

## Proposal for the Device Statistic Information Additions Device NV Cache Statistics Group

To: T13 Technical Committee  
 From: Joseph Chen  
 Samsung  
 75 W. Plumeria Drive  
 San Jose, CA 95134  
 Phone: 408-544-5766  
 Email: [joseph.chen@samsung.com](mailto:joseph.chen@samsung.com)  
 Date: Feb 20, 2007

This document shows the list of candidates of device NV Cache 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. Number of Defect Sectors in NV Cache
3. Percentage of Defect Sectors in NV Cache
4. NV Cache Erase/Program Cycles

Device Statistic Information Table

Byte Offset	Bit	Description
0		Device Statistic Information Header
		Description: Device Statistic revision information Updated: when T13 decide to make a new revision to this structure Units: unsigned integer Initialized: 0001h
	63:48	Revision number
	47:0	Reserved
*8		Number of Defect Sectors in NV Cache
		Description: This counter is incremented by one when a defect sector is detected Update Criteria: When event occurs Measurement Units: Defect sector Initialization: Cleared to zero at the factory
	63	1=valid statistic data
	62:56	Reserved
	55:32	Reserved
	31:0	Unsigned DWORD

		Number of Defect Sectors in the NV Cache
*8		Percentage of Defect Sectors in NV Cache
		Description: This counter is incremented by the percentage when defect sector is detected
		Update Criteria: When event occurs
		Measurement Units: Percentage of defects in NV Cache
		Initialization: Cleared to zero at the factory
	63	1=valid statistic data
	62:56	Reserved
	55:8	Reserved
	7:0	Percentage of NV Defect Sectors in NV Cache (value from 0 to 100 percent)
*8		NV Cache Erase/Program Cycles
		Description: This counter is incremented by one when a erase or program cycle is completed
		Update Criteria: When event occurs
		Measurement Units: erase or program event
		Initialization: Cleared to zero at the factory
	63	1=valid statistic data
	62:56	Reserved
	55:32	Reserved
	31:0	NV Cache Erase/Program Cycles