

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

**Part Number:** **0877102012**  
**Status:** **Active**  
**Overview:** extreme\_powerplus\_ssi  
**Description:** 6.35mm (.250") Pitch, Power, 2.54mm (.100") Pitch, Signal, EXTreme PowerPlus™ S-P(B) Receptacle, Press-fit, Vertical, 0.76µm (30µ") Gold (Au) Plating, 28 Circuits, Power Beta 4, Signal 24, No Recessed Power Circuit, Lead-free

**Documents:**

[3D Model](#) [Product Specification PS-87633-006 \(PDF\)](#)  
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

**General**

Product Family	PCB Receptacles
Series	<u>87710</u>
Application	Board-to-Board
Comments	No Recessed Power Circuits
Overview	<u>extreme_powerplus_ssi</u>
Product Name	EXTreme PowerPlus™

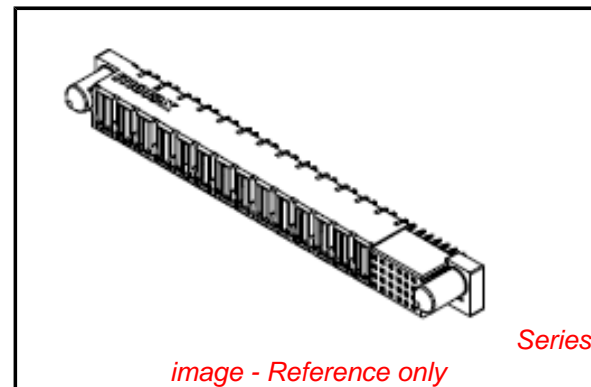
**Physical**

Circuits (Loaded)	28
Circuits Detail	Power Beta 4, Signal 24
Color - Resin	Black
Durability (mating cycles max)	100
Glow-Wire Compliant	No
Guide to Mating Part	Yes
Keying 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	Vertical
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, 0.175 In, 0.250 In
Pitch - Mating Interface (mm)	2.54 mm, 4.45 mm, 6.35 mm
Plating min: Mating (µin)	30
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
Temperature Range - Operating	-20°C to +105°C
Termination Interface: Style	Through Hole - Compliant Pin

