

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

**Part Number:** [0876682002](#)  
**Status:** **Active**  
**Overview:** [extreme\\_powerplus\\_ssi](#)  
**Description:** 6.35mm (.250") Pitch, Power, 2.54mm (.100") Pitch, Signal, EXTreme PowerPlus™ S-Pb Receptacle, Through Hole, Right Angle, Beveled Metal Pins, 0.76µm (30µ") Gold (Au) Plating, 34 Circuits, Signal 24, Power Beta 10, No Void Pin, Leadfree

**Documents:**

[3D Model](#) [Product Specification PS-87631-006 \(PDF\)](#)  
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

**Agency Certification**

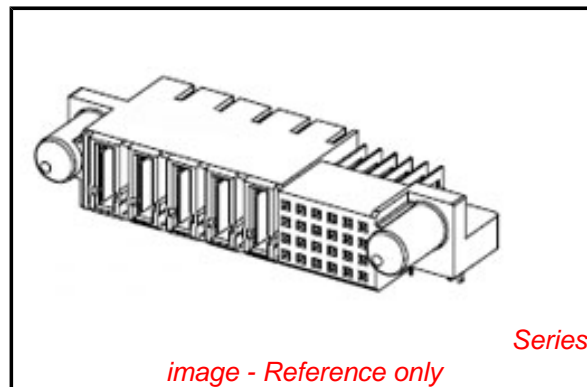
CSA LR19980  
 UL E29179

**General**

Product Family PCB Receptacles  
 Series [87668](#)  
 Application Board-to-Board  
 Comments <LI>Void Signal Pin: Nil  
 Overview [extreme\\_powerplus\\_ssi](#)  
 Product Literature Order No 987650-3002  
 Product Name EXTreme PowerPlus™

**Physical**

Circuits (Loaded) 34  
 Circuits Detail Signal 24, Power Beta 10  
 Color - Resin Black  
 Durability (mating cycles max) 100  
 Flammability 94V-0  
 Glow-Wire Compliant No  
 Guide to Mating Part Yes  
 Lock to Mating Part Yes  
 Mated Height (in) 0.495 In  
 Mated Height (mm) 12.57 mm  
 Material - Metal High Performance Alloy (HPA), Phosphor Bronze  
 Material - Plating Mating Gold  
 Material - Plating Termination Tin  
 Material - Resin High Temperature Thermoplastic  
 Number of Rows 4  
 Orientation Right Angle  
 PC Tail Length (in) 0.135 In  
 PC Tail Length (mm) 3.43 mm  
 PCB Locator Yes  
 PCB Retention Yes  
 PCB Thickness Recommended (in) 0.062 In  
 PCB Thickness Recommended (mm) 1.60 mm  
 Packaging Type Tray  
 Pitch - Mating Interface (in) 0.100 In, 0.250 In  
 Pitch - Mating Interface (mm) 2.54 mm, 6.35 mm  
 Plating min: Mating (µin) 30.4  
 Plating min: Mating (µm) 0.76  
 Plating min: Termination (µin) 101.6  
 Plating min: Termination (µm) 2.54  
 Polarized to Mating Part Yes  
 Polarized to PCB Yes



**EU RoHS**

**ELV and RoHS Compliant**  
**REACH SVHC**  
 Not Reviewed  
**Halogen-Free Status**

**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**

[87668Series](#)

**Mates With**

[87667](#) EXTreme PowerPlus™ Right Angle S-Pb Header

Surface Mount Compatible (SMC)	Yes
Temperature Range - Operating	-20°C to +105°C
Termination Interface: Style	Through Hole

### **Electrical**

Current - Maximum per Contact	2.5A, 30A
Voltage - Maximum	50V DC

### **Solder Process Data**

Duration at Max. Process Temperature (seconds)	10
Lead-free Process Capability	SMC & Wave Capable (TH only)
Max. Cycles at Max. Process Temperature	3
Process Temperature max. C	260

