



Draft Power Supply Specification Submission

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Local Internet Technology

Power Source Specification Submission

- The Power Supply Ad Hoc group has made submission to the 802.3af Draft Specification.
- Output current range 10 - 350 mA.
- Transient response 1 ms to within 1% of nominal.
- Environment B:
 - The output voltage range is to be 50 - 56 Volts;
 - Load regulation of $\pm 3\%$
 - Guarantees a minimum of 14.5 Watts at the Powered Device.
- Environment A:
 - The output voltage range is to be 42 - 56 Volts;
 - Regulation of $\pm 5\%$
 - Guarantees a minimum of 11.7 Watts at the Powered Device.

Power Source Specification (cont.)

- **Environment B and A?**
- **Per port binary monitoring signals:**
 - Open Load Status output (when load current < minimum)
 - Output Voltage Sense (within safe area)
 - Output Current Sense (within safe area)
 - Over Voltage indication (voltage > maximum)
 - Others T.B.D.
- **Output noise specifications for both differential and common mode over the range of 100 Hz to 100 MHz at levels T.B.D.**

Implications and Issues

- **The “Environment A” specification implies that:**
 - A single power source can feed a number of ports;
 - Direct battery feed is allowed for emergency power back up;
 - A per-port fail safe protection device is required.
- **Implementation of an “Environment A” solution could provide advantages in the following economies:**
 - Dissipation;
 - Volume;
 - Per-port cost.
- **Current 10/100 BaseT implementations are rarely specified for either Environment A or B.**