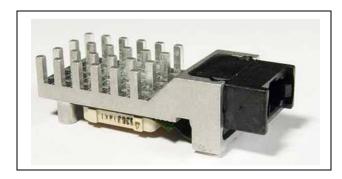


# 12 x 2.7 Gbps Parallel Fiber Optic Link Transmitter and Receiver

Shortform Data Sheet

A full Data Sheet is available to qualified customers. To register, please send an email to opto@zarlink.com.



#### **Features**

- 12 parallel channels, total 32.6 Gbps capacity
- Data rate up to 2.72 Gbps per channel
- 850 nm VCSEL array
- Link reach 300 m with 50/125  $\mu m$  500 MHz·km fiber at 2.5 Gbps
- Channel BER better than 10<sup>-12</sup>
- Industry standard MPO/MTP™ ribbon fiber connector interface
- Pluggable MegArray<sup>®</sup> ball grid array connector
- · Optionally available with EMI shield
- Laser class 1M IEC 60825-1:2001 compliant
- Power supply 3.3 V
- Compatible with industry MSA

#### **Applications**

- High-speed interconnects within and between switches, routers and transport equipment
- Low cost SONET/SDH VSR (Very Short Reach) OC-192/STM64 connections
- InfiniBand<sup>®</sup> connections
- Interconnects rack-to-rack, shelf-to-shelf, board-to-board, board-to-optical backplane

March 2007

#### **Ordering Information**

ZL60101MLDC Parallel Fiber Transmitter ZL60102MLDC Parallel Fiber Receiver

ZL6010xMMDC Parallel Fiber Module with EMI gasket

0°C to +80°C

## **Description**

The ZL60101 and ZL60102 together make a high speed transmitter/receiver pair for parallel fiber applications.

The ZL60101 transmitter module converts parallel electrical input signals via a laser driver and a VCSEL array into parallel optical output signals at a wavelength of 850 nm.

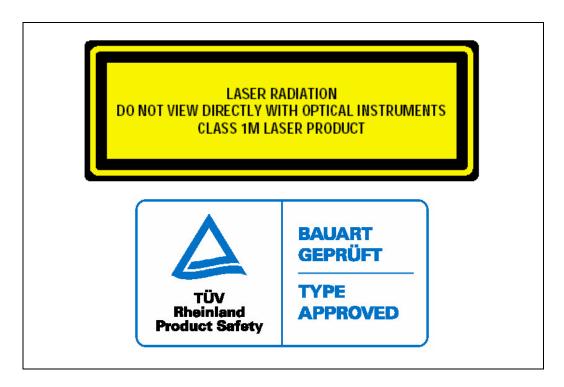
The ZL60102 receiver module converts parallel optical input signals via a PIN photodiode array and a transimpedance and limiting amplifier into electrical output signals.

The modules are pluggable each fitted with an industrystandard MegArray<sup>®</sup> BGA connector. This provides ease of assembly on the host board and enables provisioning of bandwidth on demand.

Reliability assurance is based on Telcordia GR-468-CORE and the parts are compliant to the EU directive 2002/95/EC issued 27 January 2003 [RoHS].



Exemption 6 & 7



Classified in accordance with IEC 60825-1/A2:2001, IEC 60825-2: 2000

Class 1 M Laser Product

Emitted wavelength: 840 nm

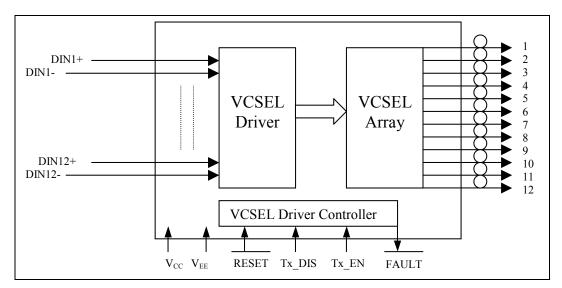
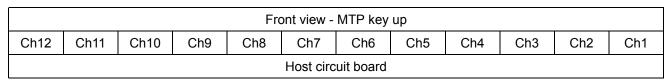


