



Maxtor Corporation
 500 McCarthy Boulevard
 Milpitas, CA 95035 USA

To: T10 Technical committee
From: Mark Evans
Phone: 408-894-5310
Email: mark_evans@maxtor.com
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Subject: New “report transfer capabilities” port control subpage for SPI-5.

Introduction

The only method to determine a parallel SCSI device’s transfer agreement capabilities is via a sequence of negotiation message exchanges (PPR from initiator to target, PPR from target to initiator, etc.). This proposal recommended for inclusion in SPI-5 defines a new port control subpage returned in response to a MODE SENSE command that provides a method to determine all of a parallel device’s capabilities in one step.

The following is required to implement this proposal:

- 1) A new entry for the “report transfer capabilities subpage” is added to the table “Mode subpage codes for the SCSI parallel interface”.
- 2) The following is added as a new sub-subclause at the end of the Port control mode page subclause:

x.y Report transfer capabilities subpage (04h)

The report transfer capabilities subpage, shown in table x, is used to report the transfer capabilities of the device.

Table x – Report transfer capabilities subpage (04h)

Bit	7	6	5	4	3	2	1	0
Byte								
0	MINIMUM TRANSFER PERIOD FACTOR							
1	RESERVED							
2	MAXIMUM REQ/ACK OFFSET							
3	MAXIMUM TRANSFER WIDTH EXPONENT							
4	PROTOCOL OPTION BITS SUPPORTED							
5	RESERVED							
6	RESERVED							
7	RESERVED							

The MINIMUM TRANSFER PERIOD FACTOR field shall be set to the smallest value of the TRANSFER PERIOD FACTOR (see 16.3.12.1) supported by the device.

The MAXIMUM REQ/ACK OFFSET field shall be set to the largest value of the REQ/ACK OFFSET (see 16.3.12.1) supported by the device.

The MAXIMUM TRANSFER WIDTH EXPONENT field shall be set to the largest value of the TRANSFER WIDTH EXPONENT (see 16.3.12.1) supported by the device.

The device shall set the bits in PROTOCOL OPTIONS BITS SUPPORTED field as defined in table y (see 16.3.12.1).

Table y – Protocol options bits supported

Bit	Meaning if the bit is set to one
0	The device supports Information Unit transfers.
1	The device supports DT data transfers.
2	The device supports QAS.
3	The device has the capability to hold margin control settings.
4	The device supports write flow control.
5	The device supports read streaming.
6	The device is capable of retaining training information.
7	Reserved