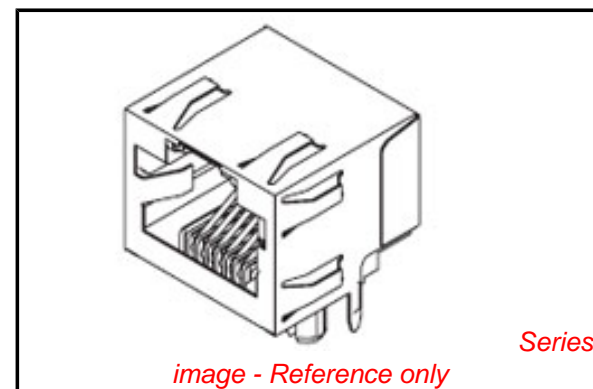


PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

Part Number: [0438600004](#)
Status: **Active**
Overview: [modular_plugs_jacks](#)
Description: Modular Jack, Right Angle, Low Profile, Inverted, Shielded, All Panel Grounding Tabs, 8/8

Documents:

Drawing (PDF)	Application Specification (PDF)
Packaging Specification (PDF)	Product Specification PS-43860-003 (PDF)
3D Model	RoHS Certificate of Compliance (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
Lightpipes/LEDs	None
Material - Metal	Brass, 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)	1.60 mm
Packaging Type	Tray
Pitch - Mating Interface (in)	0.050 In
Pitch - Mating Interface (mm)	1.27 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	8/8
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

EU RoHS

**ELV and RoHS
Compliant**
**REACH SVHC
Contains SVHC: No**
**Halogen-Free
Status**

China RoHS



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

Email 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

Electrical

Current - Maximum per Contact	1.5A
Grounding to PCB	Yes
Grounding to Panel	Yes
Shielded	Yes
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	260

