Opto-Electronic Contacts

- Fast and Gigabit Ethernet, DVI, HDMI video capable transmitter and receiver-equipped contacts
- ARINC 664, 801, 803, 804 and 818 standard compliant
- Link distances up to 500 meters, multimode
- Single, 3.3 V power supply
- Wave-solderable termination with RoHS-compliant solders

Transmit (Tx) and Receive (Rx) Opto-Electronic contacts for use in ARINC 600 and other size #8 cavity equipped connectors

Current offerings include 1.25mm ARINC 801 and 2.5mm ELIO® solutions

Size 8 Opto-electronic contacts transmit and receive differential CML electrical signals over Multimode fiber optic cable. Transmitters consist of a laser driver with a temperature compensation circuit to maintain optical power over the entire operating temperature range, and a 850nm VCSEL laser. Receivers consist of an 850nm PIN Photo Detector, a Transimpedance Amplifier with automatic gain control circuit, and a Limiting Amplifier. Differential output data signals are CML compatible. The transmitter has a Tx Disable pin to turn off transmitter output and a Tx Fault pin to signal a fault condition. Receiver includes a CMOS compatible Loss of Signal Indicator to prevent invalid data.

Size 8 Opto-electronic contacts transmit and receive differential CML electrical signals over Multimode fiber optic cable. Transmitters consist of a laser driver with a temperature compensation circuit to maintain optical power over the entire operating temperature range, and a 805nm VCSEL laser. Receivers consist of an 805nm PIN Photo Detector, a Transimpedance Amplifier with automatic gain control circuit, and a Limiting Amplifier. Differential output data signals are CML compatible. The transmitter has a Tx Disable pin to turn off transmitter output and a Tx Fault pin to signal a fault condition. Receiver includes a CMOS compatible Loss of Signal Indicator to prevent invalid data.

Size 8 Opto-electronic contacts transmit and receive differential CML electrical signals over Multimode fiber optic cable. Transmitters consist of a laser driver with a temperature compensation circuit to maintain optical power over the entire operating temperature range, and a 850nm VCSEL laser. Receivers consist of an 850nm PIN Photo Detector, a Transimpedance Amplifier with automatic gain control circuit, and a Limiting Amplifier. Differential output data signals are CML compatible. The transmitter has a Tx Disable pin to turn off transmitter output and a Tx Fault pin to signal a fault condition. Receiver includes a CMOS compatible Loss of Signal Indicator to prevent invalid data.

The evaluation board is designed as an interface to allow evaluation of the size 8 transmitters or receivers. Devices are powered through the 3.3V and GND connections. For the transmitter fault pin can be monitored and the transmitter disable can be controlled via an external voltage supply. For the receiver, loss of signal (LOS) state can be monitored.

Opto-Electronic Contact Evaluation Board

Opto-Electronic Series

- 050-301: Single link, 1.25 Gbps, 2.50 Gbps, 4.25 Gbps
- 050-307: Single link, 1.25 Gbps, 2.50 Gbps, 4.25 Gbps
- 050-308: Single link, 1.25 Gbps, 2.50 Gbps, 4.25 Gbps

Test configuration options:
- Transmitter only
- Receiver only, and
- Both transmitter and receiver either in a single link or two separate links.