

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

**Part Number:** [0876963012](#)  
**Status:** **Active**  
**Overview:** [extreme powerplus ssi](#)  
**Description:** 6.35mm (.250") Pitch Power, 2.54mm (.100") Pitch Signal, EXTreme PowerPlus™ Pa-S Header, Through Hole, Right Angle, Screw Mount, Long Contacts, 26 Circuits, Power Alpha 2, Signal 24, Recessed Pin Location: C2, Lead-free

**Documents:**

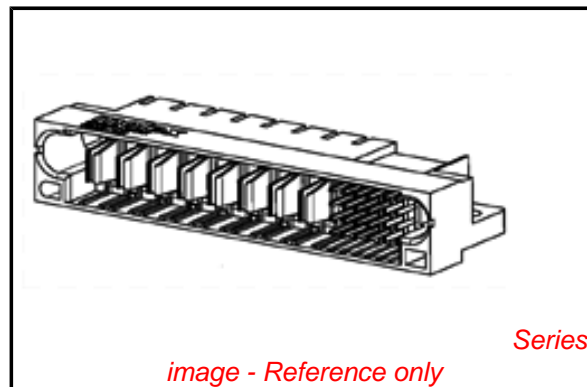
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)  
[Product Specification PS-87631-006 \(PDF\)](#)

**General**

Product Family	PCB Headers
Series	<a href="#">87696</a>
Application	Board-to-Board
Comments	Long Contact
Overview	<a href="#">extreme powerplus ssi</a>
Product Name	EXTreme PowerPlus™

**Physical**

Breakaway	No
Circuits (Loaded)	26
Circuits (maximum)	26
Circuits Detail	Power Alpha 2, Signal 24
Color - Resin	Black
Durability (mating cycles max)	100
First Mate / Last Break	Yes
Glow-Wire Compliant	No
Guide to Mating Part	Yes
Keying to Mating Part	None
Lock to Mating Part	Yes
Material - Metal	Copper Alloy
Material - Plating Mating	Gold
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
Pitch - Term. Interface (mm)	2.54 mm, 3.18 mm
Plating min: Mating (µin)	30
Plating min: Mating (µm)	0.76
Polarized to Mating Part	Yes
Polarized to PCB	Yes
Shrouded	Closed Ends
Stackable	No
Surface Mount Compatible (SMC)	Yes
Temperature Range - Operating	-40°C to +105°C
Termination Interface: Style	Through Hole



**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**

[87696Series](#)

**Mates With**

[87697](#) EXTreme PowerPlus™ Press-Fit Pa-S Receptacle. [87700](#) EXTreme PowerPlus™ Through Hole Pa-S Receptacle

**Electrical**

Current - Maximum per Contact	50A
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

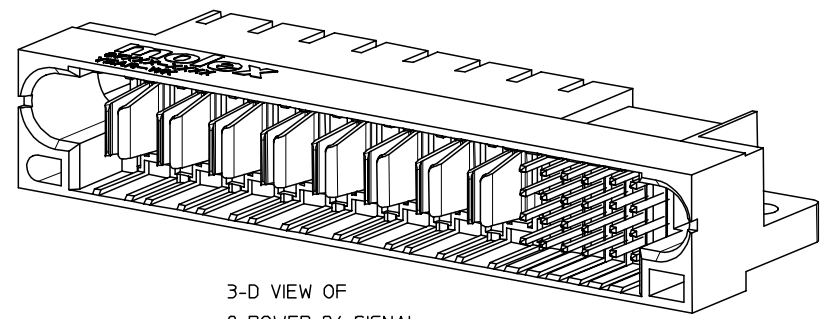
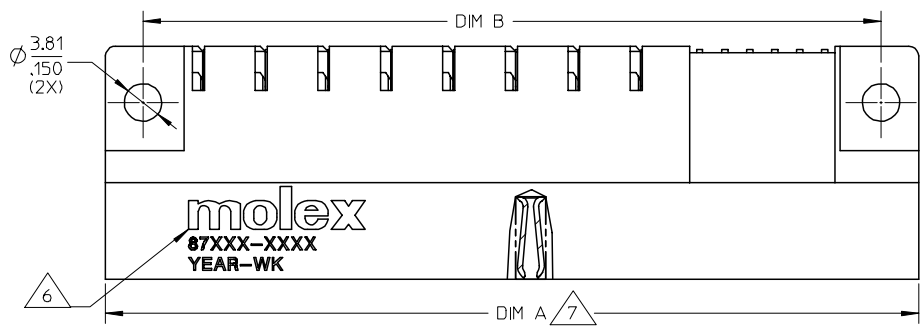
**Material Info****Reference - Drawing Numbers**

