



ELFA artikelnr.

42-707-08 USB typ A**42-707-40 USB typ B****42-707-24 USB stackad typ A****AMP**AMP Connector System for
Universal Serial Bus (USB)

Introduction

Product Facts

- **Plug and Play capability**
- **Hot pluggable, permits attaching or detaching peripherals without power down or reboot**
- **Single 4-position connector, polarized for proper orientation**
- **Complete family of board-mount receptacles, including right-angle, thru-hole, thru-hole type B, side-by-side, and stacked**
- **Receptacle housings are made of UL 94V-0 rated LCP, natural color**
- **Shells are made of copper alloy, plated bright tin**
- **Cable mount overmold plug kits for both standard and type B applications**
- **Plug contacts made of brass, plated gold over palladium nickel on the mating end, bright tin-lead on the termination end, nickel underplating**
(Contacts must be ordered separately)
- **Full complement of termination tooling**
- **Consolidates serial parallel, keyboard, mouse and game ports**
- **Compatible with asynchronous and isochronous data transfer methods**
- **Compatible with Windows '95 and Windows NT operating systems**
- **Outside-the-box for user friendly flexibility for attaching external peripherals or reconfiguring your system**
- **Broad industry support from a consortium of computer and peripheral equipment manufacturers**

Produced under a Quality Management System certified to ISO 9001

A copy of the certificate is available upon request



Performance Characteristics	
AMP USB Connector System:	
Voltage Rating —	30 VAC (rms)
Current Rating —	Signal application only, 1 amp per contact
Temperature Rating —	-55°C to 85°C (unless limited by cable or overmold)
Termination Resistance —	30 milliohms, max.
Insulation Resistance —	1000 megohms, min.
Dielectric withstanding Voltage —	750 VAC at sea level
Capacitance —	2 picofarads, max.
Durability —	1500 cycles
Mating Force —	1 oz. [35 N] per contact, max.
Unmating Force —	.286 oz. [10 N] per contact, max.
Universal Serial Bus:	
Speed —	12 Mb/s
Max. No. of Peripherals —	63
Max. Distance —	16.4 ft. [5 m], max.
Data Transfer —	Asynchronous and Isochronous

The AMP Connector System will accommodate the two differentially driven data wires that provide bi-directional, simultaneous signals for full speed 12 Mbps or for low speed 1.5 Mbps used in Universal Serial Bus (USB) Systems.

The AMP USB System is a complete interconnection technology for I/O devices, including: keyboards, mice, game ports, serial port devices, digital audio, printers, scanners, modems, joy sticks, and other telecommunication devices.

Designed for outside-of-box, user friendly applications, the AMP system consists of a single 4-position boardmount receptacle and mating cable mount overmolded plug.

Boardmount receptacles are available in standard, Type B, stacked and side-by-side configurations

adding to the system's versatility to meet all USB applications.

The AMP USB system is completely compatible with today's need for plug-and-play, as well as providing hot pluggability. Now there is no need to shut-down your system to modify your system. With the AMP hot pluggable interconnection system you can mix and match peripheral devices while your system is powered-up.

The AMP USB system consists of a pc boardmount receptacle and mating overmolded cable plug connector. Pcb receptacles are made of IR reflow solder compatible LCP thermoplastic material, tin-plated copper alloy shells, and pre-inserted phosphor bronze, gold-over-nickel plated contacts.

Overmolded cable plugs are made of UL 94V-0 rated thermoplastic with tin-plated

copper shells.

Cable contacts are brass, gold-over-nickel plated, and must be ordered separately.

AMP offers a complete set of tooling for cable contact terminations to meet your production requirements.

AMP and AMP FAX are trademarks.

Windows '95 and Windows NT are trademarks of Microsoft Corporation.



Receptacle Assemblies

Series A, 4-Position, Right-Angle Receptacle — Thru-Hole

Part No. 787616-1

(Solder tail length: .112 [2.84])

Part No. 787616-2

(Solder tail length: .090 [2.29])

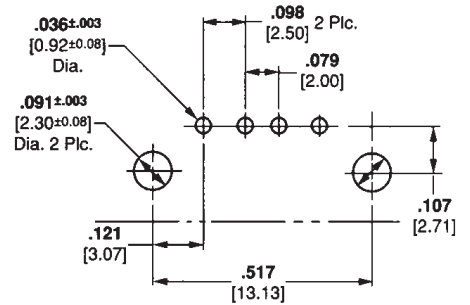
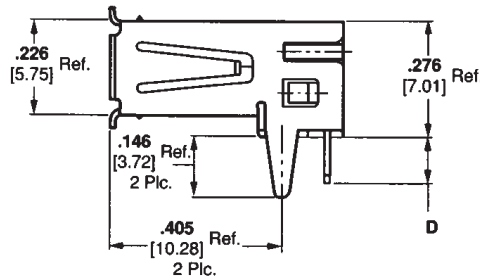
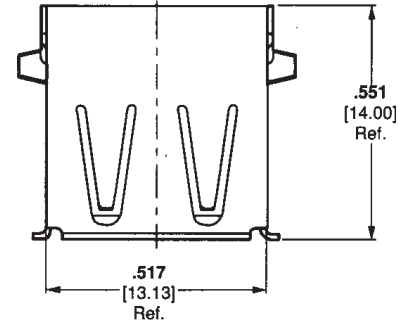
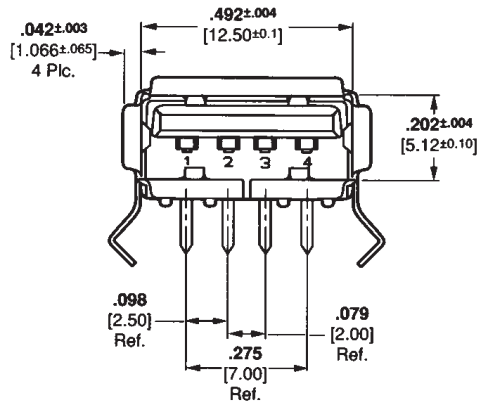
Material and Finish:

Housing—LCP, UL rated 94V-0, natural

Shell—Copper Alloy, plated .197 [0.005] bright tin min. over .010 [0.0025] min. copper

Contacts—Copper Alloy, plated .000003 [0.000076] min. gold over .000030 [0.00076] min. palladium-nickel on the mating end, .0015 [0.38] min. tin lead on solder tails, all over .000050 [0.00127] min. nickel underplating

Recommended pc board thickness: .062 [1.57]



PC Board Mount Dimensions

Series A, Stacked, 4-Position, Right-Angle Receptacle — Thru-Hole

Part No. 787617-1

(Solder tail length: .112 [2.84])

Part No. 787617-2

(Solder tail length: .090 [2.29])

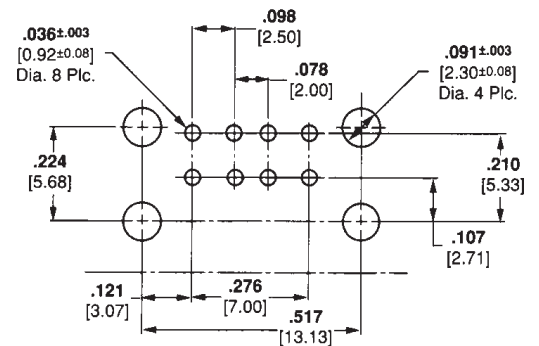
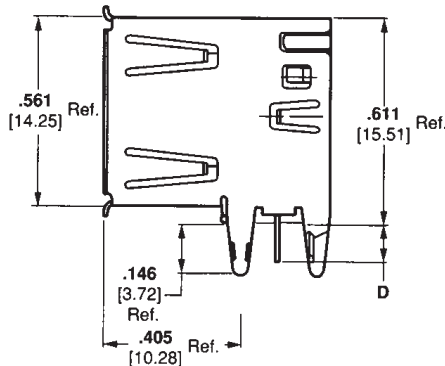
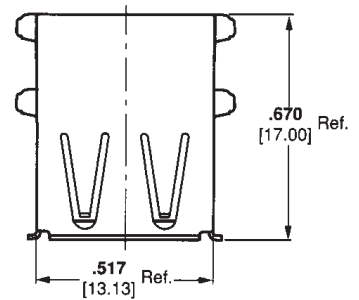
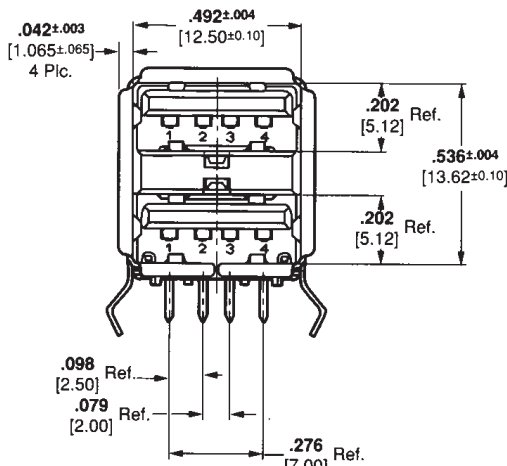
Material and Finish:

Housing—LCP, UL rated 94V-0, natural

Shell—Copper Alloy, plated .197 [0.005] bright tin min. over .010 [0.0025] min. copper

Contacts—Copper Alloy, plated .000003 [0.000076] min. gold over .000030 [0.00076] min. palladium-nickel on the mating end, .0015 [0.38] min. tin lead on solder tails, all over .000050 [0.00127] min. nickel underplating

Recommended pc board thickness: .062 [1.57]





Receptacle Assemblies (Continued)

Series B, USB 4-Position, Right-Angle Receptacle — Thru-Hole

Part No. 787780-1

Material and Finish:

Housing—LCP, UL rated 94V-0, natural

Shell—Copper Alloy, plated .197 [0.005] bright tin min. over .010 [0.0025] min. copper

Contacts—Copper Alloy, plated .000003 [0.000076] min. gold over .000030 [0.00076] min. palladium-nickel on the mating end, .0015 [0.38] min. tin lead on solder tails, all over .000050 [0.00127] min. nickel underplating

Recommended pc board thickness: .062 [1.57]

