

**PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION**

**Part Number:** **0424109418**  
**Status:** **Active**  
**Overview:** modular\_plugs\_jacks  
**Description:** Modular Jack, Vertical, 8/2, Keyed

**Documents:**

[3D Model](#) [Product Specification PS-42410 \(PDF\)](#)  
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

**Agency Certification**

CSA LR19980  
 UL E107635

**General**

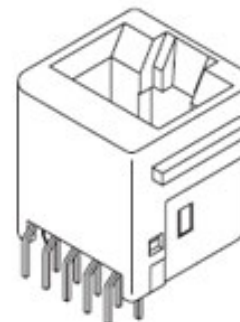
Product Family Modular Jacks/Plugs  
 Series 42410  
 Component Type PCB Jack  
 Magnetic No  
 Overview modular\_plugs\_jacks  
 Performance Category 3  
 Power over Ethernet (PoE) N/A  
 Product Name RJ45

**Physical**

Boot Color N/A  
 Color - Resin Black  
 Durability (mating cycles max) 500  
 Flammability 94V-0  
 Inverted / Top Latch N/A  
 Keying to Mating Part Yes  
 Lightpipes/LEDs None  
 Material - Metal Phosphor Bronze  
 Material - Plating Mating Gold  
 Material - Plating Termination Tin  
 Material - Resin Polyester  
 Orientation Vertical (Top Entry)  
 PCB Locator Yes  
 PCB Retention Yes  
 PCB Thickness Recommended (in) 0.125 In  
 PCB Thickness Recommended (mm) 3.18 mm  
 Packaging Type Tray  
 Panel Mount With Flange  
 Pitch - Mating Interface (in) 0.040 In  
 Pitch - Mating Interface (mm) 1.02 mm  
 Pitch - Term. Interface (in) 0.050 In  
 Pitch - Term. Interface (mm) 1.27 mm  
 Ports 1  
 Positions / Loaded Contacts 8/2  
 Surface Mount Compatible (SMC) No  
 Temperature Range - Operating -40°C to +85°C  
 Termination Interface: Style Through Hole  
 Waterproof / Dustproof No  
 Wire/Cable Type N/A

**Electrical**

Current - Maximum per Contact 1.5A



*image - Reference only*

*Series*

**EU RoHS**

**ELV and RoHS  
 Compliant**  
**REACH SVHC**  
 Not Reviewed  
**Halogen-Free  
 Status**  
**Not Reviewed**

**China RoHS**



**Need more information on product  
 environmental compliance?**

Email [productcompliance@molex.com](mailto:productcompliance@molex.com)  
 For a multiple part number RoHS Certificate of  
 Compliance, [click here](#)

Please visit the [Contact Us](#) section for any  
 non-product compliance questions.

**Search Parts in this Series**  
 42410Series

|                    |               |
|--------------------|---------------|
| Grounding to PCB   | No            |
| Grounding to Panel | None          |
| Shielded           | No            |
| Voltage - Maximum  | 150V AC (RMS) |

#### **Solder Process Data**

|  |                        |
|--|------------------------|
| Duration at Max. Process Temperature (seconds) | 5                      |
| Lead-free Process Capability                   | Wave Capable (TH only) |
| Max. Cycles at Max. Process Temperature        | 1                      |
| Process Temperature max. C                     | 235                    |

#### **Material Info**

#### **Reference - Drawing Numbers**

|                         |                |
|-------------------------|----------------|
| Packaging Specification | PK-42410-492   |
| Product Specification   | PS-42410       |
| Sales Drawing           | SDA-42410-**** |
| Test Summary            | TS-42878-001   |

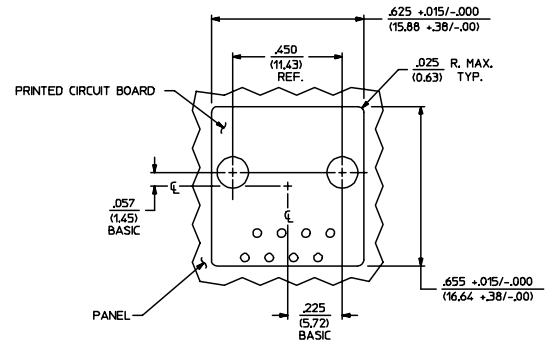
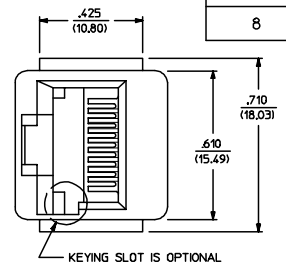
This document was generated on 06/07/2010