**Electrical**

Current - Maximum per Contact	2.5A, 30A, 50A
Voltage - Maximum	250V DC

**Material Info**



**EU RoHS**

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

**China RoHS**



**Not Reviewed**

**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**

87710Series

**Mates With**

87667 PCB Headers

**Reference - Drawing Numbers**

Application Specification

Product Specification

Sales Drawing

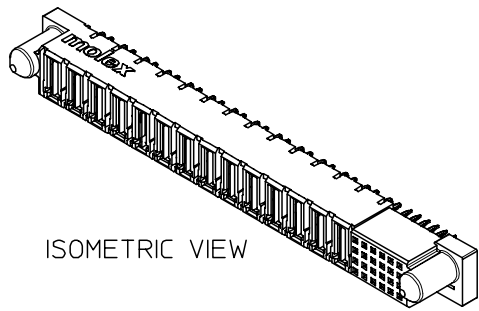
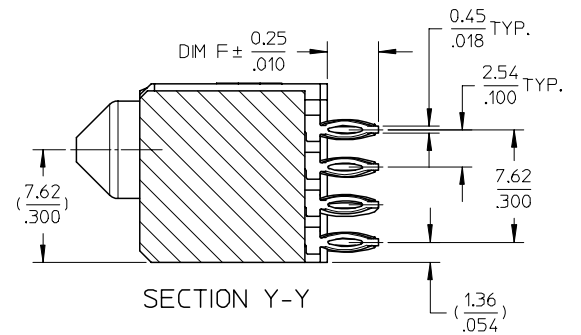
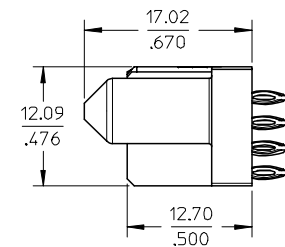
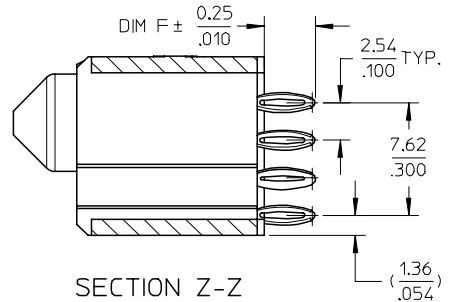
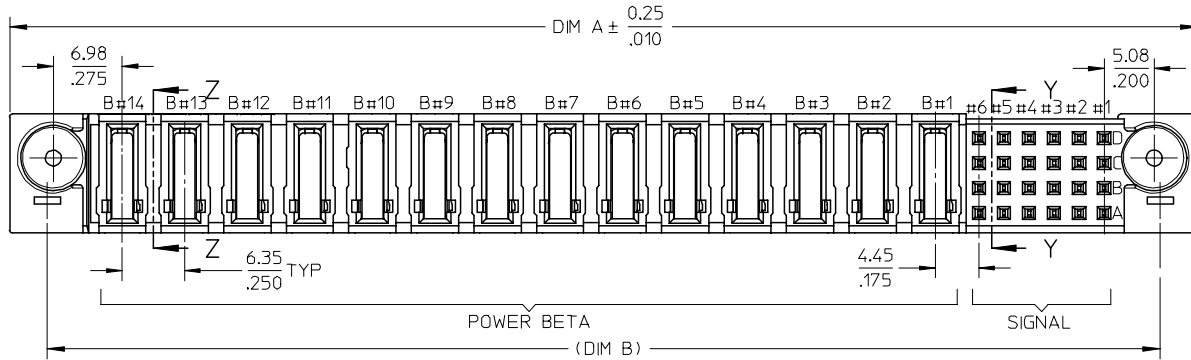
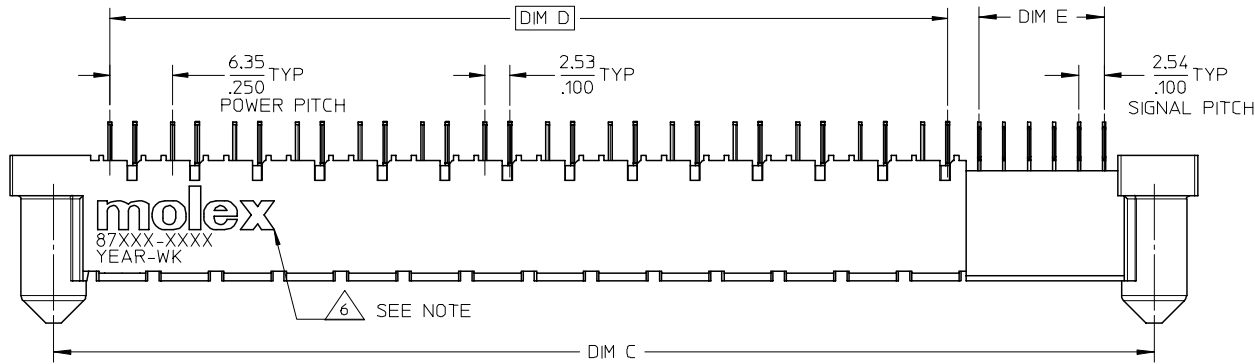
AS-87631-018

