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Part Number: [0877102002](#)
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, 30 Circuits, Power Beta 6, 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

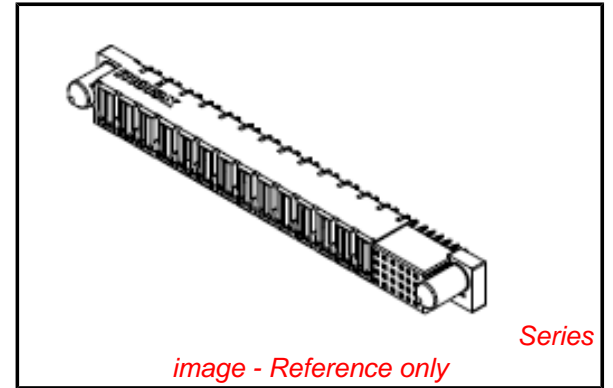
Product Family	PCB Receptacles
Series	87710
Application	Board-to-Board
Comments	No Recessed Power Circuits
Overview	extreme_powerplus_ssi
Product Literature Order No	987650-3002
Product Name	EXTreme PowerPlus™

Physical

Circuits (Loaded)	30
Circuits Detail	Power Beta 6, 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



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
 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](#)

Material Info

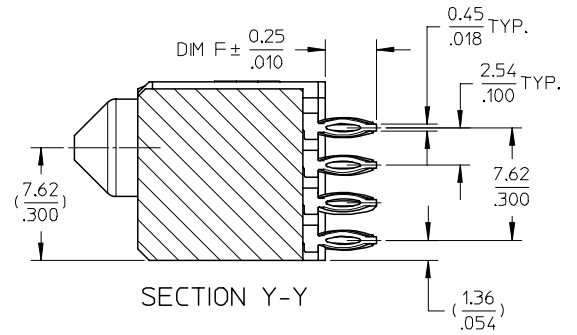
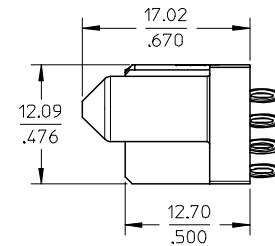
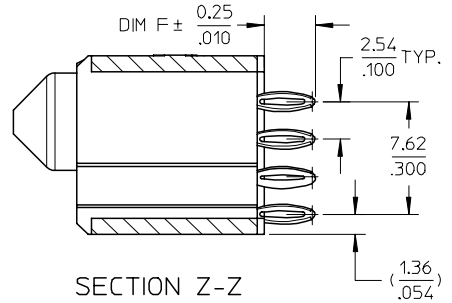
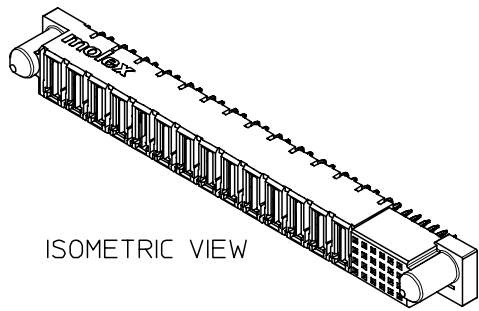
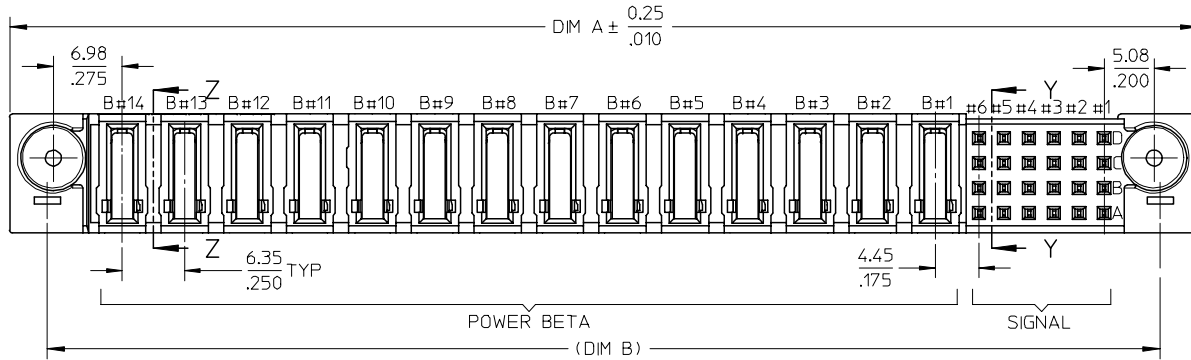
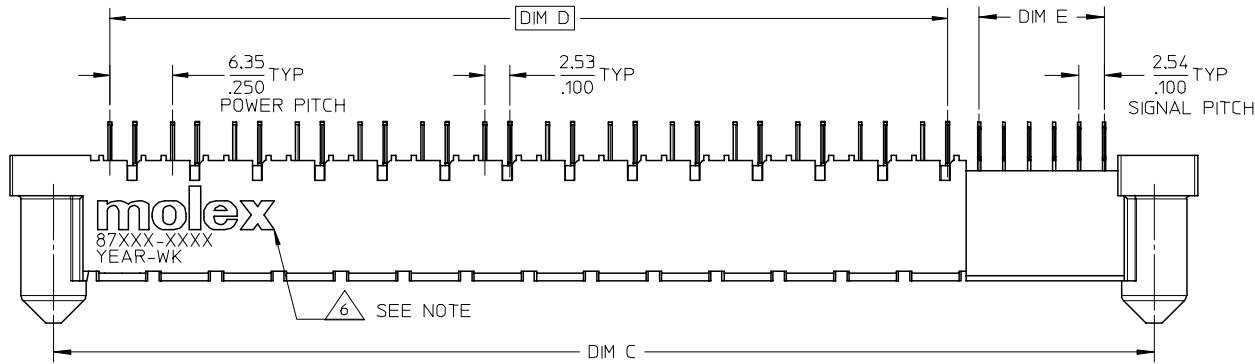
Reference - Drawing Numbers

