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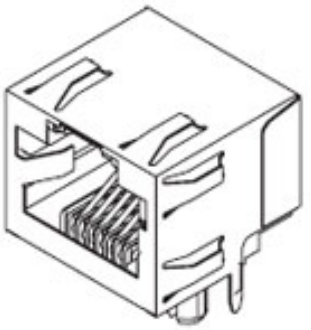
This document was generated on 06/07/2010

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
Drawing (PDF)
Application Specification (PDF)
Product Specification PS-43860-003 (PDF)
RoHS Certificate of Compliance (PDF)



Series image - Reference only

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
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

Electrical

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)

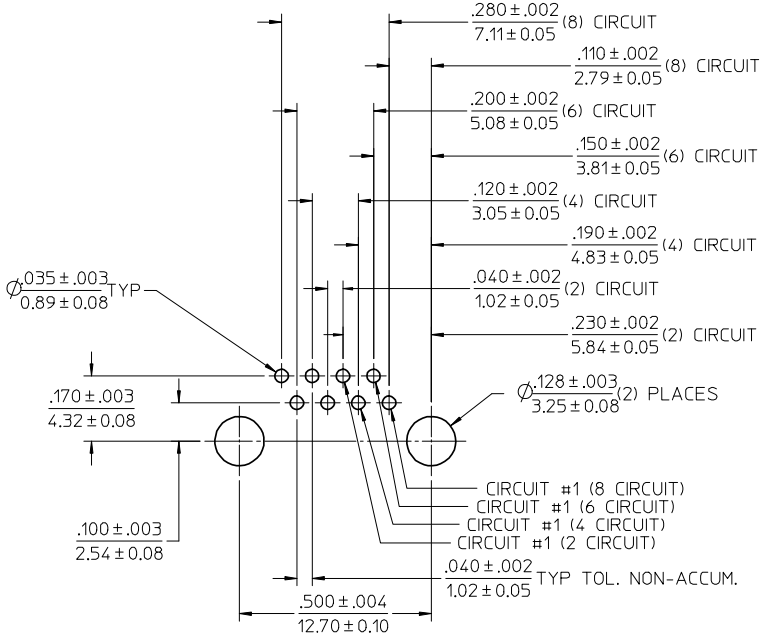
Material Info

Reference - Drawing Numbers

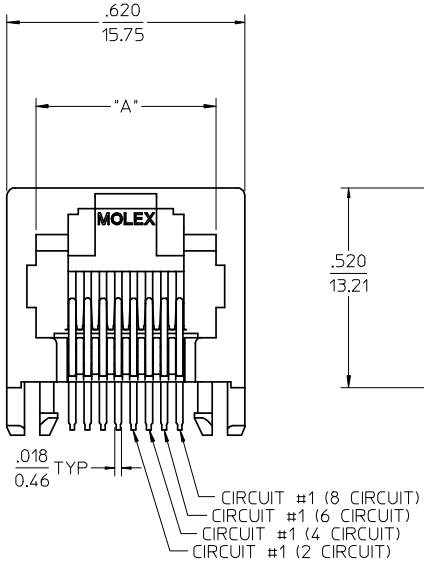
Packaging Specification	PK-43860-004
Product Specification	PS-43860-003, RPS-43860-004, RPS-43860-007, RPS-43860-008, RPS-43860-013
Sales Drawing	SD-43860-001
Test Summary	TS-43860-001