Product Specification	PS-87631-006
Sales Drawing	SD-87696-021

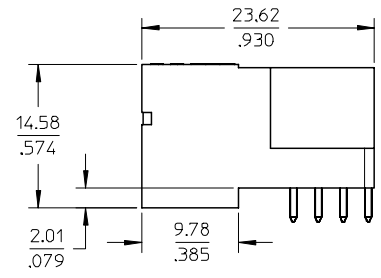
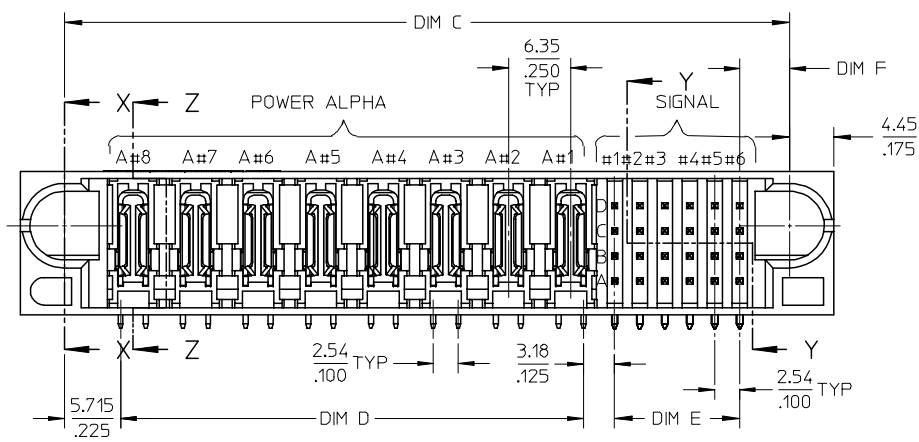
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10 9 8 7 6 5 4 3 2 1



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



NOTES:

- MATERIALS: HOUSING - LCP GLASS FILLED, UL94V-0, COLOUR: BLACK  
POWER PINS - COPPER ALLOY  
SIGNAL PINS - COPPER ALLOY
- FINISHES : POWER AND SIGNAL PINS :  
SELECTIVE GOLD IN THE CONTACT AREA.  
THICKNESS = 0.76 MICROMETER / 30 MICROINCH MINIMUM  
SELECTIVE TIN ALLOY IN THE PC TAIL AREA  
THICKNESS = 2.54 MICROMETER / 100 MICROINCH MINIMUM  
NICKEL OVERALL
- PRODUCT SPECIFICATION : PS-87631-006
- SEE SHEET 2 FOR RECOMMENDED PCB LAYOUT AND THICKNESS.  
COMPONENT STAY AWAY ZONE FROM CONNECTOR.  
MANUFACTURER LOGO, PART NUMBER AND YEAR-WEEK CODE.  
8 POWER ALPHA - 24 SIGNAL IS SHOWN FOR ILLUSTRATION .  
CONNECTOR CONFIGURATION IS AVAILABLE UP TO 203MM/INCH.  
PLEASE CONTACT MOLEX SALES PERSONNEL FOR OTHER CONFIGURATION AND OPTION NEEDED.

