Luminent
Bringing Communications to Light™

2.5 Gbps PIN-TIA Receiver Modules (3.3 V) Preliminary

T-11-2500A-R3-SFC/ ST/ SC • T-11-2500A-P3-S/ SFC/ SSC/ SST • T-11-2500A-P3-M/ MFC/ MSC/MST

Features

- InGaAs/ InP PIN Photodiode with transimpedance amplifier
- High sensitivity with Auto Gain Control (AGC)
- Differential ended output
- Single +3.3 V operation
- -40 to +85°C operating temperature

Packaging

- FC/ ST/ SC receptacle package
- SM/ MM fiber pigtailed with optional FC/ ST/ SC connector

Application

- 2.5 Gbps SDH/ SONET/ ATM receivers

Absolute Maximum Ratings (T_c = 25°C)

Parameter	Symbol	Value	Unit
Supply Voltage	V_{cc}	4.5	V
Operating Temperature	T_{opr}	-40 to +85	°C
Storage Temperature	T_{stg}	-40 to +85	°C

DC Electrical Characteristics (T_c = 25°C)

Parameter	Symbol	Min	Typ	Max	Unit
Power Supply	V_{cc}	3	3.3	3.6	V
Differential Output Voltage	V_d	-	0.6	-	V
Supply Current (no load)	I_{cc}	-	34	-	mA

AC Optical and Electrical Characteristics (T_c = 25°C)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Detection Range		1100	1310	1650	nm	-
Gain @ 10 Mbps Differential	G	-	27	-	V/ mW	λ = 1310 nm
Bandwidth	BW	1600	1800	2000	MHz	
Saturation Power	P_{sat}	-3	0	-	dBm	λ = 1310 nm
Sensitivity	Sens	-	-21	-20	dBm	BER = 10^{-10} @ 2.5 Gbps
Output Resistance	R_{out}	48	60	72	ohm	

(Operating at V_{cc} = 3.3 V, T_c = 25°C, λ = 1310 nm, 9/125 μm SM fiber)

Connector Options

Model	Package	Fiber	Connector
T-11-2500A-R3-SFC	Receptacle	-	FC
T-11-2500A-R3-SST			ST
T-11-2500A-R3-SSC			SC
T-11-2500A-P3-S(M)FC	Pigtailed	SM, MM	FC
T-11-2500A-P3-S(M)ST			ST
T-11-2500A-P3-S(M)SC			SC
T-112500A-P3-S(M)			-

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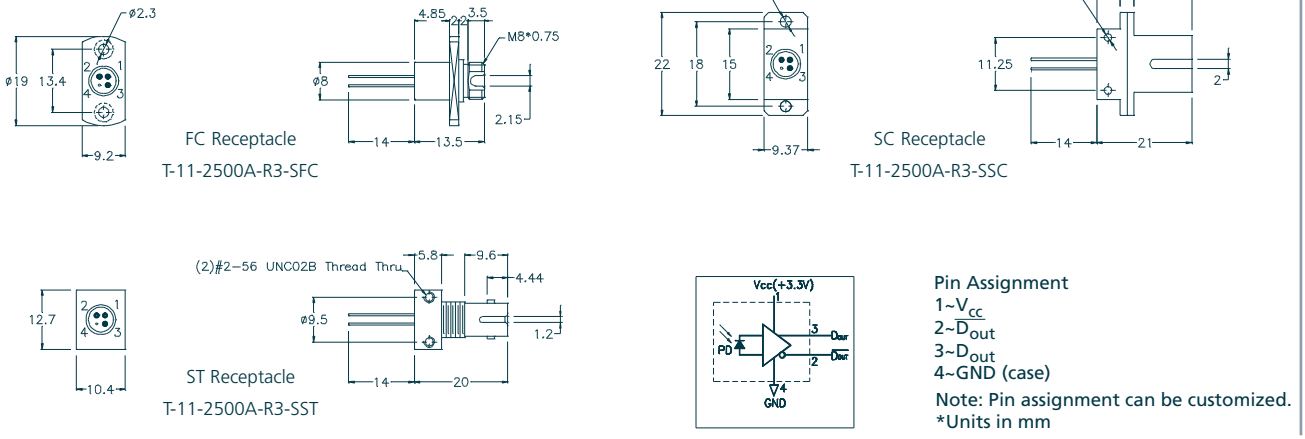
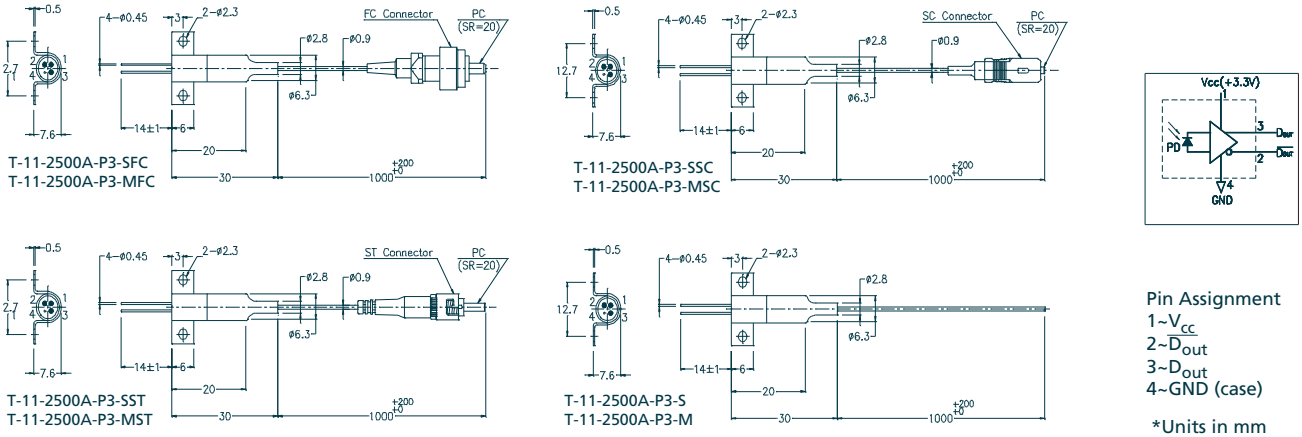
Outline Drawing Pin-TIA Receiver Modules-receptacle



Pin Assignment
1~V_{cc}
2~$\overline{D_{out}}$
3~D_{out}
4~GND (case)

Note: Pin assignment can be customized.
*Units in mm

PIN-TIA Receiver Modules-pigtailed



Pin Assignment
1~V_{cc}
2~$\overline{D_{out}}$
3~D_{out}
4~GND (case)

*Units in mm

Warnings

Handling Precautions: This device is susceptible to damage as a result of electrostatic discharge (ESD). A static free environment is highly recommended. Follow guidelines according to proper ESD procedures.

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