

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

**Part Number:** [0438600019](#)  
**Status:** **Active**  
**Overview:** [modular\\_plugs\\_jacks](#)  
**Description:** Modular Jack, Right Angle, Low Profile, Inverted, 8/4, Unshielded

**Documents:**

[3D Model](#) [Product Specification PS-43860-003 \(PDF\)](#)  
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)  
[Application Specification \(PDF\)](#)

**Agency Certification**

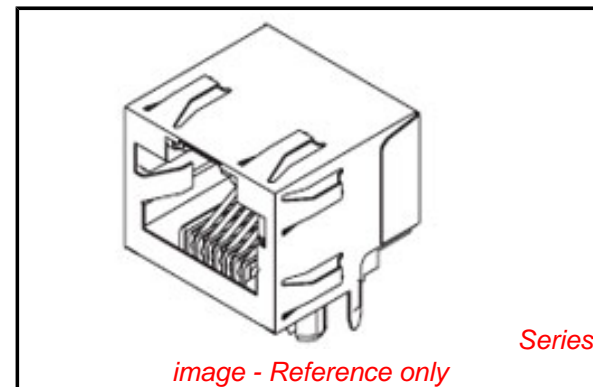
CSA LR19980  
 UL E107635

**General**

Product Family Modular Jacks/Plugs  
 Series [43860](#)  
 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 Yes  
 Keying to Mating Part None  
 Lightpipes/LEDs None  
 Material - Metal Phosphor Bronze  
 Material - Plating Mating Gold  
 Material - Plating Termination Tin  
 Material - Resin High Temperature Thermoplastic  
 Orientation Right Angle (Side Entry)  
 PCB Locator Yes  
 PCB Retention Yes  
 PCB Thickness Recommended (in) 0.062 In  
 PCB Thickness Recommended (mm) 1.57 mm  
 Packaging Type Tube  
 Panel Mount Without Flange  
 Pitch - Mating Interface (in) 0.040 In  
 Pitch - Mating Interface (mm) 1.02 mm  
 Pitch - Term. Interface (in) 0.040 In  
 Pitch - Term. Interface (mm) 1.02 mm  
 Plating min: Mating (µin) 50  
 Plating min: Mating (µm) 1.25  
 Plating min: Termination (µin) 100  
 Plating min: Termination (µm) 2.5  
 Ports 1  
 Positions / Loaded Contacts 8/4  
 Surface Mount Compatible (SMC) No  
 Temperature Range - Operating -40°C to +85°C  
 Termination Interface: Style Through Hole



**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**

[43860Series](#)

**Mates With**

FCC 68 Plugs

Waterproof / Dustproof	No
Wire/Cable Type	N/A
<b>Electrical</b>	
Current - Maximum per Contact	1.5A
Grounding to PCB	No
Grounding to Panel	None
Shielded	No
Voltage - Maximum	150V AC (RMS)

**Solder Process Data**

Lead-free Process Capability	Wave Capable (TH only)
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**Material Info**