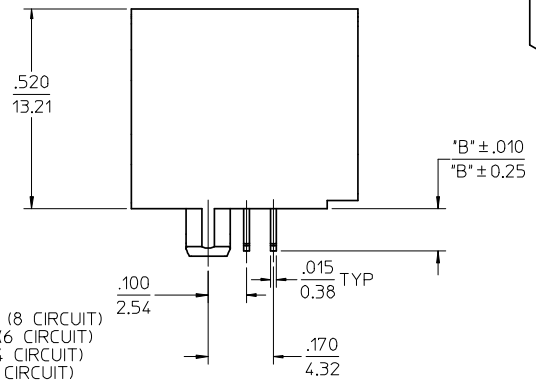
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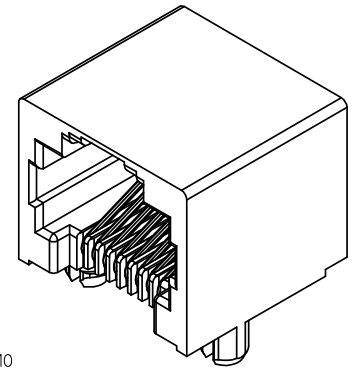
NOTES:
1) MATERIAL:
   HOUSING: NYLON(PA), GLASS FILLED, UL94V-0, COLOR: SEE CHART
   TERMINALS: PHOSPHOR BRONZE
2) FINISH:
   TERMINALS:
   SELECT GOLD IN CONTACT AREA: 50 MICROINCHES (1.27 MICROMETERS) MIN.,
   *SELECT TIN IN PC TAIL AREA: 100 MICROINCHES (2.54 MICROMETERS) MIN.,
   WITH OVERALL NICKEL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

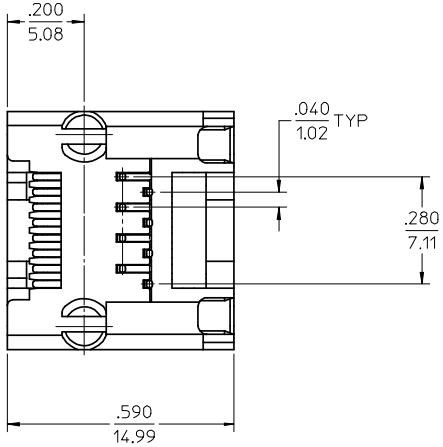


PC BOARD LAYOUT
COMPONENT SIDE OF BOARD
RECOMMENDED PCB THICKNESS .062±.005/1.57±0.13









ASSEMBLY MAT. NUM.	CONNECTOR SIZE	DIM "A"	DIM "B"	CIRCUITS	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 2008/06/20
DRWN:LSCHMIDT 2008/06/27
CH'KD:JBELL 2008/07/14
APPR:FSMITH
DESCRIPTION
REV
H6

QUALITY SYMBOLS
▼=0
▽(C)=0

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: IN/MM
SCALE: 4:1
DESIGN UNITS: INCH
THIRD ANGLE PROJECTION

DRAWN BY: TALEND DATE: 1997/02/13
CHECKED BY: ROBERTS DATE: 1997/03/03
APPROVED BY: FRY DATE: 1997/03/04

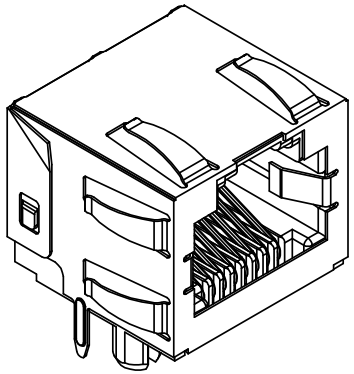
TITLE: INVERTED MODULAR JACK ASSEMBLY

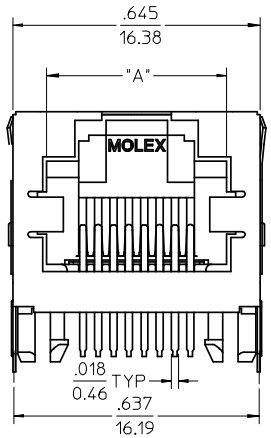
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MATERIAL NO.: SEE CHART
DOCUMENT NO.: SD-43860-001
SHEET NO.: 1 OF 5

