

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

**Part Number:** **0480332900**  
**Status:** **Active**  
**Overview:** magnetic modular jacks  
**Description:** Modular Jack, Right Angle, 10/100 Ethernet, Stacked 2x4, with LED and Magnetics, Lead Free

**Documents:**

[3D Model](#) [Product Specification PS-48033-002 \(PDF\)](#)  
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

**General**

Product Family	Modular Jacks/Plugs
Series	48033
Comments	With LED Tail Length: 2.50mm (.098")
Component Type	PCB Jack
Magnetic	Yes
Overview	<u>magnetic modular jacks</u>
Performance Category	5
Power over Ethernet (PoE)	Non-PoE
Product Name	Magnetic Jack

**Physical**

Boot Color	N/A
Color - Resin	Black
Durability (mating cycles max)	750
Inverted / Top Latch	Yes
Keying to Mating Part	Yes
Lightpipes/LEDs	LEDs
Material - Metal	Brass, Phosphor Bronze
Material - Plating Mating	Gold
Material - Plating Termination	Tin
Material - Resin	Nylon
Orientation	Right Angle (Side Entry)
PCB Locator	Yes
PCB Retention	Yes
PCB Thickness Recommended (in)	0.079 In
PCB Thickness Recommended (mm)	2.00 mm
Packaging Type	Tray
Ports	8
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

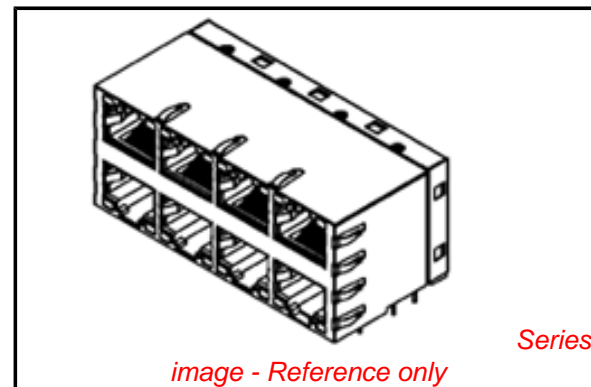
**Electrical**

Current - Maximum per Contact	1.5A
Grounding to PCB	Yes
Grounding to Panel	Panel Ground Tab
Shielded	Yes
Voltage - Maximum	150V AC

**Material Info**

**Reference - Drawing Numbers**

Packaging Specification	PK-48033-004
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**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**

48033Series

**Mates With**

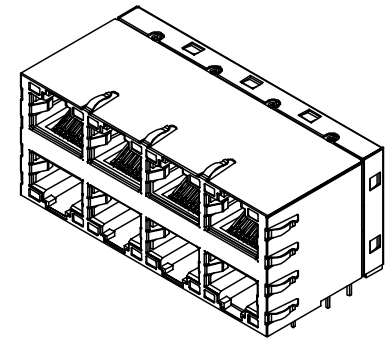
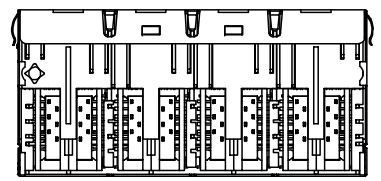
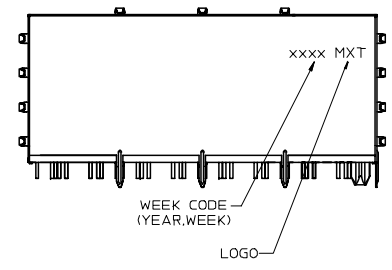
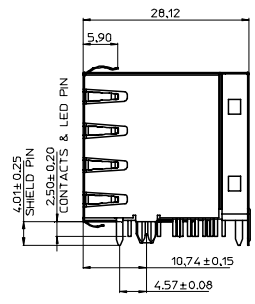
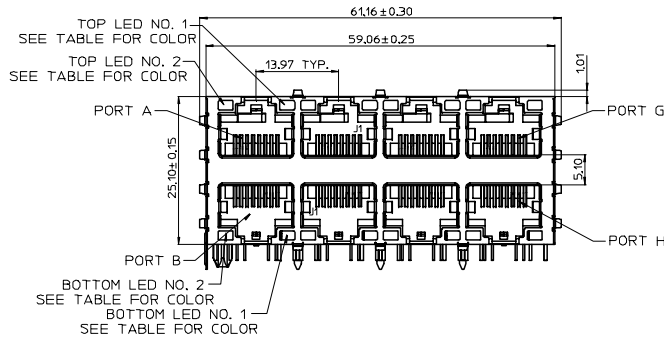
FCC 68 Plugs

Product Specification  
Sales Drawing  
Test Summary

PS-48033-002  
SD-48033-004  
TS-48033-004

This document was generated on 05/26/2010

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NOTES:  
 1.MATERIAL:  
 PLASTIC HOUSING: POLYAMIDE, GLASS FIBER FILLED,UL94V-0,COLOR:BLACK  
 SHIELD: BRASS  
 BACK SHIELD: BRASS  
 CONTACTS: PHOSPHOR BRONZE  
 LED: DIFFUSED EPOXY LENS,CARBON STEEL LEAD FRAME  
 2.PLATING:  
 SHIELD:SOLDER TAIL:TIN(Sn),THICKNESS=100 MICROINCH MINIMUM  
 UNDER PLATE:NICKEL(Ni) PLATED (SOLDERING AVAILABLE) OVERALL.  
 TERMINAL:CONTACT AREA:GOLD(Au),THICKNESS=50 MICROINCH/1.27 MICROMETER  
 SOLDER TAIL:TIN(Sn),THICKNESS=100 MICROINCH MINIMUM  
 UNDER PLATE:NICKEL(Ni) PLATED OVERALL.  
 LED:TIN/SILVER/NICKEL/COPPER PLATING  
 3.MAGNETICS:  
 IMPEDANCE:100 OHMS  
 TRANSMIT OPEN CIRCUIT INDUCTANCE (OCL):350uH (MIN)@ 100KHZ,0.1 VRMS WITH 8 mA DC BIAS  
 TURNS RATIO (CHIP:CABLE):TX:1,RX:1:1  
 PERFORMANCE:  
 TRANSMIT BIDIRECTIONAL J3 AND J6  
 RECIEVE BIDIRECTIONAL J1 AND J2

LED ELECTRICAL SPECIFICATION

PARAMETER	YELLOW (TYP.)	GREEN (TYP.)	UNITS	TEST CONDITIONS
POWER DISSIPATION	100	100	mW	
REVERSE VOLTAGE	5	5	V	
PEAK WAVELENGTH	585	565	nm	IF=20mA
FORWARD VOLTAGE	2.1 MAX.=2.5	2.1 MAX.=2.5	V	IF=20mA

FREQUENCY	INSERTION LOSS	RETURN LOSS	CROSSTALK ATTENUATION	COMMON MADEREJECTION RATIO	
				TX	RX
1.0MHZ-15.0MHZ	0.3dB(MAX)	18.0dB(MIN)	35.0dB(MIN)	46.0dB(MIN)	35.0dB(MIN)
15.1MHZ-60.0MHZ	0.6dB(MAX)	16.0dB(MIN)	26.0dB(MIN)	46.0dB(MIN)	35.0dB(MIN)
60.1MHZ-80.0MHZ	1.1dB(MAX)	15.0dB(MIN)	24.0dB(MIN)	42.0dB(MIN)	33.0dB(MIN)
80.1MHZ-100.0MHZ	1.1dB(MAX)	12.0dB(MIN)	24.0dB(MIN)	42.0dB(MIN)	33.0dB(MIN)

DIELECTRIC (ISOLATION VOLTAGE):  
 2250 VDC (1mA CUTOFF CURRENT) FOR 60 SECONDS DURATION  
 WITH DECOUPLING CAP  
 ALL BRIDGED ON EITHER SIDE OF MAGNETICS PACKAGE FOR RJ-45 CONTACT  
 4.RECOMMENDED PCB THICKNESS 2.00mm(.079")  
 5.SUGGESTED OPERATING CURRENT FOR THE LED IS 20mA  
 6.PRODUCT SPECIFICATION REFER TO PS-48033-002  
 7.TEST SUMMARY REFER TO TS-48033-004  
 8.PACKAGING SPECIFICATION REFER TO PK-48033-004  
 9.LEAD FREE AND RoHS COMPLIANT PRODUCT

ROHS FOR 48033-2000  
 EC NO: SH2007-0131  
 DRWN:ALLIN 2006/10/04  
 CHKD: 2006/10/04  
 APPR:WMSCHANG 2006/10/04

QUALITY SYMBOLS  
 ▽=0  
 ▽=0

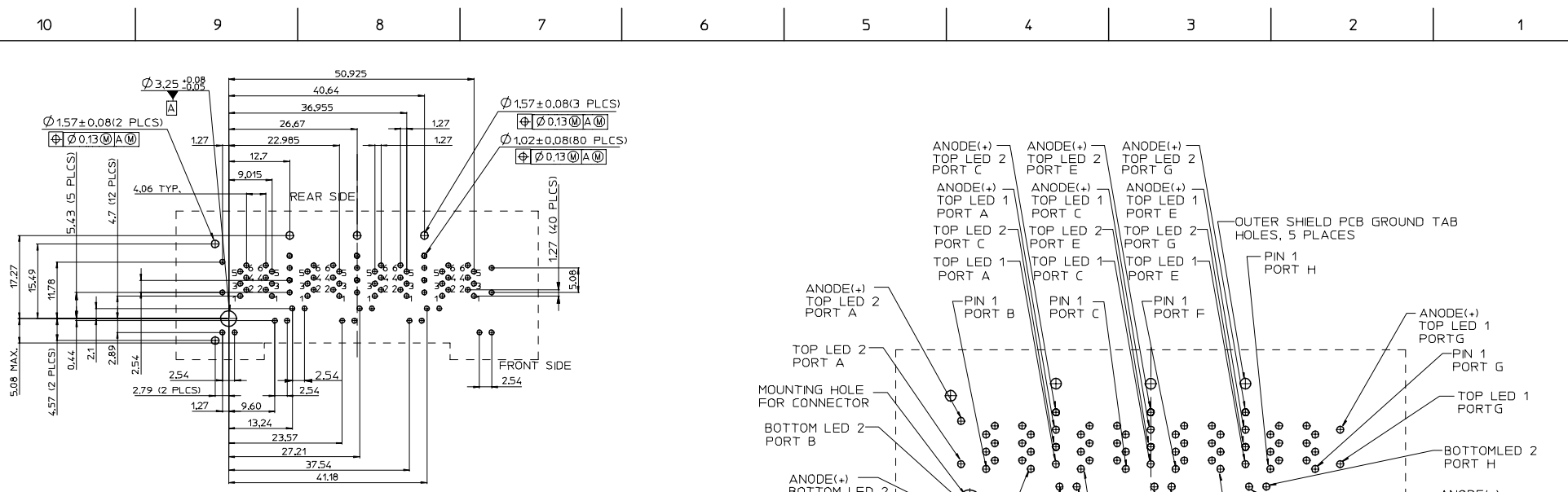
GENERAL TOLERANCES (UNLESS SPECIFIED)  

	mm	INCH
4 PLACES	± .005	± .0004
3 PLACES	± .0025	± .0001
2 PLACES	± 0.25	± .010
1 PLACE	± 0.25	± .010

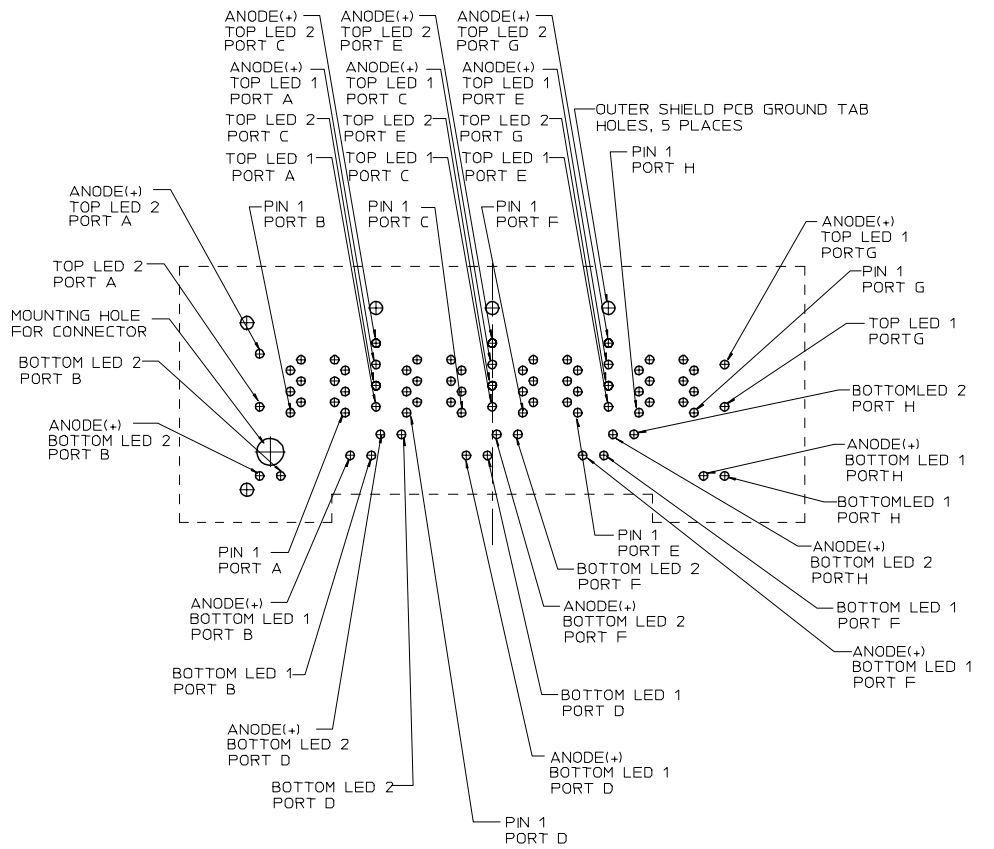
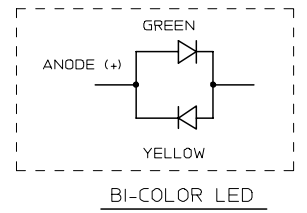
 ANGULAR ± 3 °  
 DRAFT WHERE APPLICABLE  
 MUST REMAIN WITHIN DIMENSIONS

DIMENSION STYLE  
 MM ONLY  
 DRAWN BY LINDA 2006/08/08  
 CHECKED BY ALLEN LIN 2006/08/10  
 APPROVED BY ERICK LAN 2006/08/10  
 MATERIAL NO. 48033-2900

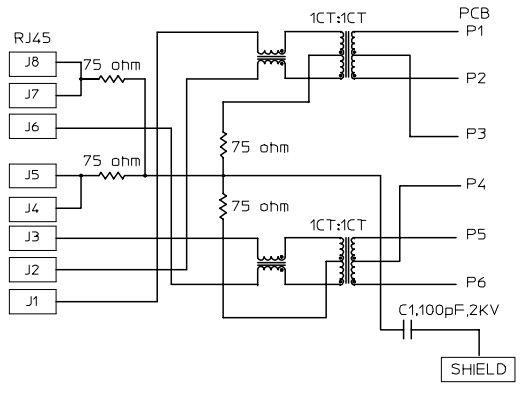
SCALE DESIGN UNITS METRIC  
 THIRD ANGLE PROJECTION  
 TITLE MODULAR JACK STACKED 2X4 RA, 10/100 ETHERNET W/ LEDS, MAGNETICS  
 MOLEX INCORPORATED  
 DOCUMENT NO. SD-48033-004 SHEET NO. 1 OF 2  
 THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION



RECOMMENDED PC BOARD LAYOUT  
(VIEWED FRONT COMPONENT SIDE)



RECOMMENDED LED HOLE DESIGNATIONS  
(VIEWED FROM COMPONENT SIDE)



MAGNETIC SCHEMATIC

SEE SHEET 1 EC NO: SH2007-0131 DRWN: ALLIN CHKD: APPR: WMSCHANG 2006/10/04 2006/10/04 2006/10/04	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION																
	$\nabla = 0$ $\triangle = 0$	<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>± ---</td> </tr> <tr> <td>2 PLACES</td> <td>± 0.25</td> <td>± ---</td> </tr> <tr> <td>1 PLACE</td> <td>± 0.25</td> <td>± ---</td> </tr> </tbody> </table>		mm	INCH	4 PLACES	± ---	± ---	3 PLACES	± ---	± ---	2 PLACES	± 0.25	± ---	1 PLACE	± 0.25	± ---	MM ONLY	1:1	METRIC		
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