

- SONET OC1, OC3 Transmitters
- SDH STM-1 Transmitters
- ATM / FDDI
- High-Loss Budget Links

- Up to 155 Mb/s Transmitters
- 1310nm and 1550nm
- 20-Pin Multisource Pinout
- Operating Temperature -40°C to +85°C



The **Airpak** series transmitters are full function, high performance digital fiber optic modules. They provide a cost effective interface between standard **ECL** and **PECL** logic families and optical fiber transmission systems. The innovative application of high-quality surface mount technology and a unique integration of optical and electrical components provide performance and quality without the traditional high cost packaging usually associated with optical modules. The superior reliability engineering on which the modules are based ensures performance in all normal environments and operating conditions.

## Specifications and Limits Performance @ 25°C

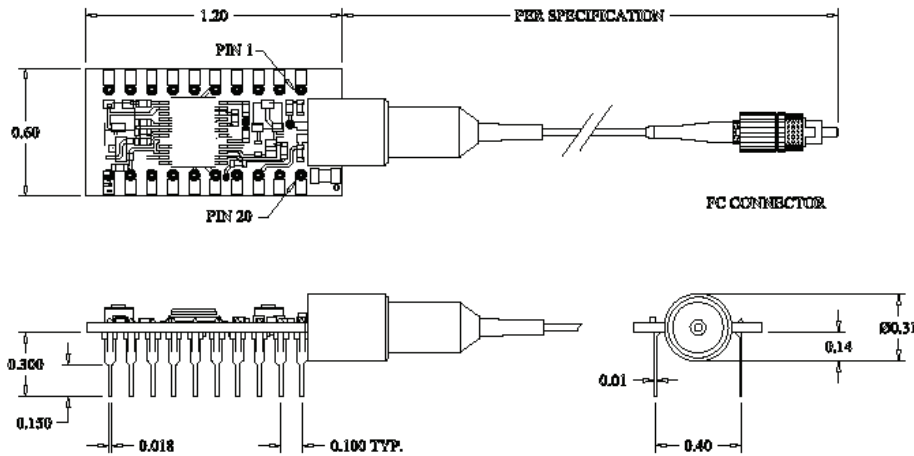
OPTICAL CHARACTERISTICS	Unit	Min.	Typ.	Max.
<b>Center Wavelength</b>	nm			
TL 2063		1290	-	1330
TL 2065		1520	-	1570
<b>Average Output Power</b> (over oper temp range)	dBm			
TL 2063PT-010, TL 2065PT-010		-10	-8	-5
TL 2063PT-005, TL 2065PT-005		-5	-3	0
<b>Spectral Width (RMS)</b>	nm	-	2.5	-
<b>Extinction Ratio</b>	db	10	12	-
<b>T<sub>x</sub> Disable<sup>1</sup></b>	v	-3.2	-	0

ELECTRICAL CHARACTERISTICS	Unit	Min.	Typ.	Max.
Supply Voltage (V <sub>cc</sub> - V <sub>ee</sub> )	V	4.75	5	5.5
Supply Current	mA	-	70	130
Input Data Voltage <sup>1</sup>	V			
Low		-	-1.8	-
High		-	-0.8	-
Bias Monitor	V	0.01	-	0.45
Back Facet Monitor	V	0.01	-	0.2

Absolute Maximum Ratings				
	Units	Min.	Typ.	Max.
Supply Voltage	V	-	-	6
Operating Case Temperature	°C	-40	-	85
Storage Temperature	°C	-40	-	85
Lead Soldering Temp/Time	°C / sec	-	-	250/10

**NOTES:** <sup>1</sup> Measured from V<sub>cc</sub> with a 50-ohm load to V<sub>cc</sub>-2 Volts

## Outline Drawing



PIN ASSIGNMENTS	
Pin No.	Function
1, 3, 10, 20	No Connection
2	Laser Bias Monitor +
4	Laser Bias Monitor -
5, 14	V <sub>ee</sub>
6, 8, 9, 12, 18	V <sub>cc</sub>
7	Disable
11, 13	Ground
15	Data Not
16	Data
17	Back Facet Monitor -
19	Back Facet Monitor +

Dimensions: Inches  
Detailed package drawings available upon request

## Part Ordering Information

Part Number	Data Rate (NRZ Mb/s)	Typical Wavelength (nm)	Typical P <sub>AVG</sub> (dBm)	Operating Temp (°C)
TL2063PT-010FCL	155	1310	-8	-40 to +85
TL2063PT-005FCL	155	1310	-3	-40 to +85
TL2065PT-010FCL	155	1550	-8	-40 to +85
TL2065PT-005FCL	155	1550	-3	-40 to +85

Standard Interface Type 1 meter +/- 0.1 meter length, 9/125/900 um pigtail, FC/PC connector  
**NOTE:** FC/PC connectors on the fiber pigtail are standard. *Other connector types optional*

### Personal Hazard and Handling Precautions:

Handle optical fiber with normal care, avoiding stretch, tension, kink or bend abuse. ESD precautions apply. Normal aversion reactions will protect from radiation hazards to the eye associated with devices of this kind. Lasers are Class 1 when operated at rated conditions.

### Warranty:

Please refer to your product purchase agreement for complete details or check with your OSI Laser Diode sales representative.

### Notice:

OSI Laser Diode, Inc. reserves the right to make changes to the products or information contained herein without notice. No liability is assumed as a result of their use or application.

Products can be ordered directly from OSI Laser Diode, Inc. or its representatives.

For a complete listing of representatives, visit our website at

[www.laserdiode.com](http://www.laserdiode.com)