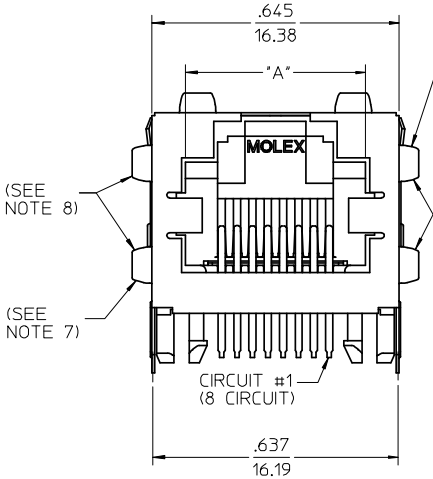
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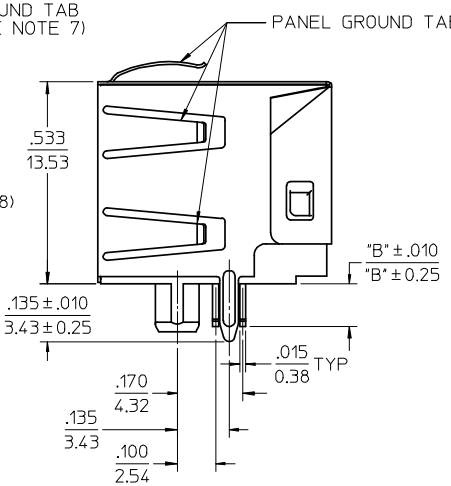
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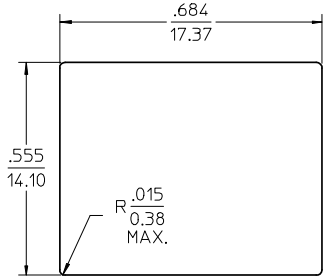


NO PANEL
GROUND TABS

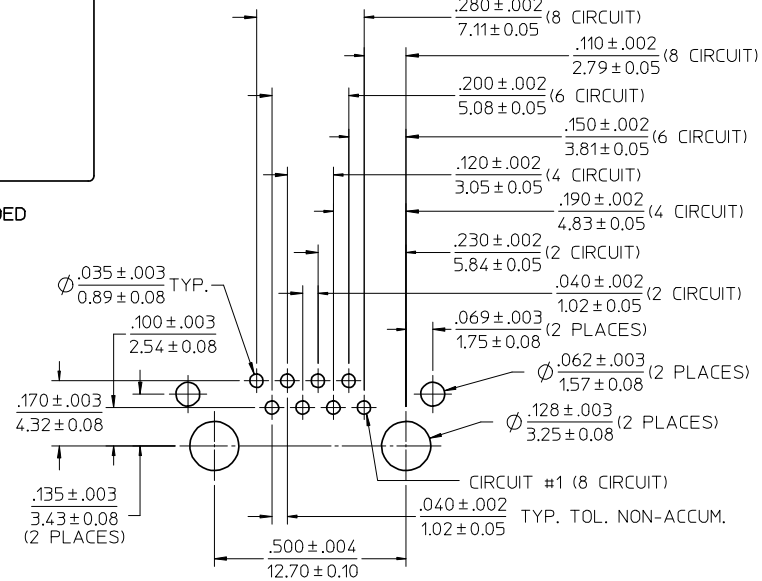




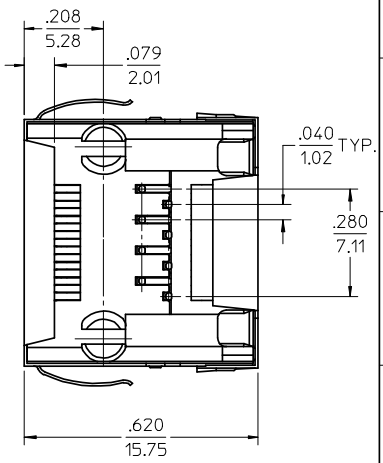
NOTES:
1) MATERIAL:
   HOUSING: NYLON(PA), GLASS FILLED, UL94V-0,
   COLOR: BLACK
   TERMINALS: PHOSPHOR BRONZE
   SHIELD: BRASS
2) FINISH:
   TERMINALS:
   SELECT GOLD IN CONTACT AREA: 50 MICROINCHES/
   1.27 MICROMETERS MIN.,
   *SELECT TIN IN PC TAIL AREA: 100 MICROINCHES/
   2.54 MICROMETERS MIN.,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



