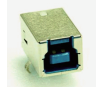


Also known as SuperSpeed USB, this upgraded interface offers a number of enhanced features. USB3.0 now operates with full-duplex signaling over two differential pairs, improving host-directed simultaneous-by-directional communication. The ability to provide power to remote peripherals is also improved. 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.



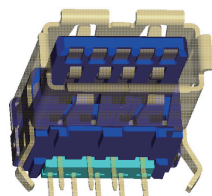
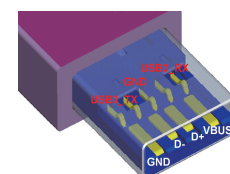
USB3.0 Connector benefits and key features include:

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.

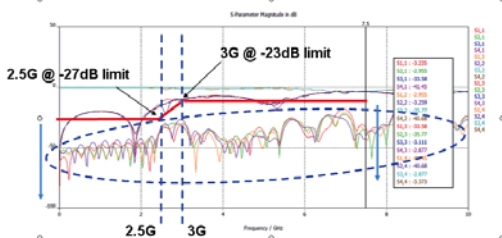
Physical Specification

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.

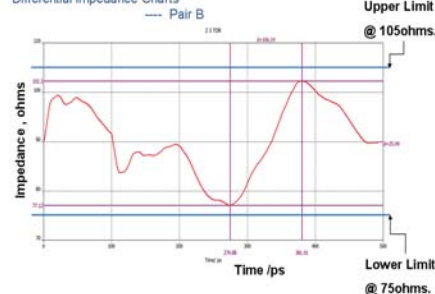


Applications

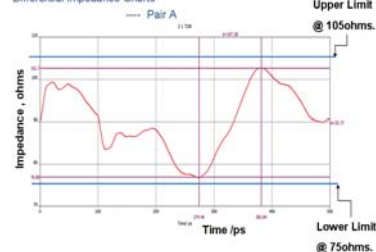
Electrical Specification

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.

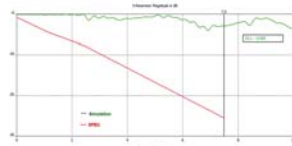
Differential Impedance Charts



Differential Impedance Charts

Frequency Domain Analysis
Differential Insertion Loss

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



Storage Server

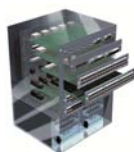
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Set Top Box

Portable HDD

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