

# Product Data Sheet

Colibri Receptacle 440,  
Part No. 402-51501-51



Illustration similar



Parallel



SMT



High Density



High Speed

- for all PCB pitch sizes
- number of positions: 440
- termination technology SMT
- pitch: 0.5 mm
- data rate up to 25+ Gbit/s
- for PCIe Gen 4



» to product on [www.ept.de](http://www.ept.de)



» to product group Colibri - 0.5 mm SMT

# Product Data Sheet

## Colibri Receptacle 440, Part No. 402-51501-51



### Technical Specifications

#### Basics

|                             |                       |
|-----------------------------|-----------------------|
| Specification               | PICMG® COM.0 Rev. 3.1 |
| No. of Contacts             | 440                   |
| Termination Technology      | SMT                   |
| Board-to-Board Distance     | 5 mm & 8 mm           |
| Operating Temperature Range | -40°C to +125°C       |

#### Material

|                               |                  |
|-------------------------------|------------------|
| Insulator Material            | LCP, UL 94 V-0   |
| CTI value<br><i>IEC 60112</i> | 175              |
| Contact Material              | copper alloy     |
| Plating                       | gold over nickel |
| Termination area              | Au flash over Ni |

#### Mechanical

|                                   |                                                   |
|-----------------------------------|---------------------------------------------------|
| Pitch                             | 0.5 mm                                            |
| Mating Force per Pin              | max. 0.9 N                                        |
| Separating Force per Pin          | at least 0.1 N                                    |
| Durability                        | 30 mating cycles                                  |
| Coplanarity                       | max. 0.1 mm                                       |
| Center offset in the x direction  | ± 0.4 mm                                          |
| Center offset in the y direction  | ± 0.19 mm                                         |
| Axial offset when mated (x/y)     | ± 0.1 mm (8 mm height) / ± 0.115 mm (5 mm height) |
| Angular offset in the x direction | ± 2°                                              |

#### Electrical

|                        |                  |
|------------------------|------------------|
| Operational Current    | max. 0.5 A       |
| Operational Voltage    | 50 VAC           |
| Test Voltage           | 200 VAC          |
| Contact Resistance     | max. 75 mΩ       |
| Clearance and Creepage | ≥ 0.2 mm         |
| Insulation Resistance  | > 100 MΩ         |
| Data Transfer Rate     | up to 25+ Gbit/s |

#### Processing

|                       |                              |
|-----------------------|------------------------------|
| Soldering Temperature | 260°C according to J-STD-020 |
| MSL                   | 1                            |
| Assembly              | Pick and Place               |

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## Technical Specifications

### Approval / Compliance

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|             |                |
|-------------|----------------|
| UL file     | E130314        |
| Environment | RoHS compliant |

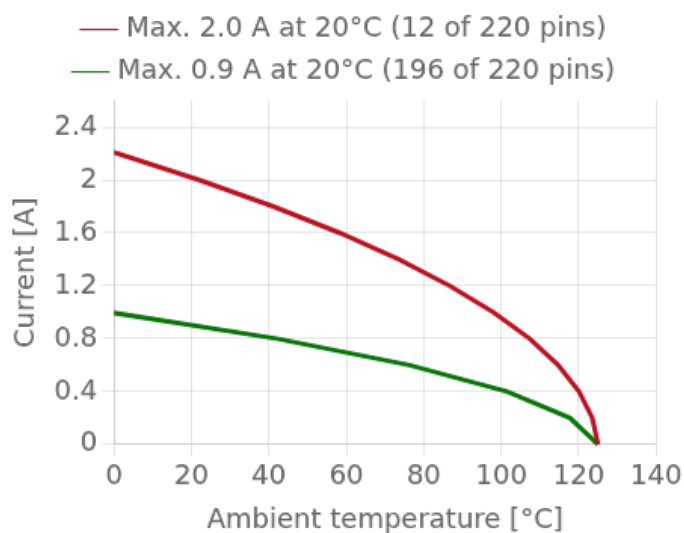
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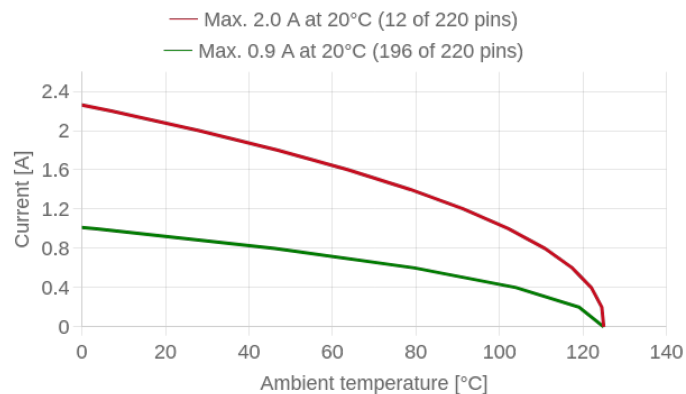


## Derating Diagram

### Colibri 25+

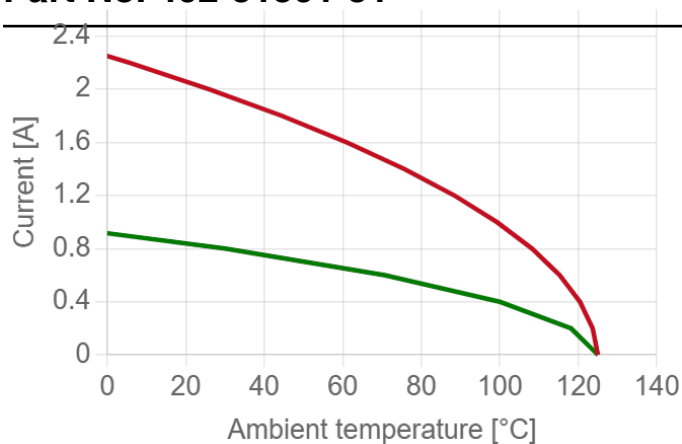


### Colibri 16+



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## Modifications

Available on request

- other pole counts
- alternative contact coatings

## Drawings

Component data in 2D and 3D format you can download here:

[» PDF](#)

[» 3D IGES](#)

[» 3D STEP](#)

[» 3D PDF](#)