

### Features:

- very wide bell-shaped optical spectrum
- no sidelobes in the coherence function
- negligible residual Fabry-Perot modulation depth
- internal PD monitor
- FC/APC terminated pigtailed

### Packages:

- fiber coupled – Butterfly, DIL
- free space – TOW

### Additional and customized:

- PM pigtailed (slow axis alignment; 45 degree orientation upon request)
- 4-mW SMF model with reduced sensitivity to feedback

### Applications:

- high resolution OCT
- fiber sensors
- Bragg grating sensors
- optical measurements

### Specifications (nominal emitter stabilization temperature +25°C)

Parameter	Category	Min	Typ	Max	
Output power, SM fiber pigtail, SLD-341, mW	HP1	6.0	8.0	-	
	HP2	15.0	20.0	-	
Output power, Glass window SLD-340, mW	HP1	12.0	16.0	-	
	HP2	30.0	40.0	-	
Forward current, mA	HP1	-	200	260	
	HP2	-	260	300	
Forward voltage, V	All	-	-	2.8	
Central wavelength, nm	SLD-34 at 810	All	800	810	820
	SLD-34 at 840	All	830	840	850
	SLD-34 at 860	All	850	860	870
	SLD-34 at 880	All	870	880	890
<b>SLD-34 centered at 810 nm</b>					
Spectrum width, FWHM, nm	HP1	25	30	-	
	HP2	20	25	-	
<b>SLD-34 centered at 840 nm</b>					
Spectrum width, FWHM, nm	HP1	35	40	-	
	HP2	30	35	-	
<b>SLD-34 centered at 860 nm</b>					
Spectrum width, FWHM, nm	HP1	40	45	-	
	HP2	35	40	-	
<b>SLD-34 centered at 880 nm</b>					
Spectrum width, FWHM, nm	HP1	45	50	-	
	HP2	40	45	-	
Residual spectral modulation depth, %	All	-	2.0	5.0	
Secondary coherence subpeaks (Reflectivity), dB (10 log)	All	-	-25	-	
Slow / fast polarization ratio (PM modules)*, dB	All	-	10.0	-	
Operating temperature, °C	All	-55	-	+70	
Cooler current, A	All	-	-	1.2	
Cooler voltage, V	All	-	-	3.5	

\* Pseudo-depolarized versions (light is launched into the fiber with its polarization oriented at 45° to the birefringent axes) are available upon request

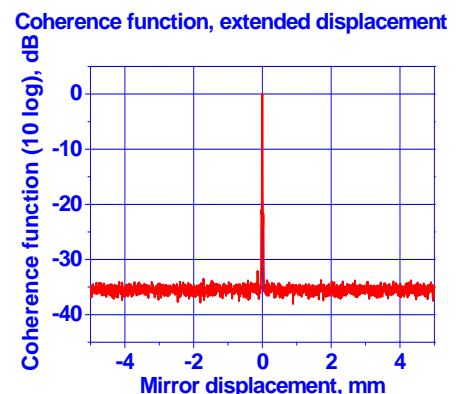
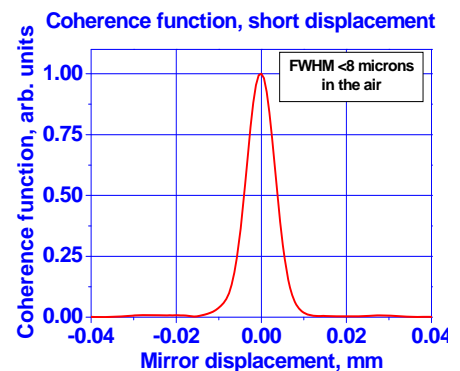
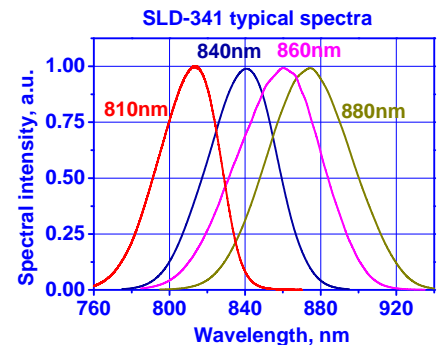
The following part numbers should be used when **ordering**:

SLD-34(a)-(b)-(c)-(d)-(e)-(f),  
 where: (a) – 0 (free space) or 1 (fiber pigtailed),  
 (b) – power category (HP1, HP2), (c) – package type,  
 (d) – SM (isotropic) or PM (polarization maintaining) fiber (pigtailed versions only),  
 (e) – PD (if PD monitor is required), (f) – central wavelength.

