DTE Power via MDI

Method for Powered DTE (PDTE) Detection

Proposal by:

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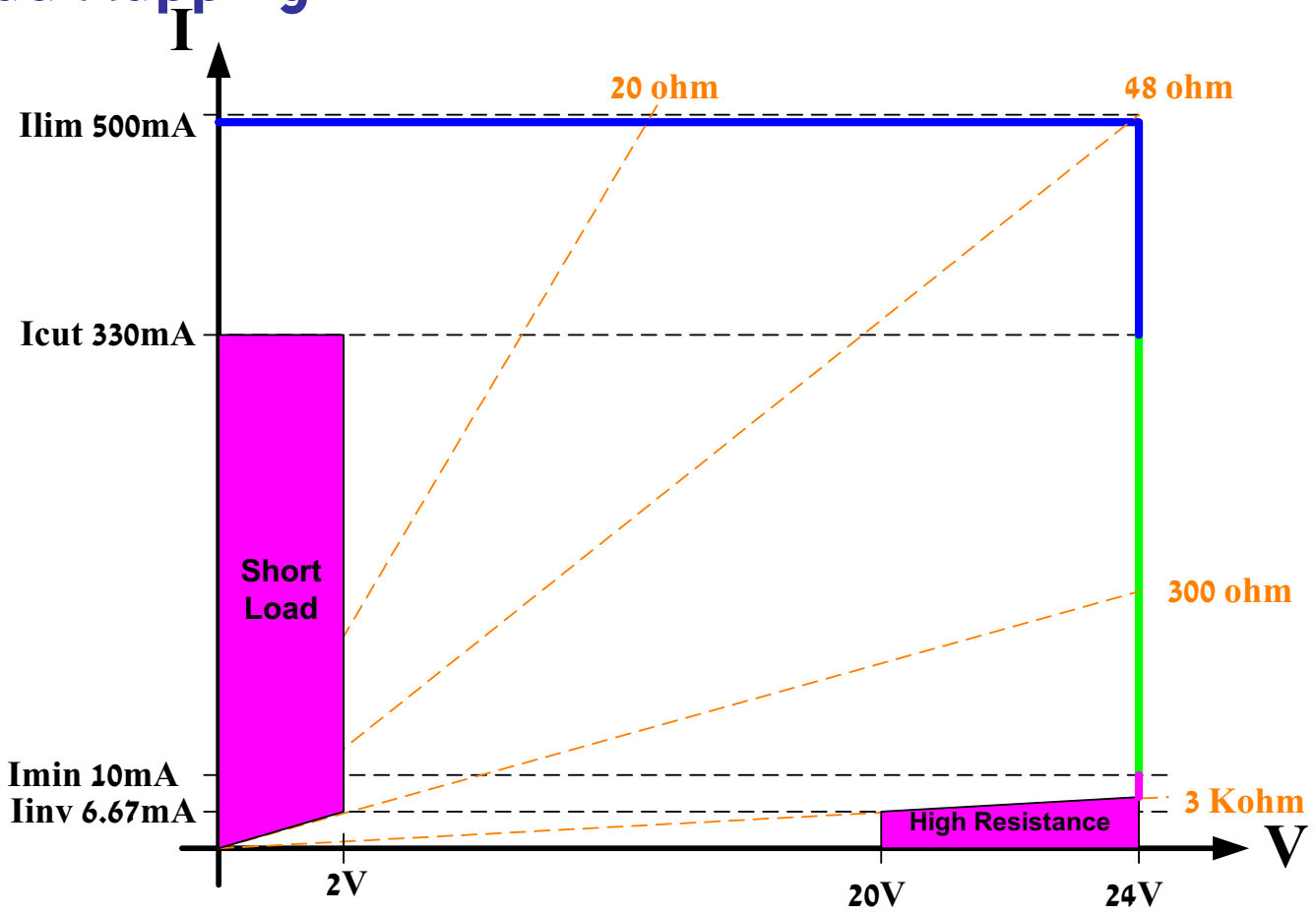
Load Mapping



