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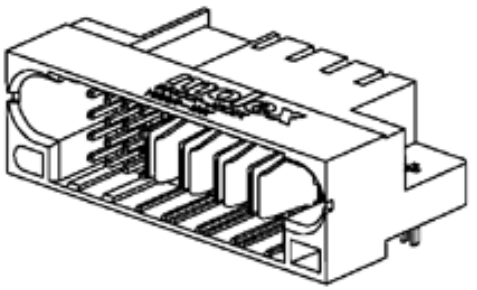
# PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

**Part Number:** 0878072002
**Status:** Active
**Overview:** extreme_powerplus_ssi
**Description:** 5.08mm (.200") Pitch Power, 2.54mm (.100") Pitch Signal, EXTreme PowerPlus™ S-P(B) Header, Through Hole, Right Angle, Screw Mount, 22 Circuits, Signal 16, Power Beta 6, Recessed Signal Pin A1, Lead-free



*Series image - Reference only*

**Documents:**

- 3D Model
- Drawing (PDF)
- Product Specification PS-87805-006 (PDF)
- RoHS Certificate of Compliance (PDF)

## Agency Certification

| | |
|---|---|
| CSA | LR19980 |
| UL | E29179 |

## General

| | |
|---|---|
| Product Family | PCB Headers |
| Series | 87807 |
| Application | Board-to-Board |
| Comments | Recessed Signal Pin: A1 |
| Overview | extreme_powerplus_ssi |
| Product Name | EXTreme PowerPlus™ |

## Physical

| | |
|---|---|
| Breakaway | No |
| Circuits (Loaded) | 22 |
| Circuits Detail | Signal 16\|Power Beta 6 |
| Color - Resin | Black |
| Durability (mating cycles max) | 100 |
| First Mate / Last Break | Yes |
| Flammability | 94V-0 |
| Glow-Wire Compliant | No |
| Guide to Mating Part | Yes |
| Keying to Mating Part | Yes |
| 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 Locator | No |
| PCB Retention | Yes |
| Packaging Type | Tray |
| Pitch - Mating Interface (in) | 0.100 In, 0.200 In |
| Pitch - Mating Interface (mm) | 2.54 mm, 5.08 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 |

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

**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**
87807Series

| | |
|---|---|
| Temperature Range - Operating | -20°C to +105°C |
| Termination Interface: Style | Through Hole |

## Electrical

| | |
|---|---|
| Current - Maximum per Contact | 2.5A, 30A |
| Voltage - Maximum | 250V (RMS) |

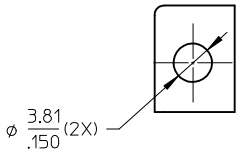
## Solder Process Data

| | |
|---|---|
| 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 |

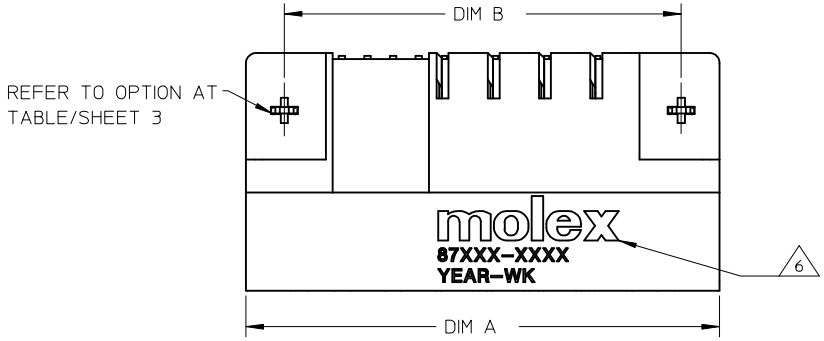
## Material Info

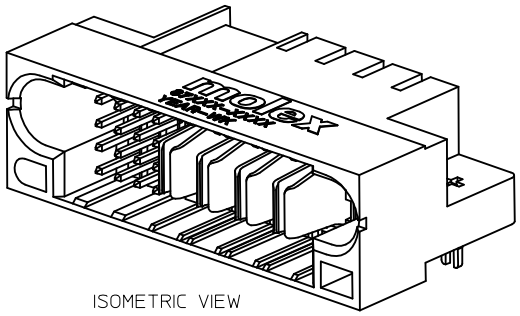
## Reference - Drawing Numbers

| | |
|---|---|
| Application Specification | AS-87631-018 |
| Product Specification | PS-87805-006 |
| Sales Drawing | SD-87807-001 |