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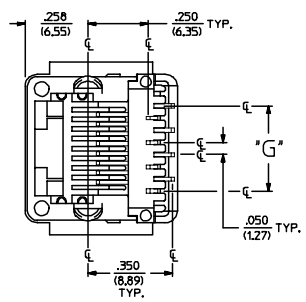
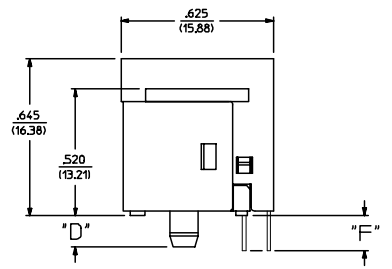
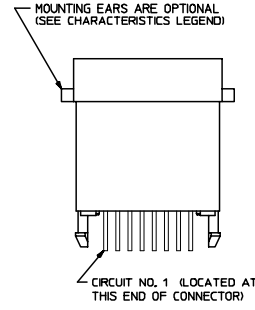
NOTES:  
 1) MATERIALS: HOUSING PARTS ARE MADE OF POLYESTER, RATED UL, 94 V-0, COLOR IS BLACK; TERMINALS ARE .075/(0.38) THICK PHOSPHOR BRONZE.  
 2) TERMINAL PLATING OPTIONS PER ES-88-\*\*\*\*:  
 A - SELECT GOLD IN CONTACT AREA; 50 MICRONS MIN.  
 \*SELECT TN IN PC TAIL AREA; 100 MICRONS MIN.  
 WITH OVERALL NICKEL UNDERPLATE; 50 MICRONS MIN.  
 \*THE PRIMARY SHIPPING CARTON WILL BE LABELED "COMPLIANT TO RoHS DIRECTIVE 2002/95/EC AND ELV ANNEX II OF DIRECTIVE 2000/53/EC". CARTONS WITHOUT THIS LABEL MAY CONTAIN PRODUCT WITH TN-LEAD IN THE PC TAIL.  
 3) THESE MODULAR JACKS MEET THE PERFORMANCE REQUIREMENTS OF MOLEX PRODUCT SPECIFICATION PS-42410.  
 4) CONNECTORS ARE TO BE PACKED IN THERMOFORMED TRAYS, PER PACKAGING SPECIFICATION PK-42410-492.  
 5) ALL JACKS ARE DESIGNED TO BE USED WITH .062/(1.57) OR .125/(3.18) THICK P.C. BOARDS.  
 6) ALL JACKS CONFORM TO AND ACCEPT PLUGS WHICH CONFORM TO FCC RULES AND REGULATIONS PART 68, SUBPART F, WHEN PLATED WITH 50 MICRONS GOLD.  
 7) ALL JACKS MUST BE CAPABLE OF FITTING INTO MOLEX GAGE G-42410 (CONNECTOR SIZE 4).  
 8) SEE SHEETS 1 & 4 FOR CONNECTOR SIZE 4.  
 9) SEE SHEETS 2 & 4 FOR CONNECTOR SIZE 6.  
 10) SEE SHEET 4 FOR ASSEMBLY ITEM NUMBERS.  
 11) THIS MODULAR JACK ASSEMBLY IS ALSO AVAILABLE IN A UL 94V-0 RATED, GLASS-FILLED NYLON. (SEE MOLEX DRAWING SDA-42576)  
 12) ENGRAVED NUMBERS ON HOUSING BODY ARE FOR HOLDING IDENTIFICATION ONLY. THEY ARE NOT INTENDED FOR ASSEMBLY IDENTIFICATION PURPOSES.  
 13) ALL UNTOLERANCED DIMENSIONS ARE SHOWN FOR REFERENCE ONLY.