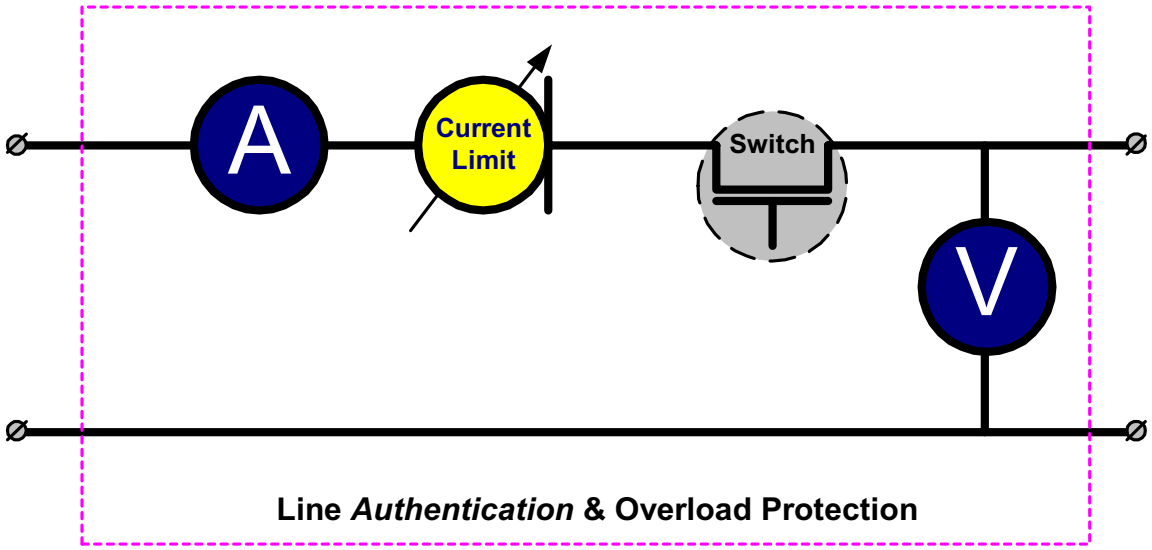
PDTE Signature

- Non Linear Load
- Current Consumption above 10mA? Threshold
- C_{in} C_{max} (10x-100x F)
- L_{in} L_{max} (10x-100x H)
- in max (100mS)

