Description:
10/100 Base-TX RJ45 single port with LEDs and integrated magnetics – Designed for most leading PHY manufacturers with the addition of Power Feeding over the signal pairs according to IEEE 802.3af

Features and Benefits:
- RoHS-5 peak wave solder temperature rating 235°C
- RoHS-6 peak wave solder temperature rating 260°C
- Single port Connector for PoE applications
- Contains Surge Suppression to protect IC from power spikes

Electrical Specifications @ 25°C — Operating Temperature 0°C to +70°C

<table>
<thead>
<tr>
<th>RoHS-5 \ RoHS-6 Compliant Part No.</th>
<th>Tab Option</th>
<th>LEDs L/R</th>
<th>Insertion Loss TX/RX (dB TYP)</th>
<th>Return Loss (100Hz)</th>
<th>Crosstalk (dB TYP)</th>
<th>Common Mode Rejection (dB TYP)</th>
<th>Hipot (Vrms MIN)</th>
</tr>
</thead>
<tbody>
<tr>
<td>JK0-0020 JK0-0020NL</td>
<td>UP Y-G/G</td>
<td>-1.0</td>
<td>-29 -16 -12</td>
<td>-40 -35 -30</td>
<td>-26 -20</td>
<td>1500</td>
<td></td>
</tr>
<tr>
<td>JK0-0025 JK0-0025NL</td>
<td>UP Y-G/G</td>
<td>-1.0</td>
<td>-29 -16 -12</td>
<td>-40 -35 -30</td>
<td>-26 -20</td>
<td>1500</td>
<td></td>
</tr>
<tr>
<td>JK0-0026 JK0-0026NL</td>
<td>UP Y-G/G</td>
<td>-1.0</td>
<td>-29 -16 -12</td>
<td>-40 -35 -30</td>
<td>-26 -20</td>
<td>1500</td>
<td></td>
</tr>
<tr>
<td>JK0-0044 JK0-0044NL</td>
<td>UP Y-G/G</td>
<td>-1.0</td>
<td>-29 -16 -12</td>
<td>-40 -35 -30</td>
<td>-26 -20</td>
<td>1500</td>
<td></td>
</tr>
</tbody>
</table>

NOTES:
1. Both transmit and receive channels meet IEEE 802.3i/u (10/100 Base-T) and IEEE 802.3af (10/100 Base-T PoE) specifications.
2. LEDs Left/Right: Y-G = Bicolor: yellow/green; G = green.
3. RoHS-5 - Product does not contain 5 out of the 6 banned substances specified in the RoHS directive. Product contains lead in applications considered as solders.
4. RoHS-6 - Product does not contain 5 out of the 6 banned substances specified in the RoHS directive. Some internal connections may contain lead in high temperature solder (solder alloys containing more than 85% lead).

RJ45 Durability Testing Rating

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Mating Force (MAX)</th>
<th>Unmating Force (MAX)</th>
<th>Durability</th>
<th>Plug to Jack Retention (MIN)</th>
</tr>
</thead>
<tbody>
<tr>
<td>JK0 Series</td>
<td>5lbs./2.268kgs.</td>
<td>5lbs./2.268kgs.</td>
<td>500 Insertions</td>
<td>20lbs./9.072kgs.</td>
</tr>
</tbody>
</table>

RJ45 Material Specification

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Shield Finish</th>
<th>Contact Material</th>
<th>Contact Plating Area</th>
<th>Solder Area</th>
<th>Housing Material</th>
<th>Housing Specification</th>
<th>MSL Rating</th>
</tr>
</thead>
</table>
| JK0 Series  | Brass 20-40µ inches thick nickel over brass | Phosphor Bronze 15µ inches gold over 30-80µ inches nickel | 75-300µ inches tin-lead over 75-300µ inches nickel | Thermoplastic | UL 94 V-0 | 1 | 2. NL parts are tin matte finish over nickel. 3. MSL - Moisture Sensitivity Level class limits = 1 to 5 (Highest: 1; Lowest: 5).
Mechanical

JK0-00XX

LED Pins

REFER TO THE MANUFACTURER'S WEBSITE FOR THE LATEST REVISION OF THIS DATASCHEET
For More Information:

Pulse Worldwide Headquarters
12220 World Trade Drive
San Diego, CA 92128
U.S.A.
www.pulseeng.com
TEL: 858 674 8100
FAX: 858 674 8262

Pulse
Northern Europe
3 Huxley Road
Surrey Research Park
Guildford, Surrey GU2 5RE
United Kingdom
TEL: 44 1483 401700
FAX: 44 1483 401701

Pulse
Southern Europe
Zone Industrielle F-39270
Orgelet France
TEL: 33 3 84 35 04 04
FAX: 33 3 84 25 46 41

Pulse
China Headquarters
No. 1
Industrial District
Changan, Dongguan
China
TEL: 86 769 85538070
FAX: 86 769 85538870

Pulse North China
Room 1503
XinYin Building
No. 888 YiShan Road
Shanghai 200233
China
TEL: 86 21 54643211/2
FAX: 86 21 54643210

Pulse South Asia
150 Kampong Ampat
#07-01/02
KA Centre
Singapore 368324
TEL: 65 6287 8998
FAX: 65 6280 0080

Pulse North Asia
No. 26
Kao Ching Road
Yang Mei Chen
Taiwan, R. O. C.
TEL: 886 3 4641811
FAX: 886 3 4641911

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