

Proposal for the Device Statistic Information Additions Device Temperature Statistics Group

To: T13 Technical Committee
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This document shows the list of candidates of device temperature statistic information to be included in the Device Statistic Information Log. Each of the candidates will be reviewed and included in the standard after approval. Supporting of each of the item on the list is optional.

Summary of Device Statistic Information Candidates:

1. Device Statistic Information Header
2. Current Device Temperature
3. Average Device Temperature for the Past 24-Hour
4. Average Device Temperature for the Past 1000-Hour
5. Highest Device Temperature Ever (Lifetime)
6. Lowest Device Temperature Ever (Lifetime)
7. Highest Average 24-Hour Temperature (Lifetime)
8. Lowest Average 24-Hour Temperature (Lifetime)
9. Highest Average 1000-Hour Temperature (Lifetime)
10. Lowest Average 1000-Hour Temperature (Lifetime)

x.x Temperature Statistics:

The location and the precision of the temperature sensor are vendor specific. The temperature reported is an estimate of the case temperature of the device.

Device Statistic Information Table

Byte Offset	Bit	Description
0		Device Statistic Information Header
		Description: When T13 decides to make a new revision to this structure
		Update Criteria: When event occurs
		Measurement Units: Number sequence
		Initialization: Set to 0001h at the factory
	63:48	Revision number
	47:0	Reserved
8		Current Device Temperature
		Description: This value indicates the current device temperature measured by the device.
		Update Criteria: This information is updated when this statistic

		log is read. Measurement Units: In degrees Celsius Initialization: Not applicable
	63	1=valid statistic data
	62:56	Reserved
	55:8	Reserved
	7:0	Two's Complement INT Current Device Temperature
16		Average Device Temperature for the Past 24-Hour
		Description: This value indicates the average device temperature for the past 24 hours of operation. The temperature is calculated by the samples taken from the last 24 hours. The sample rate is at least one sample every 10 minutes. The operation of the device is defined when the device is power-up and in Active or Idle state. The time when the device is in other state such as Standby or Sleep is not counted. Update Criteria: Every time the sample is taken Measurement Units: In degrees Celsius Initialization: Set to 25 degree Celsius at the factory
	63	1=valid statistic data
	62:56	Reserved
	55:8	Reserved
	7:0	Two's Complement INT Average Device Temperature for the Past 24-Hour
24		Average Device Temperature for the Past 1000-Hour
		Description: This value indicates the average device temperature for the past 1000 hours of operation. The temperature is calculated by the samples taken from the last 1000 hours. The sample rate is at least one sample every 10 hours. The operation of the device is defined when the device is power-up and in Active or Idle state. The time when the device is in other state such as Standby or Sleep is not counted. Update Criteria: Every time the sample is taken Measurement Units: In degrees Celsius Initialization: Set to 25 degree Celsius at the factory
	63	1=valid statistic data
	62:56	Reserved
	55:8	Reserved
	7:0	Two's Complement INT Average Device Temperature for the Past 1000-Hour
32		Highest Device Temperature Ever (Lifetime)
		Description: This value indicates the recorded highest device temperature since the device starts service.

		Update Criteria: This is updated when the temperature measurement is taken Measurement Units: In degrees Celsius Initialization: Set to 25 degree Celsius at the factory
	63	1=valid statistic data
	62:56	Reserved
	39:8	Unsigned DWORD Time Stamp in Power-on-Hour
	7:0	Two's Complement INT Highest Device Temperature Ever (Lifetime)
40		Lowest Device Temperature Ever (Lifetime)
		Description: This value indicates the recorded lowest device temperature since the device starts service. Update Criteria: This is updated when the temperature measurement is taken Measurement Units: In degrees Celsius Initialization: Set to 25 degree Celsius at the factory
	63	1=valid statistic data
	62:56	Reserved
	39:8	Unsigned DWORD Time Stamp in Power-on-Hour
	7:0	Two's Complement INT Lowest Device Temperature Ever (Lifetime)
48		Highest Average 24-Hour Temperature (Lifetime)
		Description: This value indicates the recorded highest device temperature of the 24-hours average since the device starts service. Update Criteria: This is updated when the temperature measurement is taken Measurement Units: In degrees Celsius Initialization: Set to 25 degree Celsius at the factory
	63	1=valid statistic data
	62:56	Reserved
	39:8	Unsigned DWORD Time Stamp in Power-on-Hour
	7:0	Two's Complement INT Highest Average 24-Hour Temperature (Lifetime)
56		Lowest Average 24-Hour Temperature (Lifetime)
		Description: This value indicates the recorded lowest device temperature of the 24-hours average since the device starts service. Update Criteria: This is updated when the temperature measurement is taken Measurement Units: In degrees Celsius Initialization: Set to 25 degree Celsius at the factory
	63	1=valid statistic data
	62:56	Reserved

	39:8	Unsigned DWORD Time Stamp in Power-on-Hour
	7:0	Two's Complement INT Lowest Average 24-Hour Temperature (Lifetime)
64		Highest Average 1000-Hour Temperature (Lifetime)
		Description: This value indicates the recorded highest device temperature of the 1000-Hour average since the device starts service.
		Update Criteria: This is updated when the temperature measurement is taken
		Measurement Units: In degrees Celsius
		Initialization: Set to 25 degree Celsius at the factory
	63	1=valid statistic data
	62:56	Reserved
	39:8	Unsigned DWORD Time Stamp in Power-on-Hour
	7:0	Two's Complement INT Highest Average 1000-Hour Temperature (Lifetime)
72		Lowest Average 1000-Hour Temperature (Lifetime)
		Description: This value indicates the recorded lowest device temperature of the 1000-Hour average since the device starts service.
		Update Criteria: This is updated when the temperature measurement is taken
		Measurement Units: In degrees Celsius
		Initialization: Set to 25 degree Celsius at the factory
	63	1=valid statistic data
	62:56	Reserved
	39:8	Unsigned DWORD Time Stamp in Power-on-Hour
	7:0	Two's Complement INT Lowest Average 1000-Hour Temperature (Lifetime)