

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

**Part Number:** [0876639001](#)  
**Status:** **Active**  
**Overview:** [extreme\\_powerplus\\_ssi](#)  
**Description:** 6.35mm (.250") Pitch Power (DC), 7.62mm (.300") Pitch Power (AC), 2.54mm (.100") Pitch Signal, EXTreme PowerPlus™ Board-to-Board Header, Through Hole, Right Angle, 33 Circuits, Power Alpha 3, Signal 24, Power Beta 6, Long Contact, with Bevel

**Documents:**

[3D Model](#) [Product Specification PS-87663-006 \(PDF\)](#)  
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

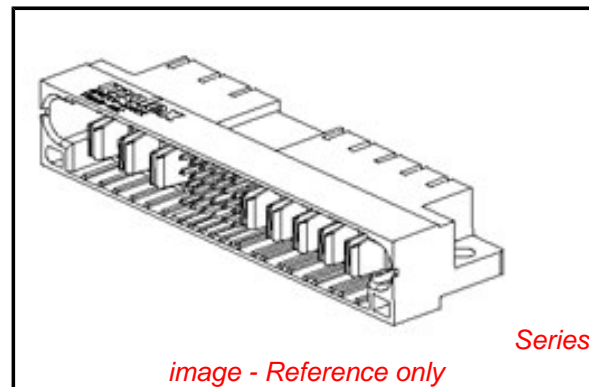
**General**

Product Family	PCB Headers
Series	<a href="#">87663</a>
Application	Board-to-Board
Comments	<LI>Long Blade <LI>Recessed Signal Pin : A1
Overview	<a href="#">extreme_powerplus_ssi</a>
Product Literature Order No	987650-3002
Product Name	EXTreme PowerPlus™

**Physical**

Breakaway	No
Circuits (Loaded)	33
Circuits Detail	Power Alpha 3, Signal 24, Power Beta 6
Color - Resin	Black
First Mate / Last Break	Yes
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	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, 0.300 In
Pitch - Mating Interface (mm)	2.54 mm, 6.35 mm, 7.62 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
Shrouded	Fully
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**

**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**

[87663Series](#)

**Mates With**

[87664](#) PCB Receptacle with Beveled Metal Pins. [87734](#) Vertical PCB Receptacle

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

### **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**

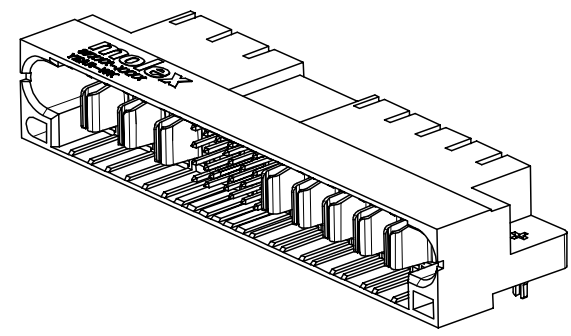
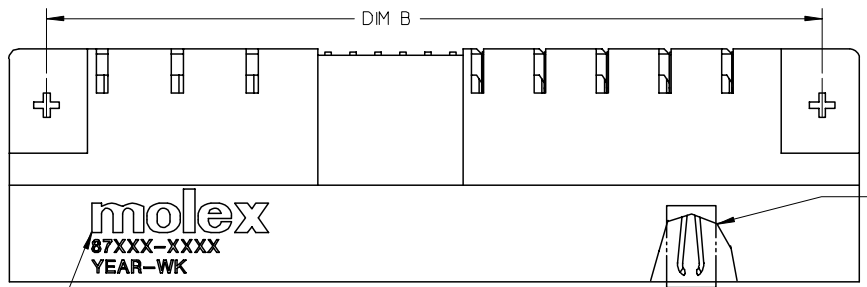
### **Reference - Drawing Numbers**

Application Specification	AS-87631-018
Product Specification	PS-87663-006
Sales Drawing	SD-87663-010

