

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

**Part Number:** **0876151008**  
**Status:** **Active**  
**Overview:** extreme\_powerplus\_ssi  
**Description:** 6.35mm (.250") Pitch Power, 2.54mm (.100") Pitch Signal, EXTreme PowerPlus™ (SSI) MPS Header, Through Hole, Right Angle, 35 Circuits, Short Power Blade Contact, without Beveled Metal Pin, Lead-free

**Documents:**

[3D Model](#) [Product Specification PS-87615-005 \(PDF\)](#)  
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

**General**

Product Family	PCB Headers
Series	87615
Application	Board-to-Board
Comments	<LI>Short Blade<LI>Recessed Signal Pin : A6
Overview	<u>extreme_powerplus_ssi</u>
Product Name	EXTreme PowerPlus™

**Physical**

Breakaway	No
Circuits (Loaded)	35
Circuits Detail	Power Alpha 5, Signal 24, Power Beta 6
Color - Resin	Black
Durability (mating cycles max)	100
First Mate / Last Break	Yes
Glow-Wire Compliant	No
Guide to Mating Part	Yes
Keying to Mating Part	None
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 Retention	Yes
PCB Thickness Recommended (in)	0.062 In
PCB Thickness Recommended (mm)	1.60 mm
Packaging Type	Tray
Pitch - Mating Interface (in)	0.100 In, 0.250 In
Pitch - Mating Interface (mm)	2.54 mm, 6.35 mm
Plating min: Mating (µin)	30
Plating min: Mating (µm)	0.76
Plating min: Termination (µin)	101.6
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 +70°C
Termination Interface: Style	Through Hole

**Electrical**

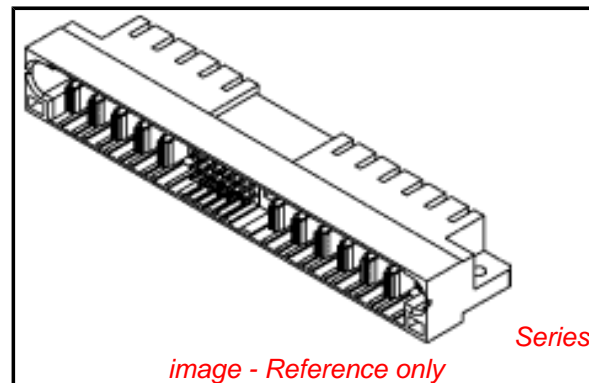


image - Reference only

**EU RoHS**

**ELV and RoHS Compliant**  
**REACH SVHC Contains SVHC: No**  
**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**

87615Series

**Mates With**

87616 EXTreme PowerPlus™ (SSI) MPS Receptacle, Through Hole. 87665 EXTreme PowerPlus™ (SSI) MPS Receptacle, Press Fit

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

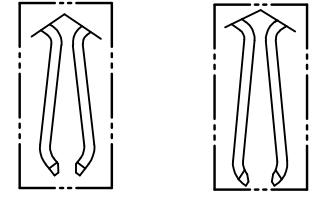
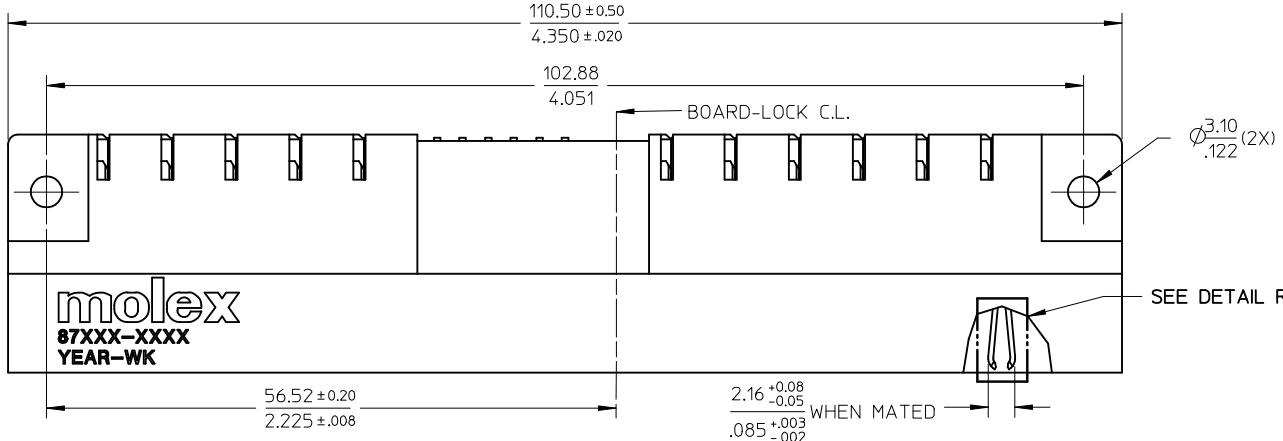
### **Material Info**

