molex® Modular Jack

44380

Right Angle,
Low Profile Inverted
Mini-PCI Compliant

Molex's New Mini-PCI Compliant Inverted Modular Jack Offers Signal Reliability and Flexibility

Molex Incorporated introduces a new right angle inverted Modular Jack that mounts to a 1.00mm (.039") thick PCB in conformance with the Mini-PCI standard. Typical applications for this modular jack are notebook computers, modems, LANs, docking stations, NetPCs, and set top boxes where space is limited.

The inverted design places the terminals on the bottom of the jack providing a shorter signal path for reduced crosstalk. This design also minimizes the "Antennae" effect resulting in less noise being radiated through transmission lines. The Mini-PCI compliant jack is offered with a lightpipe option. Lightpipes replace standard LEDs used in other manufacturers' modular jacks. The lightpipes direct the light emitted from the LEDs mounted on the PCB rather than conventional LEDs mounted in the modular jacks. This offers the ultimate in flexibility since any color or intensity SMT LED can be used. The combination of PCB mounted LEDs and lightpipes results in a reduction of LED generated noise.

The inverted Mini-PCI compliant modular jacks are available in through-hole styles for wave soldering or a high temperature version for reflow soldering. The high temperature version maintains performance at a +260°C reflow soldering temperature for 1 minute without deforming the modular jack or lightpipe. Shielded and unshielded offerings are available for both RJ-11 and RJ-45 configurations for the standard through hole version, and a shielded modular jack is offered with the high temperature lightpipes.
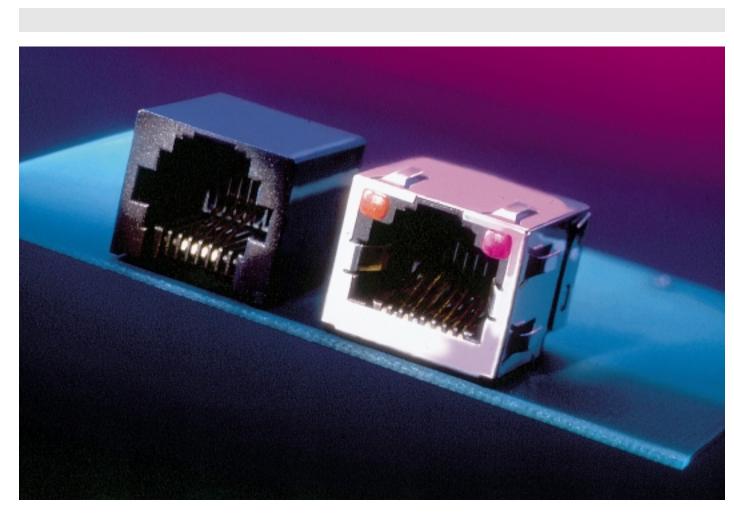
Features and Benefits

■ Meets the 1.00mm (.039") thick PCB requirements of the Mini-PCI standard allowing for thinner PCB for tight space applications

■ Plug latch on top of jack provides easy thumb depression for mating and unmating

■ The inverted RJ-45 lightpipe modular jack provides Category 5 performance for Fast Ethernet applications

■ Signal integrity remains high due to no interference from LED leads

■ Lightpipes reduce the electronic noise from LEDs by as much as 50%

■ Meets FCC 68.5 specification when plating selection is 50µ" of Gold. (30µ" and 15µ" of Gold plating are also available)

■ Each Molex modular jack is 100% electronically tested to detect possible shorting conditions before the product is shipped

FEATURES AND SPECIFICATIONS

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Right Angle, Low Profile Inverted Mini-PCI Compliant

Features and Benefits

- RJ-45 version meets Category 5 for Fast Ethernet
- Meets 1.00mm (.039") max. PCB requirements
- Plug latch on top
- Shortened leads with bottom contacts
- Lower electrical noise than LED offerings
- 34% fewer leads than LED offerings
- Surface Mount Compatible

Reference Information

Product Specification: PS-44380-0003
Packaging: Unshielded—Tube
    Shielded—Tray
UL File No.: E107635
CSA File No.: LR19980
Mates With: FCC 68 Plugs
Designed In: Inches

Electrical

Voltage: 125V
Current: 1.5A max.
Contact Resistance: 10mΩ max.
Dielectric Withstanding Voltage: 1000V AC
Insulation Resistance: 500 MΩ min.
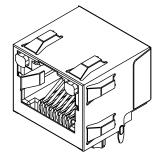
Mechanical

Durability: 500 Cycles

Physical

Housing: Black glass-filled high temperature Nylon, UL 94V-0
Plating: Contact Area—1.27µm (50µ") min. Gold
    Solder Tails—1.27µm (50µ") Tin/Lead on both contact area and solder tails
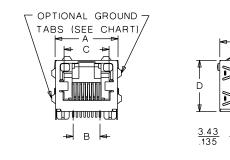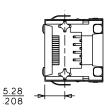   Underplating—Nickel
Operating Temperature: -40 to +80˚C

CATALOG DRAWING (FOR REFERENCE ONLY)

ORDERING INFORMATION AND DIMENSIONS

Circuits	Loaded Contacts	Lightpipes	Order No.			Dimension			
			Unshielded	Shielded With All Panel Grounding Tabs	Shielded With Offset Panel Grounding Tabs	A	B	C	D
6	4		44380-0003			15.75 (.620)	3.07 (.120)	9.88 (.389)	13.21 (.520)
6	4			44380-0006		16.38 (.645)	3.07 (.120)	9.88 (.389)	13.53 (.533)
6	4				44380-0015	16.38 (.645)	3.07 (.120)	9.88 (.389)	13.53 (.533)
8	8	Yes		44380-1010		16.38 (.645)	7.11 (.280)	11.91 (.469)	13.53 (.533)
8	8	Yes			44380-1016	16.38 (.645)	7.11 (.280)	11.91 (.469)	13.53 (.533)