

AHCI 1.1

Errata 002 Draft



AHCI 1_1 Errata_002.doc

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1 Obeying Transfer Count for PIO transfers

1.1 Description of Technical Issue

For multiple DRQ block PIO writes to the device, the Transfer Count field requested by the device in the PIO Setup FIS shall be followed by the host. This errata updates the DX:Transmit state to ensure that the Data FIS size requested by the device is followed.

1.2 Description of Correction to Specification

Modify section 5.3.9.2 as follows:

5.3.9.2 DX:Transmit

DX:Transmit	HBA transmits the Data FIS to the device. Continue to fetch PRDs and data as necessary to complete the Data FIS until pDmaXferCnt bytes or 8KB has been transferred. For each PRD entry processed, if R_OK is received for all the FISes containing the data for that PRD entry and the 'I' bit is set in the PRD entry, then set pPrdIntr to '1'.		
1. SYNC escape received for Data FIS	→	ERR:SyncEscapeRecv	
2. Transmission failed	→	ERR:Fatal	
3. pDmaXferCnt bytes have been transferred, end of PRD table reached, or maximum Data FIS length of 8KB has been transferred.	→	DX:UpdateByteCount	
NOTE:			
1. If the DMAT primitive is received from the device, it is recommended that this primitive be ignored and data transmission be continued.			

This state transmits a Data FIS to the device. The HBA will fetch PRDs and data as necessary to complete the Data FIS.