



Category 5

High Speed

Single and Ganged Modular Jacks





## Category 5 High Speed Single and Ganged Modular Jacks

Molex Incorporated offers single port and ganged high speed modular jacks for applications that require Category 5 or Category 5e reliability. These high speed jacks have been tested in accordance with EIA/TIA 568B standards and meet the performance criteria of greater than -43dB Near End Cross Talk (NEXT) at 100Mbps/100MHz for Category 5e performance.

Designed as an industry standard footprint and pin layout for Category 5, the RJ-45 modular jack layout is a drop in replacement for many modular jack suppliers. This provides for easy transition of the Molex Category 5 jacks to existing board layouts.

### Features and Benefits

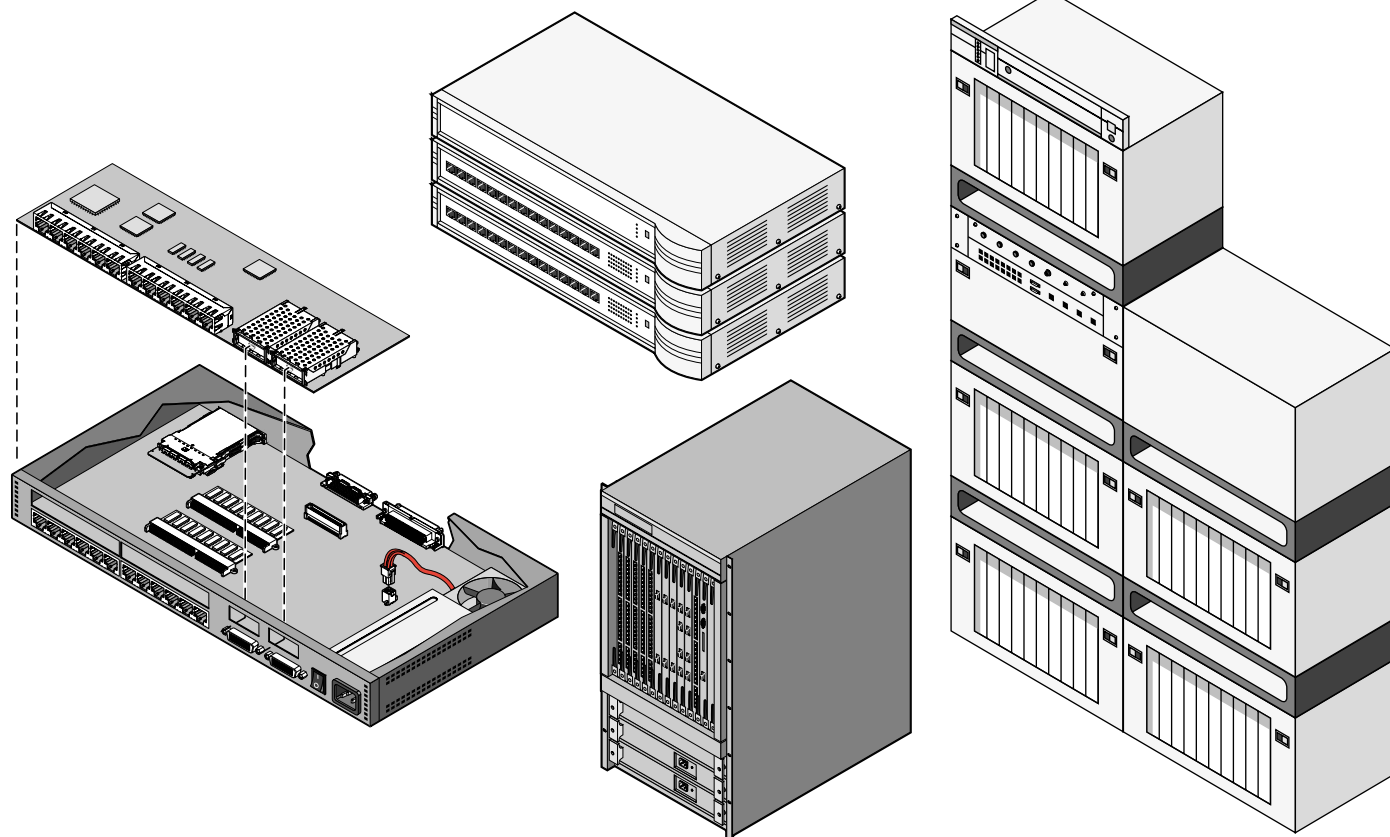
- Gigabit Ethernet compatible
- Delivers Category 5e performance to meet Near End Crosstalk (NEXT) requirements of greater than -43dB on all pair combinations at 100Mbps/100MHz
- Designed for fast Ethernet and ATM applications
- Low profile allows for tight board stacking
- Enhanced panel grounding tabs on shield provide a superior grounding path to panel or bracket
- Housing molded in 30% glass-filled nylon to maintain dimensional integrity to +260°C processing temperature for 1 minute
- 100% Hi-pot and continuity tested for electrical integrity
- Traditional industry standard footprint and pin layout

