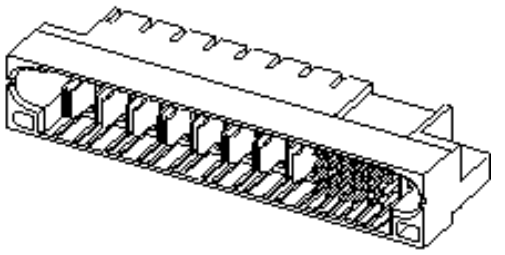
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Part Number: 0876962003
Status: Active
Overview: extreme_powerplus_ssi
Description: 6.35mm (.250") Pitch Power, 2.54mm (.100") Pitch Signal, EXTreme PowerPlus™ Pa-S Header, Through Hole, Right Angle, with Beveled Metal Pins, Long Contacts, 31 Circuits, Power Alpha 7, Signal 24, Recessed Signal Pin D3, Lead-free



Series image - Reference only

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	extreme_powerplus_ssi
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

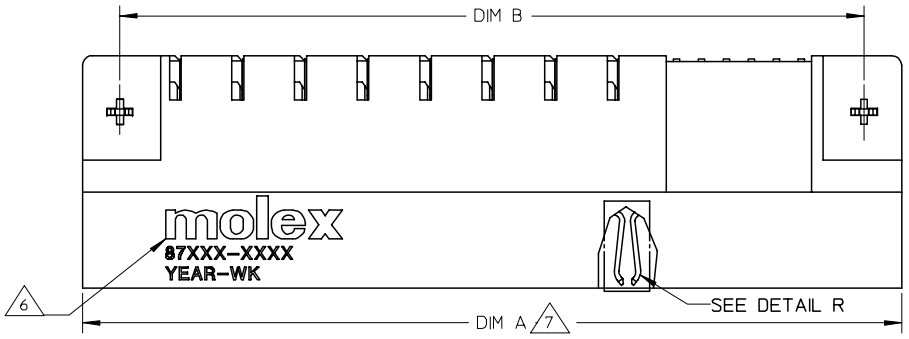
Material Info

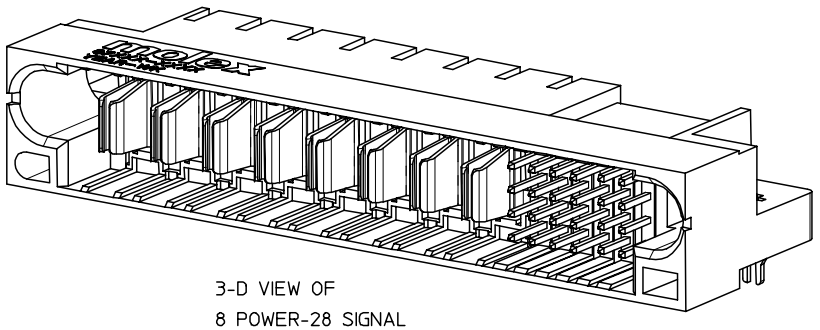
Reference - Drawing Numbers

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

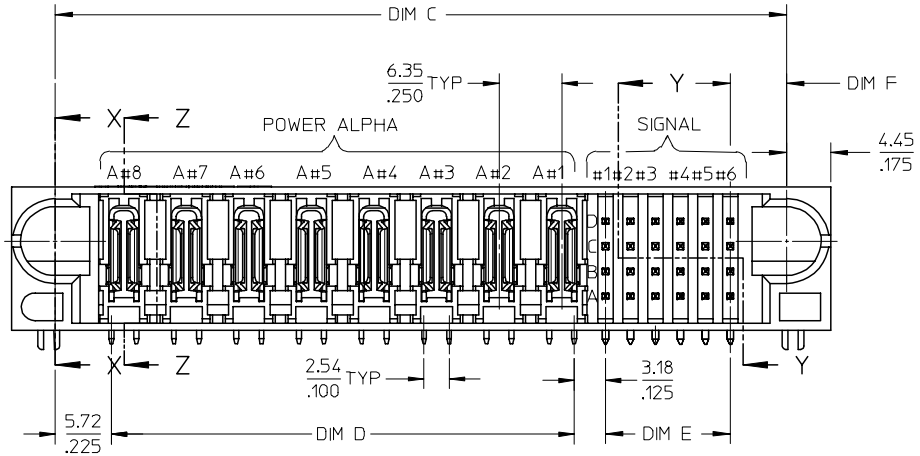
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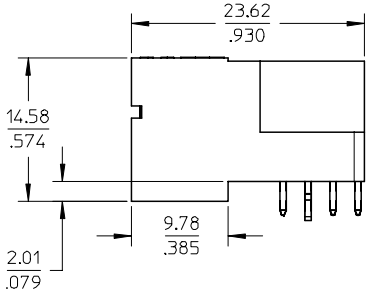
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3-D VIEW OF
8 POWER-28 SIGNAL
FOR ILLUSTRATION





