

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

**Part Number:** **0428784410**  
**Status:** **Active**  
**Description:** Modular Jack, Vertical, Low Profile, 4/2

**Documents:**

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

**Agency Certification**

CSA LR19980  
 UL E107635

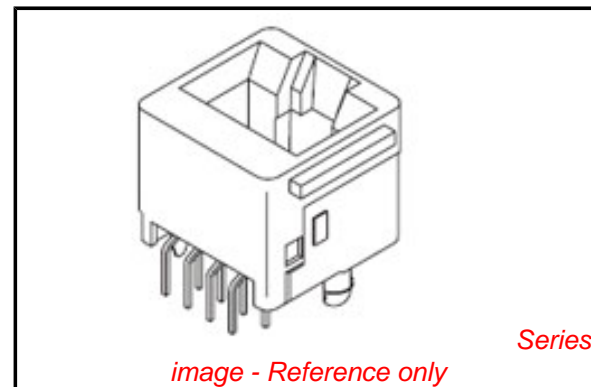
**General**

Product Family Modular Jacks/Plugs  
 Series [42878](#)  
 Comments Flush Mount|Flangeless|2 PCB Thick  
 Component Type PCB Jack  
 Magnetic No  
 Performance Category 3  
 Power over Ethernet (PoE) N/A  
 Product Name N/A

**Physical**

Boot Color N/A  
 Color - Resin Black  
 Durability (mating cycles max) 500  
 Flammability 94V-0  
 Inverted / Top Latch N/A  
 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  
 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  
 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 4/2  
 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**



**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**

[42878Series](#)

**Mates With**

FCC 68 Plugs

Current - Maximum per Contact	1.5A
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)

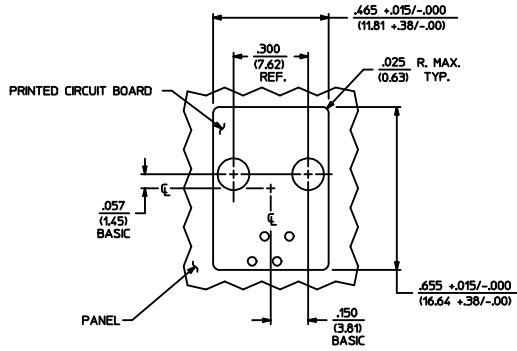
MOUNTING EARS OPTION:  
 "YES"= JACKS WITH MOUNTING EARS  
 "NO"= JACKS WITHOUT MOUNTING EARS

NOTES:

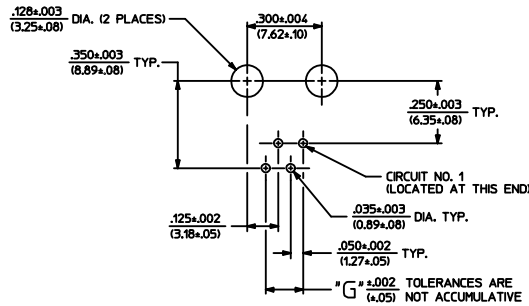
- 1) MATERIALS: HOUSING- POLYESTER, GLASS FILLED, UL94V-0, COLOR - BLACK  
 TERMINALS- PHOSPHOR BRONZE ALLOY, .015/(0.38) THICK.
- 2) TERMINAL PLATING:  
 \*SELECT GOLD IN CONTACT AREA: 50 MICRONS MIN.  
 \*SELECT TIN IN PC TAIL AREA: 100 MICRONS MIN.  
 WITH OVERALL NICKEL UNDERPLATE: 50 MICRONS MIN.  
 \*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 4).
- 8) SEE SHEETS 2 & 4 FOR CONNECTOR SIZE 6.
- 9) SEE SHEETS 3 & 5 FOR CONNECTOR SIZE 8.
- 10) ENGRAVED NUMBERS ON HOUSING BODY ARE FOR MOLDING IDENTIFICATION 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 MEETS CLASS C REQUIREMENTS.

P. C. BOARD THICKNESS	DIM. "D" (MTG. PEGS)	DIM. "F" (P.C. TAILS)
.062/(1.57)	.128 (3.25)	.120 $\pm$ .015/-0.025 (3.05 $\pm$ .38/-63)
.125/(3.18)	.191 (4.85)	.205 $\pm$ .015/-0.025 (5.21 $\pm$ .38/-63)

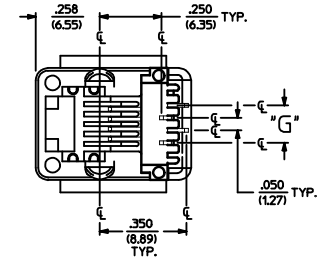
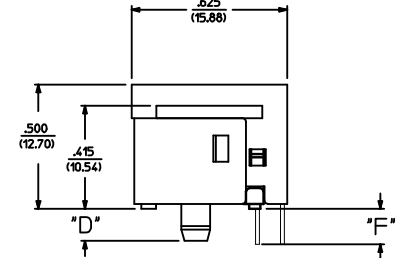
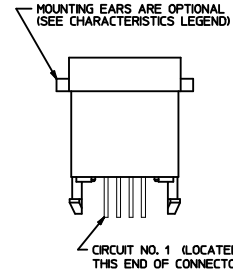
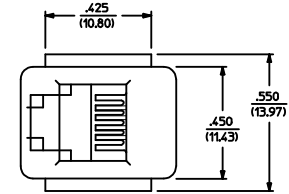
CONNECTOR SIZE	CIRCUIT SIZE	DIM. "G"
4	4	.150 (3.81)
4	2	.050 (1.27)



PANEL CUT-OUT FOR CONNECTOR SIZE 4



P.C. BOARD LAYOUT FOR CONNECTOR SIZE 4



SIZE 4 MODULAR JACK LOADED WITH 4 TERMINALS SHOWN ABOVE  
 (SEE SHEET 4 FOR PART NUMBER AVAILABILITY)

ADD COSMETIC SPEC EC NO. UCP2009-1267 DRAWN:JKLOS/EMER 2008/12/01 CHKD:JBELL 2008/12/02 APPR:FSM/TH 2008/12/02 H2 REV	QUALITY SYMBOLS =0 =0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE		SCALE 1:1	DESIGN UNITS INCH	THIRD ANGLE PROJECTION	TITLE ASSEMBLY, VERTICAL LOW PROFILE, MODULAR JACKS (CONNECTOR SIZE 4)	MATERIAL NO. SEE SHEET 4	DOCUMENT NO. SDA-42878-****	SHEET NO. 1 OF 5
		mm	INCH	IN/MM	DATE							
		4 PLACES	± ---	± ---	BAP	1990/10/12						
		3 PLACES	± ---	± .010	BAP	1990/10/12						
		2 PLACES	± 0.25	± ---	BAP	1990/10/12						
		1 PLACE	± ---	± ---	BAP	1990/10/12						
				ANGULAR ±1/2°	RAS	1990/10/12						
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS										

5	H
4	H
3	H2
2	H2
1	H2
SH	REV

