

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

**Part Number:** **0876675005**  
**Status:** **Active**  
**Overview:** extreme\_powerplus\_ssi  
**Description:** 6.35mm (.250") Pitch Power, 2.54mm (.100") Pitch Signal, EXTreme PowerPlus™ S-Pb Header, Through Hole, Right Angle, with Beveled Metal Pins, Long Blade, 24 Circuits, Signal 20, Power Beta 4, No Recessed Signal Pin, Lead-free

**Documents:**

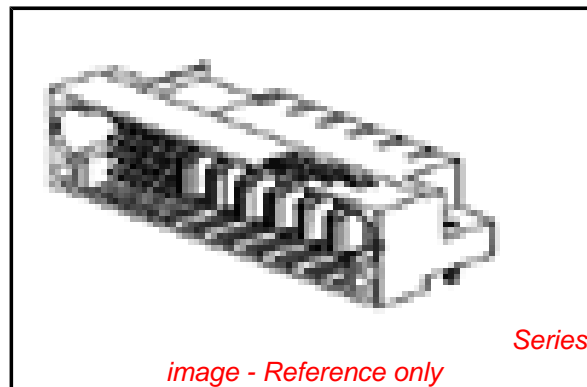
[3D Model](#) [Product Specification PS-87631-006 \(PDF\)](#)  
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

**General**

Product Family	PCB Headers
Series	87667
Application	Board-to-Board
Comments	<LI>Long Blade <LI>No Recessed Signal Pin
Overview	<u>extreme_powerplus_ssi</u>
Product Literature Order No	987650-3002
Product Name	EXTreme PowerPlus™

**Physical**

Breakaway	No
Circuits (Loaded)	24
Circuits Detail	Signal 20 Power Beta 4
Color - Resin	Black
Durability (mating cycles max)	100
First Mate / Last Break	No
Glow-Wire Compliant	No
Guide to Mating Part	Yes
Keying to Mating Part	Yes
Lock to Mating Part	Yes
Material - Metal	Copper Alloy
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	No
PCB Retention	Yes
PCB Thickness Recommended (in)	0.062 In
PCB Thickness Recommended (mm)	1.57 mm
Packaging Type	Tray
Pitch - Mating Interface (in)	0.100 In, 0.250 In
Pitch - Mating Interface (mm)	2.54 mm, 6.35 mm
Pitch - Term. Interface (in)	0.100 In, 0.125 In, 0.150 In, 0.250 In
Pitch - Term. Interface (mm)	2.54 mm, 3.18 mm, 3.81 mm, 6.35 mm
Plating min: Mating (µin)	30
Plating min: Mating (µm)	0.76
Plating min: Termination (µin)	100
Plating min: Termination (µm)	2.54
Polarized to Mating Part	Yes
Polarized to PCB	Yes
Shrouded	Fully
Stackable	No



**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**

87667Series

**Mates With**

87668 EXTreme PowerPlus™ S-Pb Receptacles with Beveled Metal Pins. [87710](#) EXTreme PowerPlus™ S-Pb Receptacles with Press-fit PC Tail

Temperature Range - Operating -20°C to +105°C  
Termination Interface: Style Through Hole

### **Electrical**

Current - Maximum per Contact 2.5A, 30A  
Voltage - Maximum 250V 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