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 2008/06/20
EC NO: UCP2008-3111 2008/06/27
DRWN:LSCHMIDT 2008/07/14
CH'KD:JBELL
APPR:FSMITH
DESCRIPTION
H6
REV

QUALITY SYMBOLS
▼=0
▽(C)=0

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: IN/MM
SCALE: 4:1
DESIGN UNITS: INCH
THIRD ANGLE PROJECTION

		DATE
DRAWN BY	TALEND	1997/02/13
CHECKED BY	ROBERTS	1997/03/03
APPROVED BY	FRY	1997/03/04

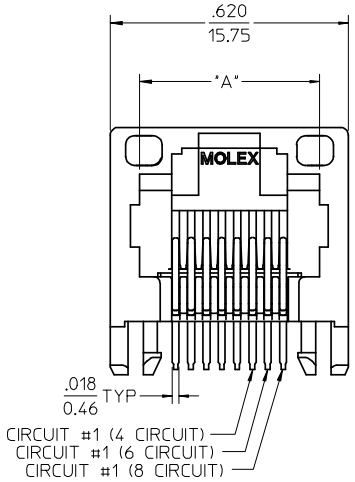
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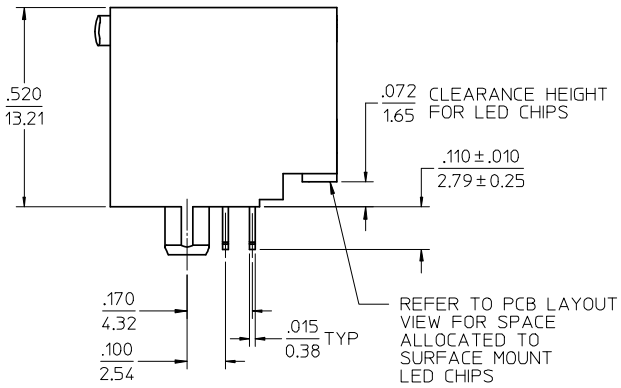
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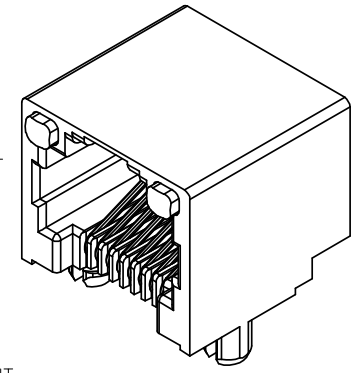
MATERIAL NO.: SEE CHART
DOCUMENT NO.: SD-43860-001
SHEET NO.: 2 OF 5

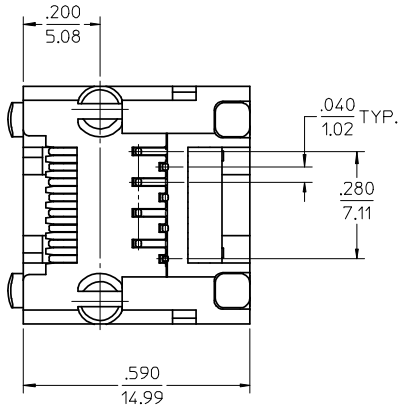
SIZE C

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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 2008/06/20
DRWN:LSCHMIDT 2008/06/27
CH'KD: JBELL 2008/07/14
APPR:FSMITH DESCRIPTION
H6 REV

QUALITY SYMBOLS
▼=0
▽=0

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: IN/MM
SCALE: 4:1
DESIGN UNITS: INCH
THIRD ANGLE PROJECTION

		DATE
DRAWN BY	TALEND	1997/02/13
CHECKED BY	ROBERTS	1997/03/03
APPROVED BY	FRY	1997/03/04

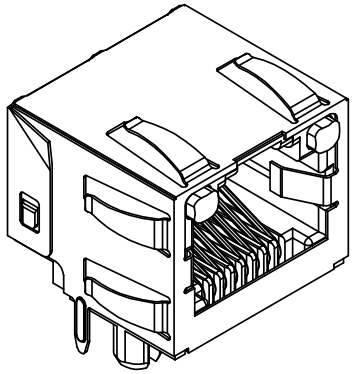
TITLE: INVERTED MODULAR JACK ASSEMBLY

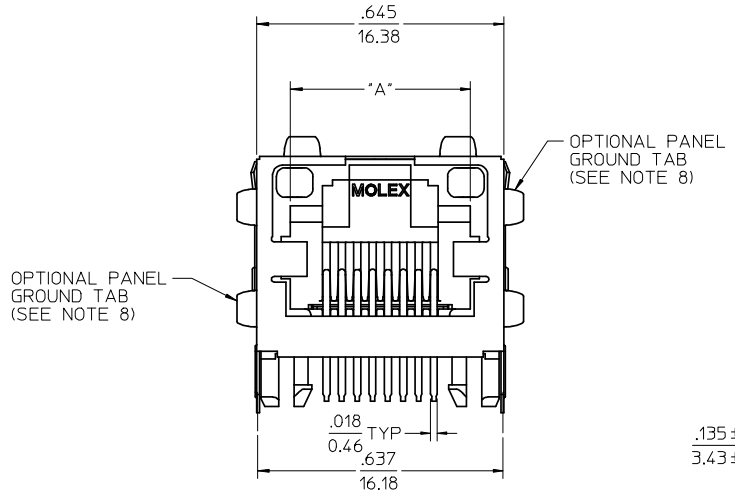
MOLEX INCORPORATED

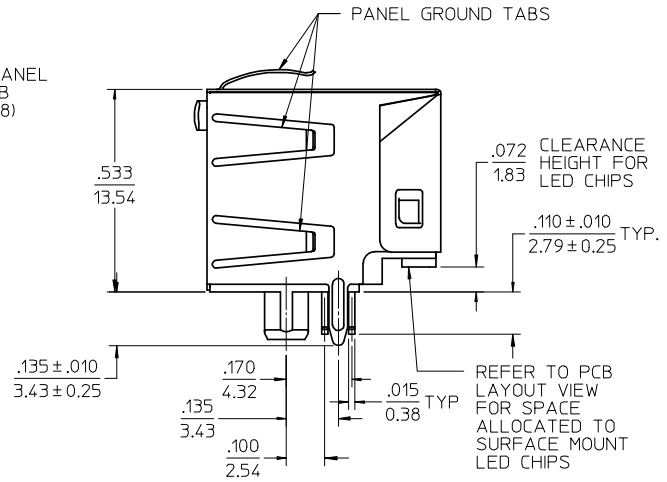
MATERIAL NO.: SEE CHART
DOCUMENT NO.: SD-43860-001
SHEET NO.: 3 OF 5

SIZE C

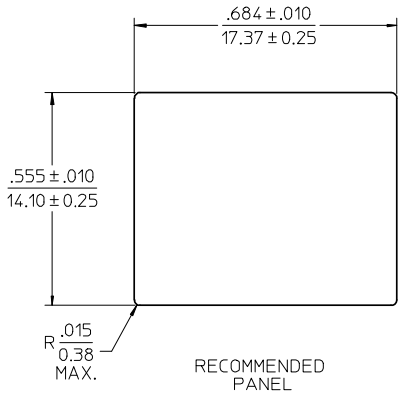
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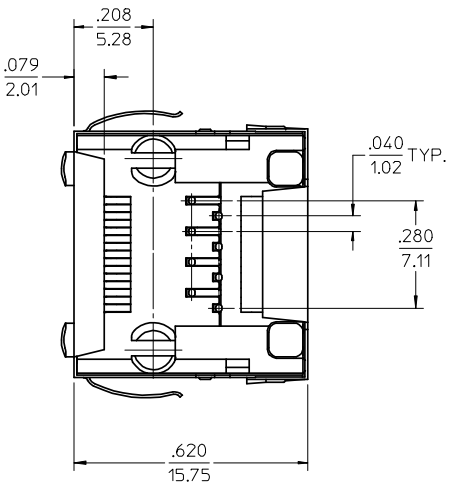






NOTES:
1) MATERIAL:
   HOUSING: NYLON(PA), GLASS FILLED, UL94V-0, COLOR: BLACK
   TERMINALS: PHOSPHOR BRONZE
   SHIELD: BRASS
   LIGHT PIPES:
   POLYCARBONATE - WAVE OR HAND SOLDER ONLY
   (NOT DESIGNED FOR I/R REFLOW OR
   CONVECTION REFLOW SOLDER PROCESSES)
   POLYSULFONE - MAXIMUM REFLOW TEMPERATURE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





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 2008/06/20
DRWN:LSCHMIDT 2008/06/27
CHKD:JBELL 2008/07/14
APPR:FSMITH
DESCRIPTION
H6
REV

QUALITY SYMBOLS
▼=0
▽=0

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: IN/MM
SCALE: 4:1
DESIGN UNITS: INCH
THIRD ANGLE PROJECTION

DRAWN BY: TALEND DATE: 1997/02/13
CHECKED BY: ROBERTS DATE: 1997/03/03
APPROVED BY: FRY DATE: 1997/03/04

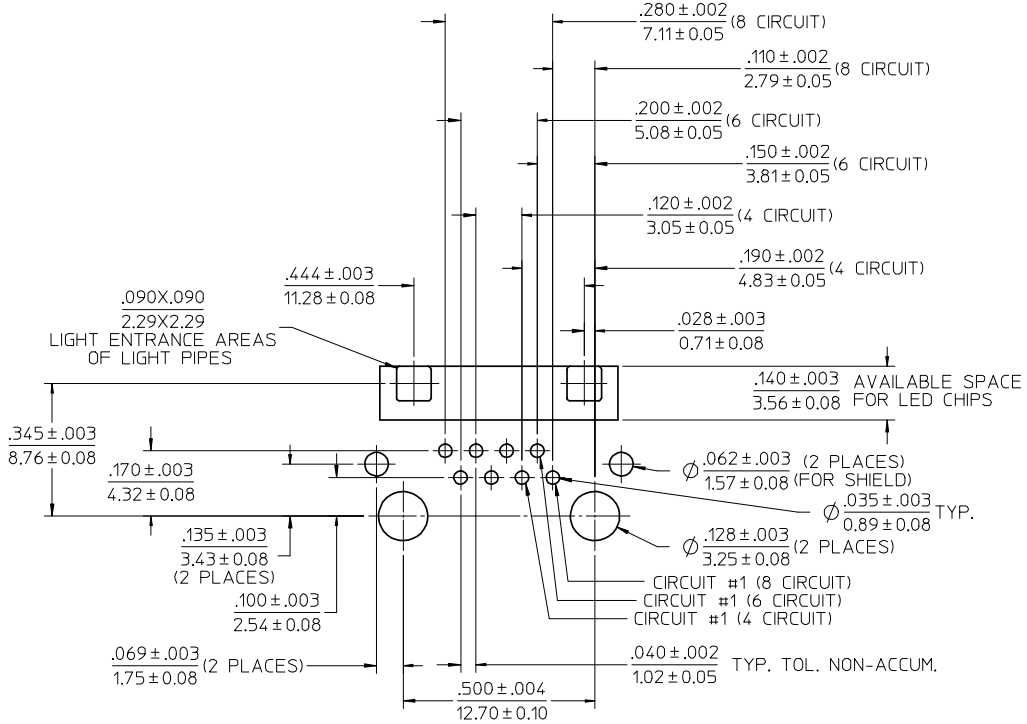
TITLE: INVERTED MODULAR JACK ASSEMBLY

molex MOLEX INCORPORATED

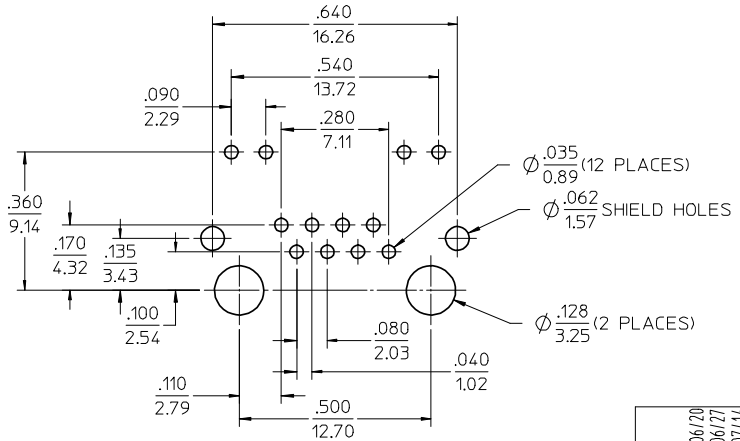
MATERIAL NO.: SEE CHART
DOCUMENT NO.: SD-43860-001
SHEET NO.: 4 OF 5

SIZE C

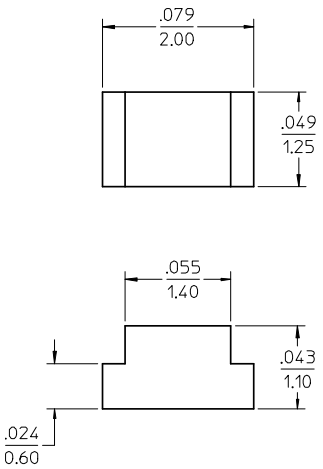
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION



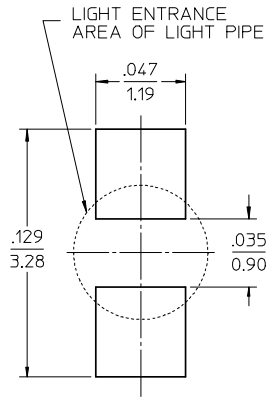
MOLEX RECOMMENDED
PC BOARD LAYOUT
COMPONENT SIDE OF BOARD
RECOMMENDED PCB THICKNESS .062±.005/1.57±0.13



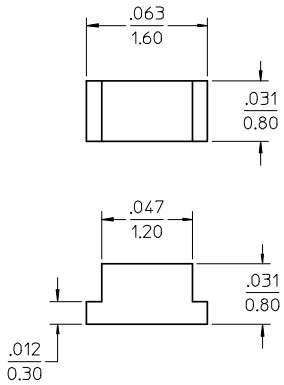
TYPICAL COMPETITION
PCB LAYOUT WITH
INTEGRAL LED'S
(SHOWN FOR REFERENCE ONLY)



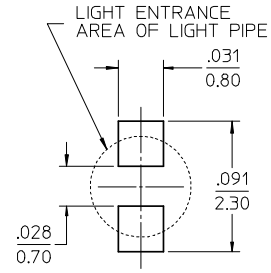
RECOMMENDED SMT
0805 LED DIMMENSIONS
SCALE 20:1
(SEE NOTE 1)



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



RECOMMENDED SMT
0603 LED DIMMENSIONS
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 2008/06/20
DRWN: LSCHMIDT 2008/06/27
CH'KD: JBELL 2008/07/14
APPR: FSMITH DESCRIPTION
H6 REV

QUALITY SYMBOLS
▼=0
▽(C)=0

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: IN/MM
SCALE: 4:1
DESIGN UNITS: INCH
THIRD ANGLE PROJECTION

		DATE
DRAWN BY	TALEND	1997/02/13
CHECKED BY	ROBERTS	1997/03/03
APPROVED BY	FRY	1997/03/04

TITLE: INVERTED MODULAR JACK ASSEMBLY

MOLEX INCORPORATED

MATERIAL NO.: SEE CHART
DOCUMENT NO.: SD-43860-001
SHEET NO.: 5 OF 5
SIZE: C

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