Application Specification
Product Specification
Sales Drawing

AS-87631-018, AS-87633-007
PS-87633-006
SD-87710-011

This document was generated on 05/22/2010

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ISOMETRIC VIEW

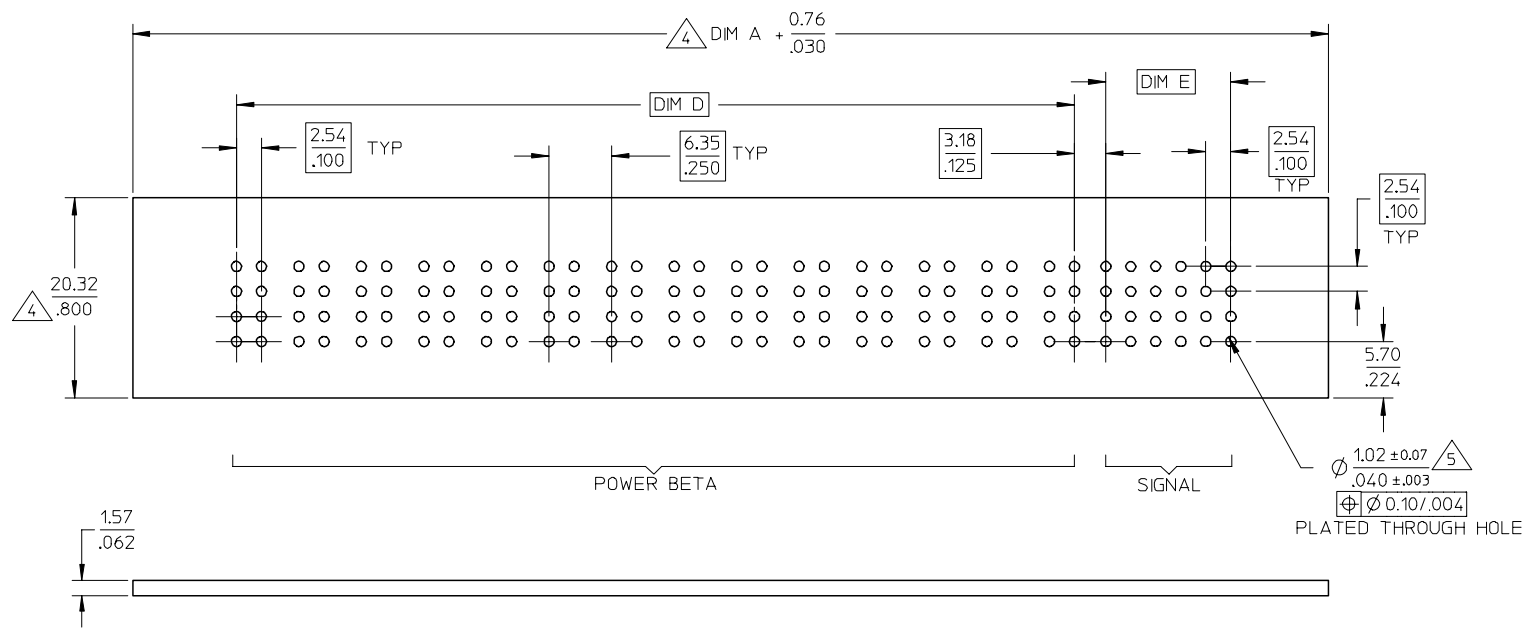
PDR#S-001481-00-00	2006/12/26	2006/12/28
EC NO: S2007-0577	2006/12/27	2006/12/28
DRWN:KELIM	CHKD:M.LONG	APPR:SKTOH

QUALITY SYMBOLS	DESCRIPTION
▽=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	
DRAWN BY	DATE
2002/10/10	PTL IM
2002/11/25	DATE
2002/11/26	DATE
SKTOH	DATE
MATERIAL NO.	
SEE TABLE	
SIZE	A3

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	1 OF 3	



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.

RECOMMENDED PCB LAYOUT

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		
				mm	INCH	DRAWN BY KMG0H	DATE 2002/10/10	TITLE POWER CONN. RECEPTACLE S-P(B) CONFIGURATION VERTICAL PRESS-FIT			
			4 PLACES ± ---	± ---	CHECKED BY PTL IM	DATE 2002/11/25					
			3 PLACES ± ---	± .010	APPROVED BY SKTOH	DATE 2002/11/26					
			ANGULAR ± 3 °		MATERIAL NO.		DOCUMENT NO.		SHEET NO.		
			DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE TABLE		SD-87710-011		2 OF 3		
C2	REV		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 2006/12/26 CHKD:M LONG 2006/12/27 APPR:SKTOH 2006/12/28 REV C2	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION	
	=0 =0.25	mm INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± .010 2 PLACES ± 0.25 ± --- 1 PLACE ± --- ± --- ANGULAR ± 3 °	MM/IN	NTS	METRIC		
	DESCRIPTION	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	SEE TABLE	DRAWN BY: KMG0H DATE: 2002/10/10 CHECKED BY: PTL IM DATE: 2002/11/25 APPROVED BY: SKTOH DATE: 2002/11/26	TITLE	POWER CONN. RECEPTACLE S-P(B) CONFIGURATION VERTICAL PRESS-FIT	
				MATERIAL NO. SIZE: A3	DOCUMENT NO. SD-87710-011	MOLEX INCORPORATED SHEET NO. 3 OF 3	