



**Pulse**<sup>®</sup>  
A TECHNITROL COMPANY

# LAN Product Guide – Extended Temp



Ideal for Industrial Ethernet applications.



Available for PoE, AutoMDIX, PD, and PSE applications. Custom designs available.

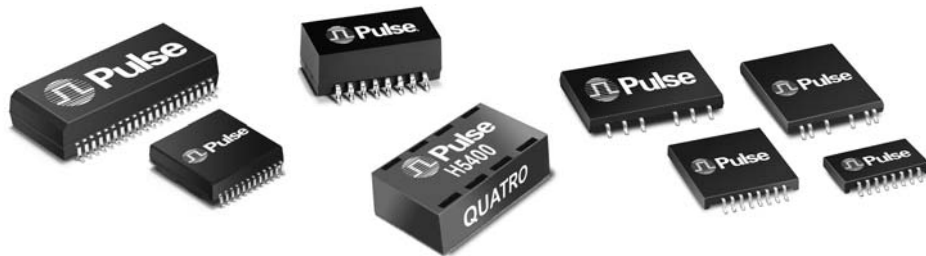


Parts operation temp. (-40° to 85°C). Contact Pulse for 120°C rating.



P = PoE, A = AutoMDIX, NL = RoHS compliance.

DISCRETE MAGNETICS		CONNECTORS WITH INTEGRATED MAGNETICS	
<p><b>10/100</b></p> <p><b>SINGLE:</b></p> <p>HX1148NL<sup>A</sup>    HX1260NL<sup>A</sup> HX1188NL<sup>A</sup>    HX2019NL<sup>A,P</sup></p>	<p><b>Gigabit</b></p> <p><b>SINGLE:</b></p> <p>HX5004NL<sup>A</sup>    HX5009NL<sup>A</sup> HX5007NL<sup>A</sup>    HX5062NL<sup>A</sup></p>	<p><b>10/100</b></p> <p><b>1X1:</b></p> <p>JX00-0027NL<sup>A,P</sup>    JXK0-0025NL<sup>A,P</sup> JX10-0045NL    JXK0-0138NL<sup>A,P</sup></p>	<p><b>Gigabit</b></p> <p><b>1X1:</b></p> <p>JXK0-0036NL<sup>A</sup> JXK0-0161NL<sup>A,P</sup></p>
<p><b>DUAL:</b></p> <p>HX1294NL<sup>A</sup> HX1305NL<sup>A</sup></p>	<p><b>DUAL:</b></p> <p>HX5014NL<sup>A</sup>    HX5200NL<sup>A,P</sup> HX5020NL<sup>A,P</sup>    HX5201NL<sup>A,P</sup> H6080NL<sup>A,P</sup></p>	<p><b>1XN:</b></p> <p>JX80-0019NL<sup>A</sup> (1X2) JX80-0033NL<sup>A</sup> (1X4) JX8064D668ANL<sup>A</sup> (1X6) JX8064D688ANL<sup>A</sup> (1X8)</p>	<p><b>1XN:</b></p> <p>JXG0-0129NL<sup>A</sup> (1X2) JXG0-0098NL<sup>A</sup> (1X4) JXG0-0143NL<sup>A</sup> (1X6) JXG0-0029NL<sup>A</sup> (2X8)</p>
<p><b>QUAD:</b></p> <p>HX1203NL    HX1234NL<sup>A</sup> HX1204NL    HX1259NL<sup>A,P</sup></p>	<p><b>QUAD:</b></p> <p>HX5400NL<sup>A,P</sup>    HX5401NL<sup>A,P</sup></p>	<p><b>2XN:</b></p> <p>JX20-0014NL<sup>A</sup> (2X4) JX20-0015NL<sup>A</sup> (2X6) JX20-0016NL<sup>A</sup> (2X8)</p>	<p><b>2XN:</b></p> <p>JXC0-0161NL<sup>A</sup> (2X4) JXC0-0183NL<sup>A</sup> (2X6) JXC0-0319NL<sup>A</sup> (2X8)</p>





