




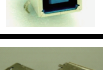
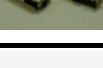






Also known as SuperSpeed USB, this upgraded interface offers a number of enhanced features. USB3.0 now operates with full-duplex signaling over two differential pairs, improving host-directed simultaneous-by-directional communication. The ability to provide power to remote peripherals is also improved. USB2.0 allows a maximum of 500mA to be supplied via interface, while USB 3.0 can now deliver up to 900mA. USB3.0 version Interface benefits include:

- Over 10X performance increase over USB 2.0.
- Optimized Power Efficiency
  - No device polling
  - Lower active & idle power requirements
- Backward compatible with USB 2.0
- Fast Sync-N-Go
  - Minimizes User Wait-Time
  - Super speed Data rate

USB 3.0 Connector	Part Number	Orientation	Tail	Tail Length	Type	Pin numbers	Plating Options
	GSB3111XXHR	Standard/Right Angle	DIP	2.4 mm	A Receptacle	9	2µ" Gold + 30µ"Pd-Ni / 30µ" gold
	GSB311A41EU	Reverse/Right Angle	DIP	2 mm	A Receptacle	9	2µ" Gold + 30µ"Pd-Ni
	GSB311B31CEU	Reverse Sink/Right Angle	DIP	N/A	A Receptacle	9	2µ" Gold + 30µ"Pd-Ni
	GSB311231HR	Standard/Right Angle	DIP	3 mm	A Stack Receptacle	18	2µ" Gold + 30µ"Pd-Ni / 30µ" gold
	GSB321131XWEU	Standard/Right Angle	DIP	2.8 mm 3.3 mm	B Receptacle	9	30µ" gold
	GSB343133HR	Standard/Right Angle	SMT	N/A	Micro B Receptacle	10	2µ" Gold + 30µ"Pd-Ni / 30µ" gold
	GSB343K33XHR	Standard/Right Angle	SMT	N/A	Micro B Receptacle	10	2µ" Gold + 30µ"Pd-Ni / 30µ" gold
	GSB316445CHR	Standard Sink/ Offset 0.4mm/Right Angle	SMT	N/A	A Plug	9	2µ" Gold + 30µ"Pd-Ni
	GSB316441CEU	Standard Sink/ Offset 0.85mm/Right Angle	SMT	N/A	A Plug	9	2µ" Gold + 30µ"Pd-Ni / 30µ" gold
	GPCE145222113HR	Standard	Cable Assembly	N/A	A Plug	9	30µ" gold
		Standard	Cable Assembly	N/A	A Plug	9	30µ" gold

- \* The tooling can be modified to different kind of extension products.
- \*\* If there is any inquiry out of the list, please check with AMTA for the modification or evaluation.



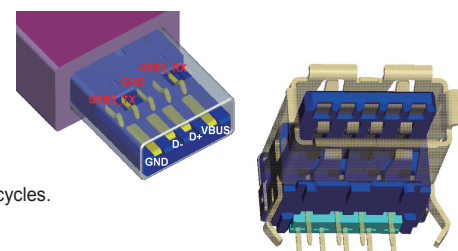
**USB3.0 Connector benefits and key features include:**

**USB3.0 A, B type Features & Benefits**

- Fully compliant with USB2.0 & 3.0 specification.
- 5 metal friction lock grounding fingers and Polarization plastic design ensure plug retention.
- Rugged Gold-plated leaf contact withstand up to 5000 cycles.
- High temperature plastic for SMT process and Halogen Free

**USB3.0 Micro B type Features & Benefits**

- 6 Soldered Pads at shell ensure No Damage when : Peel Strength 150N Min applied. Wrenching Strength 25N Max applied .
- Greater real estate space savings.
- Reliable Co-planarity within a 0.08mm.
- Full metal shielding for EMI / RFI / ESD protection.
- Rugged Gold-plated leaf contact withstand up to 10,000 cycles.



## Mechanical Specifications

Mating Force	35.0 N Max.
Unmating Force	8.0 N Max.
Standard Durability Class For standard A, B.	1500 cycles Min.
High Durability Class For Standard A, B	5000 cycles Min.
Standard Durability Class For Micro Connector Family	10,000 cycles Min.

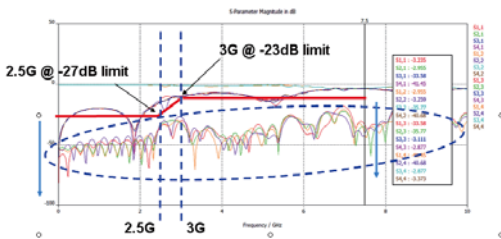
## Physical Specification

Housing	High Temperature Thermoplastic. UL 94V-0 Color: Blue or Black
Contact	Copper Alloy
Metal Shell	Stainless Steel
Operating Temperature	-20°C to +60°C

## USB 3.0 STANDARD SI SIMULATION

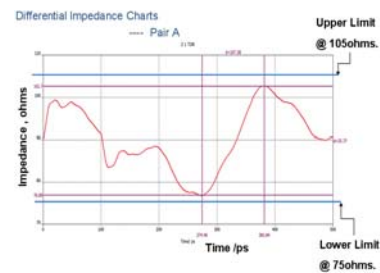
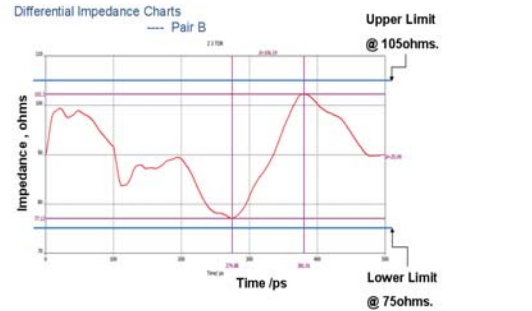
### Differential Near-End Crosstalk

The differential crosstalk simulation the unwanted coupling between differential pairs. Since the Tx pair is right next to the Rx pair for Super Speed.



## Electrical Specification

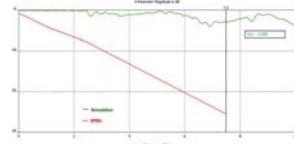
Current Rating	Pin 1 & 5 :1.8A; Signal Pin:1A (USB2.) Other pins: 0.25A.
Contact Resistance	Pin 1 & 5: 30 mΩ Max. Other pins: 50 mΩ Max.
Voltage Rating	30 V AC
Dielectric Withstanding Voltage	1000V AC/1min.



### Frequency Domain Analysis

#### Differential Insertion Loss

The differential insertion loss, SDD12, simulation the differential signal energy transmitted through the mated plug.



## Applications

Storage Server

Networking

NAS

Mobile Phone

Set Top Box

Portable HDD



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