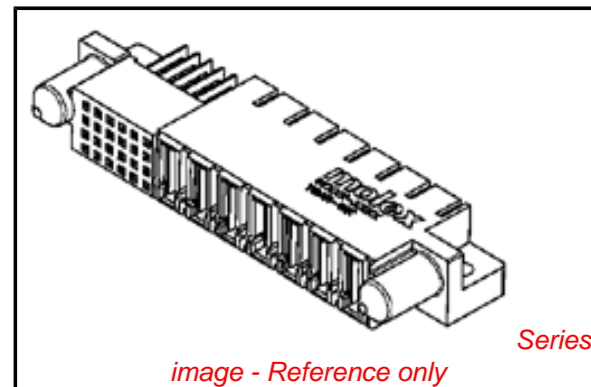


**PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION**

**Part Number:** **0877002002**  
**Status:** **Active**  
**Overview:** extreme\_powerplus\_ssi  
**Description:** 6.35mm (.250") Pitch, Power, 2.54mm (.100") Pitch, Signal, EXTreme PowerPlus™ Pa-S Receptacle, Through Hole, Screw Mount, Right Angle, Signal 20, Power Alpha 4, 24 Circuits, Void Pins: A2, B2, C2, D2, Leadfree

**Documents:**

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



*image - Reference only*

**General**

Product Family	PCB Receptacles
Series	87700
Application	Board-to-Board
Comments	Recessed Power Circuit Position: NIL Void Pins: A2, B2, C2, D2
Overview	<u>extreme_powerplus_ssi</u>
Product Name	EXTreme PowerPlus™

**Physical**

Circuits (Loaded)	24
Circuits Detail	Signal 20, Power Alpha 4
Color - Resin	Black
Durability (mating cycles max)	100
Glow-Wire Compliant	No
Guide 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
Pitch - Term. Interface (mm)	2.54 mm, 3.18 mm
Plating min: Mating (µin)	30.4
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
Stackable	No
Temperature Range - Operating	-20°C to +105°C
Termination Interface: Style	Through Hole

**Electrical**

**EU RoHS**

**ELV and RoHS Compliant**  
**REACH SVHC**  
 Not Reviewed  
**Halogen-Free Status**  
 Not Reviewed

**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**

87700Series

**Mates With**

87696 EXTreme PowerPlus™ Pa-S Header

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

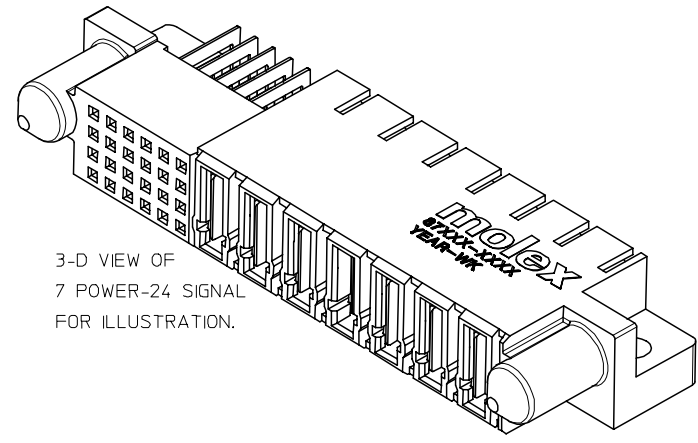
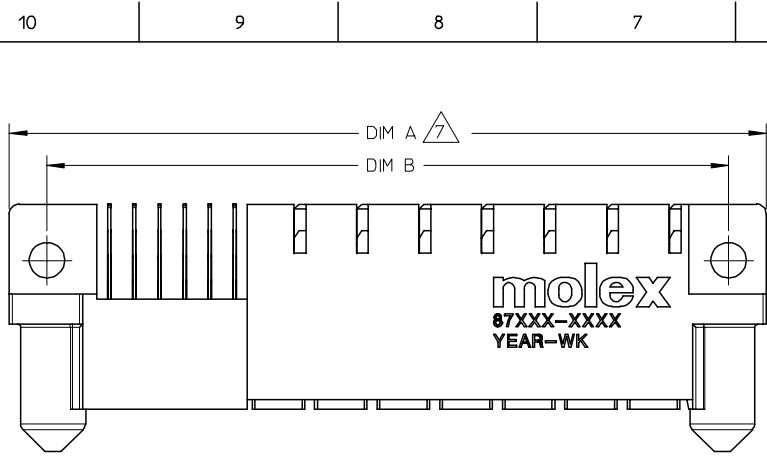
### **Material Info**

