COMPUTER-ON-MODULE (COM) BOARD-TO-BOARD CONNECTOR SOLUTIONS
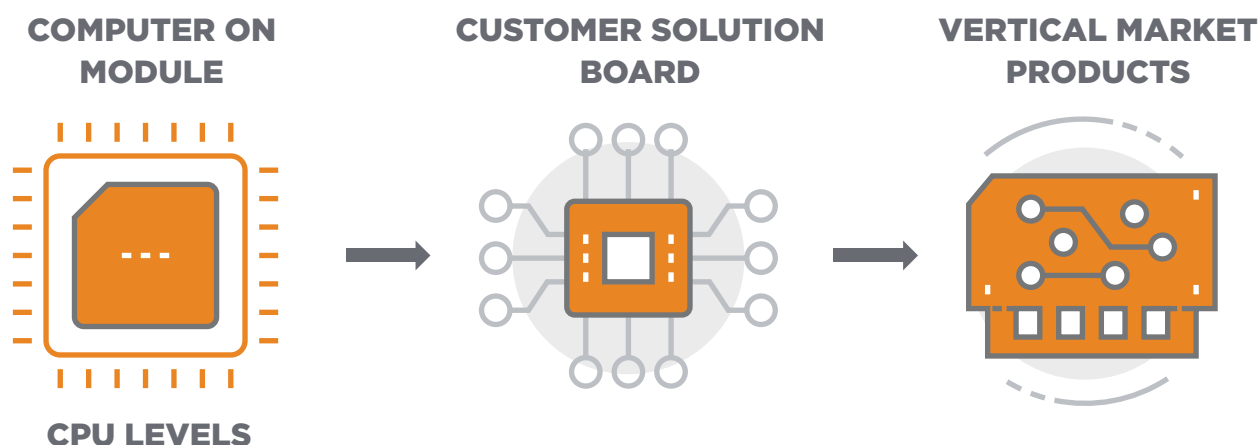
HIGH-SPEED VERTICAL PARALLEL BOARD-TO-BOARD CONNECTORS WITH EXCELLENT MECHANICAL AND SIGNAL INTEGRITY PERFORMANCE

0.5mm centerline connectors can offer up to 16 giga transmission per second (GT/s) in flexible stacking heights to address COM Express Type 7 connections between COM and solution boards.
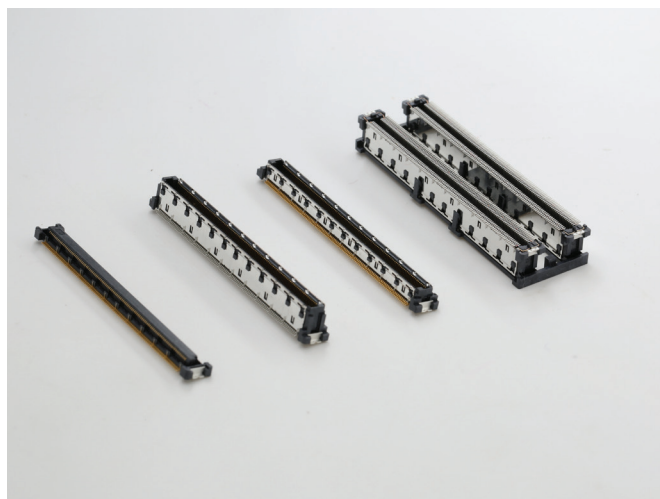
COMPUTER-ON-MODULE & COM EXPRESS

COMs are widely-used modular CPU boards that feature high integration, quick design, easy installation and maintenance and facilitate smooth upgrades. They are ready-to-use, application-agnostic embedded platforms that can accelerate end product's time-to-market in a cost-effective way.

COM Express is a PCI Industrial Computer Manufacturers Group (PICMG) standard for COMs, which provides next generation performance for the smallest state-of-the-art embedded modules in diverse applications from high-end systems and harsh environments. It is designed for the latest chip sets and serial signaling protocols, including PCI Express Gen 3, 10GbE, SATA, USB 3.0, and high resolution video interfaces.

COMPUTER ON MODULE

CPU LEVELS

CUSTOMER SOLUTION BOARD

VERTICAL MARKET PRODUCTS
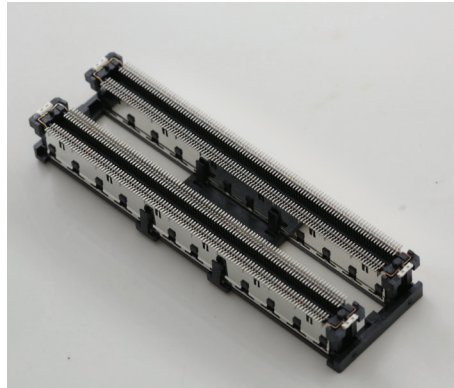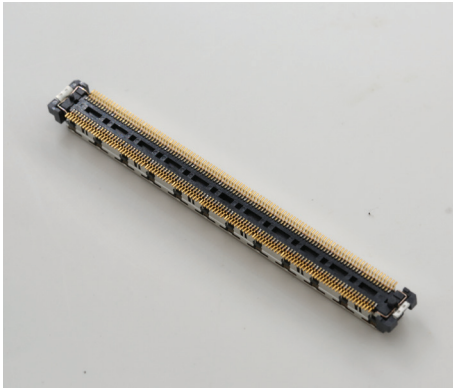

