



3.3V/5V, 25-MBd Digital CMOS Optocoupler

Typical Applications

- **Digital fieldbus isolation:**
- **CC-Link**
- **DeviceNet**
- **Profibus**
- **SDS**
- **Multiplexed data transmission**
- **General instrument and data acquisition**
- **Computer peripheral interface**
- **Microprocessor system interface**

Optical isolation, via an optocoupler, is a key component of any complex, data-driven system. As a leading innovator in breakthrough products for the isolation market, Avago Technologies is offering ACPL-072L/772L, the industry's fastest 3.3-V optocoupler with built-in internal level shifter that allows dual-voltage operation of either 3.3V or 5 V.

The ACPL-072L/772L optocoupler consists of basic building blocks which include a CMOS LED driver IC, high-speed LED and CMOS detector IC. It accepts voltage input that is compatible with CMOS and TTL logic levels and output totem pole logic. As a result, the need for external input limiting resistors and output pull up resistors is eliminated.

The ACPL-072L/772L optocoupler utilizes the latest CMOS IC technology to achieve outstanding speed (minimum 25 MBd data rate, maximum 6ns Pulse Width Distortion) and low power consumption. Operating at a wide temperature range of -40°C to +105°C, it satisfies the needs of higher temperature, lower power supply and higher speed performance with reinforced isolation protection. The ACPL-072L/772L optocoupler is available in a SO-8/DIP-8 package.

Key Features/Benefits

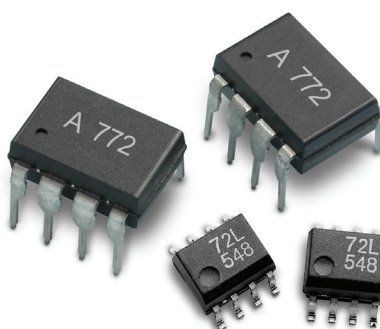
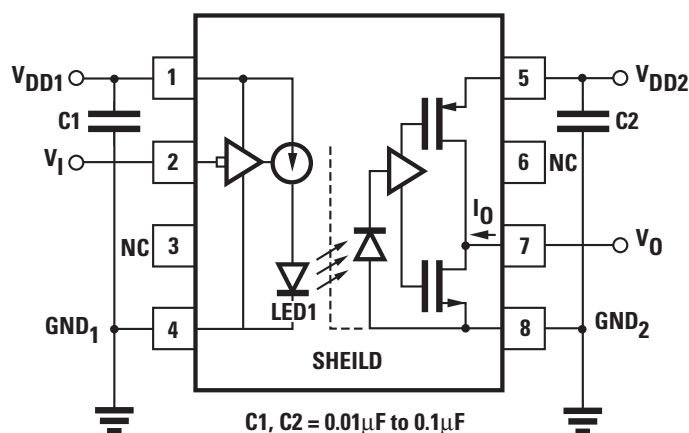
- 3.3V/5V, dual-supply voltage with internal level shifter; eliminates the need for additional power supply
- CMOS and TTL compatible voltage input and totem pole output allows ease of use.
- High data rate
 - 25 MBd guaranteed, the fastest 3.3-V optocoupler in the market
 - 6ns PWD, maximum
 - 40 ns prop. delay, maximum
 - 20 ns prop. delay skew, maximum
- Wide temperature range
 - 40°C to +105°C temperature range, suitable
- High common mode rejection
 - 10-kV/ μ s (min) common mode transient immunity at VCM=1000 V
- Pending safety and regulatory approvals
 - UL1577, 3750 Vrms/1 min for ACPL-072L
 - UL1577, 5000 Vrms/1 min for ACPL-772L
 - CSA component acceptance notice #5
 - IEC/EN/DIN EN 60747-5-2, Viorm=560 Vpeak for option 060

Product Selection

Avago Technologies Part Number	Product Description
ACPL-072L	3.3V/5V, 25-MBd, 6ns PWD, 8-pin Small Outline
ACPL-772L	3.3V/5V, 25-MBd, 6ns PWD, 8-pin DIP

e-samples: Available

ACPL-072L/772L Functional Block Diagram



To find out more visit

www.avagotech.com/optocouplers