To: T10 Technical Committee
From: Bob Sheffield (Robert.L.Sheffield@intel.com)
Date: 3 April 2007
Subject: 07-168r0: SAS-2: Clarify detection of a redundant primitive sequence

Revision history
Revision 0 (3 April 2007) First revision

Related documents
SAS-2-r09 - Serial Attached SCSI - 2 (SAS-2) revision 09
06-028r1 - Handling Redundant Primitive Sequences with DFE-based Receivers - Proposed Text for SAS 2.0

Overview

The text in subclause 7.2.4.7 describing detection of the redundant primitive sequence could be interpreted to mean that any three dwords in six consecutive dwords could be something *other* than the three identical redundant primitives in the remaining three dwords, and the receiver would still be required to detect the redundant primitive sequence. However, it is the intent of the subclause to confer discretion on the receiver as to which three of the six consecutive dwords it may detect. The text needs to be adjusted accordingly.

Suggested changes

Modify subclause 7.2.4.7as follows:

7.2.4.7 Redundant primitive sequence

Primitives that form redundant primitive sequences (e.g., BROADCAST (CHANGE)) shall be sent six times consecutively. Any number of deletable primitives may be sent inside primitive sequences as described in 7.2.4.1.

A receiver that detects any three identical primitives within the six consecutive dwords of a redundant primitive sequence shall detect a redundant primitive sequence ~~after the identical primitive is received in any three of six consecutive dwords~~. After receiving a redundant primitive sequence, a receiver shall not detect a second instance of the same redundant primitive sequence until it has received six consecutive dwords that are not any of the following:

   a)   the original primitive; or
   b)   a deletable primitive.