### **Reference - Drawing Numbers**

Application Specification	AS-87631-018
Product Specification	PS-87615-005
Sales Drawing	SD-87615-010

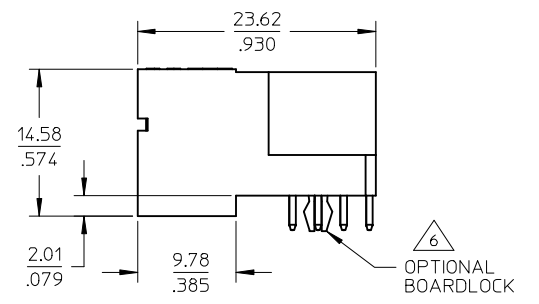
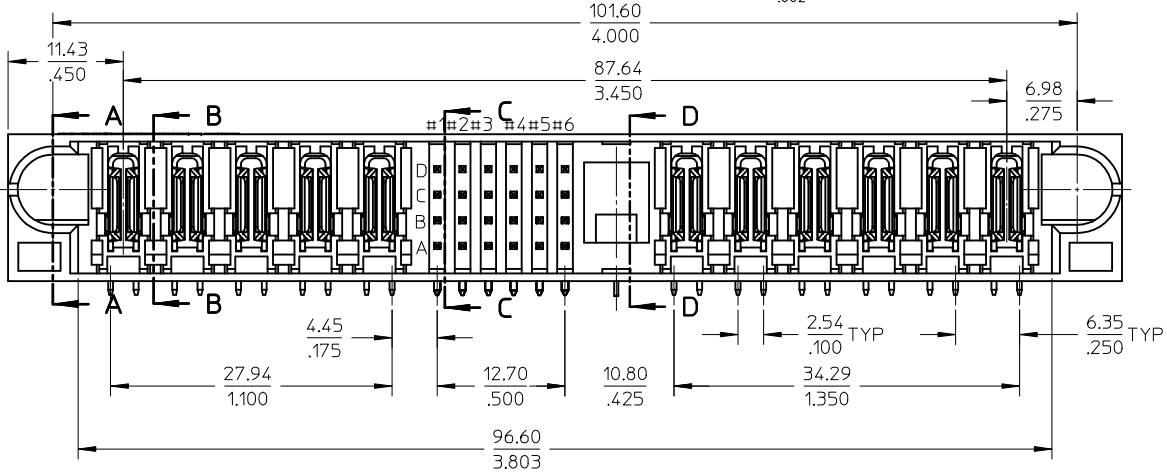
This document was generated on 05/25/2010

