



**THE DATASHEET OF
5054731010**





Achieve up to 10A of power and electrical reliability in an ultra-compact design with SlimStack Hybrid Power connectors, designed for battery and other power applications for mobile devices such as cellphones, Tablet PCs and portable medical equipment

Features and Benefits

| | |
|---|--|
| Delivers up to 10A of power | Meets the growing power needs of mobile applications |
| Narrow pitch and width, ultra-low profile and short length | Offers maximum space savings |
| Armor metal covers on housing corners (10A version) | Prevent damage to the housing even when misaligned during mating |
| Dual-contact design for both power and signal contacts | Assures contact reliability; withstands shock and vibration |
| Wide guiding area on housing wall ends | Provides mating alignment for more efficient operator assembly while avoiding housing damage |
| Compact hybrid interface with high-strength power and signal contacts | Combines extra signal lines into power connector footprint for space savings |
| Audible click during mating | Provides operators with maximum mating assurance |
| Low contact resistance | Offers up to ten milliohms of contact resistance for electrical current stability |

Markets and Applications

Mobile Devices

- Smart Phones
- Tablet PCs

Consumer

- Portable Audio
- Portable Navigation Equipment

Medical

- Portable Patient Monitoring
- Portable Endoscopy Light Source
- Portable Battery Device



Medical Equipment



Smart Phone



Portable Audio Player

SlimStack™ Hybrid Power SMT Board-to-Board Connectors, 0.40mm Pitch

Armor Cover Type

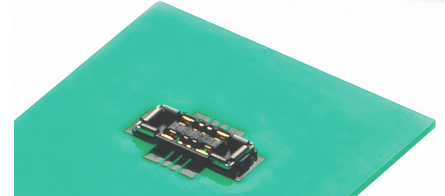
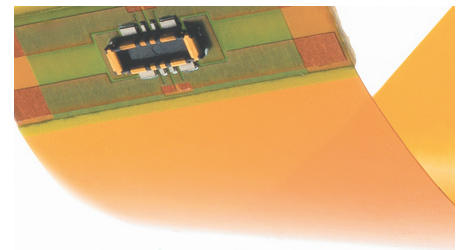
(0.60mm Height, 10 Amps Power)

505473 Receptacle
505476 Plug

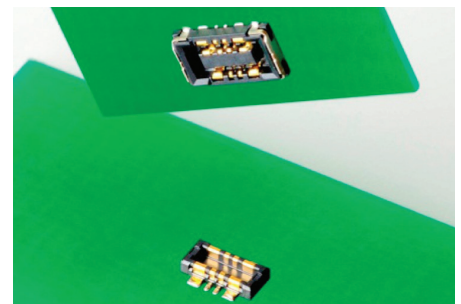
Standard Type

(0.75mm Height, 6 Amps Power)

505004 Receptacle
505006 Plug



SlimStack™ Hybrid Power Armor Cover Type, 0.60mm Height, 10 Amps of Power (505473 Receptacle, below; 505476 Plug, above)



SlimStack™ Hybrid Power, Standard Type 0.75mm Height, 6 Amps of Power (505004 Receptacle, above; 505006 Plug, below)

Specifications

REFERENCE INFORMATION

Packaging: Embossed tape
 Designed In: Millimeters
 RoHS: Yes
 Halogen Free: Yes

ELECTRICAL

Voltage (max.): 50V
 Current (max.):
 505473/505476
 For Signal Pin: 0.5A/Pin
 For Power Pin: 5.0A/Pin*
 505004/505006
 For Signal Pin: 0.3A/Pin
 For Power Pin: 3.0A/Pin*
 Contact Resistance:
 505473/505476
 For Signal Pin: 60 milliohm max./Pin
 For Power Pin: 10 milliohm max./Pin
 505004/505006
 For Signal Pin: 80 milliohm max./Pin
 For Power Pin: 10 milliohm max./Pin

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

MECHANICAL

Durability (min.): 10 cycles

PHYSICAL

Housing: LCP, black
 Contact: Copper Alloy
 Plating:
 Contact Area — Gold
 Solder Tail Area — Gold
 Underplating — Nickel
 Operating Temperature:
 -40 to +85°C

SlimStack™ Hybrid Power SMT Board-to-Board Connectors, 0.40mm Pitch

Armor Cover Type

(0.60mm Height,
 10 Amps Power)

505473 Receptacle

505476 Plug

Standard Type

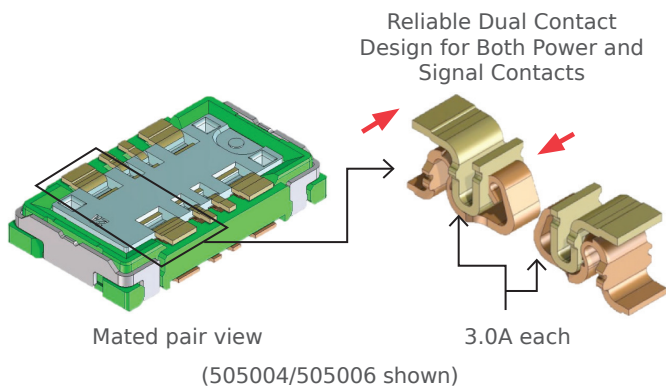
(0.75mm Height,
 6 Amps Power)

505004 Receptacle

505006 Plug

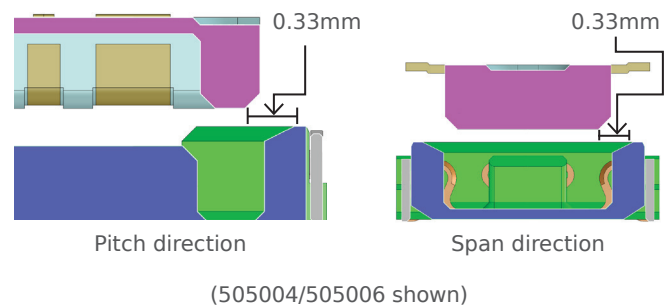
Additional Product Features

Reliable Dual Contact Interface

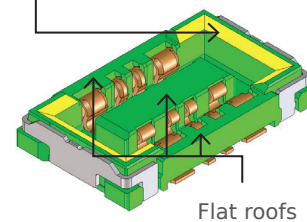


By incorporating a dual contact design for all terminals, this assures that one pair of the power and signal contacts will remain connected if subjected to shock or vibration. This is critical to maintain functionality in mobile applications, which are always at risk being dropped or shaken.

Large Alignment Area



Alignment area



Wide alignment area helps operators guide the connectors together for mating more easily.

Ordering Information

| Circuit Size | Mated Height | Mated Width | Metal Armor Housing Cover | Current | Receptacle Order No. | Plug Order No. |
|-----------------------------|--------------|-------------|---------------------------|---------|-----------------------------|-----------------------------|
| 8 (Four signal; four power) | 0.60mm | 2.00mm | Yes | 10A* | 505473-0810 | 505476-0810 |
| 10 (Six signal; four power) | 0.60mm | 2.00mm | Yes | 10A* | 505473-1010 | 505476-1010 |
| 8 (Four signal; four power) | 0.75mm | 2.50mm | No | 6A* | 505004-1010 | 505006-1010 |

*10A of current per circuit is applicable if the circuit was constructed by two power pins via a PWB/FPC circuit. The same applies for the 6A version.

www.molex.com/link/slimstack035.html

Looking for pricing, stock, or lifecycle information?

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