

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

Part Number:

0438601010

Status:

Active

Overview:

[modular_plugs_jacks](#)

Description:

Modular Jack, Right Angle, Low Profile, Inverted, Shielded, All Panel Grounding Tabs, Lightpipes, 8/8

Documents:

[Drawing \(PDF\)](#)

[Packaging Specification \(PDF\)](#)

[3D Model](#)

[Application Specification \(PDF\)](#)

[Product Specification PS-43860-003 \(PDF\)](#)

[RoHS Certificate of Compliance \(PDF\)](#)

Agency Certification

CSA

LR19980

UL

E107635

General

Product Family

Modular Jacks/Plugs

Series

43860

Comments

Lightpipes will withstand soldering temperature of 210 degrees C

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

Lightpipes

Material - Metal

Brass, Phosphor Bronze

Material - Plating Mating

Gold

Material - Plating Termination

Tin

Material - Resin

High Temperature Thermoplastic, Polysulfone

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

Tray

Panel Mount

With 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

8/8

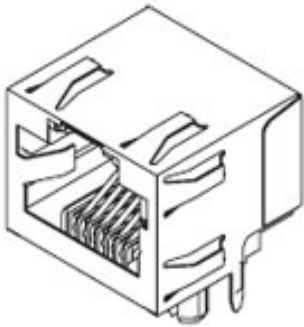


image - Reference only

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
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

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
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

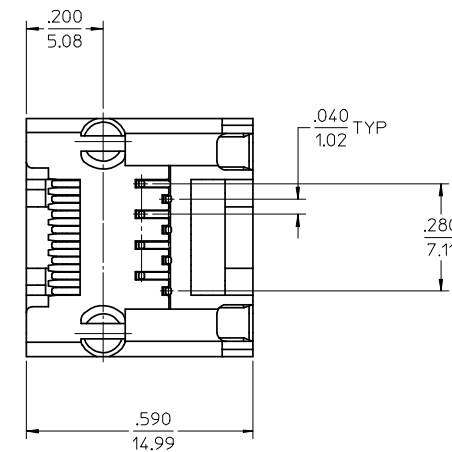
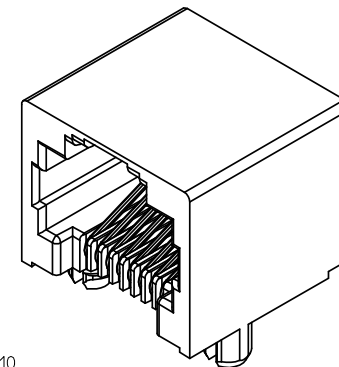
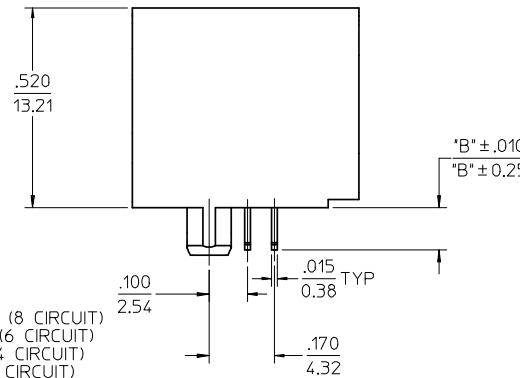
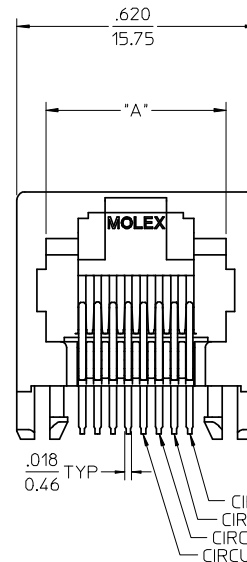
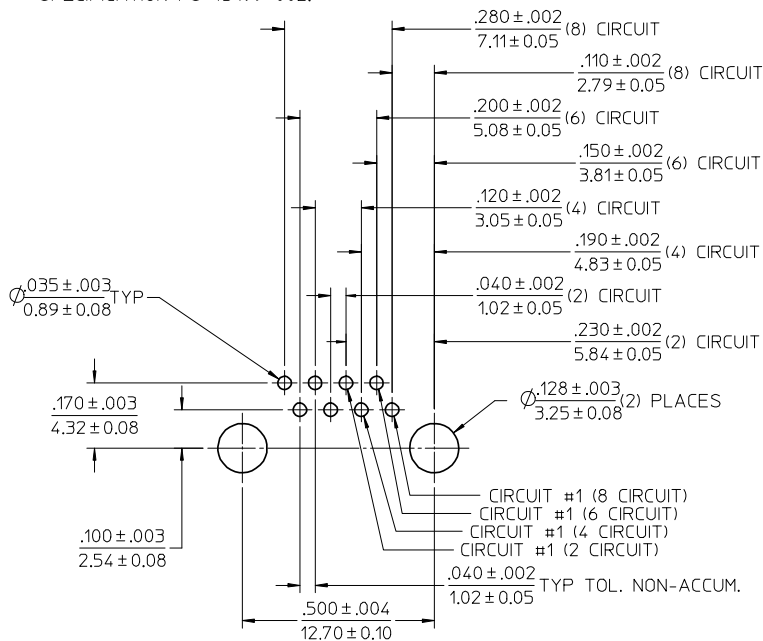
Application Specification	AS-43860-001
Packaging Specification	PK-43860-005
Product Specification	PS-43860-003, RPS-43860-004, RPS-43860-007, RPS-43860-008, RPS-43860-013
Sales Drawing	SD-43860-001
Test Summary	TS-43860-001

