



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
Date: ~~26 September~~ 06 November 2001

Subject: New "report transfer capabilities" port control subpage for SPI-54.

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 change bars indicate minor editorial changes made at the Parallel SCSI Working Group on November 6th, 2001.](#)

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 for the SCSI target port. The values in this subpage are not changeable via a MODE SELECT command.](#)

Table x – Report transfer capabilities subpage (04h)

Bit	7	6	5	4	3	2	1	0
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 [16.3.12.14.12.4.3](#)) supported by the [device SCSI target port](#).

The MAXIMUM REQ/ACK OFFSET field shall be set to the largest value of the REQ/ACK OFFSET (see [16.3.12.14.12.4.4](#)) supported by the [SCSI target port device](#).

The MAXIMUM TRANSFER WIDTH EXPONENT field shall be set to the largest value of the TRANSFER WIDTH EXPONENT (see [16.3.12.14.12.4.5](#)) supported by the [SCSI target port device](#).

The [device target port](#) shall set the bits in PROTOCOL OPTIONS BITS SUPPORTED field ~~as defined in table y to indicate the protocol options supported by the SCSI target port~~ (see [16.3.12.14.12.4.6](#)).

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