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To: T10 SAS Protocol Working Group
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Subject: Proposal for SAS Phy Error log page

Introduction

The following proposes a log page for SSP targets to report phy errors. This is based on the SMP REPORT PHY ERROR LOG response. The following is based on SAS-r01.

10.2 SCSI log parameters

The SSP Phy Error log page is used to report errors that have occurred on a target's phy(s).

Table m1 – SSP phy error log page

Byte	Bit	7	6	5	4	3	2	1	0
0		PAGE CODE (xxh)							
1		RESERVED							
2	(MSB)	PAGE LENGTH (n x 14h)							
3		(LSB)							
SSP phy error log parameters									
4	(MSB)	First phy error log parameter							
...									
23		(LSB)							
...								
20n + 4	(MSB)	n th phy error log parameter							
...									
20n + 24		(LSB)							

Table m2 defines the format for one SSP phy error log parameter.

Table m2 – SSP phy error log parameter format

Byte	Bit	7	6	5	4	3	2	1	0	
0	(MSB)	PARAMETER CODE (phy identifier)								(LSB)
1										
2		DU	DS	TSD	ETC	TMC		LBIN	LP	
3		PARAMETER LENGTH (10h)								
4	(MSB)	INVALID CHARACTER COUNT								(LSB)
...										
7										(LSB)
8	(MSB)	DISPARITY ERROR COUNT								(LSB)
...										
11		LOSS OF BIT SYNC COUNT								(LSB)
12	(MSB)	PHY RESET PROBLEM COUNT								(LSB)
...										
15										(LSB)
16	(MSB)									(LSB)
...										
19										(LSB)

The phy identifier is defined in ss.

The INVALID CHARACTER COUNT, DISPARITY ERROR COUNT, LOSS OF BIT SYNC COUNT, and PHY RESET PROBLEM COUNT fields are defined in tt.