**Reference - Drawing Numbers**

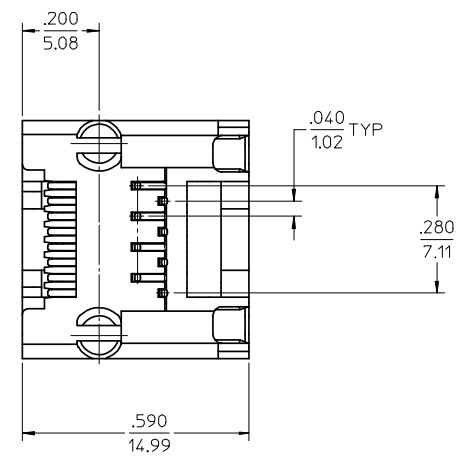
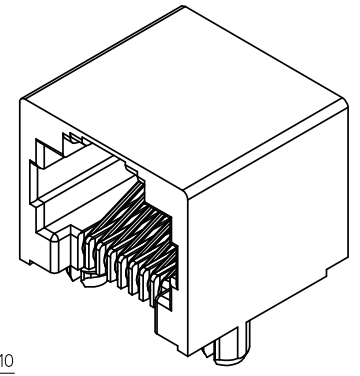
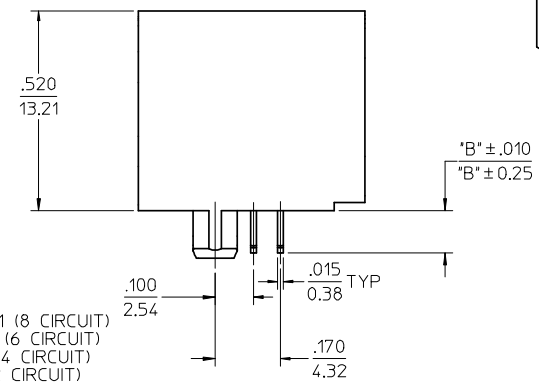
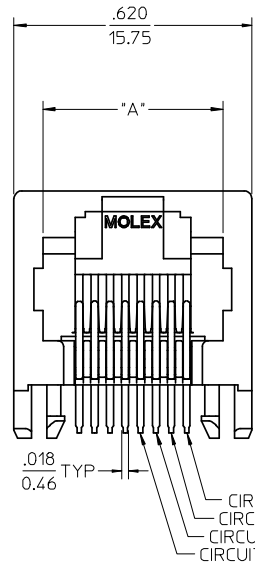
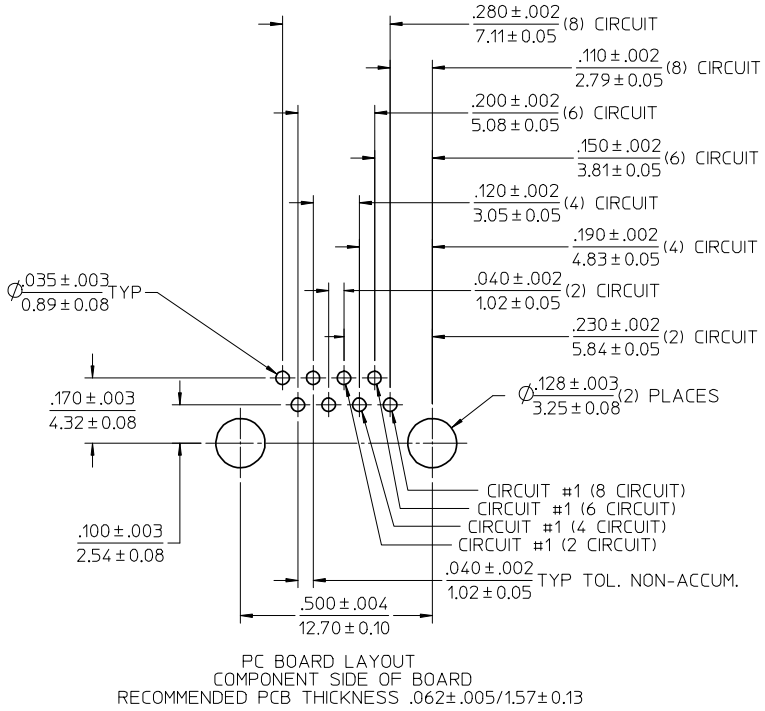
Packaging Specification	PK-43860-004
Product Specification	PS-43860-003, RPS-43860-004, RPS-43860-007, RPS-43860-008, RPS-43860-013
Sales Drawing	SD-43860-001
Test Summary	TS-43860-001

This document was generated on 06/07/2010

**PLEASE CHECK [WWW.MOLEX.COM](http://WWW.MOLEX.COM) FOR LATEST PART INFORMATION**

NOTES:

- 1) MATERIAL:  
HOUSING: NYLON(PA), GLASS FILLED, UL94V-0, COLOR: SEE CHART  
TERMINALS: PHOSPHOR BRONZE
- 2) 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.  
\*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.
- 3) PRODUCT SPECIFICATION AND PROCESSING PARAMETERS: PS-43860-003.
- 4) PACKAGING SPECIFICATION:  
CONNECTOR ASSEMBLIES PACKAGED IN EXTRUDED TUBES PER MOLEX  
PACKAGING SPECIFICATION PK-43860-004.
- 5) ALL UNTOLERANCED DIMENSIONS ARE SHOWN FOR REFERENCE ONLY.
- 6) CONFORMS TO FCC REGULATION PART 68.5 FOR MODULAR JACKS.
- 7) THIS PART CONFORMS TO CLASS B REQUIREMENTS OF COSMETIC  
SPECIFICATION PS-45499-002.



