PORTNOTE® SOLUTIONS

Ethernet

Quad Port Power over Ethernet (PoE) PSE Unit Protection

Solution Products

CDNBS08-T58CC

PT61020EL

Design Kit

PN-DESIGNKIT-54

Objective

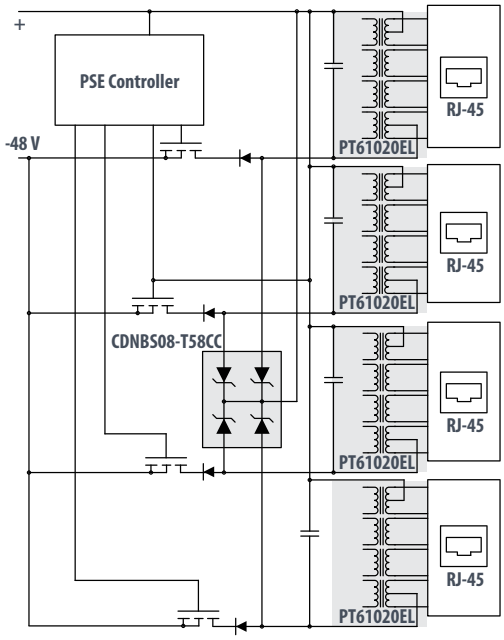
Power over Ethernet (PoE) interfaces combine V_{PP} differential signals and nominal 48 V_{DC} power. This solution provides the protection for the quad port power section in Power over Ethernet (PoE and PoE+) according to IEEE 802.3.

Solution

1 TVS Diode Array: CDNBS08-T58CC
4 Quad Transformers: PT61020EL

Compliance*

IEC 61000-4-2 Level 4 (30 kV)
IEC 61000-4-5 Level 2 (1KV)



Alternate Recommendations

Other PortNote® Solutions:

- Ethernet - ESD Protection
- Ethernet - Power Contact and Surge Protection
- Ethernet - 10/100 Base-T Power over Ethernet (PoE) PSE Unit Protection
- Ethernet - 10/100 Base-T Power over Ethernet (PoE) PD Unit Protection

Contact Bourns for PoE+ or Gbit PoE port solutions.

Benefit

This solution provides ESD and Surge protection, low clamping voltage compatible with PMOS and PSE controller voltage as well as low input leakage current within a minimal PCB area.

**The Bourns© model CDNBS08-T58CC Diode Array helps ensure the circuit protection for Power over Ethernet (PoE) applications' compliance to IEC 61000-4-2 Level 4 (30 kV) and IEC 61000-4-5 Level 2 (1 kV) as it clamps the overvoltage transients on the lines protected and is rated to IEC 61000-4-2 Level 4 (30 kV) and IEC 61000-4-5 Level 2 (1 kV).*

The schematic shown here illustrates the application and does not constitute the complete circuit design. Customers should verify actual device performance in their specific applications.

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Bourns® PortNote® solutions provide protection recommendations for typical port threats.

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