

OC-3/STM-1 Digital Receiver Module



Model # 2803A

DATA SHEET

Features:

- Signal Detect Status (ECL or PECL)
- Complies with SONET OC-3 and STM-1 Standard
- Internal AGC Circuit
- ECL or PECL Logic Signal Interface
- Excellent Reliability
- 20 pin-DIP Metal Package

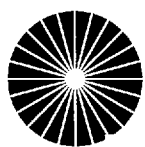
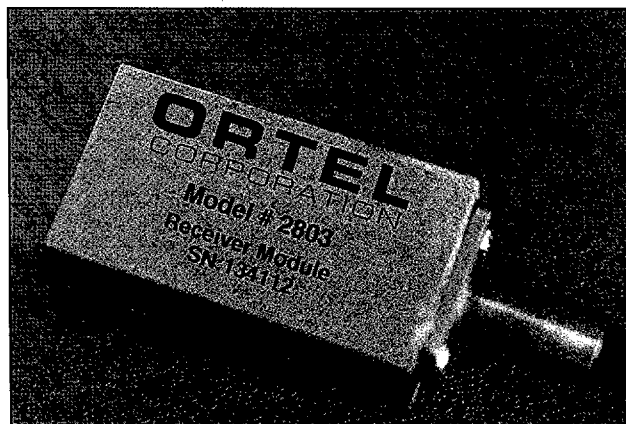
Applications:

- Data Receiver between 5 Mb/s and 200 Mb/s

The 2803A Digital Receiver module is designed for use in transmission systems of medium to high speed data communication applications. The receiver operates at the SONET OC-3 or STM-1 (155 Mb/s) data rate.

The receiver module is designed as a receiver assembly with a GaAs preamplifier and a silicon bipolar comparator to output digital logic levels (ECL or PECL). High sensitivity InGaAs/InP PIN photodiodes are used for 1300 nm and 1550 nm operation. The receiver module meets ITU-T G.957 and G.958 recommendations.

Characteristics	Min	Typ	Max	Units
Data Rate	5	155	200	Mb/s
Receiver Sensitivity	-35	-38	-	dBm
Maximum Input	-3	0	-	dBm
Decreasing Light Input	-45	-	-	dBm
Increasing Light Input			-35	dBm
Signal Detect Hysteresis	0.5	1.5	-	dBm
Wavelength	1100	1310	1600	nm



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Electrical Characteristics	Sym	Min	Typ	Max	Units
Supply Voltage	V _{CC}	4.75	5.0	5.5	V
	V _{PD}	-10.0	-5.0	-2.0	V
Supply Current	I _{CC}	-	85	120	mA
Output High Voltage	V _{OH}	V _{CC} - 1.06	-	V _{CC} - 0.85	V
Output Low Voltage	V _{OL}	V _{CC} - 1.86	-	V _{CC} - 1.59	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	V _{EE}	V _{CC}	V
Lead Soldering	-	240 °C, 10 sec	-

Ordering Information

2803A-PT6 1XX - 03 - XX

Digit 3:

3 : (P) ECL interface with clock

4 : (P) ECL interface without clock recovery

Digit 4: Package

3 : 20-Pin DIP package with pigtail Ref N

4 : 20-Pin DIP package receptacle Ref O

Digit 7, 8 Connector Type

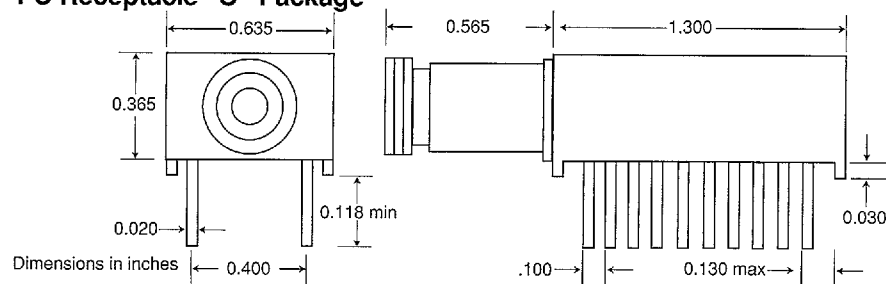
(blank) : No Connector

FC : FC Connector

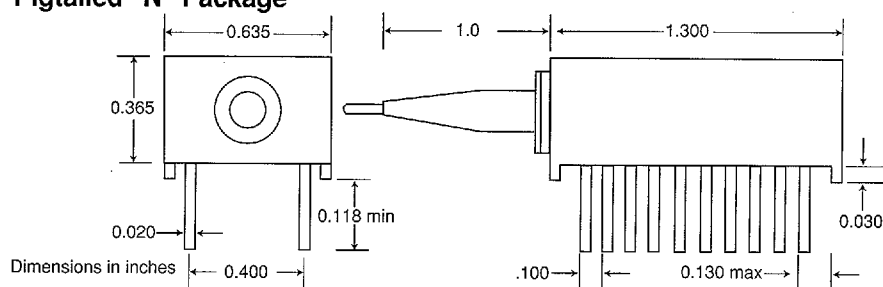
ST : ST Connector

SC : SC Connector

FC Receptacle "O" Package



Pigtailed "N" Package



CASE	1	20	CASE
N/C	2	19	N/C
N/C	3	18	N/C
N/C	4	17	N/C
N/C	5	16	N/C
V _{EE}	6	15	V _{EE}
DATA	7	14	SIGNAL DETECT
V _{EE}	8	13	CASE
DATA	9	12	SIGNAL DETECT
V _{PD}	10	11	V _{CC}

RECEIVER
N/C - No internal connection

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