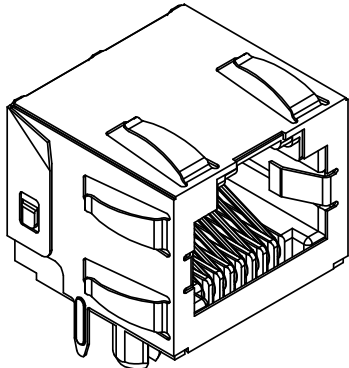
ASSEMBLY MAT. NUM.	CONNECTOR SIZE	DIM "A"	DIM "B"	CIRCUITS	HOUSING COLOR
43860-0001	8	.469/11.91	.110/2.79	8	BLACK
43860-2001	8	.469/11.91	.080/2.03	8	BLACK
43860-0002	6	.389/9.88	.110/2.79	6	BLACK
43860-0003	6	.389/9.88	.110/2.79	4	BLACK
43860-0019	8	.469/11.91	.110/2.79	4	BLACK
43860-0020	6	.389/9.88	.110/2.79	2	BLACK

ADD PART #, SHT 2 EC NO: UCP2008-3111 DRAWN: SCHMIDT 2008/06/20 CHKD: BELL 2008/06/27 APPR: FSMITH 2008/07/14	QUALITY SYMBOLS
	=0 =0
DESCRIPTION	
REV	H6

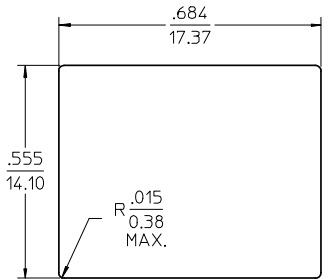
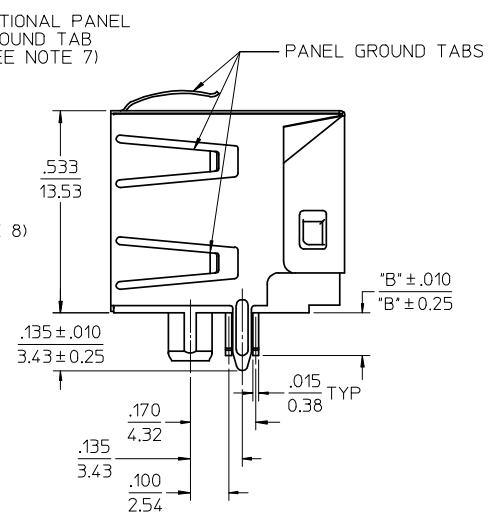
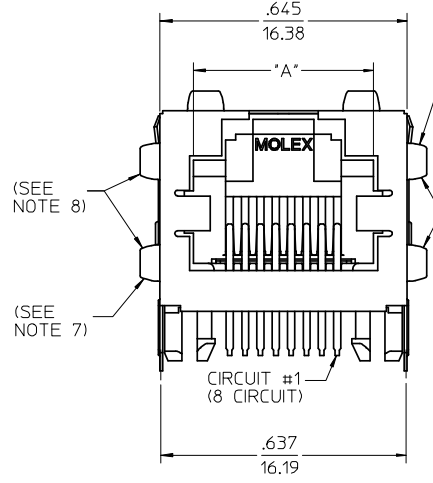
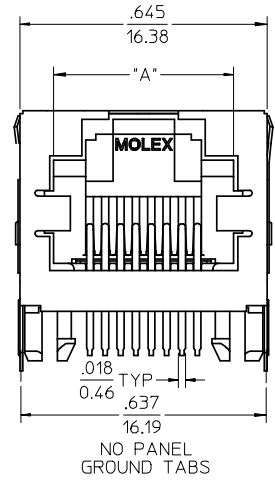
GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE IN/MM															
<table border="1"> <tr> <th></th> <th>mm</th> <th>INCH</th> </tr> <tr> <td>4 PLACES ±</td> <td>---</td> <td>---</td> </tr> <tr> <td>3 PLACES ±</td> <td>---</td> <td>±.010</td> </tr> <tr> <td>2 PLACES ±</td> <td>±0.25</td> <td>---</td> </tr> <tr> <td>1 PLACE ±</td> <td>---</td> <td>---</td> </tr> </table>		mm	INCH	4 PLACES ±	---	---	3 PLACES ±	---	±.010	2 PLACES ±	±0.25	---	1 PLACE ±	---	---	DRAWN BY TALEND DATE 1997/02/13 CHECKED BY ROBERTS DATE 1997/03/03 APPROVED BY FRY DATE 1997/03/04 MATERIAL NO. SEE CHART DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS
	mm	INCH														
4 PLACES ±	---	---														
3 PLACES ±	---	±.010														
2 PLACES ±	±0.25	---														
1 PLACE ±	---	---														

