

OC-3/STM-1 Digital Transmitter Module



Model # 1803A

The 1803A Digital Transmitter module is designed for use in transmission systems of medium to high speed data communication applications. The transmitter operates at the SONET OC-3 or STM-1 (155 Mb/s) data rate.

The transmitter module features an Auto Power Control (APC) circuit to maintain optical output power at a constant level to account for variations in ambient temperature and device aging. A Duty Cycle Compensation circuit is included to maintain proper operation with unbalanced data patterns. The transmitter module meets the ITU-T G.957 and G.958 recommendations.

DATA SHEET

Features:

- Laser Transmission on
- Complies with SONET OC-3 and STM-1 standard
- Internal APC Circuit
- ECL or PECL Logic Signal
- Excellent Reliability
- 20 pin-DIP Metal Package

Applications:

- Data Transmission between 1 Mb/s to 200 Mb/s

Characteristics	Min	Typ	Max	Units
Data Rate	1	155	200	Mb/s
Average Output Power	-10	-3	+5	dBm
Extinction Ratio	10	-	-	dB
Center Wavelength	1280	1310	1330	nm



ORTEL
CORPORATION

6817895 0000864 483



6817895 0000865 31T

OC-3/STM-1 Digital Transmitter Module

Electrical Characteristics	Sym	Min	Typ	Max	Units
Supply Voltage	V_{CC}/V_{EE}	4.75	5.0	5.5	V
Supply Current	I	-	70	130	mA
Input High Voltage	V_{IHS}	$V_{CC} - 1.165$	-	$V_{CC} - 0.880$	V
Input Low Voltage	V_{ILS}	$V_{CC} - 1.810$	-	$V_{CC} - 1.475$	V
Trans. Disable Voltage	V_{DIS}	$V_{CC} - 2.0$	-	V_{CC}	V
Trans. Enable Voltage	V_{DEN}	V_{EE}	-	$V_{EE} + 0.8$	V

Note: Case must be connected to circuit ground (0V).

Absolute Maximum Ratings	Min	Max	Units
Operating Temperature	-40	+85	°C
Storage Temperature	-40	+85	°C
Operating & Storage Humidity	-	85	%
Supply Voltage	0	6	V
Input Voltage (to Transmitter)	V_{EE}	V_{CC}	V
Lead Soldering	-	240 °C, 10 sec	-

Ordering Information

1803A- PT53XX - XX - 2 - XX

Digit 5,6: Output Power

11 : <0.5 mW

12 : 0.5 - 1 mW

13 : 1-2 mW

20 : 2-4 mW

Digit 3:

4 : FP-LD assembly with (P) ECL Interface

6 : other types

Digit 4: Package

3 : 20-Pin DIP package with pigtail Ref N

4 : 20-Pin DIP package with receptacle Ref O

Digit 8, 9 : Connector Type

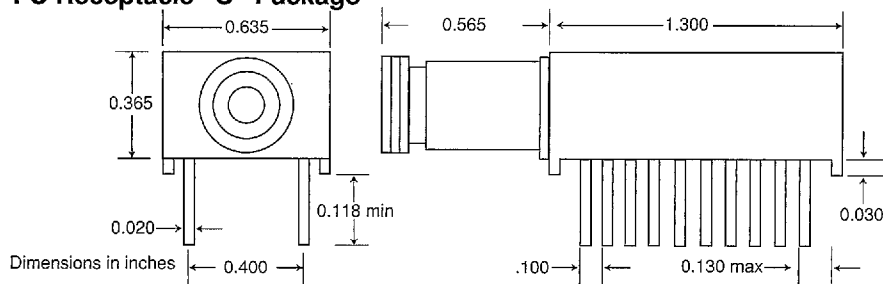
blank : No connector

FC : FC connector

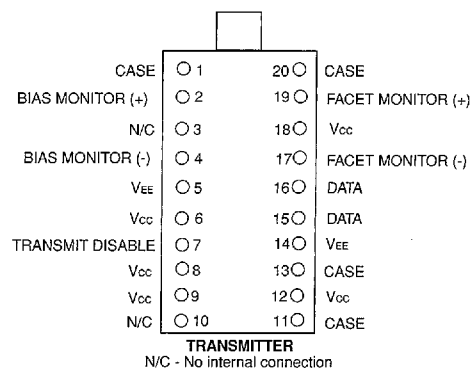
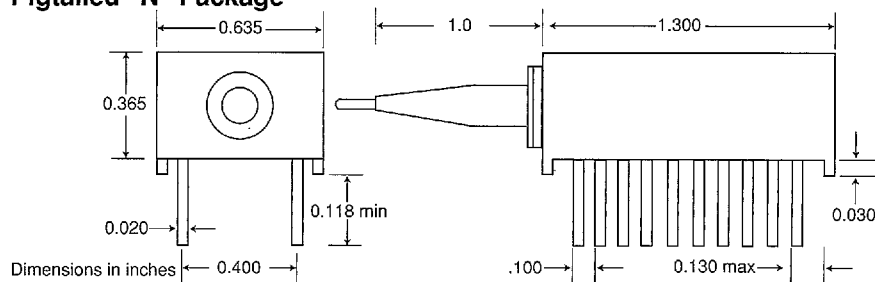
ST : ST connector

SC : SC connector

FC Receptacle "O" Package



Pigtailed "N" Package



Information contained herein is deemed to be reliable and accurate as of issue date. No responsibility is assumed for its use, nor for any infringements on the rights of others. Ortel Corporation reserves the right to change the design or specifications of the product at any time without notice. Ortel Corporation offers the products described herein with a one year warranty on material and workmanship. Ortel Corporation will repair or replace any product or part thereof which proves defective within one year of shipment. For a complete copy of our warranty policy, please contact Ortel Corporation.

Corporate Headquarters

Ortel Corporation

2015 West Chestnut Street
Alhambra, California USA 91803
(800) 362-3891 (626) 281-3636
Fax (626) 281-8231
email: mtkge-a@ortel.com
website: <http://www.ortel.com>



Subsidiaries

Germany

Ortel VERTRIEBS GmbH
49-89-3790-720
Fax 49-89-3790-7249
**France, Belgium
& The Netherlands**
Ortel SARL
33-1-69 32 11 27
Fax 33-1-69 32 11 37

Spain, Portugal & Southern France

Ortel SARL
33-4-67 32 91 16
Fax 33-4-67 32 91 30