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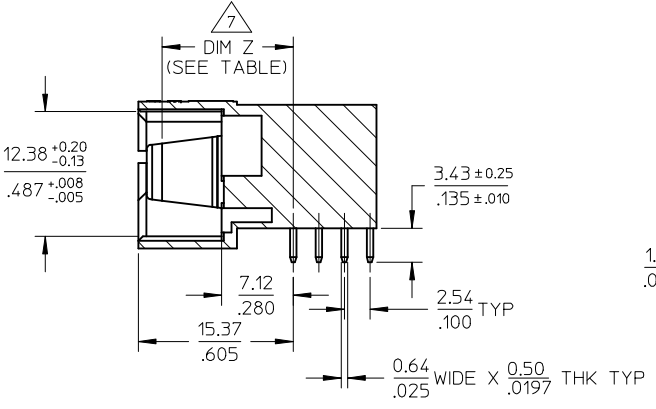


SHORT BLADE OPTION LONG BLADE OPTION

DETAIL R  
(SEE TABLE FOR BLADE OPTION)

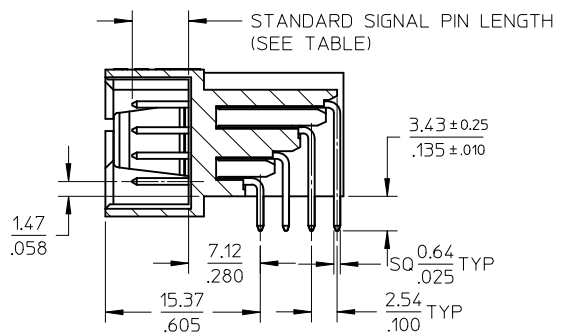


CORRECT PCB HOLE SIZE EC NO: S2009-0475 DRWN:SKANG CHKD:ATSEE APPR:MLONG	2009/01/16 2009/01/20 2009/02/05	DESCRIPTION D3	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
			▼=0 ◻=0	mm      INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± .010 2 PLACES ± 0.25 ± --- 1 PLACE ± --- ± --- ANGULAR ± 3 °	MM/IN	NTS	METRIC	
				DRAWN BY: BHLOW      DATE: 2002/11/20 CHECKED BY: PTLIM      DATE: 2002/11/26 APPROVED BY: SKTOH      DATE: 2002/11/27	TITLE	MPS HEADER, 5P-24S-6P CONFIG., R/A, T/H		
			DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	SEE TABLE	MATERIAL NO.      DOCUMENT NO.      SHEET NO. MOLEX INCORPORATED      SD-87615-010      1 OF 3			



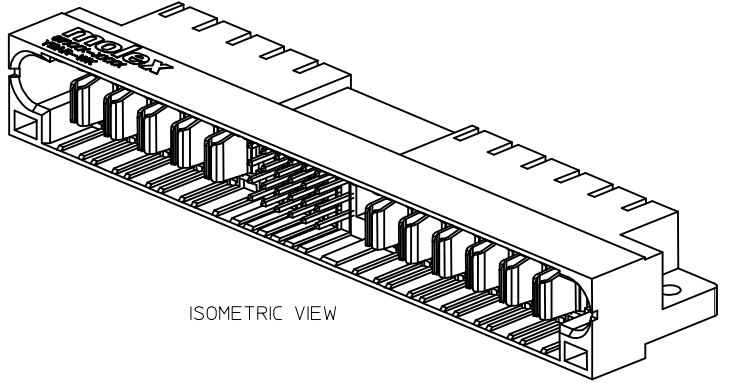
(TERMINAL LOCKING  
DETAIL NOT SHOWN)

SECTION B-B



(TERMINAL LOCKING  
DETAIL NOT SHOWN)