Enhanced tabs on the shield provide a superior ground path to the panel or metal bracket for maximum shielding effectiveness. Internal grounding tabs complete the circuit to ground in shielded cable/plug applications. Single port shields are available with two side panel grounding tabs or with one tab staggered on each side to allow for side-by-side stackability. Unshielded versions of both the single port and ganged high speed jacks are also available.

### Applications

- Network Servers
- Hubs
- Routers
- Ethernet Switches
- Broadband Equipment
- Repeaters
- Premise Wiring
- Ethernet Telephony
- ATM Transmission Equipment

## APPLICATIONS



## FEATURES AND SPECIFICATIONS

### Features and Benefits

- Exceeds Category 5 performance
- Gigabit Ethernet compatible
- Enclosed top
- Industry Standard Footprint
- Shield with enhanced panel grounding tabs
- Surface Mount Compatible

### Reference Information

Product Specification: PS-44050-003

Packaging: Tray

UL File No.: E107635

CSA File No.: LR149980

Designed In: Inches

### Electrical

Voltage: 125V

Current: 1.5A

Dielectric Withstanding Voltage: 1000V AC

Insulation Resistance: 500 MΩ min.

### Mechanical

Durability: 500 cycles min.

### Physical

Hog: Black glass-filled, high temperature nylon, UL 94V-0

Plating: Contact Area—1.27μm (50μ") min. Gold

Solder Tails—1.27μm (50μ") Tin/Lead

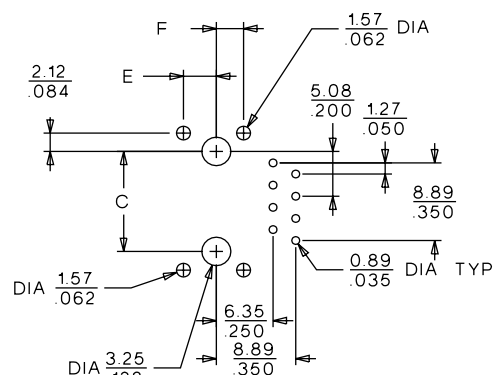
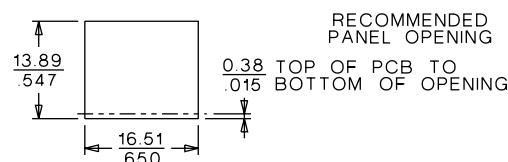
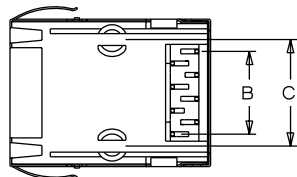
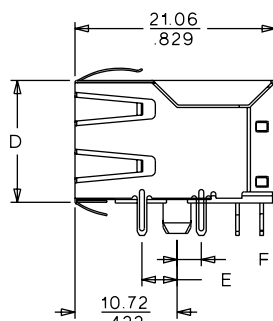
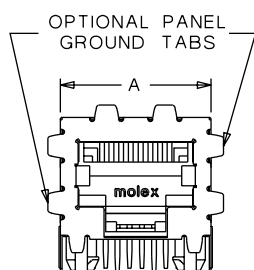
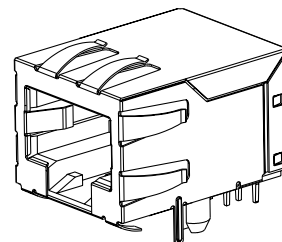
On both contact area and solder tails over nickel overall