SCALE 4:1	DESIGN UNITS INCH	THIRD ANGLE PROJECTION
TITLE INVERTED MODULAR JACK ASSEMBLY		
MOLEX MOLEX INCORPORATED		
DOCUMENT NO. SD-43860-001	SHEET NO. 1 OF 5	

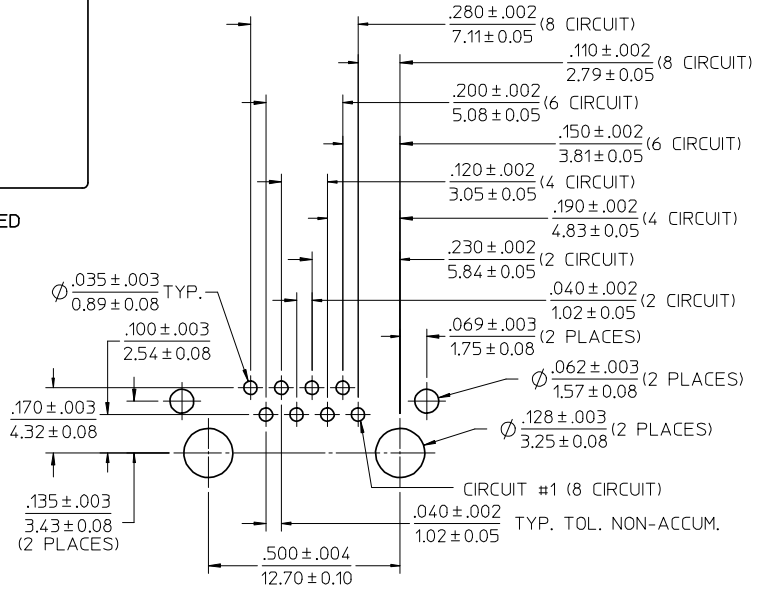
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		
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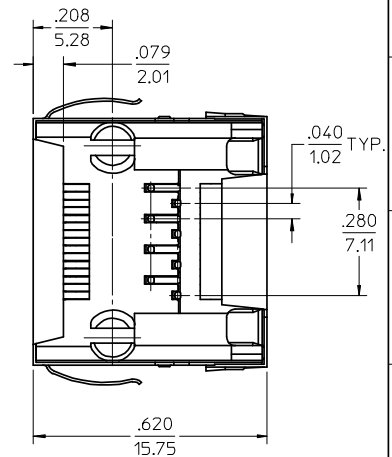
- NOTES:
- MATERIAL:  
HOUSING: NYLON(PA), GLASS FILLED, UL94V-0,  
COLOR: BLACK  
TERMINALS: PHOSPHOR BRONZE  
SHIELD: BRASS
  - FINISH:  
TERMINALS:  
SELECT GOLD IN CONTACT AREA: 50 MICROINCHES/  
1.27 MICROMETERS MIN.  
\*SELECT TIN IN PC TAIL AREA: 100 MICROINCHES/  
2.54 MICROMETERS MIN.,  
WITH 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: PS-43860-003.
  - PACKAGING SPECIFICATION:  
CONNECTOR ASSEMBLIES PACKAGED IN THERMOFORMED TRAYS  
PER MOLEX PACKAGING SPECIFICATION PK-43860-005.  
43860-5025 CONNECTOR ASSEMBLIES PACKAGED IN TAPE AND  
REEL PER MOLEX PACKAGING SPECIFICATION PK-70873-700\*
  - ALL UNTOLERANCED DIMENSIONS ARE SHOWN FOR REFERENCE ONLY.
  - CONFORMS TO FCC REGULATION PART 68.5 FOR MODULAR JACKS.
  - AVAILABLE WITH THE (2) SPECIFIED PANEL GROUND TABS  
OMITTED FOR SIDE TO SIDE STACKABILITY, PER THE ASSEMBLY  
MATERIAL NUMBER TABLE.
  - AVAILABLE WITH TOP PANEL GROUND TABS ONLY, PER THE  
ASSEMBLY MATERIAL NUMBER TABLE.
  - THIS PART CONFORMS TO CLASS B REQUIREMENTS OF COSMETIC  
SPECIFICATION PS-45499-002.



