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NVM Express Technical Proposal for New Feature

Technical Proposal ID	**TP 4124 Device Self-test Enhancement**
Change Date	**2022-01-06**
Builds on Specification	**NVM Express Base Specification 2.0a**
References Specification	

Technical Proposal Author(s)

Name	**Company**
Jim Hatfield, Tim Jones	Seagate

Allow Command Dwords to be used in the Device Self-test command for vendor specific tests.

Revision History

Revision Date	**Change Description**
2021.07.09	Initial phase 2 revision
2021.08.12	Resolved comments from 8/12/2021 Technical WG meeting
2021.09.28	Editorial changes from member review comments
2021.10.21	Integrated
2021.11.03	Editorial changes from member review comments
2022.01.06	Changed copyright date from 2021 to 2022. Added missing parenthesis.

Description for NVM Command Set Specification 2.0a Changes Document

Feature Enhancement:

Allow Command Dword to be used in the Device Self-test command for vendor specific tests.

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Markup Conventions:

Black:	Unchanged (however, hot links are removed)
~~Red Strikethrough~~:	Deleted
Blue:	New
Blue Highlighted:	TBD values, anchors, and links to be inserted in new text.
<Green Bracketed>:	Notes to editor

<Modify portions of NVMe Base Specification 2.0a as shown below>

<Define the use of CDW15 for vendor specific self-test use>

5.9 Device Self-test command

…

The Device Self-test command uses the Command Dword 10 field and the Command Dword 15 field. All other command specific fields are reserved.

Figure 171: Device Self-test – Command Dword 10

Bits	Description
31:04	Reserved
03:00	**Self-test Code (STC):** This field specifies the action taken by the Device Self-test command. **Value** / **Definition** 0h – Reserved 1h – Start a short device self-test operation 2h – Start an extended device self-test operation 3h to Dh – Reserved Eh – Vendor specific. Additional information may be provided in Command Dword 15 (refer to Figure NEW). Fh – Abort device self-test operation

Figure NEW Device Self-test – Command Dword 15

Bits	Description
31:00	If the Self-test Code field is set to Eh (refer to Figure 171), then this field is vendor specific; otherwise this field is reserved.

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