

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

**Part Number:** **0441700001**  
**Status:** **Active**  
**Overview:** modular\_plugs\_jacks  
**Description:** Modular Jack, Right Angle, Shielded, Lightpipes, Stacked, 8/8, 8 Ports

**Documents:**

[3D Model](#) [Product Specification PS-44050-003 \(PDF\)](#)  
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)  
[Packaging Specification \(PDF\)](#)

**Agency Certification**

CSA LR19980  
 UL E107635

**General**

Product Family Modular Jacks/Plugs  
 Series 44170  
 Comments High Speed|Multi-Port  
 Component Type PCB Jack  
 Magnetic No  
 Overview modular\_plugs\_jacks  
 Performance Category 5  
 Power over Ethernet (PoE) N/A  
 Product Name RJ45

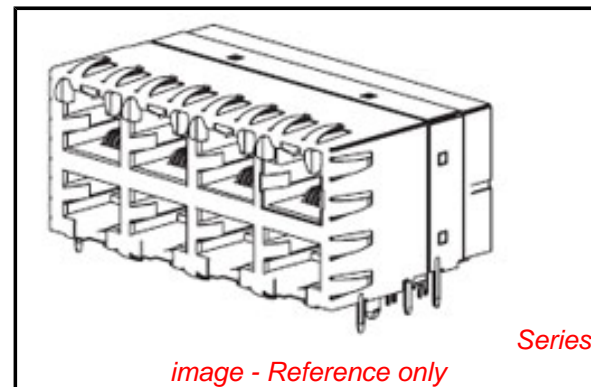
**Physical**

Color - Resin Black, Clear  
 Durability (mating cycles max) 500  
 Flammability 94V-0  
 Inverted / Top Latch Yes  
 Lightpipes/LEDs Lightpipes  
 Material - Metal Phosphor Bronze  
 Material - Plating Mating Gold  
 Material - Plating Termination Tin  
 Material - Resin Polycarbonate, Polyester  
 Orientation Right Angle (Side Entry)  
 PCB Retention Yes  
 PCB Thickness Recommended (in) 0.062 In  
 PCB Thickness Recommended (mm) 1.60 mm  
 Packaging Type Tray  
 Plating min: Mating (µin) 50  
 Plating min: Mating (µm) 1.25  
 Plating min: Termination (µin) 100  
 Plating min: Termination (µm) 2.5  
 Ports 8  
 Positions / Loaded Contacts 8/8  
 Surface Mount Compatible (SMC) No  
 Temperature Range - Operating -40°C to +80°C  
 Termination Interface: Style Through Hole  
 Wire/Cable Type N/A

**Electrical**

Current - Maximum per Contact 1.5A  
 Shielded Yes  
 Voltage - Maximum 125V

**Solder Process Data**



**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**

44170Series

**Mates With**

FCC 68 Plugs

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	260

### **Material Info**

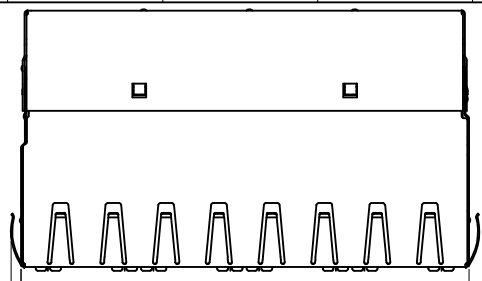
### **Reference - Drawing Numbers**

Application Specification	AS-43860-001
Packaging Specification	PK-44170-003
Product Specification	PS-44050-003
Sales Drawing	SD-44170-001
Test Summary	TS-44050-001

This document was generated on 06/07/2010

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.052  
1.32 TYP



DIM -A-

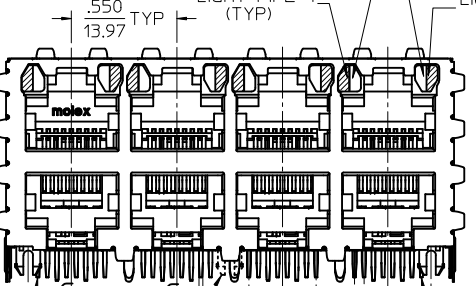
LIGHT PIPE 3  
(TYP)

LIGHT PIPE 2  
(TYP)

LIGHT PIPE 4  
(TYP)

LIGHT PIPE 1  
(TYP)

