Molex's microSD/mini-SIM Card Combo connectors save space by combining two ports into one footprint pattern, and are the only versions in the market to offer left and right-entry and six-and-eight circuit design styles to provide greater design flexibility for mobile device makers.

Mobile device manufacturers are continually looking for ways to save space, increase reliability and add functionality. Molex's microSD/mini-SIM combo connectors meet all these needs better than any other competitive version by offering the widest range with superior features and proven reliability.

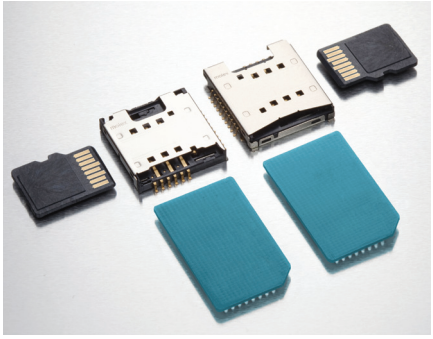
Molex introduced its first microSD/mini-SIM combo connector in 2008 with a version that accepted the microSD card from the left side. This met the needs at the time of most mobile phone designs. But with only one style of Combo connector to choose from, designers would sometimes need to fit their PCB designs around the connector design. With the introduction of the industry's first combo version that has the microSD card port on the right side, Molex is now providing more design flexibility to mobile device makers.

Molex is also the only connector company to offer its combo connectors with a choice of six and eight-circuit mini-SIM connector slots. This meets the needs of both GSM and CDMA-style phones, and also provides two extra circuits that can accept functionality upgrades such as USB.

Space savings is another key feature designed into Molex's Combo connectors to meet the continuing downsizing of mobile equipment. At 2.75mm height, Molex's microSD/mini-SIM combo connectors offer one of the lowest profiles available. Other key features include solder tails on two sides that maintain stable co-planarity control of 0.1mm maximum after reflow.

microSD/mini-SIM Card Combo Connectors Push-Push Reverse-Mount microSD and Push-Pull Normal-Mount mini-SIM

49448 Left-entry Type
49619 Right-entry Type



FEATURES AND BENEFITS

Features

- Low profile and compact design that combines two socket ports into one footprint
- Left and right-entry port designs
- Card polarization
- Reliable mate/unmate cycling
- Solder tails on two sides
- Visible solder tails

Benefits

- Space savings for mobile phone and other mobile device applications
- Provides design flexibility
- Prevents card from being improperly inserted
- Assurance of up to 10,000 mating cycles
- Space savings and able to keep co-planarity to 0.1mm maximum after reflow
- Easy inspection and access

SPECIFICATIONS

Reference Information

- Packaging: Embossed Tape
- Designed In: mm
- ROHS: Yes

Mechanical

- Durability: 10,000 cycles

Electrical

- Voltage:
  - microSD: 10V max.
  - SIM: 5V max.
- Current:
  - microSD: 10V max.
  - SIM: 5V max.
- Contact Resistance:
  - microSD/SIM: 100 milliohms max.
- Dielectric Withstanding Voltage: 500V AC
- Insulation Resistance: 1000 Megohms min.

Physical

- Housing: LCP
- Contact:
  - microSD: Phosphor Bronze
  - SIM: Copper Alloy
- Plating:
  - Contact Area: Selective Gold
  - Underplating: Nickel
- Operating Temperature: -25 to +85° C

MARKETS AND APPLICATIONS

Mobile Phones

- GSM/3G/CDMA Phones
- Smart Phones
- Swivel–type Phones
- Candybar–type Phones

Other Mobile Devices

- Tablet PCs
- Portable Games
- Personal Navigation Equipment

FEATURES AND BENEFITS

microSD/mini-SIM Card Combo Connectors Push-Push Reverse-Mount microSD and Push-Pull Normal-Mount mini-SIM

49448 Left-entry Type
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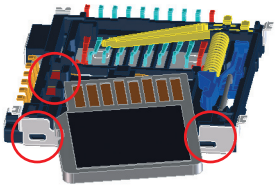
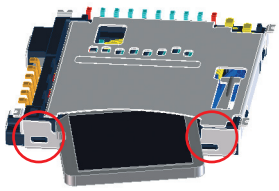
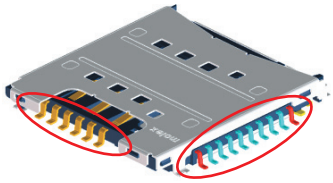
Card Polarization





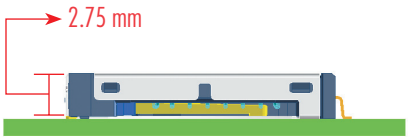
The connector design prevents reverse or improper mating of the card. If the card is inserted upside down, it will be guided by the housing shape and stop before contacting the detect switch.

Outer-Lead Solder Tails



Outer-lead SMT tails allow visual inspection for easy checking and repair if needed.

Molex Combo



Lower profile

ORDERING INFORMATION

Connector

Order No.	Description	PCB Mounting	Depth with Card (mm)	Detect Switch	Height (mm)	Width (mm)	Depth (mm)
49448-1411	6-pin mini-SIM: Push-Pull	Normal	25.48	No	2.75	17.70	17.70
	microSD: Push-Push	Reverse	19.25	Yes			
49448-1611	8-pin mini-SIM: Push-Pull	Normal	25.48	No			
	microSD- Push-Push	Reverse	19.25	Yes			
49619-1611	6/8-pin mini-SIM: Push-Pull	Normal	25.35	No		19.38	17.75
	microSD: Push-Push	Reverse	18.15	Yes			

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