

# Datasheet for 76650-0235

## General Information

|                           |  |
|---------------------------|--|
| <b>Kit Part Number:</b>   | 76650-0235                                       |
| <b>Connector Type:</b>    | Wire-to-Board                                    |
| <b>Solution:</b>          | Off the Board                                    |
| <b>Molex Family:</b>      | iGrid™, Mini-Lock™, Sherlock™, CLIK-Mate™ 1.25mm |
| <b>Certificates:</b>      | N/A  |
| <b>Country of Origin:</b> | Kit assembled in U.S.A                           |

## Specifications

|                          |  |
|--------------------------|--|
| <b>Circuit Size:</b>     | 10, 12, 14, 2, 3, 4                            |
| <b>Current Rating:</b>   | 0.5-2A, 1.5-2A, 1A, 3A                         |
| <b>Mounting Style:</b>   | PCB Through Hole                               |
| <b>Orientation:</b>      | Plugs, Receptacles, Vertical Headers           |
| <b>Pitch:</b>            | 1.25mm (.049"), 2.00mm (.079"), 2.50mm (.098") |
| <b>Tool Included:</b>    | No   |
| <b>Voltage Rating:</b>   | 125V, 250V, 50V                                |
| <b>Wire Gauge (AWG):</b> | 26-22, 28-22, 28-26, 30-24                     |

## Product Highlights

Mini-Lock™ is a versatile wire-to-board system from Molex® for a broad range of 2.50mm (.098") pitch industry standard applications. The kit includes vertical headers. Mini-Lock™ is fully shrouded to protect contacts, and includes high guide walls to facilitate mating. Originally developed for PC monitor applications, this new 2.0mm pitch system can also be used for other applications that require space savings and secure locking features. The Sherlock system utilizes Molex's proven 50212 terminal, along with a positive lock housing. Molex's new 1.25mm (0.049") pitch CLIK-Mate™ series has a superior lock design that offers easier use and better mating retention, compared to competitive versions. The system also provides about 60% space savings compared to similar dual-lock 2.0mm pitch versions. CLIK-Mate™ 1.25 was designed for applications, such as LCD TVs, that require higher pin count connectors to carry more signal lines in less space. This system has a similar design to Molex's CLIK-Mate™ 2.0 family and includes many of the same features. iGrid™ wire-to-board connector system offers a compact design and anti-tangle internal lock for applications such as gaming machines, appliances, industrial and other equipment requiring good mating retention. The unique inner lock of iGrid™ prevents wire from getting tangled in the latch, compared to outer lock types where such damage may occur. The internal lock also provides space savings, an audible click and a robust design to withstand rugged handling.

## Features and Benefits

- Compact design saves PCB real estate
- Positive lock latch provides secure mating retention
- Four point contact design for good electrical reliability
- Housing lance ensures good terminal retention
- Low insertion force, easy and quick mating for operators
- Fully shrouded headers to protect pins
- Box-style contact design provides good mating reliability
- Pull tabs to assist in unmating
- Tuning fork style contact design, secure contact, and avoids terminal stubbing
- Polarizing end walls prevent mismating
- Compact low-profile design for space savings

- Flat area for pick-and-place, no costly capton tape needed
- High guide walls to facilitate mating

#### Applications

- White goods
- Industrial Instruments
- Brown Goods
- Automotive
- Data Communication Equipment
- HVAC
- Vending and Gaming machines
- GPS
- PDAs
- Security and Alarms
- Fitness equipment
- Any application requiring superior mating assurance
- Production Equipment
- LCD/PDP Televisions
- Microwave ovens

**Bill of Materials**

| <b>Molex Part No.</b> | <b>Description</b>   | <b>Quantity</b> |
|-----------------------|--|-----------------|
| 501647-1100           | iGrid™ Female Crimp Terminal, 26-22 AWG                            | 100             |
| 501645-1020           | 2.00mm (.079") Pitch iGrid™ Vertical Header, Dual Row, 10 Circuits | 2               |
| 501645-1220           | 2.00mm (.079") Pitch iGrid™ Vertical Header, Dual Row, 12 Circuits | 2               |
| 501645-1420           | 2.00mm (.079") Pitch iGrid™ Vertical Header, Dual Row, 14 Circuits | 2               |
| 501646-1000           | 2.00mm (.079") Pitch iGrid™ Receptacle, Dual Row, 10 Circuits      | 2               |
| 501646-1200           | 2.00mm (.079") Pitch iGrid™ Receptacle, Dual Row, 12 Circuits      | 2               |
| 501646-1400           | 2.00mm (.079") Pitch iGrid™ Receptacle, Dual Row, 14 Circuits      | 2               |
| 50212-8100            | Micro-Latch™ Female Crimp Terminal, 30-24 AWG                      | 100             |
| 35362-0250            | 2.00mm (.079") Pitch Sherlock™ 2 Circuit Vertical Header           | 2               |
| 35362-0350            | 2.00mm (.079") Pitch Sherlock™ 3 Circuit Vertical Header           | 2               |
| 35362-0450            | 2.00mm (.079") Pitch Sherlock™ 4 Circuit Vertical Header           | 2               |
| 35507-0200            | 2.00mm (.079") Pitch Sherlock™ 2 Circuit Receptacle Housing        | 2               |
| 35507-0300            | 2.00mm (.079") Pitch, Sherlock™ 3 Circuit, Receptacle Housing      | 2               |
| 35507-0400            | 2.00mm (.079") Pitch, Sherlock™ 4 Circuit, Receptacle Housing      | 2               |
| 50351-8100            | Mini-Lock™ Female Crimp Terminal, 28-22 AWG                        | 100             |
| 51103-0200            | 2.50mm (.098") Pitch, Mini-Lock™ Receptacle, 2 Circuits            | 2               |
| 51103-0300            | 2.50mm (.098") Pitch, Mini-Lock™ Receptacle, 3 Circuits            | 2               |
| 51103-0400            | 2.50mm (.098") Pitch, Mini-Lock™ Receptacle, 4 Circuits            | 2               |
| 53375-0210            | 2.50mm (.098") Pitch, Mini-Lock™ Vertical Header, 2 Circuits       | 2               |
| 53375-0310            | 2.50mm (.098") Pitch, Mini-Lock™ Vertical Header, 3 Circuits       | 2               |
| 53375-0410            | 2.50mm (.098") Pitch, Mini-Lock™ Vertical Header, 4 Circuits       | 2               |
| 502381-0000           | CLIK-Mate™ Male Terminal for 1.25mm (.049") Pitch                  | 100             |
| 502380-0200           | 1.25mm (.049") Pitch, 2 Circuit CLIK-Mate™ Plug                    | 2               |
| 502380-0300           | 1.25mm (.049") Pitch, 3 Circuit CLIK-Mate™ Plug                    | 2               |
| 502380-0400           | 1.25mm (.049") Pitch, 4 Circuit CLIK-Mate™ Plug                    | 2               |
| 502382-0270           | 1.25mm (.049") Pitch, 2 Circuit CLIK-Mate™ Vertical Receptacle     | 2               |
| 502382-0370           | 1.25mm (.049") Pitch, 3 Circuit CLIK-Mate™ Vertical Receptacle     | 2               |
| 502382-0470           | 1.25mm (.049") Pitch, 4 Circuit CLIK-Mate™ Vertical Receptacle     | 2               |

**Recommended Molex Tool**

| <b>Molex Part No.</b> | <b>Description</b> |
|-----------------------|--------------------|
|-----------------------|--------------------|

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