Power over the MDI, Mid Span Powering

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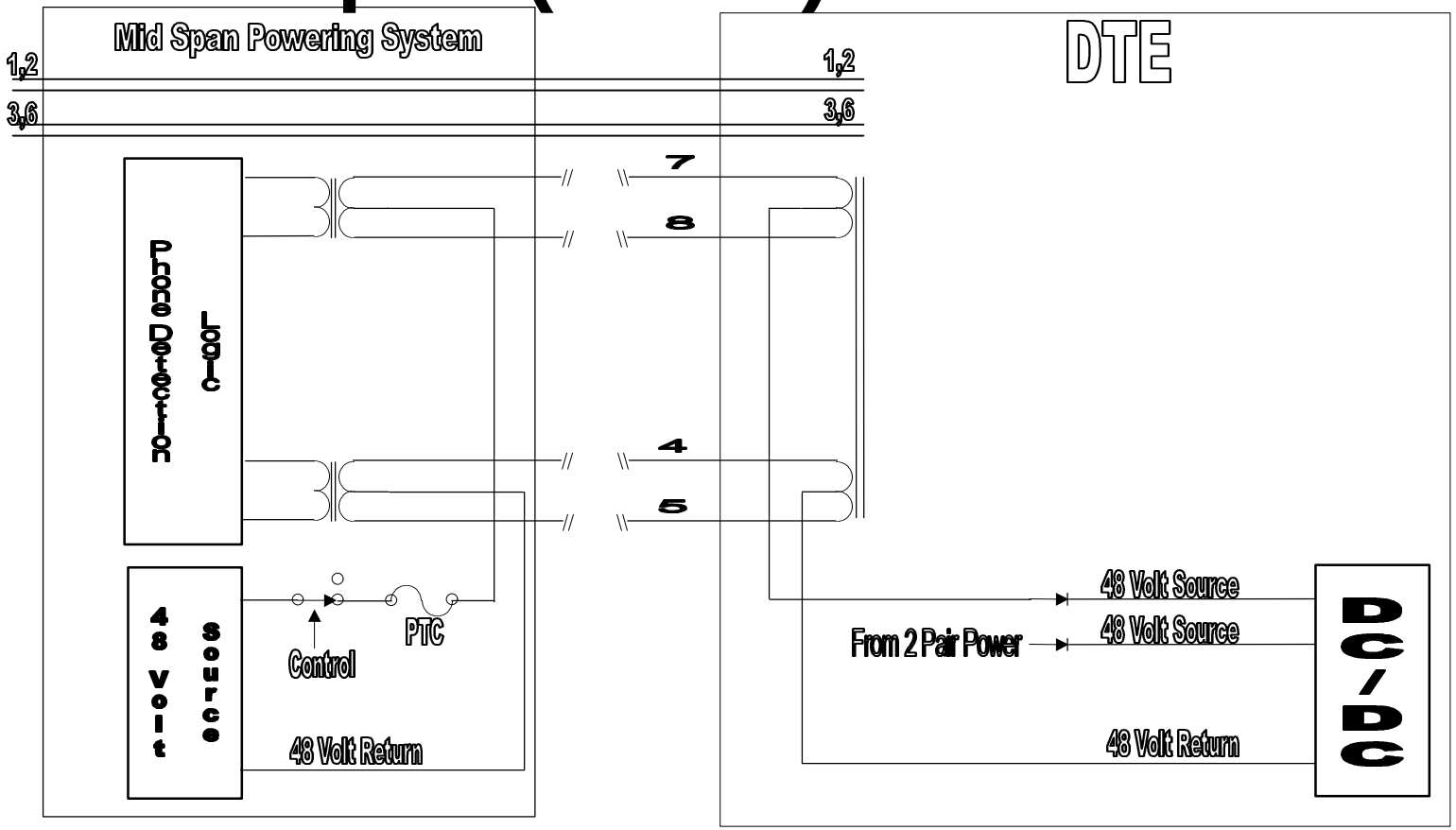
Mid Span (4 Pair) Operation

- Overview
- Phone Discovery
- Power Delivery

Mid Span (4 Pair) Overview

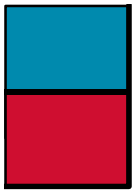


Phone Discovery/Power Delivery

- Done with 300 Khz Tone to detect connect and disconnect
- Detection and Power done with the Unused Pairs 4,5 and 7,8
- Power from Switch up to 8-10 Watts at 48 Volts

Advantages in the Mid Span

- No Mid Span Transformer
- Differential Detection
- Common Mode Powering
- Isolated Detection Scheme



Note

- **The Signal-Pair Scheme and the Mid-Span Scheme are DIFFERENT and SEPARATE**
- **There's a separate topic: Can they converge in the DTE?**

Advantages of the Combined Interface in DTE

- Propose to Include Both Interfaces in the DTE
- Allows for 2 pair Operation on Legacy Wiring. We think there are a significant number of installations with this limitation.
- Allows for mid span powering with 4 pair wiring for the installed base
- Allows the option of supporting 1000TX wiring to the desktop
- Allows lowest cost/most convenient solution in the wiring closet
- EMI Tested and Verified to meet FCC Class B limits at the DTE and the Switch