PS-87633-006

SD-87710-011

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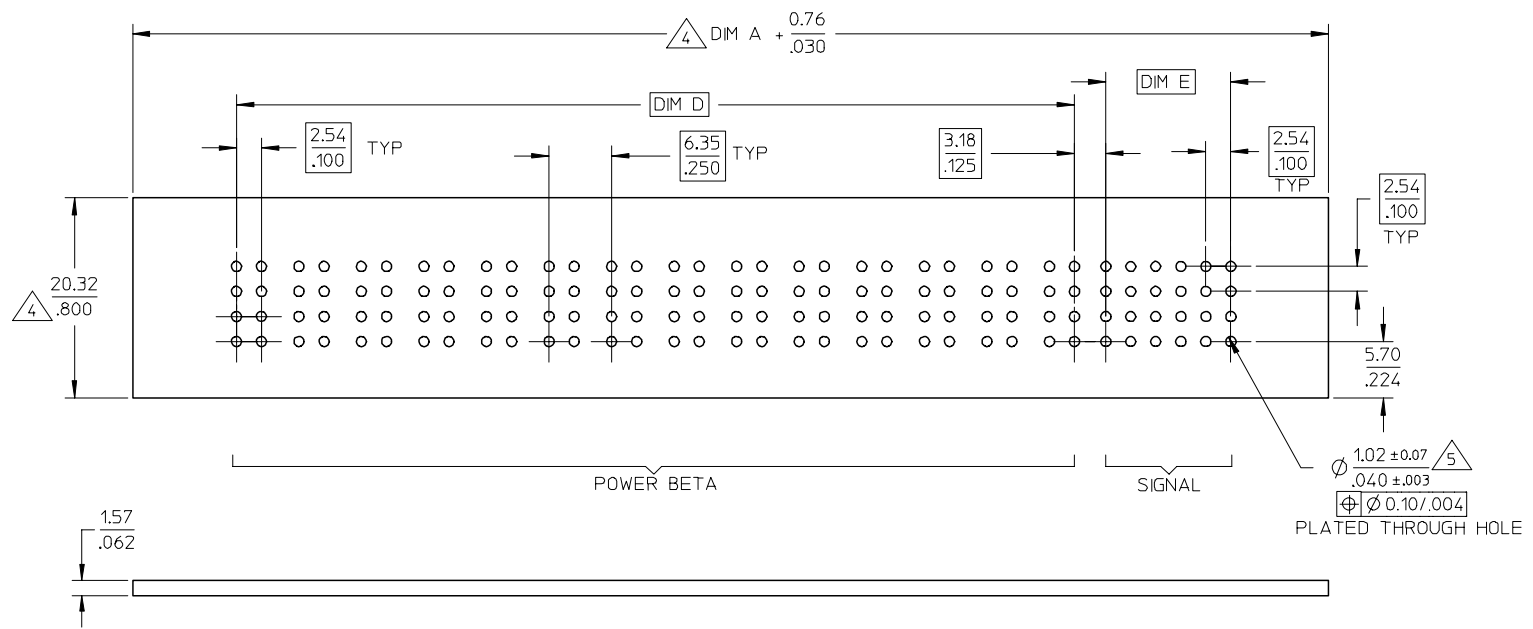
PDR#S-001481-00-00	2006/12/26
EC NO: S2007-0577	2006/12/27
DRWN:KELIM	2006/12/27
CHKD:M LONG	2006/12/28
APPR:SKTOH	

REV	DESCRIPTION
C2	

QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)																		
▽=0																			
▽C=0																			
	<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> <tr> <td colspan="3">ANGULAR ± 3 °</td> </tr> </tbody> </table>		mm	INCH	4 PLACES	± ---	± ---	3 PLACES	± ---	± .010	2 PLACES	± 0.25	± ---	1 PLACE	± ---	± ---	ANGULAR ± 3 °		
	mm	INCH																	
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1 PLACE	± ---	± ---																	
ANGULAR ± 3 °																			
	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS																		

DIMENSION STYLE		SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
MM/IN		NTS	METRIC	
DRAWN BY	DATE	TITLE		
KMGOH	2002/10/10	POWER CONN. RECEPTACLE		
CHECKED BY	DATE	S-P(B) CONFIGURATION		
PTL IM	2002/11/25	VERTICAL PRESS-FIT		
APPROVED BY	DATE	MOLEX INCORPORATED		
SKTOH	2002/11/26	MOLEX INCORPORATED		
MATERIAL NO.		DOCUMENT NO.	SHEET NO.	
SEE TABLE		SD-87710-011	1 OF 3	

DRAWN BY				
DATE				
CHECKED BY				
DATE				
APPROVED BY				
DATE				
MATERIAL NO.				
DOCUMENT NO.				
SHEET NO.				
1 OF 3				



RECOMMENDED PCB LAYOUT

CONNECTOR - NOTES

1. MATERIALS :
    - HOUSING - LCP, GLASS FILLED, UL94-0.COLOR:BLACK.
    - SIGNAL PIN - COPPER ALLOY
    - POWER PIN - COPPER ALLOY
  2. FINISH :
    - SIGNAL & POWER CONTACTS
    - 0.76 MICROMETER MINIMUM GOLD (Au) AT CONTACT AREA AND
    - 2.54 MICROMETER MINIMUM TIN/LEAD OR TIN AT SOLDERTAIL AREA
    - OVER 1.27um MIN. NICKEL (Ni) UNDERPLATE.
  3. PRODUCT SPECIFICATION: PS-87633-006.
- △ COMPONENT STAY AWAY ZONE FROM CONNECTOR.
- △ PCB NOTE FOR DIAMETER 1.02/0.40 PLATED HOLE.
- DRILLED HOLE SIZE IS 1.151/0.453
  - PLATE WITH 0.007/0.0003 MINIMUM TIN/LEAD OR TIN OVER 0.03/0.01 TO 0.08/0.003 COPPER PLATING TO ACHIEVE 1.02±0.08/0.40±0.003 HOLE.
- SEE SHEET 2 FOR RECOMMENDED PCB LAYOUT.
- △ MANUFACTURER LOGO,PART NUMBER AND YEAR-WEEK CODE.
7. 14 POWER BETA-24 SIGNAL CONFIGURATION IS SHOWN FOR ILLUSTRATION ONLY.

