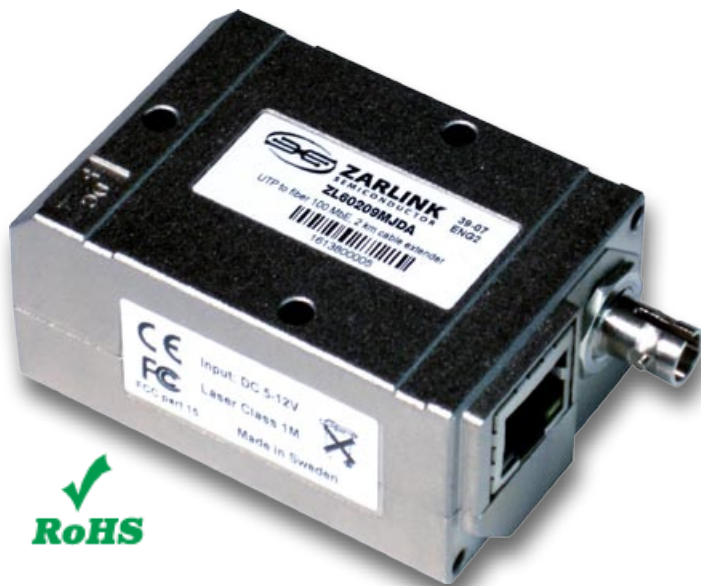


## PRODUCT PREVIEW

The ZL60209 is a control room UTP-to-Fiber converter for IP video surveillance camera systems. The fully integrated device is designed for direct connection between 10/100Base-TX STP/UTP (Fast Ethernet on shielded/unshielded twisted-pair copper cables) over 100 Mbps single-stranded fiber to extend network reach by up to two kilometers.

Based on Zarlink's world-class family of high-performance VCSELs and PINs, the ZL60209 link module has been optimized to deliver excellent optical coupling efficiency in combination with high bandwidth operation and reliability.

The optical component of the module uses dichroic beam splitters for maximum power budget and minimum crosstalk. Minimum internal crosstalk is achieved by the use of wavelength-selective detectors.



### UTP Copper Cable to Multi-Mode Fiber Applications

- ➔ Remote IP surveillance cameras
- ➔ Remote IP encoders (analog aggregation)
- ➔ Remote wireless access points/routers
- ➔ Switch to switch interconnects
- ➔ Computer to switch interconnect
- ➔ Remote Ethernet switches (IP cameras)

### Plug-and-Play Security

- ➔ Fast install, operates automatically after power is applied
- ➔ Single-stranded, multi-mode fiber saves fiber cost and reduces fiber termination installation time
- ➔ Ruggedized design for industrial applications
- ➔ Provides multiple mounting options
  - Screws
  - Rack (fully populated ZL60214)
  - Velcro
  - Straps
  - Wall mount (ZL60210)
- ➔ Die cast housing for low EMI
- ➔ Ultra-compact size (41.5 x 61.5 x 28.3 mm) enables fiber links in space-constrained cable channels
- ➔ External AC/DC, 5 V to 12 VDC
- ➔ Low supply current required, 120 mA (12 VDC) or 300 mA (5 VDC)
- ➔ Operating ambient temperature 0 °C to 70 °C
- ➔ Ports
  - RJ-45 UTP copper 100Base-TX
  - Fiber optic ST-connector for full-duplex 100 Mbps traffic over single-stranded fiber
- ➔ Automatic MDI/MDI-X selection on RJ-45 port
- ➔ Link Fault Signaling (LFS)
- ➔ 10/100 MbE auto-negotiation
- ➔ Fully LAN transparent operation
- ➔ FCC Part 15, Class A, CE mark
- ➔ Eye Safety, 60825, Class 1M
- ➔ RoHS 2002/95/EC Compliant
- ➔ LEDs for link and activity (RJ-45)
- ➔ Multi-mode fiber (2 km)
  - 50/125 μm
  - 62.5/125 μm
- ➔ Copper: Cat 5 UTP cable (100 m)

# ZL60209 100 MbE CONTROL ROOM UTP-TO-FIBER CONVERTER

## APPLICATION

### Modular Control Room Expansion

Zarlink's Video IP Surveillance (VIPs) control room and camera-side devices extend the reach, simplify installation and support the easy expansion of IP video surveillance systems. The copper to multi-mode fiber media converters support a direct, Fast Ethernet 100 Mbps fiber connection between remote cameras and control room equipment.

