



# Quick Reference Guide: USB Interconnects

Tyco Electronics, a standing member of the USB-IF (USB Implementers Forum), offers a wide range of products to meet your interconnect needs. Tyco Electronics offers products that accommodate the two differentially driven data wires that provide bi-directional, simultaneous signals for USB 2.0 (480 mbps) and USB 1 (1.5 & 12 mbps).

The wide variety of Tyco Electronics' USB offerings include: standard (A & B), mini B, and micro A/B and B sizes. Tyco Electronics also offers locking versions of its standard USB as well as latching versions of its standard and micro USB.

Tyco Electronics' USB system has applications in many I/O devices, including: desk and laptop computers; keyboards, mice and joysticks; printers and scanners; game ports, serial port devices, digital audio, modems and portable storage devices. Applications also include data exchange and charging capabilities for most handheld devices, such as: cell phones, GPS devices, and MP3 players.

Tyco Electronics' USB system consists of board mount receptacles and their mating cable mount, overmolded plugs. Board mount receptacles are available in numerous configurations, including: surface mount, through hole, flag, vertical, and multi-port, adding to the system's ability to meet USB applications.

## FEATURES AND BENEFITS

- Complete family of board mount receptacles, including various orientations and PCB mounting styles
- Cable mount overmold plug kits for all USB sizes and types
- 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

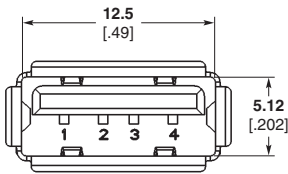
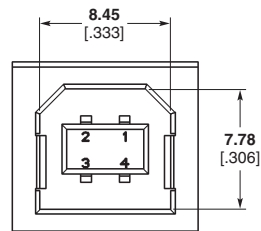
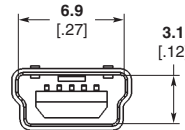
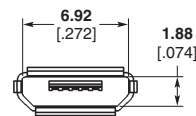
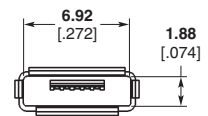
## PRODUCT APPLICATIONS

- Desktop and Laptop Computers
- Keyboards
- Mice
- Joysticks
- Printers
- Scanners
- Game Ports
- Digital Audio
- Modems
- Portable Storage Devices
- Cell Phones
- GPS Devices
- MP3 Players

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<http://www.tycoelectronics.com>

 **Tyco Electronics**  
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**Full Size USB A**

**Full Size USB B**

**Mini USB B**

**Micro USB B**

**Micro USB AB**



## 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         | 60001133           | 1                   | Solder Tail Length 2.84mm/ Kinked Legs                                   |
|  | 292303-2    | Right Angle | Through Hole  | Black         |                    | 1                   | Solder Tail Length 2.29mm / Kinked Legs                                  |
|  | 292303-4    | Right Angle | Through Hole  | Black         |                    | 1                   | Solder Tail Length 2.84mm / Kinked Legs / High Temperature Compatible    |
|  | 292303-5    | Right Angle | Through Hole  | Natural       |                    | 1                   | Solder Tail Length 2.84mm / Kinked Legs                                  |
|  | 292303-6    | Right Angle | Through Hole  | Black         |                    | 1                   | Solder Tail Length 2.29mm / Kinked Legs / High Temperature Compatible    |
|  | 1-1734081-3 | Right Angle | Through Hole  | Black         |                    | 1                   | Solder Tail Length 2.25mm / Straight Legs                                |
|   | 1734081-1   | Right Angle | Through Hole  | Black         |                    | 1                   | Solder Tail Length 2.80mm / Kinked Legs                                  |
|  | 4-1734081-2 | Right Angle | Through Hole  | Grey          |                    | 1                   | Solder Tail Length 2.80mm / Kinked Legs                                  |
|  | 5353929-1   | Right Angle | Surface Mount | White         | 60000276           | 1                   |  |
|  | 5787761-1   | Right Angle | Through Hole  | Black         | 60000277           | 1                   | Solder Tail Length 2.84mm / Kinked Legs / With Panel Ground              |
|  | 292303-7    | Right Angle | Surface Mount | Natural       |                    | 1                   | T/H Solder Legs  |
|  | 292303-9    | Right Angle | Surface Mount | Natural       |                    | 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 2.84mm / Kinked Legs                                  |
|  | 5787617-4   | Right Angle | Through Hole  | Black         |                    | 2                   | Solder Tail Length 2.84mm / Kinked Legs                                  |
|  | 5787745-1   | Right Angle | Through Hole  | Black         | 60000046           | 2                   | Solder Tail Length 2.84mm / Kinked Legs / With Panel Ground              |
|  | 5787745-2   | Right Angle | Through Hole  | Black         |                    | 2                   | Solder Tail Length 2.29mm / Kinked Legs / With Panel Ground              |
|  | 5787745-4   | Right Angle | Through Hole  | Black         |                    | 2                   | Solder Tail Length 2.84mm / Kinked Legs / With Panel Ground              |
|  | 1775066-1   | Vertical    | Through Hole  | Black         |                    | 2                   |  |
|  | 1674451-3   | Right Angle | Through Hole  | Natural       | 60000713           | 3                   |  |
|  | 1-1734383-2 | Right Angle | Through Hole  | Black         |                    | 4                   | Solder Tail Length 2.36mm / Straight and Kinked Legs / With Panel Ground |
|  | 1-1775855-1 | Right Angle | Through Hole  | Black         |                    | 1 (USB)<br>1 (RJ45) | RJ-45 Mod Jack Over Single USB   |
|  | 611615-1    | Right Angle | Through Hole  | Black         |                    | 2 (USB)<br>1 (RJ45) | RJ-45 Mod Jack Over Stacked USB  |
|  | 1620000-1   | Right Angle | Through Hole  | Black         |                    | 2 (USB)<br>1 (RJ45) | RJ-45 With Magjack Over Stacked USB                                      |