OPTIONAL  
SIDE PANEL  
GROUND TABS  
TYP (8)  
SEE NOTE 9



CIRCUIT #1 (BOTTOM ROW)

SNAP-FIT CENTER PEG  
(16 PORT VERSIONS ONLY)

.020  
0.51 TYP

DIM -B-

CIRCUIT #1 (TOP ROW)

.050  
1.27 TYP

.350  
8.89 TYP

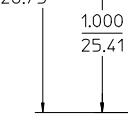
.020  
0.50 TYP

1.052  
26.73 TYP

.425  
10.80 (2 PLACES)

1.337  
33.95

.150  
3.81 TYP  
HIGHEST POINT



.163  
4.15

.012  
0.30 TYP

.759  
19.29 TYP

.100  
2.55 TYP

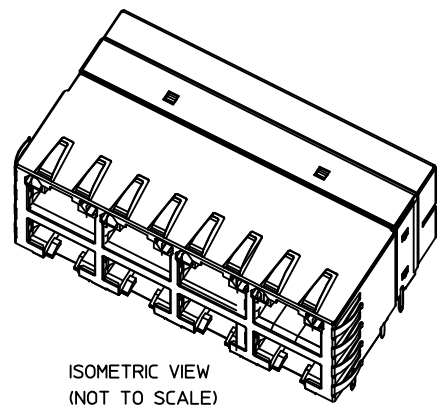
.050  
1.27 TYP

.158 (2) PLACES  
4.01 PER PORT

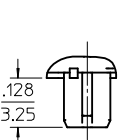
.140 (6) PLACES  
3.56 PER PORT

INNER AND REAR  
GROUND TABS  
(OPTIONAL)

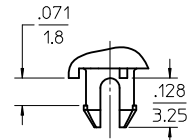
CLASS C SURFACE  
SEE NOTE 11



ISOMETRIC VIEW  
(NOT TO SCALE)



PRESS-FIT PEG  
STYLE (NOTE 6)



SNAP-FIT PEG  
STYLE (NOTE 6)

NOTES:

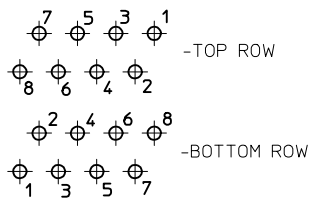
- MATERIAL:  
HOUSING: POLYESTER(PBT), GLASS FILLED, UL94V-0, COLOR: BLACK  
LIGHT PIPES: POLYCARBONATE, UL-94HB, COLOR: CLEAR  
TERMINALS: PHOSPHOR BRONZE  
SHIELD: BRASS
- FINISH:  
TERMINALS:  
SELECT GOLD IN CONTACT AREA: 50 MICROINCHES / 1.27 MICROMETERS MIN.  
\*SELECT TIN IN PC TAIL AREA: 100 MICROINCHES / 2.54 MICROMETERS MIN.  
WITH OVERALL NICKEL UNDERPLATE: 50 MICROINCHES / 1.27 MICROMETERS MIN.  
SHIELD:  
\*100 MICROINCHES / 2.54 MICROMETERS NICKEL OVER 50 MICROINCHES /  
1.27 MICROMETERS COPPER UNDERPLATE PCB GROUND TABS DIPPED IN TIN  
\*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 TIN-LEAD IN THE PC TAILS AND/OR SHIELD.
- PRODUCT SPECIFICATION AND PROCESSING PARAMETERS: PS-44050-003.
- PACKAGING SPECIFICATION: CONNECTOR PACKAGED IN THERMOFORMED TRAYS PER PK-44170-003.
- APPLICATION SPECIFICATION: AS-43860-001
- CONNECTORS AVAILABLE WITH EITHER SNAP-FIT OR PRESS-FIT PEGS.
- CONFORMS TO FCC REGULATION PART 68.5 FOR MODULAR JACKS.
- PCB LAYOUT AND PANEL CUT-OUT SHOWN ON SHEET (2) OF (2).
- AVAILABLE WITH THE (8) PANEL GROUND TABS REMOVED ON EACH SIDE  
FOR SIDE TO SIDE STACKABILITY.
- TERMINAL LENGTHS MAY BE DIFFERENT FROM TERMINAL TO TERMINAL.
- THIS PART CONFORMS TO CLASS B REQUIREMENTS OF COSMETIC  
SPECIFICATION PS-45499-002 WITH THE EXCEPTION OF THE SURFACE  
INDICATED WHICH IS A CLASS C SURFACE.