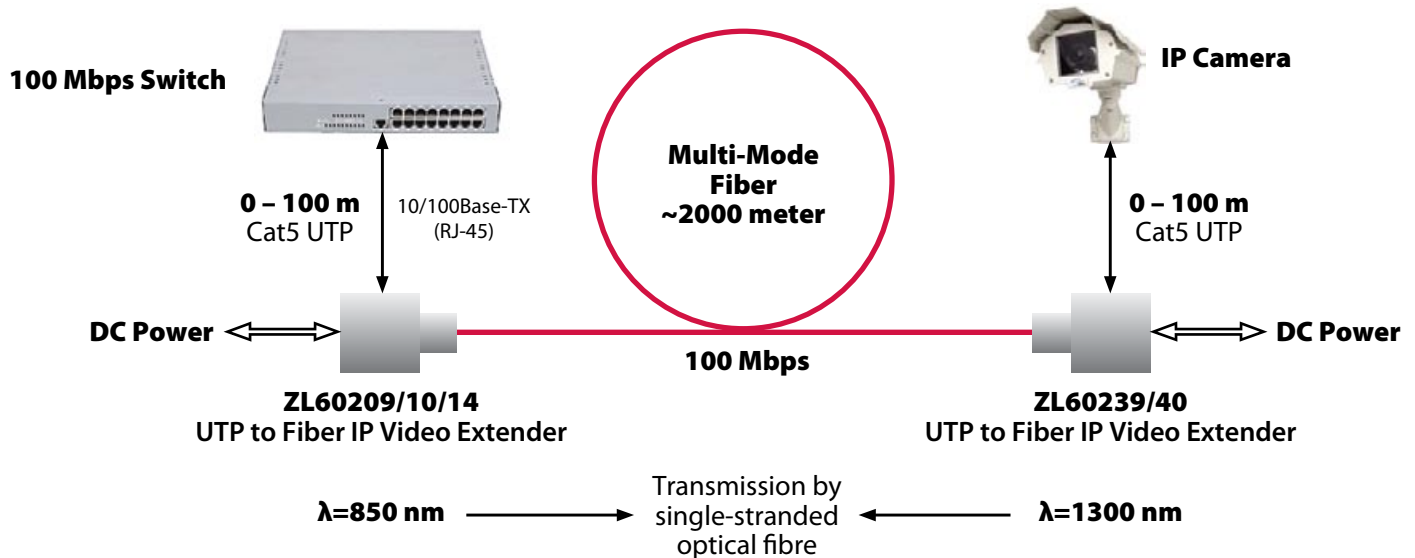
The ZL60209 VIPs control room module supports additional fibers from new IP camera video streams to allow easy expansion of existing surveillance systems. The compact, plug-and-play solution requires no configuration and is completely transparent to the connected camera and control room equipment.

The related ZL60210 VIPs control room module supports multiple mounting options for more complex systems. For higher density installations where space is at a premium, the ZL60214 is a fully populated 19-inch rack integrating 14 VIPs control

room modules. With these control room devices, end-customers can easily add individual converter modules as required to support additional camera fibers.



### Typical IP Video Surveillance Solution



### Specification Overview

Operating Ambient Temperature: 0°C to + 70°C  
Storage Temperature: -40°C to + 125°C  
Ambient Relative Humidity: 5% to 85%  
Power Source: 5 - 12 V DC  
Supply Current (at 5 V DC): 300 mA (typical)  
Supply Current (at 12 V DC): 120 mA (typical)  
Enclosure material: Die cast metal  
Module size: 41.5 x 61.5 x 28.3 mm (W x D x H)  
Optical Link budget: 10 dB, 62.5/125 μm multi-mode fiber

Data rate: 100 Mbps  
Auto-negotiation (IEEE 802.3u) support on RJ-45 port  
Link Pass-through on fiber and RJ-45 port  
Far End Fault enabled (IEEE 802.3u)  
Fully LAN Transparent Physical layer product  
LEDs link (green) and receive data active (yellow)  
FCC Part 15, Class A, CE mark, Laser Class 1M  
Connectors: 100Base-TX RJ-45, ST multi-mode connector  
Optical wavelength multiplex: Tx: 850 nm, Rx: 1320 nm

Information relating to products and services furnished herein by Zarlink Semiconductor Inc. or its subsidiaries is believed to be reliable. The products, their specifications, services and other information appearing in this publication are subject to change by Zarlink without notice.

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

© 2007, Zarlink Semiconductor Inc. All Rights Reserved. Publication Number 7ZS283



[www.ZARLINK.com](http://www.ZARLINK.com)