



NAND Flash Memory Chip Size Trend

Report No. FI-NFM-CST-0708

By: Gregory Wong

July 2008

© 2008 Forward Insights. All Rights Reserved. Reproduction and distribution of this publication in any form in whole or in part without prior written permission is prohibited. The information contained herein has been obtained from sources believed to be reliable. Forward Insights does not guarantee the accuracy, validity, completeness or adequacy of such information. Forward Insights will not be liable for any damages or injuries arising from the use of such information including, without limitation, errors, omissions or inadequacies in the information contained herein or for the interpretation thereof. The opinions expressed herein are subject to change without notice.

Contents

CONTENTS	III
LIST OF FIGURES	IV
LIST OF TABLES	V
TERMINOLOGY	1
CHIP SIZE TREND	2
VENDORS	4
Intel-Micron Flash Technologies	4
Numonyx/Hynix	4
Samsung	5
SanDisk/Toshiba	5
PRODUCT ROADMAPS	7
512Mb	7
1Gb	8
2Gb	9
4Gb	10
8Gb	11
16Gb	12
32Gb	13
64Gb	14
ABOUT THE AUTHOR	XV
ABOUT FORWARD INSIGHTS	XVI
Services	xvi
Contact	xvi

List of Figures

Figure 1.	Chip Size Trend.....	2
Figure 2.	Cell Efficiency Trend.....	3
Figure 3.	512Mb Die Shrink Roadmap.....	7
Figure 4.	1Gb Die Shrink Roadmap.....	8
Figure 5.	2Gb Die Shrink Roadmap.....	9
Figure 6.	4Gb Die Shrink Roadmap.....	10
Figure 7.	8Gb Die Shrink Roadmap.....	11
Figure 8.	16Gb Die Shrink Roadmap.....	12
Figure 9.	32Gb Die Shrink Roadmap.....	13
Figure 10.	64Gb Die Shrink Roadmap.....	14

List of Tables

Table 1. Intel-Micron Flash Technologies Chip Sizes.....4
Table 2. Numonyx/Hynix Chip Sizes5
Table 3. Samsung Chip Sizes.....5
Table 4. SanDisk/Toshiba Chip Sizes.....6