

**Proposed  
Draft**

**Serial ATA  
International Organization**

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**ECN070v3SATA31\_PM5-PUIS\_Clarification**

**Title :PM5:PUIS Clarification**

**Sponsors: Intel**

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## Document History

Version	Date	Comments
00	03/25/2013	Initial release.
01	04/01/2013	Update to correct PM5 state name
02	04/02/2013	Member review
03	05/03/2013	Ratified

## 1 Introduction

SSHDs are allowed to process commands from NVM while spun down. The Hybrid Information Feature Set describes this in relation to PM2:Standby and it should have included PM5:PUIS in the description of this behavior.

## 2 Technical Specification Changes

The following additions are based on the content of Serial ATA Revision 3.1, 18-July-2011. Proposed additions to SATA 3.1 text are marked in blue underline. Proposed deletions to SATA 3.1 text are marked in ~~red strikethrough~~. Black text is the original SATA 3.1 text. Section headers correspond to the section in SATA 3.1 into which the proposed text is to be inserted.

### 3 [Editor's note TP\_042v13\_SATA31\_Hybrid\_Information 13.20.5]

d) the following commands shall be able to return command completion without error while in the PM2:Standby state [or in the PM5: PUIS and spin-up subcommand not supported state](#):

- A) all read commands, if the requested logical sectors are in the non-volatile caching medium;
- B) all write commands, if the device stores all of the data for the command in the non-volatile caching medium;
- C) commands to read the following logs:
  - a) Identify Device Data log;
  - b) Hybrid Information log;
  - c) Power Conditions log;
  - d) Queued Error log;
  - e) NCQ NON-DATA log; and
  - f) NCQ Send and Receive log;
- D) IDENTIFY DEVICE command;
- E) CHECK POWER MODE command;
- F) SMART RETURN STATUS command; and
- G) SECURITY UNLOCK command, if supported;