| P.C. BOARD THICKNESS | DIM. "D" (MTG. PEGS) | DIM. "F" (P.C. TAILS)             |
|----------------------|----------------------|-----------------------------------|
| .062/(1.57)          | .128 (3.25)          | .120 +.015/-.025 (3.05 +.38/-.63) |
| .125/(3.18)          | .191 (4.85)          | .205 +.015/-.025 (5.21 +.38/-.63) |

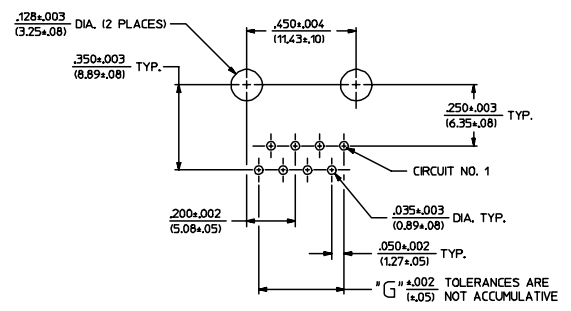
| CONNECTOR SIZE | CIRCUIT SIZE | DIM. "G"    |
|----------------|--------------|-------------|
| 8              | 8            | .350 (8.89) |
| 8              | 6            | .250 (6.35) |
| 8              | 4            | .150 (3.81) |
| 8              | 2            | .050 (1.27) |



PANEL CUT-OUT FOR CONNECTOR SIZE 8



SIZE 8 MODULAR JACK LOADED WITH 8 TERMINALS SHOWN ABOVE  
 (SEE SHEET 4 FOR PART NUMBER AVAILABILITY)



P.C. BOARD LAYOUT FOR CONNECTOR SIZE 8

|  |                                 |                                       |   |                   |                                    |                        |
|--|---------------------------------|---------------------------------------|---|-------------------|------------------------------------|------------------------|
| SEE SHEET ONE<br>EC NO. UCP2004-667<br>DRAWN:LSCHMIDT 2004/03/03<br>CHKD:LSCHMIDT 2004/03/03<br>APPR:ESMITH 2004/03/03 | QUALITY SYMBOLS                 | GENERAL TOLERANCES (UNLESS SPECIFIED) | SCALE 4:1   | DESIGN UNITS INCH | THIRD ANGLE PROJECTION             | REVISE ON CAD ONLY     |
|  | DESCRIPTION                     | mm INCH                               | mm INCH   | IN/MM             | TITLE                              |                        |
|  | 4 PLACES ± .0005                | 3 PLACES ± .0005                      | 2 PLACES ± .0005  | 1 PLACE ± .0005   | ANGULAR ± 1/2°                     | DRAFT WHERE APPLICABLE |
|  | MUST REMAIN WITHIN DIMENSIONS   |                                       | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |                   |                                    |                        |
|  | DRAWN BY DATE<br>GLT 1990/10/12 |                                       | CHECKED BY DATE<br>BAP 1990/10/12   |                   | APPROVED BY DATE<br>RAS 1990/10/12 |                        |
|  | MATERIAL NO.                    |                                       | DOCUMENT NO.  |                   | SHEET NO.                          |                        |
|  | SEE SHEET 4 SDA-42410-****      |                                       | 3 OF 4  |                   | MOLEX INCORPORATED                 |                        |

| SIZE 4 VERTICAL MODJACK ASSEMBLIES |                         |                     |                      |                      |                         |
|------------------------------------|-------------------------|---------------------|----------------------|----------------------|-------------------------|
| PART CHARACTERISTICS               |                         |                     |                      |                      |                         |
| ASSEMBLY ITEM NUMBER               | EXTERNAL CONNECTOR SIZE | NUMBER OF POSITIONS | P.C. BOARD THICKNESS | MOUNTING EARS OPTION | TERMINAL PLATING OPTION |
| 42410-4168                         | 4 POS. BODY             | 4                   | .062/(1.57)          | YES                  | A                       |
| 42410-4170                         | ↑                       | ↑                   | .062/(1.57)          | NO                   | A                       |
| 42410-4264                         | ↓                       | ↓                   | .125/(3.18)          | YES                  | A                       |
| 42410-4266                         | 4 POS. BODY             | 4                   | .125/(3.18)          | NO                   | A                       |
| 42410-4312                         | 4 POS. BODY             | 2                   | .062/(1.57)          | YES                  | A                       |
| 42410-4314                         | ↑                       | ↑                   | .062/(1.57)          | NO                   | A                       |
| 42410-4408                         | ↓                       | ↓                   | .125/(3.18)          | YES                  | A                       |
| 42410-4410                         | 4 POS. BODY             | 2                   | .125/(3.18)          | NO                   | A                       |