Material Info**Reference - Drawing Numbers**

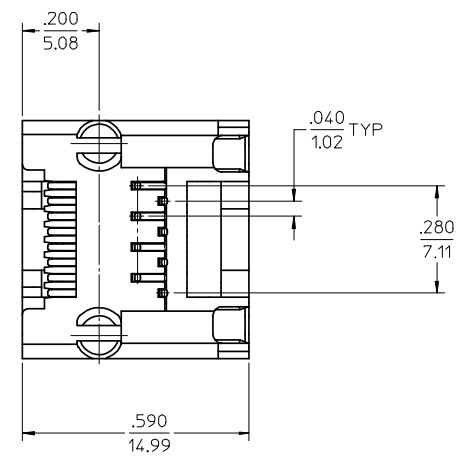
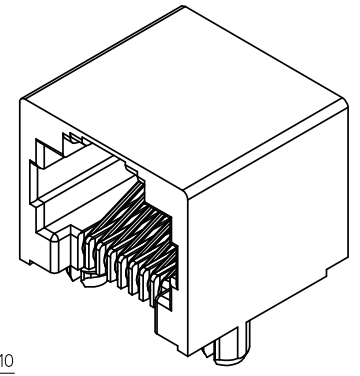
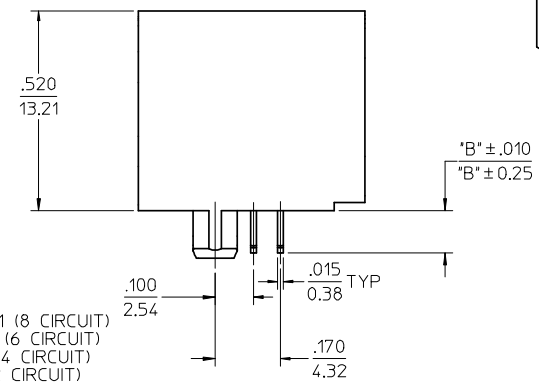
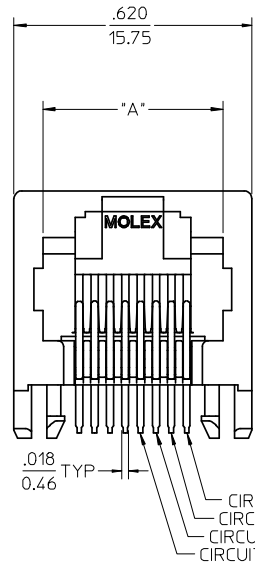
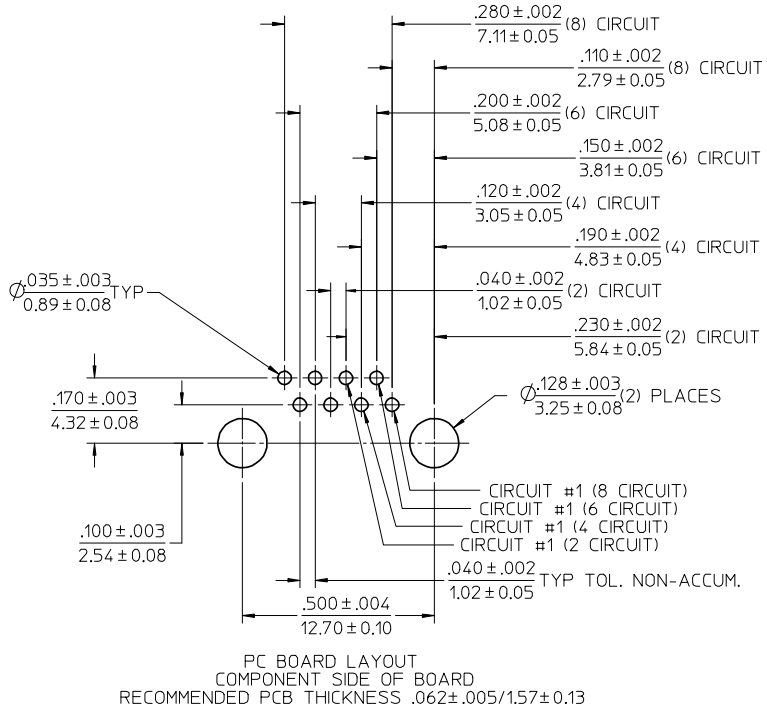
Packaging Specification	PK-43860-005
Product Specification	PS-43860-003, RPS-43860-004, RPS-43860-007, RPS-43860-008, RPS-43860-013
Sales Drawing	SD-43860-001
Test Summary	TS-43860-001

This document was generated on 06/07/2010

PLEASE CHECK WWW.MOLEX.COM 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.

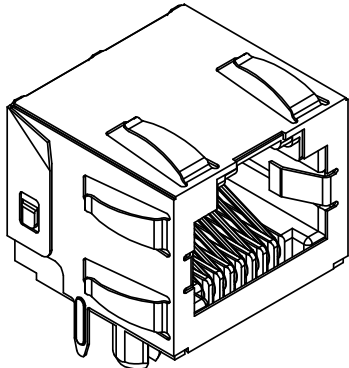


ASSEMBLY MAT. NUM.	CONNECTOR SIZE	DIM "A"	DIM "B"	CIRCUITS	HOUSING COLOR
43860-0001	8	.469/11.91	.110/2.79	8	BLACK
43860-2001	8	.469/11.91	.080/2.03	8	BLACK
43860-0002	6	.389/9.88	.110/2.79	6	BLACK
43860-0003	6	.389/9.88	.110/2.79	4	BLACK
43860-0019	8	.469/11.91	.110/2.79	4	BLACK
43860-0020	6	.389/9.88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