PDR#S-001375-00-00 EC NO: S2007-0253 DRWN:KELIM CHKD:MLONG APPR:SKTOH	2006/09/15	2006/09/15	2006/09/19
	2006/09/15	2006/09/15	2006/09/19
	2006/09/15	2006/09/15	2006/09/19
	2006/09/15	2006/09/15	2006/09/19
A1	REV	DESCRIPTION	

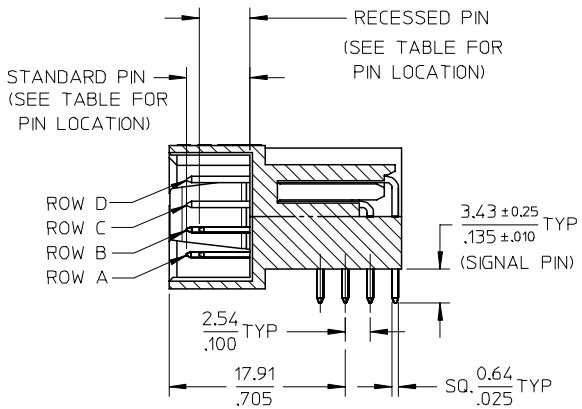
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	4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.25 ± --- 1 PLACE ± --- ± --- ANGULAR ± 3 °	mm INCH	DRAWN BY KFL IM	DATE 2006/03/10	TITLE HEADER POWER CONNECTOR P-S CONFIGURATION R/A, T/H, SCREW-MOUNT
			CHECKED BY MLONG	DATE 2006/03/21	
			APPROVED BY NAGESHKN	DATE 2006/03/21	
	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	SEE TABLE	MATERIAL NO.	DOCUMENT NO. SD-87696-021	SHEET NO. 1 OF 3
		SIZE A3	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

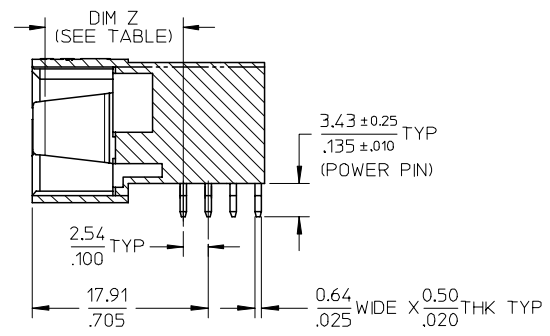
10 9 8 7 6 5 4 3 2 1

F  
E  
D  
C  
B  
A

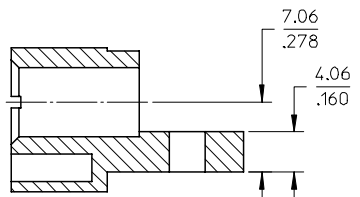
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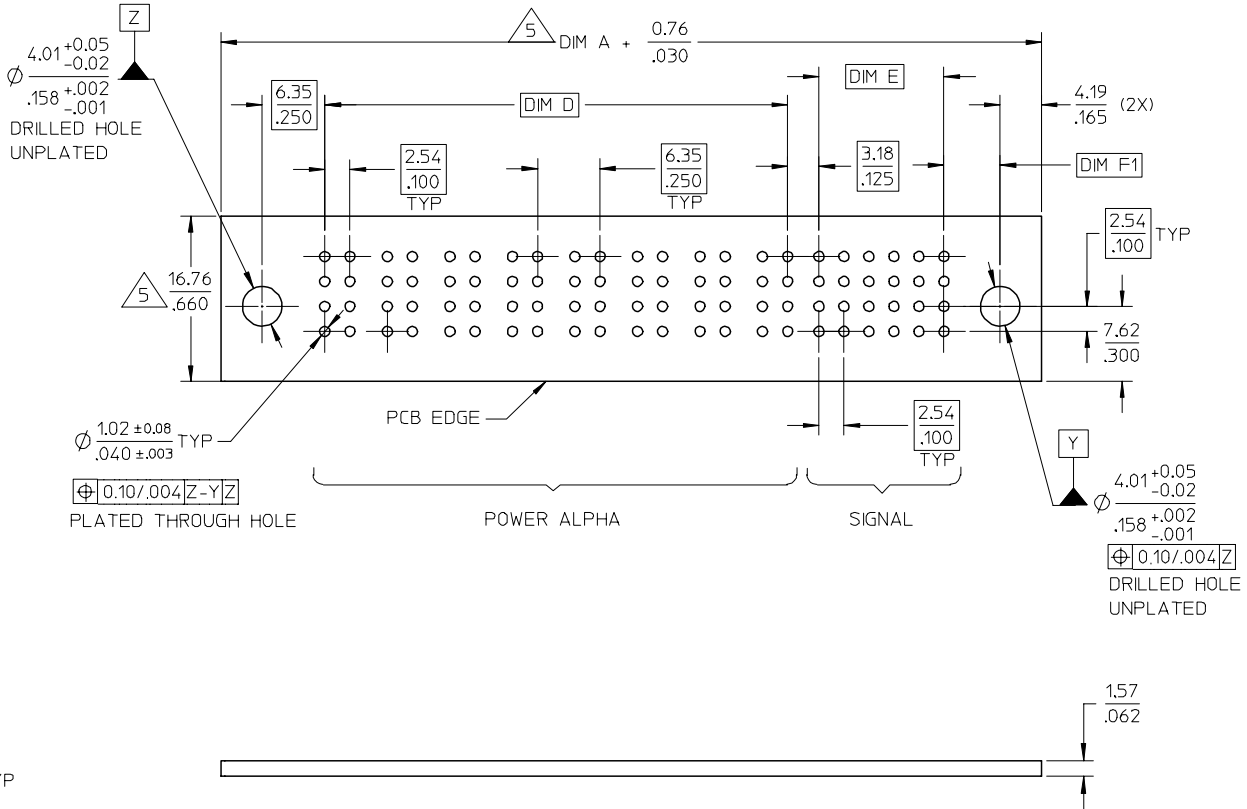
SECTION Y-Y



