



XS-R1040-SMOD series

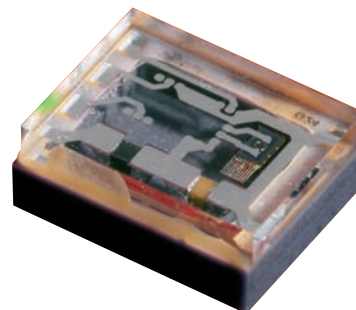
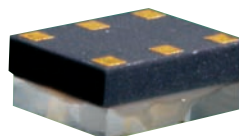
4Gb/s 850nm Surface Mount Optical Receiver Module

Description

Intexys Photonics' single channel free space receiver module, operating up to 4Gb/s provides high density, high data throughput and a cost effective solution for free space optical data communication applications. Combining a 850nm photodiode and a transimpedance amplifier, in a small surface mount package, make this component easy and ready to use.

Features

- Data rates up to 4Gb/s
- Differential LVDS output
- RSSI signal tracking
- Single 3,3V power supply with a 100mW consumption
- Central wavelength: 850nm
- Ceramic package
- Sensitivity of 10^{-12} at -23dBm @ 3,125Gb/s (ER = 10dB)



Main Electrical & Optical Characteristics

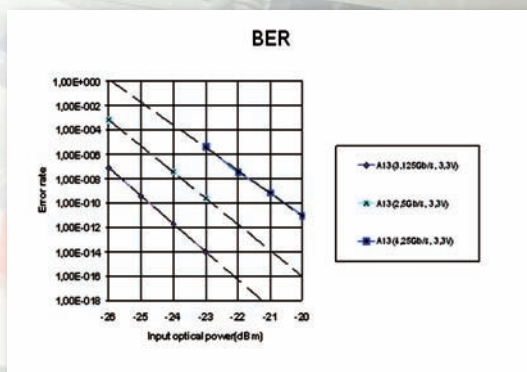
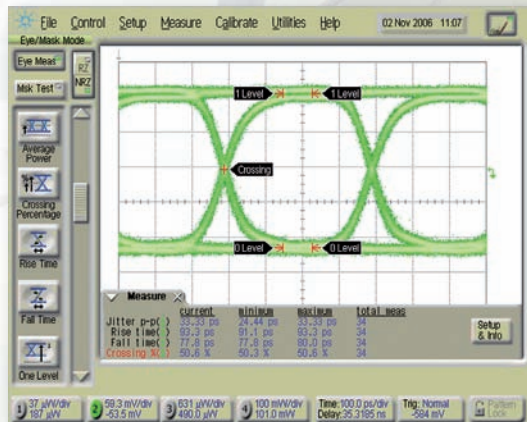
Parameters	Sym.	Min	Typ	Max	Unit
Operating temperature	Tc	-40		+85	°C
Reception wavelength			850		nm
Sensitivity (1)	S		-23		dBm

(1). 10^{-12} BER with a $2^{31}-1$ PRBS @ 3,125Gb/s (ER = 10dB)

Parameters	Sym.	Min	Typ	Max	Unit
Data rate	D	0,15	3,125	4,25	Gb/s
Rise time	Rt		90	105	ps
Fall time	Ft		78	100	ps
Differential output voltage (LVDS) (2)	$V_{DIFF\ P-P}$		300		mV
2,5Gb/s margin (3)			35		%
Jitter p-p	Jpp		42	65	ps
Supply voltage	Vcc	3	3,3	3,6	V
Supply current	Icc		29	32	mA
Small signal bandwidth	F_{3db}	2,5	3	4	GHz
Low frequency cut off	F_{low}		50	150	kHz

(2). $2^{31}-1$ PRBS @ 3,125Gb/s Pin = -7dBm, Rload = 82Ω (differential)
 (3). 2,5Gb/s Infiniband mask

Experimental results



Intexys Photonics reserves the right to change specifications without prior notice

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