







# **USB INTERCONNECTS**

#### Quick Reference Guide

TE Connectivity (TE) is a standing member of the USB-IF (USB Implementers Forum) and offers a wide range of products to meet your interconnect needs. Our products accommodate the two differentially driven data wires that provide bi-directional, simultaneous signals for USB 4 Gen 3 (40 Gbps), USB Type-C (20Gbps) USB 3.0 (5 Gbps), USB 2.0 (480 Mbps) and USB 1 (1.5 & 12 Mbps). TE has a wide variety of USB offerings including: standard (A & B), mini (A, A/B, B) B, and micro (A/B and B) sizes, Type-C. We also offer locking versions of its standard USB as well as latching versions of its standard and micro USB while also providing faster, reliable, rugged solutions for next-generation applications with waterproof and splash proof capabilities.

#### FEATURES AND BENEFITS

- · Complete family of board mount receptacles, including various orientations and PCB mounting styles
- Consolidates serial parallel, keyboards, mice and game ports
- Compatible with asynchronous and isochronous data transfer methods
- Polarized for proper orientation
- Plug and Play capability
- · Hot pluggable, permitting attaching or detaching peripherals without power down or reboot
- · Allows for charging

#### PRODUCT APPLICATIONS













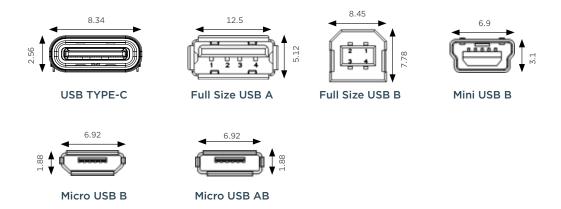








### **Product Sizes**



# FULL SIZE USB: Series A Receptacles











Part Number	Orientation	Board Mount	Housing Color	USB 2.0 Compliance	No. of Ports	Description
292303-1	Right Angle	Through Hole	Black	-	1	Solder tail length 2.84 mm/Kinked legs
292303-2	Right Angle	Through Hole	Black	-	1	Solder tail length 2.29 mm/Kinked legs
292303-4	Right Angle	Through Hole	Black	-	1	Solder tail length 2.84 mm/Kinked legs/ High temperature compatible
292303-5	Right Angle	Through Hole	White	-	1	Solder tail length 2.84 mm/Kinked legs
292303-6	Right Angle	Through Hole	Black	-	1	Solder tail length 2.29 mm/Kinked legs/ High temperature compatible
5353929-1	Right Angle	Surface Mount	White	60000276	1	-
292303-7	Right Angle	Surface Mount	White	-	1	T/H solder legs
292303-9	Right Angle	Surface Mount	White	-	1	High temperature surface mount hold down tab
1734366-1	Vertical	Through Hole	Black	60000042	1	-
292336-1	Flag	Through Hole	Black	60000047	1	-
5787617-1	Right Angle	Through Hole	Black	60000044	2	Solder tail length 2.84 mm/Kinked legs
5787617-4	Right Angle	Through Hole	Black	-	2	Solder tail length 2.84 mm/Kinked legs
5787745-1	Right Angle	Through Hole	Black	60000046	2	Solder tail length 2.84 mm/Kinked legs/ With panel ground
5787745-2	Right Angle	Through Hole	Black	-	2	Solder tail length 2.29 mm/Kinked legs/ With panel ground
5787745-4	Right Angle	Through Hole	Black	-	2	Solder tail length 2.84 mm/Kinked legs/ With panel ground
6116151	Right Angle	Through Hole	Black	-	2(USB) 1(RJ45)	-1 No LEDs, -2 With LEDs

## FULL SIZE USB: Series A Plug Kit



Part Number	Orientation	Board Mount	Housing Color	No. of Ports
1734372-1	Vertical	Solder Tabs	Black	1

## FULL SIZE USB: Locking



Part Number	Orientation	Board Mount	Gender	Housing Color	No. of Ports
1775690-2	Vertical	Through Hole	Receptacle	Black	1

## FULL SIZE USB: Latching



Part Number	Orientation	Board Mount	Gender	Housing Color	No. of Ports	Description
2040305-1	Vertical	Solder Tabs	Plug Kit	Black	1	Integrated Latches
2013798-1	Vertical	Solder Tabs	Plug Kits	Black	1	Mass Production

## FULL SIZE USB: Series B Receptacles





Part Number	Orientation	Board Mount	Housing Color	USB 2.0 Compliance	No. of Ports	Description
292304-1	Right Angle	Through Hole	Black	60001134	1	Shell plating : Bright tin over nickel
292304-2	Right Angle	Through Hole	White	-	1	-
292317-4	Right Angle	Through Hole	Black	-	1	Shell plating : Nickel, matte tin on tails
1734346-1	Right Angle	Surface Mount	Black	-	1	-
1734346-4	Right Angle	Surface Mount	White	-	1	-
5787834-1	Vertical	Through Hole	Black	60000281	1	-
5788336-1	Vertical	Through Hole	Black	-	1	-
1734517-1	Vertical	Surface Mount	Black	-	1	-

