USB Power Delivery ENGINEERING CHANGE NOTICE

Title: Clarification of Status Message SOP'

Applied to: USB Power Delivery Specification Revision 3.0, Version 2.0

Brief description of the functional changes proposed:
Clarify that Passive cables are allowed to send a Status Message.

Benefits as a result of the proposed changes:
Allowing Passive cables to report temperature. Note: this is not a requirement.

An assessment of the impact to the existing revision and systems that currently conform to the USB specification:
None

An analysis of the hardware implications:
None unless it is desired to add the Status Message.

An analysis of the software implications:
None

An analysis of the compliance testing implications:

Don't need to have this step separate for Passive and Active cables.

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Actual Change Requested

(a). Section 6.5.2.2

From Text:

A ***Status*** Message, sent in response to a ***Get_Status*** Message to ***SOP'*** or ***SOP''***, enables a Source or Sink to get the present status of the Active Cable's Cable Plug(s). Typically, a ***Get_Status*** Message will be used by the USB Host and/or USB Device to manage the Active Cable's Cable Plug(s) temperature. The ***Status*** Message returns a 2-byte Status Data Block (SDB) whose format ***Shall*** be as shown in Figure 6-34 and Table 6 44.

To Text:

A ***Status*** Message, sent in response to a ***Get_Status*** Message to ***SOP'*** or ***SOP''***, enables a Source or Sink to get the present status of the ~~Active~~ Cable's Cable Plug(s). Typically, a ***Get_Status*** Message will be used by the USB Host and/or USB Device to manage the ~~Active~~ Cable's Cable Plug(s) temperature. The ***Status*** Message returns a 2-byte Status Data Block (SDB) whose format ***Shall*** be as shown in Figure 6-34 and Table 6 44.

Passive cables ***Shall Not*** indicate Thermal Shutdown.

(b). Table 6-51

From Text:

Offset (Byte)	Field	Value	Description
0	Internal Temp	Unsigned Int	Active Cable plug's internal temperature in °C. 0 = feature not supported 1 = temperature is less than 2°C. 2...255 = temperature in °C.

1	Flags	Bit field	**Bit Description** 0 Thermal Shutdown 1...7 ***Reserved*** and ***Shall*** be set to zero

To Text:

Offset (Byte)	Field	Value	Description
0	Internal Temp	Unsigned Int	~~Active~~ Cable plug's internal temperature in °C. 0 = feature not supported 1 = temperature is less than 2°C. 2...255 = temperature in °C.
1	Flags	Bit field	**Bit Description** 0 Thermal Shutdown 1...7 ***Reserved*** and ***Shall*** be set to zero

(c). Section 6.5.2.1.1

From Text:

The Internal Temp field reports the instantaneous temperature of the plug in °C. The internal temperature ***Shall*** be monotonic. The Active Cable ***Shall*** report its internal temperature every ***tACTempUpdate***.

To Text:

The Internal Temp field reports the instantaneous temperature of the plug in °C. The internal temperature ***Shall*** be monotonic. The ~~Active~~ Cable ***Shall*** report its internal temperature every ***tACTempUpdate***.