

## FEATURES AND SPECIFICATIONS



**0.65mm (.025") Pitch  
Micro-USB**

### **New Micro-USB interconnect solutions set standard for sleeker mobile devices**

USB Implementers Forum, Inc. (USB-IF) has finalized the specification of the Micro-USB technology in early January 2007. The development of this new connector technology has given the opportunity for portable device and mobile phone makers to further reduce their real estate in their applications. The Micro-USB will replace most of the Mini-USB plugs and receptacles that are currently being used. The specification of the Micro-USB supports the current USB On-The-Go (OTG) supplement. This allows communication between portable devices without going through a host. Being much smaller than the Mini-USB, the Micro-USB is the choice of interconnect solution of mobile phone makers such as Nokia and Motorola for their new phone designs.

Molex has developed the Micro-USB 'B' receptacle in standard and mid-mount version. The design comes with a lead-in feature for blind mating. The mid-mount version features a unique laser-welded shield design, ensuring mechanical seam strength and rigidity of the connector body, which helps prevent damage to the plug or receptacle as the result of any perpendicular or horizontal (wrenching) stress. Both connectors are specified for up to 10,000 insertion cycles. To ensure maximum receptacle to PCB retention, wide side tabs are employed. The beveled 'B'-style mating profile design prevents mis-mating with 'A'-type plug.

As a member of the USB Implementer Forum, Molex's ensure a high level of application connectivity and reliability.

**47346**

**Standard 'B' receptacle**

**47491**

**Mid Mount 'B' receptacle**



### **Features and Benefits**

- **Wider side solder tabs provide improved solder retention**
- **Stainless steel shell (0.3mm thick) provides high mating durability & strength**
- **Lead-in features provide blind mate**
- **Fold-down tabs provide high housing retention**
- **Latching windows with angular tabs prevent accidental unmating of plug**
- **Beveled profile 'B' style to lock out 'A'-type plug**
- **Unique laser-welded shield design strengthen wrenching strength during use**
- **Pick & place area (3mm diameter) enhances assembly process**
- **Rear shield for EMI protection (for standard mount)**

## SPECIFICATIONS

### **Reference Information**

**Packaging: Embossed Tape and Reel**

**UL File No.:**

**CSA File No.:**

**Mates With:**

**Designed In: mm**

### **Electrical**

**Voltage: 100V AC**

**Current: 1A**

**Contact Resistance: 40 milliohm max**

**Dielectric Withstanding Voltage: 100V AC**

**Insulation Resistance: 100 Megohms min**

### **Mechanical**

**Mating Force: 35N (3.57kgf)max**

**Unmating Force: 10N (1.02kgf) ~ 20N(2.04kgf)**

**Terminal / housing retention force: 4.0N (0.41kgf)min**

**Durability: 10,000 cycles**

### **Physical**

**Housing: Liquid Crystal Polymer, UL 94V-0**

**Contact: Copper Alloy**

**Shell: Stainless Steel (0.3mm thickness)**

### **Plating:**

**Contact Area — 0.13 $\mu$ m Gold (Au) over 0.76 $\mu$ m Pd/Ni**

**Solder Tail Area — Gold (Au)flash**

**Underplating — 1.27  $\mu$ m (50  $\phi$ ) Nickel (Ni) min**

**Coplanarity = 0.08mm max**

**Operating Temperature: -20°C to +85°C**

## MARKETS AND APPLICATIONS



**0.65mm (.025") Pitch  
Micro-USB**

### Markets and Applications

- **Mobile Phones**
- **Portable devices**
  - MP3 players
  - Portable digital video players
  - Digital Still Cameras

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## ORDERING INFORMATION

Description	Order No.
Micro-USB 'B' receptacle, standard mount	47346 -0001
Micro-USB 'B' receptacle, mid mount	47491 -0001



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