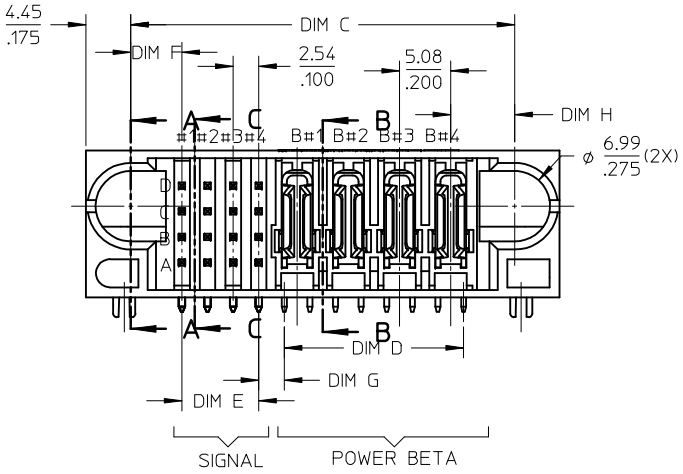


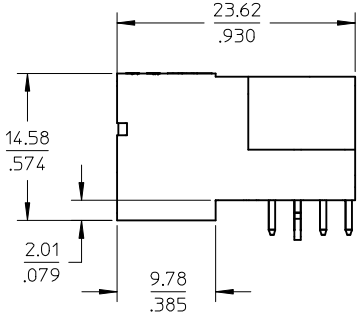

SCREWMOUNT OPTION
(SEE TABLE/SHEET 3)




ISOMETRIC VIEW




NOTES:

1. MATERIALS: HOUSING - LCP, GLASS FILLED, UL94V-0,
   COLOUR: BLACK
   POWER PINS - COPPER ALLOY
   SIGNAL PINS - COPPER ALLOY
   BOARDLOCK - COPPER ALLOY
2. FINISHES: POWER & SIGNAL PINS:
   SELECTIVE GOLD IN CONTACT AREA.
   THICKNESS= 0.76 MICROMETER/ 30 MICROINCH MINIMUM
   SELECTIVE TIN ALLOY IN THE PC TAIL AREA
   THICKNESS= 2.54 MICROMETER/100 MICROINCH MINIMUM
   NICKEL OVERALL.
3. PRODUCT SPECIFICATION: PS-87805-006.
4. SEE SHEET 2 FOR RECOMMENDED PCB LAYOUT AND THICKNESS.
5. COMPONENT STAY AWAY ZONE FROM CONNECTOR.
6. MANUFACTURER LOGO, PART NUMBER AND YEAR-WEEK CODE.
7. PCB NOTE FOR DIAMETER 1.02/.040 PLATED HOLE.
   - DRILLED HOLE SIZE IS 1.151/.0453.
   - PLATED 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.
8. 16 SIGNAL-4P BETA CONFIGUARTION IS SHOWN FOR ILLUSTRATION.
9. FOR SCREWMOUNT OPTION, THE DRILLED HOLE DIAMETER IS 4.01MM/.158".

ADD P/N(87807-2011) 2009/03/27
EC NO: S2009-0688 2009/03/30
DRWN:YMCHONG CH'KD:ATSEE APPR:MLONG 2009/03/30
DESCRIPTION
REV
C5

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

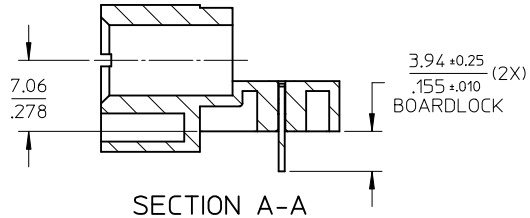
DIMENSION STYLE: MM/IN
SCALE: NTS
DESIGN UNITS: METRIC
THIRD ANGLE PROJECTION

| | |
|---|---|
| DRAWN BY | NRVITTAP |
| DATE | 2004/03/26 |
| CHECKED BY | BHLOW |
| DATE | 2004/04/14 |
| APPROVED BY | SCLOW |
| DATE | 2004/04/19 |