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
DRWN: SCHMIDT 2008/06/20
CHKD: JEBEL 2008/06/27
APPR: FSMITH 2008/07/14
REV H6

QUALITY
SYMBOLS
▽=0
▽=0

GENERAL TOLERANCES
(UNLESS SPECIFIED)

	mm	INCH
4 PLACES ±	---	---
3 PLACES ±	---	±.010
2 PLACES ±	±.025	---
1 PLACE ±	---	---

ANGULAR ±1/2°

DRAFT WHERE APPLICABLE
MUST REMAIN
WITHIN DIMENSIONS

DIMENSION STYLE
IN/MM

DRAWN BY
TALEND 1997/02/13

CHECKED BY
ROBERTS 1997/03/03

APPROVED BY
FRY 1997/03/04

MATERIAL NO.
SEE CHART

SIZE
C

SCALE
4:1

DESIGN UNITS
INCH

THIRD ANGLE
PROJECTION

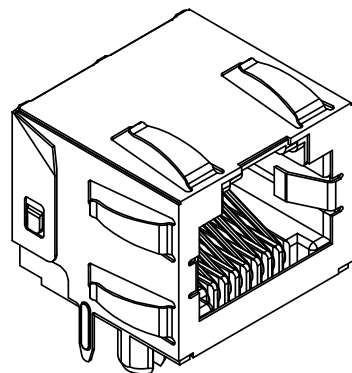
TITLE
INVERTED MODULAR JACK
ASSEMBLY

MOLEX INCORPORATED

DOCUMENT NO.
SD-43860-001

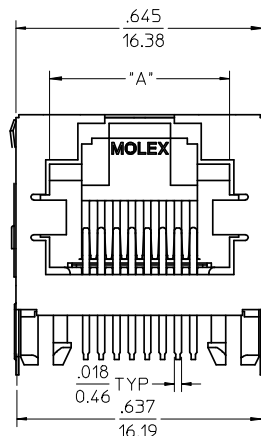
SHEET NO.
1 OF 5

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX
INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

