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Part Number: **0876962003**

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, 31 Circuits, Power Alpha 7, Signal 24, Recessed Signal Pin D3, Lead-free

Documents:

[3D Model](#)

[Drawing \(PDF\)](#)

[Product Specification PS-87631-006 \(PDF\)](#)

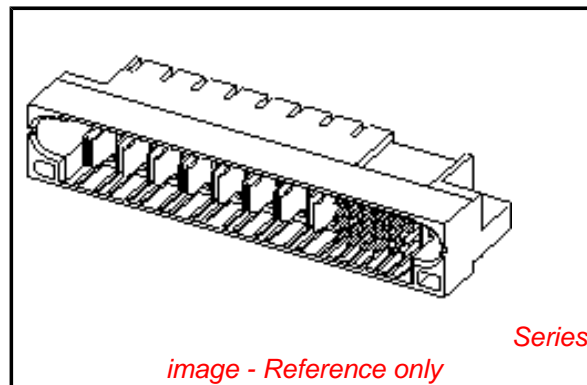
[RoHS Certificate of Compliance \(PDF\)](#)

General

Product Family	PCB Headers
Series	87696
Application	Board-to-Board
Comments	Long Contact
Overview	<u>extreme_powerplus_ssi</u>
Product Literature Order No	987650-3002
Product Name	EXTreme PowerPlus™

Physical

Breakaway	No
Circuits (Loaded)	31
Circuits (maximum)	31
Circuits Detail	Power Alpha 7, 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 - 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
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	Fully
Stackable	No
Surface Mount Compatible (SMC)	Yes



EU RoHS

ELV and RoHS Compliant

REACH SVHC

Not Reviewed

Halogen-Free

Status

Halogen-Free

China RoHS



Need more information on product environmental compliance?

Email 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

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

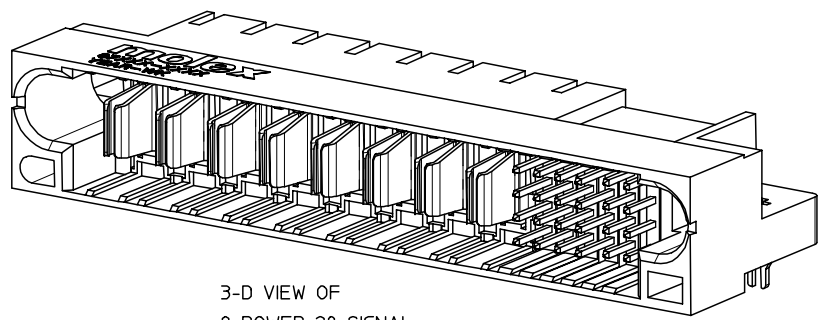
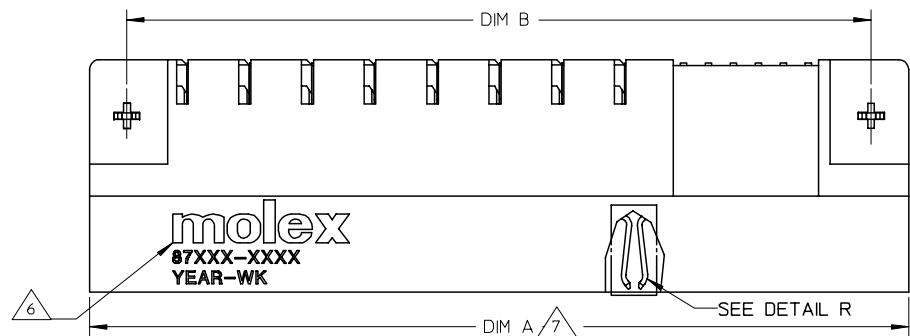
Reference - Drawing Numbers