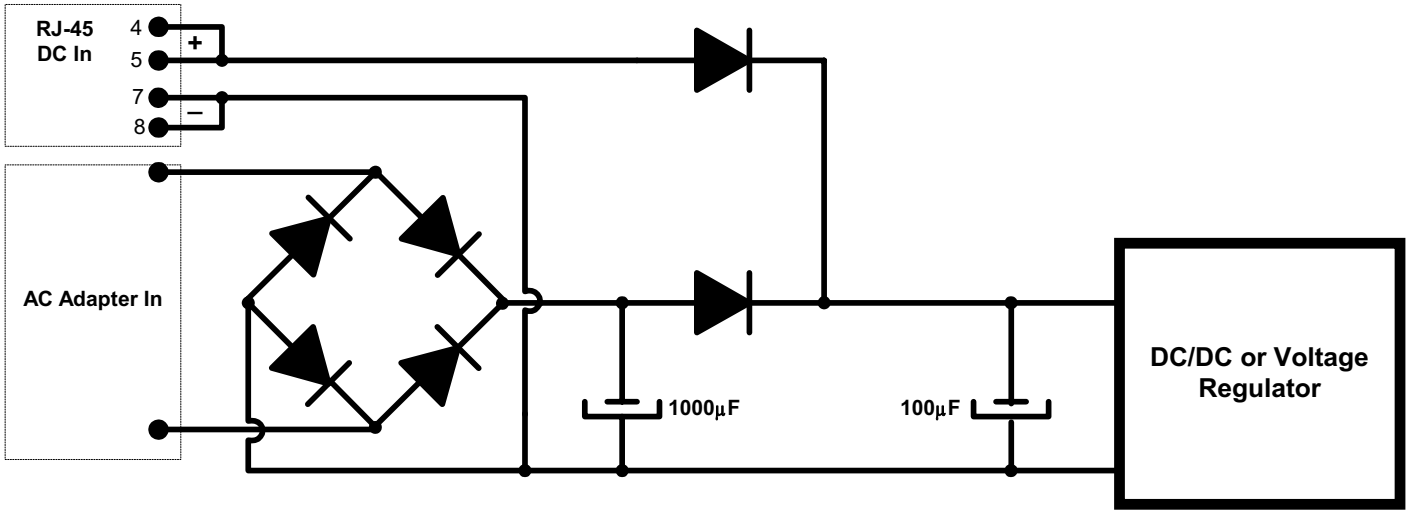
Probing Signal

- Measuring Voltage
- Driving Current Limited to 6.67mA
- Wait for Steady State (at least 3)
- Measuring Voltage
- Map Readings
- Repeat Procedure to detect oscillation
- Activate / Disable

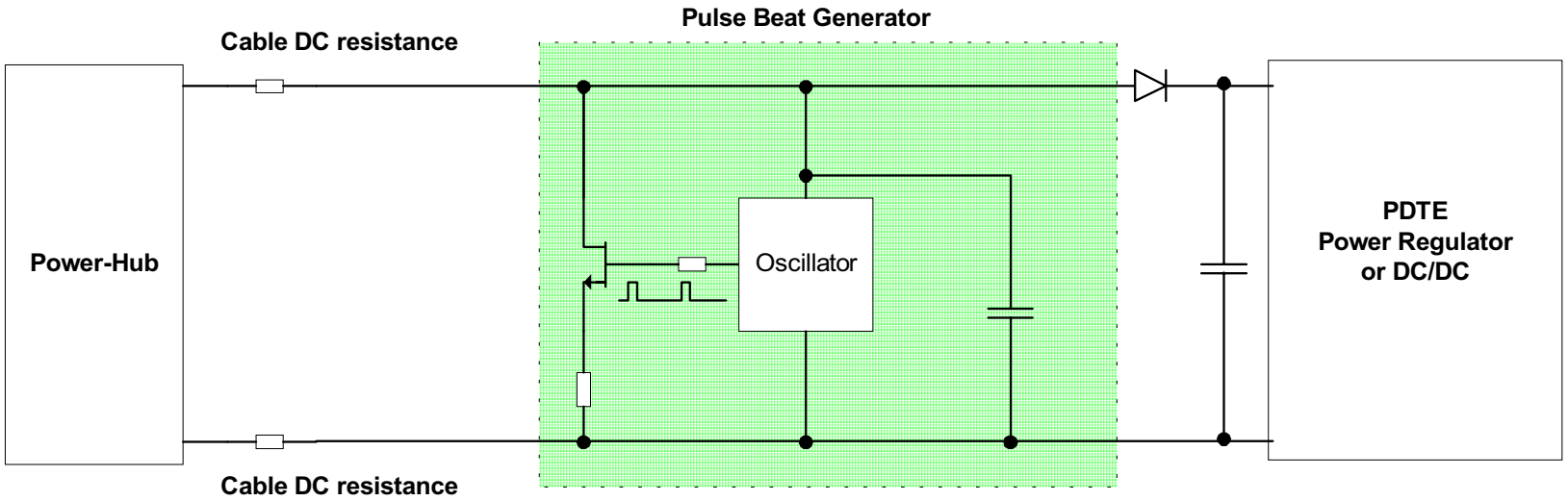
Port Authentication & Overload Protection Device



Typical PDTE Design



Optional Pulse Beat Generator



Advantages

- No changes needed to PHY, PDTE
- No effect on data communication performance
- No cost increase at terminal side
- Compatible with Phantom and "Spare Pair" feeding
- Using power path
- Simple & Reliable !!!