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Part Number: [0876639004](#)
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, 29 Circuits, Power Alpha 3, Signal 24, Power Beta 2, Long Contact, with Bevel

Documents:

[3D Model](#)
[Drawing \(PDF\)](#)

[RoHS Certificate of Compliance \(PDF\)](#)

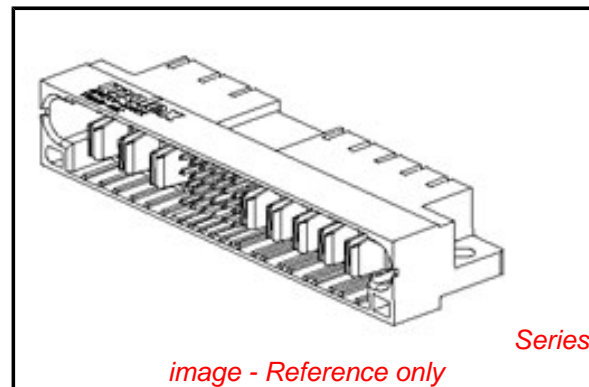
General

Product Family	PCB Headers
Series	87663
Application	Board-to-Board
Comments	Long Blade Recessed Signal Pins : B3, D3
Overview	extreme powerplus ssi
Product Literature Order No	987650-3002
Product Name	EXTreme PowerPlus™

Physical

Breakaway	No
Circuits (Loaded)	29
Circuits Detail	Power Alpha 3, Signal 24, Power Beta 2
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
 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

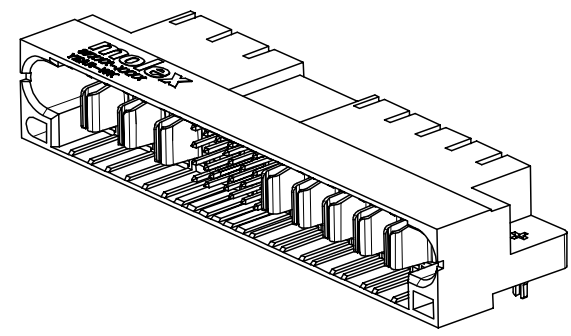
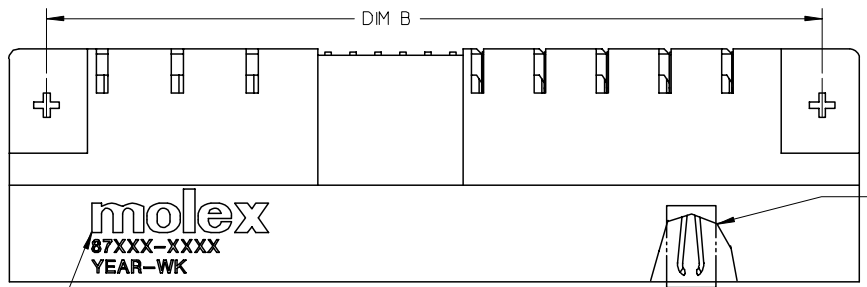
Reference - Drawing Numbers

Application Specification	AS-87631-018
Sales Drawing	SD-87663-010

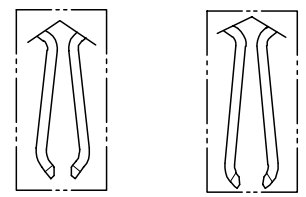
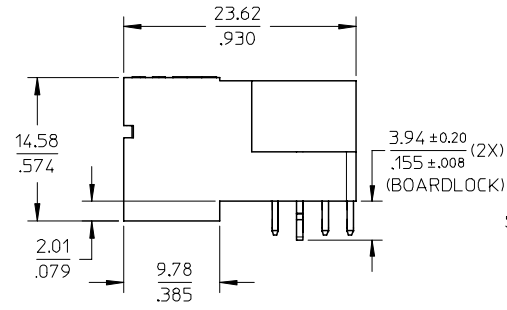
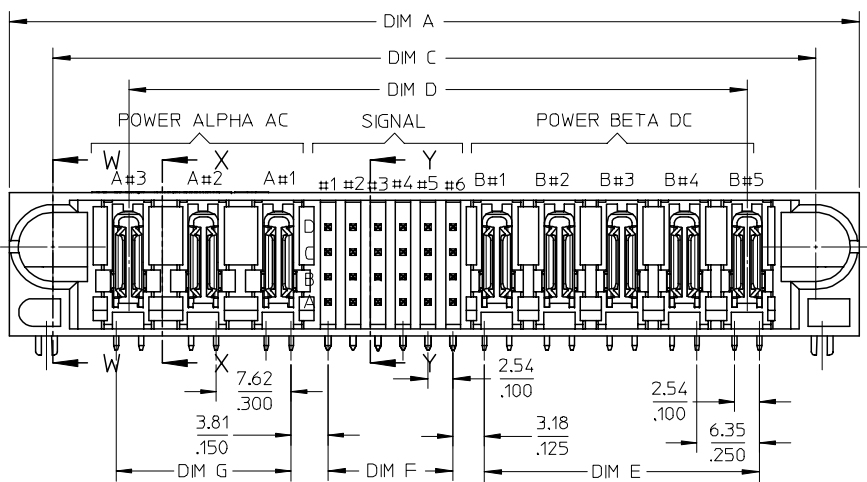
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ISOMETRIC VIEW
3P(AC)-24S-5P(DC) FOR ILLUSTRATION



