

Device Statistics – Transport

T13 Technical Proposal – e07168r10

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A.5 Device Statistics (Log Address TBD)

A.5.1 Device Transport Statistics (Page TBD)

A.5.1.1 Overview

Device Statistics log page TBD contains interface transport information about the device as described in table TBD.

The summary of this transport statistics is as followed:

- a) Structure Version;
- b) Number of Hardware Resets;
- c) Number of ASR Events; and
- d) Number of Interface CRC Errors.

Table TBD –Transport Statistics

Offset	Type	Content								
0-7	QWord	Structure Version								
		<table border="0"> <tr> <td>Bit</td> <td>Meaning</td> </tr> <tr> <td>63:56</td> <td>Device Statistics Flags, (See Table TBD)</td> </tr> <tr> <td>55:24</td> <td>Reserved</td> </tr> <tr> <td>23:16</td> <td>TBDh, Page Number</td> </tr> <tr> <td>15:0</td> <td>Device Statistics Version Number = 0001h</td> </tr> </table>	Bit	Meaning	63:56	Device Statistics Flags, (See Table TBD)	55:24	Reserved	23:16	TBDh, Page Number
Bit	Meaning									
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55:24	Reserved									
23:16	TBDh, Page Number									
15:0	Device Statistics Version Number = 0001h									
8-15	QWord	Number of Hardware Resets								
		<table border="0"> <tr> <td>Bit</td> <td>Meaning</td> </tr> <tr> <td>63:56</td> <td>Device Statistics Flags, (See Table TBD)</td> </tr> <tr> <td>55:32</td> <td>Timestamp (Unsigned Integer)</td> </tr> <tr> <td>31:0</td> <td>Number of Hardware Resets (DWord)</td> </tr> </table>	Bit	Meaning	63:56	Device Statistics Flags, (See Table TBD)	55:32	Timestamp (Unsigned Integer)	31:0	Number of Hardware Resets (DWord)
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16-23	QWord	Number of ASR Events								
		<table border="0"> <tr> <td>Bit</td> <td>Meaning</td> </tr> <tr> <td>63:56</td> <td>Device Statistics Flags, (See Table TBD)</td> </tr> <tr> <td>55:32</td> <td>Timestamp (Unsigned Integer)</td> </tr> <tr> <td>31:0</td> <td>Number of ASR Events (DWord)</td> </tr> </table>	Bit	Meaning	63:56	Device Statistics Flags, (See Table TBD)	55:32	Timestamp (Unsigned Integer)	31:0	Number of ASR Events (DWord)
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24-31	QWord	Number of Interface CRC Errors								
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55:32	Timestamp (Unsigned Integer)									
31:0	Number of Interface CRC Errors (DWord)									
32-511	Byte	Reserved								

A.5.1.2 Structure Version

A.5.1.2.1 Description

Structure Version defines the version of the data structure arrangement for this page.

Bit 23:16 is the page number of the Log Page. Bit 15:0 is the revision number of the statistics structure.

A.5.1.2.2 Update Interval

NA

A.5.1.2.3 Measurement Unit

NA

A.5.1.2.4 Initialization

Structure Version shall be set to 0001h.

A.5.1.3 Number of Hardware Resets

A.5.1.3.1 Description

The Number of Hardware Resets statistic is the number of hardware resets received by the device. This statistic is incremented by one for each hardware reset. The Timestamp field records the time of the last Hardware Reset.

A.5.1.3.2 Update Interval

Ten minutes

A.5.1.3.3 Measurement Unit

Measurement unit for the Timestamp: power on hours (see xxx) [Editor's note: xxx is referring to the Power On Hour Statistics section. At a minimum we need this xxx reference on the first power on hour item of each statistics page uses this term.]

Measurement unit for the Number of Hardware Reset events: events

A.5.1.3.4 Initialization

The Timestamp and Number of Hardware Reset events statistics shall be initialized to zero at the time of manufacture.

A.5.1.4 Number of ASR Events

A.5.1.4.1 Description

The Number of ASR Events statistic is a counter that records the number of successful ASR events (see SATA 2.6). This statistic is incremented by one for each successful ASR event detected. The Timestamp field records the time of the last successful ASR Event.

A.5.1.4.2 Update Interval

Ten minutes

A.5.1.4.3 Measurement Unit

Measurement unit for the Timestamp: power on hours

Measurement unit for the ASR Events: events

A.5.1.4.4 Initialization

The Timestamp and ASR Events statistics shall be initialized to zero at the time of manufacture.

A.5.1.5 Number of Interface CRC Errors

A.5.1.5.1 Description

The Number of Interface CRC Errors statistic is a counter that records the number of Interface CRC errors reported in the Error field since the device was manufactured. This statistic is incremented by one for each interface CRC error reported in the Error field. The Timestamp field records the time of the last Interface CRC Errors event.

A.5.1.5.2 Update Interval

Ten minutes

A.5.1.5.3 Measurement Unit

Measurement unit for the Timestamp: power on hours
Measurement unit for the Interface CRC Errors: events

A.5.1.5.4 Initialization

The Timestamp and Interface CRC Errors statistics shall be initialized to zero at the time of manufacture.