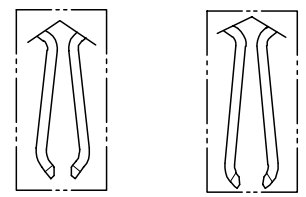
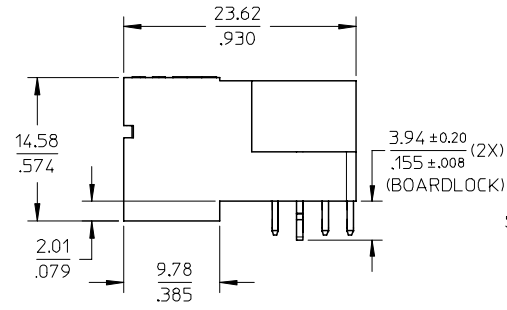
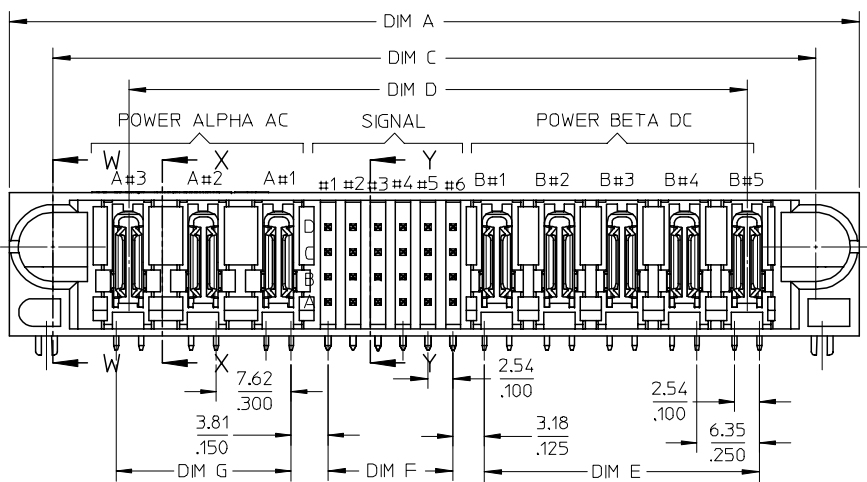
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10 9 8 7 6 5 4 3 2 1



ISOMETRIC VIEW  
3P(AC)-24S-5P(DC) FOR ILLUSTRATION



SHORT BLADE OPTION LONG BLADE OPTION  
DETAIL R  
(SEE TABLE FOR BLADE OPTION)

NOTES:

- MATERIALS:-  
HOUSING - LCP, GLASS FILLED, UL94V-0, COLOUR: BLACK.  
SIGNAL TERMINAL - COPPER ALLOY  
POWER TERMINAL - COPPER ALLOY
- FINISH :-  
SIGNAL & POWER CONTACTS  
0.76 MICROMETER MINIMUM GOLD (Au) AT CONTACT AREA AND  
2.54 MICROMETER MINIMUM TIN AT SOLDERTAIL AREA  
OVER 1.27 MICROMETER MINIMUM NICKEL (Ni) UNDERPLATE.
- PRODUCT SPECIFICATION : PS-87663-006.
- COMPONENT STAY AWAY FROM CONNECTOR.
- PCB NOTE FOR DIAMETER 1.02/.040 PLATED HOLE.  
- DRILLED HOLE SIZE IS 1.15/ .0453.  
- PLATE WITH 0.007 / .0003 MINIMUM TIN OVER 0.03/.001  
TO 0.08/.003 COPPER PLATING TO ACHIEVE 1.02±0.08/.040±.003 HOLE.
- MANUFACTURER LOGO, PART NUMBER AND YEAR-WEEK CODE.  
LONG AND SHORT CONTACT POWER BLADE OPTIONS ARE AVAILABLE  
FOR DIFFERENT CUSTOMERS REQUIREMENT.