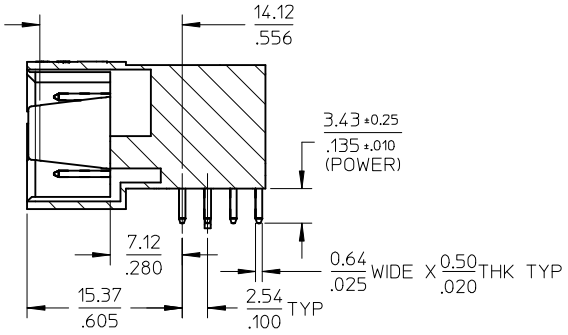
TITLE: POWER CONNECTOR HEADER 5.08MM VERSION S-P(B), R/A, T/H

MOLEX INCORPORATED

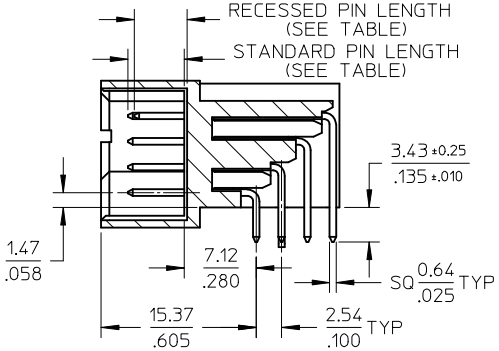
MATERIAL NO.: SEE TABLE
DOCUMENT NO.: SD-87807-001
SHEET NO.: 1 OF 3
SIZE: A3



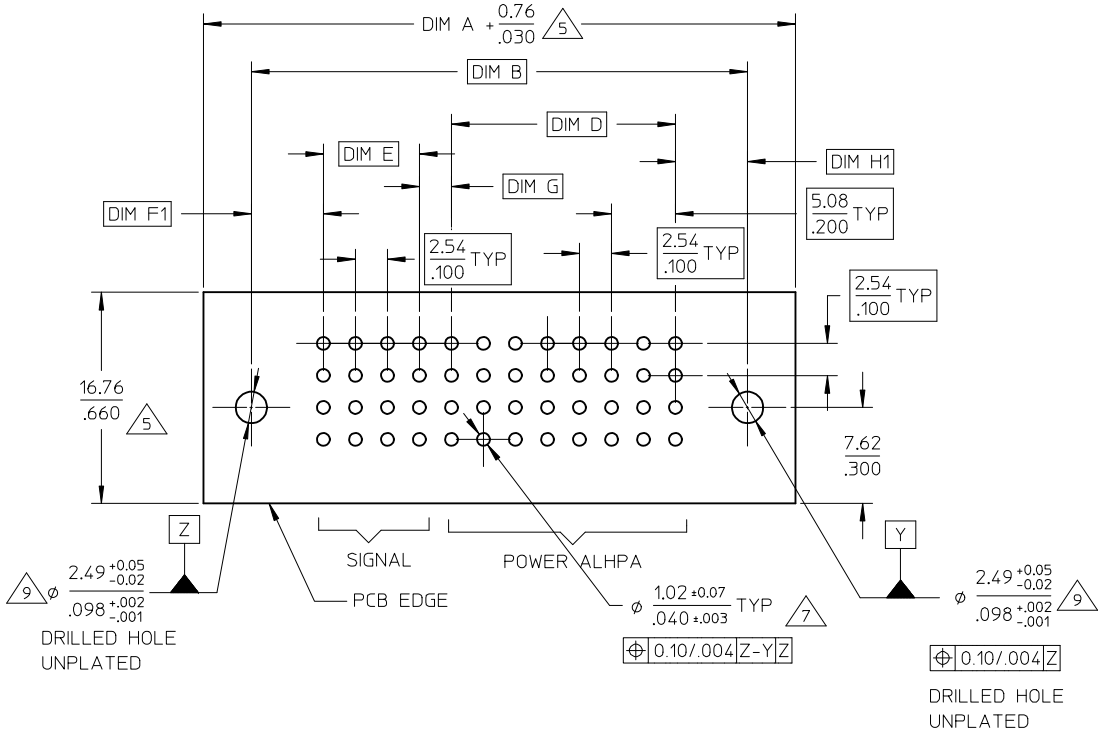

SECTION A-A




SECTION B-B




SECTION C-C




RECOMMENDED PCB LAYOUT

PCB THICKNESS 1.57mm/0.062"

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DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