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

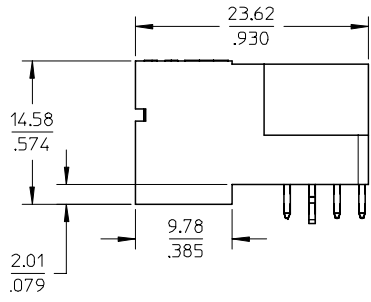
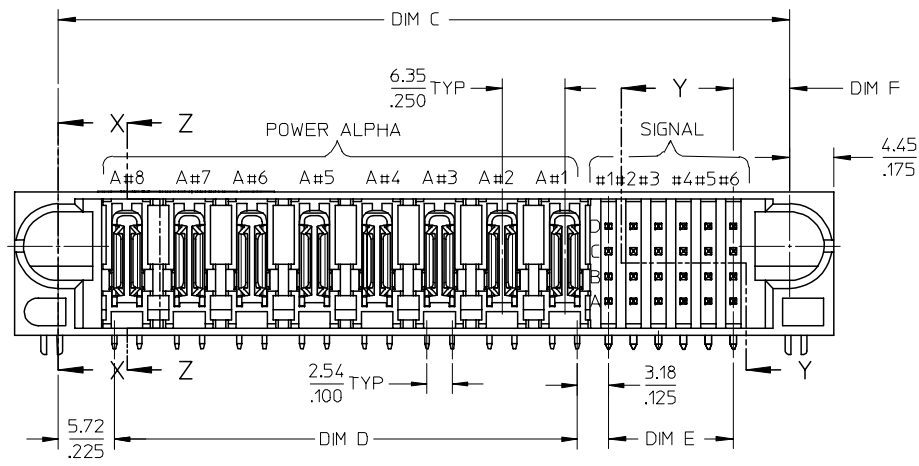
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3-D VIEW OF
8 POWER-28 SIGNAL
FOR ILLUSTRATION



- 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	

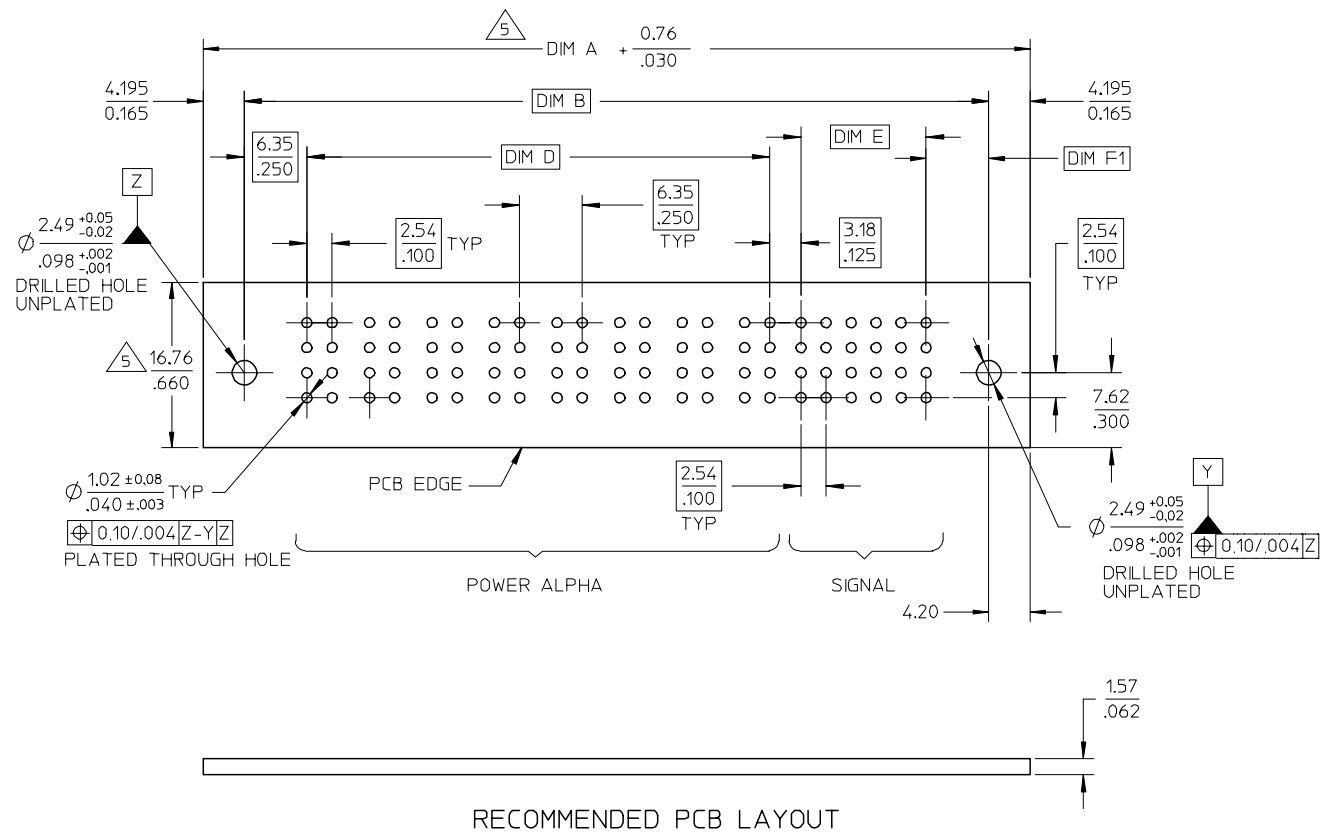
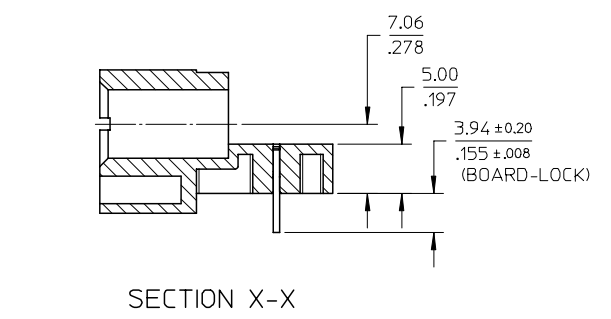
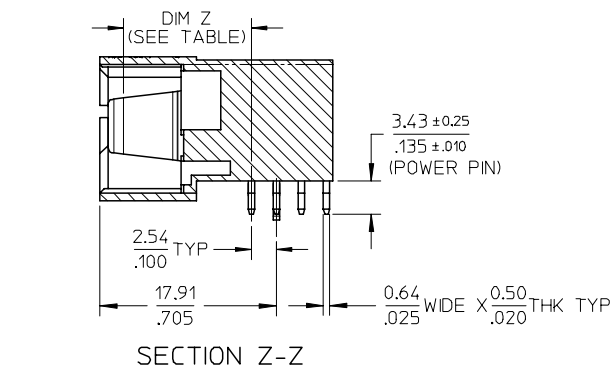
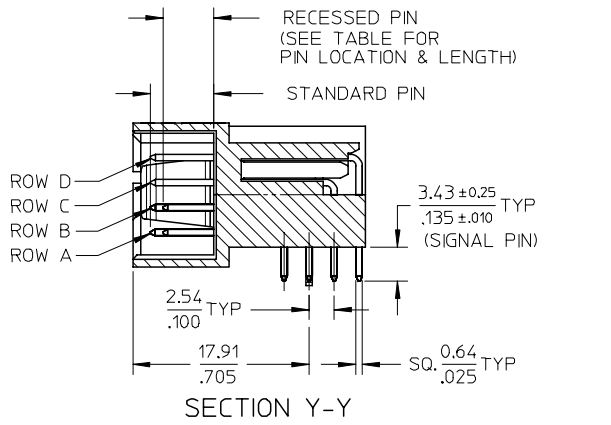
GENERAL TOLERANCES (UNLESS SPECIFIED)	
	MM INCH
4 PLACES	± --- ± ---
3 PLACES	± --- ± .010
2 PLACES	± 0.25 ± ---
1 PLACE	± --- ± ---
ANGULAR ± 3 °	
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	