SECTION Z-Z



SECTION X-X



RECOMMENDED PCB LAYOUT

PDR#S-001375-00-00 EC NO: S2007-0253 DRWN:KFLM 2006/09/15 CHKD:MLONG 2006/09/15 APPR:SKTOH 2006/09/19	QUALITY SYMBOLS ▽=0 ▽C=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM/IN	SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION		
		4 PLACES ± --- ± ---	3 PLACES ± --- ± ---	2 PLACES ± 0.25 ± ---	1 PLACE ± --- ± ---	ANGULAR ± 3°	DRAWN BY KFL IM	DATE 2006/03/10	TITLE HEADER POWER CONNECTOR P-S CONFIGURATION R/A, T/H, SCREW-MOUNT
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE TABLE	APPROVED BY NAGESHKN	DATE 2006/03/21	MATERIAL NO.	DOCUMENT NO. SD-87696-021	SHEET NO. 2 OF 3
		SIZE A3		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	P-S CONFIGURATION		DIMENSIONS							POWER BLADE OPTIONS		STANDARD PIN LOCATION			RECESSED PIN LOCATION			PACKAGING			
	POWER ALPHA	SIGNAL	DIM A	DIM B	DIM C	DIM D	DIM E	DIM F	DIM F1	TYPE	DIM Z ±0.13/.005	ROW	COLUMN	LENGTH	ROW	COLUMN	LENGTH				
87696-3010	8	28	85.09 3.35	77.47 3.05	76.20 3.00	46.99 1.85	15.24 .600	5.08 .200	5.72 .225	LONG CONTACT	14.12/.556	D	NIL	6.86/.270	D	1-7	5.59/.220	TRAY			
87696-3012	2	24	44.45 1.75	36.83 1.45	35.56 1.40	8.89 0.35	12.70 .500	5.08 .200	5.72 .225			D	1-6		C	1,3,4,5,6			D	NIL	C

PDR#S-001375-00-00 EC NO: S2007-0253 DRWN:KFLM 2006/09/15 CHKD:MLONG 2006/09/15 APPR:SKTOH 2006/09/19	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION															
	=0 =0	<table border="1"> <tr> <th></th> <th>mm</th> <th>INCH</th> </tr> <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>± ---</td> <td>± ---</td> </tr> </table>		mm	INCH	4 PLACES	± ---	± ---	3 PLACES	± ---	± ---	2 PLACES	± 0.25	± ---	1 PLACE	± ---	± ---	MM/IN	NTS	METRIC	
		mm	INCH																		
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1 PLACE	± ---	± ---																			
DESCRIPTION	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	DRAWN BY: KFLM CHECKED BY: MLONG APPROVED BY: NAGESHKN DATE: 2006/03/21	TITLE: HEADER POWER CONNECTOR P-S CONFIGURATION R/A, T/H, SCREW-MOUNT MOLEX INCORPORATED DOCUMENT NO. SD-87696-021																		
REV: A1			SEE TABLE			SHEET NO. 3 OF 3															