Figure 1 - ZL60101 Transmitter Block Diagram



**Table 1 - Transmitter Optical Channel Assignment** 

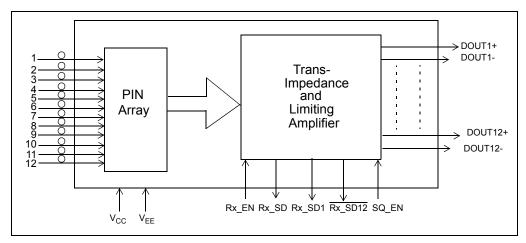
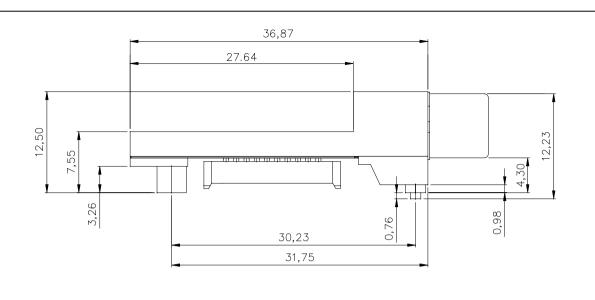
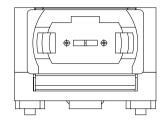


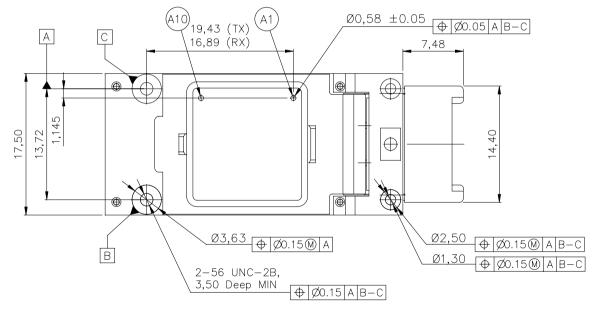
Figure 2 - ZL60102 Receiver Block Diagram

				Fro	ont view -	MTP key	up				
Ch12	Ch11	Ch10	Ch9	Ch8	Ch7	Ch6	Ch5	Ch4	Ch3	Ch2	Ch1
Host circuit board											