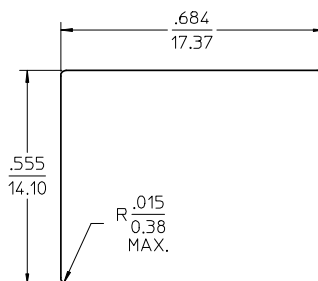


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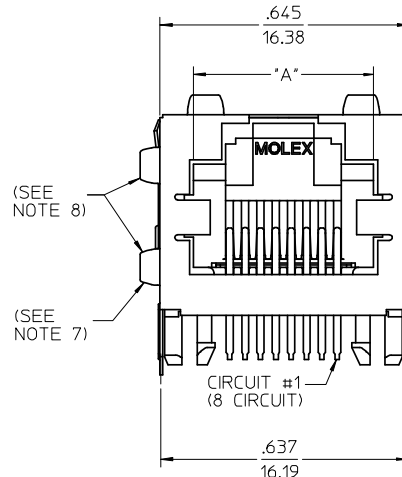
- 1) MATERIAL:
HOUSING: NYLON(PA), GLASS FILLED, UL94V-0,
COLOR: BLACK
TERMINALS: PHOSPHOR BRONZE
SHIELD: BRASS
- 2) FINISH:
TERMINALS:
SELECT GOLD IN CONTACT AREA: 50 MICROINCHES/
1.27 MICROMETERS MIN.,
*SELECT TIN IN PC TAIL AREA: 100 MICROINCHES/
2.54 MICROMETERS MIN.,
WITH OVERALL NICKEL UNDERPLATE: 50 MICROINCHES/
1.27 MICROMETERS MIN.
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.
- 3) PRODUCT SPECIFICATION: PS-43860-003.
- 4) 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*
- 5) ALL UNTOLERANCED DIMENSIONS ARE SHOWN FOR REFERENCE ONLY.
- 6) CONFORMS TO FCC REGULATION PART 68.5 FOR MODULAR JACKS.
- 7) AVAILABLE WITH THE (2) SPECIFIED PANEL GROUND TABS
OMITTED FOR SIDE TO SIDE STACKABILITY, PER THE ASSEMBLY
MATERIAL NUMBER TABLE.
- 8) AVAILABLE WITH TOP PANEL GROUND TABS ONLY, PER THE
ASSEMBLY MATERIAL NUMBER TABLE.
- 9) THIS PART CONFORMS TO CLASS B REQUIREMENTS OF COSMETIC
SPECIFICATION PS-45499-002.



NO PANEL
GROUND TABS

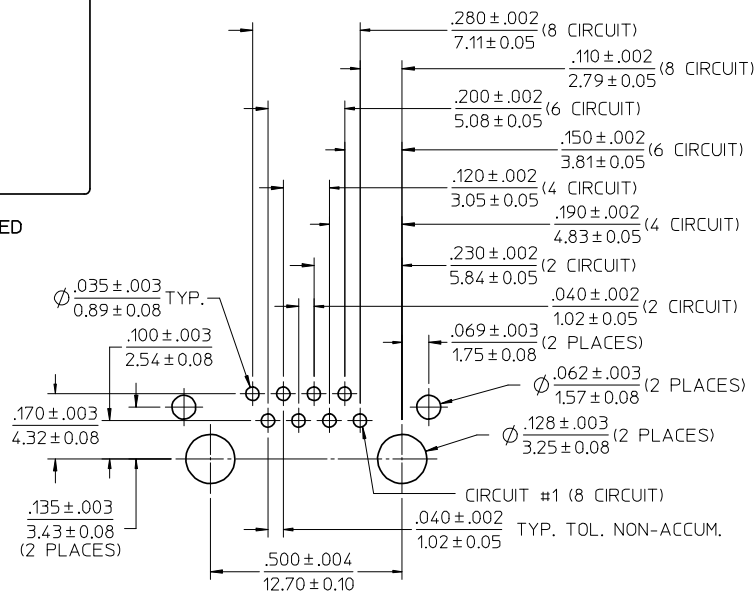
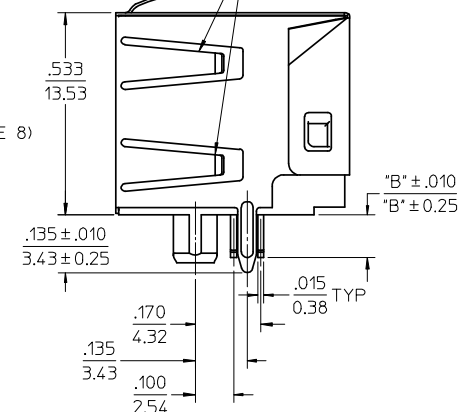