PDR#S-001538-00-00  
EC NO: S2007-0817  
DRAWN:GEMENARLY  
CHKD:SKANG  
APPR:MLONG  
2007/03/28  
2007/03/28  
2007/03/28

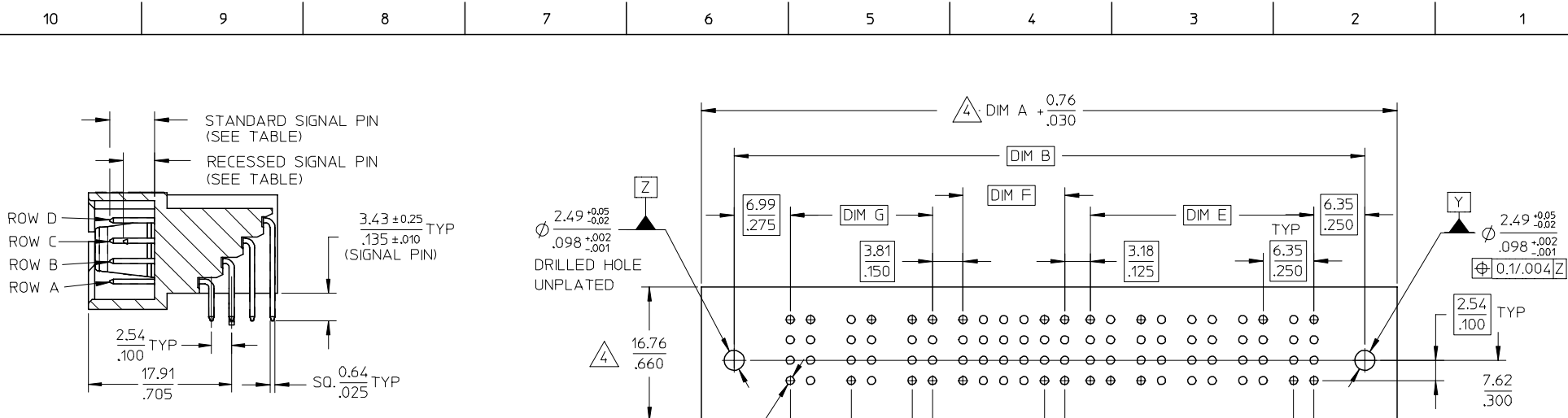
QUALITY SYMBOLS	▽=0
	▽=0
REV	D3

GENERAL TOLERANCES (UNLESS SPECIFIED)	MM	INCH
4 PLACES	± .10	± .004
3 PLACES	± .15	± .006
2 PLACES	± 0.25	± .010
1 PLACE	± .50	± .020
ANGULAR ± 3 °		
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		

DIMENSION STYLE		MM/IN
DRAWN BY	DATE	TITLE
BHLOW	2002/11/27	AC/DC POWER CONN. HEADER P(AC)-S-P(DC) CONFIG. RIGHT ANGLE, BOARD-LOCK
CHECKED BY	DATE	
PTL IM	2002/12/03	MOLEX INCORPORATED
APPROVED BY	DATE	
SKTOH	2002/12/03	SD-87663-010
MATERIAL NO.		DOCUMENT NO.
SEE TABLE		SHEET NO.
SIZE A3		1 OF 3

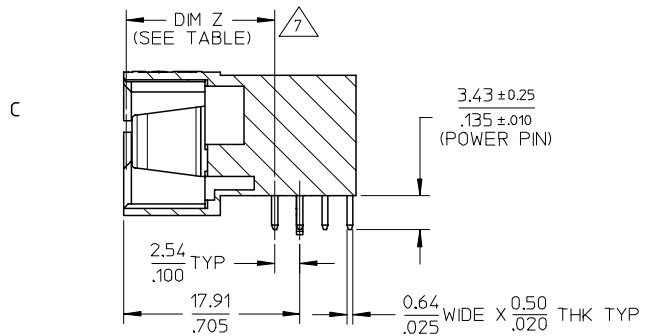
SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
NTS	METRIC	

9 8 7 6 5 4 3 2 1



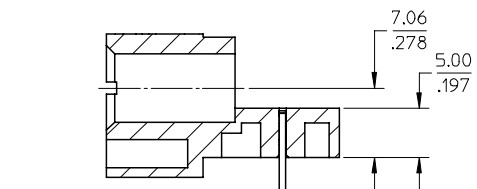
(TERMINAL LOCKING DETAIL NOT SHOWN)