### **Material Info**

#### **Reference - Drawing Numbers**

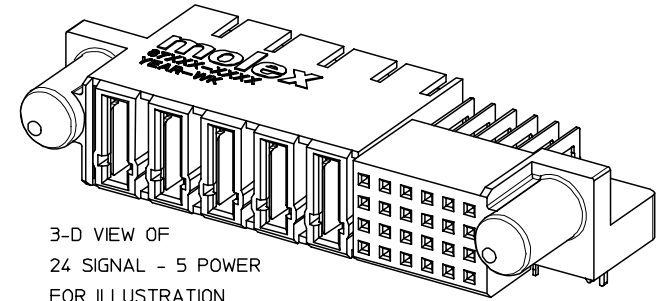
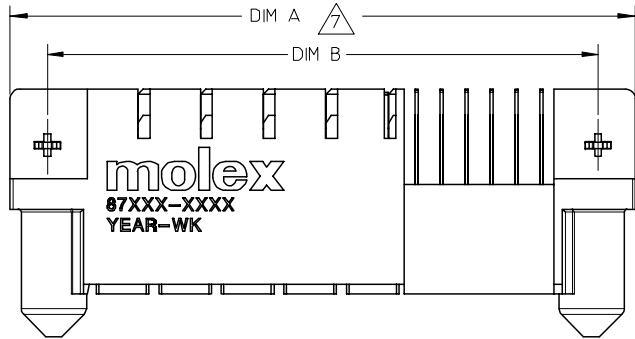
Application Specification	AS-87631-018
Product Specification	PS-87631-006
Sales Drawing	SD-87668-014

This document was generated on 05/21/2010

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10 9 8 7 6 5 4 3 2 1

F



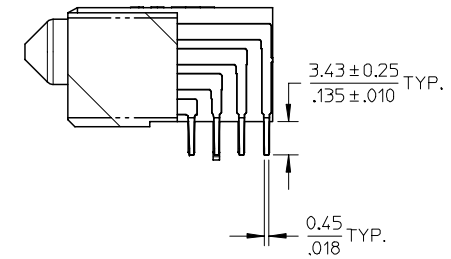
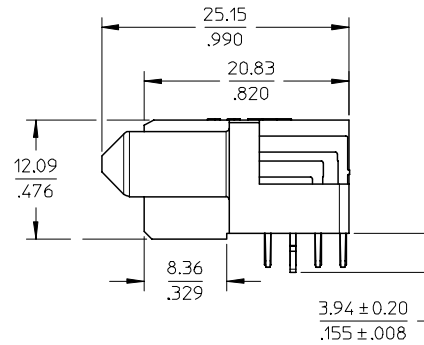
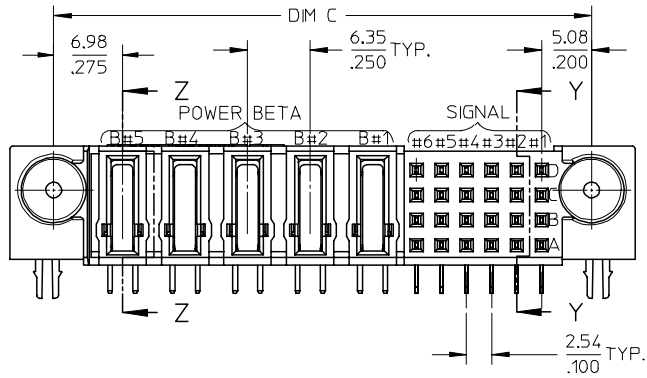
3-D VIEW OF  
24 SIGNAL - 5 POWER  
FOR ILLUSTRATION