## FULL SIZE USB


### Series A Plug Kits

|  | Part Number | Orientation | Board Mount   | Housing Color | USB 2.0 Compliance | No. of Ports | Description |
|--|-------------|-------------|---------------|---------------|--------------------|--------------|-------------|
|  | 1734080-1   | Right Angle | Surface Mount | Black         |                    | 1            |             |
|  | 1734028-1   | Right Angle | Surface Mount | Natural       |                    | 1            |             |
|  | 1734080-2   | Right Angle | Surface Mount | White         |                    | 1            |             |
|  | 1734372-1   | Vertical    | Solder Tabs   | Black         |                    | 1            |             |

## USB Interconnects


### FULL SIZE USB

#### Locking

|   | Part Number | Orientation | Board Mount  | Gender | Housing Color | USB 2.0 Compliance | No. of Ports | Description |
|---|-------------|-------------|--------------|--------|---------------|--------------------|--------------|-------------|
|  | 1775690-2   | Vertical    | Through Hole | Rcpt.  | Black         |                    | 1            |             |
|   | 2041039-1   | Right Angle | Through Hole | Rcpt.  | Black         |                    | 1            |             |



### FULL SIZE USB

#### Latching



|   | Part Number | Orientation | Board Mount | Gender   | Housing Color | USB 2.0 Compliance | No. of Ports | Description        |
|---|-------------|-------------|-------------|----------|---------------|--------------------|--------------|--------------------|
|  | 2040305-1   | Vertical    | Solder Tabs | Plug Kit | Black         |                    | 1            | Integrated Latches |
|   | 2013798-1   | Vertical    | Solder Tabs | Plug Kit | 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  | Natural       |                    | 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 | Rcpt.    | Black         |                    | 1            | Packaging   |
|   | 1734035-2   | Right Angle | Surface Mount | Rcpt.    | Black         | 60001202           | 1            | Packaging   |
|  | 1734205-1   | Vertical    | Solder Tabs   | Plug Kit | Black         |                    |              |             |
|   | 1734753-1   | Vertical    | Through Hole  | Rcpt.    | Black         |                    | 1            |             |

### MICRO USB

|   | Part Number | Orientation | Board Mount   | Gender   | Housing Color | USB 2.0 Compliance | No. of Ports | Description |
|---|-------------|-------------|---------------|----------|---------------|--------------------|--------------|-------------|
| <b>Series B</b>   |             |             |               |          |               |                    |              |             |
|  | 1981568-1   | Right Angle | Surface Mount | Rcpt.    | Black         |                    | 1            |             |
|   | 1939054-1   | Vertical    | Solder Tabs   | Plug Kit | Black         | 60001202           |              |             |
| <b>Series AB</b>  |             |             |               |          |               |                    |              |             |
|  | 1981584-1   | Right Angle | Surface Mount | Rcpt.    | Grey          |                    | 1            |             |
| <b>Series A</b>   |             |             |               |          |               |                    |              |             |
|   | 1939053-1   | Vertical    | Solder Tabs   | Plug Kit | Natural       |                    |              |             |

# USB Interconnects

## QUESTIONS TO ASK AT DESIGN IN

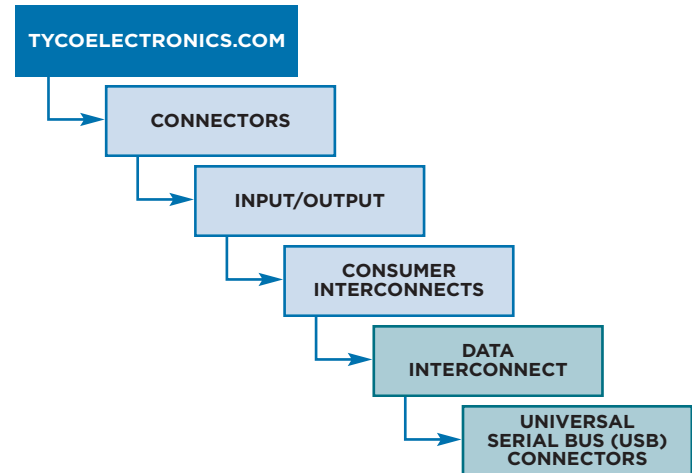
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