EMI optimized and qualified 12-port (2x6) and 8 port (2x4) RJ45 magnetic jacks supporting Gigabit Ethernet connectivity in accordance with IEEE802.3ab result in lowered placement costs and improved production yields for manufacturers of high port-count switches and routers.

Magnetic jacks are integrated devices that combine network magnetics and RJ45 connectors. In addition to connectivity, magnetic jacks provide signal conditioning, electromagnetic interference (EMI) compliance and electrical isolation. Ganged gigabit magnetic jacks are widely used in telecom and data networking applications.

The 85728 series, 12-port and 85727, 8-port Gigabit Magnetic Jacks with integrated gigabit magnetics are designed for use in high port-count gigabit switches and routers.

The modules are designed with through-hole pins for wave soldering. Transmission is according to the IEEE802.3ab standard. For more information please visit www.molex.com/product/magneticmodularjacks.html

**Features and Benefits**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ganged 12-port and 8-port RJ45 modules</td>
<td>High-density port-count</td>
</tr>
<tr>
<td>Compliant with IEEE802.3ab standard</td>
<td>Capable of 10/100/1000Mbit transmission</td>
</tr>
<tr>
<td>Gigabit magnetics compatible with a variety of Gigabit Ethernet transceiver PHYs</td>
<td>Proven parametric and EMI solution for main PHY vendors</td>
</tr>
<tr>
<td>Industry-standard footprint</td>
<td>Drop-in replacement for competitor products; second source for customer</td>
</tr>
<tr>
<td>Two single- or bi-colour LED’s per port</td>
<td>Supports multiple status indicators and colour requirements</td>
</tr>
<tr>
<td>Fully parametric, HiPot and DC tested modules with excellent EMI filtering</td>
<td>Ensures high reliability and low yield-loss in customer applications</td>
</tr>
<tr>
<td></td>
<td>Easier IEEE and regulatory qualifications</td>
</tr>
</tbody>
</table>

**Applications**

**Gigabit Ethernet Switch and router applications:**

Datacom / telecommunications
Industrial networking
Consumer / small office / home office

---

**Magnetic Jacks:**

**Gigabit 12-Port (2x6) and 8-Port (2x4) RJ45 with LEDs**

85728 2x6, Gigabit Magnetic RJ45 with LEDs
85727 2x4, Gigabit Magnetic RJ45 with LEDs
Specifications

REFERENCE INFORMATION
Packaging: Tray
UL File No.: Pending
Mates With: Plugs according to
  IEC 60603-7 (series 95043, 44915)
Designed In: Millimetres
RoHS: Yes

LEDs
Connection: Single or bi-polar
  (see table below)
Colours: Multiple options available
Forward voltage: 2.4V max. at 20mA

PHYSICAL
Housing: E-85572-088 PBT
  30% Green
Shield: C2680 – pre-plated brass
Contact: Phosphor Bronze CuSn8
  (Wieland B18)
Plating:
  Contact Area — Gold (Au)
  Solder Tail Area — Tin (Sn)
PCB Thickness: 2.21mm
Operating Temperature: 0 to +70°C

MECHANICAL
Connector insertion and
removal force: 20N (4.5 lbf)
Locking force: 50N (11 lbf) min.
Durability: 750 cycles

ELECTRICAL
HiPot isolation: 2250V DC
OCL: 350µH at 8mA min.
Insertion loss:
  -0.80 at 100 MHz (typical)
Return loss:
  -15.0 at 100 MHz (typical)
NEXT: -33 at 100 MHz (typical)
CMR: -40 at 100 MHz (typical)

Ordering Information

<table>
<thead>
<tr>
<th>Order No. 12-Port (2x6)</th>
<th>Order No. 8-Port (2x4)</th>
<th>Attribute</th>
<th>LED Colour* Left</th>
<th>LED Colour* Right</th>
</tr>
</thead>
<tbody>
<tr>
<td>85728-1001</td>
<td>85727-1001</td>
<td>Gigabit Magnetics</td>
<td>Green</td>
<td>Green</td>
</tr>
<tr>
<td>85728-1002</td>
<td>85727-1002</td>
<td></td>
<td>Green - Orange</td>
<td>Green</td>
</tr>
<tr>
<td>85728-1003</td>
<td>85727-1003</td>
<td></td>
<td>Green</td>
<td>Yellow</td>
</tr>
<tr>
<td>85728-1004</td>
<td>85727-1004</td>
<td></td>
<td>Green - Orange</td>
<td>Green – Orange</td>
</tr>
<tr>
<td>85728-1016</td>
<td>85727-1016</td>
<td></td>
<td>Green</td>
<td>Green – Yellow</td>
</tr>
</tbody>
</table>

*Additional LED configurations available on request. Contact Molex for further details.