E

F

E

D



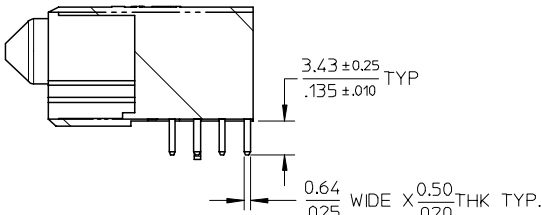
SECTION Y-Y

C

D

C

B



SECTION Z-Z

B

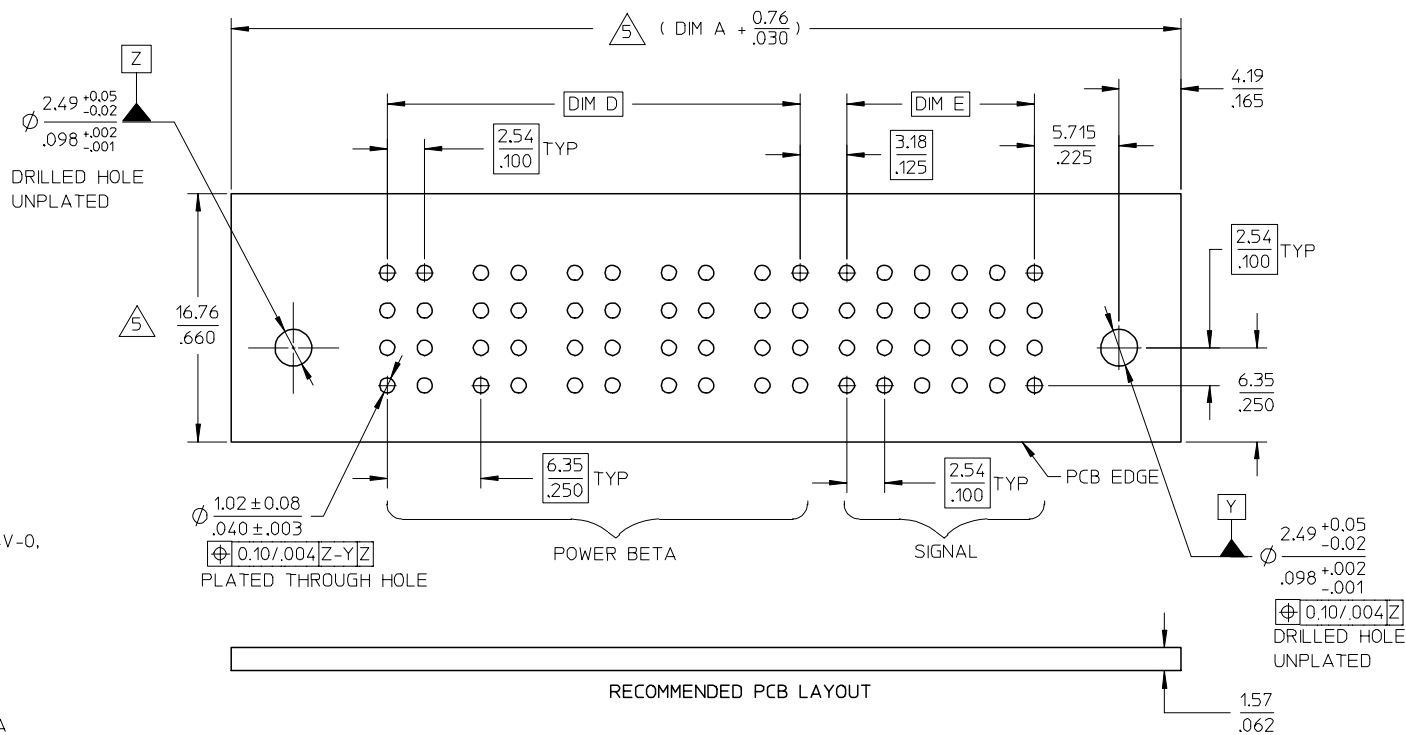
A

A

PDR# S-001243-00-00 EC NO: S2006-1028 DRWN: KELIM 2006/05/09 CHKD: MLONG 2006/05/09 APPR: PTLIM 2006/05/10	QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM/IN		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION		
			4 PLACES ± --- ± --- 3 PLACES ± --- ± .010 2 PLACES ± 0.25 ± --- 1 PLACE ± --- ± ---	mm INCH	DRAWN BY KMG0H	DATE 2003/06/18	TITLE POWER CONNECTOR RECEPT. S-P(B) CONFIGURATION R/A, BOARDLOCK			
			ANGULAR ± 3 °	APPROVED BY SKT0H	DATE 2003/06/20	MOLEX INCORPORATED				
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	SEE TABLE	MATERIAL NO. SD-87668-014	DOCUMENT NO.	SHEET NO. 1 OF 2				
D1	REV	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION								

