# LAN Product Guide – PC Applications

- Available for 10/100Base-T and 1000Base-T data rates
- SMT (surface mount) discrete and THT (through hole) connector modules with integrated magnetics
- Meets IEEE 802.3 specification
- Available options: PoE, AutoMDIX, extended temperature, low profile
- **X** = extended temp, **P** = PoE, **NL** = RoHS compliant, **A** = AutoMDIX,

## DESKTOP

### Gigabit

#### DISCRETE MAGNETICS

| Single | Dual |
|---|---|
| H5007NL[A] | H5012NL[A] |
| H5009NL[A] | H5014NL[A] |
| H6062NL[P, A] | H6080NL[P, A] |

#### CONNECTORS WITH INTEGRATED MAGNETICS

| 1x1 | 1x2 |
|---|---|
| JK0-0036NL[A] | JG0-0129NL[A] |
| JK0654219NL[A] | JG0-0134NL[A] |

#### USB/RJ45 COMBO

| 10/100 | Gigabit |
|---|---|
| JW0-0009NL | JW0-0006NL[A] |

### 10/100

#### DISCRETE MAGNETICS

| Single | Dual |
|---|---|
| H1102NL[A] | H1270NL[A] |
| H2019NL[P, A] | H2006ANL[P, A] |
| | H2009NL[P, A] |

#### CONNECTORS WITH INTEGRATED MAGNETICS

| 1x1 | 1x2 |
|---|---|
| J00-0045NL[A] | J80-0019[A] |
| J00-0065NL[A] | J80-0034[A] |
| J1011F21PNL[A] | J8064D628ANL[A] |
| JK0-0025NL[P, A] | |



## LAPTOP / NOTEBOOK

### Gigabit

#### DISCRETE MAGNETICS

| Standard | Reduced Profile |
|---|---|
| H5007NL[A] | H5015NL[A] |
| H5009NL[A] | H5077NL[A] |
| H6062NL[P, A] | H5079NL[A] |

#### CONNECTORS WITH INTEGRATED MAGNETICS

| 1x1 Standard | 1x1 Low Profile |
|---|---|
| JK0-0036NL[A] | J0G-0002NL[A] |
| JK0654219NL[A] | J0G-0009NL[A] |

### 10/100

#### DISCRETE MAGNETICS

| Standard | Low Profile |
|---|---|
| H1102NL[A] | H0020NL |
| H2019NL[P, A] | H0068ANL[A] |
| | H0126NL |

#### CONNECTORS WITH INTEGRATED MAGNETICS

| 1x1 Standard | 1x1 Low Profile |
|---|---|
| J00-0045NL[A] | J0G-0007NL[A] |
| J00-0065NL[A] | |
| J1011F21PNL[A] | |
| JK0-0025NL[P, A] | |

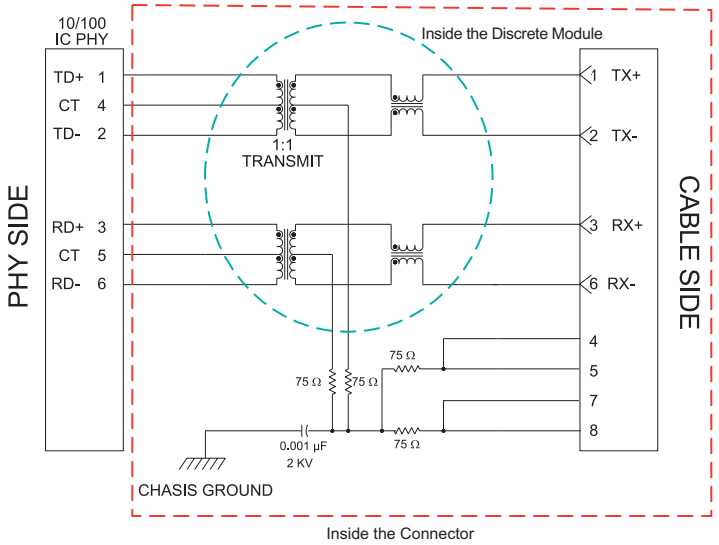


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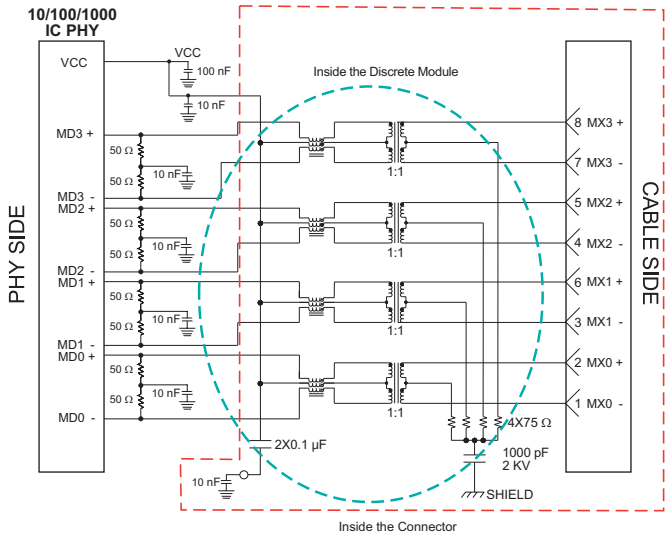
## APPLICATION NOTES

- 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 BST (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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