavelengths) 330 x 291 x 156mm 341 x 366 x 161mm 365 x 473 x 153mm

Material Aluminum