9 8 7 6 5 4 3 2 1

PART NUMBER	S-P CONFIGURATION		DIM A	DIM B	DIM C	DIM D	DIM E	VOID PIN LOCATION	PACKAGING	STATUS
	SIGNAL	POWER BETA								
87668-2002	24	10	95.25 3.750	87.63 3.450	86.36 3.400	59.69 2.350	12.70 .500	NIL	TRAY	TOOLED
87668-2003	20	4	54.61 2.150	46.99 1.850	45.72 1.800	21.59 .850	10.16 .400	NIL	TRAY	TOOLED
87668-2004	24	6	69.85 2.750	62.24 2.450	60.96 2.400	34.29 1.350	12.70 .500	NIL	TRAY	TOOLED
87668-2006	24	12	107.95 4.250	100.33 3.950	99.06 3.900	72.39 2.850	12.70 .500	NIL	TRAY	TOOLED
87668-2007	20	4	54.61 2.150	46.99 1.850	45.72 1.800	21.59 0.850	10.16 0.400	A4,B4,C4,D4	TRAY	TOOLED



NOTES:

1 MATERIALS : HOUSING - LCP GLASS FILLED, UL94V-0,  
COLOR: BLACK

- POWER PINS - COPPER ALLOY
- SIGNAL PINS - COPPER ALLOY
- BOARD LOCK - COPPER ALLOY

2 FINISHES: POWER AD SIGNAL PINS

- SELECTIVE GOLD IN THE CONTACT AREA
- THICKNESS = 0.76 MICROMETER / 30 MICROINCH MINIMUM
- SELECTIVE TIN IN THE PC TAIL AREA
- THICKNESS = 2.54 MICROMETER / 100 MICROINCH MINIMUM
- NICKEL OVERALL

3 PRODUCT SPECIFICATIONS : PS-87631-006

4 SEE SHEET 2 FOR RECOMMENDED PCB LAYOUT AND THICKNESS

COMPONENT STAY AWAY ZONE FROM CONNECTOR

REFER TO THE TABLE IN PAGE 3 FOR RECESSED PINS LOCATION

24 SIGNAL - 5 POWER CONNECTOR IS SHOWN FOR ILLUSTRATION

PDR#S-001243-00-00 EC NO: S2006-1028 2006/05/09 DRWN:KELIM CHKD:M.LONG 2006/05/09 APPR:PTLIM 2006/05/10	QUALITY SYMBOLS ▽=0 △=0	DESCRIPTION
		REV
		D1

GENERAL TOLERANCES (UNLESS SPECIFIED)	
mm	INCH
4 PLACES	± --- ± ---
3 PLACES	± --- ± .010
2 PLACES	± 0.25 ± ---
1 PLACE	± --- ± ---
ANGULAR ± 3 °	
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	

DIMENSION STYLE	
MM/IN	
DRAWN BY	DATE
KMGOH	2003/06/18
CHECKED BY	DATE
PTLIM	2003/06/20
APPROVED BY	DATE
SKTOH	2003/06/20
MATERIAL NO.	
SEE TABLE	
SIZE	
A3	

SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
NTS	METRIC	☉
TITLE		
POWER CONNECTOR RECEPT. S-P(B) CONFIGURATION R/A, BOARDLOCK		
MOLEX INCORPORATED		
DOCUMENT NO.		SHEET NO.
SD-87668-014		2 OF 2
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