PLR3343 – GIGABIT ETHERNET PROTECTION 3.3 V PHY

DFN-10 PACKAGE

COMPLIANCE

- IEC 61000-4-2 (ESD) ±8 kV Contact, ±15 kV Air Discharge
- IEC 61000-4-4 (EFT) 40 A, 5/50 ns
- IEC 61000-4-5 (Surge Secondary Lightning), 5A @ 8/20 µs

ALTERNATE RECOMMENDATIONS

- 2 x PLR3311
- 4 x GBLC03CI

OBJECTIVE

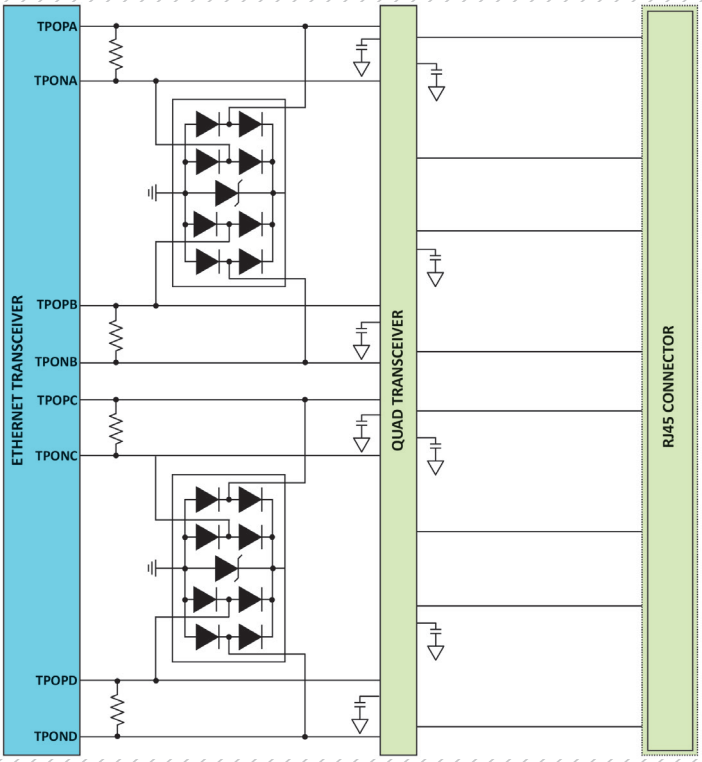
Ethernet interfaces are 3.3 V digital signals operating on a 125 MHz clock. This solution provides ESD protection commonly required in indoor, short-cable applications where ESD is the primary threat. It also provides protection for secondary lightning surges.

BENEFIT

This integrated TVS diode solution is designed to protect the interface against surge events by using two devices (PLR3343) to protect both pairs of Ethernet lines. Circuit assumes magnetics will provide 1500 V isolation to external surges.

SOLUTION

- 2 x PLR3343 in DFN-10 Package
- Stand-Off Voltage V_{WM}: 3.3 Volts
- Breakdown Voltage V_{Bmin}: 5.6 Volts
- V_C @ I_P: 25 V @ 5 A
- Leakage Current IR: 1.0 µA
- Typ. Capacitance: 0.5 pF IO to GND



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