PDR#S-001481-00-00	2006/12/26	2006/12/28
EC NO: S2007-0577	DRWN:KELIM	CHKD:M.LONG
	2006/12/27	2006/12/28
	APPR:SKTOH	
REV	DESCRIPTION	
C2		

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
DRAWN BY	DATE
KMGOH	2002/10/10
CHECKED BY	DATE
PTL IM	2002/11/25
APPROVED BY	DATE
SKTOH	2002/11/26
MATERIAL NO.	DOCUMENT NO.
SEE TABLE	SD-87710-011

SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
NTS	METRIC	☉
TITLE		
POWER CONN. RECEPTACLE		
S-P(B) CONFIGURATION		
VERTICAL PRESS-FIT		
MOLEX INCORPORATED		
DOCUMENT NO.		SHEET NO.
SD-87710-011		2 OF 3
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		

	10	9	8	7	6	5	4	3	2	1	
PART NUMBER	P-S CONFIGURATION		RECESS POWER CIRCUIT #	DIM A	DIM B	DIM C	DIM D	DIM E	DIM F ±0.25	PACKAGING	PLATING OPTION
	POWER BETA	SIGNAL									
87710-8001	14	24	NIL	120.65 4.750	113.03 4.450	111.76 4.400	85.09 3.350	12.70 .500	3.43 .135	TRAY	TIN/LEAD
87710-8002	6	24	NIL	69.85 2.750	62.23 2.450	60.96 2.400	34.29 1.350	12.70 .500	3.43 .135	TRAY	
87710-8003	6	24	B4,B5,B6	69.85 2.750	62.23 2.450	60.96 2.400	34.29 1.350	12.70 .500	3.43 .135	TRAY	
87710-8005	10	24	NIL	95.25 3.750	87.63 3.450	86.36 3.400	59.69 2.350	12.70 .500	3.43 .135	TRAY	
87710-2001	14	24	NIL	120.65 4.750	113.03 4.450	111.76 4.400	85.09 3.350	12.70 .500	3.43 .135	TRAY	TIN
87710-2002	6	24	NIL	69.85 2.750	62.23 2.450	60.96 2.400	34.29 1.350	12.70 .500	3.43 .135	TRAY	
87710-2003	6	24	B4,B5,B6	69.85 2.750	62.23 2.450	60.96 2.400	34.29 1.350	12.70 .500	3.43 .135	TRAY	
87710-2005	10	24	NIL	95.25 3.750	87.63 3.450	86.36 3.400	59.69 2.350	12.70 .500	3.43 .135	TRAY	
87710-2011	4	16	NIL	52.07 2.050	44.45 1.750	43.18 1.700	21.59 .850	7.62 .300	3.43 .135	TRAY	
87710-2012	4	24	NIL	57.15 2.250	49.53 1.950	48.26 1.900	21.59 .850	12.70 .500	3.43 .135	TRAY	

PDR#S-001481-00-00 EC NO: S2007-0577 DRWN:KELIM CHKD:M.LONG APPR:SKTOH	2006/12/26 2006/12/27 2006/12/28	QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM/IN		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION			
							DRAWN BY KMG0H		DATE 2002/10/10		TITLE POWER CONN. RECEPTACLE S-P(B) CONFIGURATION VERTICAL PRESS-FIT	
			4 PLACES ± --- ± ---		3 PLACES ± --- ± .010		CHECKED BY PTL IM		DATE 2002/11/25		MOLEX INCORPORATED	
			2 PLACES ± 0.25 ± ---		1 PLACE ± --- ± ---		APPROVED BY SKTOH		DATE 2002/11/26		DOCUMENT NO. SD-87710-011	
ANGULAR ± 3 °		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE TABLE		SHEET NO. 3 OF 3						