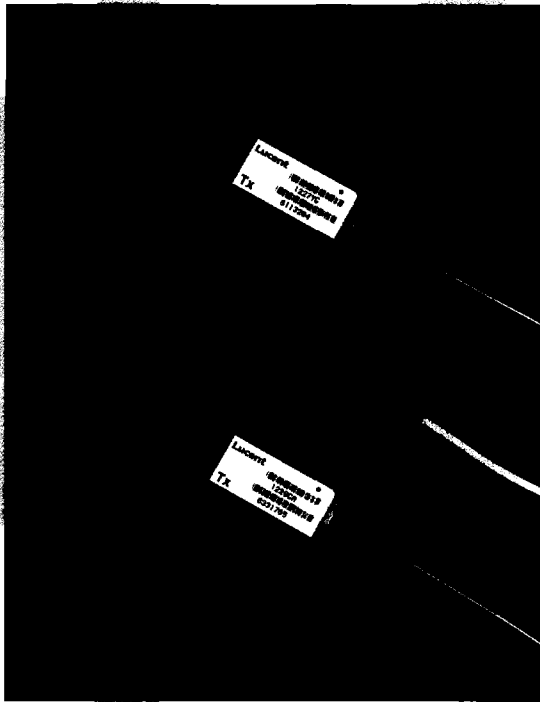


High-Speed Transmitters



The high-speed transmitter product family features a reliable, field-proven, InGaAsP laser operating at data rates of 200 Mbits/s to 1.0625 Gbits/s.

The Lucent family of high-speed transmitters are laser-based fiber-optic units operating at up to 1.2 Gbits/s (NRZ) and are designed for use in transmission systems and medium- to high-speed data communication applications. All three transmitters are designed for SONET applications at data rates of OC-1, OC-3, and OC-12 as well as the ITU-T Synchronous Digital Hierarchy (SDH) of STM-1 or STM-4.

Features

■ 1227-Type

- Used in intraoffice and intermediate-reach applications, extended distance FDDI, and ATM systems
- Driven by either ac-coupled (1 Vp-p) or dc-coupled (ECL) data in a single-ended or balanced configuration
- SONET/SDH compliant models for OC-3/STM-1 and OC-12/STM-4

■ 1229-Type

- SONET/SDH OC-12/SDH STM-4 compliant for long-reach applications
- Uncooled DFB laser transmitter (1310 nm and 1550 nm)
- Differential or single-ended data inputs
- Low-power CMOS technology
- Transmit-disable input

■ 1238-Type

- Used in high-speed data communications
- Fibre channel (FC-O) and serial HIPPI compatible
- Operates without thermoelectric cooling; reduces bulk and power consumption

Table 10. Transmitters

Parameter	1227-Type Transmitter	1229-Type Transmitter ¹	1238-Type Transmitter	Unit
Code	1227 ²	1229	1238A	—
Laser/IC Technology	MQW F-P/CMOS	MQW DFB/CMOS	MQW F-P/CMOS	—
Input Signal	ECL compatible	ECL compatible	ECL compatible	—
Wavelength	1310	1310 or 1550	1310	nm
RMS Spectral Width	4.0	<1.0 ³	6.0	nm
Average Optical Output Power (typ.)	-11, -8, -5, -2, or 0	0	-8, 0	dBm
Data Rate (NRZ)	1 to 650	1 to 650	1 to 1062.5	Mbits/s
Power Supply	+5 or -5	+5 or -5	+5.0 or -5.2	V
Thermoelectric Cooling (TEC)	No	No	No	—
Case Operating Temperature Range	-40 to +85	-40 to +85	0 to 65 ⁴	°C
Package	20-pin DIP	20-pin DIP	20-pin DIP	—
Standard Connector ⁵	Pigtailed with FC-PC, SC, or ST	Pigtailed with FC-PC, SC, or ST	Pigtailed FC-PC	—

1. Uses uncooled MQW DFB laser.

2. Various codes available to meet a range of requirements.

3. Full spectral width.

4. Compatible with fibre channel standard (FC-PH Rev. 4.3) at 10 °C to 65 °C.

5. Other connectors available.