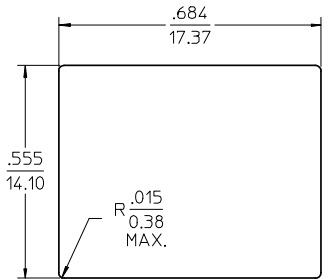
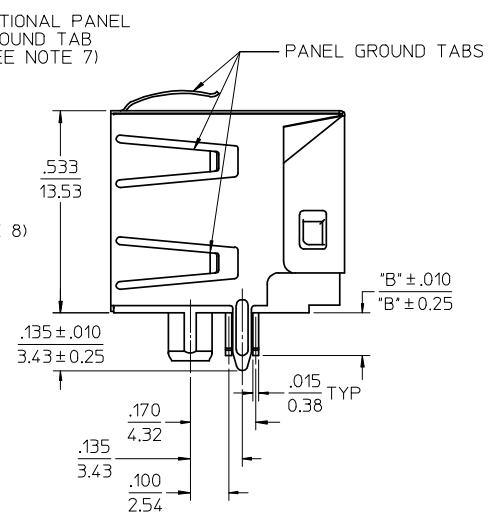
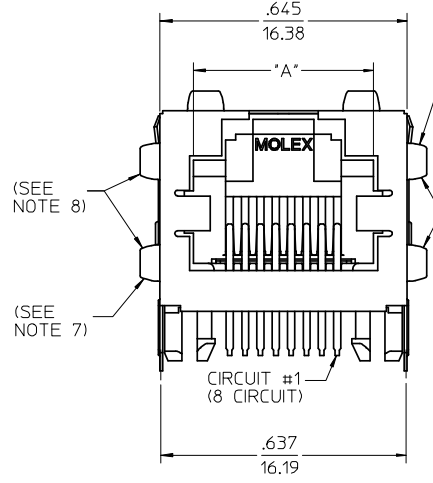
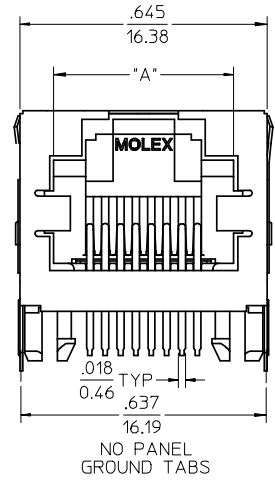
ADD PART #, SHT 2 EC NO: UCP2008-3111 DRAWN: SCHMIDT 2008/06/20 CHKD: BELL 2008/06/27 APPR: FSMITH 2008/07/14	QUALITY SYMBOLS
	=0 =0
DESCRIPTION	
REV	H6

GENERAL TOLERANCES (UNLESS SPECIFIED)	mm	INCH
	4 PLACES ± ---	± ---
	3 PLACES ± ---	± .010
	2 PLACES ± 0.25	± ---
	1 PLACE ± ---	± ---
ANGULAR ± 1/2°		
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		

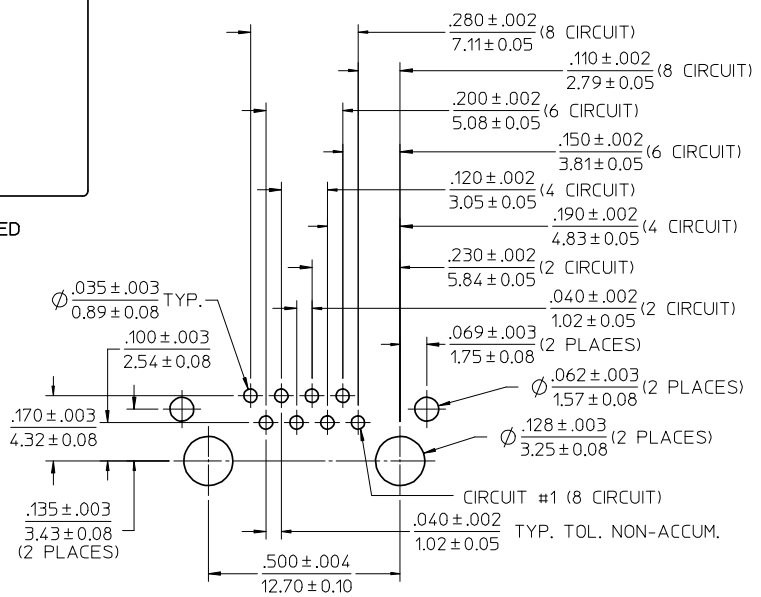
DIMENSION STYLE		SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
IN/MM		4:1	INCH	
DRAWN BY	DATE	TITLE		
TALEND	1997/02/13	INVERTED MODULAR JACK ASSEMBLY		
CHECKED BY	DATE	MOLEX INCORPORATED		
ROBERTS	1997/03/03	MATERIAL NO. SEE CHART		
APPROVED BY	DATE	DOCUMENT NO. SD-43860-001		
FRY	1997/03/04	SHEET NO. 1 OF 5		
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION				



