

GPA-32 3.2Gb/s Coaxial PIN-TIA Receiver Assembly



Features

- Large area photodiode for excellent coupling from SM fibers
- High Gain TIA with high sensitivity and differential output
- Wide operation temperature (-40°C to +85°C)
- Coaxial Package with fiber pigtail
- Single+3.3V Power Supply
- Laser welding, High reliability and Long operation life
- RoHS Compliant

Absolute maximum ratings (25°C)

Parameter	Symbol	Min	Max	Unit
Operating Temperature	T _C	-40	+85	°C
Storage Temperature	T _{stg}	-40	+100	°C
Humidity Range	RH	5	95	%
Amplifier Bias Voltage	V _{ccmax}		5	V
Input Optical Power	P _{max}		+6	dBm
Load Solder Temp. and Time			260°C, 10sec	

Electrical/Optical Characteristics (T_c=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit
Power Supply	V _{cc}	3.0	3.3	3.6	V
Supply Current ⁽¹⁾	I _{cc}		45	59	mA
Photodetector Bias	V _{PD}		3.3		V
Bandwidth	BW	2.0	2.9		GHz
Low-Frequency Cut Off	LF		30		kHz
Group Delay Variation ⁽²⁾	GDV		±35		ps
Wavelength	λ	1250		1600	nm
Optical Overload ^(3,4)	P _{ovld}	+3	+4		dBm
Sensitivity ^(3,4)	P _{sens}		-23	-21	dBm
Conversion Gain ⁽⁵⁾	CG	830	950		V/W
Max. Diff. Output Voltage	V _{diff}		300		mVpp

(1) No Loads

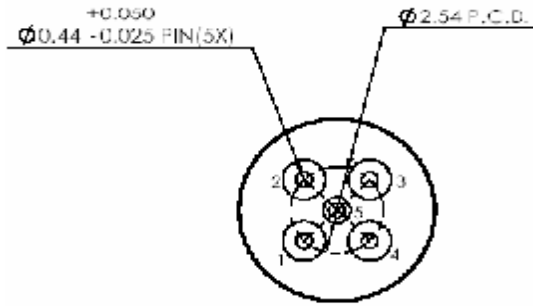
(2) 1 GHz to 4 GHz

(3) λ=1550nm, 0.85A/W

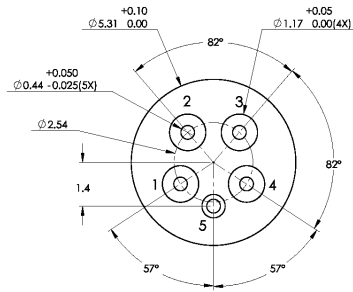
(4) BER = 10⁻¹², PRBS 2³¹-1, ER = 10dB

(5) Single ended output voltage (peak to peak) to optical power swing (OMA)

Pin Assignment



Bottom View for Pin-out "F"

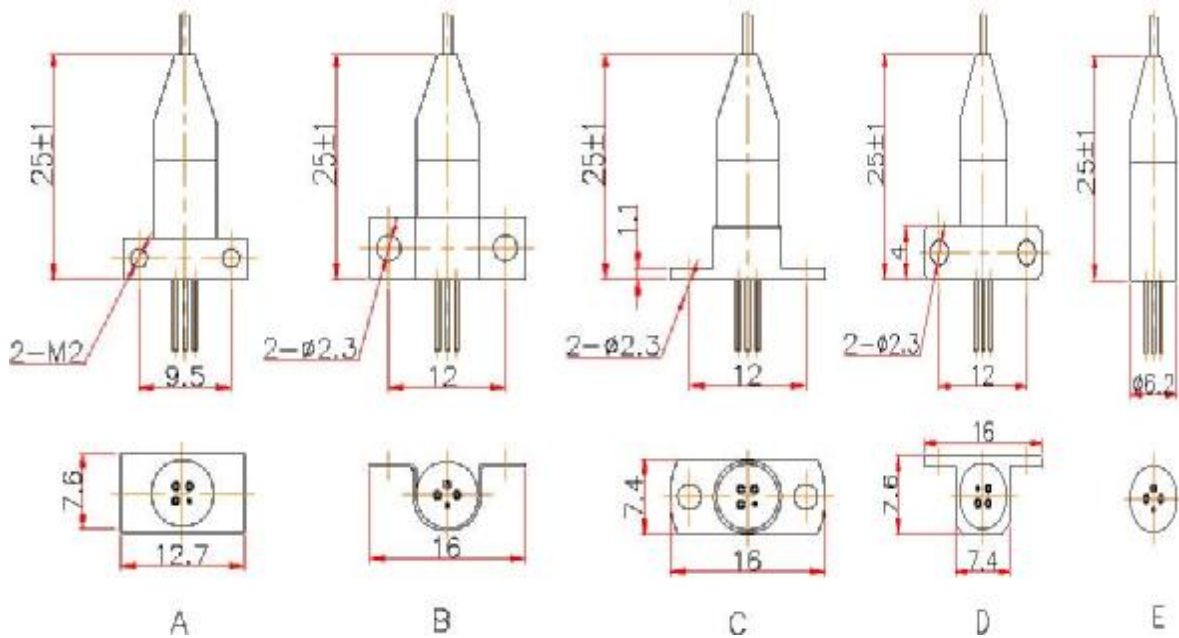


Bottom View for Pin-out "B" and "E"

5-pin Pin-out Assignment			
Pin #	"B"	"E"	"F"*
1	Dout-P	V _{PD}	Dout-P
2	V _{CC}	Dout-N	V _{PD}
3	V _{PD}	Dout-P	V _{CC}
4	Dout-N	V _{CC}	Dout-N
5	GND	GND	GND

Note: "F" uses alternate 5-pin header. See Bottom View drawings

Package series



Ordering Information

GPA-32-X-Y-Z 3.2Gb/s PIN-TIA Receiver Assembly

X (PIN Type): B or E or F

Y (Flange Type): A or B or C or D or E

Z (Fiber Connector): FU_FC/UPC, FA_FC/APC, SU_SC/UPC, SA_SC/APC