RECOMMENDED  
PANEL  
OPENING

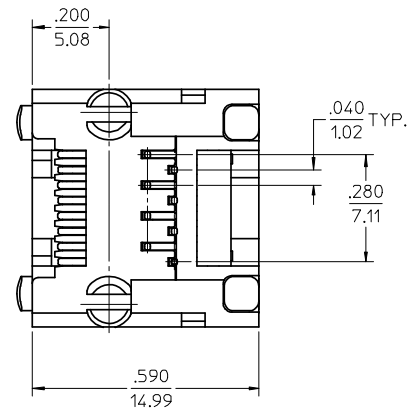
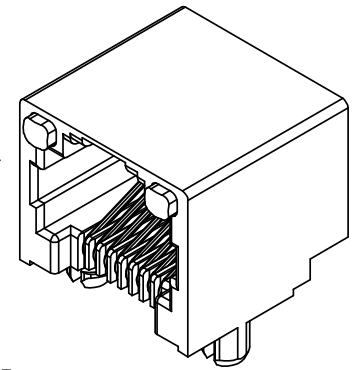
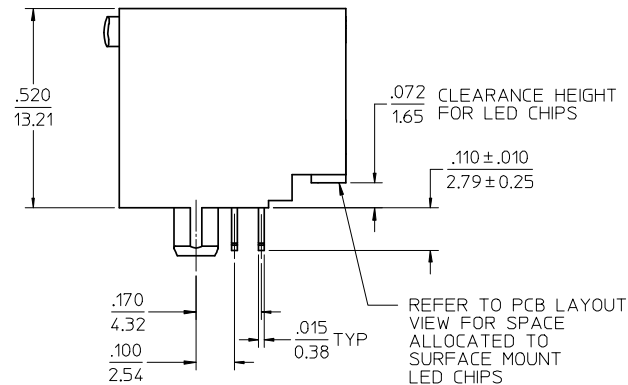
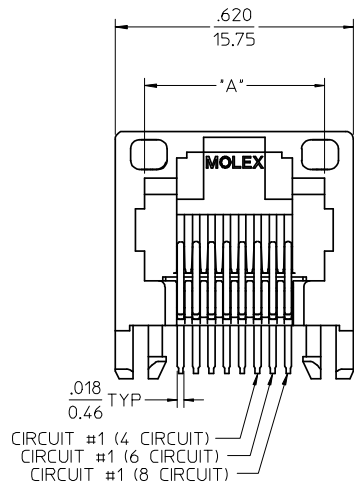