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		SHEET NO.	
DOCUMENT 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

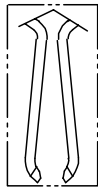
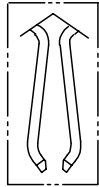
10 9 8 7 6 5 4 3 2 1



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	TITLE				
					DRAWN BY		DATE		HEADER POWER CONNECTOR				
					CHECKED BY		DATE		P-S CONFIG, R/A, T/H				
		APPROVED BY		DATE		WITH BOARD-LOCK							
		MATERIAL NO.		DATE		MOLEX INCORPORATED							
		DOCUMENT NO.		DATE		SD-87696-014							
		SHEET NO.		DATE		2 OF 3							
		SIZE		DATE		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION							
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		DATE									

9 8 7 6 5 4 3 2 1

PART NUMBER	P-S CONFIGURATION		DIMENSIONS							POWER BLADE OPTIONS			STANDARD PIN LOCATION			RECESSED PIN LOCATION			VOID 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		
87696-2001	8		24	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		24	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		24	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		16	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		16	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		28	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		20	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		16	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		24	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	QUALITY SYMBOLS ▽=0 ▽=0
	2006/12/05	
	2006/12/05	
D3	REV	

GENERAL TOLERANCES (UNLESS SPECIFIED)	
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3 PLACES	± .010 / ± .0004
2 PLACES	± 0.25 / ± .010
1 PLACE	± .010 / ± .0004
ANGULAR ± 3 °	
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DIMENSION STYLE	
MM/IN	
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BHLOW	2002/11/21
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SKTOH	2002/11/27
MATERIAL NO.	
SEE TABLE	

SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
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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	
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