## SlimStack Board-to-Board Connectors, 0.35, 0.40 and 0.80mm Pitch, Battery Series

# molex

Achieve up to 15.0A of power and electrical reliability in an ultra-compact design with SlimStack Hybrid Power Connectors, designed for battery and other power applications.

As consumers continue to demand smaller devices and bigger current value, the need for microminiature designs grows. Hybrid connectors deliver design flexibility while meeting tight-packaging needs.



#### **Features and Advantages**

#### Delivers up to 15.0A power

Meets the growing power needs of tight-packaging applications

## Compact hybrid interface with power and signal contacts

Combines extra signal lines into a power connector footprint for space savings

### Dual-contact design

Assures contact reliability

#### Delivers up to 6.0A



Receptacle, 505004 Series

#### Delivers up to 9.0A/11.0A



Receptacle, 104249/207419 Series

#### Delivers up to 10.0A



Receptacle, 505473 Series

Delivers up to 15.0A



**Improved Armor** 

Protects inner housing

#### Wide alignment area

Provides easy and secure mating



Plug, 505006 Series



Plug, 104250/207420 Series

#### Armor nail



Plug, 505476 Series

Plug, 211176 Series

#### **Applications**

#### **Mobile Devices**

Smartphones

Tablet PCs

Wearable Devices

Portable Audio

Portable Navigation Equipment

#### **Medical Devices**

Patient Monitoring

Therapeutic and Surgical



Smartphone



Wearable Watch



Patient Monitoring

### SlimStack Board-to-Board Connectors, 0.35, 0.40 and 0.80mm Pitch, Battery Series



#### **Specifications**

#### REFERENCE INFORMATION

Packaging: Embossed Tape on Reel

Designed In: Millimeters

RoHS: Yes

Halogen Free: Low-Halogen

#### **ELECTRICAL**

Voltage (max.): 50V Current (max.):

505004/505006

Signal Contact: 0.3A per circuit Power Contact: 3.0A per circuit

104249/104250

Signal Contact: 0.3A per circuit Power Contact: 4.5A per circuit

505473/505476

Signal Contact: 0.5A per circuit Power Contact: 5.0A per circuit

207419/207420

Signal Contact: 0.3A per circuit Power Contact: 5.5A per circuit

211175/211176

Signal Contact: 0.3A per circuit

(Power Nail/1pin + Power Contact/2pin): 15.0A

#### **ELECTRICAL**

Contact Resistance (max.):

505004/505006

Signal Contact: 80 milliohms

Power Contact: 10 milliohms

 $\underline{104249/104250}$ 

10 milliohms

505473/505476

Signal Contact: 60 milliohms

Power Contact: 10 milliohms

207419/207420

10 milliohms

211175/211176

Signal Contact: 50 milliohms

Power Nail/Power Contact: 15 milliohms

Dielectric Withstanding Voltage: 250V AC Insulation Resistance (min.): 100 Megohms

#### **MECHANICAL**

Durability (max.): 10 cycles

#### **PHYSICAL**

Housing: LCP, UL94V-0, Black

Contact: Copper Alloy

Plating:

Contact Area – Gold

Solder Tail Area – Gold

Underplating – Nickel

Operating Temperature: -40 to +85°C

#### **Dimensions**

Refer to drawing for detail dimension

### **Ordering Information**

Order No.		0:	0	Signal Pitch	Mated Height	Mated Width	
Receptacle	Plug	Circuits	Current	(mm)	(mm)	(mm)	Length (mm)
<u>211175-0080</u>	<u>211176-0080</u>	8 (4 signal; 4 power) + 2 power nail	15.0A	0.35	0.7	2.00	4.50
<u>505473-0810</u>	<u>505476-0810</u>	8 (4 signal; 4 power)	10.04	0.40	0.6		4.80
<u>505473-1010</u>	<u>505476-1010</u>	10 (6 signal; 4 power)	10.0A				5.20
505004-0812	505006-0812	8 (4 signal; power)	6.0A		0.75	2.50	4.20
<u>207419-0081</u>	<u>207420-0081</u>	8 (4 signal or power)	11.0A	0.80			5.20
<u>104249-0810</u>	104250-0810	8 (4 signal or power)	9.0A				

<sup>\*</sup>Maximum current of 15.0A per connector is applicable if the circuit is constructed by two power circuits and one power nail via a PWB/FPC circuit.

<sup>\*</sup>Maximum current of 11.0/10.0/9.0/6.0A per connector is applicable if the circuit is constructed by two power circuits via a PWB/FPC circuit.