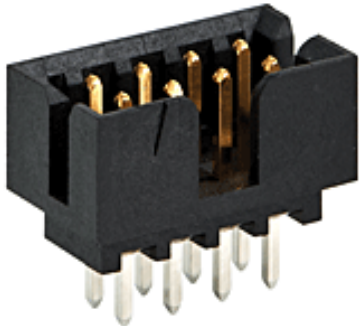


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**Part Number:** [0878314020](#)  
**Status:** **Active**  
**Overview:** [Milli-Grid Connector System](#)  
**Description:** 2.00mm Pitch, Milli-Grid PCB Header, Dual Row, Vertical, Through Hole, Shrouded, 40 Circuits, 0.38µm Gold (Au) Plating, with Center Polarization Slot, with Locking Window, without PCB Locator, Tube

**Documents:**  
[3D Model](#) [Application Specification 503940001-AS-000 \(PDF\)](#)  
[3D Model \(PDF\)](#) [Packaging Specification PK-87831-001-001 \(PDF\)](#)  
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)  
[Product Specification PS-87831-027-001 \(PDF\)](#)

|                                |                                                      |
|--------------------------------|------------------------------------------------------|
| <b>Agency Certification</b>    |                                                      |
| CSA                            | LR19980                                              |
| UL                             | E29179                                               |
| <b>General</b>                 |                                                      |
| Product Family                 | PCB Headers                                          |
| Series                         | <a href="#">87831</a>                                |
| Application                    | Signal, Wire-to-Board                                |
| Comments                       | Contact Molex for application in automotive industry |
| Overview                       | <a href="#">Milli-Grid Connector System</a>          |
| Product Name                   | Milli-Grid                                           |
| UPC                            | 822348272129                                         |
| <b>Physical</b>                |                                                      |
| Breakaway                      | No                                                   |
| Circuits (Loaded)              | 40                                                   |
| Circuits (maximum)             | 40                                                   |
| Color - Resin                  | Black                                                |
| Durability (mating cycles max) | 100                                                  |
| First Mate / Last Break        | No                                                   |
| Flammability                   | 94V-0                                                |
| Glow-Wire Capable              | No                                                   |
| Guide to Mating Part           | No                                                   |
| Keying to Mating Part          | None                                                 |
| Lock to Mating Part            | Yes                                                  |
| Material - Metal               | Phosphor Bronze                                      |
| Material - Plating Mating      | Gold                                                 |
| Material - Plating Termination | Tin                                                  |
| Material - Resin               | Nylon                                                |
| Net Weight                     | 1.837/g                                              |
| Number of Rows                 | 2                                                    |
| Orientation                    | Vertical                                             |
| PC Tail Length                 | 2.50mm                                               |
| PCB Locator                    | No                                                   |
| PCB Retention                  | None                                                 |
| PCB Thickness - Recommended    | 1.60mm                                               |
| Packaging Type                 | Tube                                                 |
| Pitch - Mating Interface       | 2.00mm                                               |
| Pitch - Termination Interface  | 2.00mm                                               |
| Plating min - Mating           | 0.381µm                                              |
| Plating min - Termination      | 1.905µm                                              |
| Polarized to PCB               | No                                                   |
| Shrouded                       | Yes                                                  |
| Stackable                      | No                                                   |



Series image - Reference only

|                                                                                                                                                                                                                                                      |                                                                                                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| <b>EU ELV</b><br><b>Not Relevant</b>                                                                                                                                                                                                                 |                                                                                                   |
| <b>EU RoHS</b><br><b>Compliant</b><br><b>REACH SVHC</b><br>Not Contained Per -<br>D(2021)4569-DC (8<br>July 2021)<br><b>Halogen-Free</b><br><b>Status</b><br><b>Not Low-Halogen</b><br>For more information, please visit <a href="#">Contact US</a> | <b>China RoHS</b><br><br><br><br><br><br><br><br><br><br><br>China ROHS<br>ELV<br>RoHS Phthalates |
| Green Image<br>Not Relevant<br>Not Contained                                                                                                                                                                                                         |                                                                                                   |

**Search Parts in this Series**  
[87831](#) Series

**Mates With**  
Milli-Grid Vertical Through Hole Receptacle [79107](#) , [78787](#) , Milli-Grid Flex-to-Board Vertical Receptacle [79108](#) , Milli-Grid Vertical Surface Mount Receptacle [79109](#) , [78788](#) , Milli-Grid Crimp Housing [51110](#) , Milli-Grid Cable-to-Board Receptacle [87568](#)

|                                                |                   |
|------------------------------------------------|-------------------|
| Surface Mount Compatible (SMC)                 | Yes               |
| Temperature Range - Operating                  | -55° to +105°C    |
| Termination Interface: Style                   | Through Hole      |
| <b>Electrical</b>                              |                   |
| Current - Maximum per Contact                  | 2.0A              |
| Voltage - Maximum                              | 125V              |
| <b>Solder Process Data</b>                     |                   |
| Duration at Max. Process Temperature (seconds) | 010               |
| Lead-freeProcess Capability                    | WAVE              |
| Max. Cycles at Max. Process Temperature        | 001               |
| Process Temperature max. C                     | 260               |
| <b>Material Info</b>                           |                   |
| <b>Reference - Drawing Numbers</b>             |                   |
| Application Specification                      | 503940001-AS-000  |
| Packaging Specification                        | PK-87831-001-001  |
| Product Specification                          | PS-87831-027-001  |
| Sales Drawing                                  | SD-87831-0001-001 |

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