Temperature: -40 to +80°C

**molex**® Modular Jack

**44050**

**High Speed, Right Angle  
Low Profile  
Shielded and Unshielded  
Versions**



PCB LAYOUT: COMPONENT SIDE  
RECOMMENDED PCB THICKNESS: 1.57/0.062

## ORDERING INFORMATION AND DIMENSIONS

| Circuits | Loaded<br>Contacts | Order No.  |                               |            |                                  | Dimension    |              |              |              |              |             |   |
|----------|--------------------|------------|-------------------------------|------------|----------------------------------|--------------|--------------|--------------|--------------|--------------|-------------|---|
|          |                    | Unshielded | Shielded                      |            |                                  |              |              |              |              |              |             |   |
|          |                    |            | With All Panel Grounding Tabs |            | With Offset Panel Grounding Tabs |              |              |              |              |              |             |   |
|          |                    |            | Location E                    | Location F | Location E                       | Location F   | A            | B            | C            | D            | E           | F |
| 8        | 8                  | 44050-0001 |                               |            |                                  | 15.24 (.600) | 8.89 (.350)  | 11.43 (.450) | 12.83 (.505) |              |             |   |
| 8        | 8                  |            | 44050-0007                    |            | 44050-0009                       | 15.80 (.622) | 8.89 (.350)  | 11.43 (.450) | 13.08 (.515) | 4.57 (.180)  |             |   |
| 8        | 8                  |            | 44050-0002                    |            | 44050-0004                       | 15.80 (.622) | 8.89 (.350)  | 11.43 (.450) | 13.08 (.515) | 3.68 (.145)  |             |   |
| 8        | 8                  |            | 44050-0006                    |            | 44050-0008                       | 15.80 (.622) | 8.89 (.350)  | 11.43 (.450) | 13.08 (.515) | 3.05 (.120)  |             |   |
| 8        | 8                  |            |                               | 44050-0003 |                                  | 44050-0005   | 15.80 (.622) | 8.89 (.350)  | 11.43 (.450) | 13.08 (.515) | 3.05 (.120) |   |

## FEATURES AND SPECIFICATIONS

### Features and Benefits

- Exceeds Category 5 performance
- Gigabit Ethernet compatible
- 2, 4, 6 and 8 port configurations available
- Shield with enhanced panel grounding tabs
- 100% tested for hi-pot and continuity
- Industry Standard Footprint
- High-temperature plastic

### Reference Information

Product Specification: PS-44150-003  
 Packaging: Tray  
 UL File No.: E107635  
 CSA File No.: LR19980  
 Designation In: Inches

### Electrical

Voltage: 125V  
 Current: 1.5A  
 Dielectric Withstanding Voltage: 1000V AC  
 Insulation Resistance: 500 MΩ min.

### Mechanical

Durability: 500 cycles min.

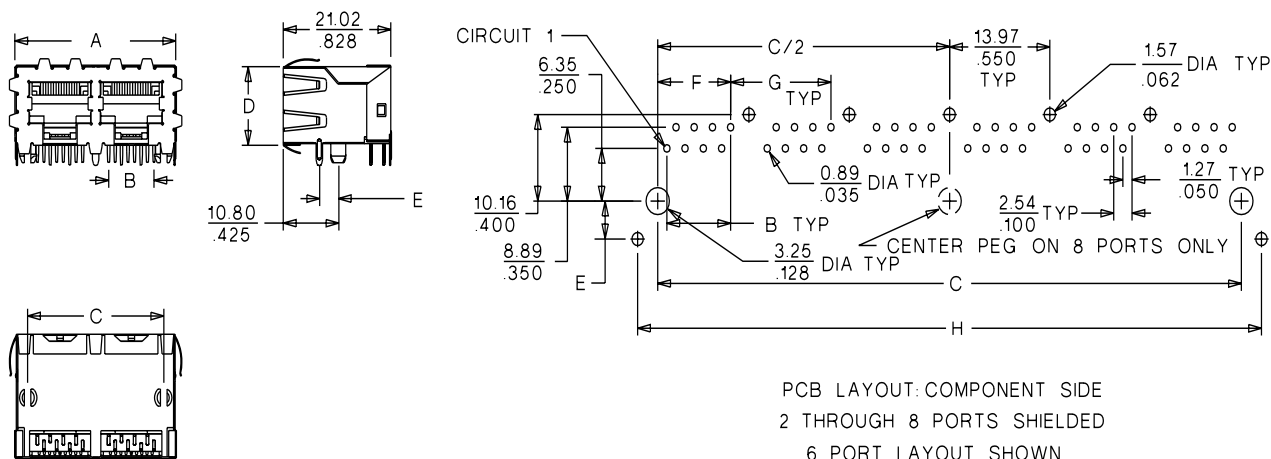
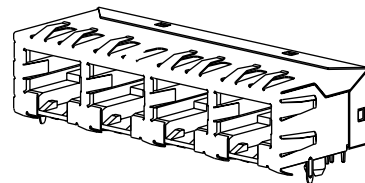
### Physical

Housing: Glass-filled 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 over nickel overall  
 Temperature: -40 to +80°C

