**10/100BASE-TX TRANSFORMER MODULES**

For Auto MDI/MDIX Applications

- RoHS peak reflow temperature rating 245°C
- Symmetrical transmit and receive channels for Auto MDI/MDIX capability
- Approved for use with the Broadcom BCM5226 and Level One LXT9784
- Meets IEEE 802.3 specification

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

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Insertion Loss (MAX)</th>
<th>Return Loss (dB MIN)</th>
<th>Crosstalk (dB MIN)</th>
<th>Differential to Common Mode Rejection (dBMIN)</th>
<th>Hipot (Vrms MIN)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.1-100 MHz</td>
<td>2-30 MHz</td>
<td>40 MHz</td>
<td>50 MHz</td>
<td>60-80 MHz</td>
</tr>
<tr>
<td>H1140NL</td>
<td>-1.0</td>
<td>-18</td>
<td>-14.4</td>
<td>-13.1</td>
<td>-12</td>
</tr>
<tr>
<td>H1164NL</td>
<td>-1.0</td>
<td>-18</td>
<td>-14.4</td>
<td>-13.1</td>
<td>-12</td>
</tr>
<tr>
<td>HX1234NL</td>
<td>-1.4</td>
<td>-18</td>
<td>-14.4</td>
<td>-13.1</td>
<td>-12</td>
</tr>
</tbody>
</table>

1. Operating Temperature -40°C to +85°C
2. For Tape & Reel packaging, add a “T” suffix to the end of the part number when ordering, (Ex: H1164NL T)
3. MSL = Moisture Sensitivity Level a=1 b=2 c=3 d=4

**Mechanicals**

**H1140NL, H1164NL, HX1234NL**

- Weight: 4.8 grams
- Tape & Reel: 250/reel
- Tube: 15/tube

**H1141NL**

- Weight: 1 gram
- Tape & Reel: 350/reel
- Tube: 35/tube

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www.pulseeng.com
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TRANSFORMER MODULES
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Schematics

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