

To: T10 Technical Committee  
From: Robert Sheffield, Intel (robert.l.sheffield@intel.com)  
Date: 28 January 2005  
Subject: 05-058r0: SAS-1.1 - COMWAKE Received clarification

### **Revision history**

Revision 0 (28 January 2005) First revision

### **Related documents**

sas1.1-r07 - Serial Attached SCSI 1.1 revision 7

### **Overview**

A note on the reflector from Henry Wong pointed out some inconsistent wording regarding the behavior of the COMWAKE Received state machine variable defined in the SAS Phy OOB state machine.

In SAS1.1-r7, section 6.8, the last sentence in the paragraph describing the state machine variable COMWAKE\_Received says: "Any transition to SP0: OOB\_COMINIT shall set COMWAKE\_Received to zero."

In SAS1.1-r7, SP0:OOB\_COMINIT section 6.8.3.2.1, 4th paragraph says: "Entry into this state due to power on shall set the ATTACHED SATA PORT SELECTOR bit to zero in the DISCOVER response, and shall set the COMWAKE\_Received state machine variable to zero."

While not incorrect (i.e., entering SP0:OOB\_COMINIT due to a power on condition is *one* of the cases qualifying as "any transition to SP0:OOB\_COMINIT"), the wording could lead to confusion regarding whether COMWAKE\_Received should be set to zero on any transition to SP0, or only with a power on condition.

This proposal suggests revising the text in subclause 6.8.3.2.1 to clarify the intent.

### **Suggested changes**

#### **6.8.3.2 SP0:OOB\_COMINIT state**

##### **6.8.3.2.1 State description**

This state is the initial state for this state machine.

Upon entry into this state, this state shall:

- a) send a Transmit COMINIT message to the SP transmitter;
- b) send a Stop DWS message to the SP\_DWS state machine; and
- c) send a Phy Layer Not Ready confirmation to the link layer.

This state machine waits for receipt of a COMINIT Transmitted message and/or a COMINIT Detected message.

Entry into this state due to power on shall set the ATTACHED SATA PORT SELECTOR bit to zero in the DISCOVER response, ~~and~~ [Any transition to this state](#) shall set the COMWAKE\_Received state machine variable to zero.

If the phy supports attachment to a SATA device (i.e., the phy is attached to an STP/SATA bridge), supports attachment to a SATA port selector, and this state receives a COMWAKE Detected message it shall set the state machine variable COMWAKE\_Received to one, and if the value of the ATTACHED SATA PORT SELECTOR bit in the DISCOVER response is zero, it shall:

- a) set the ATTACHED SATA PORT SELECTOR bit in the DISCOVER response to one; and
- b) end a SATA Port Selector Change confirmation to the link layer.

State machine variable MgmtReset shall be set to one if this state is entered due to a Management Reset request or SMP Reset request. MgmtReset shall be set to zero if this state is entered due to a power on, a hard reset, DWS Lost message received, or COMINIT received.