PC BOARD LAYOUT  
COMPONENT SIDE OF BOARD  
RECOMMENDED PCB THICKNESS .062 ± .005/1.57 ± 0.13



ASSEMBLY MAT. NUM.	CONNECTOR SIZE	DIM "A"	DIM "B"	CIRCUITS	PANEL GROUND TABS	PACKAGING OPTION
43860-0004	8	.469/11.91	.110/2.79	8	ALL	TRAY
43860-2004	8	.469/11.91	.080/2.03	8	ALL	TRAY
43860-0005	6	.389/9.88	.110/2.79	6	ALL	TRAY
43860-0006	6	.389/9.88	.110/2.79	4	ALL	TRAY
43860-0013	8	.469/11.91	.110/2.79	8	SEE NOTE #7	TRAY
43860-0014	6	.389/9.88	.110/2.79	6	SEE NOTE #7	TRAY
43860-0015	6	.389/9.88	.110/2.79	4	SEE NOTE #7	TRAY
43860-0024	6	.389/9.88	.110/2.79	2	ALL	TRAY
43860-0025	8	.469/11.91	.110/2.79	8	NONE	TRAY
43860-0026	6	.389/9.88	.110/2.79	6	NONE	TRAY
43860-0027	6	.389/9.88	.110/2.79	4	NONE	TRAY
43860-0031	8	.469/11.91	.110/2.79	8	SEE NOTE #8	TRAY
43860-5025	8	.469/11.91	.110/2.79	8	NONE	TAPE

ADD 43860-5025 EC NO: UCP2008-3111 DRAWN: SCHMIDT 2008/06/20 CHKD: JEBEL 2008/06/27 APPR: FSM/TH 2008/07/14	QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED) mm INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± .010 2 PLACES ± 0.25 ± --- 1 PLACE ± --- ± --- ANGULAR ± 1/2°	DIMENSION STYLE IN/MM DRAWN BY DATE TALEND 1997/02/13 CHECKED BY DATE ROBERTS 1997/03/03 APPROVED BY DATE FRY 1997/03/04	SCALE 4:1 DESIGN UNITS INCH THIRD ANGLE PROJECTION	TITLE INVERTED MODULAR JACK ASSEMBLY	MATERIAL NO. SEE CHART DOCUMENT NO. SD-43860-001 SHEET NO. 2 OF 5
	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			

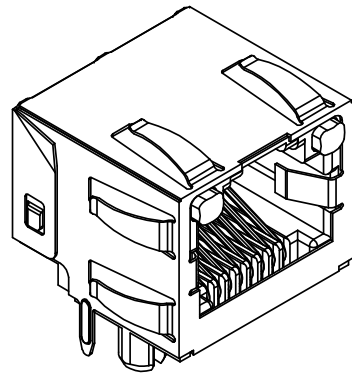


NOTES:

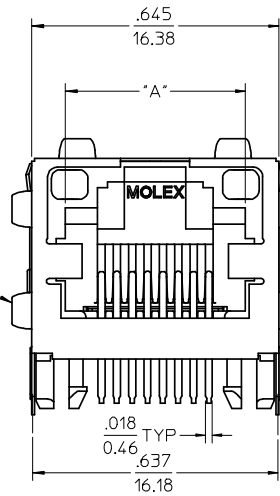
- 1) MATERIAL:  
 HOUSING: NYLON(PA), GLASS FILLED, UL94V-0, COLOR: BLACK  
 TERMINALS: PHOSPHOR BRONZE  
 LIGHT PIPES: POLYCARBONATE - WAVE OR HAND SOLDER ONLY (NOT DESIGNED FOR I/R REFLOW OR CONVECTION REFLOW SOLDER PROCESSES)  
 POLYSULFONE - MAXIMUM REFLOW TEMPERATURE 400°F (205°C)
- 2) FINISH:  
 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.  
 \*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.
- 3) PRODUCT SPECIFICATION AND PROCESSING PARAMETERS: PS-43860-003.
- 4) PACKAGING SPECIFICATION:  
 CONNECTOR ASSEMBLIES PACKAGED IN EXTRUDED TUBES PER MOLEX PACKAGING SPECIFICATION PK-43860-004.
- 5) APPLICATION SPECIFICATION: AS-43860-001
- 6) ALL UNTOLERANCED DIMENSIONS ARE SHOWN FOR REFERENCE ONLY.
- 7) CONFORMS TO FCC REGULATION PART 68.5 FOR MODULAR JACKS.
- 8) REFER TO SHEET (5) OF (5) FOR RECOMMENDED PCB LAYOUT.
- 9) THIS PART CONFORMS TO CLASS B REQUIREMENTS OF COSMETIC SPECIFICATION PS-45499-002.