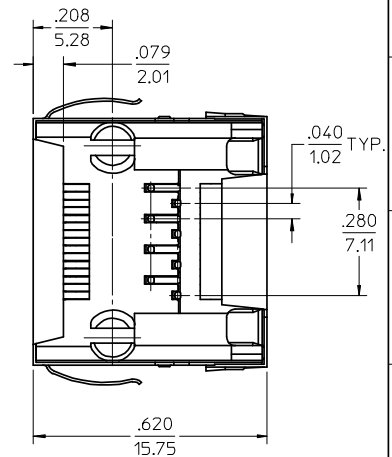
- NOTES:
- MATERIAL:
HOUSING: NYLON(PA), GLASS FILLED, UL94V-0,
COLOR: BLACK
TERMINALS: PHOSPHOR BRONZE
SHIELD: BRASS
 - FINISH:
TERMINALS:
SELECT GOLD IN CONTACT AREA: 50 MICROINCHES/
1.27 MICROMETERS MIN.
*SELECT TIN IN PC TAIL AREA: 100 MICROINCHES/
2.54 MICROMETERS MIN.,
WITH OVERALL NICKEL UNDERPLATE: 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

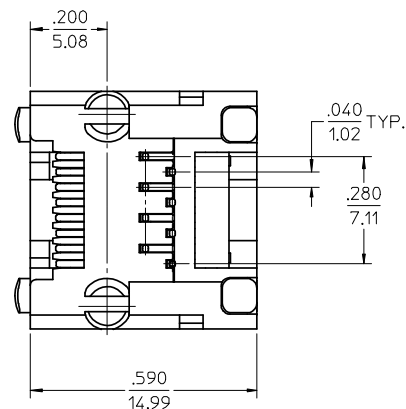
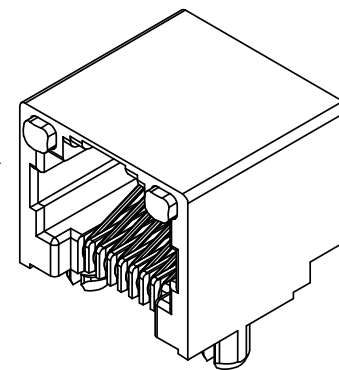
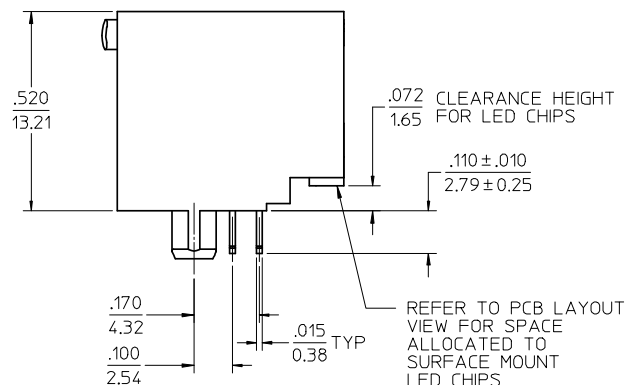
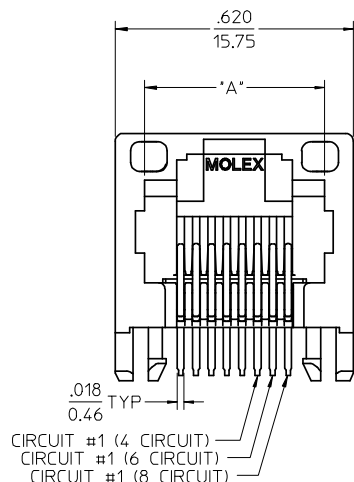


