

10Gbps InGaAs ROSA with FPC

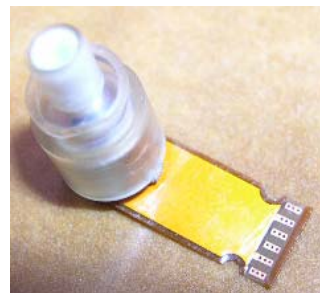
Features

- ROSA with FPC (Flexible Printed Circuit)
- High speed InGaAs photodiode with TIA
- High reliability
- -40 to 85°C operation
- Differential output



Applications

- Digital and analog optical communication
- Optical LAN
- OTDR



Specifications

Absolute Maximum Ratings

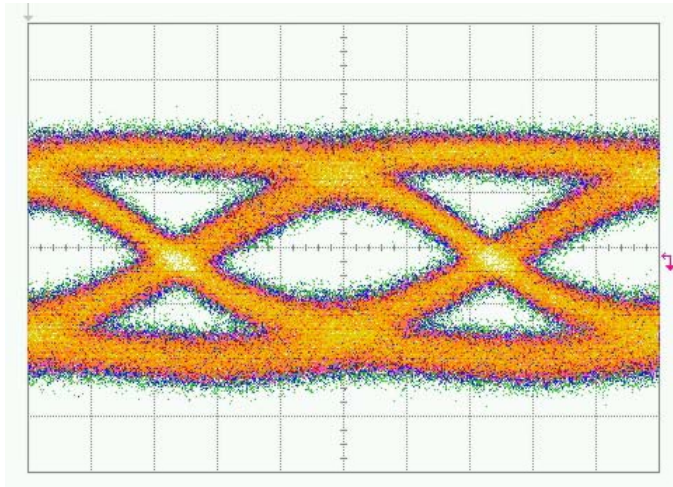
Parameter	Symbol	Value	Unit
Maximum optical power input	$P_{i\max}$	5	mW
Supply voltage	V_{cc}	4	V
PD reverse voltage	V_R	15	V
Operating temperature	T_{opr}	-40 to +85	°C
Storage temperature	T_{stg}	-40 to +85	°C
Soldering temperature	T_{sol}	260	°C

Electrical and Optical characteristics (Ta=25°C unless otherwise noted)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Operating voltage	V_{op}	3.1	3.3	3.5	V	
Supply current	I_{cc}		61	79	mA	
Bit rate	BR		10		Gbps	
Bandwidth @-3dB	BW		8		GHz	$P_i = -10\text{dBm}$
Optical sensitivity	P_{min}		-18		dBm	BER=10 ⁻¹² with a 2 ²³ -1 PRBS at 10Gbps
Optical overload	P_{OL}	+1	+2		dBm	BER=10 ⁻¹² with a 2 ²³ -1 PRBS at 10Gbps
Output impedance	Z_o		50		Ω	
Transimpedance	Z_t	3.0	4.5		kΩ	$P_i = -15\text{dBm}@1550\text{nm}$ $R_L = 50\Omega$, differential
Sensitive wavelength	λ	1000	1310	1610	nm	$T_{opr} = -10$ to 85°C
Responsivity	R	0.80	0.88		A/W	$\lambda = 1310\text{nm}$
		0.85	0.98			$\lambda = 1550\text{nm}$

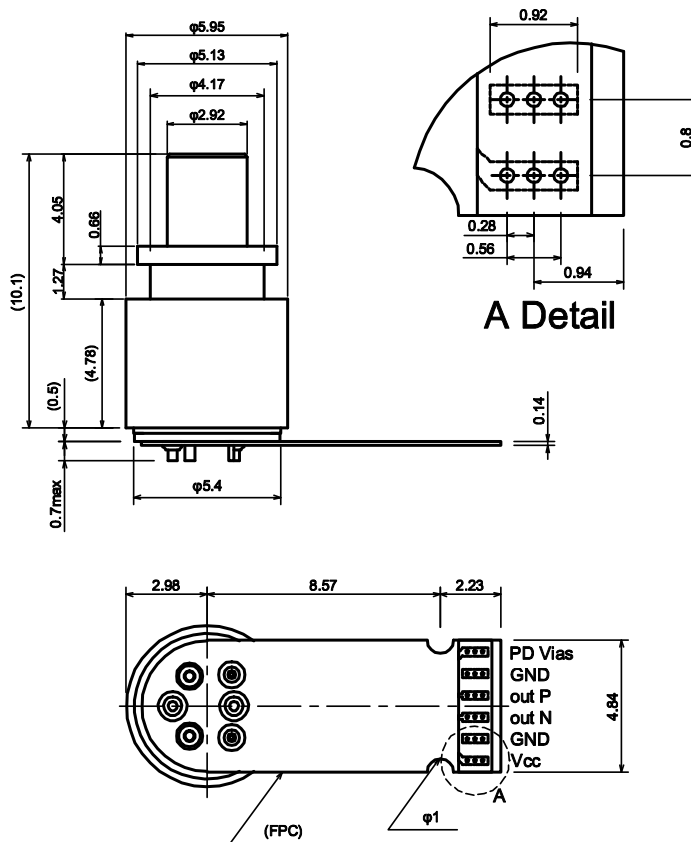
Specifications are subject to change without notice.

Example Eye Diagram



x=20ps/div y=7.4mV/div Pin=-18dBm @1550nm

Package Dimension (unit : mm)



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