ASSEMBLY MAT. NUM.	LIGHT PIPE MATERIAL	CONNECTOR SIZE	DIM "A"	CIRCUITS
43860-0007	POLYCARBONATE	8	.469/11.91	8
43860-0008	POLYCARBONATE	6	.389/9.88	6
43860-0009	POLYCARBONATE	6	.389/9.88	4
43860-0021	POLYSULFONE	8	.469/11.91	8
43860-0022	POLYSULFONE	6	.389/9.88	6
43860-0023	POLYSULFONE	6	.389/9.88	4

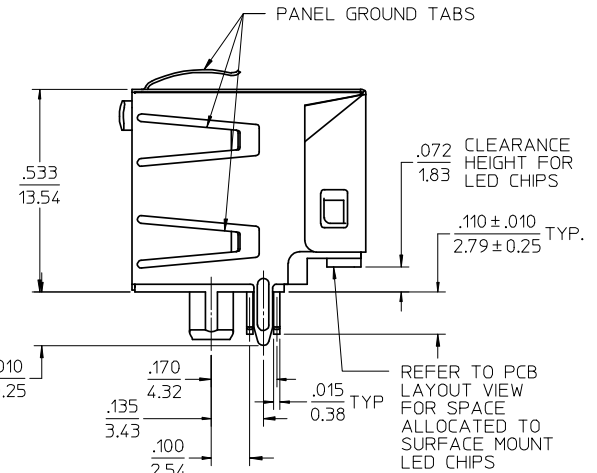
SEE SHEET 1 EC NO: UCP2008-3111 DRWNL: SCHMIDT 2008/06/20 CHKD: JEBEL 2008/06/27 APPR: FSMITH 2008/07/14	QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE IN/MM		SCALE 4:1	DESIGN UNITS INCH	THIRD ANGLE PROJECTION																	
		<table border="1"> <thead> <tr> <th></th> <th>mm</th> <th>INCH</th> </tr> </thead> <tbody> <tr> <td>4 PLACES</td> <td>± ---</td> <td>± ---</td> </tr> <tr> <td>3 PLACES</td> <td>± ---</td> <td>± .010</td> </tr> <tr> <td>2 PLACES</td> <td>± 0.25</td> <td>± ---</td> </tr> <tr> <td>1 PLACE</td> <td>± ---</td> <td>± ---</td> </tr> </tbody> </table>			mm	INCH	4 PLACES	± ---	± ---	3 PLACES	± ---	± .010	2 PLACES	± 0.25	± ---	1 PLACE	± ---	± ---	DRAWN BY TALEND		DATE 1997/02/13	TITLE INVERTED MODULAR JACK ASSEMBLY			
			mm	INCH																					
		4 PLACES	± ---	± ---																					
3 PLACES	± ---	± .010																							
2 PLACES	± 0.25	± ---																							
1 PLACE	± ---	± ---																							
CHECKED BY ROBERTS		DATE 1997/03/03																							
APPROVED BY FRY		DATE 1997/03/04	MATERIAL NO. SEE CHART		DOCUMENT NO. SD-43860-001	SHEET NO. 3 OF 5																			
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SIZE C		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION																					



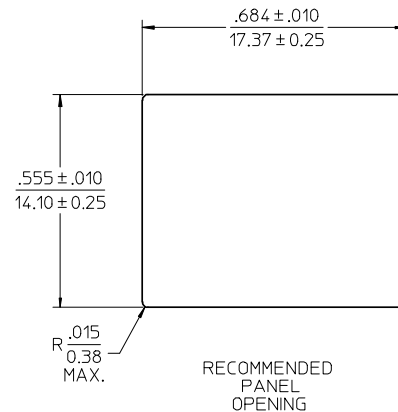
OPTIONAL PANEL GROUND TAB (SEE NOTE 8)



OPTIONAL PANEL GROUND TAB (SEE NOTE 8)