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.

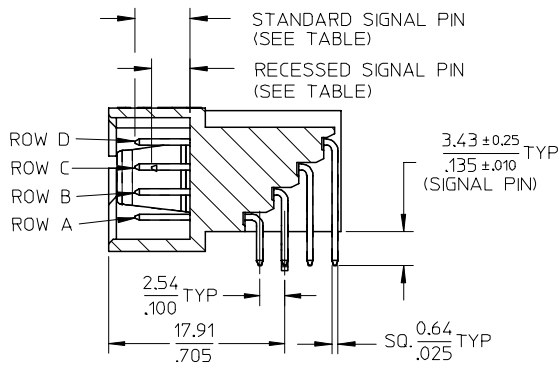
PDR#S-001538-00-00
EC NO: S2007-0817
DRAWN:GEMENARLY
CHKD:SKANG
APPR:MLONG
2007/03/28
2007/03/28
2007/03/28

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		

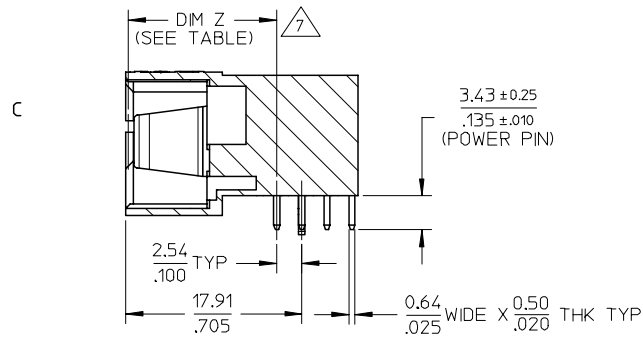
DIMENSION STYLE		SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
MM/IN		NTS	METRIC	
DRAWN BY	DATE	TITLE	AC/DC POWER CONN. HEADER	
BHLOW	2002/11/27	P(AC)-S-P(DC) CONFIG.	RIGHT ANGLE, BOARD-LOCK	
CHECKED BY	DATE	MOLEX INCORPORATED		
PTL IM	2002/12/03	SD-87663-010		
APPROVED BY	DATE	SHEET NO.		
SKTOH	2002/12/03	1 OF 3		
MATERIAL NO.		DOCUMENT NO.		
SEE TABLE		SD-87663-010		
SIZE	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			
A3				

9 8 7 6 5 4 3 2 1



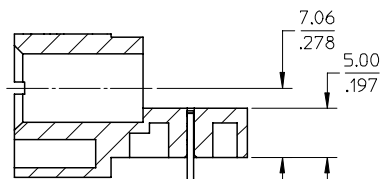
(TERMINAL LOCKING DETAIL NOT SHOWN)

