Extended Modes for READ/WRITE BUFFER

Lawrence J. Lamers
Adaptec, Inc.
Extension to Mode Field

- **Mode Field extended to four bits**
- **Read Data from logical buffer (1010b)**
  - In this mode the data is written or read from the logical buffer assigned to domain validation.
  - This buffer shall be the same buffer for both the WRITE BUFFER and READ BUFFER commands.
  - The Buffer ID and Buffer Offset fields are ignored in this mode.
- **Other four bits in Byte(1) Reserved for additional testing to be defined**
Basic Premise

- Host issues a WRITE BUFFER command with a known data pattern to the selected device
- Host issues a READ BUFFER command to retrieve that data from the target
Simple and Quick Test

1) BUS RESET
2) Select device
3) Issue INQUIRY command
4) Negotiate bus speed and width
5) Issue READ BUFFER command
6) If the command completes successfully, (i.e., no parity errors, CRC failures, or bus hangs) the bus speed and width are established.
7) If the command fails the host performs another negotiation and retest.
Data Pattern

• The data pattern is 128 bytes in length

• Transfers in less than 25 microseconds even at asynchronous speeds.

• The host provides a time-out to check for bus hangs due to REQ/ACK miscount.