ASSEMBLY MATERIAL NUMBER	NUMBER OF PORTS	PEG STYLE	DIM -A-	DIM -B-	SIDE PANEL GROUND TABS	INNER/REAR GROUND TABS
44170-0001	8 (2 X 4)	SNAP-FIT	2.330/59.18	2.100/53.34	YES	YES
44170-2001	8 (2 X 4)	SNAP-FIT	2.330/59.18	2.100/53.34	NO	YES
44170-3001	8 (2 X 4)	SNAP-FIT	2.330/59.18	2.100/53.34	YES	NO
44170-4001	8 (2 X 4)	SNAP-FIT	2.330/59.18	2.100/53.34	NO	NO
44170-0004	8 (2 X 4)	PRESS-FIT	2.330/59.18	2.100/53.34	YES	YES
44170-2004	8 (2 X 4)	PRESS-FIT	2.330/59.18	2.100/53.34	NO	YES
44170-3004	8 (2 X 4)	PRESS-FIT	2.330/59.18	2.100/53.34	YES	NO
44170-4004	8 (2 X 4)	PRESS-FIT	2.330/59.18	2.100/53.34	NO	NO
44170-0002	12 (2 X 6)	SNAP-FIT	3.430/87.12	3.200/81.28	YES	YES
44170-2002	12 (2 X 6)	SNAP-FIT	3.430/87.12	3.200/81.28	NO	YES
44170-3002	12 (2 X 6)	SNAP-FIT	3.430/87.12	3.200/81.28	YES	NO
44170-4002	12 (2 X 6)	SNAP-FIT	3.430/87.12	3.200/81.28	NO	NO
44170-0005	12 (2 X 6)	PRESS-FIT	3.430/87.12	3.200/81.28	YES	YES
44170-2005	12 (2 X 6)	PRESS-FIT	3.430/87.12	3.200/81.28	NO	YES
44170-3005	12 (2 X 6)	PRESS-FIT	3.430/87.12	3.200/81.28	YES	NO
44170-4005	12 (2 X 6)	PRESS-FIT	3.430/87.12	3.200/81.28	NO	NO
44170-0003	16 (2 X 8)	SNAP-FIT	4.530/115.06	4.300/109.22	YES	YES
44170-2003	16 (2 X 8)	SNAP-FIT	4.530/115.06	4.300/109.22	NO	YES
44170-3003	16 (2 X 8)	SNAP-FIT	4.530/115.06	4.300/109.22	YES	NO
44170-4003	16 (2 X 8)	SNAP-FIT	4.530/115.06	4.300/109.22	NO	NO
44170-0006	16 (2 X 8)	PRESS-FIT	4.530/115.06	4.300/109.22	YES	YES
44170-2006	16 (2 X 8)	PRESS-FIT	4.530/115.06	4.300/109.22	NO	YES
44170-3006	16 (2 X 8)	PRESS-FIT	4.530/115.06	4.300/109.22	YES	NO
44170-4006	16 (2 X 8)	PRESS-FIT	4.530/115.06	4.300/109.22	NO	NO

REVISED TITLE BLOCK  
 EC NO: UCP2010-0464  
 DRAWN: JAGUILAR 2009/08/20  
 CHKD: BELL 2009/08/26  
 APPR: FSMITH 2009/08/26

