

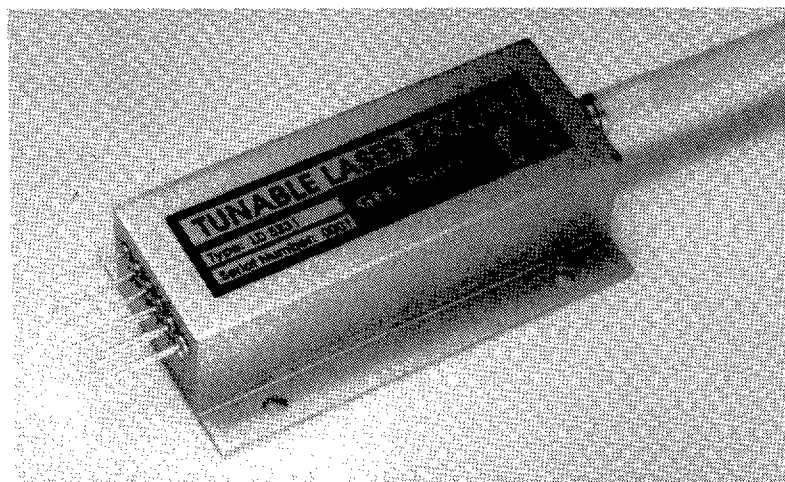
LD5000 DBR Series

TUNABLE LASER DIODES (DBR)

These lasers offer direct modulation capability, and fast electronic wavelength tuning in a single reliable device operating at 1550nm

Features

- High speed, direct modulation of laser output
- High speed electronic wavelength tuning
- 8nm tuning range
- 3nm continuous tuning range.
- Narrow linewidth and good sidemode suppression (to give improved systems performance)
- Insensitive to reflection
- Compatible with EDFA



Specifications:

All data measured at 25°C

	Min	Typ	Max	Units
Output power (from fibre)	0.3	0.5		mW
Threshold current		30	40	mA
Nominal centre wavelength		1550		nm
Continuous tuning range	2.5	3		nm
Sidemode suppression ratio	30			dB
Spectral linewidth		10	30	MHz
Optical isolation	60			dB
Modulation bandwidth	0.5	1		GHz
Spectral coverage	6	8		nm

Applications

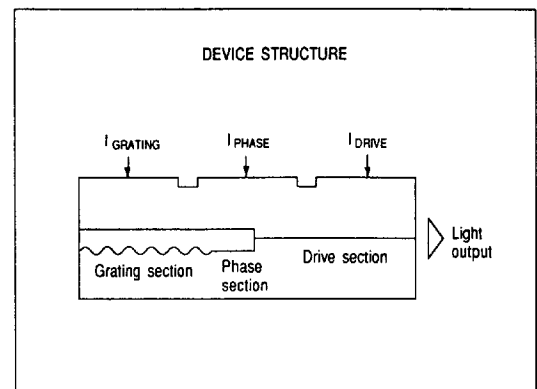
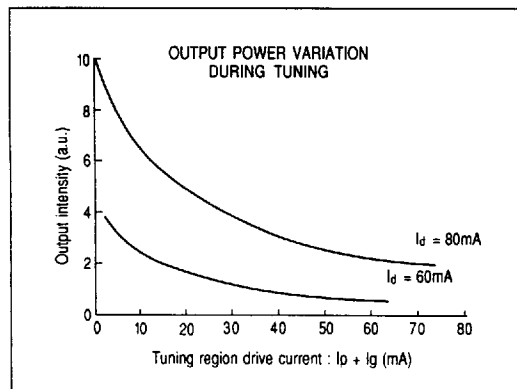
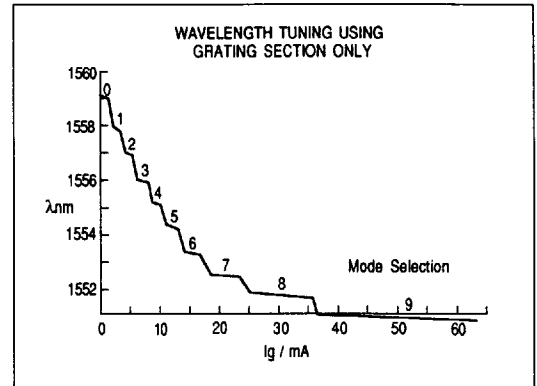
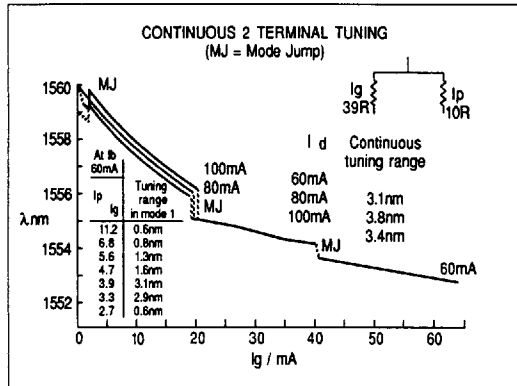
- Dense WDM
- Optical packet switching
- Coherent transmission
- Test and measurement
- LIDAR
- Spectroscopy
- Interferometric sensors
- Direct detection sensors

These devices are for use as highly coherent light sources for a wide variety of data communications applications using fibre optics. Capable of being wavelength tuned, they are suitable as sources for WDM and coherent systems operating in the 1550 nm window and provide the user with the advantage of extended transmission range or data transmission capacity. They can also be applied to fibre based interferometric systems used for sensing applications.

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Measured Data

All data measured at 25°C



Absolute maximum ratings:

Drive current (I_{ACTIVE})	180mA
Tuning current ($I_{PHASE} + I_{GRATING}$)	70mA
Total current through device ($I_{ACTIVE} + I_{PHASE} + I_{GRATING}$)	250mA
Thermocooler current	±500mA
Operating temperature	10 to 50°C

Ordering Information

Part No	Fibre
LD 5231DBR	Corning SMF 9-125
LD 5271DBR	Fujikura SMF 15-P

Connectors

The standard products are supplied without fibre connectors. FC/PC, polarisation maintaining and other connectors can be fitted if required. Please contact GMMT for details.

For outline drawing information please refer to sales specification 665/SM/10900 at the end of this section.

665/SM/10904/000 Issue 1

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