

new product
information

LX3051 3 Gbs
LX3050 10 Gbs
LX3052 10Gbs 1x4 ARRAY
InGaAs PIN PHOTODIODE

New Product Information and Sales Kit

Manufactured by:

Microsemi Integrated Products

Garden Grove, CA

Telephone: 714-898-8121

www.Microsemi.com

More than solutions – enabling possibilities

INTRODUCTION

CONFIDENTIAL INFORMATION

This new product introduction guide is intended for use only by Microsemi's sales people and authorized representatives and distributors. This material can be adapted for customer presentations, but the sales strategy and summary [pricing, availability, etc.] is confidential and should not be shown to customers

DESCRIPTION

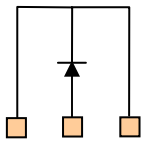
Microsemi's **InGaAs** Coplanar PIN Photodiode chips are ideal for high bandwidth **1310 and 1550 nm** single-mode-fiber optical networking applications. The device family offers superior responsivity performance and high bandwidth with large active area in single die and 1x4 array die. The G-S-G coplanar waveguide allows very low cross-talk within the array. The LX305X family of photo diodes are currently offered in die form allowing manufacturers the versatility of custom assembly using either bond wire or flip chip configurations. This device is ideal for manufacturers of optical receivers, transceiver, transponders, optical transmission modules, and combination PIN photo diode – transimpedance amplifier.



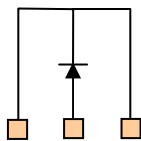
KEY PRODUCT INFORMATION

BLOCK DIAGRAM

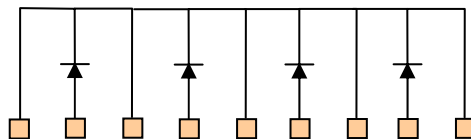
LX3051



LX3050



LX3052



KEY FEATURES

- LX3051 single die, 3 Gbs, 80μm active area
- LX3050 single die, 10 Gbs, 32μm active area
- LX3052 1x4 array die, 10 Gbs, 32μm active area
- Coplanar Waveguide, 50 ohm characteristic impedance
- High Responsivity
- Low Dark Current
- High Bandwidth
- Anode/Cathode on illuminated Side
- 125μm Pad pitch
- Die good for bond wire or flip chip applications
- Die good for non-hermetic packaging (passed bare-die 85/85 test)



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TYPICAL APPLICATION LX3051

- 3 Gigabit telecom, datacom, fibre channel, storage application.
- SONET/SDH OC48/STM16 Connections
- Internal Telecom and Datacom Switch/Router Connection
- Any optical link over single-mode fiber at a maximum distance of 40km
- Good for any data rate 1.25/2.5/3.125/ Gbps

TYPICAL APPLICATION LX3050

- 10 Gigabit Ethernet, telecom, datacom, fibre channel, storage application.
- SONET/SDH OC192/STM64 Connections
- Internal Telecom and Datacom Switch/Router Connection
- Any optical link over single-mode fiber at a maximum distance of 40km
- Good for any data rate 10 to 12.5 Gbps

TYPICAL APPLICATION LX3052

- 4-channel parallel link to make 40 Gbs.

COMPETITIVE ANALYSIS

LX3051/LX3050/LX3052

Competitor	Device	Aperture Diameter (μm)	Respon- sivity @1310(A/W)	Capacitance (pF)	BW (GHz)	Dark Current (nA)	Notes
Microsemi	LX3051	80	0.95	0.43	5.8	0.4	
Optospeed	PDCS75T	75	0.9	0.5	5.0	10	
Luxnet	D12A-7060	60	0.9	0.7	3.1	0.1	
XL Photonics		50	0.9	0.4	4	0.1	
Microsemi	LX3050	32	0.95	0.135	15.0	0.2	
Emcore	8413-1150	32	0.9	0.18	15	0.5	
Optospeed	PDCS32T	32	0.9	0.15	15	10	
Sumitomo	F0900032 B	30	0.9	0.20	10	0.2	
XL Photonics		20	0.9	0.18	17.7	0.1	
Microsemi	LX3052	32	0.95	0.135	15.0	0.2	Total 40 Gbs
None							

Alternative Microsemi Solutions

Device	Description	Notes
MXP4002	InGaAs PIN Photodiodes	• Anode on top, cathode bottom for the single 3Gbs PIN
MXP4003	InGaAs PIN Photodiodes	• Anode on top, cathode bottom for the single 10Gbs PIN



SALES STRATEGY

Customers

Our customers make these products: photo-receiver, transceiver, and transponder. Most customers have their custom packages and want to buy bare PIN photodiode die. Customers are very technically oriented and need to work with Microsemi technical support.

Potential Customers

Vitesse

DA Lightcom

JDSU

Ignis Optics

Molex

Luxtera

Honeywell

Lightron

SUMMARY

Pricing

Device	Package	Industrial (-20 to 85°C)	
		DC	1000+
LX3051	Die	\$4.13	\$5.07
LX3050	Die	\$9.29	\$13.93
LX3052	Die	\$25.29	\$37.94

Note:

Availability

Samples: Now
Production: Now

Options

Packages: None

Temperature: C Commercial -20 to 85

Technical Support

Datasheet: See Microsemi's Website
Application Note: See Datasheet
Evaluation Board: N/A

Factory Contacts

Technical Questions: Truc Vu (714) 372-8345
Marketing Manager: Paul Bibeau (714) 372-8046