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Update Project Proposal: SFF-TA-1006, SFF-TA-1007, SFF-TA-1008 (E1.S, E1.L, E3 specifications)

Presented: 2025-07-25

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Update Project Proposal: SFF-TA-1006 (E1.S), SFF-TA-1007 (E1.L), SFF-TA-1008 (E3)

- Purpose:
  - Update the Power/Thermal Requirements Section to clarify power capabilities to align with connector limits
  - Other edits outlined in the following EDSFF specific slides
- Editor(s):
  - SFF-TA-1006, SFF-TA-1007: Anthony Constantine
  - SFF-TA-1008: Paul Kaler, Mike Gregoire
- Supporters:
  1. Dell
  2. HPE
  3. Kioxia
  4. Micron
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Update Project Proposal: SFF-TA-1006

- Updates
  - Power/ Thermal Requirements Section
  - Template update
  - Errata in B5 measurement comment.
  - Other minor editorial in the dimension tables comments
- IP Declaration (if applicable): None
- Timeline:
  - Submitting draft and approval ballot today.

7. E1.S Power/Thermal Requirements

The following section covers the power and thermal requirements of the device.

7.1 Power

Power constraints for this device form factor are summarized in Table 7-1. For more information, refer to SFF-TA-1009 *Enterprise and Datacenter Standard Form Factor Pin and Signal Specification.*
~~Table 7-1 defines the initial slot power limit for the device. For more details about this and other power requirements, refer to SFF-TA-1009 *Enterprise and Datacenter Standard Form Factor Pin and Signal Specification.*~~

Table 7-~~17-1~~. Device Power Requirements for a 1U short (E1.S) system implementation

Parameter	E1.S (5.9/8.01 mm Thickness)	E1.S (9.5/15/25 mm Thickness)	Comment
Initial Slot Power Limit (12Vpinit)	12 W	25 W	Refer to SFF-TA-1009 for definitions and additional details.
Maximum device power capability	Up to 79.2 W at 12 V		Limited by the current capability of SFF-TA-1002

7.2 Thermals

For detailed device thermal requirements, refer to SFF-TA-1023 *Thermal Specification for EDSFF Devices.*

7.3 Informative: ~~Recommended~~ Maximum Sustained Device ~~Power~~

There is no specified maximum sustained power for this device apart from the connector limits. The connector is defined to supply a maximum sustained current of 6.6 A which at 12 V nominal limits the form factor to 79.2 W of power. This value, however, is further limited by the operating environment of the host and device. The host manufacturer should provide their requirements and communicate this value as defined by the 12Vpsus definition in SFF-TA-1009 *Enterprise and Datacenter Standard Form Factor Pin and Signal Specification.*
~~Table 7-2 defines the recommended maximum sustained power allowed by each device variation.~~

~~**Table 7-2. Recommended Maximum Sustained Device Power**~~

~~Parameter~~	~~E1.S (5.9 mm Thickness)~~	~~E1.S (8.01 mm Thickness)~~	~~E1.S (9.5 mm Thickness)~~	~~E1.S (15/25 mm Thickness)~~	~~Comment~~
~~12Vpsus~~	~~12 W~~	~~16 W~~	~~20 W~~	~~25 W~~	~~Refer to SFF-TA-1009 for definition~~

Table 5-~~15-1~~. 1U Short Form Factor Dimensions

Dimensions	Millimeters	Tolerance	Comment
A1	5.9	~~MAX~~REF	Maximum device thickness (reference)
A2	2.10	MAX	Maximum component height
A3	1.57	~~0.13~~REF	PCB Card Edge thickness (~~ref:~~ see SFF-TA-1002)
B1	31.5	0.2	Device height with defined cutouts
B2	11.23	0.15	Card Bottom Edge to centerline of Datum E
B3	3.21	~~0.15~~REF	Center of Connector Pin A1 location from PCB (reference)
C1	111.49	0.15	Add in card Length
C2	6	~~Min~~MIN	Card edge length. Note if dimension is greater than 7.5 mm, mounting hole 3 is allowed to be a half-moon

Update Project Proposal: SFF-TA-1007

- Updates
  - Power/ Thermal Requirements Section
  - Template update
- IP Declaration (if applicable): None
- Timeline:
  - Submitting draft and approval ballot today.

7. E1.L Power/Thermal Requirements

The following section covers the power and thermal requirements of the device.

7.1 Power

Power constraints for this device form factor are summarized in Table 7-1. For more information, refer to SFF-TA-1009 *Enterprise and Datacenter Standard Form Factor Pin and Signal Specification.*

~~Table 7-1 defines the initial slot power limit for the device. For more details about this and other power requirements, refer to SFF-TA-1009 *Enterprise and Datacenter Standard Form Factor Pin and Signal Specification.*~~

Table 7-1. Power Requirements for a 1U long (E1.L) system implementation

Parameter	E1.L	Comment
Initial Slot Power Limit (12Vpinit)	25 W	Refer to SFF-TA-1009 for definitions and additional details.
Maximum device power capability	Up to 79.2 W at 12 V	Limited by the current capability of SFF-TA-1002

7.2 Thermals

For detailed device thermal requirements, refer to SFF-TA-1023 *Thermal Specification for EDSFF Devices.*

7.3 Informative: Maximum Sustained Device Power~~Recommended Max Power~~

There is no specified maximum sustained power for this device apart from the connector limits. The connector is defined to supply a maximum sustained current of 6.6 A which at 12 V nominal limits the form factor to 79.2 W of power. This value, however, is further limited by the operating environment of the host and device. The host manufacturer should provide their requirements and communicate this value as defined by the 12Vpsus definition in SFF-TA-1009 *Enterprise and Datacenter Standard Form Factor Pin and Signal Specification.*

~~Table 7-2 defines the recommended maximum sustained power allowed by each device variation.~~

~~Table 7-2. Maximum Form Factor Power~~

~~Device~~	~~E1.L (9.5mm)~~	~~E1.L (18 mm)~~	~~Comment~~
~~Max Power~~	~~25 W~~	~~40 W~~	~~Refer to Section 7.2~~

Update Project Proposal: SFF-TA-1008

- Updates
  - Power/ Thermal Requirements Section
  - Template update
  - Removal of secondary grounding strip
- IP Declaration (if applicable): None
- Timeline:
  - Draft and approval ballot in August

Thank You

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