PC BOARD LAYOUT
COMPONENT SIDE OF BOARD
RECOMMENDED PCB THICKNESS .062 ± .005/1.57 ± 0.13



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	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE IN/MM	SCALE 4:1	DESIGN UNITS INCH	THIRD ANGLE PROJECTION
	▽=0 ▽=0	mm INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± .010 2 PLACES ± 0.25 ± --- 1 PLACE ± --- ± --- ANGULAR ± 1/2°	DRAWN BY DATE TALEND 1997/02/13 CHECKED BY DATE ROBERTS 1997/03/03 APPROVED BY DATE FRY 1997/03/04	TITLE	INVERTED MODULAR JACK ASSEMBLY	
	H6	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	MATERIAL NO. SEE CHART	DOCUMENT NO. SD-43860-001	SHEET NO. 2 OF 5	
			THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			

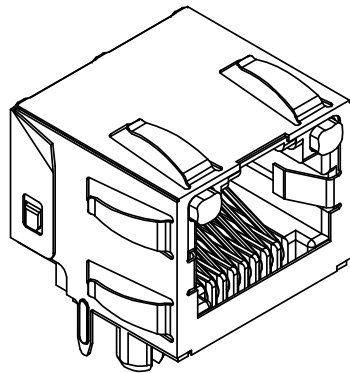


NOTES:

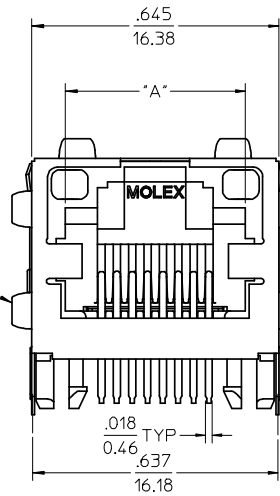
- 1) MATERIAL:
 HOUSING: NYLON(PA), GLASS FILLED, UL94V-0, COLOR: BLACK
 TERMINALS: PHOSPHOR BRONZE
 LIGHT PIPES: POLYCARBONATE - WAVE OR HAND SOLDER ONLY (NOT DESIGNED FOR I/R REFLOW OR CONVECTION REFLOW SOLDER PROCESSES)
 POLYSULFONE - MAXIMUM REFLOW TEMPERATURE 400°F (205°C)
- 2) FINISH:
 TERMINALS:
 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

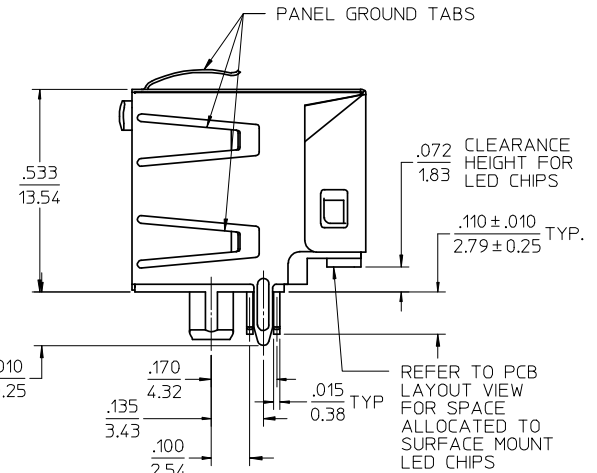
SEE SHEET 1 EC NO: UCP2008-3111 DRWNL: SCHMIDT CHKD: JEBEL APPR: FSMITH	2008/06/20 2008/06/27 2008/07/14	DESCRIPTION H6	QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE IN/MM	SCALE 4:1	DESIGN UNITS INCH	THIRD ANGLE PROJECTION
			4 PLACES ± --- ± ---	DRAWN BY TALEND	DATE 1997/02/13	TITLE INVERTED MODULAR JACK ASSEMBLY		
			3 PLACES ± --- ± .010	CHECKED BY ROBERTS	DATE 1997/03/03	MOLEX INCORPORATED		
			2 PLACES ± 0.25 ± ---	APPROVED BY FRY	DATE 1997/03/04			DOCUMENT NO. SD-43860-001
1 PLACE ± --- ± ---	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			