**molex®** Modular Jack

**44150**

**High Speed, Ganged,  
 Right Angle, Low Profile  
 Shielded and Unshielded  
 Versions**



RECOMMENDED PCB THICKNESS:  $\frac{1.57}{.062}$

## ORDERING INFORMATION AND DIMENSIONS

| Circuits | Loaded Contacts | No. of Ports | Order No.     |                | Dimension     |             |               |              |              |              |
|----------|-----------------|--------------|---------------|----------------|---------------|-------------|---------------|--------------|--------------|--------------|
|          |                 |              | Snap-Fit Pegs | Press-Fit Pegs | A             | B           | C             | D            | F            | G            |
| 8        | 8               | 2            | 44150-0001    | 44150-0017     | 30.48 (1.20)  | 8.89 (.350) | 25.40 (1.00)  | 12.83 (.505) | 10.16 (.400) | 13.97 (.550) |
| 8        | 8               | 4            | 44150-0002    | 44150-0018     | 58.42 (2.30)  | 8.89 (.350) | 53.34 (2.10)  | 12.83 (.505) | 10.16 (.400) | 13.97 (.550) |
| 8        | 8               | 6            | 44150-0003    | 44150-0019     | 86.36 (3.40)  | 8.89 (.350) | 82.28 (3.20)  | 12.83 (.505) | 10.16 (.400) | 13.97 (.550) |
| 8        | 8               | 8            | 44150-0004    | 44150-0020     | 114.30 (4.50) | 8.89 (.350) | 109.22 (4.30) | 12.83 (.505) | 10.16 (.400) | 13.97 (.550) |

| Circuits | Loaded<br>Contacts | No. of Ports | Order No.     |                |               |                | Dimension     |             |               |              |              |              |               |
|----------|--------------------|--------------|---------------|----------------|---------------|----------------|---------------|-------------|---------------|--------------|--------------|--------------|---------------|
|          |                    |              | Option 1*     |                | Option 2†     |                | A             | B           | C             | D            | F            | G            | H             |
|          |                    |              | Snap-Fit Pegs | Press-Fit Pegs | Snap-Fit Pegs | Press-Fit Pegs |               |             |               |              |              |              |               |
| 8        | 8                  | 2            | 44150-0005    | 44150-0021     | 44150-0011    | 44150-0027     | 30.48 (1.20)  | 8.89 (.350) | 25.40 (1.00)  | 13.31 (.524) | 10.16 (.400) | 13.97 (.550) | 30.99 (1.22)  |
| 8        | 8                  | 4            | 44150-0006    | 44150-0022     | 44150-0012    | 44150-0028     | 58.42 (2.30)  | 8.89 (.350) | 53.34 (2.10)  | 13.31 (.524) | 10.16 (.400) | 13.97 (.550) | 58.93 (2.32)  |
| 8        | 8                  | 6            | 44150-0007    | 44150-0023     | 44150-0013    | 44150-0029     | 86.36 (3.40)  | 8.89 (.350) | 82.28 (3.20)  | 13.31 (.524) | 10.16 (.400) | 13.97 (.550) | 86.87 (3.42)  |
| 8        | 8                  | 8            | 44150-0008    | 44150-0024     | 44150-0014    | 44150-0030     | 114.30 (4.50) | 8.89 (.350) | 109.22 (4.30) | 13.31 (.524) | 10.16 (.400) | 13.97 (.550) | 114.81 (4.52) |

Note: Contact Inside Sales for alternative rear grounding tab option on 4 and 8 port order numbers only.

\* Dimension E = 3.68mm (.145")

† Dimension E = 4.57mm (.180")

### Americas Headquarters

Lisle, Illinois 60532 U.S.A.  
 Tel: 1-800-78MOLEX  
 Fax: 630-969-1352

### Far East North Headquarters

Yamato, Kanagawa, Japan  
 Tel: 81-462-65-2324  
 Fax: 81-462-65-2366

### Far East South Headquarters

Jurong, Singapore  
 Tel: 65-268-6868  
 Fax: 65-265-6044

### European Headquarters

Munich, Germany  
 Tel: 49-89-413092-0  
 Fax: 49-89-401527

### Corporate Headquarters

2222 Wellington Ct.  
 Lisle, IL 60532 U.S.A.  
 Tel: 630-969-4550

Visit our Web site at <http://www.molex.com>



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- Гибкое ценообразование

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Менеджер отдела продаж ООО

«Трейд Электроникс»

Шишлаков Евгений

8 (495)668-30-28 доб 169

manager28@tradeelectronics.ru

<http://www.tradeelectronics.ru/>