### MINI USB





Part Number	Orientation	Board Mount	Gender	Housing Color	USB 2.0 Compliance	No. of Ports	Description
1734035-1	Right Angle	Surface Mount	Receptacle	Black	62001202	1	Tray
1734035-2	Right Angle	Surface Mount	Receptacle	Black	60001202	1	Tape and Reel
1734753-1	Vertical	Through Hole	Receptacle	Black	-	-	-
1734205-1	Vertical	Solder Tabs	Plug Kit	Black	-	-	-

### MICRO USB





Series	Part Number	Orientation	Board Mount	Gender	Housing Color	No. of Ports
В	1981568-1	Right Angle	Surface Mount	Receptacle	Black	1
АВ	1981584-1	Right Angle	Surface Mount	Receptacle	Grey	-

### USB 3.0



Part Number	Orientation	Board Mount	Gender	Housing Color	No. of Ports	Description
1932258	Right Angle	Through Hole	Receptacle	Blue	1	Std, type A

#### **USB Type-C**











Part Number	Orientation	Board Mount	Gender	Housing Color	No. of Ports	Description
2305018-2	Right Angle	Тор	Receptacle	Black	1	USB Dual Row SMT, IPX8
2129691-1	Right Angle	Mid Mount	Receptacle	Black	1	USB Mid-Mount 0.485 Hybrid
2295018-2	Right Angle	Mid Mount	Receptacle	Black	1	Offset 0.65mm Dual Row SMT, Splash Proof
1-2295018-2	Right Angle	Mid Mount	Receptacle	Black	1	USB 3.1 Offset 0.65mm Dual Row SMT
2129691-2	Right Angle	Mid Mount	Receptacle	Black	1	USB 3.1 Mid-Mount 0.485 Hybrid
2338792-1	Right Angle	Тор	Receptacle	Black	1	USB 3.1 Receptacle Top Mount
2340901-1	Right Angle	Mid Mount	Receptacle	Black	1	USB 2.0 Mid-Mount
2345986-1	Right Angle	Тор	Receptacle	Black	1	USB 3.1 Top Mount Dual SMT
2337857-1	Vertical	Тор	Receptacle	Black	1	USB 3.1 Vertical
2345986-2	Right Angle	Тор	Receptacle	Black	1	USB 3.1 Top Mount Dual SMT
2345986-3	Right Angle	Тор	Receptacle	Black	1	USB 3.1 op Mount Dual SMT
2385692-1	Right Angle	Тор	Receptacle	Black	1	USB4 Surface Mount
2388749-1	Right Angle	Mid Mount	Receptacle	Black	1	USB4 Mid Mount

### Frequently asked questions

#### What is USB 4.0?

USB4 is the latest generation of USB specification which can meet transmission speeds of up to 40Gbps max providing significantly faster transfer speeds as compared to USB 3.0, 20Gbps and USB 2.0, 5Gbps. USB4 is compatible with USB 3.x/2.0 and Thunderbolt 3 and supports display functionality.

#### What is the difference between USB-A vs. USB-C?

Opening shape of USB-C is different from USB-A. USB-C is smaller with a reversible connector design that allows for easier connection. USB-A is bigger and has to mate right side up because of its rectangular, horizontal shape with the bottom portion dedicated to pin connectors. This creates a one-sided USB connection that only works when the connector is mated correctly. USB-C transmits faster data speeds up to 100W at 20V and USB-A has a maximum speed of 12Mbps (megabits per second)

#### Looking for an efficient interconnect with speeds up to 5 Gbps?

TE Connectivity's offering of USB 3.0 provides 5 Gbps data rates for 10x performance over USB 2.0. <u>View USB 3.0 Products.</u>

#### Is it possible to add a USB Type-C port to a USB 3.0 port?

USB 3.0 is a version of USB spec that defines data transmission speed, charging power etc. parameters. USB Type-C is a kind of USB connector structure type, that can perform multiple versions of USB spec. (e.g. USB-C (USB 2.0), USB-C (USB 3.1), USB-C (3.2)

### What types and options should be considered when designing for micro USB 2.0?

Learn more about micro USB versatility in this brief overview.

### What are the advantages of the micro USB connectors with integrated ESD protection?

There are several advantages: enhanced reliability due to the fact that the ESD impact is diverted at the connector; reduction of component count leads to board space saving, assembly cost, and also logistic cost of quality; integrated ESD protection provides engineers with design freedom to place the connector almost anywhere on the device; and reduced cross talk leads to optimized performance for USB 2.0 connectors (high speed beyond current 480 Mbps) View Micro USB Products.

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