

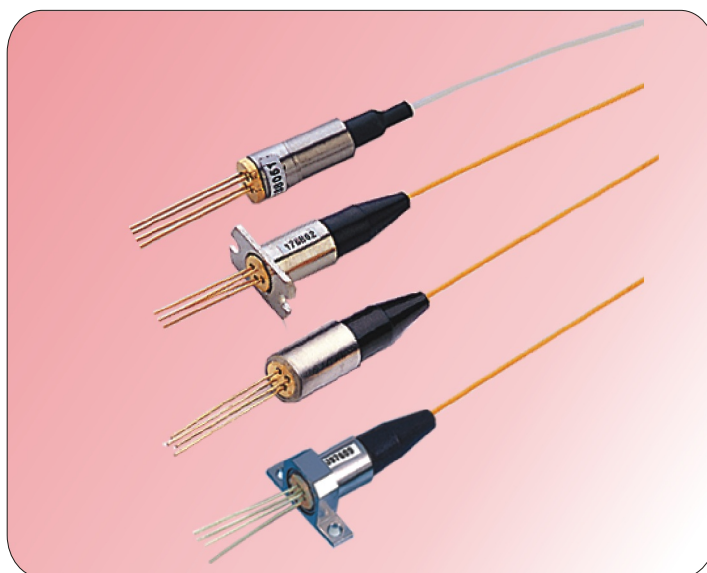
Coaxial PIN-TIA Receiver Module

Applications

Telecommunication
Data communication

Features

- Features
- Long wavelength operation
- Compliant with SONET/SDH
- Standard
- Internal AGC circuit
- High sensitivity
- Excellent reliability
- SM or MM pigtail fiber
- Available



Description

The fiber-optic coaxial PIN-TIA receiver module is designed for SONET/SDH fiber-optical communication networks, using reliable InGaAs PIN photodiode (PD) highly integrated with low noise transimpedance amplifier (TIA) to convert a long wavelength input optical signal into a differential (or single) output. It is a highly reliable module with excellent performance.

Characteristics

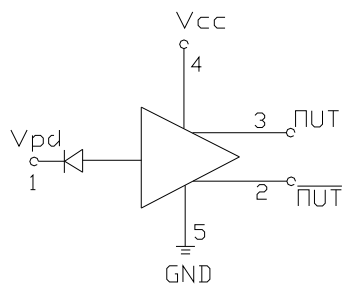
Parameter	SMT-1(OC-3)			SMT-4(OC-12)			SMT-16(OC-48)			Units
	Min	Typ	Max	Min	Typ	Max	Min	Typ	Max	
Wavelength	1100	1310	1600	1100	1310	1600	1260	1310	1580	nm
TIA Supply Voltage	4.5	5	5.5	4.5	5	5.5	-	-	-	V
	3.15	3.3	3.5	3.15	3.3	3.5	3.15	3.3	3.5	
PIN Diode Supply Voltage	-	-	-	-	-	-	3.15	-	5.5	V
TIA Supply Current	-	50	-	-	50	-	-	55	-	mA
Bandwidth	70	90	-	375	415	-	1750	1800	-	MHz
Responsivity(1310nm)	-	-	-	-	-	-	0.80	-	-	A/W
Sensitivity	-	-40	-37	-	-34	-31	-	-23	-21	dBm
Optical Overload	-3	0	-	-3	0	-	-3	0	-	dBm
Output Impedance	-	50	-	-	50	-	-	50	-	Ω
AGC Threshold	-	20	-	10	50	-	-	50	-	μ W
Optical return loss	-	-	-	-	-	-	-	-	-30	dB

Absolute Maximum Ratings

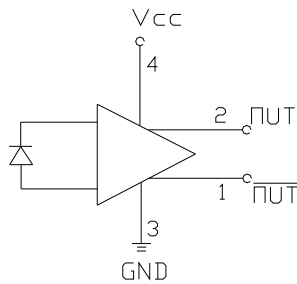
Parameter	Symbol	Min	Max	Units
Operating Temperature Range	T_{op}	-40	+85	$^{\circ}$ C
Storage Temperature Range	T_{stg}	-40	+85	$^{\circ}$ C
Operation Relative Humidity	RH	-	55%	-
Operation Short-Term Relative Humidity	RH_s	-	80%	-

Coaxial PIN-TIA Receiver Module

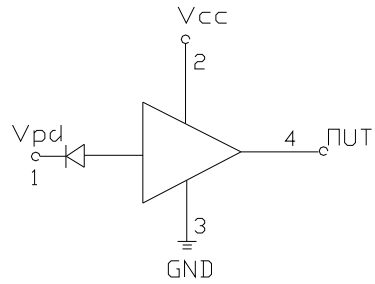
Schematic Circuit



PT 455(6)-55

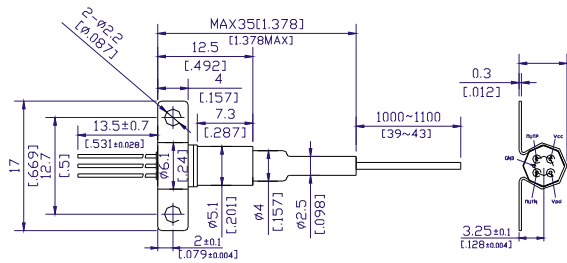


PT 4□53(4)-□-□□□

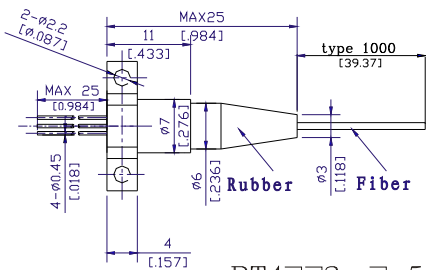
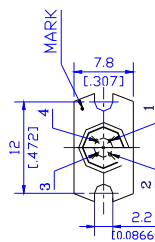
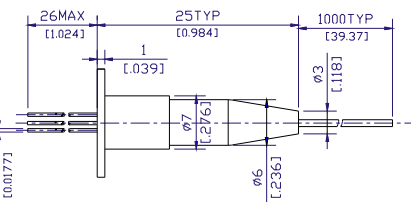
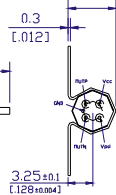


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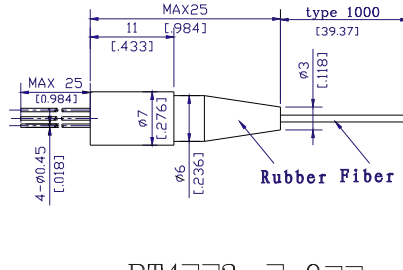
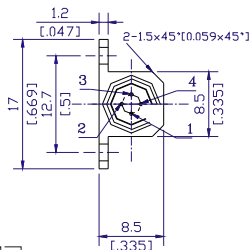
Mechanical Outline



PT455-5



PT4□□3-□-5□□



PT4□□3- □-0□□

UNIT: mm[inch]

Ordering Information

PT4

Output Type

1: Single output
5: Differential output

**Amplifier
Supply Voltage**
1: 5V
2: 3.3V

Package Type

3: 4-Pin coaxial, pigtail
4: 4-Pin coaxial receptacle
5: 5-Pin coaxial, pigtail
6: 5-Pin coaxial receptacle

Data Rate

- 3: 155Mb/s
- 4: 622Mb/s
- 5: 1.25Gb/s
- 6: 2.5Gb/s

Flange & Mounting Bracet Type

0: No flange
5: [Ω] type
9: Rectangular flange

Connector Type

00: No connector
FC: Fcconnector
SC: Scconnector
ST: Stconnector