| SIZE 6 VERTICAL MODJACK ASSEMBLIES |                         |                     |                      |                      |                         |
|------------------------------------|-------------------------|---------------------|----------------------|----------------------|-------------------------|
| PART CHARACTERISTICS               |                         |                     |                      |                      |                         |
| ASSEMBLY ITEM NUMBER               | EXTERNAL CONNECTOR SIZE | NUMBER OF POSITIONS | P.C. BOARD THICKNESS | MOUNTING EARS OPTION | TERMINAL PLATING OPTION |
| 42410-6168                         | 6 POS. BODY             | 6                   | .062/(1.57)          | YES                  | A                       |
| 42410-6170                         | ↑                       | ↑                   | .062/(1.57)          | NO                   | A                       |
| 42410-6264                         | ↓                       | ↓                   | .125/(3.18)          | YES                  | A                       |
| 42410-6266                         | 6 POS. BODY             | 6                   | .125/(3.18)          | NO                   | A                       |
| 42410-6312                         | 6 POS. BODY             | 4                   | .062/(1.57)          | YES                  | A                       |
| 42410-6314                         | ↑                       | ↑                   | .062/(1.57)          | NO                   | A                       |
| 42410-6320                         | ↑                       | ↑                   | .062/(1.57)          | YES                  | B                       |
| 42410-6408                         | ↓                       | ↓                   | .125/(3.18)          | YES                  | A                       |
| 42410-6410                         | 6 POS. BODY             | 4                   | .125/(3.18)          | NO                   | A                       |
| 42410-6456                         | 6 POS. BODY             | 2                   | .062/(1.57)          | YES                  | A                       |
| 42410-6458                         | ↑                       | ↑                   | .062/(1.57)          | NO                   | A                       |
| 42410-6552                         | ↓                       | ↓                   | .125/(3.18)          | YES                  | A                       |
| 42410-6554                         | 6 POS. BODY             | 2                   | .125/(3.18)          | NO                   | A                       |

