



# SLIVER INTERNAL CABLED INTERCONNECT SOLUTION

## Connectors and Cable Assemblies

Due to the latest high speed demands in networking equipment TE Connectivity (TE) has developed the new Sliver internal cabled interconnect which provides one of the most flexible solutions in the market for making internal I/O connections on the board. Sliver products can be used across many applications, data rates and protocols (PCI Express, SAS, Ethernet).

With a 0.6mm contact pitch, Sliver products are super slim, allowing you to fit more inside the box. TE provides a highly robust metal housing design on the connector cage with an active latch providing additional connection security.

This new technology simplifies design and helps lower overall costs by eliminating the need for re-timers and more costly lower-loss PCB materials while reaching speeds up to 25 Gbps with the use of TE high speed cable.

### Applications

- Data center & Networking Equipment
  - Servers
  - Switches
  - Routers
  - High Performance Computing (HPC)
  - Storage Devices
  - Wireless Base Stations and Radios
- Internal Cabled Solution Options
  - Chip to Chip
  - Chip to I/O
  - Chip to Backplane
  - Board to Board
  - PCB Card Edge (BTB) solutions
  - Supports Ethernet, PCIe, SAS, SATA, InfiniBand, and other custom protocols

# Sliver Internal Cabled Interconnect Solution

## Ultimate flexibility in applications, data rates and protocols

Vertical and right angle connector and cable solutions provide a flexible solution set in addition to allowing for both cabled and card-edge interconnect designs.

With a flexible pinout arrangement, multiple mounting and mating options, and the support of present and future data rate protocols, the Sliver interconnect solution provides a variety of configuration options to address your application needs.

## Free up design space

The 0.6mm contact pitch is up to 30% denser than most existing solutions, allowing you to fit more inside the box.

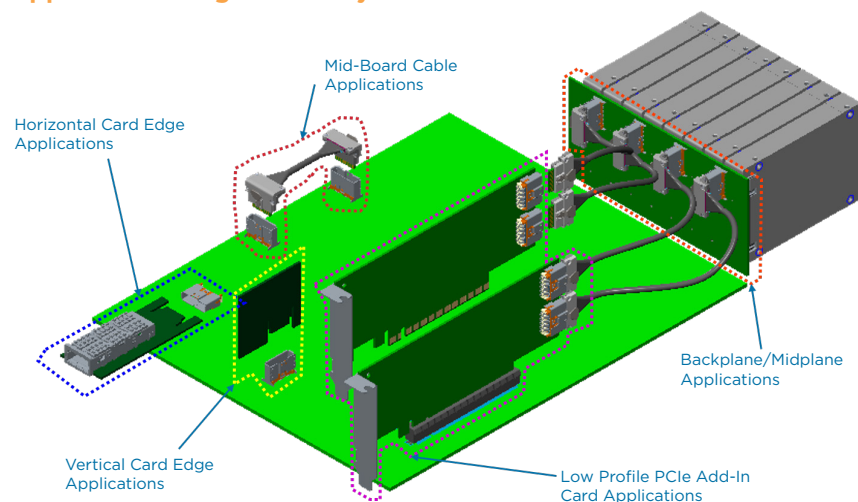
## Reliable connections

The Sliver interconnect solution provides a robust connector housing design while an active latch provides additional connection security for data critical applications.

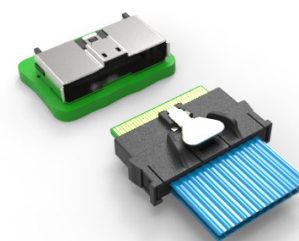
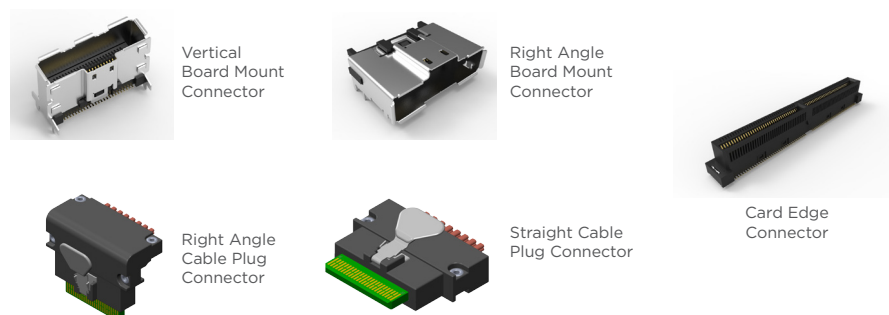
## Lower design costs

Sliver connector and cable assemblies can lower overall costs by eliminating the need for re-timers and more costly lower loss PCB materials.

## Application design flexibility



TE's Sliver interconnect solution consists of:



## Key Features

- 0.6mm pitch SMT connector design includes robust metal housing
- 12G and 25G high speed, low-loss 33AWG cable
- Vertical and right angle configurations with active latch
- Supports 85 and 100 ohm impedance applications
- Flexible pinout arrangement allows for mix of differential signal pairs and low speed single-ended sidebands
- Flexible mounting and mating arrangements:
  - Cabled interconnects
  - Card edge interconnects
  - Vertical to right-angle, vertical to straight, right-angle to right-angle, and right-angle to straight receptacle-to-plug mating
- Developing the platform to be scalable in x4 Tx/Rx lane increments:
  - x4 (26pin), x8 (50pin), x12 (74pin), x16 (100pin), x20 (124pin), x24 (148pin)
- Supports present and future bandwidth needs without requiring requalification and redesign

