P1581 - New Hope of Success
Bob Russell
r.russell@ieee.org

Outline:

The problem P1581 solves
The problem P1581 creates
A new solution

(The author reserves all intellectual property rights to the methodology presented herein.)
Connectivity Test Challenge
Connectivity Test Solution
Memory Connectivity Test Challenge
P1581 - Test Solution?

ITC '99
P1581 - A Test Solution?
(RJR - Public Domain?)
A New Test Solution - P1581?
Transparent Test Mode

- No extra pins
- No extra codes
- No constraints for test non-user
Operational States of Typical Memory Device
Operational States of Memory Device w/ TTM
Block Diagram of Memory Device w/ TTM
States of Memory Device w/ TTM
PCB Utilizing P1581
vs. PCB Not Utilizing P1581
Conclusions

- P1581 in doldrums for 5 years
- P1581 w/o TTM problems:
  - Extra pin or code overhead
  - Not transparent to non-user
- Transparent Test Mode:
  - Operation transparent to non-user
  - Mode change by normal function
  - Overhead completely within memory
- TTM = New hope for P1581