

# **USB+POWER INTERCONNECT SYSTEM**

# **DESCRIPTION**

The USB+Power interconnect system was developed by FCI to enable additional power to be delivered to peripheral devices connected using USB 2.0 cable links. When compared to a standard USB connector, the USB+Power connector interface includes four additional contacts for power delivery, each rated at 5A/contact, to supplement the connector's current-carrying capability. For many devices, this eliminates the requirement for a separate power source reducing the number of cables required. For peripherals not requiring the additional current, the USB+Power receptacle will mate with a standard USB 'A' plug.

To insure proper mating, USB+Power is individually keyed and color coded for 5V, 12V, and 24V.



# **FEATURES & BENEFITS**

- ► Four additional contacts provide up to 5A/contact of additional current-carrying capacity eliminating the need for an external power supply in most peripheral devices
- Receptacle mates with standard USB 'A' plug
- Keyed and color coded for different voltages
- Positive latching insures proper mating and retention
- Fully shielded providing USB 2.0 data performance
- Hot plugging capability

#### TARGET MARKETS / APPLICATIONS

- Data
- Consumer
- Datacom/Telecom
- ▶ PC
- Point of sale
- Hubs
- Speakers



# **MATERIALS**

- Receptacles
  - Housing: high temperature thermoplastic UL94V-O rated
  - Contacts: Copper AlloyShell: Copper Alloy
- Cables
  - Cable jacket: PVCContacts: Copper Alloy
  - Data conductors: 28 AWG twisted pairPower conductors: non-twisted pair
  - Shield: aluminized foil and 65% coverage tinned copper braid

# **ELECTRICAL PERFORMANCE**

- Operating Voltage: 12V/24V/24V DCWithstanding voltage: 750V AC minimum
- Current rating
- USB contacts: 1.5A/contact minimum
  Power contacts: 5.0A/contact minimum
  Contact resistance: 30mΩ maximum
  Signal impedance: 90Ω +/- 15%

# **MECHANICAL PERFORMANCE**

- Meets USB 2.0 standard
- Durability: 1,500 cycles

# **SPECIFICATIONS**

- USB 2.0 Compliant
- Product Specification: GS-12-130Agency Approval: UL/CSA

# **PACKAGING**

Receptacles: tubesCables: one per bag

# **PART NUMBERS**

| Connector Description                                | Base Part Number |          |  |
|--|------------------|----------|--|
|  | PCB Receptacle   | Plug Kit |  |
| Standard A Plus Power                                | 55917            | 74233    |  |
| Slimline A Plus Power                                | 57489            | 57496    |  |
| Slimline A Plus Power - mid board mount receptacle   | 10011029         | 57496    |  |
| Slimline A Plus Power - under board mount receptacle | 10063583         | 57496    |  |

# Cable Assembly Description

| Cable<br>Termination | Connector<br>Cable End 1 | Connector<br>Cable End 2   | Cable<br>Color | Cable<br>Length | Product Number     |
|----------------------|--------------------------|----------------------------|----------------|-----------------|--------------------|
| Single-ended         | USB+Power 12V            | none                       | Black          | 1.0 m           | 10084088-Z0100YYLF |
| Single-ended         | USB+Power 12V            | none                       | Black          | 3.0 m           | 10084088-Z0300YYLF |
| Single-ended         | USB+Power 24V            | none                       | Black          | 1.0 m           | 10084089-Z0100YYLF |
| Single-ended         | USB+Power 24V            | none                       | Black          | 3.0 m           | 10084089-Z0300YYLF |
| Double-ended         | USB+Power 12V            | 2x4 Latch-n-Lok receptacle | Black          | 1.0 m           | 10089745-Z0100YYLF |
| Double-ended         | USB+Power 12V            | 2x4 Latch-n-Lok receptacle | Black          | 3.0 m           | 10089745-Z0300YYLF |
| Double-ended         | USB+Power 24V            | 2x4 Latch-n-Lok receptacle | Black          | 1.0 m           | 10089743-Z0100YYLF |
| Double-ended         | USB+Power 24V            | 2x4 Latch-n-Lok receptacle | Black          | 3.0 m           | 10089743-Z0300YYLF |
| Double-ended         | USB+Power 24V            | 1x8 Latch-n-Lok receptacle | Black          | 1.0 m           | 10083511-Z0100YYLF |
| Double-ended         | USB+Power 24V            | 1x8 Latch-n-Lok receptacle | Black          | 3.0 m           | 10083511-Z0300YYLF |
| Double-ended         | USB+Power 12V            | 2x3 Latch-n-Lok receptacle | Black          | 1.0 m           | 10083512-Z0100YYLF |
| Double-ended         | USB+Power 12V            | 2x3 Latch-n-Lok receptacle | Black          | 3.0 m           | 10083512-Z0300YYLF |

# **Mouser Electronics**

**Authorized Distributor** 

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# FCI:

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