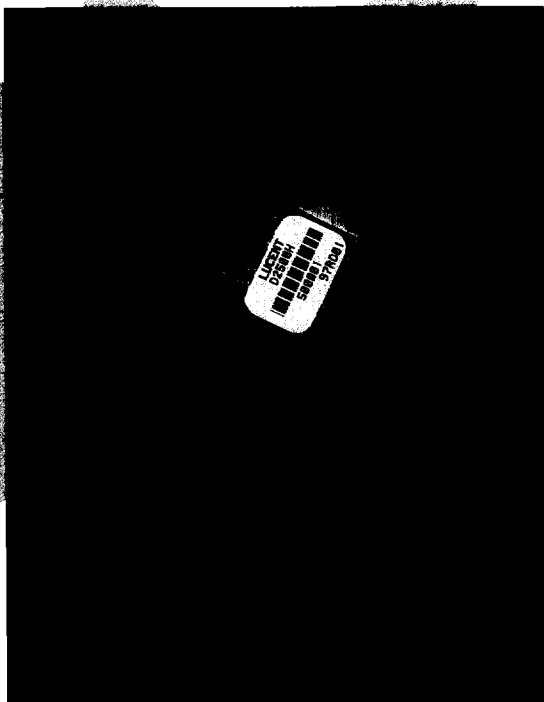


High-Speed Digital DFB Laser Modules



The Laser 2000 Digital Laser Modules provide exceptional performance at data rates as high as 2.5 Gbits/s.

Lucent manufactures a variety of laser modules suitable for a wide range of digital communication applications, including SONET/SDH systems operating to 2.488 Gbits/s, short- and long-haul telecommunication transmitters, campus networking, and point-to-point links requiring high bandwidth and/or extended distances. Distributed feedback (DFB) lasers with integrated isolator modules are available in 1310 nm and 1550 nm wavelengths. Used with the appropriate modulation and biasing, these modules provide exceptional transmission performance. The 1550 nm device can be specified for low dispersion penalties for distances exceeding 200 km.

- 1310 nm/1550 nm DFB InGaAsP laser diodes
- Internal InGaAs PIN photodetector optical power monitor and internal optical isolator
- TEC-stabilized over a wide operating temperature range: -40 °C to +65 °C
- Hermetic package
- SONET compatible
- 2.5 Gbits/s operation
- Impedance matched, 25 Ω RF input
- Low threshold current
- 38 wavelength selected devices available for WDM applications
- Available with polarization-maintaining fiber pigtail (PMF) pigtail
- High-power CW devices available for external modulation applications
- Digital video transmission

Table 2. Digital Laser Module Characteristics

Parameter	D2300/D2500-Type (Formerly 246-Type)	D2500P-Type (Formerly 246P-Type)	Unit
Code	D2300/D2500	D2500P	—
Laser Type	DFB	DFB	—
Wavelength	1310 1550	1550	nm
RMS Spectral Width	—	—	nm
Peak Optical Output Power	3.0	4.0	dBm
Data Rate (NRZ)	2.5	CW	Gbits/s
Typical Threshold Current	15	15	mA
Typical Modulation Current*	35	35	mA
Thermoelectric Cooler	Yes	Yes	—
Operating Temperature Range	-40 to +65	-40 to +65	°C
Package	14-pin butterfly with pigtail	14-pin butterfly with PMF pigtail	—
Connector	FC-PC No connector	No connector	—

* Peak-to-peak modulation current that must be applied above the threshold point to produce the rated optical power output.