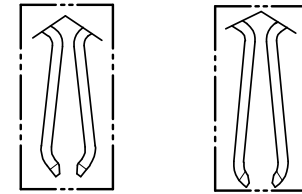
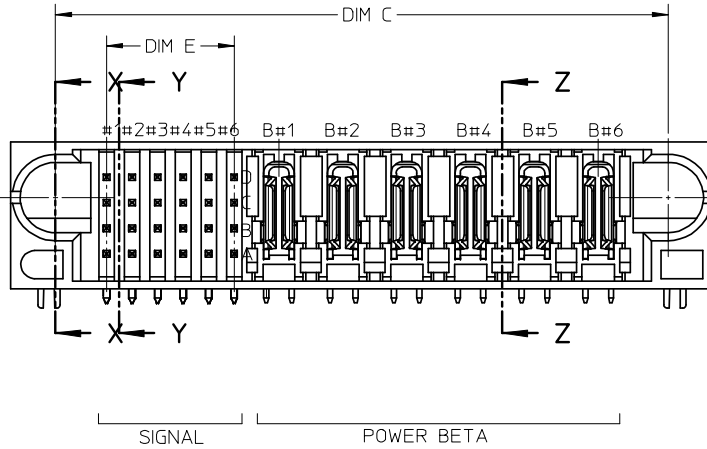
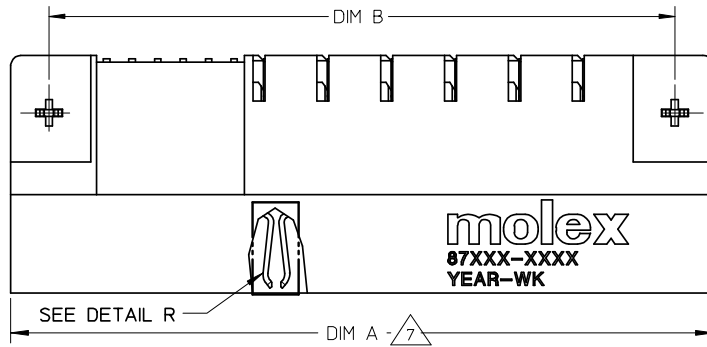
### **Material Info**

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

Application Specification AS-87631-018  
Product Specification PS-87631-006  
Sales Drawing SD-87667-013

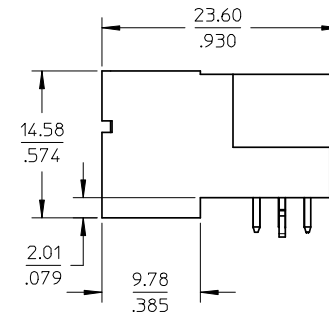
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SHORT BLADE OPTION LONG BLADE OPTION

DETAIL R  
(SEE TABLE FOR BLADE OPTION)



NOTES:

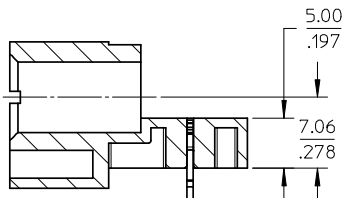
- MATERIALS : HOUSING - LCP, GLASS FILLED, UL94V-0, COLOR: BLACK  
POWER PINS - COPPER ALLOY  
SIGNAL PINS - COPPER ALLOY  
BOARD LOCK - COPPER ALLOY
- FINISHES: POWER AND SIGNAL PINS  
SELECTIVE GOLD IN THE CONTACT AREA  
THICKNESS = 0.76 MICROMETER / 30 MICROINCH MINIMUM  
SELECTIVE TIN IN THE PC TAIL AREA  
THICKNESS = 2.54 MICROMETER / 100 MICROINCH MINIMUM  
1.27um MINIMUM NICKEL OVERALL UNDERPLATE.
- PRODUCT SPECIFICATIONS : PS-87631-006
- SEE SHEET 2 FOR RECOMMENDED PCB LAYOUT AND THICKNESS
- COMPONENT STAY AWAY ZONE FROM CONNECTOR
- REFER TO THE TABLE ON TOP OF PAGE 3/3 FOR RECESSED PINS LOCATION
- 24 SIGNAL - 6 POWER CONNECTOR IS SHOWN FOR ILLUSTRATION

PDR#S-001742-00-00 EC NO: S2008-0558 DRWN:SKANG 2008/01/14 CHKD:ATSEE 2008/01/14 APPR:MLONG 2008/01/14	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE		SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
	=0 =0.10		mm	INCH	NTS	METRIC	

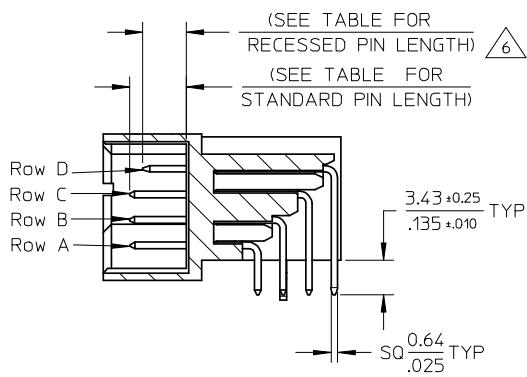
4 PLACES	±---	±---
3 PLACES	±---	±.010
2 PLACES	±0.25	±---
1 PLACE	±---	±---
ANGULAR ± 3°		
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		

