

Date: Mar 09, 1999

To: T10 Committee (SCSI)

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Subject: Message IU Definition

1 Overview

The current definition of packetized in SPI-3 does not have a defined way to allow an initiator to negotiate a change during any initial connection (i.e., before sending any commands to the target). This proposal allows the ATN signal to be asserted while packetized is enabled. If this occurs the current SPI-3 draft requires the target to go to bus free if the ATN signal is asserted.

1.0.0.1 Selection with ATN

The initiator shall set the DATA BUS to a value that is the OR of its SCSI ID bit, the target's SCSI ID bit, and the appropriate parity bit(s) (i.e., P_CRCA, and/or P1). If information unit transfers are disabled the initiator shall assert the ATN signal (indicating that a MESSAGE OUT phase is to follow the SELECTION phase). If information unit transfers are enabled the initiator may assert the ATN signal.

If the arbitration was a normal arbitration then the initiator shall wait at least two system deskew delays and release the BSY signal. The initiator shall then wait at least a bus settle delay before looking for an assertion of the BSY signal from the target.

If the arbitration was a quick arbitration then the initiator shall then wait at least a bus settle delay before looking for an assertion of the BSY signal from the target.

The target shall determine that it is selected when the SEL signal and its SCSI ID bit are true and the BSY and I/O signals are false for at least a bus settle delay. The selected target may examine the DATA BUS in order to determine the SCSI ID of the selecting initiator. The selected target shall then assert the BSY signal within a selection abort time of its most recent detection of being selected; this is required for correct operation of the selection time-out procedure.

The target shall not respond to a selection if bad parity is detected (see 8.3.1). Also, if more than two SCSI ID bits are on the DATA BUS, the target shall not respond to selection.

No less than two system deskew delays after the initiator detects the BSY signal is true, it shall release the SEL signal and may change the DATA BUS. The target shall wait until the SEL signal is false before asserting the REQ signal to enter an information transfer phase.

If information unit transfers are disabled for the connecting initiator the target shall follow the phase sequences defined in clause 11.3.1.

If information unit transfers are enabled for the connecting initiator the target shall proceed to a MESSAGE OUT phase. On detecting the MESSAGE OUT phase the initiator shall begin a PPR negotiation (see xxx). On completion of the PPR negotiate the target shall proceed to a BUS FREE phase. If the first message received by the target during the MESSAGE OUT phase is not a PPR message the target shall change to a MESSAGE IN phase and issue a MESSAGE REJECT message followed by a PPR message.