

2 Mb/s Optical Transmitter (OTD-2M)



The OTD-2M 1510nm transmitter is designed for use in optical transmission systems and for optical supervisory channel monitoring in WDM systems. This transmitter converts an electrical signal to an optical signal at data rates up to 52 Mb/s. The OTD-2M is used a 1510 nm uncooled DFB LD.

The OTD-2M provides these features: TTL selection pin for transmitter output enabled or disabled and transmitter fail alarm. The transmitter has a 9-pin DIP package. It operates with a single power supply, which is +5.0 V.

Features

- ▶ Data rates up to 52Mb/s
- ▶ 1510nm DFB-LD with Isolator
- ▶ TTL data input
- ▶ Transmitter enable control input
- ▶ +5.0 V single power supply
- ▶ 1 X 9 pin DIP package
- ▶ Package size : 38.0 x 25.4 x12.0 (mm)

Applications

- ▶ Telecommunications
- ▶ 52M optical networking systems
- ▶ Optical subscriber access systems
- ▶ Optical supervisory channel monitoring in WDM systems
- ▶ Data communications

Absolute Maximum Ratings

Parameter		Min	Max	Unit
Supply voltage	Vcc	-0.5	5.5	V
Operating case temperature range		0	70	°C
Storage temperature range		-20	85	°C
Relative humidity		-	85	%
Lead soldering temperature range		-	250/10	°C/s
Minimum fiber bend radius		25.4	-	mm

Specifications of Electrical Characteristics

Parameter		Min	Typ	Max	Unit
Bit rate		-	-	52	Mb/s
Supply voltage	Vcc	4.8	5.0	5.2	V
	Icc	-	80	160	mA
Power dissipation		-	0.4	0.8	W
Input data voltage swing		TTL level			-
Transmitter disable voltage		TTL low			-
Transmitter fail alarm		TTL high			-

Specifications of Optical Characteristics

Parameter		Min	Typ	Max	Unit
Average optical power output		-1.0	0.0	1.0	dBm
Output power variation		-0.5	-	0.5	dBm
Center wavelength range		1510±7			nm
Spectral width		-	0.5	1.0	nm
Side mode suppression ratio (SMSR)		30	-	-	dB
Optical return loss		-	-	24	dB

Pin Configurations

Pin No.	Description
1	Ground
2	No connection
3	No connection
4	No connection
5	V _{cc}
6	Transmitter fail alarm
7	TX enable
8	Data input
9	Ground

Outline Drawings