### **Reference - Drawing Numbers**

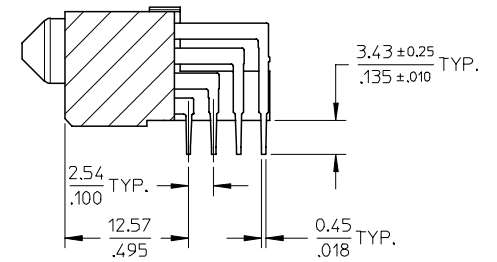
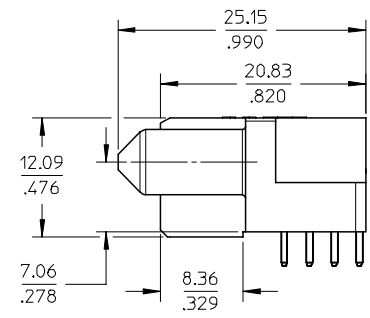
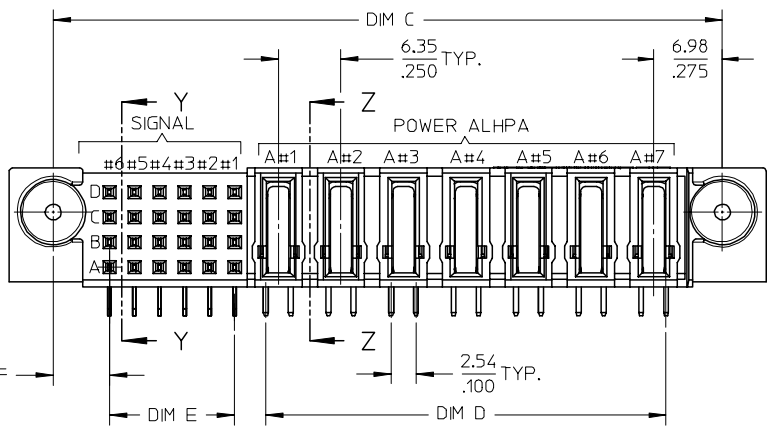
Application Specification	AS-87631-018
Product Specification	PS-87631-006
Sales Drawing	SD-87700-016

This document was generated on 05/22/2010

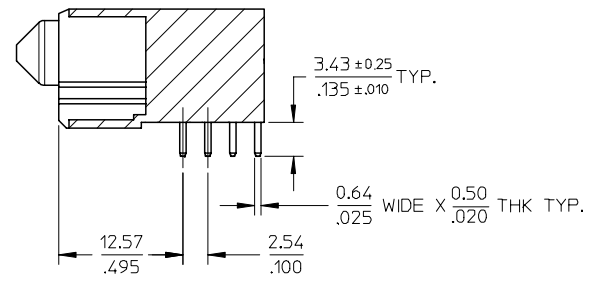
**PLEASE CHECK [WWW.MOLEX.COM](http://WWW.MOLEX.COM) FOR LATEST PART INFORMATION**



3-D VIEW OF  
7 POWER-24 SIGNAL  
FOR ILLUSTRATION.