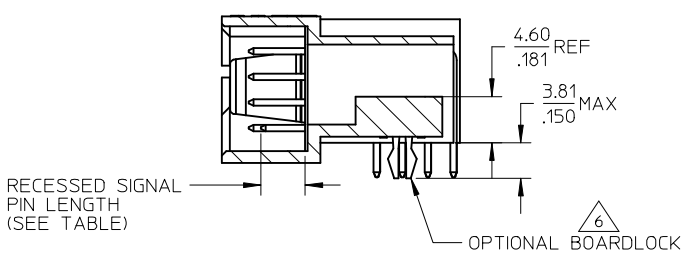
SECTION C-C



ISOMETRIC VIEW

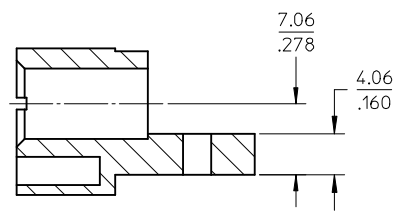
NOTES:

1. MATERIALS: HOUSING - LCP, GLASS FILLED, UL 94V-0, COLOUR: BLACK  
POWER PINS - COPPER ALLOY  
SIGNAL PINS - COPPER ALLOY  
BOARDLOCK - STAINLESS STEEL.
2. FINISHES: POWER & SIGNAL PINS:  
SELECTIVE GOLD IN 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 SPECIFICATION: PS-87615-005.
4. SEE SHEET 3 FOR RECOMMENDED PCB LAYOUT AND THICKNESS.
5. MATES WITH MOLEX PART NUMBER: 87616-0001.
6. OPTIONAL BOARD-LOCK DEPENDS ON PCBA DESIGN AND PROCESS REQUIREMENTS.
7. LONG AND SHORT CONTACT BLADE OPTIONS ARE AVAILABLE FOR DIFFRENT CUSTOMER'S REQUIREMENTS.



(TERMINAL LOCKING  
DETAIL NOT SHOWN)