SECTION Y-Y

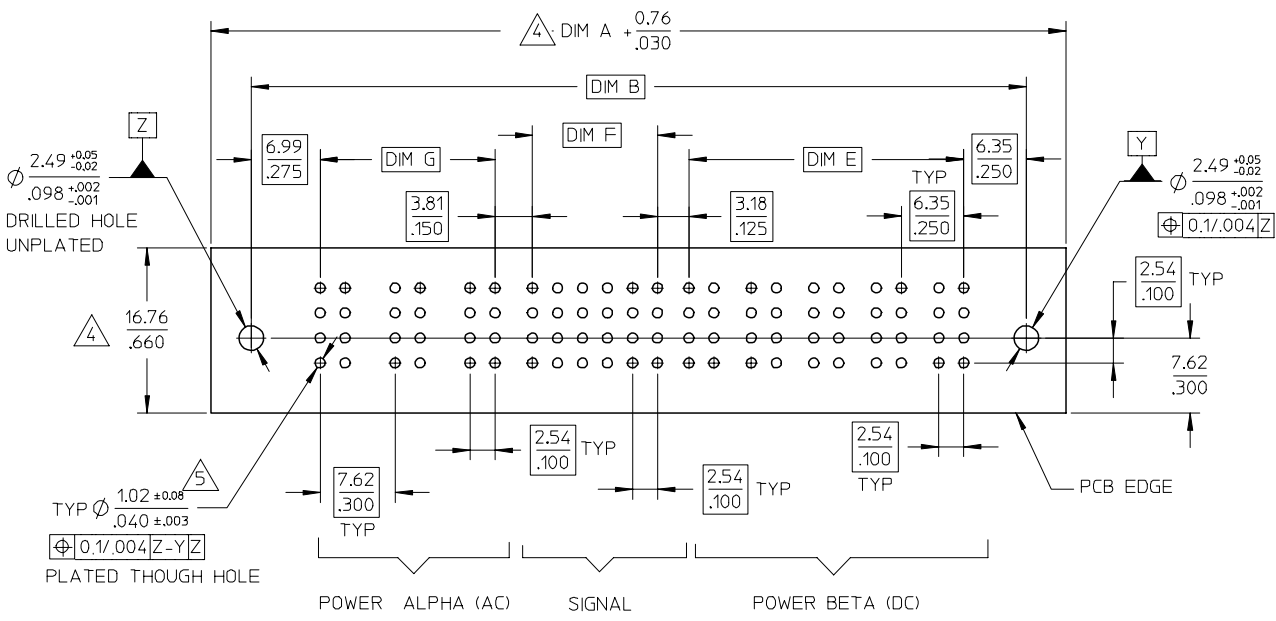


(TERMINAL LOCKING DETAIL NOT SHOWN)

SECTION X-X



SECTION W-W



RECOMMENDED PCB LAYOUT

PDR# S-001538-00-00 EC NO: S2007-0817 DRWN: GEMENARY 2007/03/28 CHKD: SKANG 2007/03/28 APPR: MLONG 2007/03/28	QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM/IN		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION		
		4 PLACES ± --- ± ---	mm INCH	DRAWN BY BHLW	DATE 2002/11/27	TITLE AC/DC POWER CONN. HEADER P(AC)-S-P(DC) CONFIG. RIGHT ANGLE, BOARD-LOCK				
		3 PLACES ± --- ± .010		CHECKED BY PTL IM	DATE 2002/12/03	MOLEX INCORPORATED				
		2 PLACES ± 0.25 ± ---		APPROVED BY SKTOH	DATE 2002/12/03	DOCUMENT NO. SD-87663-010				
1 PLACE ± --- ± ---		ANGULAR ± 3 °		MATERIAL NO. SEE TABLE		SHEET NO. 2 OF 3				
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SIZE A3		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION						

