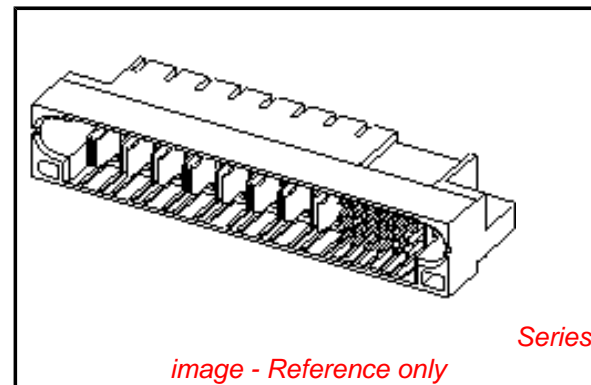


**PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION**

**Part Number:** [0876962014](#)  
**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, with Beveled Metal Pins, Long Contacts, 28 Circuits, Power Alpha 4, Signal 24, No Recessed Signal Pins, Lead-free

**Documents:**

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



**General**

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

**Physical**

Breakaway	No
Circuits (Loaded)	28
Circuits (maximum)	28
Circuits Detail	Power Alpha 4, Signal 24
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	None
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	Yes
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
Plating min: Termination (µin)	101.6
Plating min: Termination (µm)	2.54
Polarized to Mating Part	Yes
Polarized to PCB	Yes
Shrouded	Closed Ends
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**

87696Series

**Mates With**

87697 EXTreme PowerPlus™ Press-Fit Pa-S Receptacle. 87700 EXTreme PowerPlus™ Through Hole Pa-S Receptacle

Surface Mount Compatible (SMC)	Yes
Temperature Range - Operating	-40°C to +105°C
Termination Interface: Style	Through Hole

### **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**

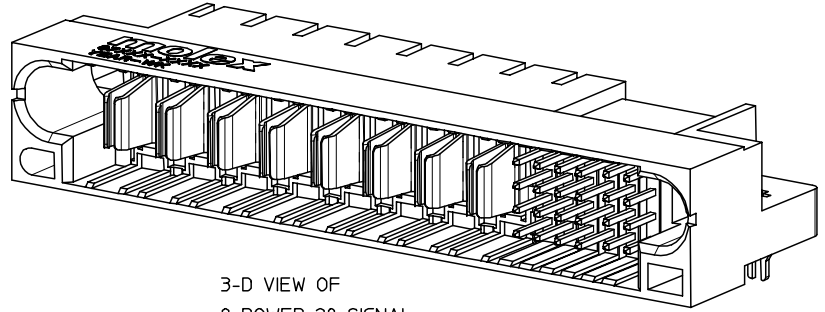
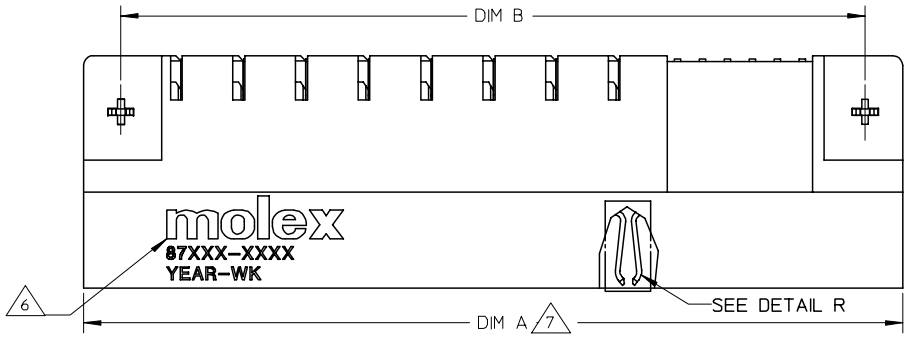
#### **Reference - Drawing Numbers**

Application Specification	AS-87631-018
Product Specification	PS-87631-006
Sales Drawing	SD-87696-014