RECOMMENDED
PANEL
OPENING

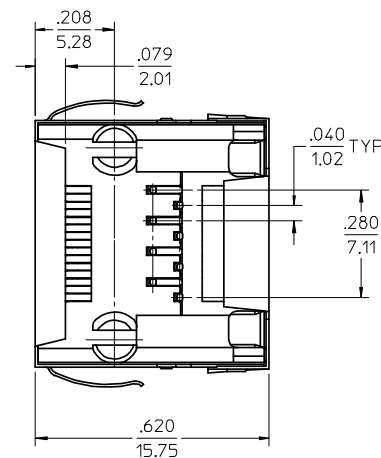


OPTIONAL PANEL
GROUND TAB
(SEE NOTE 7)

PANEL GROUND TABS

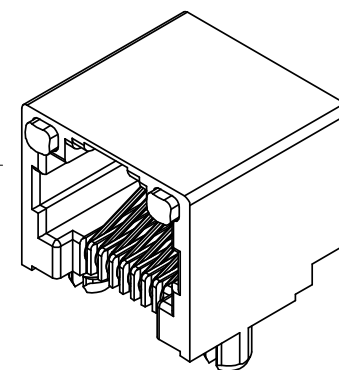
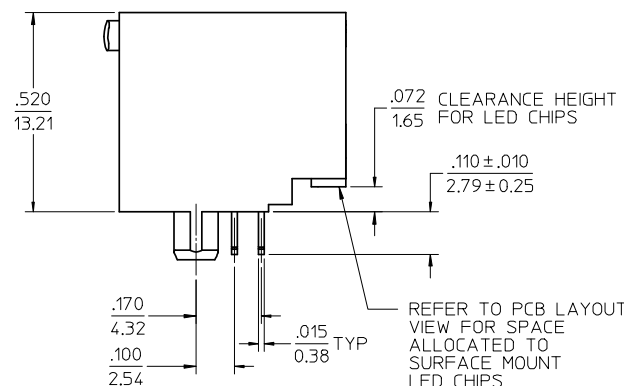
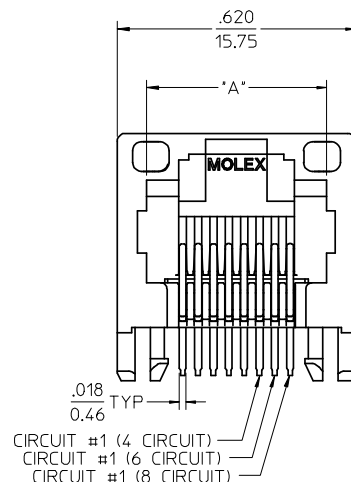


