



## Ultra-Narrow Linewidth Laser Single Frequency Lasers

### Plug & Play Modules

The **DL-BF9/BF10/BF12** series of integrated modules are designed for applications in optical metrology & instrumentation and optical gas & chemical sensing, requiring narrow spectral linewidth, excellent SMSR, power stability, and a very highly wavelength stable laser output. is complete with a DenseLight 14-pin BTF package laser, integrated laser driver & temperature controller. They are available over a wide wavelength range across the O, E, S, C and L bands which can be customized with various options to meet your specific needs.



### APPLICATIONS

- *Distributed temperature sensing (DTS)*
- *Out-of-band OTDR*
- *Optical metrology*
- *Gas/chemical sensing*
- *Fiber laser seeding*
- *LIDAR*

### PRODUCT DESCRIPTION

#### BF9 & BF10 Series

The DenseLight DL-BF9/BF10-CLSxxxB-Syyyy is a series of ultra narrow linewidth lasers. The DL-BF10 series comes with 2 direct modulation inputs (analog input: BW 20MHz & digital input: BW 200MHz).

#### BF12 Series

BF12-CLSxxxB-Syyyy-zz is a series of tuneable single frequency lasers, 10-Turn dial controlled electronics for picometer precision wavelength tuning over the selected tuning range. The DL-BF12 series comes with 2 direct modulation inputs (analog input: BW 20MHz & digital input: BW200MHz).

### FEATURES & PERFORMANCE

- Typical ultra-narrow linewidth < 10KHz, Optimized Systems < 5 KHz
- Wavelength availability from 1260 ~ 1670nm
- High power: CW up to 20mW
- Excellent RIN < -140dB/Hz (for power > 10mW)
- Excellent minimum SMSR > 45dB
- Wavelength stability: +/- 1pm @ 25 Deg C.
- Integrated laser driver and temperature controller
- Integrated optical isolator
- Dimension: L120 x W93 x H36.5 mm
- Telcordia qualified (GR-468-CORE)

**PRODUCT OFFERINGS**

We have packaged our DL-CLSseries of 14 pin butterfly Ultra-Narrow Linewidth Laser into a complete solution that incorporates a high precision controller for high output level and excellent stability of the laser diodes output; giving you greater convenience of usage!

		Direct Modulation	
		no	yes
Wavelength dial-tuning	no	BF9	BF10
	yes		BF12