DRAWN BY	DATE	TITLE
BHLOW	2002/10/28	POWER CONNECTOR PLUG S-P(B) CONFIGURATION R/A, T/H, BOARD-LOCK
CHECKED BY	DATE	
PTLIM	2002/11/07	
APPROVED BY	DATE	
SKTOH	2002/11/12	
MATERIAL NO.		DOCUMENT NO.
SEE TABLE		SD-87667-013

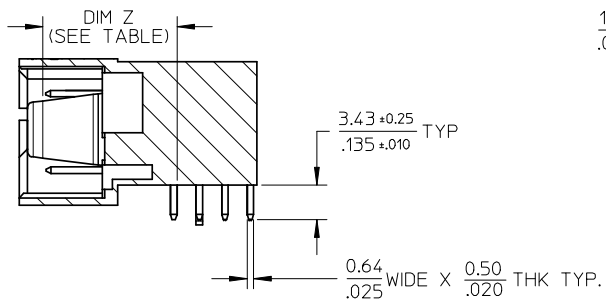
SIZE	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION	
A3		
SHEET NO.		1 OF 3



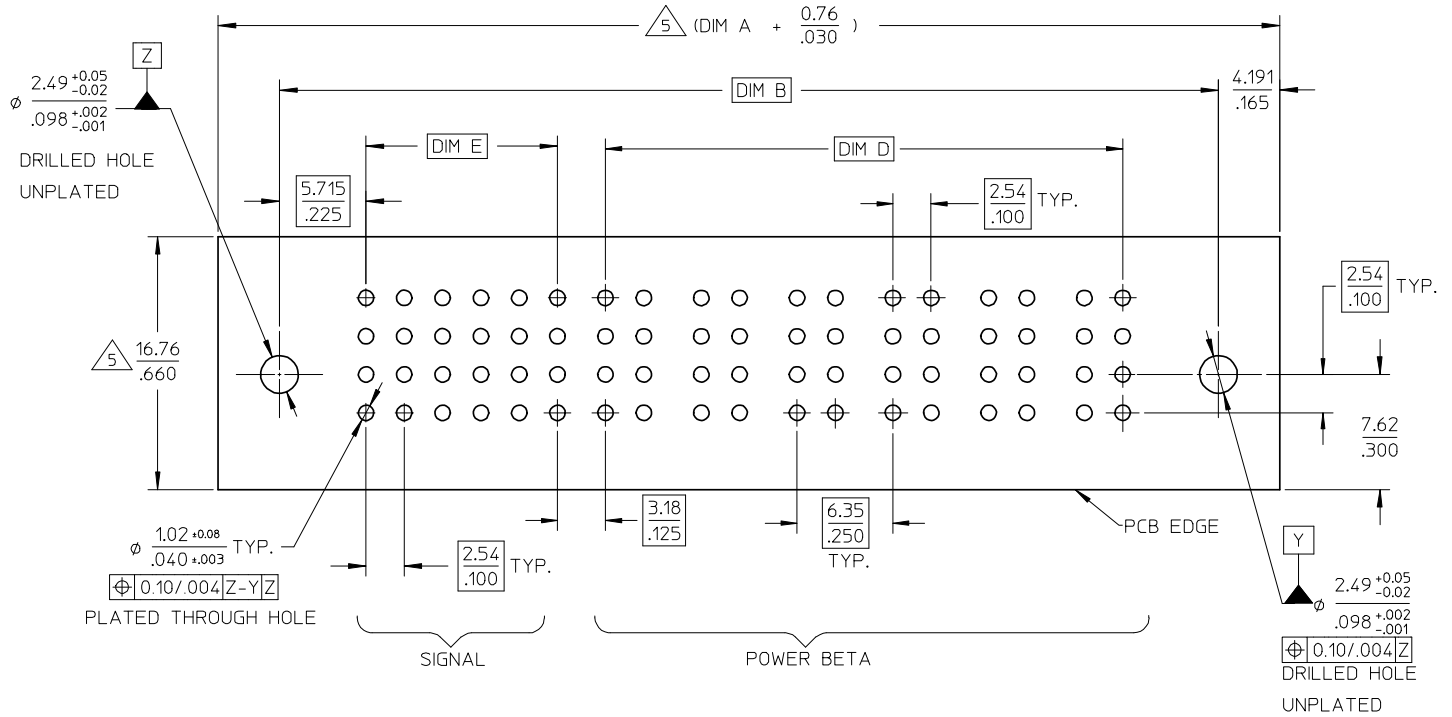
SECTION X-X



SECTION Y-Y



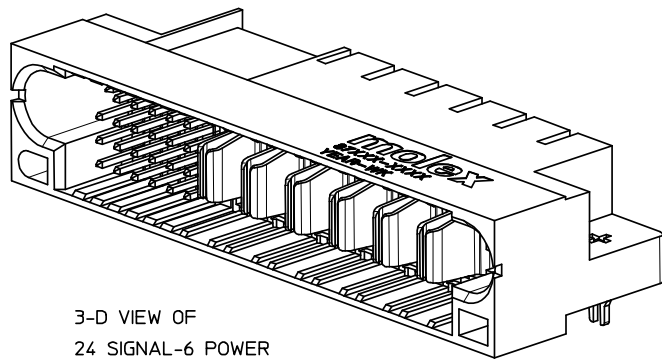
SECTION Z-Z



RECOMMENDED PCB LAYOUT

PDR#S-001742-00-00 EC NO: S2008-0558 DRWN:SKANG 2008/01/14 CHKD:ATSEE 2008/01/14 APPR:MLONG 2008/01/14 REV:	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE		SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
	▼=0 ∇=0	mm	INCH	MM/IN		NTS	METRIC	
		4 PLACES ± --- ± ---	BHLOW	DATE		TITLE		
		3 PLACES ± --- ± .010	CHECKED BY	DATE		POWER CONNECTOR PLUG		
	2 PLACES ± 0.25 ± ---	PTLIM	DATE		S-P(B) CONFIGURATION			
	1 PLACE ± --- ± ---	APPROVED BY	DATE		R/A, T/H, BOARD-LOCK			
	ANGULAR ± 3 °	SKTOH	DATE		MOLEX INCORPORATED			
	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	MATERIAL NO.	DATE		DOCUMENT NO.			
		SEE TABLE	DATE		SHEET NO.			
		SIZE A3	DATE		SD-87667-013			
		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION						2 OF 3