NOTES:
1. MATERIALS: HOUSING - LCP, GLASS FILLED, UL 94V-0, COLOUR: BLACK
   POWER PINS - COPPER ALLOY
   SIGNAL PINS - COPPER ALLOY
   BOARDLOCK - COPPER ALLOY
2. 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
3. PRODUCT SPECIFICATION : PS-87631-006
4. SEE SHEET 2 FOR RECOMMENDED PCB LAYOUT AND THICKNESS.
5. COMPONENT STAY AWAY ZONE FROM CONNECTOR.
6. MANUFACTURER LOGO, PART NUMBER AND YEAR-WEEK CODE.
7. 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 2006/11/30
EC NO: S2007-0278 2006/12/05
DRWN:SKANG CHKD:MLONG APPR:SKTOH 2006/12/05
DESCRIPTION
REV D3

QUALITY SYMBOLS
▼=0
▽=0

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
SCALE: NTS
DESIGN UNITS: METRIC
THIRD ANGLE PROJECTION

DRAWN BY: BHLOW DATE: 2002/11/21
CHECKED BY: PTLIM DATE: 2002/11/26
APPROVED BY: SKTOH DATE: 2002/11/27
MATERIAL NO.: SEE TABLE

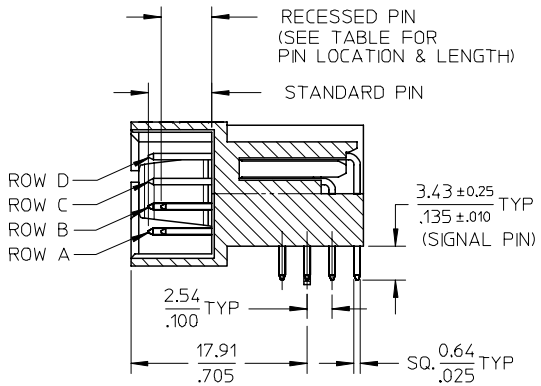
TITLE: HEADER POWER CONNECTOR P-S CONFIG, R/A, T/H WITH BOARD-LOCK

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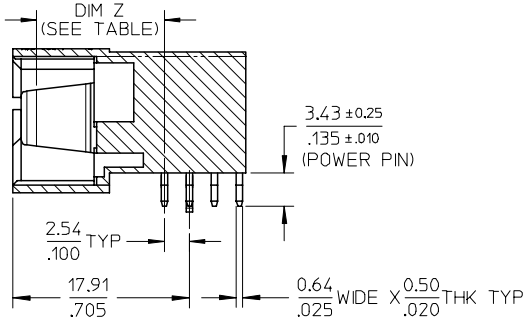
DOCUMENT NO.: SD-87696-014
SHEET NO.: 1 OF 3