PC BOARD LAYOUT
COMPONENT SIDE OF BOARD
RECOMMENDED PCB THICKNESS .062 ± .005/1.57 ± 0.13

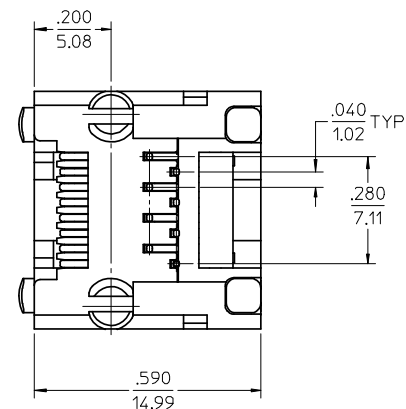


ASSEMBLY MAT. NUM.	CONNECTOR SIZE	DIM "A"	DIM "B"	CIRCUITS	PANEL GROUND TABS	PACKAGING OPTION
43860-0004	8	.469/11.91	.110/2.79	8	ALL	TRAY
43860-2004	8	.469/11.91	.080/2.03	8	ALL	TRAY
43860-0005	6	.389/9.88	.110/2.79	6	ALL	TRAY
43860-0006	6	.389/9.88	.110/2.79	4	ALL	TRAY
43860-0013	8	.469/11.91	.110/2.79	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: FSMITH 2008/07/14 REV	DESCRIPTION	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE IN/MM		SCALE 4:1	DESIGN UNITS INCH	THIRD ANGLE PROJECTION	
		▽=0	mm	INCH	DRAWN BY TALEND	DATE 1997/02/13	TITLE INVERTED MODULAR JACK ASSEMBLY	MOLEX MOLEX INCORPORATED	SHEET NO. 2 OF 5	
		▽=0	4 PLACES ±---	±---	CHECKED BY ROBERTS	DATE 1997/03/03				
			3 PLACES ±---	±.010	APPROVED BY	DATE 1997/03/04				
			2 PLACES ±0.25	±---	MATERIAL NO.	DOCUMENT NO.				
		1 PLACE ±---	±---							
		ANGULAR ±1/2°		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE CHART		SD-43860-001		
H6		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
LIGHT PIPES:
POLYCARBONATE - WAVE OR HAND SOLDER ONLY
POLYSULFONE - MAXIMUM REFLOW TEMPERATURE 400°F (205°C)
(NOT DESIGNED FOR I/R REFLOW OR CONVECTION REFLOW SOLDER PROCESSES)
 - 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.
 - PRODUCT SPECIFICATION AND PROCESSING PARAMETERS: PS-43860-003.
 - PACKAGING SPECIFICATION:
CONNECTOR ASSEMBLIES PACKAGED IN EXTRUDED TUBES PER MOLEX PACKAGING SPECIFICATION PK-43860-004.
 - APPLICATION SPECIFICATION: AS-43860-001.
 - ALL UNTOLERANCED DIMENSIONS ARE SHOWN FOR REFERENCE ONLY.
 - CONFORMS TO FCC REGULATION PART 68.5 FOR MODULAR JACKS.
 - 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
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

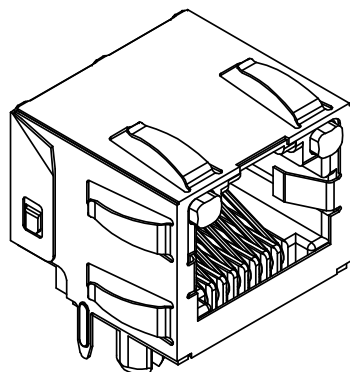
SEE SHEET 1 EC NO: UCP2008-3111 DRAWN: SCHMIDT CHKD: JEBELL APPR: FSMITH H6	DESCRIPTION	QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE IN/MM		SCALE 4:1	DESIGN UNITS INCH	THIRD ANGLE PROJECTION					
				mm	INCH	DRAWN BY TALEND	DATE 1997/02/13	TITLE INVERTED MODULAR JACK ASSEMBLY						
			4 PLACES	±---	±---	CHECKED BY ROBERTS	DATE 1997/03/03	MOLEX MOLEX INCORPORATED						
			3 PLACES	±---	±.010	APPROVED BY FRY	DATE 1997/03/04							
			2 PLACES	±0.25	±---	MATERIAL NO.	DOCUMENT NO.						SHEET NO.	
			1 PLACE	±---	±---	SEE CHART							SD-43860-001	
			ANGULAR ±1/2°			DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SIZE		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION				

