

The logo for Aquantia, featuring the word "AQUANTIA" in a bold, white, sans-serif font with a registered trademark symbol (®) to the upper right. The logo is set against a dark blue background that includes a faint, perspective view of a tunnel with arched openings and a bright light source at the end, creating a sense of depth and technology.

AQUANTIA[®]

Power Over 10GBASE-T Ethernet

Paul Langner

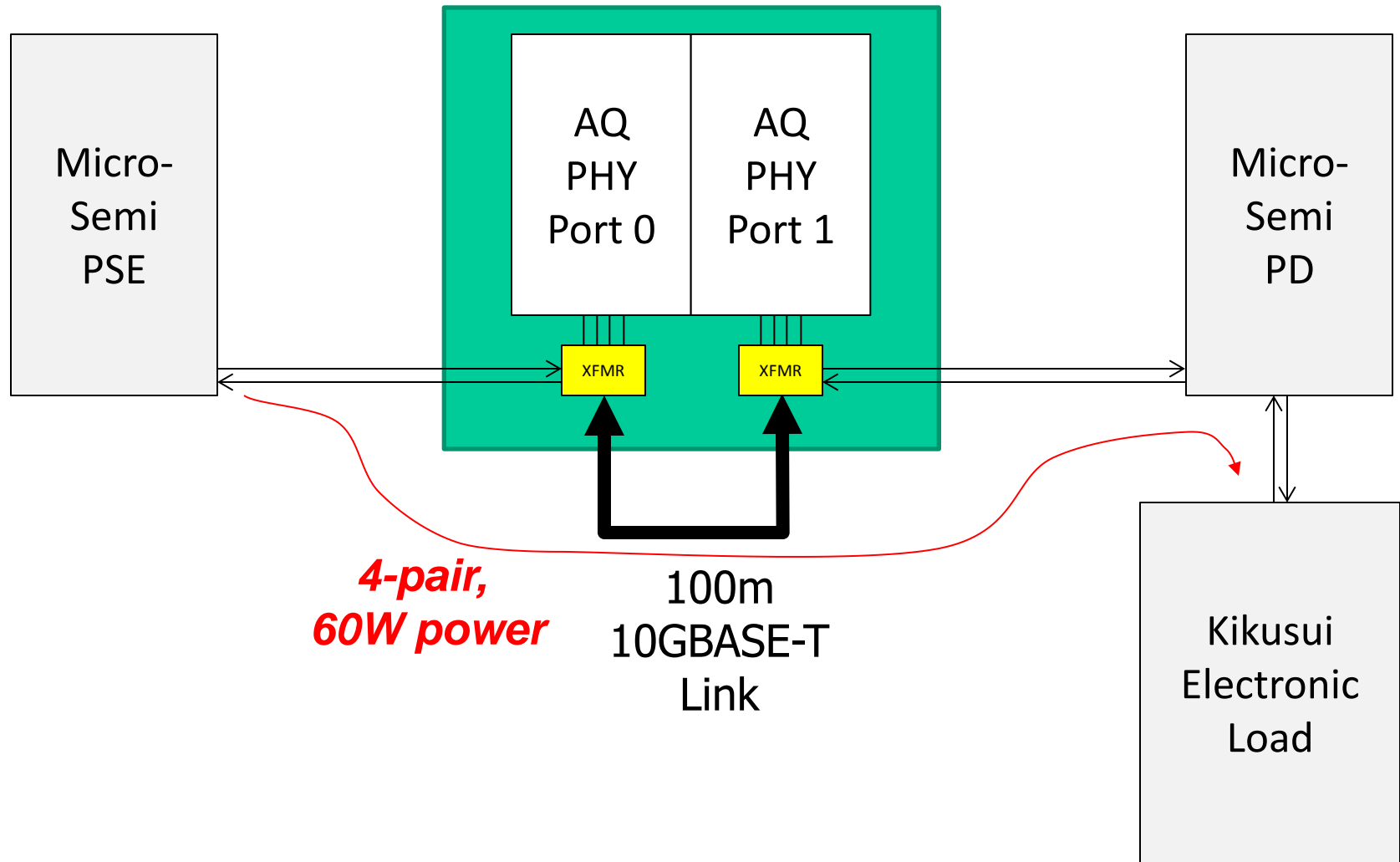
Supporters

- **George Zimmerman, CME Consulting, Inc.**
- **Brad Booth, Independent**
- **Ron Nordin, Panduit**
- **Wayne Larsen, Commscope**
- **Yair Darshan, Microsemi**
- **Thuyen Dinh, Pulse**
- **Yakov Belopolsky, Bel Stewart**
- **Richard Mei, Commscope**
- **Mabud Choudhury, Commscope**
- **Albert Kuo, Realtek**
- **Wael Diab, Broadcom**
- **Mike Grimwood, Broadcom**

