





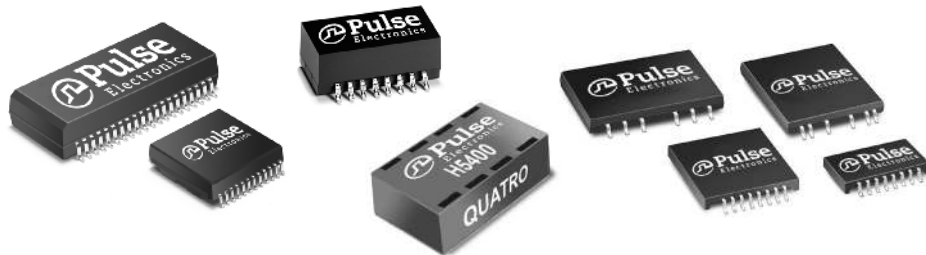




-  Available for 1000BASE-T and 100BASE-TX data rates
-  SMT (surface mount) discrete and THT (through hole) connector modules with integrated magnetics, available with or without LED's.
-  Meets IEEE 802.3af specification for PoE applications
-  Meet IEEE 802.3at specification for PoE+ applications
-  Available for Extended Temp., Low-Profile, PSE, and PD applications
-  X = extended temp, PP = PoE+

| DISCRETE MAGNETICS  |  | CONNECTORS WITH INTEGRATED MAGNETICS  |   |
|---|--|---|---|
| 100BASE-TX  | 1000BASE-T   | 100BASE-TX  | 1000BASE-T  |
| <b>SINGLE:</b><br>H2019NL<br>HX2019NL X<br>H2260NL<br>H1263NL | <b>SINGLE:</b><br>HX2260NL X<br>HX2326NL X, PP<br>HX1393NL | <b>1X1:</b><br>JKO-0120NL<br>JKO-0125NL   | <b>1X1:</b><br>JXKO-0138NL X<br>JKO-0144NL<br>JKO-0144BNL<br>JKO-0145NL<br>JKO-0177NL PP<br>JXKO-0190NL X, PP<br>JKO-0161NL<br>JKO-0133NL |
| <b>DUAL:</b><br>H2005ANL<br>H2006ANL<br>H2009NL               | <b>DUAL:</b><br>H2039NL<br>H2305NL<br>HX2305NL             | <b>1XN:</b><br>J1N-0011NL (1X4)<br>JG0-0031NL (1X2)<br>JG0-0032NL (1X4)<br>JG0-0045NL (1X6)<br>JG0-0051NL (1X8) | <b>1XN:</b><br>J0N-0012NL (1X4)<br>J0N-0015NL PP (1X4)<br>J1N-0008NL (1X4)<br>J1N-0003NL PP (1X4)   |
| <b>QUAD:</b><br>H2014NL<br>H2017NL                            | <b>QUAD:</b><br>H1259NL<br>HX1259NL X                      | <b>2XN:</b><br>JCO-0114NL (2X6)   | <b>2XN:</b><br>JOB-0182NL (2X4)<br>JOB-0183NL (2X6)<br>JOB-0170NL (2X8)   |

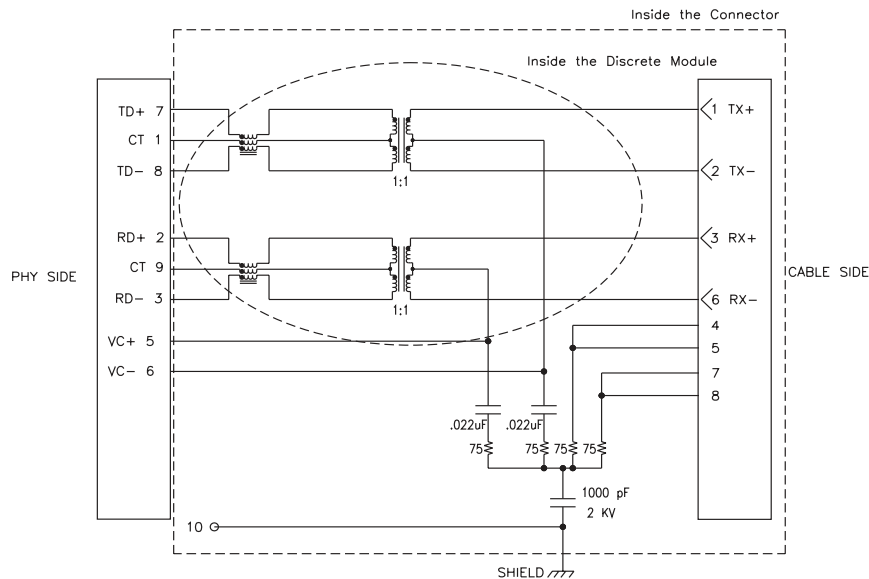




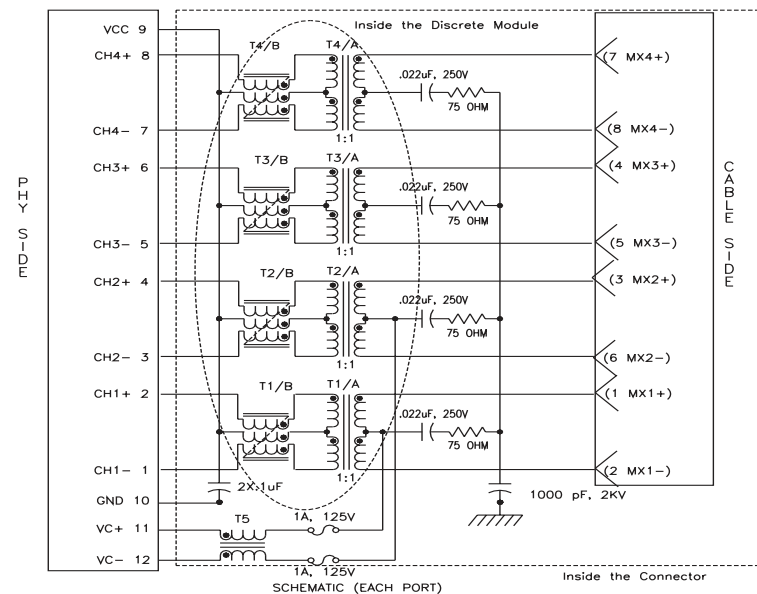
## Application Notes

- 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 BST (75Ω 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.
- Common applications include: VoIP phones, WLAN APs, Security Cameras, POS Terminals, Keycard Access/Security.

### 100BASE-TX APPLICATION CIRCUIT



### 100BASE-T APPLICATION CIRCUIT



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