Example: SLD-341-HP2-DBUT-SM-PD-840.

**A maximum feedback of  $10^{-3}$  is allowed to run HP series SLDs safely at full power.**

### PERFORMANCE EXAMPLES

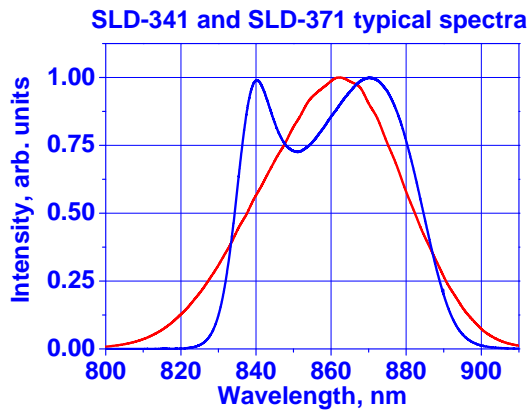


Mirror displacement = Optical path difference / 2

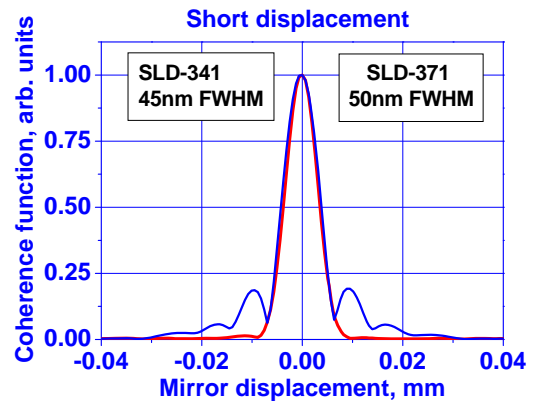
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**PERFORMANCE EXAMPLES (CONTINUED)**

**Comparison of performance parameters of SLD-341-HP and SLD-371-HP.**

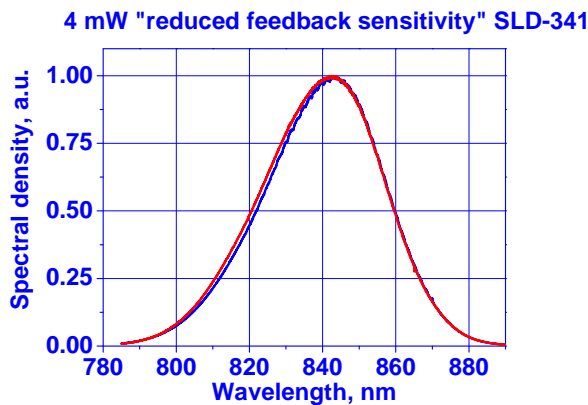


Red line – SLD-341-HP1. Blue line – SLD-371-HP1.

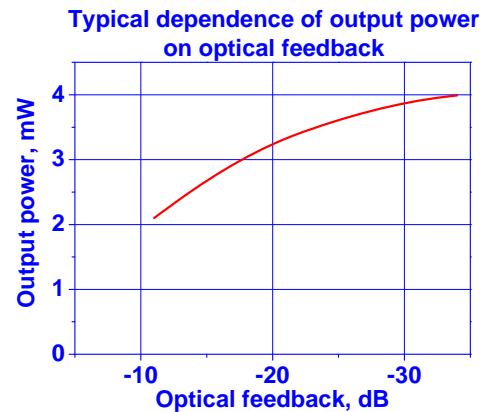


A comparison of central peaks of the coherence function of a “bell-shaped” SLD-341-HP1 (red line) and a “double-hump” SLD-371-HP1 (blue line).

**Performance examples of SLD-341 with reduced sensitivity to optical feedback.**



Spectra of SLDs with reduced sensitivity to optical feedback. Red – no feedback, 4mW ex fiber. Blue – 4% (-14dB) feedback (power dropped to 2.7 mW).



Reduced feedback sensitivity 4-mW SMF SLD – output power vs. optical feedback.

**All specifications are subject to change without notice.**