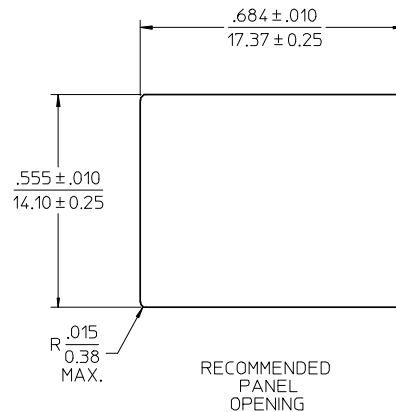
OPTIONAL PANEL GROUND TAB (SEE NOTE 8)



OPTIONAL PANEL GROUND TAB (SEE NOTE 8)



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

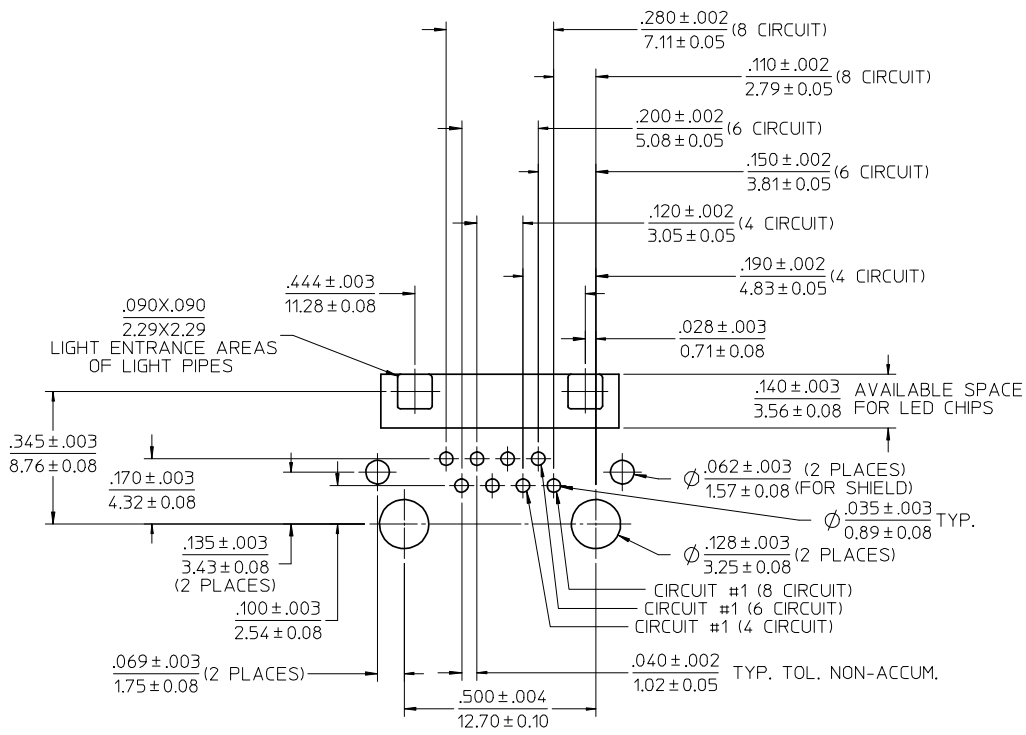


RECOMMENDED PANEL OPENING

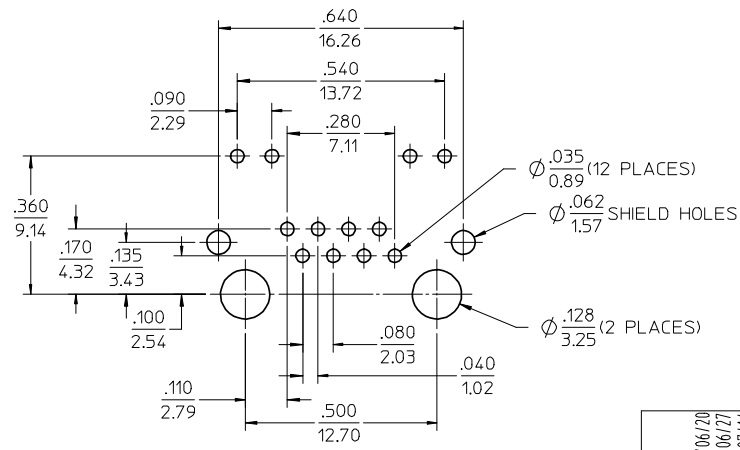
- NOTES:
- MATERIAL:
 - HOUSING: NYLON(PA), GLASS FILLED, UL94V-0, COLOR: BLACK
 - TERMINALS: PHOSPHOR BRONZE
 - SHIELD: BRASS
 - LIGHT PIPES:
 - POLYCARBONATE - WAVE OR HAND SOLDER ONLY (NOT DESIGNED FOR I/R REFLOW OR CONVECTION REFLOW SOLDER PROCESSES)
 - POLYSULFONE - MAXIMUM REFLOW TEMPERATURE 400°F (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