PART NUMBER	P-S-P CONFIGURATION			POWER BLADE OPTIONS								STANDARD PIN			RECESSED PIN			VOID PIN LOCATION		PACKAGING		
	POWER ALPHA AC	SIGNAL	POWER BETA DC	DIM A	DIM B	DIM C	DIM D	DIM E	DIM F	DIM G	TYPE	DIM Z ±0.13/.005	LOCATION	ROW	COLUMN	LENGTH	ROW	COLUMN	LENGTH		ROW	COLUMN
87663-9000	3	24	5	86.36 3.400	78.74 3.100	77.47 3.050	62.88 2.475	27.94 1.100	12.70 .500	17.78 .700	SHORT CONTACT	13.32/.524	ALL	D C B A	1,2,3,4,6 1,2,4,5,6 1,2,3,4,5 1,2,4,5,6	5.59/.220	D C B A	5 3 6 3	4.32/.170	D C B A	NIL	TRAY
87663-9001	3	24	6	92.71 3.650	85.09 3.350	83.82 3.300	69.22 2.725	34.29 1.350	12.70 .500	17.78 .700	LONG CONTACT	14.12/.556	ALL	D C B A	1 - 6 1 - 6 1 - 6 2,3,4,5,6	6.86/.270	D C B A	- - - 1	5.59/.220	D C B A	NIL	TRAY
87663-9002	3	24	4	80.01 3.150	72.39 2.850	71.12 2.800	56.52 2.225	21.59 .850	12.70 .500	17.78 .700	LONG CONTACT	14.12/.556	ALL	D C B A	1 - 6 1 - 6 1,2,3,5,6 1 - 6	6.45/.254	D C B A	- - 4 -	5.18/.204	D C B A	NIL	TRAY
87663-9003	3	24	5	86.36 3.400	78.74 3.100	77.47 3.050	62.88 2.475	27.94 1.100	12.70 .500	17.78 .700	LONG CONTACT	14.12/.556	ALL	D C B A	1,2,3,4,6 1,2,4,5,6 1,2,3,4,5 1,2,4,5,6	6.86/.270	D C B A	5 3 6 3	5.59/.220	D C B A	NIL	TRAY
87663-9004	3	24	2	67.31 2.650	59.69 2.350	58.42 2.300	43.82 1.725	8.890 0.350	12.70 .500	17.78 .700	LONG CONTACT	14.12/.556	ALL	D C B A	1,2,4,5,6 1 - 6 1,2,4,5,6 1 - 6	6.86/.270	D C B A	3 - 3 -	5.59/.220	D C B A	NIL	TRAY
87663-9005	4	16	4	82.55 3.250	74.93 2.950	73.66 2.900	59.06 2.325	21.59 0.850	7.62 .300	25.40 1.000	LONG CONTACT	14.12/.556	ALL	D C B A	ALL	6.86/.270	D C B A	NIL	NIL	D C B A	NIL	TRAY
87663-9006	3	24	5	86.36 3.400	78.74 3.100	77.47 3.050	62.88 2.475	27.94 1.100	12.70 .500	17.78 .700	LONG CONTACT	14.12/.556	ALL	D C B A	4,5,6 4,5,6 4,5,6 4,5,6	6.86/.270	D C B A	NIL	NIL	D C B A	1,2,3 1,2,3 1,2,3 1,2,3	TRAY
87663-9007	4	16	6	95.25 3.750	87.63 3.450	86.36 3.400	71.76 2.825	34.29 1.350	7.62 .300	25.40 1.000	LONG CONTACT	14.12/.556	ALL	D C B A	ALL	6.86/.270	D C B A	NIL	NIL	D C B A	NIL	TRAY

PDR#S-001538-00-00 EC NO: S2007-0817 DRAWING: MENARLY 2007/03/28 CHKD: SKANG 2007/03/28 APPR: MLONG 2007/03/28	QUALITY SYMBOLS =0 =0.010 =0.25	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM/IN		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION			
		4 PLACES ± --- ± ---	3 PLACES ± --- ± .010	2 PLACES ± 0.25 ± ---	1 PLACE ± --- ± ---	DRAWN BY BHLW	DATE 2002/11/27	TITLE AC/DC POWER CONN. HEADER P(AC)-S-P(DC) CONFIG. RIGHT ANGLE, BOARD-LOCK			
		ANGULAR ± 3 °				APPROVED BY SKT0H	DATE 2002/12/03	MOLEX INCORPORATED			
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS				MATERIAL NO. SEE TABLE	DOCUMENT NO. SD-87663-010	SHEET NO. 3 OF 3			