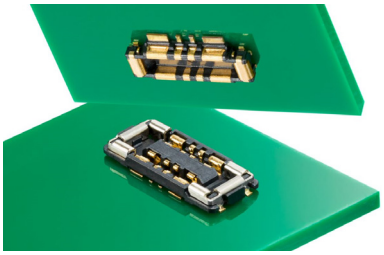
DATASHEET

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



Achieve up to 18.0A 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 18.0A 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

Robustness with full metal cover
Prevents housing damage during mating with interior cover

Dual-contact design
Assures contact reliability

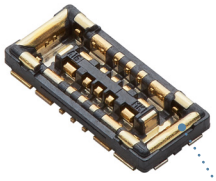
Delivers up to 6.0A

Receptacle, 505004 Series

Delivers up to 11.0A

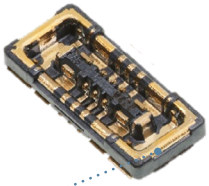
Receptacle, 207419 Series

Delivers up to 15.0A



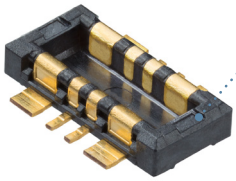
Receptacle, 216656 Series

Delivers up to 18.0A



Receptacle, 220250 Series

Wide alignment area
Provides easy and secure mating

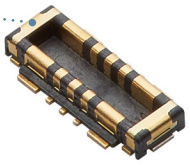


Plug, 505006 Series

Plug, 207420 Series

Armor nail
Prevents damage to housing

Plug, 216657 Series



Plug, 220251 Series

DATASHEET

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

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
- 207419/207420
  - Signal Contact: 0.3A per circuit
  - Power Contact: 5.5A per circuit
- 216656/216657
  - Signal Contact: 0.3A per circuit
  - Power Nail/1 pin + Power Contact/2 pin: 15.0A
- 220250/220251
  - Signal Contact: 0.3A per circuit
  - Power Nail/1 pin + Power Contact/2 pin: 18.0A

ELECTRICAL
Contact Resistance (max.):
- 505004/505006
  - Signal Contact: 80 milliohms
  - Power Contact: 10 milliohms
- 207419/207420
  - 10 milliohms
- 216656/216657
  - Signal Contact: 50 milliohms
  - Power Nail/Power Contact: 5 milliohms
- 220250/220251
  - Signal Contact: 50 milliohms
  - Power Nail/Power Contact: 5 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

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

ORDERING INFORMATION

Order No.		Circuits	Current (A)	Signal Pitch (mm)	Mated Height (mm)	Mated Width (mm)	Length (mm)
Receptacle	Plug						
220250-0069	220251-0069	8 (6 Signal; 2 Power)	18.0	0.35	0.70	2.30	5.10
216656-0109	216657-0109	10 (6 Signal; 4 Power)	15.0	0.40			5.00
207419-0081	207420-0081	8 (4 Signal; 4 Power)	11.0	0.80	0.75	2.50	5.20
505473-0810	505476-0810	8 (4 Signal; 4 Power)	10.0	0.40	0.60	2.00	
505473-1010	505476-1010	10 (6 Signal; 4 Power)					4.80
505004-0812	505006-0812	8 (4 Signal; 4 power)	6.0		0.75	2.50	4.20

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

www.molex.com/link/slimstack.html

Order No. 987651-2484 Rev. 11 APN/0k/GF/2023.05