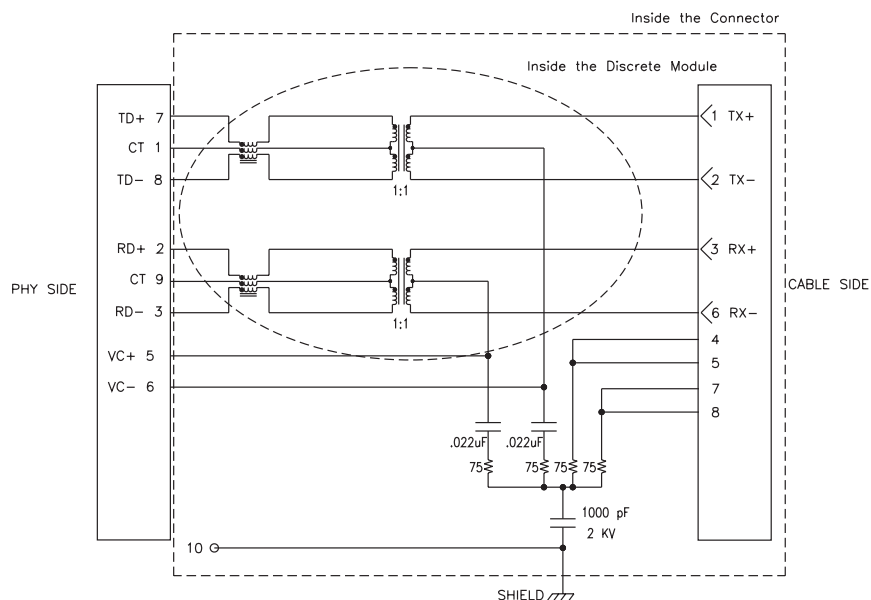
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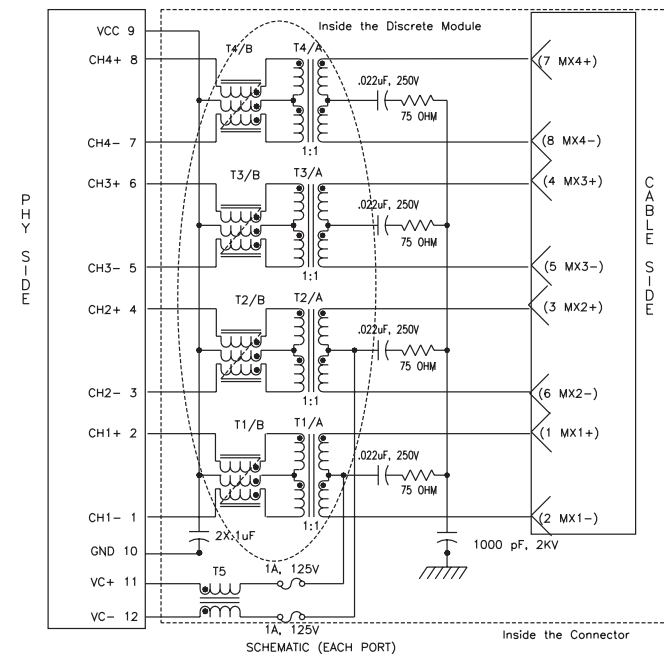
## APPLICATION NOTES

- Layering ground planes is advisable. Route connector/discrete module ground pins to chassis/analog ground if possible.
- Keep signal traces from PHY to connector/discrete module as short as possible. If traces exceed 3-4 inches, pay close attention to line impedance imbalance.
- Using 75 Ω resistors and high voltage cap to chassis ground to terminate cable-side CTs is advisable for best EMI performance (included in most connector solutions).
- Follow PHY manufacturer's application notes for further layout considerations.

### 10/100 APPLICATION CIRCUIT



### GIGABIT APPLICATION CIRCUIT



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