Quick Reference Guide
USB 3.0 Connectors

TE Connectivity, a voting member of Universal Serial Bus – Implementers Forum (USB-IF), offers a new USB 3.0 connector that retains all the great features of previous generations of USB connectors with even better performance and power management.

TE Connectivity offers a full line of USB 3.0 product solutions, including various configurations of Standard A and B style plugs and receptacles; powered B plugs and receptacles; Micro B and AB plugs and receptacles; and cable assemblies. Various stacked and combination variations are expected to round out the TE Connectivity USB 3.0 portfolio.

FEATURES AND BENEFITS
- Supports up to 5 Gbps
- 10X faster than USB 2.0
- Optimized power efficiency
- Backward compatible with USB 2.0
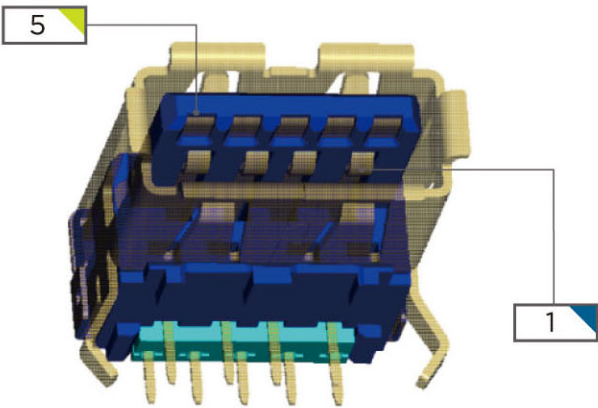- Minimized connector from factor variations

PRODUCT APPLICATIONS
- Desktop and laptop computers
- Cameras
- Digital audio
- High-volume storage devices
- High definition A/V equipment
- Keyboards / Mice / Joysticks

te.com/**products/usb3**

TE connectivity

USB 3.0 has a 10x performance increase over USB 2.0

• Standard A Receptacle has same interface as the USB 2.0, but with added pins for SuperSpeed USB signals

Pin #	Signal Name	Description
1	VBUS	Power
2	D-	USB 2.0 differential pair
3	D+	
4	GND	Ground for power return
5	StdA_SSRX-	SuperSpeed receiver
6	StdA_SSRX+	differential pair
7	GND_DRAIN	Ground for signal return
8	StdA_SSTX-	SuperSpeed transmitter
9	StdA_SSRX+	differential pair

Standard B connector is visually different from USB 2.0 but the receptacle accepts a USB 2.0 Standard – B plug

5 contact blades

USB 3.0 has better power optimization than USB 2.0

• Up to 80% more power
• Elimination of device polling

With USB 2.0, the host polls the device continuously.

With USB 3.0, the device lets the host know when it's needed

Minimized connector form variations

• Mini and Micro consolidated into Micro USB 3.0

USB 2.0 Portion
USB 3.0 Portion

Micro-B

Micro-AB/A

FULL SIZE USB 3.0 Connectors

	Base Part #	Type	Plug/Recpt	Ports	TH/SMT	Orientation	Std/Rvs	Offset
	1932266	A	Plug	1	-	-	Std	-
	1932258	A	Recept	1	TH	RA	Std	-
	1932658	A	Recept	1	TH	RA	Rvs	-
	1932354	A	Recept	1	TH	RA	Rvs	CL = 1.75
	1932295	A	Recept	1	TH	RA	Rvs	CL = 0.14
	2041179	A	Recept	1	TH	RA	Std	CL = 1.04
	1932355	A	Recept	2	TH	RA	Std	-
	1932259	B	Recept	1	TH	RA	Std	-

USB 3.0 Cable Assemblies

Base Part #	Description	Color
2117154	Std A to Std B	Black
2117155	Std A to Micro B	Black
2117156	Std A Male to Std A Male	Black
2117157	Std A Male to Std A Female	Black
2117158	Std A Male to Open	Black
2117159	Micro A to Micro B	Black
2117160	Micro A to Open	Black

Frequently asked questions

Question 1
How do I know which product is USB 3.0 compliant?
Answer 1
Visit: http://www.usb.org/developers/compliance

Question 2
How do I get the TID no. for USB 3.0 certification?
Answer 2
Visit: http://www.usb.org/kcompliance/view.

Question 3
How do I find the operating temperature range?
Answer 3
Visit: http://www.te.com/products/usb3
See performance characteristics section.

Question 4
Is a USB 3.0 receptacle capable of accepting a USB 2.0 plug?
Answer 4
Yes, but it will run at USB 2.0 speed.

Question 5
Are USB 2.0 products being eliminated?
Answer 5
There is likely to be a transition to USB 3.0 but USB 2.0 will be available for the foreseeable future.

Question 6
Is there a Mini USB available in the 3.0 spec?
Answer 6
No. Mini and Micro are combined into Micro USB 3.0.

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