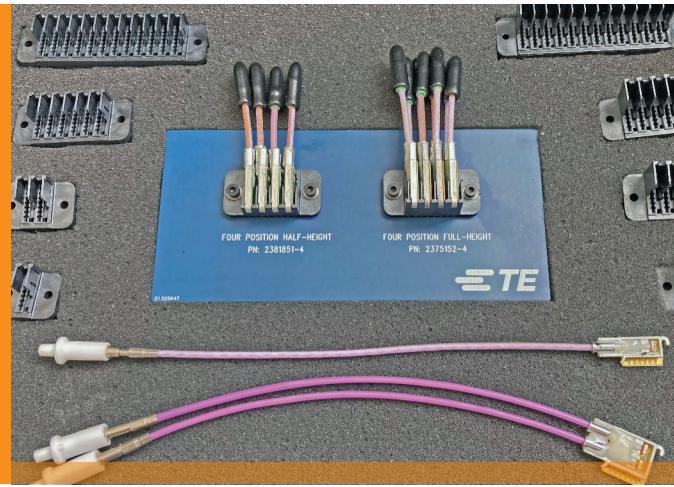
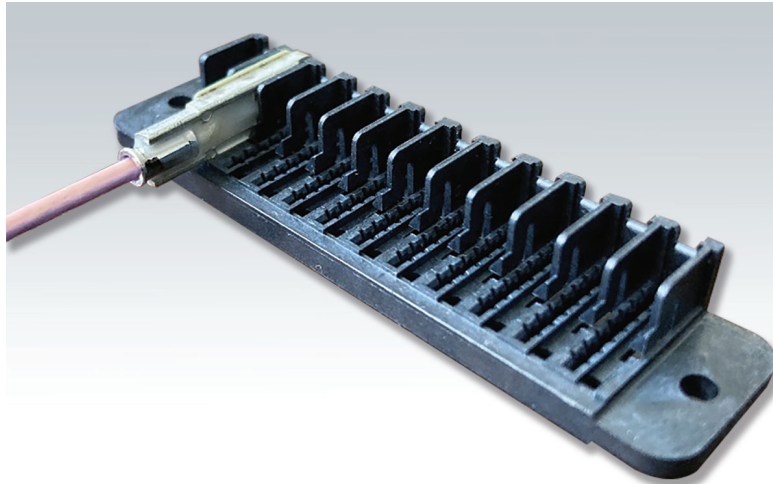


## MULTIGIG RT FIBER OPTICS MID-BOARD TRANSCEIVER PLATFORM

### 850 nm MULTIMODE

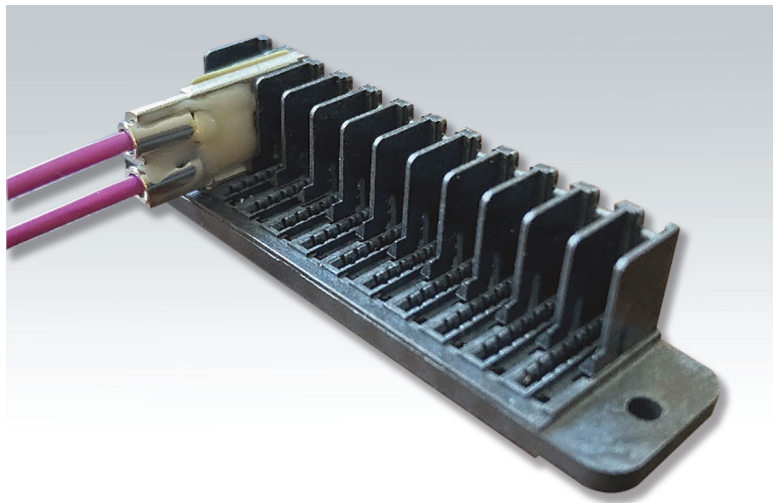


TE Connectivity (TE)'s MULTIGIG RT Fiber Optics (FO) is a unique, modular and highly customizable optical transceiver platform that allows customers to place these critical fiber optics transceivers in the most logical location from a customer system perspective.



Coupled with TE's extensive rugged optical fiber connector and harnessing capabilities, TE can offer tailored end-to-end solutions to our customer, including the active and passive link elements.

MULTIGIG RT FO mid-board transceiver leverages the TE Light Engine Platform (LEP), which is a modular platform of up to 12 **Chiclet-Based Optical Transceivers (CBOT)** transceivers capable of transmitting and receiving up to 10 Gbps each.



The electrical interface is provided through TE's MULTIGIG RT press fit pin PCB interface. Each duplex pigtailed transceiver occupies one position in the press fit housing and can be individually removed for replacement in case of damaged cables, without having to remove and replace the entire module. Alternatively customers can install larger housings and populate empty positions for future expansions or upgrades.

A wide range of TE optical termini are available for the OM3 and OM4 based fiber pigtailed. Single mode versions are planned in the future.

Also, the individual duplex blades can be a range of functional combinations, Dual Tx, Dual Rx, TRx, and, on the simplex option, a Tx or Rx. These can be combined in varying counts in an individual full height and half height housing, respectively.

The high-speed inputs are DC-coupled to a floating input termination. The laser driver converts the signal to the VCSEL drive current. The very efficient optical coupling offered by the LEP technology enhances the low power consumption of each transceiver blade. On the Rx side, the incoming optical signal is converted to a current by the PIN diode. The transimpedance amplifier converts the current to a voltage which is then limited by an amplifier. The output stage is current-mode-logic (CML) and provides 50 ohm back-terminations.

## FEATURES AND BENEFITS

- Differential, DC-coupled data I/Os
- Modular, individually add, remove, replace single transceiver blades
- IEEE 10GBase-SR compliant for 10G variants
- Low Speed 4.25G 4xFC compatible variant
- Wavelength of operation at 850 nm (VCSEL and PIN PD)
- Low power dissipation, less than 130 mW per transceiver at 10.3125G
- Supports a wide variety of rugged industry standard fiber optic termini and cables
- Up to 12 positions; duplex or single fiber pigtail
- Operating temperature range from -40°C to +85°C
- Dual Tx, Dual Rx, and TRx blade options for full height, duplex pigtail
- Tx and RX options for half height, simplex pigtail
- Leverages TE MULTIGIG RT high speed press fit PCB attachment

## TARGET MARKETS

- Commercial Aerospace
- Military Aerospace
- Missile Defense
- Marine
- eVTOL
- Space



## APPLICATIONS

- High-speed interconnects within and between switches, routers and transport equipment
- Interconnects rack-to-rack, shelf-to-shelf, board-to-board, board-to-optical backplane
- Ethernet applications
- InfiniBand applications
- ARINC 818 applications
- IFE servers and end points

*For more information on specific product offerings, technical information, availability and customization, please contact your TE Application Engineer or Account Manager*