



To: T10 Technical Committee  
 From: Kevin Marks  
 Date: April 24, 2006  
 Subject: T10/06-209r0 – SAT: Fix Mode Page Policy VPD page in SAT

### **Revision History**

Revision 0 (4/24/06) – Initial proposal

### **Related Documents**

T10/1711-D - SCSI / ATA Translation (SAT) Revision 8

[New text to be added](#)

~~Text to be deleted~~

*Editorial Text*

### **Overview**

This proposal was created to address conflicting statements in SATr8 found during letter ballot resolution regarding the Mode Page Policy VPD page and to not force the SATL to provide only a shared policy. During the last letter ballot resolution call, it was decided to make implementation of the Mode Page Policy VPD page a “should”, and leave the policies unspecified.

## **Suggested Changes to SATr08:**

### **8.3.1 MODE SELECT (6) command overview**

The MODE SELECT (6) command provides a mechanism for application clients to change the operating parameters of the target or a logical unit. Parameters specified by the MODE SELECT (6) command may be retrieved with the MODE SENSE (6) command. The application client should send a MODE SENSE (6) command before issuing a MODE SELECT (6) command for the same mode page, to determine the format, length changeable field etc.

The Mode Page Policy VPD page (~~see 10.3~~) should be implemented ([see 10.3](#)). ~~The MODE PAGE POLICY shall be set to 'Shared', and only one copy of 'current' mode page values shall maintained for all logical units of a target.~~ After a logical unit reset, the SATL shall set all mode page values to default values. See clause 10 for supported mode pages.

~~<<....>>~~

~~<<Note that in section 10.1.1 General Information, the second paragraph is being deleted as part of LB resolution. This paragraph had references to the Mode Page VPD page, saying that the VPD is not implemented....>>~~

## **10.3 Vital product data parameters**

### **10.3.1 Vital product data parameters overview**

Table 77 provides a summary of the VPD page translations defined in this standard.

**Table 77 — Summary of SCSI / ATA VPD page mapping**

SCSI VPD Page	Reference
Supported VPD Pages (i.e., 00h)	10.3.2
Unit Serial Number (i.e., 80h)	10.3.3
Device Identification (i.e., 83h)	10.3.4
<a href="#">Mode Page Policy (i.e., 87h)</a>	<a href="#">10.3.5</a>
ATA Information VPD page (i.e., 89h)	10.3. <del>5</del> <a href="#">6</a>

### 10.3.2 Supported VPD pages VPD page

Table 78 shows the fields of the Supported VPD pages VPD page.

**Table 78 — Supported VPD pages VPD page fields**

### 10.3.3 Unit Serial Number VPD page

<<....>>

### 10.3.4 Device Identification VPD page

#### 10.3.4.1 Device Identification VPD page overview

The SATL shall return the Device Identification VPD page (see SPC-3) as defined in table 81.

**Table 81 — Device Identification VPD page for SAT**

*<< In Table 81, byte 2 is shown as Reserved. This is incorrect; byte 2 is part of the PAGE LENGTH field. This seems to have been missed in LB. This questions, why there is not a standard mode page header for all mode pages? >>*

<<....>>

### [10.3.5 Mode Page Policy VPD page](#)

The SATL should implement the Mode Page Policy VPD page for each logical unit emulated (see SPC-3). Table 87 defines the Mode Page VPD page (see SPC-3) returned by a SATL.

**[Table 87 — Mode Page Policy VPD page for SAT](#)**

Byte\Bit	<u>7</u>	<u>6</u>	<u>5</u>	<u>4</u>	<u>3</u>	<u>2</u>	<u>1</u>	<u>0</u>
<u>0</u>	<a href="#">PERIPHERAL QUALIFIER</a>			<a href="#">PERIPHERAL DEVICE TYPE</a>				
<u>1</u>	<a href="#">PAGE CODE (87h)</a>							
<u>2</u>	<a href="#">(MSB)</a>	<a href="#">PAGE LENGTH (n-3)</a>						<a href="#">(LSB)</a>
<u>3</u>								
	<a href="#">Mode page policy descriptor list</a>							
<u>4</u>	<a href="#">Mode page policy descriptor (first)</a>							<a href="#">_____</a>
<u>7</u>	<a href="#">_____</a>							<a href="#">_____</a>
	⋮							
<u>n-3</u>	<a href="#">Mode page policy descriptor (last)</a>							<a href="#">_____</a>
<u>n</u>								

The PERIPHERAL QUALIFIER field and the PERIPHERAL DEVICE TYPE field shall be set as described in 8.1.2.

The PAGE CODE field shall be set to 87h.

The PAGE LENGTH field is unspecified (see 3.4.3).

If the SATL implements the Mode Page Policy VPD page, then the SATL shall include at least one mode page policy descriptor (see table 88).

**Table 88 — Mode page policy descriptor for SAT**

<b><u>Byte\Bit</u></b>	<b><u>7</u></b>	<b><u>6</u></b>	<b><u>5</u></b>	<b><u>4</u></b>	<b><u>3</u></b>	<b><u>2</u></b>	<b><u>1</u></b>	<b><u>0</u></b>
<b><u>0</u></b>	<u>Reserved</u>		<u>POLICY PAGE CODE</u>					
<b><u>1</u></b>	<u>POLICY SUBPAGE CODE</u>							
<b><u>2</u></b>	<u>MLUS</u>	<u>Reserved</u>					<u>MODE PAGE POLICY</u>	
<b><u>3</u></b>	<u>Reserved</u>							

The POLICY PAGE CODE field, POLICY SUBPAGE CODE field, multiple logical units share (MLUS) bit and MODE PAGE POLICY field are unspecified (see 3.4.3).

### **10.3.56 ATA Information VPD page**

*<<Subclause and table number increment through subclause and standard>>*