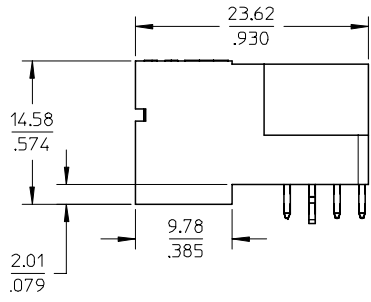
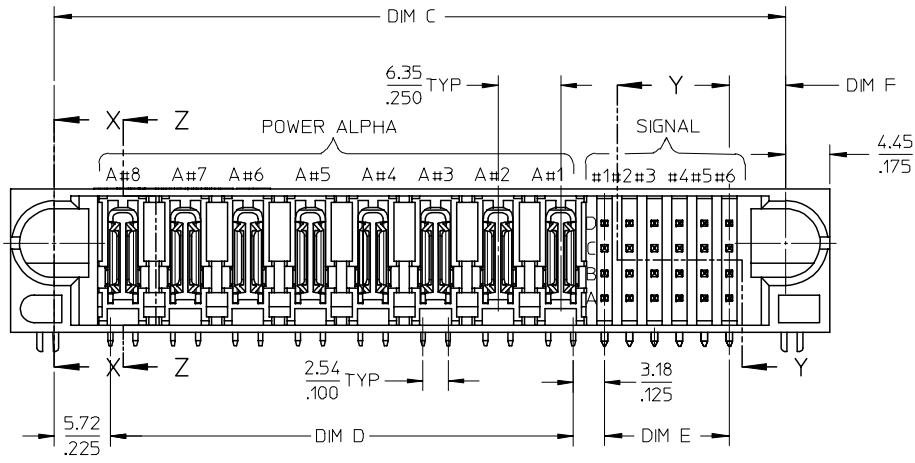
This document was generated on 05/25/2010

**PLEASE CHECK [WWW.MOLEX.COM](http://WWW.MOLEX.COM) FOR LATEST PART INFORMATION**

10 9 8 7 6 5 4 3 2 1



3-D VIEW OF  
8 POWER-28 SIGNAL  
FOR ILLUSTRATION



- NOTES:
- MATERIALS: HOUSING - LCP, GLASS FILLED, UL 94V-0, COLOUR: BLACK  
POWER PINS - COPPER ALLOY  
SIGNAL PINS - COPPER ALLOY  
BOARDLOCK - 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 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-001468-00-00  
 EC NO: S2007-0278  
 DRWNS:SKANG 2006/11/30  
 CHKD:M.LONG 2006/12/05  
 APPR:SKTOH 2006/12/05