SECTION Y-Y

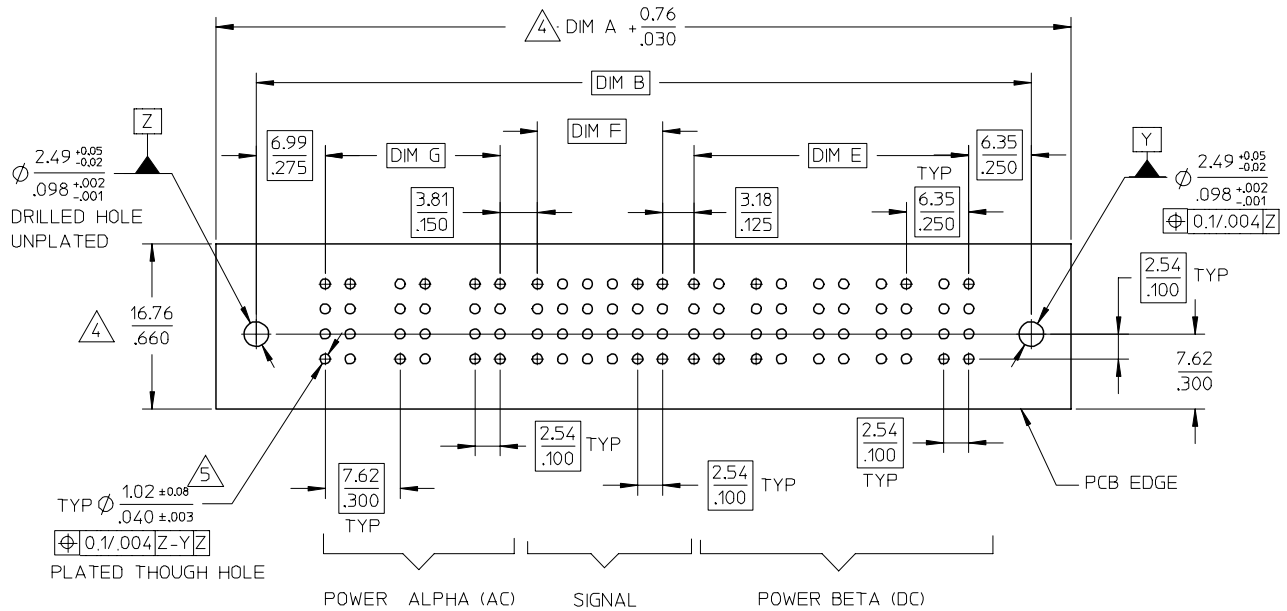


(TERMINAL LOCKING DETAIL NOT SHOWN)

SECTION X-X



SECTION W-W



RECOMMENDED PCB LAYOUT

PDR# S-001538-00-00	EC NO: S2007-0817	2007/03/28	2007/03/28
DRWN: GEMENARY	CHKD: SKANG	2007/03/28	2007/03/28
APPR: MLONG			
REV	DESCRIPTION		
D3			

QUALITY SYMBOLS	▽=0	▽=0
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GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	
	MM	INCH
4 PLACES	± .10	± .005
3 PLACES	± .15	± .005
2 PLACES	± .25	± .005
1 PLACE	± .50	± .005
ANGULAR ± 3°		
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		

DRAWN BY	DATE
BHLOW	2002/11/27
CHECKED BY	DATE
PTL IM	2002/12/03
APPROVED BY	DATE
SKTOH	2002/12/03
MATERIAL NO.	
SEE TABLE	

SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
NTS	METRIC	
TITLE		
AC/DC POWER CONN. HEADER		
P(AC)-S-P(DC) CONFIG.		
RIGHT ANGLE, BOARD-LOCK		
MOLEX INCORPORATED		
DOCUMENT NO.	SHEET NO.	
SD-87663-010	2 OF 3	

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	△ POWER BLADE OPTIONS		ROW	COLUMN	LENGTH	ROW	COLUMN	LENGTH	ROW		COLUMN	
											TYPE	DIM Z ±0.13/.005										LOCATION
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 DRAWN: GEMEARLY 2007/03/28 CHKD: SKANG 2007/03/28 APPR: MLONG 2007/03/28 REV: D3	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE MM/IN	SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION
	▽=0	4 PLACES ± --- ± ---	DRAWN BY DATE	TITLE	MOLEX INCORPORATED	SHEET NO. 3 OF 3
	∇=0	3 PLACES ± --- ± .010	BHLOW 2002/11/27			
		2 PLACES ± 0.25 ± ---	CHECKED BY DATE	AC/DC POWER CONN. HEADER P(AC)-S-P(DC) CONFIG. RIGHT ANGLE, BOARD-LOCK		
		1 PLACE ± --- ± ---	APPROVED BY DATE	PTL IM 2002/12/03		
	ANGULAR ± 3 °	SKT0H 2002/12/03	DOCUMENT NO. SD-87663-010			
	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	MATERIAL NO.	SEE TABLE			
		SIZE A3	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			