

Datasheet for 76650-0187

**General Information**

**Part Number:** 76650-0187  
**Manufacturer:** Molex / Waldom  
**Title:** Milli-Grid Connector Kit  
**Description:** Shrouded Gold Vertical Header and Receptacle  
**Product Family:** Milli-Grid™  
**Certificates:** (Molex Parts within this kit) - EU RoHS Compliant, UL and CSA  
**Country of Origin:** Kit assembled in U.S.A.

**Specifications**

**Design**  
**Configuration:** Wire-to-Board  
**Pitch:** 2.0mm (.079")  
**Connector Type:** Receptacles and Headers  
**Mounting**  
**Orientation:** Vertical  
**Circuit Sizes:** 4, 6, 10; Latching: 14 and 16  
**Current Rating:** (0.5-2) Amps - Dependant on Wire Gauge  
**Voltage:** 125 VoltsDC  
**Wire Size:** 30-24 AWG

**Product Highlights**

Molex's Milli-Grid family of high density connectors is based on a 2.00 by 2.00mm (.079 by .079") grid pattern. Compared to traditional 2.54mm (.100") pitch connectors, Milli-Grid connectors offer up to 40% savings in PCB real estate.

Features and Benefits	Applications
<ul style="list-style-type: none"> <li>• Early entry terminal design for superior contact</li> <li>• Locking ramps provide strong retention force to header</li> <li>• Fully shrouded to protect pins during mating/unmating</li> <li>• Center polarization slot, prevents mismatching</li> <li>• Locking windows, secures firm locking to receptacle</li> <li>• Front latches for added retention forces after mating</li> </ul>	<ul style="list-style-type: none"> <li>• Office Automation: Printers, Fax machines, Scanners, Copiers</li> <li>• Telecom: Servers, Hubs, Switches, Routers</li> <li>• Other applications: Vending machines, Gaming machines, Fitness equipment</li> <li>• Computer / Peripherals: Disk Drives, Storage, Servers, Notebook PC, Modems, Motherboards, Monitors</li> <li>• Measuring / Analyzing Equipment: Security systems / alarms, Medical monitoring, Lab equipment</li> <li>• Entertainment: Set-top boxes, Car stereos, Video / DVD products</li> <li>• Brown Goods</li> </ul>






**For additional Molex / Waldom Design and Solution Kits please go to [www.molexkits.com](http://www.molexkits.com)**

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**Bill of Materials for Part No. 76650-0187**

Molex Part No.	Country of Origin	Description	Quantity in Kit
50394-8100-C	Singapore	Milli-Grid™ Female Crimp Gold Terminals (30-24) AWG	100
51110-0460	Singapore	2.00mm (.079") Pitch, Milli-Grid™ Receptacle, 4 Circuits, without Cntr Pol Key,	3
51110-0660	Singapore	2.00mm (.079") Pitch, Milli-Grid™ Receptacle, 6 Circuits, without Cntr Pol Key,	3
51110-1060	Singapore	2.00mm (.079") Pitch, Milli-Grid™ Receptacle, 10 Circuits, without Cntr Pol Key,	3
51110-1451	Singapore	2.00mm (.079") Pitch, Milli-Grid™ Receptacle, 14 Circuits, with Cntr Pol Key, with Latching	3
51110-1651	Singapore	2.00mm (.079") Pitch, Milli-Grid™ Receptacle, 16 Circuits, with Cntr Pol Key, with Latching	3
87831-0420	Singapore	2.00mm (.079") Pitch Milli-Grid™ Header, Vertical, Through Hole, 4 Circuits, 0.38µm (15µ") Gold	3
87831-0620	Singapore	2.00mm (.079") Pitch Milli-Grid™ Header, Vertical, Through Hole, 6 Circuits, 0.38µm (15µ") Gold	3
87831-1020	Singapore	2.00mm (.079") Pitch Milli-Grid™ Header, Vertical, Through Hole, 10 Circuits, 0.38µm (15µ") Gold	3
87831-1420	Singapore	2.00mm (.079") Pitch Milli-Grid™ Header, Vertical, Through Hole, 14 Circuits, 0.38µm (15µ") Gold	3
87831-1620	Singapore	2.00mm (.079") Pitch Milli-Grid™ Header, Vertical, Through Hole, 16 Circuits, 0.38µm (15µ") Gold	3

**Recommended Molex Tool(s) for Part No. 76650-0187\***

Molex Part No.	Country of Origin	Description
63819-0100 *	Sweden	Hand Crimp Tool for Milli-Grid™ and MicroBlade Crimp Terminals

\*Tool(s) not included in kit. Tool(s) ordered separately.