REFER TO PCB LAYOUT VIEW FOR SPACE ALLOCATED TO SURFACE MOUNT LED CHIPS



RECOMMENDED PANEL OPENING

- NOTES:
- MATERIAL: HOUSING: NYLON(PA), GLASS FILLED, UL94V-0, COLOR: BLACK  
TERMINALS: PHOSPHOR BRONZE  
SHIELD: BRASS  
LIGHT PIPES: POLYCARBONATE - WAVE OR HAND SOLDER ONLY (NOT DESIGNED FOR I/R REFLOW OR CONVECTION REFLOW SOLDER PROCESSES), POLYSULFONE - MAXIMUM REFLOW TEMPERATURE 400° F (205° C)
  - 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 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-43860-003.
  - PACKAGING SPECIFICATION: CONNECTOR ASSEMBLIES PACKAGED IN THERMOFORMED TRAYS PER MOLEX PACKAGING SPECIFICATION PK-43860-005.
  - APPLICATION SPECIFICATION: AS-43860-001
  - ALL UNTOLERANCED DIMENSIONS ARE SHOWN FOR REFERENCE ONLY.
  - CONFORMS TO FCC REGULATION PART 68.5 FOR MODULAR JACKS.
  - AVAILABLE WITH THE (2) SPECIFIED PANEL GROUND TABS OMITTED FOR SIDE TO SIDE STACKABILITY, PER THE ASSEMBLY MATERIAL NUMBER TABLE.
  - REFER TO SHEET (5) OF (5) FOR RECOMMENDED PCB LAYOUT.
  - THIS PART CONFORMS TO CLASS B REQUIREMENTS OF COSMETIC SPECIFICATION PS-45499-002.

ASSEMBLY MAT. NUM.	LIGHT PIPE MATERIAL	CONNECTOR SIZE	DIM "A"	CIRCUITS	PANEL GROUND TABS
43860-0010	POLYCARBONATE	8	.469/11.91	8	ALL
43860-0011	POLYCARBONATE	6	.389/9.88	6	ALL
43860-0012	POLYCARBONATE	6	.389/9.88	4	ALL
43860-0016	POLYCARBONATE	8	.469/11.91	8	SEE NOTE #8
43860-0017	POLYCARBONATE	6	.389/9.88	6	SEE NOTE #8
43860-0018	POLYCARBONATE	6	.389/9.88	4	SEE NOTE #8
43860-1010	POLYSULFONE	8	.469/11.91	8	ALL
43860-1011	POLYSULFONE	6	.389/9.88	6	ALL
43860-1012	POLYSULFONE	6	.389/9.88	4	ALL
43860-1016	POLYSULFONE	8	.469/11.91	8	SEE NOTE #8
43860-1017	POLYSULFONE	6	.389/9.88	6	SEE NOTE #8
43860-1018	POLYSULFONE	6	.389/9.88	4	SEE NOTE #8

SEE SHEET 1 EC NO: UCP2008-3111 DRAWN: SCHMIDT 2008/06/20 CHKD: JEBEL 2008/06/27 APPR: FSM/TH 2008/07/14	QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED) <table border="1"> <tr> <th></th> <th>mm</th> <th>INCH</th> </tr> <tr> <td>4 PLACES ±</td> <td>---</td> <td>±---</td> </tr> <tr> <td>3 PLACES ±</td> <td>---</td> <td>±.010</td> </tr> <tr> <td>2 PLACES ±</td> <td>0.25</td> <td>±---</td> </tr> <tr> <td>1 PLACE ±</td> <td>---</td> <td>±---</td> </tr> </table>		mm	INCH	4 PLACES ±	---	±---	3 PLACES ±	---	±.010	2 PLACES ±	0.25	±---	1 PLACE ±	---	±---	DIMENSION STYLE IN/MM	SCALE 4:1	DESIGN UNITS INCH	THIRD ANGLE PROJECTION
				mm	INCH																
4 PLACES ±	---	±---																			
3 PLACES ±	---	±.010																			
2 PLACES ±	0.25	±---																			
1 PLACE ±	---	±---																			
DRAWN BY TALEND	DATE 1997/02/13	CHECKED BY ROBERTS	DATE 1997/03/03	APPROVED BY FRY	DATE 1997/03/04	TITLE <b>INVERTED MODULAR JACK ASSEMBLY</b>															
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		MATERIAL NO. <b>SEE CHART</b>	DOCUMENT NO. <b>SD-43860-001</b>	SHEET NO. <b>4 OF 5</b>		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION															