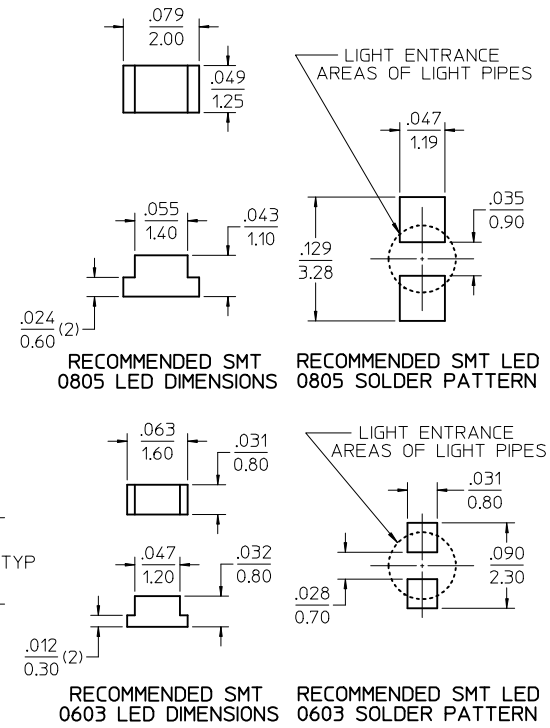
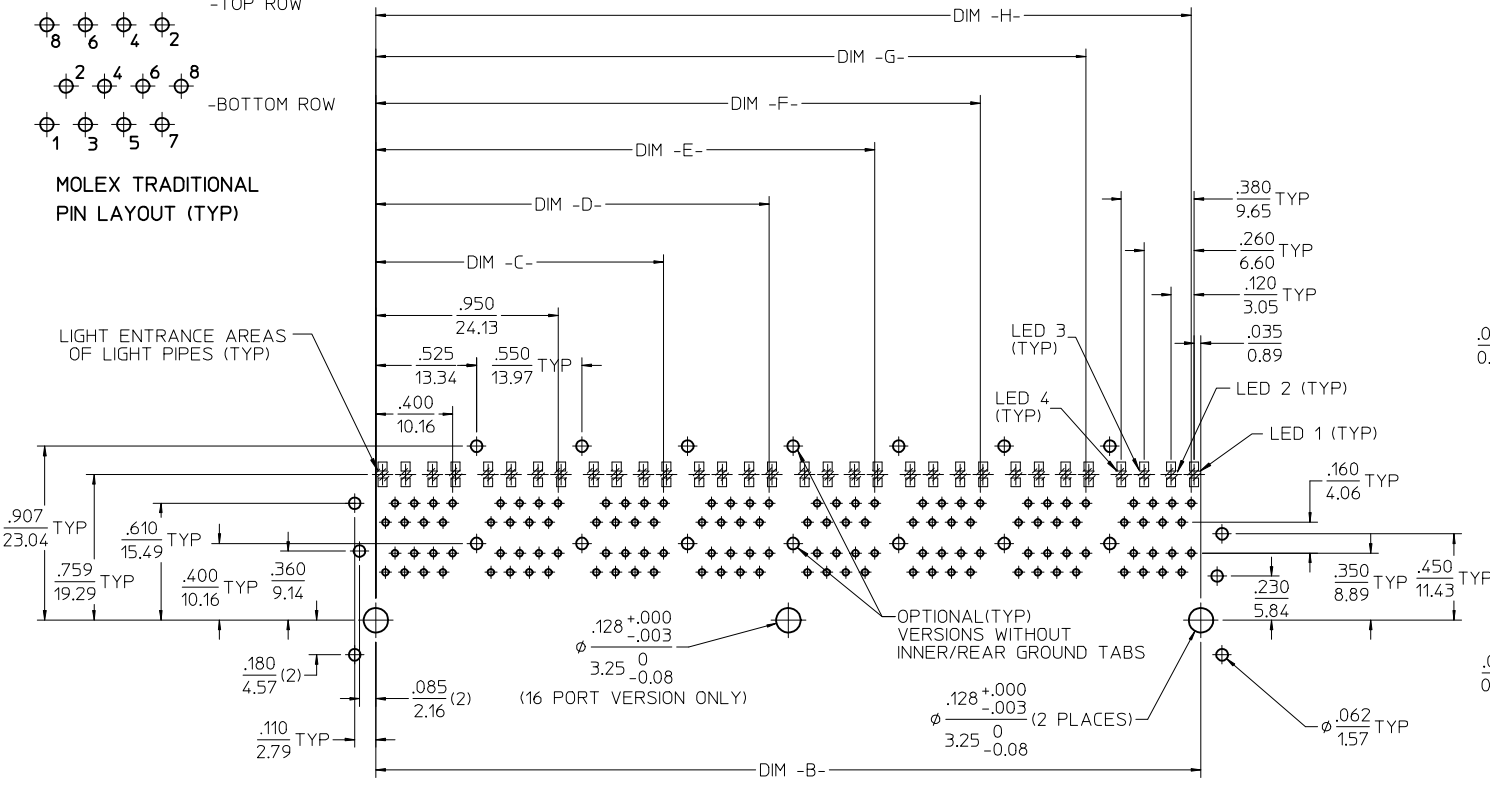
QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)
▽=0	
▽=0	
	mm
	INCH
	4 PLACES ± --- ± ---
	3 PLACES ± --- ± .010
	2 PLACES ± 0.25 ± ---
	1 PLACE ± --- ± ---
	ANGULAR ± 1/2°