PART NUMBER	S-P CONFIGURATION		DIMENSIONS					POWER BLADE OPTIONS		STANDARD SIGNAL	RECESS SIGNAL		VOID PIN LOCATION	PACKAGING
	SIGNAL	POWER BETA	DIM A	DIM B	DIM C	DIM D	DIM E	TYPE	DIM Z±0.13/.005	PIN LENGTH	PIN LENGTH	LOCATION		
87667-5001	24	14	120.65 4.750	113.03 4.450	111.76 4.400	85.09 3.350	12.70 .500	SHORT CONTACT	13.32/.524	5.59/.220	4.32/.170	NIL	NIL	TRAY
87667-5002	24	6	69.85 2.750	62.23 2.450	60.96 2.400	34.29 1.350	12.70 .500	SHORT CONTACT	13.32/.524	5.59/.220	4.32/.170	NIL	NIL	TRAY
87667-5003	24	6	69.85 2.750	62.23 2.450	60.96 2.400	34.29 1.350	12.70 .500	LONG CONTACT	14.12/.556	6.86/.270	5.59/.220	A1,A2, B1,B2, C1,C2, D1,D2	NIL	TRAY
87667-5004	24	10	95.25 3.750	87.63 3.450	86.36 3.400	59.69 2.350	12.70 .500	LONG CONTACT	14.12/.556	6.86/.270	5.59/.220	NIL	NIL	TRAY
87667-5005	20	4	54.61 2.150	46.99 1.850	45.72 1.800	21.59 .850	10.16 .400	LONG CONTACT	14.12/.556	6.86/.270	5.59/.220	NIL	NIL	TRAY
87667-5006	24	6	69.85 2.750	62.23 2.450	60.96 2.400	34.29 1.350	12.70 .500	LONG CONTACT	14.12/.556	6.86/.270	5.59/.220	NIL	NIL	TRAY
87667-5010	24	4	57.15 2.250	49.53 1.950	48.26 1.900	21.59 .850	12.70 .500	LONG CONTACT	14.12/.556	6.86/.270	5.59/.220	NIL	NIL	TRAY
87667-5011	12	10	87.63 3.45	80.01 3.150	78.74 3.100	59.69 2.350	5.08 .200	LONG CONTACT	14.12/.556	6.86/.270	5.59/.220	NIL	NIL	TRAY
87667-5013	20	4	54.61 2.150	46.99 1.850	45.72 1.800	21.59 .850	10.16 .400	LONG CONTACT	14.12/.556	6.86/.270	5.59/.220	A1,A5	A4,B4,C4,D4	TRAY
87667-5014	32	14	125.73 4.950	118.11 4.650	116.84 4.600	85.09 3.350	17.78 .700	LONG CONTACT	14.12/.556	6.86/.270	5.59/.220	C1 TO C8 D1 TO D8	NIL	TRAY
87667-5015	24	10	95.25 3.750	87.63 3.450	86.36 3.400	59.69 2.350	12.70 .500	LONG CONTACT	14.12/.556	6.86/.270	5.59/.220	A1,B5,C5	NIL	TRAY
87667-5016	24	4	57.15 2.250	49.53 1.950	48.26 1.900	21.59 .850	12.70 .500	LONG CONTACT	14.12/.556	6.86/.270	5.59/.220	D6	NIL	TRAY
87667-5017	24	6	69.85 2.750	62.23 2.450	60.96 2.400	34.29 1.350	12.70 .500	LONG CONTACT	14.12/.556	6.86/.270	5.59/.220	C4	NIL	TRAY



3-D VIEW OF  
24 SIGNAL-6 POWER  
FOR ILLUSTRATION

<b>PDR#S-001742-00-00</b> EC NO: S2008-0558 DRWN:SKANG 2008/01/14 CHYD:ATSEE 2008/01/14 APPR:MLONG 2008/01/14 REV DESCRIPTION	<b>QUALITY SYMBOLS</b> = 0 = 3	<b>GENERAL TOLERANCES (UNLESS SPECIFIED)</b> <table border="1"> <tr> <th></th> <th>mm</th> <th>INCH</th> </tr> <tr> <td>4 PLACES</td> <td>± .10</td> <td>± .004</td> </tr> <tr> <td>3 PLACES</td> <td>± .15</td> <td>± .006</td> </tr> <tr> <td>2 PLACES</td> <td>± 0.25</td> <td>± .010</td> </tr> <tr> <td>1 PLACE</td> <td>± .50</td> <td>± .020</td> </tr> </table>		mm	INCH	4 PLACES	± .10	± .004	3 PLACES	± .15	± .006	2 PLACES	± 0.25	± .010	1 PLACE	± .50	± .020	<b>DIMENSION STYLE</b> MM/IN DRAWN BY: BHLW DATE: 2002/10/28 CHECKED BY: PTLIM DATE: 2002/11/07 APPROVED BY: SKTOH DATE: 2002/11/12	<b>SCALE</b> NTS <b>DESIGN UNITS</b> METRIC THIRD ANGLE PROJECTION	<b>TITLE</b> POWER CONNECTOR PLUG S-P(B) CONFIGURATION R/A, T/H, BOARD-LOCK MOLEX INCORPORATED
		mm	INCH																	
	4 PLACES	± .10	± .004																	
	3 PLACES	± .15	± .006																	
2 PLACES	± 0.25	± .010																		
1 PLACE	± .50	± .020																		
<b>D5</b>	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	<b>SIZE</b> A3	<b>MATERIAL NO.</b> SEE TABLE <b>DOCUMENT NO.</b> SD-87667-013	<b>SHEET NO.</b> 3 OF 3																
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