Luminent
Bringing Communications to Light™

622 Mbps PIN-TIA Receiver Modules (3.3V)

T-11-622-P3-SFC-AGC • T-11-622-R3-SFC-AGC

Features

- InGaAs/ InP PIN Photodiode with transimpedance amplifier
- High sensitivity with AGC (Auto Gain Control)
- 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

- 622 Mbps SONET/ SDH receivers
- 622 Mbps ATM receiver

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	-	-	1.3	V
Supply Current (no load)	I_{cc}	-	-	50	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	0.3	-	30	V/mW	λ= 1310nm
Bandwidth, (to -3dB point)	BW	450	-	-	MHz	
Saturation Power	P_{sat}	-3	0	-	dBm	λ= 1310nm
Sensitivity	Sens	-	-31	-29	dBm	BER=10^{-10} @ 622 Mbps
Output Resistance	R_{out}	-	50	65	ohm	

(Operating at V_{cc}= 3.3V, T_c= 25°C, R_L= 3000Ω, λ= 1310 nm, 9/125 µm SM fiber)

Connector Options

Model	Package	Fiber	Connector
T-11-622-R3-SFC-AGC	Receptacle	-	FC
T-11-622-R3-SST-AGC			ST
T-11-622-R3-SSC-AGC			SC
T-11-622-P3-SFC -AGC	Pigtailed	SM	FC
T-11-622-P3-SST -AGC			ST
T-11-622-P3-SSC -AGC			SC
T-11-622-P3-S –AGC			(None)
T-11-622-P3-MFC -AGC		MM	FC
T-11-622-P3-MST -AGC			ST
T-11-622-P3-MSC -AGC			SC
T-11-622-P3-M -AGC			(None)

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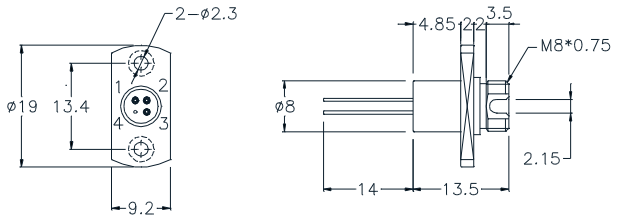
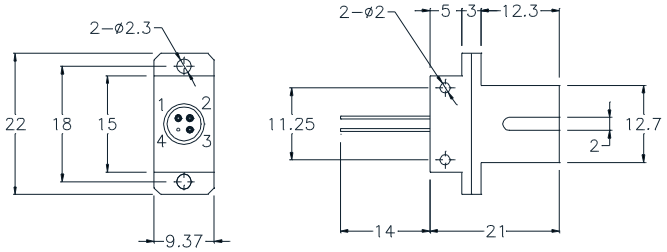
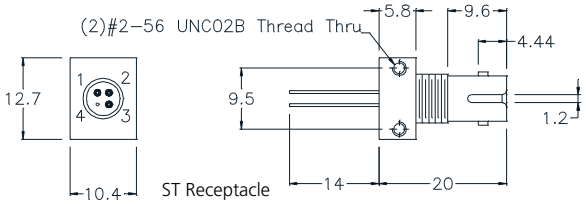
PIN-TIA Modules-receptacle

FC Receptacle
T-11-622-R3-SFC-AGC



SC Receptacle
T-11-622-R3-SSC-AGC



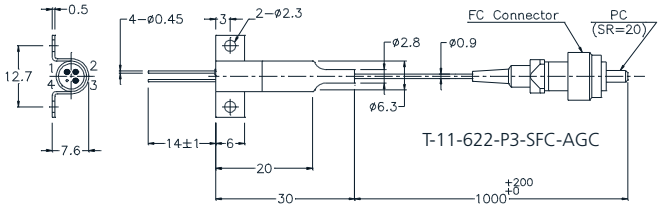


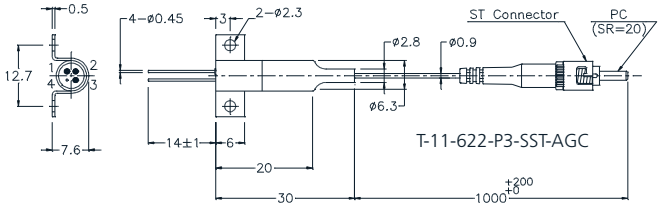
ST Receptacle
T-11-622-R3-SST-AGC

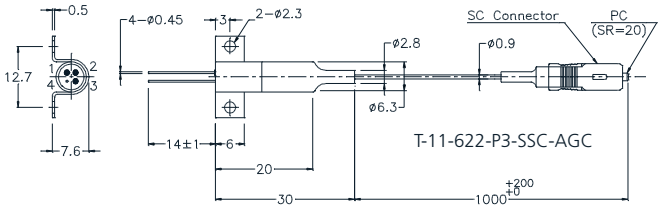
Customer Specified

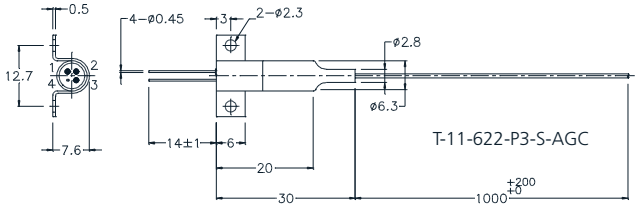
*Units in mm

PIN-TIA Modules-pigtailed









*Units in mm

Pin Assignment

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

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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