

# Power over the MDI using the two Signal Pairs

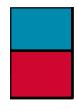
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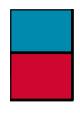




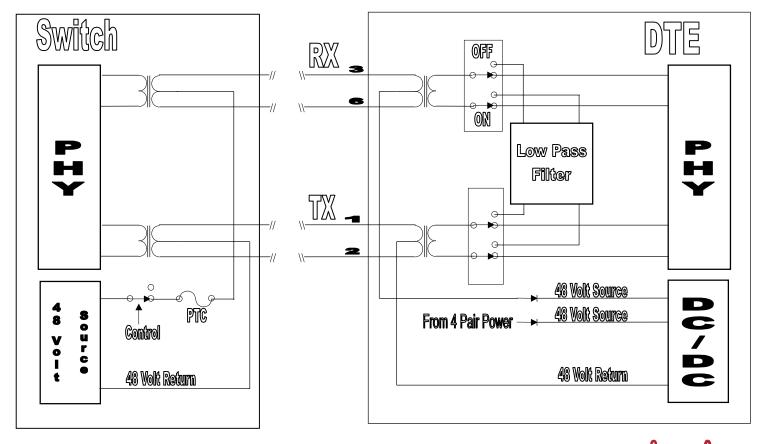
# 2 Signal Pair Operation

- Overview
- Phone Discovery
- Power Delivery
- Signal Quality Impact

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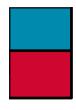


## 2 Signal Pair Overview



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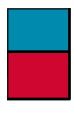
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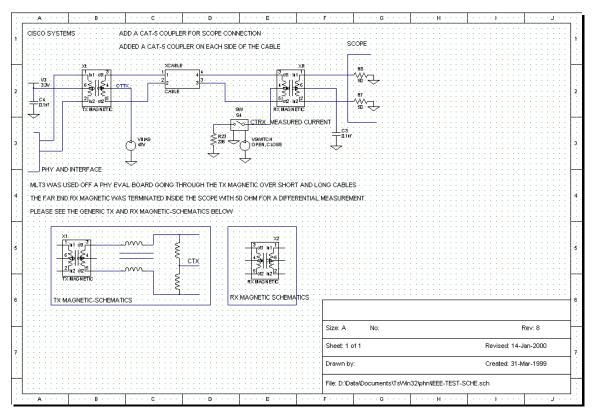
### **Phone Discovery**

- Using Discovery Tone in Loopback without power (see "DTE Power via MDI" by Vafa Rakshani and Kevin Brown of Broadcom on 11/8/99, 3/8/00)
- Each Port on Switch Individually Controlled
- Power from Switch up to 8-10 Watts @ 48V (see "LAN Magnetics operating under DC Bias Conditions" by Henry Heinricks of Pulse Engineering on 11/8/99)

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## **Signal Quality Measurements**



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