



DFB & DBR Laser Diodes

Distributed Feedback (DFB) and Distributed Bragg Reflector (DBR) laser diodes feature a frequency-selective structure within the laser chip, which restricts the laser emission to a single longitudinal mode. The lasing wavelength is tuned by varying either the driver current or the chip temperature. Single-frequency operation is usually maintained over several hundred GHz without any mode-hops.

In the table below, WL indicates the design wavelength. P is the maximum output power of the diode. WLmin and WLmax denote the wavelength range accessible via temperature tuning and dL/dT is the thermal tuning coefficient in nm/K.

Note that the range between WLmin and WLmax is usually, but not always, mode-hop free. If your application requires guaranteed mode-hop-free tuning, please inquire with TOPTICA Photonics. Further information e.g. regarding electric tuning, fast modulation options, spectroscopic applications and locking to resonance lines is available upon request.

Diodes with a TO-3 or butterfly-type package include a built-in thermistor and thermoelectric cooler. For other diodes (5.6 mm or 9 mm housings), we recommend TOPTICA's patented ColdPack for precise temperature control.

WL nm	P mW	WLmin nm	WLmax nm	dL/dT nm/K	Linewidth $\Delta\nu$ in kHz	Article Number	Stock	Remark
633.2		633	633.4	0.04	2000	#LD-0633-0010-DBR-1	u.r.	
633.5		633.3	633.7	0.04	2000	#LD-0633-0010-DBR-1	u.r.	
760.8	40	759.8	761.3	0.06		#LD-0760-0040-DFB-1	u.r.	TO-3
764.1	50	763.1	765.3	0.06		#LD-0764-0050-DFB-1	u.r.	TO-3
769.9	60	769	770.8	0.06	<1000	#LD-0770-0060-DBR-1	u.r.	
780.2	80	779	781.1	0.06		#LD-0780-0080-DFB-2	u.r.	For Rb spectroscopy [1], TO-3
780.2	120	779	781.4	0.07	1000	#LD-0780-0120-DBR-2	u.r.	For Rb spectroscopy [1]
780.7	80	779.5	781.9	0.06		#LD-0781-0080-DFB-1	1	For THz applications, TO-3
782.8	100	781.6	784	0.06		#LD-0783-0080-DFB-1	1	For THz applications, TO-3
782.9	80	781.7	784.1	0.06		#LD-0781-0080-DFB-1	1	For THz applications, TO-3
783.3	100	782.2	784.4	0.06		#LD-0785-0100-DFB-2	u.r.	TO-3
784.2	100	783	785.4	0.06		#LD-0785-0080-DFB-1	1	For THz applications, TO-3
784.4	100	783.2	785.6	0.06		#LD-0785-0080-DFB-1	u.r.	For THz applications, TO-3
784.5	100	783.4	785.6	0.05		#LD-0785-0100-DFB-1	u.r.	
784.6	100	783.5	785.7	0.06		#LD-0785-0100-DFB-2	u.r.	TO-3

[1] Note: The diodes reach the target wavelengths for Rb/Cs spectroscopy, though not necessarily at the center of the tuning range.

u.r. : upon request



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795.0	120	793.8	796.2	0.07	1000	#LD-0795-0120-DBR-2	u.r.	For Rb spectroscopy [1]
830.0	10	829.7	831.4	0.06		#LD-0830-0010-DFB-1	u.r.	
852.4	140	851.4	853.4	0.06		#LD-0852-0150-DFB-1	2	For Cs spectroscopy [1], TO-3
853.4	140	852.2	854.9	0.06		#LD-0853-0150-DFB-1	2	For THz applications, TO-3
895.0	40	893.8	896.2	0.07	1000	#LD-0895-0040-DBR-1	u.r.	For Cs spectroscopy [1]
911.6	25	910.6	912.6	0.08		#LD-0910-0025-DFB-1	1	Special offer - limited stock!
935.2	20	935.1	936.5	0.08		#LD-0935-0030-DFB-1	2	
1053.0	30			0.1		#LD-1053-0030-DFB-1	u.r.	Butterfly + pigtail inquire for details
1056.2	20	1055.2	1057.5	0.08		#LD-1055-0040-DFB-1	1	
1064.0	30	1062.1	1066.2	0.1		#LD-1064-0030-DFB-1	u.r.	Butterfly + pigtail
1082.3	70	1081	1084	0.08		#LD-1083-0070-DFB-1	u.r.	TO-3
1178.0	20	1177.5	1179.5	0.09		#LD-1178-0030-DFB-1	u.r.	ellipse 5:1
1178.3	30	1176.4	1180.5	0.1		#LD-1178-0030-DFB-3	1	Butterfly + pigtail
1228.0	25	1226	1229	0.1		#LD-1230-0030-DFB-1	1	Special offer - limited stock!
1266.0	20	1263	1269	0.1	2000	#LD-1266-0020-DFB-1	2	Butterfly, PM Pigtail
1278.2	10	1274.2	1278.3	0.1		#LD-1280-0010-DFB-1	1	Special offer - limited stock!
1310.0	30	1308	1312	0.1		#LD-1310-0030-DFB-1	u.r.	Butterfly, PM Pigtail
1364.7	20	1362.7	1366.7	0.1		#LD-1360-0020-DFB-1	u.r.	Butterfly + pigtail
1377.2	12	1374	1378	0.1		#LD-1375-0015-DFB-1	1	Special offer - limited stock!
1392.4	10	1390.4	1394.4	0.1	2000	#LD-1395-0010-DFB-1	u.r.	Butterfly, PM Pigtail
1470.1	20	1467.7	1472.5	0.12		#LD-1470-0020-DFB-1	u.r.	Butterfly + pigtail
1537.8	40	1535.9	1540	0.1	<1000	#LD-1550-0040-DFB-1	1	Butterfly + pigtail
1550.1	40	1548.2	1552.3	0.1	<1000	#LD-1550-0040-DFB-7	2	Butterfly + pigtail
1550.1	80	1547.9	1552.3	0.11	<1000	#LD-1550-0080-DFB-1	u.r.	Butterfly + pigtail
1550.1	100	1547.9	1552.3	0.11	<1000	#LD-1550-0100-DFB-1	u.r.	Butterfly + pigtail

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1562.7	40	1560.8	1564.9	0.1	<1000	#LD-1550-0040-DFB-1	u.r.	Butterfly + pigtail
1645.7	10	1643.7	1648.7	0.13		#LD-1665-0010-DFB-1	u.r.	Butterfly + pigtail
1652.0	10	1650	1655	0.13		#LD-1665-0010-DFB-1	u.r.	Butterfly + pigtail
1742.2	5	1740	1744.4	0.12	2000	#LD-1740-0005-DFB-1	u.r.	Butterfly, PM Pigtail
2004.0	2	2002	2005	0.1		#LD-2000-0003-DFB-1	u.r.	Butterfly, PM Pigtail
2082.3	10	2081.3	2083.3			#LD-2080-0010-DFB-1	u.r.	
2333.3	2	2328.5	2335.5	0.23		#LD-2330-0005-DFB-1	u.r.	
2410.0	2	2406	2411	0.24		#LD-2410-0004-DFB-1	u.r.	
2535.5	2	2533.5	2537.5	0.25		#LD-2500-0005-DFB-1	u.r.	
2656.1	5	2653.6	2658.6	0.2		#LD-2670-0002-DFB-1	u.r.	
2723.0	2	2718.2	2725.2	0.23		#LD-2740-0003-DFB-1	u.r.	

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