SECTION Y-Y



SECTION Z-Z

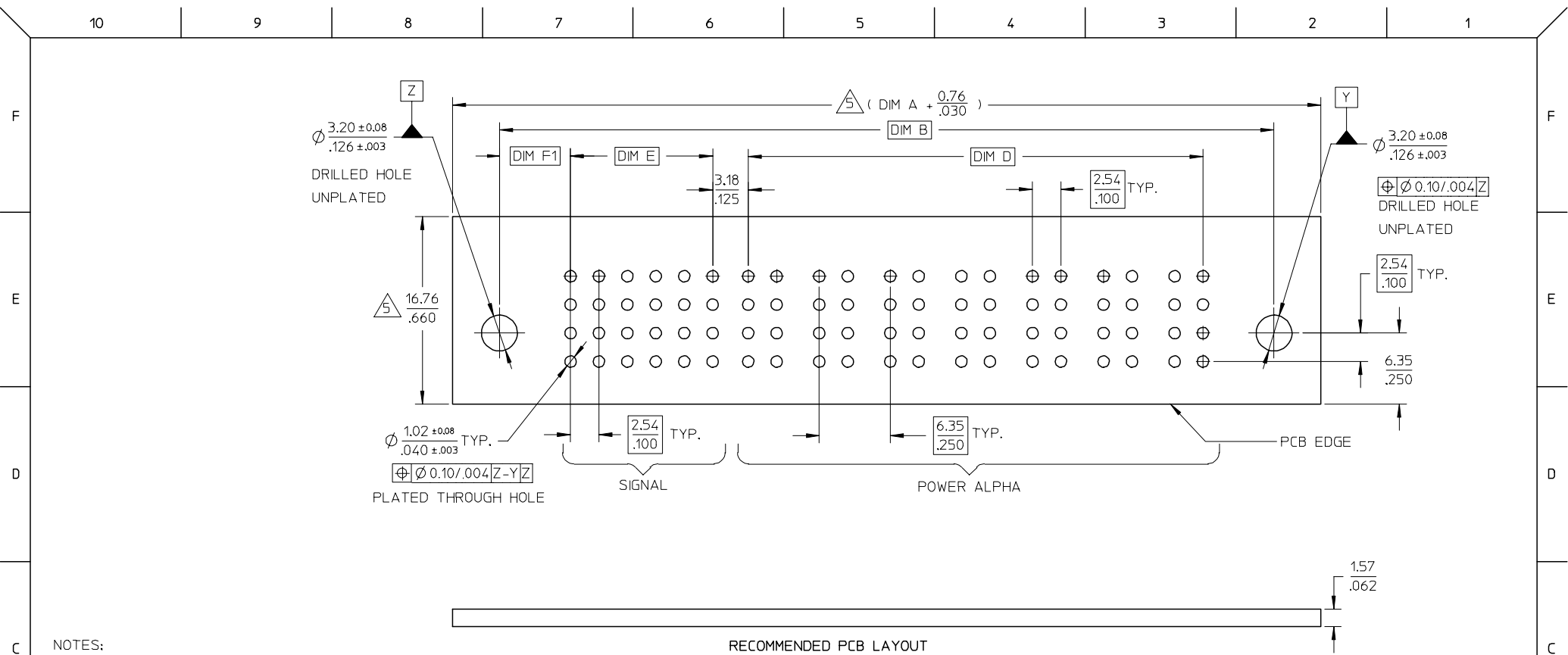
PDR#S-001537-00-00	2007/03/14
EC NO: S2007-0773	2007/03/14
DRWN:GEMENARY	2007/03/14
CHKD:SKANG	2007/03/14
APPR:MLONG	2007/03/14
D1	

QUALITY SYMBOLS	DESCRIPTION
▽=0	
▽=0	

GENERAL TOLERANCES (UNLESS SPECIFIED)	
	ANGULAR ± 3 °
4 PLACES	± .010
3 PLACES	± .020
2 PLACES	± 0.25
1 PLACE	± .005
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	

DIMENSION STYLE	
MM/IN	
DRAWN BY	DATE
DATE	TITLE
CHECKED BY	DATE
DATE	DATE
APPROVED BY	DATE
DATE	DATE
SKTOH	2003/06/12
MATERIAL NO.	DOCUMENT NO.
SEE TABLE	SD-87700-016

SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
NTS	METRIC	
POWER CONNECTOR RECEPT. P(A)-S CONFIGURATION R/A, SCREW MOUNT, 6.35MM		
MOLEX INCORPORATED		
SHEET NO.		1 OF 3







NOTES:

- 1 MATERIALS : HOUSING - LCP, GLASS FILLED,  
UL94V-0, COLOR: BLACK  
POWER PINS - COPPER ALLOY  
SIGNAL PINS - COPPER ALLOY
- 2 FINISHES: POWER AD 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  
NICKEL OVERALL
- 3 PRODUCT SPECIFICATIONS : PS-87631-006
- 4 SEE SHEET 2 FOR RECOMMENDED PCB LAYOUT AND THICKNESS
- 5 COMPONENT STAY AWAY ZONE FROM CONNECTOR
- 6 REFER TO THE TABLE ON TOP OF PAGE 3/3 FOR RECESSED PINS LOCATION
- 7 POWER - 24 SIGNAL CONNECTOR IS SHOWN FOR ILLUSTRATION

