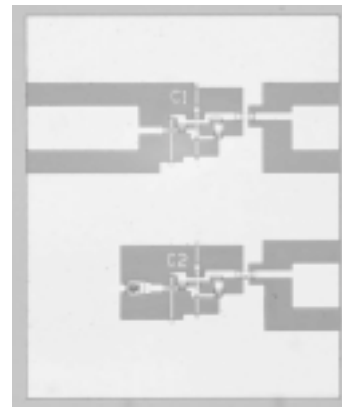


HRXC40A

40 Gb/s

Optical Receiver



REV 09/01

Features

InGaAs-pin-photodiode with InP-HBT-preamplifier
High bandwidth
Bitrates up to 40 Gb/s
Low power consumption

Product Description

HRXC40A chips are high-speed fiber-optical receivers for high-capacity fiber-optical communication networks with bitrates up to 40 Gb/s. The advanced technological concept of these devices is based on the monolithic integration of InP-HBT (heterobipolar transistor) amplifiers and InGaAs-pin-photodiodes, which offers both excellent performance and low power consumption.

Specifications @ (T = 25°C)

Parameter	Symbol	Comments	Typ.	Unit
Bandwidth	f_{-3dB}		30	GHz
Transimpedance Gain	Z_T	Into 50 Ω	100	Ω
Responsivity of the Photodiode	R	Measured at $\lambda = 1.55 \mu m$ Usable range: $\lambda = 0.8 - 1.6 \mu m$	0.48	A/W
Conversion Gain	G		48	V/W
Sensitivity	S	BER = 10^{-10} , RZ, PRBS, $2^{31}-1$	<-10	dBm
Overload	P_{MAX}	BER = 10^{-10} , RZ, PRBS, $2^{31}-1$	0	dBm
Supply Voltage	V_B		2.3-2.8	V
Power Consumption	P_W		50	mW

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