QUALITY SYMBOLS	DESCRIPTION
▽=0	
▽=0	
REV	

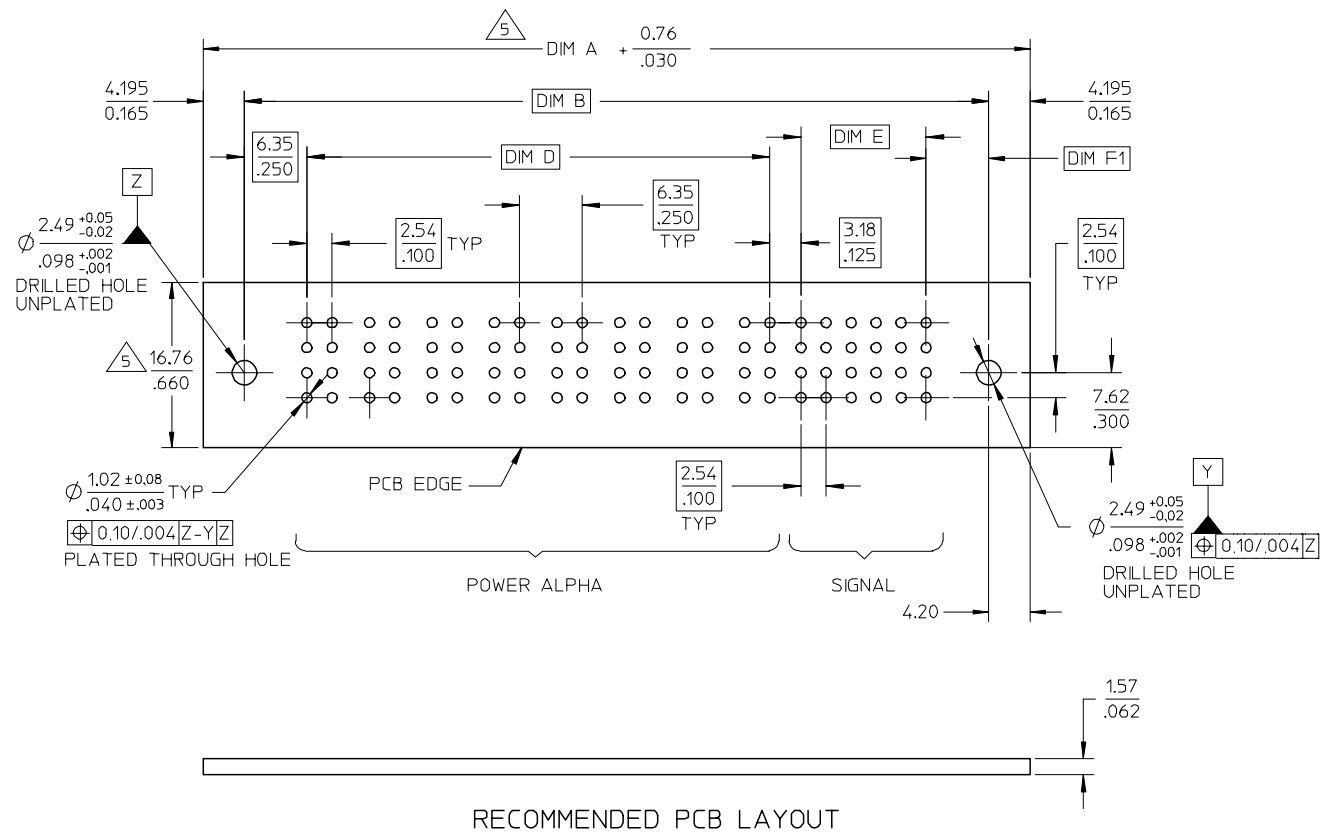
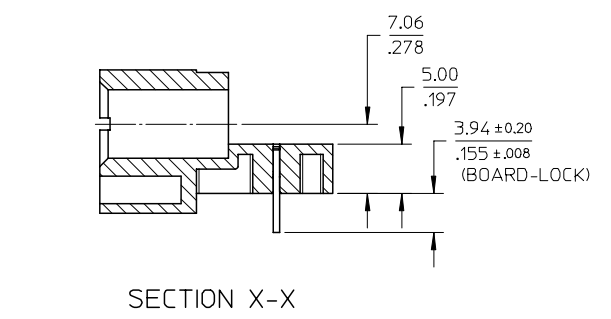
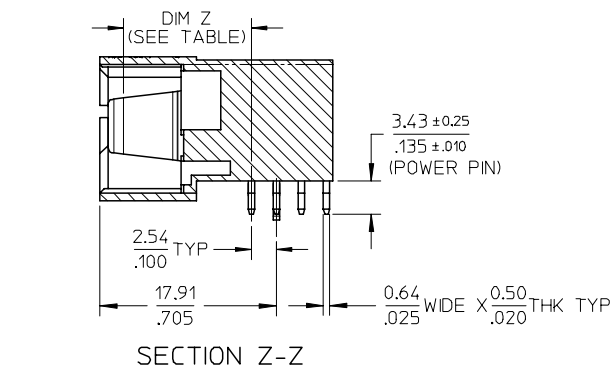
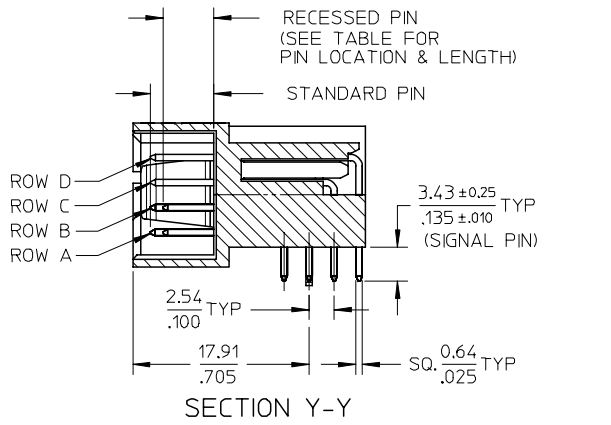
GENERAL TOLERANCES (UNLESS SPECIFIED)	
	mm INCH
4 PLACES	± --- ± ---
3 PLACES	± --- ± .010
2 PLACES	± 0.25 ± ---
1 PLACE	± --- ± ---
ANGULAR ± 3 °	
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	

DIMENSION STYLE	
MM/IN	
DRAWN BY	DATE
BHLOW	2002/11/21
CHECKED BY	DATE
PTL IM	2002/11/26
APPROVED BY	DATE
SKTOH	2002/11/27
MATERIAL NO.	
SEE TABLE	
SIZE	
A3	

SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
NTS	METRIC	⊙ □
TITLE		
HEADER POWER CONNECTOR P-S CONFIG, R/A, T/H WITH BOARD-LOCK		
MOLEX INCORPORATED		
DOCUMENT NO.	SHEET NO.	
SD-87696-014	1 OF 3	
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

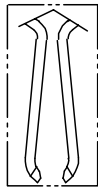
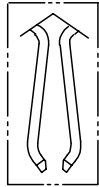
10 9 8 7 6 5 4 3 2 1



PDR# S-001468-00-00 EC NO: S2007-0278 DRWNS:SKANG CHKD:MLONG APPR:SKTOH	2006/11/30 2006/12/05 2006/12/05	QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE		SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION			
					MM/IN		NTS	METRIC				
							DRAWN BY DATE		TITLE			
							CHECKED BY DATE		HEADER POWER CONNECTOR P-S CONFIG, R/A, T/H WITH BOARD-LOCK			
				2 PLACES ± 0.25 ± ---		DATE		MOLEX INCORPORATED				
				1 PLACE ± --- ± ---		DATE		SD-87696-014				
				ANGULAR ± 3 °		DATE		SHEET NO.				
				DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		DATE		2 OF 3				
				SEE TABLE		DATE		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION				
				MATERIAL NO.		DATE						
				SIZE		DATE						
				A3		DATE						