COM CONNECTORS FROM TE CONNECTIVITY (TE)

0.5mm 16G free height COM connectors

- Two-piece connectors in 0.5mm centerline, designed for use in vertical parallel stacking board-to-board applications

- Includes solution board (carrier board) mount receptacles and plugs on COMs

- Connection solutions come in various combinations of plug and receptacle height and can provide design flexibility with the ability to vary the spacing between parallel boards

- New generations can support up to 16 GT/s connections

NEW GENERATION – 16 GT/S

New contact design can economically enable better performance: higher speed, improved mechanical and signal integrity performance

Product Specification

- Data rate: 16 GT/s

- Pitch: 0.5mm double-row contact

- Positions: 220, 440

- Stacking height: 5mm, 8mm

- Impedance: 85 Ohm

- PCB termination: Surface mount (SMT)

- Temperature range: -45°C to 125°C

- Vertical mating configuration

- Various plating options available

Key Features & Benefits

Faster data speed

- Up to 16 GT/s

- Compatible with most PCIe Gen 4 applications

Better SI performance

- New contact design can enable better signal integrity performance compared to our previous generation products

Easier installation in operation

- Improved mechanical design can reduce mating and unmating force by 30% compared to our previous generation products

Economic upgrade solution

- Same footprint as COM Express standard interconnect. Commonly there is no need to change PCB footprints when upgrading applications

System flexibility with multiple configuration options

- 5mm and 8mm stacking heights

- 220 and 440 position options

NEW GENERATION – 16 GT/S

Target Applications

- COM designs

- Other applications where vertical parallel board-to-board connections are needed, for example:

  - Embedding modules

  - Customized carrier/ PC/control boardS

Primary Industries

- Industrial Machinery & Equipment

- Test & Measurement Equipment

- Aerospace & Defense

- Computer Equipment & Peripherals

- Medical Devices & Equipment

- Telecommunication Equipment

- Security Products

16 GT/s Parts

	TE Part Number	Position	Plating	Cap	Package
5mm Plug	2357787-1	220	8u"	No	Hard Tray
	2357787-3	220	8u"	Yes	Tape & Reel
	2357787-4	220	8u"	No	Tape & Reel
	2369316-1	440	8u"	Yes	Hard Tray
8mm Plug	2357798-1	220	8u"	No	Hard Tray
	2357798-2	220	8u"	Yes	Hard Tray
	2357798-3	220	8u"	Yes	Tape & Reel
	2357798-4	220	8u"	No	Tape & Reel
	2369317-1	440	8u"	Yes	Hard Tray
4mm Receptacle	2357739-1	220	8u"	No	Hard Tray
	2357739-2	220	8u"	Yes	Hard Tray
	2357739-3	220	8u"	Yes	Tape & Reel
	2369315-1	440	8u"	Yes	Hard Tray

LEGACY 8GT/S PARTS

	TE Part Number	Position	Plating	Cap	Package
5mm Plug	3-1827253-6	220	8u"	No	Hard Tray
	4-1827253-8	220	8u"	Yes	Tape & Reel
	4-1827253-6	220	8u"	No	Tape & Reel
	9-1827253-6	220	30u"	No	Hard Tray
	9-1827253-9	220	30u"	Yes	Tape & Reel
	3-1827233-6	440	8u"	Yes	Hard Tray
8mm Plug	3-6318491-6	220	8u"	No	Hard Tray
	9-6318491-6	220	8u"	Yes	Hard Tray
	8-6318491-6	220	8u"	No	Hard Tray
	9-1939756-6	220	30u"	Yes	Hard Tray
	3-1939756-6	220	30u"	No	Hard Tray
	3-2040713-6	220	30u"	Yes	Tape & Reel
	3-5353652-6	440	8u"	Yes	Hard Tray
	3-5353652-7	440	8u"	Yes	Hard Tray*
4mm Receptacle	3-6318490-6	220	8u"	No	Hard Tray
	3-2040714-7	220	8u"	Yes	Tape & Reel
	6-5353606-6	220	8u"	Yes	Hard Tray
	3-1939755-6	220	30u"	No	Hard Tray
	3-1827231-6	440	8u"	Yes	Hard Tray

* Slim tray

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