**Table 2 - Receiver Optical Channel Assignment** 







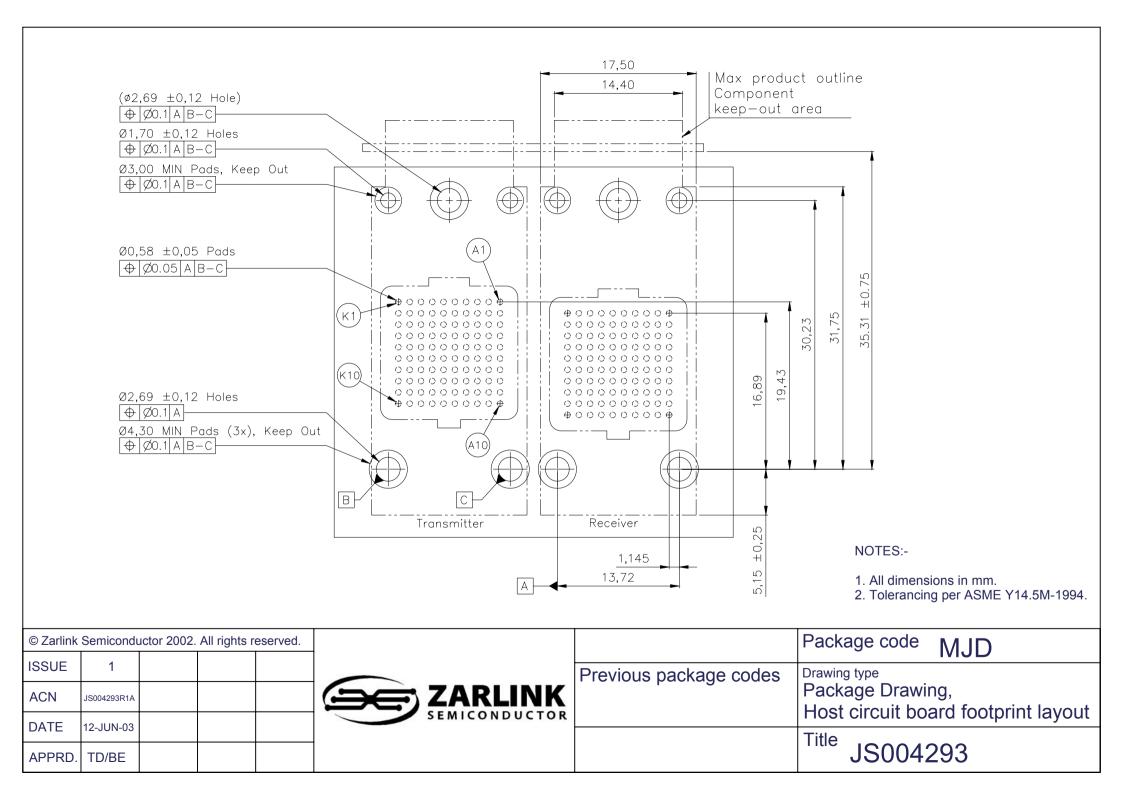
### NOTES:-

- 1. All dimensions in mm.
- 2. Tolerancing per ASME Y14.5M-1994.

© Zarlink	© Zarlink Semiconductor 2002. All rights reserved.				
ISSUE	1				
ACN	JS004293R1A				
DATE	12-JUN-03				
APPRD.	TD/BE				



	Package code MJD
Previous package codes	Drawing type Package drawing - module layout
	Title JS004293





# For more information about all Zarlink products visit our Web Site at www.zarlink.com

Information relating to products and services furnished herein by Zarlink Semiconductor Inc. or its subsidiaries (collectively "Zarlink") is believed to be reliable. However, Zarlink assumes no liability for errors that may appear in this publication, or for liability otherwise arising from the application or use of any such information, product or service or for any infringement of patents or other intellectual property rights owned by third parties which may result from such application or use. Neither the supply of such information or purchase of product or service conveys any license, either express or implied, under patents or other intellectual property rights owned by Zarlink or licensed from third parties by Zarlink, whatsoever. Purchasers of products are also hereby notified that the use of product in certain ways or in combination with Zarlink, or non-Zarlink furnished goods or services may infringe patents or other intellectual property rights owned by Zarlink.

This publication is issued to provide information only and (unless agreed by Zarlink in writing) may not be used, applied or reproduced for any purpose nor form part of any order or contract nor to be regarded as a representation relating to the products or services concerned. The products, their specifications, services and other information appearing in this publication are subject to change by Zarlink without notice. No warranty or guarantee express or implied is made regarding the capability, performance or suitability of any product or service. Information concerning possible methods of use is provided as a guide only and does not constitute any guarantee that such methods of use will be satisfactory in a specific piece of equipment. It is the user's responsibility to fully determine the performance and suitability of any equipment using such information and to ensure that any publication or data used is up to date and has not been superseded. Manufacturing does not necessarily include testing of all functions or parameters. These products are not suitable for use in any medical products whose failure to perform may result in significant injury or death to the user. All products and materials are sold and services provided subject to Zarlink's conditions of sale which are available on request.

Purchase of Zarlink's I<sup>2</sup>C components conveys a licence under the Philips I<sup>2</sup>C Patent rights to use these components in and I<sup>2</sup>C System, provided that the system conforms to the I<sup>2</sup>C Standard Specification as defined by Philips.

Zarlink, ZL and the Zarlink Semiconductor logo are trademarks of Zarlink Semiconductor Inc.

Copyright Zarlink Semiconductor Inc. All Rights Reserved.

TECHNICAL DOCUMENTATION - NOT FOR RESALE