

USB 3.0 CONNECTOR

OVERVIEW

USB 3.0 connector is the third major version of the Universal Serial Bus (USB) standard for interfacing computers and electronic devices.

USB 3.0 connector features a new transfer mode SuperSpeed that can transfer data at up to 5Gb/s, which is more than ten times faster than the USB 2.0 standard.

The USB 3.0 connector is backward compatible with USB 2.0 devices and cables.

On each end of the USB 3.0 cable, FCI offers the Standard Type A and Type B receptacle and cable solutions in single-stacked positions. Additionally, Type A is also available in double-stacked positions. The USB 3.0 is available in vertical through-hole, right angle through-hole and upright through-hole options..

Originally designed to meet the standards for connection between computer peripherals to personal computers, the USB 3.0 now provides an alternative to delivering power to portable devices as well as replacing older interfaces such as serial and parallel ports.

USB 3.0 connectors are ideal for applications in consumer, data, communications and industrial markets.



FEATURES

- Meets USB 3.0 specification
- Capable of transferring data up to 5Gb/s
- More than 10 times increase in performance
- Similar interface as USB 2.0 Type A & B connectors, with added pins for SuperSpeed USB signals
- Full metal shielding
- Supports On-The-Go (OTG) specification
- Vertical through-hole, right angle through-hole and upright through-hole options available
- UL94V-0 flammability rated high temperature thermoplastic housing material
- RoHS compliant and Lead-free

BENEFITS

- Mating interface follows USB 3.0 specification
- Minimizes user waiting time
- Provides higher speed and more efficient power management than USB 2.0
- Ensure maximum receptacle-to-PCB retention
- Protection from of electromagnetic interference (EMI) and electrostatic discharge (ESD)
- Accessible and convenient for users
- Flexible applications according to customized needs
- High flammability rating
- Meets environmental, health and safety requirements



TECHNICAL INFORMATION

MATERIALS

- Housing: High Temperature Thermoplastic
- Plastic Cover: High Temperature Thermoplastic
- Contact: Copper Alloy plated with Gold plating
- Shell: Copper Alloy and Steel

ELECTRICAL PERFORMANCES

- Low Level Contact Resistance:
 - 30m Ω max. for VBUS and GND contacts
 - 50m Ω max. for all other contacts
- Insulation Resistance: 100M Ω min.
- Voltage Rating: 30Vrms max.
- Current Rating:
 - 1.8A for contact 1 & 4 (USB 3.0 Standard-A & Standard-B/Power-B)
 - 0.25A for all other contacts
- Dielectric Withstand Voltage: 100VAC
- Temperature Rise: 30°C max.

ENVIRONMENTAL

- Operating Temperature: -25°C to 85°C

MECHANICAL PERFORMANCE

- Mating Force: 35N max.
- Unmating Force: 10N min.
- Durability: 1,500 insertion / extraction cycles

SPECIFICATIONS

- Product Specification: GS-12-1273
- Packaging Specification: GS-14-2423

PACKAGING

- Tray
- Tape & Reel

TARGET MARKETS/APPLICATIONS

- Consumer
 - Set Top Box
 - Consumer Solid State Drive
 - LCD TV Panel
 - Music Synthesizer
- Data
 - Desktop Computer and Motherboard
 - Notebook
 - Memory Card Reader
 - RAID Storage
- Communications
 - Switch
 - Hub
- Industrial
 - Industrial Tablet

PART NUMBERS

Description	Termination Type	Other Features	Part Numbers
USB 3.0 Type A receptacle	Vertical, Through-hole	Special outer housing	10132431
USB 3.0 Type A receptacle	Vertical, Through-hole	–	10132432
USB 3.0 Type A receptacle	Upright, Through-hole	–	10132411
USB 3.0 Type A receptacle	Right angle, Through-hole	With top spring	10132425
USB 3.0 Type A receptacle	Right angle, Through-hole	With middle mount	10132427
USB 3.0 Type A receptacle	Right angle, Through-hole	With straight hold-down	10132428
USB 3.0 Type A receptacle	Right angle, Through-hole	With middle mount & SMT metal tab	10132429
USB 3.0 Type A receptacle	Right angle, Through-hole	Double-stacked (Lower Deck: USB 2.0; Upper Deck: USB 3.0)	10132430
USB 3.0 Type B receptacle	Right angle, Through-hole	–	10132410
USB 3.0 cable assembly, Type A plug to Type A receptacle	–	–	10132951
USB 3.0 cable assembly, Type A plug to Type B plug	–	–	10132952