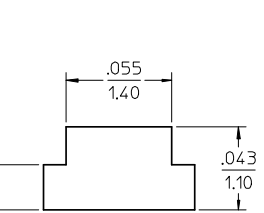
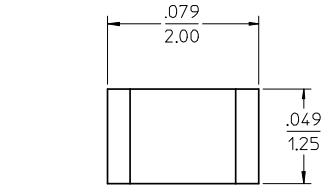
SEE SHEET 1 EC NO: UCP2008-3111 DRAWN: SCHMIDT 2008/06/20 CHKD: JEBEL 2008/06/27 APPR: FSM/TH 2008/07/14	QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED) <table border="1"> <thead> <tr> <th></th> <th>mm</th> <th>INCH</th> </tr> </thead> <tbody> <tr> <td>4 PLACES ±</td> <td>---</td> <td>±---</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 ±	---	±---	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	TITLE INVERTED MODULAR JACK ASSEMBLY																	
		CHECKED BY ROBERTS	DATE 1997/03/03	MATERIAL NO. SEE CHART																	
		APPROVED BY FRY	DATE 1997/03/04	DOCUMENT NO. SD-43860-001	SHEET NO. 4 OF 5	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION															



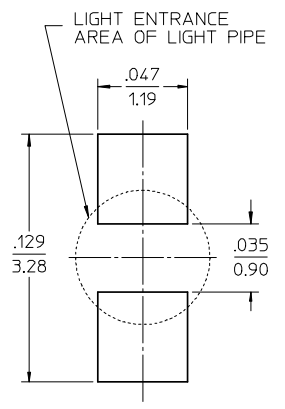
MOLEX RECOMMENDED
PC BOARD LAYOUT
COMPONENT SIDE OF BOARD
RECOMMENDED PCB THICKNESS .062±.005/1.57±0.13



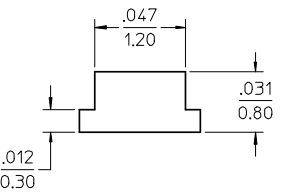
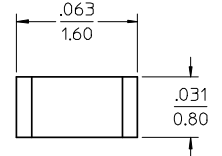
TYPICAL COMPETITION
PCB LAYOUT WITH
INTEGRAL LED'S
(SHOWN FOR REFERENCE ONLY)



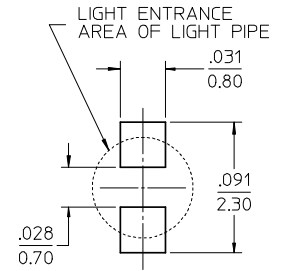
RECOMMENDED SMT
0805 LED DIMENSIONS
SCALE 20:1
(SEE NOTE 1)



RECOMMENDED SMT
0805 LED SOLDER PATTERN
SCALE 20:1
(SEE NOTE 1)



RECOMMENDED SMT
0603 LED DIMENSIONS
SCALE 20:1
(SEE NOTE 1)



RECOMMENDED SMT
0603 LED SOLDER PATTERN
SCALE 20:1
(SEE NOTE 1)

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

SEE SHEET 1 EC NO: UCP2008-3111 DRAWN: 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			
						TITLE INVERTED MODULAR JACK ASSEMBLY					
						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		DOCUMENT NO. SD-43860-001		SHEET NO. 5 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			