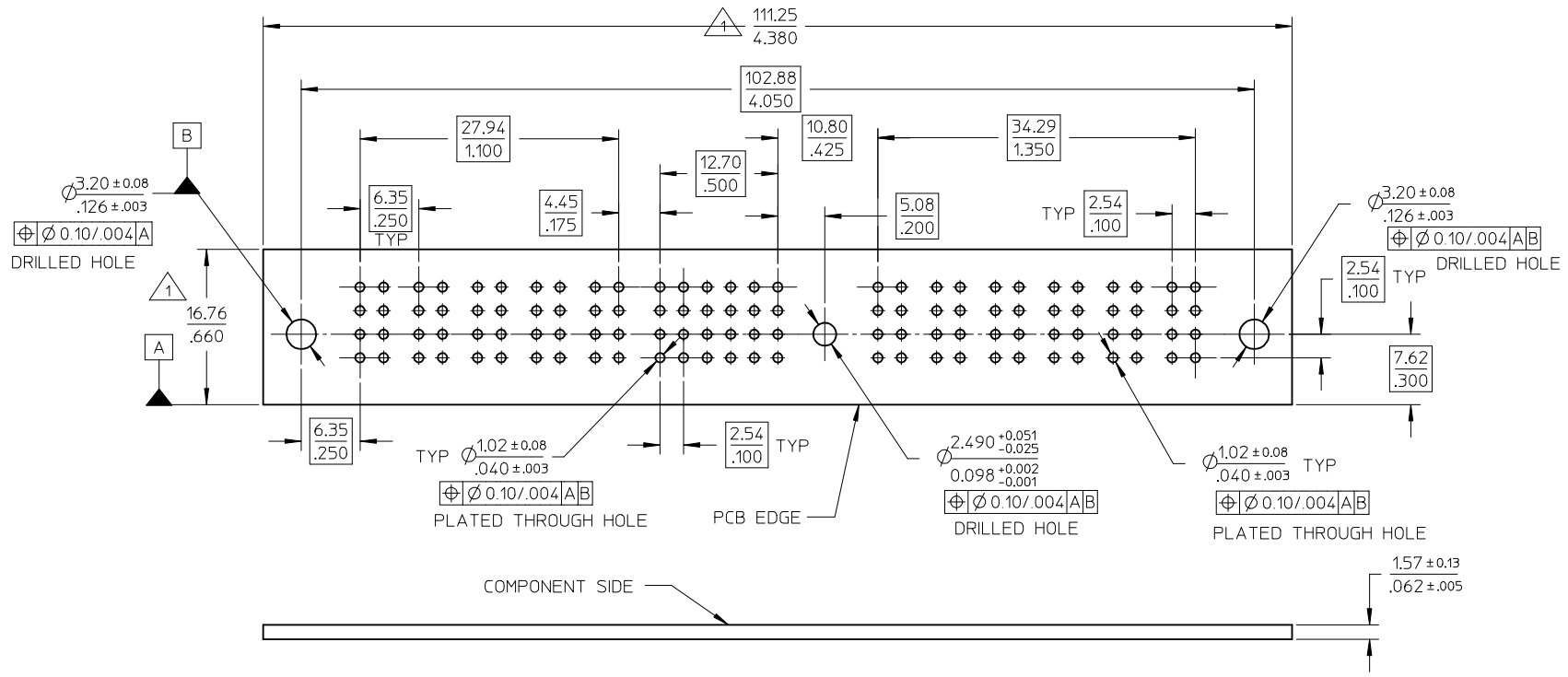
SECTION D-D



SECTION A-A

CORRECT PCB HOLE SIZE EC NO: S2009-0475 DRWN:SKANG 2009/01/16 CHKD:ATSEE 2009/01/20 APPR:MLONG 2009/02/05	QUALITY SYMBOLS ▽=0 ◻=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION	
				MM/IN	NTS	METRIC		
		mm	INCH	DRAWN BY	DATE	TITLE		
		4 PLACES	± --- ± ---	BHLOW	2002/11/20	MPS HEADER, 5P-24S-6P CONFIG., R/A, T/H		
3 PLACES	± --- ± .010	CHECKED BY	DATE	MOLEX INCORPORATED				
2 PLACES	± 0.25 ± ---	PTL IM	2002/11/26	DOCUMENT NO.				
1 PLACE	± --- ± ---	APPROVED BY	DATE	SHEET NO.				
ANGULAR ± 3 °		SKTOH	2002/11/27	SD-87615-010				
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		MATERIAL NO.		SEE TABLE				
D3		SIZE		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION				

PART NUMBER	PART STATUS	PACKAGING	OPTIONAL BOARDLOCK △6	△7 POWER BLADE OPTIONS		STANDARD SIGNAL PIN LENGTH	RECESSED SIGNAL PIN	
				TYPE	DIMENSION Z ± 0.13/.005		LENGTH	LOCATION
87615-1001	TOOLED	TRAY	WITH BOARDLOCK	SHORT CONTACT	13.32/.524	5.59/.220	4.32/.170	A6
87615-1008	TOOLED	TRAY	WITHOUT BOARDLOCK	SHORT CONTACT	13.32/.524	5.59/.220	4.32/.170	A6
87615-1009	TOOLED	TRAY	WITH BOARDLOCK	LONG CONTACT	14.12/.556	6.86/.270	5.59/.220	A6



PCB NOTES:  
 △1. CONNECTOR ENVELOP DIMENSIONS, OTHER COMPONENTS PLACED ON PCB SHALL AVOID THIS ZONE.

<b>CORRECT PCB HOLE SIZE</b> EC NO: S2009-0475 DRWN:SKANG 2009/01/16 CH'KD:ATSEE 2009/01/20 APPR:WILONG 2009/02/05 REV D3	QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED) <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	± ---	± ---	DIMENSION STYLE <b>MM/IN</b>	SCALE <b>NTS</b>	DESIGN UNITS <b>METRIC</b>	THIRD ANGLE PROJECTION
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		MATERIAL NO. <b>SEE TABLE</b>	DOCUMENT NO. <b>SD-87615-010</b>	SHEET NO. <b>3 OF 3</b>																	
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