## Sliver Internal Cabled Interconnect Solution

### Part Number Details

#### Connectors

| Part Description                 | TE Part Numbers           |                           |                           |
|----------------------------------|---------------------------|---------------------------|---------------------------|
|                                  | 50 Position               | 74 Position               | 124 Position              |
| Vertical PCB Connector           | <a href="#">2292096-1</a> | <a href="#">2291316-1</a> | TBD                       |
| Right Angle PCB Connector        | <a href="#">2292055-1</a> | <a href="#">2292069-1</a> | <a href="#">2294190-3</a> |
| <b>148 Position</b>              |                           |                           |                           |
| Vertical PCB Card Edge Connector | <a href="#">2297117-2</a> |                           |                           |

#### Cable Assemblies

| Part Description            | Data Rate | Impedance | Bulk Cable     | TE Part Numbers           |                           |                           |                           |
|-----------------------------|-----------|-----------|----------------|---------------------------|---------------------------|---------------------------|---------------------------|
|                             |           |           |                | 50 Position               |                           | 74 Position               |                           |
|                             |           |           |                | 0.5 Meter                 | 1 Meter                   | 0.5 Meter                 | 1 Meter                   |
| Straight Cable Plug         | 25G       | 85        | Discrete pairs | <a href="#">2821742-1</a> | <a href="#">2821742-2</a> | <a href="#">2821376-1</a> | <a href="#">2821376-2</a> |
| Right Angle Plug            | 25G       | 85        | Discrete pairs | <a href="#">2821743-1</a> | <a href="#">2821743-2</a> | <a href="#">2821745-1</a> | <a href="#">2821745-2</a> |
| Straight-Right Angle Plugs  | 25G       | 85        | Discrete pairs | <a href="#">2821744-1</a> | <a href="#">2821744-2</a> | <a href="#">2821746-1</a> | <a href="#">2821746-2</a> |
| Straight Cable Plug         | 25G       | 100       | Discrete pairs | <a href="#">2821750-1</a> | <a href="#">2821750-2</a> | <a href="#">2821756-1</a> | <a href="#">2821756-2</a> |
| Right Angle Plug            | 25G       | 100       | Discrete pairs | <a href="#">2821751-1</a> | <a href="#">2821751-2</a> | <a href="#">2821757-1</a> | <a href="#">2821757-2</a> |
| Straight-Right Angle Plugs  | 25G       | 100       | Discrete pairs | <a href="#">2821752-1</a> | <a href="#">2821752-2</a> | <a href="#">2821758-1</a> | <a href="#">2821758-2</a> |
| Straight Cable Plug         | 12G       | 85        | Ribbon         | <a href="#">2820397-1</a> | <a href="#">2820397-2</a> | <a href="#">2820396-1</a> | <a href="#">2820396-2</a> |
| Right Angle Plug            | 12G       | 85        | Ribbon         | <a href="#">2820399-1</a> | <a href="#">2820399-2</a> | <a href="#">2821385-1</a> | <a href="#">2821385-2</a> |
| Straight-Right Angle Plugs* | 12G       | 85        | Ribbon         | <a href="#">2821638-1</a> | <a href="#">2821638-2</a> | <a href="#">2821639-1</a> | <a href="#">2821639-2</a> |
| Straight Cable Plug         | 12G       | 100       | Ribbon         | <a href="#">2821747-1</a> | <a href="#">2821747-2</a> | <a href="#">2821753-1</a> | <a href="#">2821753-2</a> |
| Right Angle Plug            | 12G       | 100       | Ribbon         | <a href="#">2821748-1</a> | <a href="#">2821748-2</a> | <a href="#">2821754-1</a> | <a href="#">2821754-2</a> |
| Straight-Right Angle Plugs  | 12G       | 100       | Ribbon         | <a href="#">2821749-1</a> | <a href="#">2821749-2</a> | <a href="#">2821755-1</a> | <a href="#">2821755-2</a> |

\*Discrete pairs are optional for 12G platform

Contact your TE representative about customer cable assembly configurations.

### TE Technical Support Center

|                   |                    |
|-------------------|--------------------|
| USA:              | 1.800.522.6752     |
| Canada:           | 1.905.475.6222     |
| Mexico:           | 52.0.55.1106.0800  |
| Latin/S. America: | 54.0.11.4733.2200  |
| Germany:          | 49.0.6251.133.1999 |
| UK:               | 44.0.800.267666    |
| France:           | 33.0.1.3420.8686   |
| Netherlands:      | 31.0.73.6246.999   |
| China:            | 86.0.400.820.6015  |

### te.com

TE Connectivity, TE, and TE Connectivity (logo) are trademarks of the TE Connectivity Ltd. family of companies. All other logos, products and/or company names referred to herein might be trademarks of their respective owners.

The information given herein, including drawings, illustrations and schematics which are intended for illustration purposes only, is believed to be reliable. However, TE Connectivity makes no warranties as to its accuracy or completeness and disclaims any liability in connection with its use. TE Connectivity's obligations shall only be as set forth in TE Connectivity's Standard Terms and Conditions of Sale for this product and in no case will TE Connectivity be liable for any incidental, indirect or consequential damages arising out of the sale, resale, use or misuse of the product. Users of TE Connectivity products should make their own evaluation to determine the suitability of each such product for the specific application.

©2017 TE Connectivity Ltd. family of companies. All Rights Reserved.

1-1773871-5 05/17 DND