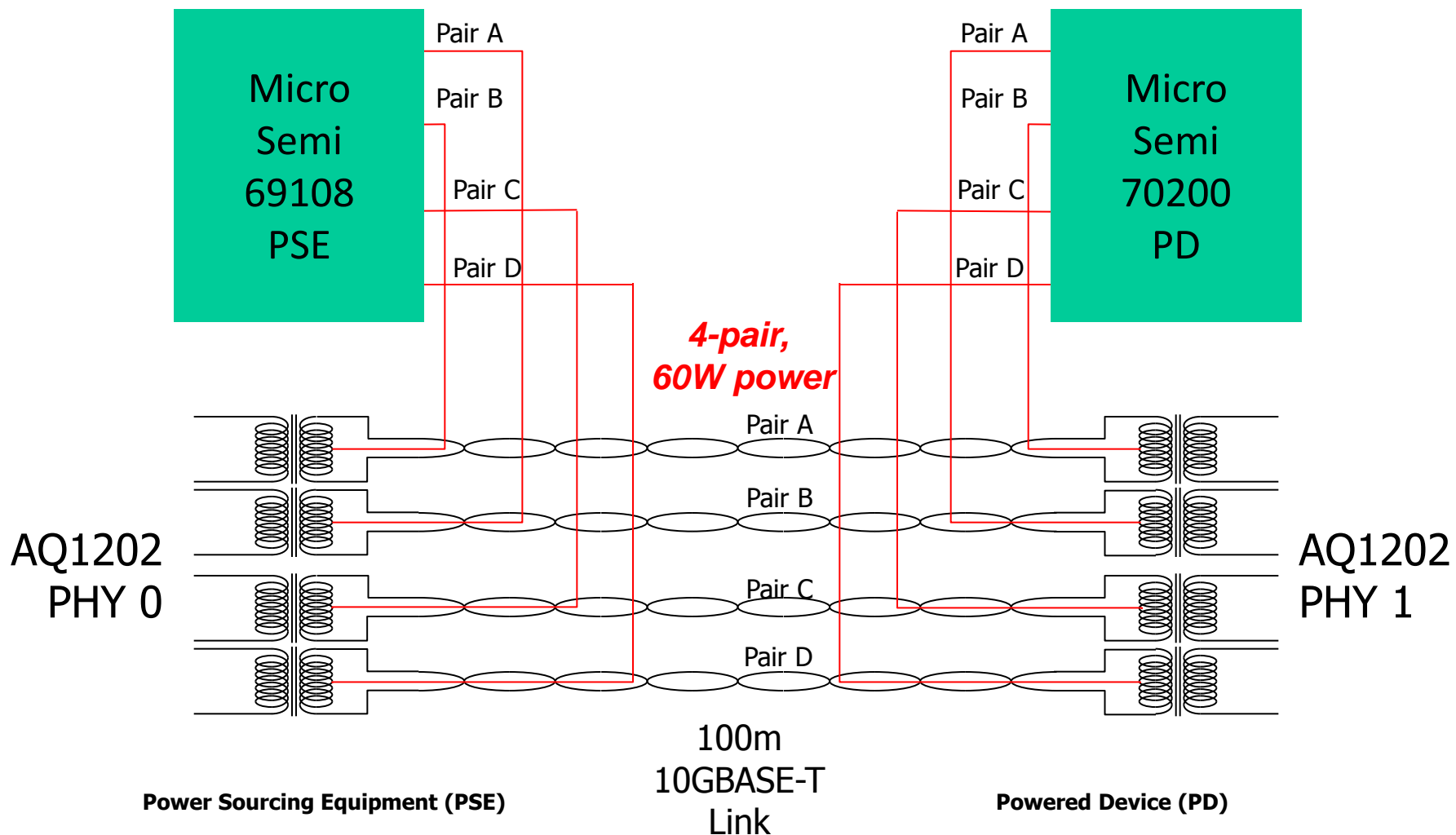
Overview

- **10GBASE-T was not included in 802.3at-2009 because technology wasn't proven early enough**
- **Market need for power over 10G is growing**
 - See, e.g., CFI presentation, slide 13,
http://www.ieee802.org/3/4PPOE/public/mar13/CFI_02_0313.pdf
- **Demonstrations of 802.3at standard PoE over 10GBASE-T compliant links exist today**
 - Specifications beyond implementations in 10GBASE-T PHYs or 802.3at are not required
- **Demonstrations show technical feasibility for extending Clause 33 PoE to include 10GBASE-T**

Technical Feasibility



Electrical Connections



Results

- **No noticeable impact on SNR or LDPC iterations**
- **Supports 10GBASE-T BER requirements**

Conclusion

- **Demonstrations show technical feasibility for extending Clause 33 PoE to include 10GBASE-T**
- **Replace objective 8 with:**
“Support 802.3 Clause 55 (10GBASE-T) operation”