SIZE A3

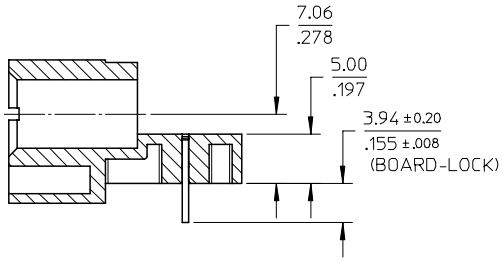
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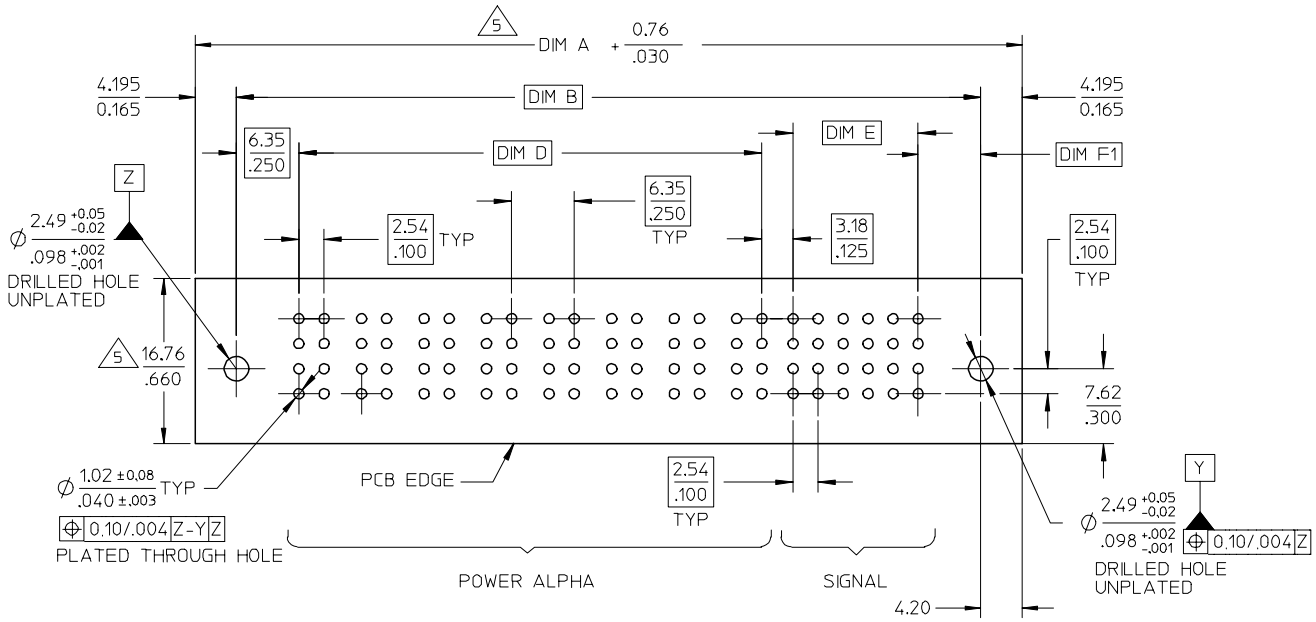
SECTION Y-Y



SECTION Z-Z



SECTION X-X





RECOMMENDED PCB LAYOUT

PDR#S-001468-00-00
EC NO: S2007-0278 2006/11/30
DRWN:SKANG 2006/12/05
CHKD:MLONG 2006/12/05
APPR:SKTOH 2006/12/05
DESCRIPTION
REV
D3

QUALITY SYMBOLS
▼=0
▽=0

GENERAL TOLERANCES (UNLESS SPECIFIED)

	mm	INCH
4 PLACES	± ---	± ---
3 PLACES	± ---	± .010
2 PLACES	± 0.25	± ---
1 PLACE	± ---	± ---

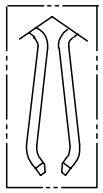
ANGULAR ± 3 °

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

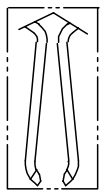
DIMENSION STYLE	MM/IN
SCALE	NTS
DESIGN UNITS	METRIC
	THIRD ANGLE PROJECTION
DRAWN BY	BHLOW
DATE	2002/11/21
CHECKED BY	PTLIM
DATE	2002/11/26
APPROVED BY	SKTOH
DATE	2002/11/27
MATERIAL NO.	SEE TABLE
TITLE	HEADER POWER CONNECTOR P-S CONFIG, R/A, T/H WITH BOARD-LOCK
	MOLEX INCORPORATED
DOCUMENT NO.	SD-87696-014
SHEET NO.	2 OF 3
SIZE	A3

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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	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	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	1,5	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 2006/11/30
DRWN:SKANG 2006/12/05
CHKD:MLONG
APPR:SKTOH 2006/12/05
DESCRIPTION
REV
D3

QUALITY SYMBOLS
▼=0
▽C=0

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
SCALE: NTS
DESIGN UNITS: METRIC
THIRD ANGLE PROJECTION

DRAWN BY: BHLOW DATE: 2002/11/21
CHECKED BY: PTLIM DATE: 2002/11/26
APPROVED BY: SKTOH DATE: 2002/11/27

TITLE: HEADER POWER CONNECTOR P-S CONFIG, R/A, T/H WITH BOARD-LOCK

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MATERIAL NO.: SEE TABLE
DOCUMENT NO.: SD-87696-014
SHEET NO.: 3 OF 3

SIZE: A3

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