

**Proposed
Draft**

**Serial ATA
International Organization**

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**Serial ATA Revision 3.3 Technical Proposal #080
Title : Additional DevSlp timing requirement**

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Document History

Version	Date	Comments
0	2/4/15	Initial release.
1	2/9/15	Change new parameter acronym from DMET to DXET, change description to be more specific to the communication interface only. Add a valid bit in word 78 and a field for overriding the default value in the Identify Device Data Log page.
2	2/20/15	Add more detailed descriptions for new bit and field.
3	3/2/15	Remove Identify Device bit and Identify Device Data Log field.
4	3/16/15	Add "The release of DEVSLP eliminates this requirement."
5	6/11/15	Change value of DXET to 1 minute per SATA-IO BOD recommendation
6	6/15/15	Clarify DXET wording and add the requirement to not initiate any device to host communications, by copying verbosely the requirements c and d from section 8.5.1.2.
7	2/16/17	Change DXET to 30 seconds, update references
8	3/19/17	Change DXET back to 1 minute

1 Introduction

During the Logo Workgroup Dry Run held in January, 2015, new tests were introduced to test device compliance to DevSlp.

The tests attempt to put a device into DevSleep mode, and verify it is in DevSleep by sending COMRESET to make sure it does not respond.

Existing devices have a wide range of timing for actually going into DevSleep mode after DEVSLP is asserted. It turns out, that the 3.3 specification does not have any timing requirement for when the device should actually be in DevSleep mode after the DEVSLP has been asserted.

This suggested timing requirement is called DXET for DevSleep maXimum Entry Time, as measured from when DEVSLP is asserted to when the device no longer responds to any Host communications.

2 Technical Specification Changes

2.1 Table 79 - DevSleep timing parameters

[editor note: Existing text is black. New text is marked as [underlined in blue color](#). Material to be deleted ~~is red with strikethrough markings.~~]

Figure 264 and Table 79 provide an overview of the DEVSLP protocol.

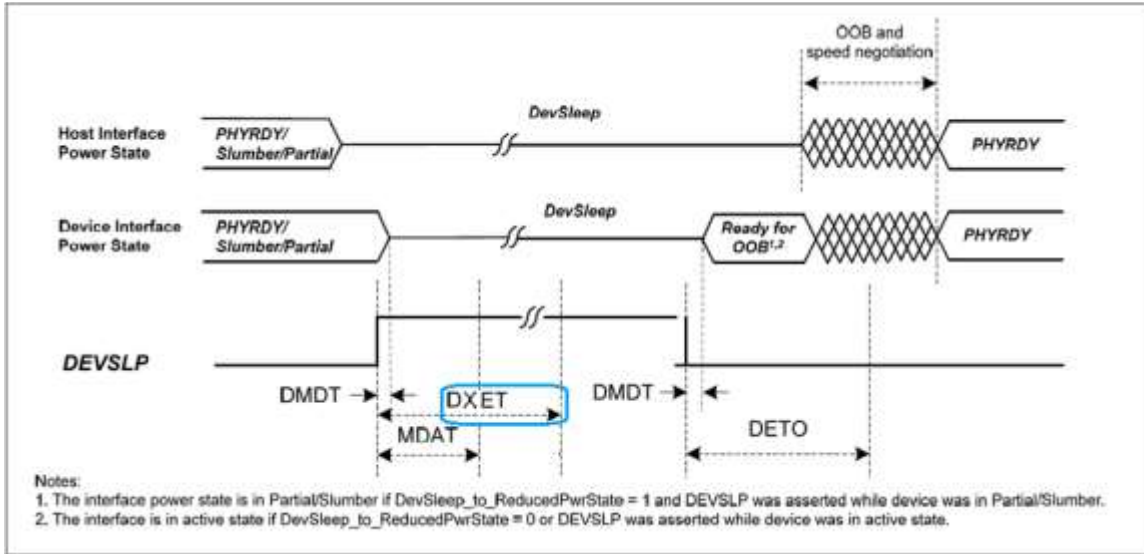


Figure 264 – DEVSLP protocol overview

Table 79 – DevSleep timing parameters

Symbol	Parameter	Value
MDAT	Minimum DEVSLP Assertion Time , minimum time that the host shall assert DEVSLP, once it has been asserted.	10 ms unless otherwise specified in Identify Device Data log.
DMDT	DEVSLP Minimum Detection Time , minimum time the device needs to de-bounce the DEVSLP signal after detecting it has been asserted.	10 us
DXET	DevSleep maXimum Entry Time , maximum time from the beginning of an interval in which DEVSLP is asserted and held, to when the device shall not initiate any device to host communications and the device shall ignore any host to device communications.	60 Seconds
DETO	DevSleep Exit Timeout , maximum time from when DEVSLP is negated, to when the device shall be ready to detect OOB signals.	20 ms unless otherwise specified in Identify Device Data Log.