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NVM Express Technical Proposal for New Feature

Technical Proposal ID	6019a - Add NVMe-oF Devices to Form Factors Table
Change Date	2020-11-03
Builds on Specification	NVM Express Management Interface 1.1

Technical Proposal Author(s)

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This proposal adds entries for Ethernet based form factors that use the SFF-8639 connector and that use the SFF-TA-1002 connector to Table 156, Form Factors

Revision History

Revision Date	Change Description
2020-03-17	Initial version
2020-03-23	Added references to all specifications in table 156 Editorial changes requested in 3/23 TG meeting
2020-04-06	Resolved word comments removed, word changes accepted
2020-04-27	Resolved 'code point' questions by splitting description into two columns Added interface specific unknown codes. Updated Copyright year
2020-06-17	Integrated into the NVMe Management Interface Specification, Revision 1.1.
2020-08-24	6019a version to include values of MEFF for E1.S (SFF-TA-1006) 9.5mm, 15mm and 25mm
2020-08-31	<ul style="list-style-type: none">Fixed wrong TBD valuesRemoved version numbers in the Reference section for all the SFF-TA-100X specification
2020-09-21	remove the specification version from SFF-TA-1008 only
2020-11-02	Integrated into the NVMe Management Interface Specification, Revision 1.1.
2020-11-03	Added text in the Description for NVMe Management Interface 1.1 Changes Document section

Description for NVMe Management Interface 1.1 Changes Document

Added references to specifications contained in Figure 156 to section 1.11

Modified Figure 156, renaming some form factors, adding new entries for Native NVMe-oF devices and new E1.S form factors.

Description of Specification Changes

<List all of the changes to be made to the specification. New text is in red font. Deleted text and added text have to be clearly identified in crossed out red font. Any new section numbers, figure numbers, or values in tables must not be assigned and unique labeling applied with yellow highlighted red font. During integration, the technical writer will assign these values>

Add the following reference entry to Section 1.11 References:

PCI-SIG PCI Express Card Electromechanical Specification, Revision 4.0, Version 1.0. Available from <http://www.pcisig.com>.

PCI-SIG PCI Express M.2 Specification, Revision 3.0, Version 1.2. Available from <http://www.pcisig.com>.

PCI-SIG PCI Express SFF-8639 Module Specification, Revision 3.0, Version 1.0. Available from <http://www.pcisig.com>.

SNIA Native NVMe-oF™ Drive Specification, Version 1.0.1. Available from <http://www.snia.org>.

SNIA SFF-TA-1001 Universal x4 Link Definition for SFF-8639 Specification, Revision 1.1. Available from <http://www.snia.org>.

SNIA SFF-TA-1006 Enterprise and Datacenter 1U Short SSD Form Factor (E1.S) Specification, Revision 1.3a. Available from <http://www.snia.org>.

SNIA SFF-TA-1007 Enterprise and Datacenter 1U Long SSD Form Factor (E1.L) Specification, Revision 1.1. Available from <http://www.snia.org>.

SNIA SFF-TA-1008 Enterprise and Datacenter 3" SSD Form Factor Specification. Available from <http://www.snia.org>.

Make the following addition to Figure 156:

Value	Description	
	Interface	Form Factor Description
0	Unspecified	Other – unknown
1	PCIe	Integrated
2	PCIe	Other – unknown
3 to 15	Reserved	
16	PCIe	2.5" Form Factor – unknown
17	PCIe	2.5" Form Factor – U.2 (SFF-8639) PCI Express SFF-8639 Module (U.2) 15 mm
18	PCIe	2.5" Form Factor – U.2 (SFF-8639) PCI Express SFF-8639 Module (U.2) 7 mm
19	PCIe	2.5" Form Factor – (SFF-TA-1001) 15 mm
20	PCIe	2.5" Form Factor – (SFF-TA-1001) 7 mm
21 to 31	Reserved	
32	PCIe	CEM add in card – unknown
33	PCIe	CEM add in card – Low Profile (HHHL)
34	PCIe	CEM add in card – Standard Height Half Length (FHHL)
35	PCIe	CEM add in card – Standard Height Full Length (FHFL)
36 to 47	Reserved	
48	PCIe	M.2 module – unknown
49	PCIe	M.2 module – 2230
50	PCIe	M.2 module – 2242
51	PCIe	M.2 module – 2260
52	PCIe	M.2 module – 2280
53	PCIe	M.2 module – 22110

54 to 63	Reserved	
64	PCIe	BGA SSD – unknown
65	PCIe	BGA SSD – 16 x 20mm (M.2 Type 1620)
66	PCIe	BGA SSD – 11.5 x 13mm (M.2 Type 1113)
67 to 79	Reserved	
80	PCIe	Enterprise & Datacenter SSD Form Factor – unknown
81	PCIe	4U Short Form Factor E1.S - (SFF-TA-1006) 5.9 mm
82	PCIe	4U Short Form Factor E1.S - (SFF-TA-1006) 8 mm
83	PCIe	4U Long Form Factor E1.L - (SFF-TA-1007) 9.5 mm
84	PCIe	4U Long Form Factor E1.L - (SFF-TA-1007) 18 mm
85	PCIe	3" Short Form Factor E3.S - (SFF-TA-1008) 7.5 mm
86	PCIe	3" Short Form Factor E3.S - (SFF-TA-1008) 16.8 mm
87	PCIe	3" Long Form Factor E3.L - (SFF-TA-1008) 7.5 mm
88	PCIe	3" Long Form Factor E3.L - (SFF-TA-1008) 16.8 mm
89	PCIe	E1.S - (SFF-TA-1006) 9.5 mm
90	PCIe	E1.S - (SFF-TA-1006) 15 mm
91	PCIe	E1.S - (SFF-TA-1006) 25 mm
92 to 239 95	Reserved	
96	Ethernet	Other – unknown
97	Ethernet	2.5" Form Factor – (Native NVMe-oF Drive) 15 mm
98	Ethernet	2.5" Form Factor – (Native NVMe-oF Drive) 7 mm
99	Ethernet	E3.S – (Native NVMe-oF Drive) 7.5 mm
100	Ethernet	E3.S – (Native NVMe-oF Drive) 16.8 mm
101 to 239	Reserved	
240 to 255	Vendor Specific	Vendor Specific