DIMENSION STYLE: MM/IN
SCALE: NTS
DESIGN UNITS: METRIC
THIRD ANGLE PROJECTION

DRAWN BY: NRVITTAP DATE: 2004/03/26
CHECKED BY: BHLOW DATE: 2004/04/14
APPROVED BY: SCLOW DATE: 2004/04/19

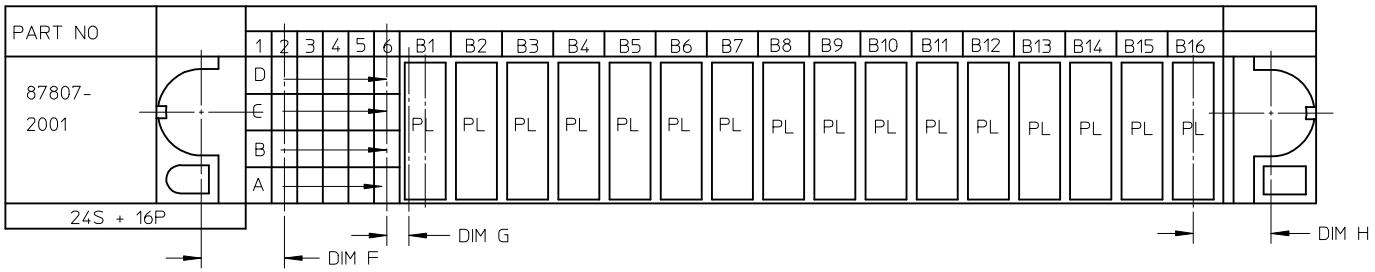
TITLE: POWER CONNECTOR HEADER 5.08MM VERSION S-P(B), R/A, T/H

MOLEX INCORPORATED

MATERIAL NO.: SEE TABLE
DOCUMENT NO.: SD-87807-001
SHEET NO.: 2 OF 3

SIZE: A3

| PART NUMBER | P-S-P CONFIGURATION | | DIM A | DIM B | DIM C | DIM D | DIM E | STANDARD SIGNAL PIN LENGTH | RECESSED SIGNAL PIN | | PACKAGING | DIM F | DIM F1 | DIM G | DIM H | DIM H1 | BOARDLOCK OR SCREWMOUNT OPTION |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | SIGNAL | POWER BETA | | | | | | | LENGTH | LOCATION | | | | | | | |
| 87807-2001 | 24 | 16 | 114.3 / 4.500 | 106.68 / 4.200 | 105.41 / 4.150 | 78.74 / 3.100 | 12.70 / .500 | 6.86/.270 | 5.59/.220 | B3, C1, D1 | TRAY | 5.08 / .200 | 5.72 / .225 | 3.18 / .125 | 6.98 / .275 | 6.35 / .250 | SCREWMOUNT |
| 87807-2002 | 16 | 6 | 58.42 / 2.300 | 50.80 / 2.000 | 49.53 / 1.950 | 27.94 / 1.100 | 7.62 / .300 | 6.86/.270 | 5.59/.220 | A1 | TRAY | 5.08 / .200 | 5.72 / .225 | 3.18 / .125 | 6.98 / .275 | 6.35 / .250 | SCREWMOUNT |
| 87807-2003 | 24 | 6 | 63.51 / 2.500 | 55.89 / 2.200 | 54.61 / 2.150 | 27.94 / 1.100 | 12.70 / .500 | 6.86/.270 | 5.59/.220 | A1 | TRAY | 5.08 / .200 | 5.72 / .225 | 3.18 / .125 | 6.98 / .275 | 6.35 / .250 | BOARDLOCK |
| 87807-2004 | 24 | 6 | 63.51 / 2.500 | 55.89 / 2.200 | 54.61 / 2.150 | 27.94 / 1.100 | 12.70 / .500 | 6.86/.270 | 5.59/.220 | A1 | TRAY | 5.08 / .200 | 5.72 / .225 | 3.18 / .125 | 6.98 / .275 | 6.35 / .250 | SCREWMOUNT |
| 87807-2005 | 24 | 6 | 63.51 / 2.500 | 55.89 / 2.200 | 54.61 / 2.150 | 27.94 / 1.100 | 12.70 / .500 | 6.86/.270 | 5.59/.220 | A1, B5, C5 | TRAY | 5.08 / .200 | 5.72 / .225 | 3.18 / .125 | 6.98 / .275 | 6.35 / .250 | SCREWMOUNT |
| 87807-2006 | 24 | 6 | 63.51 / 2.500 | 55.89 / 2.200 | 54.61 / 2.150 | 27.94 / 1.100 | 12.70 / .500 | 6.86/.270 | 5.59/.220 | A1, B5, C5, C6 | TRAY | 5.08 / .200 | 5.72 / .225 | 3.18 / .125 | 6.98 / .275 | 6.35 / .250 | SCREWMOUNT |
| 87807-2007 | 24 | 6 | 63.51 / 2.500 | 55.89 / 2.200 | 54.61 / 2.150 | 27.94 / 1.100 | 12.70 / .500 | 6.86/.270 | 5.59/.220 | A1 TO A6 | TRAY | 5.08 / .200 | 5.72 / .225 | 3.18 / .125 | 6.98 / .275 | 6.35 / .250 | SCREWMOUNT |
| 87807-2010 | 24 | 10 | 83.83 / 3.300 | 76.21 / 3.000 | 74.93 / 2.950 | 48.26 / 1.900 | 12.70 / .500 | 6.86/.270 | 5.59/.220 | A2, A4, B4, C4, D6 | TRAY | 5.08 / .200 | 5.72 / .225 | 3.18 / .125 | 6.98 / .275 | 6.35 / .250 | SCREWMOUNT |
| 87807-2011 | 24 | 10 | 83.83 / 3.300 | 76.21 / 3.000 | 74.93 / 2.950 | 48.26 / 1.900 | 12.70 / .500 | 6.86/.270 | 5.59/.220 | A2, A4, B4, C4, D6 | TRAY | 5.08 / .200 | 5.72 / .225 | 3.18 / .125 | 6.98 / .275 | 6.35 / .250 | BOARDLOCK |

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