DIMENSION STYLE		SCALE		DESIGN UNITS	
IN/MM		2:1		INCH	
DRAWN BY	DATE	THIRD ANGLE PROJECTION			
MARGULIS	98/11/16				
CHECKED BY	DATE				
ROBERTS	98/11/16	STACKED MODULAR JACK WITH LIGHT PIPES CAT 5			
APPROVED BY	DATE				
ROBERTS	98/11/16	MOLEX MOLEX INCORPORATED			
MATERIAL NO.	DOCUMENT NO.				
SEE CHART	SD-44170-001	SHEET NO. 1 OF 2			
SIZE	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION				

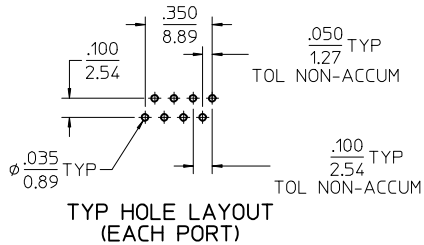


**MOLEX TRADITIONAL PIN LAYOUT (TYP)**

**LIGHT ENTRANCE AREAS OF LIGHT PIPES (TYP)**

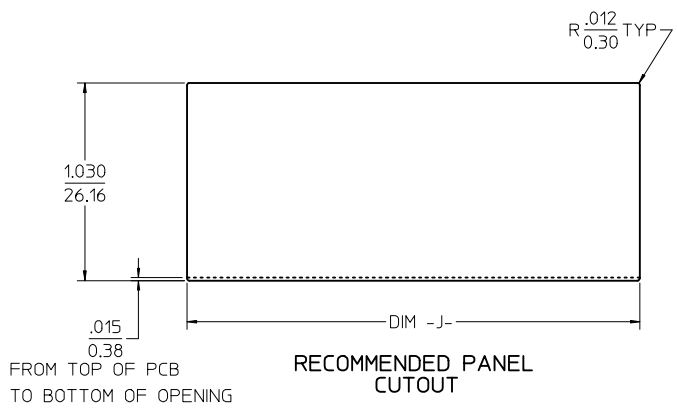


**PC BOARD LAYOUT: COMPONENT SIDE**  
**RECOMMENDED PCB THICKNESS: .062/1.57**  
**(16 PORT VERSION SHOWN)**



**NOTES:**

1. SEE MOLEX WEB SITE FOR CROSS REFERENCE OF RECOMMENDED LED'S.



NUMBER OF PORTS	DIM -B-	DIM -C-	DIM -D-	DIM -E-	DIM -F-	DIM -G-	DIM -H-	DIM -J-
8 (2 X 4)	2.100/53.34	1.500/38.10	2.050/52.07					2.360/59.94
12 (2 X 6)	3.200/81.28	1.500/38.10	2.050/52.07	2.600/66.04	3.150/80.01			3.460/87.88
16 (2 X 8)	4.300/109.22	1.500/38.10	2.050/52.07	2.600/66.04	3.150/80.01	3.700/93.98	4.250/107.95	4.560/115.82

<b>SEE SHEET 1</b> EC NO: UCP2010-0464 DRWN: JAGUILAR CHKD: BELL APPR: FSMITH 2009/08/20 2009/08/26 2009/08/26	QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE <b>IN/MM</b>		SCALE <b>2:1</b>	DESIGN UNITS <b>INCH</b>	THIRD ANGLE PROJECTION		
		4 PLACES ± --- ± ---	mm INCH	DRAWN BY MARGULIS	DATE 98/11/16	TITLE <b>STACKED MODULAR JACK WITH LIGHT PIPES CAT 5</b>				
		3 PLACES ± --- ± .010	CHECKED BY ROBERTS	DATE 98/11/16	MOLEX INCORPORATED					
		2 PLACES ± 0.25 ± ---	APPROVED BY ROBERTS	DATE 98/11/16	MATERIAL NO. <b>SEE CHART</b>	DOCUMENT NO. <b>SD-44170-001</b>	SHEET NO. <b>2 OF 2</b>			
1 PLACE ± --- ± ---	ANGULAR ±1/2°		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION							