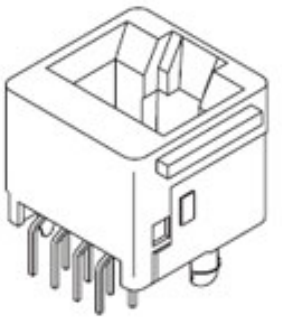
This document was generated on 06/07/2010

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

Part Number: 0428789418
Status: Active
Overview: modular_plugs_jacks
Description: Modular Jack, Vertical, Low Profile, 8/2, Keyed

Documents:

3D Model
Drawing (PDF)
Product Specification PS-42878 (PDF)
RoHS Certificate of Compliance (PDF)



Series image - Reference only

Agency Certification

CSA	LR19980
UL	E107635

General

Product Family	Modular Jacks/Plugs
Series	42878
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	N/A
Keying to Mating Part	Yes
Lightpipes/LEDs	None
Material - Metal	Phosphor Bronze
Material - Plating Mating	Gold
Material - Plating Termination	Tin
Material - Resin	Polyester
Orientation	Vertical (Top Entry)
PCB Locator	Yes
PCB Retention	Yes
PCB Thickness Recommended (in)	0.125 In
PCB Thickness Recommended (mm)	3.18 mm
Packaging Type	Tray
Panel Mount	Without Flange
Pitch - Mating Interface (in)	0.040 In
Pitch - Mating Interface (mm)	1.02 mm
Pitch - Term. Interface (in)	0.050 In
Pitch - Term. Interface (mm)	1.27 mm
Ports	1
Positions / Loaded Contacts	8/2
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

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
42878Series

Mates With
FCC 68 Plugs

Grounding to PCB	No
Grounding to Panel	None
Shielded	No
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	235

Material Info

Reference - Drawing Numbers

Packaging Specification	PK-42878-492
Product Specification	PS-42878
Sales Drawing	SDA-42878-****
Test Summary	TS-42878-001

This document was generated on 06/07/2010

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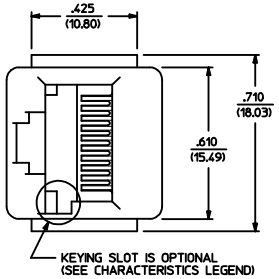
MODULAR JACK CHARACTERISTICS LEGEND

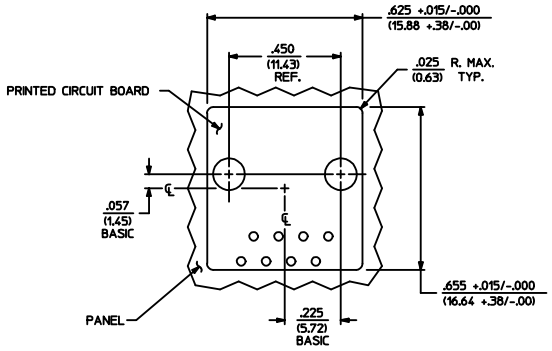
EXTERNAL CONNECTOR BODY DIMENSIONS: (SEE NOTES 8 AND 9) JACKS ARE AVAILABLE IN STANDARD 4, 6, AND 8 POSITION BODY SIZES
NUMBER OF CONTACT POSITIONS: CONNECTOR SIZE 4 CAN ACCOMMODATE 2 OR 4 TERMINALS, CONNECTOR SIZE 6 CAN ACCOMMODATE 2, 4, OR 6 TERMINALS, CONNECTOR SIZE 8 CAN ACCOMMODATE 2, 4, 6, 8, OR 10 TERMINALS
POLARIZATION OPTION: "NO"= JACKS WITHOUT KEYING SLOT "YES"= JACKS WITH KEYING SLOT (AVAILABLE ON CONNECTOR SIZE 8 ONLY)
MOUNTING EARS OPTION: "YES"= JACKS WITH MOUNTING EARS "NO"= JACKS WITHOUT MOUNTING EARS

NOTES:
1) MATERIALS: HOUSING- POLYESTER, GLASS FILLED, UL94V-0, COLOR - BLACK
   TERMINALS- PHOSPHOR BRONZE ALLOY, .015/(0.38) THICK.
2) TERMINAL PLATING:
   SELECT GOLD IN CONTACT AREA: 50 MICROINCHES MIN.
   *SELECT TIN IN PC TAIL AREA: 100 MICROINCHES MIN.,
   WITH OVERALL NICKEL UNDERPLATE: 50 MICROINCHES 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 TAIL.
3) THESE MODULAR JACKS MEET THE PERFORMANCE REQUIREMENTS OF MOLEX PRODUCT SPECIFICATION PS-42878.
4) CONNECTORS ARE SHIPPED IN THERMOFORMED TRAYS, PER PACKAGING SPECIFICATION PK-42878-492.
5) ALL JACKS ARE DESIGNED TO BE USED WITH .062/(1.57) OR .125/(3.18) THICK P.C. BOARDS.
6) ALL JACKS CONFORM TO AND ACCEPT PLUGS WHICH CONFORM TO FCC RULES AND REGULATIONS PART 68, SUBPART F.
7) ALL JACKS MUST BE CAPABLE OF FITTING INTO MOLEX GAGE G-42410 (CONNECTOR SIZE 8).
8) SEE SHEETS 1 & 4 FOR CONNECTOR SIZE 4.
9) SEE SHEETS 2 & 4 FOR CONNECTOR SIZE 6.
10) ENGRAVED NUMBERS ON HOUSING BODY ARE FOR MOLDING IDENTIFICATON ONLY, THEY ARE NOT INTENDED FOR ASSEMBLY IDENTIFICATION PURPOSES.
11) THIS PART CONFORMS TO CLASS B REQUIREMENTS OF COSMETIC SPECIFICATION PS-45499-002 WITH THE EXCEPTION OF THE SINK WHICH CONFORMS TO CLASS C REQUIRMENTS.

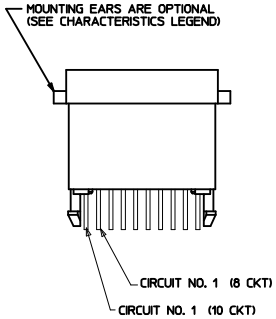
P.C. BOARD THICKNESS	DIM. "D" (MTG. PEGS)	DIM. "F" (P.C. TAILS)
.062/(1.57)	.128 (3.25)	.120 +.015/-.025 (3.05 +.38/-.63)
.125/(3.18)	.191 (4.85)	.205 +.015/-.025 (5.21 +.38/-.63)

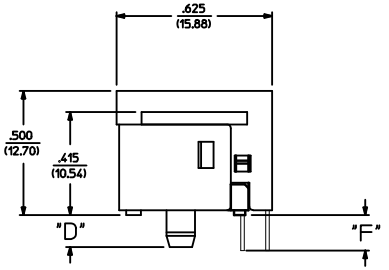
CONNECTOR SIZE	CIRCUIT SIZE	DIM. "G"
8	10	.450 (11.43)
8	8	.350 (8.89)
8	6	.250 (6.35)
8	4	.150 (3.81)
8	2	.050 (1.27)

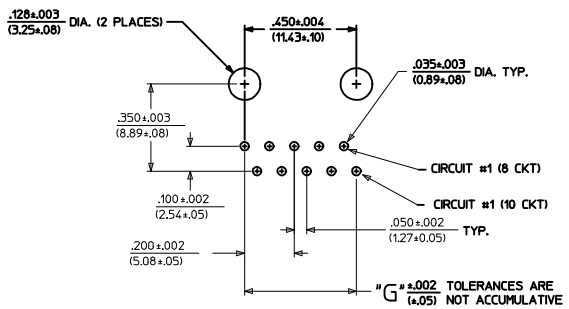




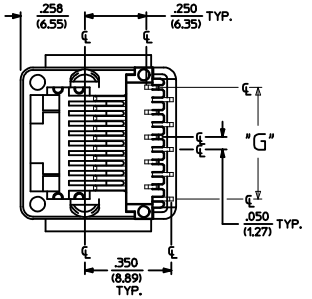
PANEL CUT-OUT FOR CONNECTOR SIZE 8







P.C. BOARD LAYOUT FOR CONNECTOR SIZE 8
10 CIRCUIT SHOWN



SIZE 8 MODULAR JACK LOADED WITH 10 TERMINALS SHOWN ABOVE

ADD COSMETIC SPEC
EC NO: UCP2009-1267
DRWN: JKLOSTERMEIER 2008/12/01
CH'KD: JBELL 2008/12/02
APPR: FSMITH 2008/12/02
DESCRIPTION
REV
H2

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: 1:1
DESIGN UNITS: INCH
THIRD ANGLE PROJECTION

DRAWN BY: BAP DATE: 1992/04/09
CHECKED BY: BAP DATE: 1992/04/09
APPROVED BY: RAS DATE: 1992/04/09
MATERIAL NO.: SEE SHEET 5

TITLE: ASSEMBLY, VERTICAL LOW PROFILE MODULAR JACKS (CONNECTOR SIZE 8)
MOLEX INCORPORATED
DOCUMENT NO.: SDA-42878-****
SHEET NO.: 3 OF 5
SIZE: D

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42878

'X'=NOT TOOLED	ASSEMBLY ITEM NUMBER	PART CHARACTERISTICS: EXTERNAL CONNECTOR SIZE	NUMBER OF POSITIONS	P. C. BOARD THICKNESS	POLARIZATION OPTION	MOUNTING EARS OPTION
	42878-8408	8 POS. BODY	8	.062	NO	YES
	42878-8410	↕	↕	↕	NO	NO
	42878-8456	↕	↕	↕	YES	YES
	42878-8458	↕	↕	.062	YES	NO
	42878-8504	↕	↕	.125	NO	YES
	42878-8506	↕	↕	↕	NO	NO
	42878-8552	↕	↕	↕	YES	YES
	42878-8554	↕	8	.125	YES	NO
	42878-8696	↕	6	.062	NO	YES
	42878-8698	↕	↕	↕	NO	NO
	42878-8744	↕	↕	↕	YES	YES
	42878-8746	↕	↕	.062	YES	NO
	42878-8792	↕	↕	.125	NO	YES
	42878-8794	↕	↕	↕	NO	NO
	42878-8840	↕	↕	↕	YES	YES
	42878-8842	8 POS. BODY	6	.125	YES	NO

'X'=NOT TOOLED	ASSEMBLY ITEM NUMBER	PART CHARACTERISTICS: EXTERNAL CONNECTOR SIZE	NUMBER OF POSITIONS	BOARD THICKNESS/ P.C. TAIL OPTION	POLARIZATION OPTION	MOUNTING EARS OPTION
	42878-8984	8 POS. BODY	4	.062	NO	YES
	42878-8986	↕	↕	↕	NO	NO
	42878-9032	↕	↕	↕	YES	YES
	42878-9034	↕	↕	.062	YES	NO
	42878-9080	↕	↕	.125	NO	YES
	42878-9082	↕	↕	↕	NO	NO
	42878-9128	↕	↕	↕	YES	YES
	42878-9130	↕	4	.125	YES	NO
	42878-9272	↕	2	.062	NO	YES
	42878-9274	↕	↕	↕	NO	NO
	42878-9320	↕	↕	↕	YES	YES
	42878-9322	↕	↕	.062	YES	NO
	42878-9368	↕	↕	.125	NO	YES
	42878-9370	↕	↕	↕	NO	NO
	42878-9416	↕	↕	↕	YES	YES
	42878-9418	8 POS. BODY	2	.125	YES	NO

'X'=NOT TOOLED	ASSEMBLY ITEM NUMBER	PART CHARACTERISTICS: EXTERNAL CONNECTOR SIZE	NUMBER OF POSITIONS	BOARD THICKNESS/ P.C. TAIL OPTION	POLARIZATION OPTION	MOUNTING EARS OPTION
	42878-1001	8 POS. BODY	10	.062	NO	YES
	42878-1003	↕	↕	.062	NO	NO
	42878-1025	↕	↕	.125	NO	YES
	42878-1027	↕	↕	↕	NO	NO
	42878-1037	↕	↕	↕	YES	YES
	42878-1039	8 POS. BODY	10	.125	YES	NO

CHARACTERISTICS LEGEND
EXTERNAL CONNECTOR BODY DIMENSIONS: AVAILABLE IN 4, 6, AND 8 POSITION BODY
NUMBER OF CONTACT POSITIONS: CONNECTOR SIZE 4 ACCOMMODATES 2, OR 4 TERMINALS, CONNECTOR SIZE 6 ACCOMMODATES 2, 4, OR 6 TERMINALS, CONNECTOR SIZE 8 ACCOMMODATES 2, 4, 6, 8, OR 10 TERMINALS
POLARIZATION OPTION: (AVAILABLE ON CONNECTOR SIZE 8 ONLY) "NO"= WITHOUT KEYING SLOT "YES"= WITH KEYING SLOT
MOUNTING EARS OPTION: "YES"= PART WITH MOUNTING EARS "NO"= PART WITHOUT MOUNTING EARS

(SEE SHEET 3 FOR PART DESCRIPTIONS AND DIMENSIONS)

SEE SHEET ONE
EC NO: UCP2004-1617
DRWN:LSCHMDT 2004/03/03
CHKD:LSCHMDT 2004/03/03
APPR:FSMITH 2004/03/03
DESCRIPTION
REV
H

QUALITY SYMBOLS
▼= 0
▽= 0

GENERAL TOLERANCES (UNLESS SPECIFIED)

	mm	INCH
4 PLACES	± ---	± ---
3 PLACES	± ---	± ---
2 PLACES	± ---	± ---
1 PLACE	± ---	± ---
ANGULAR ±1/2°		

DRAFT WHERE APPLICABLE
MUST REMAIN WITHIN DIMENSIONS

SCALE: ---
DESIGN UNITS: INCH
DIMENSION STYLE: IN/MM
DRAWN BY: BAP DATE: 1992/04/09
CHECKED BY: BAP DATE: 1992/04/09
APPROVED BY: RAS DATE: 1992/04/09

THIRD ANGLE PROJECTION
REVISE ON CAD ONLY

TITLE
ASSEMBLY, VERTICAL LOW PROFILE MODULAR JACKS (CONNECTOR SIZE 8)

MOLEX INCORPORATED

MATERIAL NO.: SEE CHART
DOCUMENT NO.: SDA-42878-****
SHEET NO.: 5 OF 5

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Rev. C 2002/05/05