SUMMARY
IEEE 802.3at CLASSIFICATION AD HOC MEETINGS APRIL-MAY 2006

IEEE 802.3at
Austin 5/06

Steve Robbins
Clay Stanford

IEEE 802.3at CLASSIFICATION AD HOC April-May 2006

- 5 meetings via teleconference ending 5/17/06.
- Each meeting 1 hour duration.
- Approximately 15 participates for each meeting.
- Limited progress because classification and 4-pair architecture are interrelated.

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- **Two fundamentally different architectures are available to implement a 4-Pair PD:**
  - ***Single Signature* as is currently used in .af PDs.**
  - ***Dual Signature* in which the PD front end is split such that there are two 25K detection circuits and two classification circuits.**

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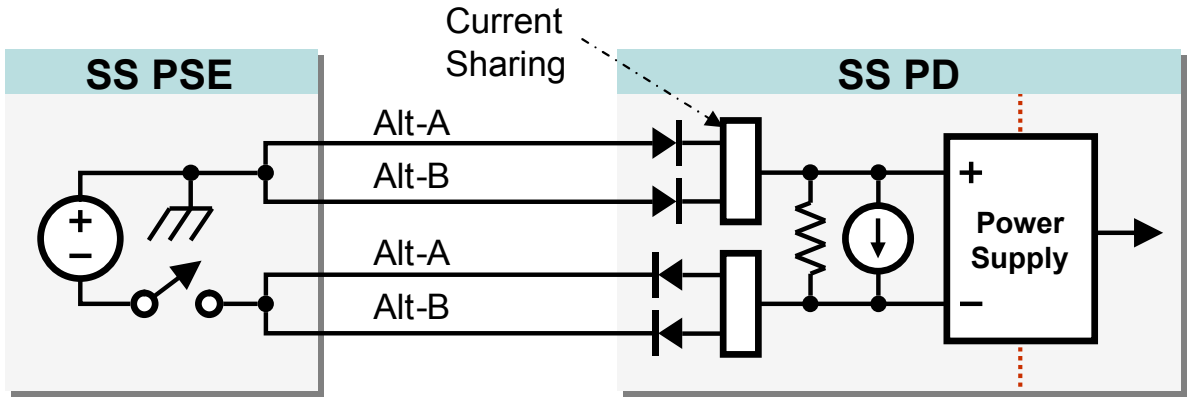
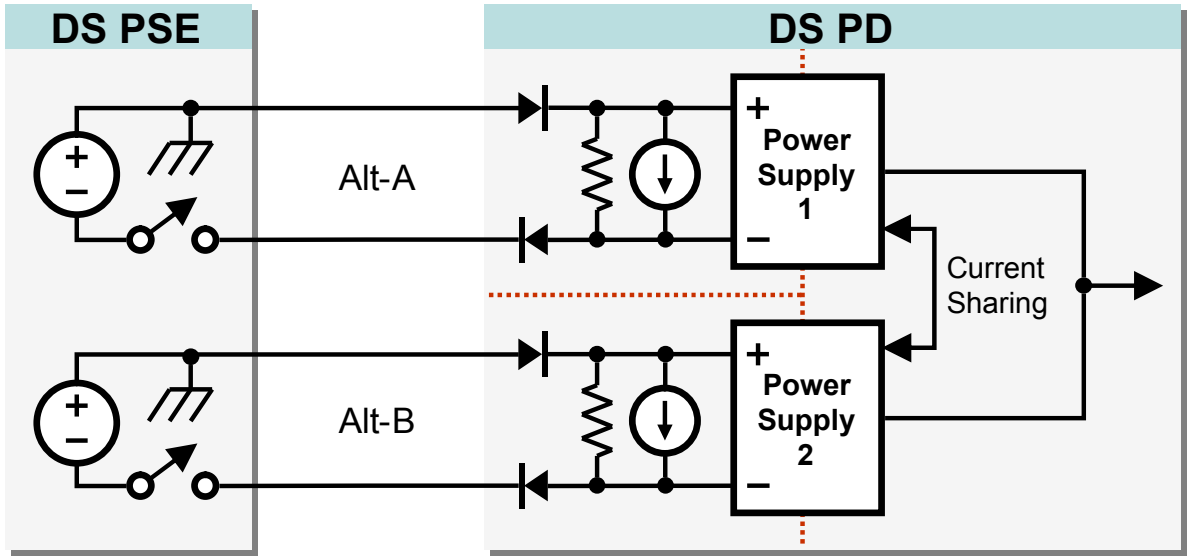
Example of Single Signature Architecture

Current Sharing: Needed only for high-power PD.



Example of Dual Signature Architecture



Symbol Legend

- = L1 Class Signature
- = Detection Signature
- = Pwr Ctrl/Curr Limit
- = Isolation Barrier

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- **The two architectures are generally incompatible and therefore the committee needs to select one.**
- **Each architecture has advantages and disadvantages and supports a different set of PoE hardware combinations.**
- **The group is split on how to proceed:**

Camp 1
Decide on architecture, Single Signature vs. Dual Signature. Once architecture is defined, decide which PoE hardware combinations to support.

Camp 2
Decide what types of PoE hardware combinations to support, and then pick the system architecture which best supports the desired set of hardware combinations.

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- Participates will present materials during this conference to summarize the tradeoffs involved.
- The adhoc committee is asking the Task Force to make two decisions this week:
  - Select the PD architecture; SS or DS.
  - Define which PoE hardware combinations to support.

PRESENTATIONS DURING THE APRIL-MAY 2006 AD HOC

- Daniel Feldman-PowerDsine: Classification Minimum (Power) Level
- Clay Stanford-Linear Technology: 4-Pair Systems: Allowing Each 2-pair Set to Operate Autonomously
- Steve Robbins-Independent: Trade-Off Study of 4P PoE System Topologies
- Yair Darshan-PowerDsine: PDs Market Driven Architecture
- Yair Darshan-PowerDsine: Suggested Additional requirements for supporting 2P/4P PDs
- Hugh Barrass-Cisco: Stateless/Stateful (Layer 2 Classification)