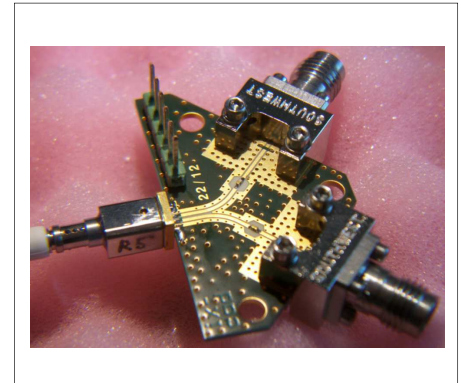


Up to 50 Gbit/s 700-870 nm Optical receiver module

Product Code: R50-850AB



Sample image only. Actual product may vary.

Product Description

The R50-850AB optical receiver module utilizes a PIN photodetector and transimpedance amplifier (TIA) assembled onto a high speed adaptor board with differential electrical signal output. The multi mode fiber coupled module with FC/PC connector input is designed for short reach ultrahigh-speed data communication applications of up to 50Gbit/s. Each part is electro-optically tested to ensure a maximum performance

Preliminary

Features

- up to 50 Gbit/s data rate
- Small size package
- Low power consumption

Applications

- CEI-56G based short reach interconnects
- Proprietary optical interconnects
- Research and development

Parameter	Typical (PD chips)	Notes
Operating Wavelength	700 ~ 870 nm	
Data rate	up to 56 Gbit/s	
Rise time (20% to 80%)	~ 6 ps	
Maximum power consumption	160 mW	

All product specifications and descriptions are subject to change without notice.

Preliminary

Electro-optical characteristics (at Tcase = 25 °C)

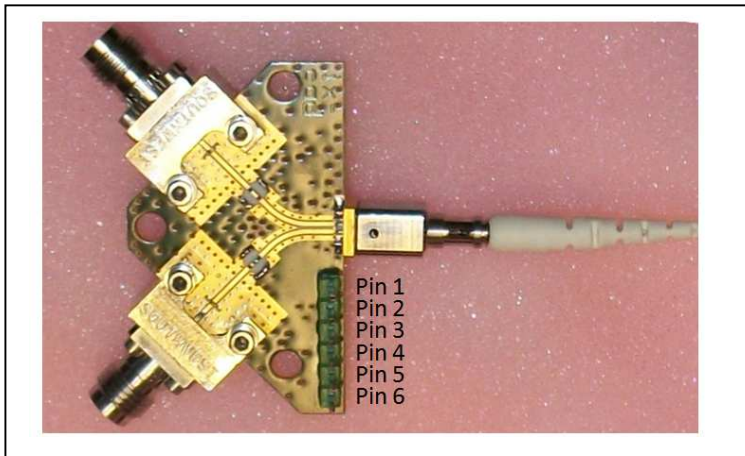
Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Wavelength responsivity	λ		790	850	890	nm
Case operating temperature	T_{op}		-10		85	°C
Supply voltage	V_{cc}		3.3		3.4	V
Supply current	I_{cc}		34	45	61	mA
Bandwidth	BW			40		GHz
Low frequency cutoff					70	kHz
Sensitivity (OMA)	S			-13	-12	dBm
Output resistance	R_o			100		Ω
Optical overload			1.5			dBm
Differential output voltage	V_{out}				280	mV
Duty cycle distortion				1	10	%

Absolute Maximum Ratings

Parameter	Symbol	Min	Max	Unit
Storage temperature	T_{st}	-10	+50	°C
Incident optical power	P_{in}		+5	dBm
Power supply voltage	V_p		4.0	V

Preliminary

R50-850AB optical receiver



Pin #	Signal	Description
1	Vcc	supply voltage for TIA IC (3.3V)
2	--	not used
3	--	not used
4	V _x	crossing adjustment (0 to 3V)
5	V _e	eye adjustment (0 to 3V)
6	V _{PD}	Optional bias voltage for PD (2V to 5V)

Ground is to be supplied by the RF connectors



VI Systems GmbH

Hardenbergstrasse 7

10623 Berlin

Tel.: +49 30 3083143 30

Fax: +49 30 3083143 59

sales@v-i-systems.com

www.v-i-systems.com



www.facebook.com/VISystems

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Please contact our sales department for additional information and to receive a quotation: sales@v-i-systems.com