RECOMMENDED PCB LAYOUT

PDR#S-001537-00-00 EC NO: S2007-0773 DRWG:GMENARLY 2007/03/14 CHKD:SKANG 2007/03/14 APPR:MLONG 2007/03/14	DESCRIPTION D1	QUALITY SYMBOLS $\nabla = 0$ $\triangle = 0$	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE MM/IN	SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION																											
			<table border="1"> <thead> <tr> <th></th> <th>mm</th> <th>INCH</th> </tr> </thead> <tbody> <tr> <td>4 PLACES</td> <td>± ---</td> <td>± ---</td> </tr> <tr> <td>3 PLACES</td> <td>± ---</td> <td>± .010</td> </tr> <tr> <td>2 PLACES</td> <td>± 0.25</td> <td>± ---</td> </tr> <tr> <td>1 PLACE</td> <td>± ---</td> <td>± ---</td> </tr> </tbody> </table>		mm	INCH	4 PLACES	± ---	± ---	3 PLACES	± ---	± .010	2 PLACES	± 0.25	± ---	1 PLACE	± ---	± ---	<table border="1"> <thead> <tr> <th>DRAWN BY</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td>KMGOH</td> <td>2003/06/06</td> </tr> <tr> <th>CHECKED BY</th> <th>DATE</th> </tr> <tr> <td>PTL IM</td> <td>2003/06/11</td> </tr> <tr> <th>APPROVED BY</th> <th>DATE</th> </tr> <tr> <td>SKTOH</td> <td>2003/06/12</td> </tr> </tbody> </table>	DRAWN BY	DATE	KMGOH	2003/06/06	CHECKED BY	DATE	PTL IM	2003/06/11	APPROVED BY	DATE	SKTOH	2003/06/12	TITLE POWER CONNECTOR RECEPT. P(A)-S CONFIGURATION R/A, SCREW MOUNT, 6.35MM		
			mm	INCH																														
		4 PLACES	± ---	± ---																														
3 PLACES	± ---	± .010																																
2 PLACES	± 0.25	± ---																																
1 PLACE	± ---	± ---																																
DRAWN BY	DATE																																	
KMGOH	2003/06/06																																	
CHECKED BY	DATE																																	
PTL IM	2003/06/11																																	
APPROVED BY	DATE																																	
SKTOH	2003/06/12																																	
	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	SEE TABLE	MOLEX INCORPORATED	DOCUMENT NO. SD-87700-016	SHEET NO. 2 OF 3																													
			THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION																															

PART NUMBER	P-S CONFIGURATION		DIM A	DIM B	DIM C	DIM D	DIM E	DIM F	DIM F1	RECESS POWER PINS LOCATIONS	VOID PIN LOCATIONS	PACKAGING
	SIGNAL	POWER ALPHA										
87700-2000	16	4	52.70 2.075	45.09 1.775	43.81 1.725	21.59 .850	7.62 .300	5.72 .225	6.35 .250	NIL	NIL	TRAY
87700-2001	24	8	82.55 3.250	74.93 2.950	73.66 2.900	46.99 1.850	12.70 .500	5.08 .200	5.72 .225	NIL	NIL	TRAY
87700-2002	20	4	54.61 2.150	46.99 1.850	45.72 1.800	21.59 .850	10.16 .400	5.08 .200	5.72 .225	NIL	A2,B2,C2,D2	TRAY

PDR#S-001537-00-00 EC NO: S2007-0773 DRWN:GMENARLY 2007/03/14 CHKD:SKANG 2007/03/14 APPR:MLONG 2007/03/14	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE MM/IN	SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION																											
	 = 0  = 0	<table border="1"> <tr> <th></th> <th>mm</th> <th>INCH</th> </tr> <tr> <td>4 PLACES</td> <td>± .005</td> <td>± .0004</td> </tr> <tr> <td>3 PLACES</td> <td>± .008</td> <td>± .0006</td> </tr> <tr> <td>2 PLACES</td> <td>± 0.25</td> <td>± .010</td> </tr> <tr> <td>1 PLACE</td> <td>± .005</td> <td>± .0004</td> </tr> </table>		mm	INCH	4 PLACES	± .005	± .0004	3 PLACES	± .008	± .0006	2 PLACES	± 0.25	± .010	1 PLACE	± .005	± .0004	<table border="1"> <tr> <th>DRAWN BY</th> <th>DATE</th> </tr> <tr> <td>KMGOH</td> <td>2003/06/06</td> </tr> <tr> <th>CHECKED BY</th> <th>DATE</th> </tr> <tr> <td>PTL IM</td> <td>2003/06/11</td> </tr> <tr> <th>APPROVED BY</th> <th>DATE</th> </tr> <tr> <td>SKTOH</td> <td>2003/06/12</td> </tr> </table>	DRAWN BY	DATE	KMGOH	2003/06/06	CHECKED BY	DATE	PTL IM	2003/06/11	APPROVED BY	DATE	SKTOH	2003/06/12	TITLE	 MOLEX INCORPORATED POWER CONNECTOR RECEPT. P(A)-S CONFIGURATION R/A, SCREW MOUNT, 6.35MM	
		mm	INCH																														
	4 PLACES	± .005	± .0004																														
	3 PLACES	± .008	± .0006																														
2 PLACES	± 0.25	± .010																															
1 PLACE	± .005	± .0004																															
DRAWN BY	DATE																																
KMGOH	2003/06/06																																
CHECKED BY	DATE																																
PTL IM	2003/06/11																																
APPROVED BY	DATE																																
SKTOH	2003/06/12																																
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	ANGULAR ± 3 °	MATERIAL NO.	DOCUMENT NO.	SHEET NO.																													
		SEE TABLE	SD-87700-016	3 OF 3																													
		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION																															