9 8 7 6 5 4 3 2 1

PART NUMBER	P-S CONFIGURATION		DIM A	DIM B	DIM C	DIM D	DIM E	DIM F	DIM F1	POWER BLADE OPTIONS		STANDARD PIN LOCATION			RECESSED PIN LOCATION			VOID PIN LOCATION	PACKAGING
	POWER	ALPHA								SIGNAL	TYPE	DIM Z ±0.13/.005	ROW	COLUMN	LENGTH	ROW	COLUMN		
87696-2001	8		83.19 3.275	75.57 2.975	74.29 2.925	46.99 1.850	12.70 .500	5.72 .225	6.35 .250	SHORT CONTACT	13.32/.524	D C B A	1,2,3,4 1,2,3,4 1,2,3,4 1,2,3,4	6.45/.254	D C B A	5,6 5,6 5,6 5,6	5.18/.204	NIL	TRAY
87696-2002	7		76.84 3.025	69.22 2.725	67.94 2.675	40.64 1.600	12.70 .500	5.72 .225	6.35 .250	SHORT CONTACT	13.32/.524	D C B A	ALL	6.45/.254	D	3	5.18/.204	NIL	TRAY
87696-2003	7		76.84 3.025	69.22 2.725	67.94 2.675	40.64 1.600	12.70 .500	5.72 .225	6.35 .250	LONG CONTACT	14.12/.556	D C B A	ALL	6.86/.270	D	3	5.59/.220	NIL	TRAY
87696-2004	4		52.71 2.075	45.09 1.775	43.81 1.725	21.59 .850	7.62 .300	5.72 .225	6.35 .250	LONG CONTACT	14.12/.556	D C B A	ALL	6.86/.270	A	1	5.59/.220	NIL	TRAY
87696-2008	5		59.06 2.325	51.45 2.025	50.17 1.975	27.94 1.100	7.62 .300	5.72 .225	6.35 .250	LONG CONTACT	14.12/.556	D C B A	ALL	6.86/.270	NIL	NIL	NIL	NIL	TRAY
87696-2010	8		85.09 3.350	77.47 3.050	76.20 3.000	46.99 1.850	15.24 .600	5.08 .200	5.72 .225	LONG CONTACT	14.12/.556	D C B A	1,2,3,4 1,2,3,4	6.86/.270	D C B A	1,2,3,4,5,6,7 1,2,3,4,5,6,7 1,2,3,4,5,6,7 5,6,7	5.59/.220	NIL	TRAY
87696-2011	4		54.61 2.150	46.99 1.850	45.72 1.800	21.59 0.850	10.16 .400	5.08 .200	5.72 .225	LONG CONTACT	14.12/.556	D C B A	1,3,4,5 1,3,4,5 1,3,4,5 3,4,	6.86/.270	D C B A	15	5.59/.220	D2 C2 B2 A2	TRAY
87696-2012	9		83.82 3.300	76.20 3.000	74.93 2.950	53.34 2.100	7.62 .300	5.08 .200	5.72 .225	LONG CONTACT	14.12/.556	D C B A	ALL	6.86/.270	NIL	NIL	NIL	NIL	TRAY
87696-2014	4		57.15 2.250	49.53 1.950	48.26 1.900	21.59 .850	12.70 .500	5.08 .200	5.72 .225	LONG CONTACT	14.12/.556	D C B A	ALL	6.86/.270	NIL	NIL	NIL	NIL	TRAY



SHORT BLADE OPTION    LONG BLADE OPTION

DETAIL R  
(SEE TABLE FOR BLADE OPTION)

PDR#S-001468-00-00 EC NO: S2007-0278 DRWNS:KANG CHKD:M LONG APPR:SKTOH	2006/11/30	REV	DESCRIPTION
	2006/12/05		
	2006/12/05		
D3			

QUALITY SYMBOLS	▽=0
	∇=0

GENERAL TOLERANCES (UNLESS SPECIFIED)		
	MM	INCH
4 PLACES	± .010	± .0004
3 PLACES	± .010	± .0004
2 PLACES	± 0.25	± .010
1 PLACE	± .010	± .0004
ANGULAR ± 3 °		
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		

DIMENSION STYLE	
MM/IN	
DRAWN BY	DATE
BHLOW	2002/11/21
CHECKED BY	DATE
PTL IM	2002/11/26
APPROVED BY	DATE
SKTOH	2002/11/27
MATERIAL NO.	
SEE TABLE	

SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
NTS	METRIC	
TITLE		
HEADER POWER CONNECTOR P-S CONFIG, R/A, T/H WITH BOARD-LOCK		
MOLEX INCORPORATED		
DOCUMENT NO.	SHEET NO.	
SD-87696-014	3 OF 3	
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		