| SIZE 8 VERTICAL MODJACK ASSEMBLIES |                         |                     |                      |               |                      |                         |
|------------------------------------|-------------------------|---------------------|----------------------|---------------|----------------------|-------------------------|
| PART CHARACTERISTICS               |                         |                     |                      |               |                      |                         |
| ASSEMBLY ITEM NUMBER               | EXTERNAL CONNECTOR SIZE | NUMBER OF POSITIONS | P.C. BOARD THICKNESS | KEYING OPTION | MOUNTING EARS OPTION | TERMINAL PLATING OPTION |
| 42410-8312                         | 8 POS. BODY             | 8                   | .062/(1.57)          | NO            | YES                  | A                       |
| 42410-8314                         | ↑                       | ↑                   | .062/(1.57)          | NO            | NO                   | A                       |
| 42410-8360                         | ↑                       | ↑                   | .062/(1.57)          | YES           | YES                  | A                       |
| 42410-8362                         | ↑                       | ↑                   | .062/(1.57)          | YES           | NO                   | A                       |
| 42410-8504                         | ↑                       | ↑                   | .125/(3.18)          | NO            | YES                  | A                       |
| 42410-8506                         | ↑                       | ↑                   | .125/(3.18)          | NO            | NO                   | A                       |
| 42410-8552                         | ↓                       | ↓                   | .125/(3.18)          | YES           | YES                  | A                       |
| 42410-8554                         | 8 POS. BODY             | 8                   | .125/(3.18)          | YES           | NO                   | A                       |
| 42410-8600                         | 8 POS. BODY             | 6                   | .062/(1.57)          | NO            | YES                  | A                       |
| 42410-8602                         | ↑                       | ↑                   | .062/(1.57)          | NO            | NO                   | A                       |
| 42410-8648                         | ↑                       | ↑                   | .062/(1.57)          | YES           | YES                  | A                       |
| 42410-8650                         | ↑                       | ↑                   | .062/(1.57)          | YES           | NO                   | A                       |
| 42410-8792                         | ↑                       | ↑                   | .125/(3.18)          | NO            | YES                  | A                       |
| 42410-8794                         | ↑                       | ↑                   | .125/(3.18)          | NO            | NO                   | A                       |
| 42410-8840                         | ↓                       | ↓                   | .125/(3.18)          | YES           | YES                  | A                       |
| 42410-8842                         | 8 POS. BODY             | 6                   | .125/(3.18)          | YES           | NO                   | A                       |
| 42410-8888                         | 8 POS. BODY             | 4                   | .062/(1.57)          | NO            | YES                  | A                       |
| 42410-8890                         | ↑                       | ↑                   | .062/(1.57)          | NO            | NO                   | A                       |
| 42410-8936                         | ↑                       | ↑                   | .062/(1.57)          | YES           | YES                  | A                       |
| 42410-8938                         | ↑                       | ↑                   | .062/(1.57)          | YES           | NO                   | A                       |
| 42410-9080                         | ↑                       | ↑                   | .125/(3.18)          | NO            | YES                  | A                       |
| 42410-9082                         | ↑                       | ↑                   | .125/(3.18)          | NO            | NO                   | A                       |
| 42410-9128                         | ↓                       | ↓                   | .125/(3.18)          | YES           | YES                  | A                       |
| 42410-9130                         | 8 POS. BODY             | 4                   | .125/(3.18)          | YES           | NO                   | A                       |
| 42410-9176                         | 8 POS. BODY             | 2                   | .062/(1.57)          | NO            | YES                  | A                       |
| 42410-9178                         | ↑                       | ↑                   | .062/(1.57)          | NO            | NO                   | A                       |
| 42410-9224                         | ↑                       | ↑                   | .062/(1.57)          | YES           | YES                  | A                       |
| 42410-9226                         | ↑                       | ↑                   | .062/(1.57)          | YES           | NO                   | A                       |
| 42410-9368                         | ↑                       | ↑                   | .125/(3.18)          | NO            | YES                  | A                       |
| 42410-9370                         | ↑                       | ↑                   | .125/(3.18)          | NO            | NO                   | A                       |
| 42410-9416                         | ↓                       | ↓                   | .125/(3.18)          | YES           | YES                  | A                       |
| 42410-9418                         | 8 POS. BODY             | 2                   | .125/(3.18)          | YES           | NO                   | A                       |

|   |                 |   |   |   |   |                    |
|---|-----------------|---|---|---|---|--------------------|
| SEE SHEET ONE<br>EC NO. UCP2004-167<br>DRAWN:LSCHMIDT 2004/03/03<br>CHKD:LSCHMIDT 2004/03/03<br>APPR:ESMITH 2004/03/03<br>N | QUALITY SYMBOLS | GENERAL TOLERANCES (UNLESS SPECIFIED)   | SCALE   | DESIGN UNITS  | THIRD ANGLE PROJECTION                    | REVISE ON CAD ONLY |
|   | ▽ 0             | 4 PLACES ± --- ± ---<br>3 PLACES ± --- ± ---<br>2 PLACES ± --- ± ---<br>1 PLACE ± --- ± --- | mm INCH   | INCH  | IN/MM                                     |                    |
|   | ▽ 0             | ANGULAR ±1/2°   |   |   |   |                    |
|   |                 | DRAFT WHERE APPLICABLE<br>MUST REMAIN WITHIN DIMENSIONS                                     |   |   |   |                    |
|   |                 |   | DRAWN BY DATE<br>GLT 1990/10/12   | CHECKED BY DATE<br>BAP 1990/10/12                       | TITLE<br>ASSEMBLY, VERTICAL MODULAR JACKS |                    |
|   |                 |   | APPROVED BY DATE<br>RAS 1990/10/12  | MATERIAL NO. (DOCUMENT NO.)<br>SEE CHART SDA-42410-**** |   |                    |
|   |                 |   | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |   |   |                    |
|   |                 |   | SHEET NO.<br>4 OF 4   |   |   |                    |