INVERTED MODULAR JACK
ASSEMBLY

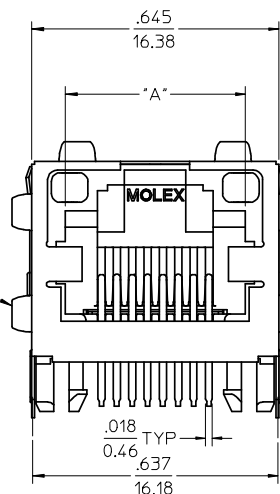
MOLEX INCORPORATED

SD-43860-001

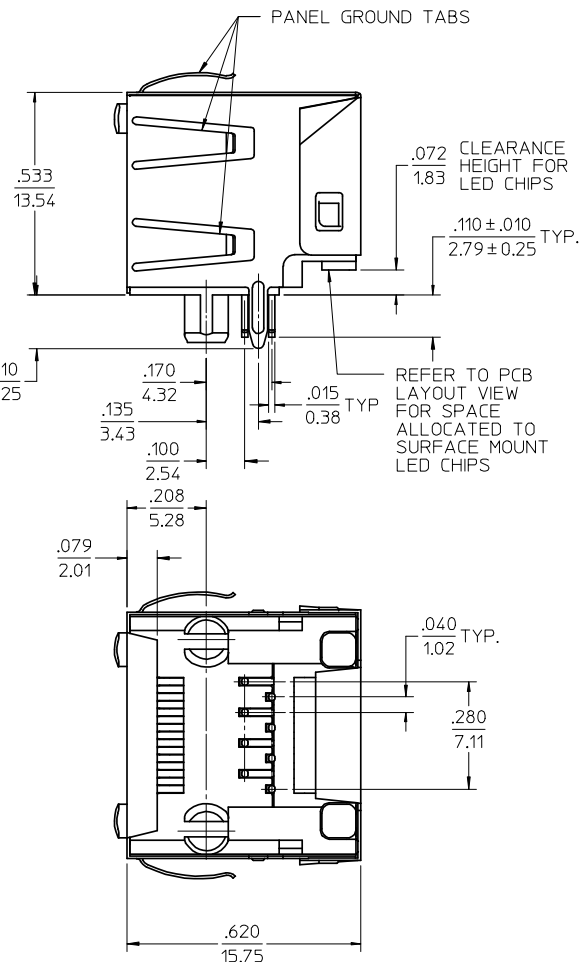
SHEET NO.
3 OF 5



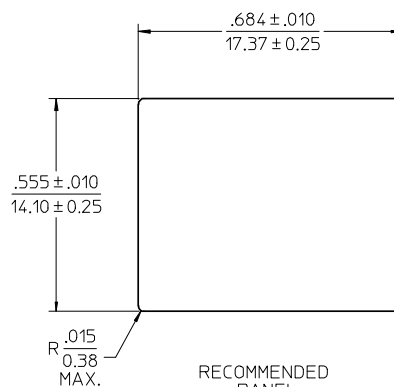
OPTIONAL PANEL
GROUND TAB
(SEE NOTE 8)



OPTIONAL PANEL
GROUND TAB
(SEE NOTE 8)



- NOTES:
- 1) 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)
 - 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.
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.
 - 3) PRODUCT SPECIFICATION AND PROCESSING PARAMETERS: PS-43860-003.
 - 4) PACKAGING SPECIFICATION:
CONNECTOR ASSEMBLIES PACKAGED IN THERMOFORMED TRAYS PER MOLEX
PACKAGING SPECIFICATION PK-43860-005.
 - 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) AVAILABLE WITH THE (2) SPECIFIED PANEL GROUND TABS OMITTED FOR SIDE
TO SIDE STACKABILITY, PER THE ASSEMBLY MATERIAL NUMBER TABLE.
 - 9) REFER TO SHEET (5) OF (5) FOR RECOMMENDED PCB LAYOUT.
 - 10) THIS PART CONFORMS TO CLASS B REQUIREMENTS OF COSMETIC
SPECIFICATION PS-45499-002.



RECOMMENDED
PANEL
OPENING

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
CHKD: JEBEL
APPR: FSM/TH
2008/06/20
2008/06/27
2008/07/14

QUALITY
SYMBOLS
▽=0
▽=0

GENERAL TOLERANCES
(UNLESS SPECIFIED)

	mm	INCH
4 PLACES ± ---	± ---	± ---
3 PLACES ± ---	± .010	± ---
2 PLACES ± .25	± ---	± ---
1 PLACE ± ---	± ---	± ---

ANGULAR ±1/2°

DRAFT WHERE APPLICABLE
MUST REMAIN
WITHIN DIMENSIONS

DIMENSION STYLE
IN/MM

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

SIZE
C

SCALE
4:1

DESIGN UNITS
INCH

THIRD ANGLE
PROJECTION

INVERTED MODULAR JACK
ASSEMBLY

MOLEX INCORPORATED

DOCUMENT NO.
SD-43860-001

SHEET NO.
4 OF 5

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INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

