Presented to SPI-3 Subcommittee

On: November 3, 1998

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Patent Applied for on this Contact
The Problem:

When a new drive is hot-plugged into an operating drive array that uses Low Voltage Differential (LVD) family logic, some receivers may detect errors.
ACCOMPLISHMENTS:

Identified and Quantified the error condition.

Designed a Contact that can eliminate the errors.

Proven the Dual Conductivity Contact (DCC) concept.

Produced a prototype DCC connector.
**SCA-2 Server Drive Array System Model**

The Bus Path: Represents Cables or a Backplane

- Bus Path Conn.
- Device Conn.
- Device Intercon.
- Drive_1 Circuits
- Drive_2 Circuits
- Drive_3 Circuits
- Drive_4 Circuits
- Drive_5 Circuits
- Terminator
- Drive #1
- Drive #2
- Drive #3: Hot Plugged
- Drive #4
- Drive #5
- Terminator
Bus Path (Media) Showing Energy Depletion on a Signal Line
Dual Conductivity Contact

AMP Incorporated -- Global Technology

Bus Path: Signal Lines

Series Resistance

Drive Capacitance
Dual Conductivity Contact

AMP Incorporated -- Global Technology
Dual Conductivity Contact

AMP Incorporated -- Global Technology

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Standard Contact vs. Dual Conductivity Contact
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MILESTONES:

✓ Laboratory Demonstration Samples

✓ Prototype Contacts

→ Pre-production Contacts (100’s of Connectors)

→ Full Production Contacts