

# NAND Flash Code Information(1/3)

Last Updated : August 2009

**K 9 X X X X X X X X - X X X X X X X X**

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

## 1. Memory (K)

2. NAND Flash : 9

## 3. Small Classification

(SLC : Single Level Cell, MLC : Multi Level Cell,

SM : SmartMedia, S/B : Small Block)

- 1 : SLC 1 Chip XD Card
- 2 : SLC 2 Chip XD Card
- 3 : 4bit MLC Mono
- 4 : SLC 4 Chip XD Card
- 5 : MLC 1 Chip XD Card
- 6 : MLC 2 Chip XD Card
- 7 : SLC moviNAND
- 8 : MLC moviNAND
- 9 : 4bit MLC ODP
- A : 3bit MLC MONO
- B : 3bit MLC DDP
- C : 3bit MLC QDP
- F : SLC Normal
- G : MLC Normal
- H : MLC QDP
- K : SLC Die Stack
- L : MLC DDP
- M : MLC DSP
- N : SLC DSP
- O : 3bit MLC ODP
- P : MLC ODP
- Q : SLC ODP
- R : MLC 12-die stack
- S : MLC 6 Die Stack
- T : SLC SINGLE (S/B)
- U : MLC 16 Die Stack
- W : SLC 4 Die Stack

## 4~5. Density

- |           |           |           |
|-----------|-----------|-----------|
| 12 : 512M | 16 : 16M  | 28 : 128M |
| 32 : 32M  | 40 : 4M   | 56 : 256M |
| 64 : 64M  | 80 : 8M   | 1G : 1G   |
| 2G : 2G   | 4G : 4G   | 8G : 8G   |
| AG : 16G  | BG : 32G  | CG : 64G  |
| DG : 128G | EG : 256G | FG : 256G |
| GG : 384G | HG : 512G | LG : 24G  |
| NG : 96G  | ZG : 48G  | 00 : NONE |

## 6. Technology

- |                  |                  |
|------------------|------------------|
| 0 : Normal (x8)  | 1 : Normal (x16) |
| C : Catridge SIP | D : DDR          |
| M : moviNAND     | N : moviNAND FAB |
| P : moviMCP      | T : Premium eSSD |
| Z : SSD          |                  |

## 7. Organization

- |          |        |
|----------|--------|
| 0 : NONE | 8 : x8 |
| 6 : x16  |        |

## 8. Vcc

- |   |                         |
|---|-------------------------|
| A : 1.65V~3.6V                            | B : 2.7V (2.5V~2.9V)    |
| C : 5.0V (4.5V~5.5V)                      | D : 2.65V (2.4V ~ 2.9V) |
| E : 2.3V~3.6V                             | R : 1.8V (1.65V~1.95V)  |
| Q : 1.8V (1.7V ~ 1.95V)                   | T : 2.4V~3.0V           |
| S : 3.3V (3V~3.6V/ VccQ1.8V (1.65V~1.95V) |                         |
| U : 2.7V~3.6V                             | V : 3.3V (3.0V~3.6V)    |
| W : 2.7V~5.5V, 3.0V~5.5V                  | 0 : NONE                |

## 9. Mode

- 0 : Normal
- 1 : Dual nCE & Dual R/nB
- 3 : Tri /CE & Tri R/B
- 4 : Quad nCE & Single R/nB
- 5 : Quad nCE & Quad R/nB
- 6 : 6 nCE & 2 RnB
- 7 : 8 nCE & 4 RnB
- 8 : 8 nCE & 2 RnB
- 9 : 1st block OTP
- A : Mask Option 1
- L : Low grade

## 10. Generation

- M : 1st Generation
- A : 2nd Generation
- B : 3rd Generation
- C : 4th Generation
- D : 5th Generation
- E : 6th Generation
- Y : 25th Generation
- Z : 26th Generation

# NAND Flash Code Information(2/3)

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K	9	X	X	X	X	X	X	X	X	-	X	X	X	X	X	X	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

## 11. "—"

### 12. Package

- 8 : TSOP1 (Lead-Free, Halogen-Free, CU)
- 9 : 56TSOP1 (Lead-Free, Halogen-Free, CU)
- A : COB
- B : FBGA (Halogen-Free, Lead-Free)
- D : 63-TBGA
- E : ISM (Lead-Free, Halogen-Free)
- F : WSOP (Lead-Free)                    G : FBGA
- H : BGA (Lead-Free, Halogen-Free)
- I : ULGA (Lead-Free) (12\*17)
- J : FBGA (Lead-Free)
- K : ULGA (Lead-Free, Halogen-Free) (12\*17)
- L : ULGA (Lead-Free, Halogen-Free) (14\*18)
- M : 52-ULGA (Lead-Free, Halogen-Free) (13\*18)**
- P : TSOP1 (Lead-Free)
- Q : TSOP2 (Lead-Free)
- R : 56-TSOP1 (Lead-Free, Halogen-Free)
- S : TSOP1 (Lead-Free, Halogen-Free)
- T : WSOP (Lead-Free, Halogen-Free)
- U : COB (MMC)
- V : WSOP                                    W : Wafer
- Y : TSOP1                                    Z : WELP (Lead-Free)

### 13. Temp

- C : Commercial                            I : Industrial
- S : SmartMedia
- B : SmartMedia BLUE
- 0 : NONE (Containing Wafer, CHIP, BIZ, Exception handling code)

## 14. Customer Bad Block

- B : Include Bad Block
- D : Daisychain Sample
- K : Special Handling
- L : 1~5 Bad Block
- N : ini. 0 blk, add. 10 blk
- S : All Good Block
- 0 : NONE (Containing Wafer, CHIP, BIZ, Exception handling code)

## 15. Pre-Program Version

- 0 : None
- Serial (1~9, A~Z)

# NAND Flash Code Information(3/3)

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## 16. Packing Type

- Common to all products, except of Mask ROM
- Divided into TAPE & REEL(In Mask ROM, divided into TRAY, AMMO Packing Separately)

Divide	Packing Type	New Marking
<b>Component</b>	TAPE & REEL	T
	Other ( Tray, Tube, Jar )	0 ( Number)
	Stack	S
<b>Module</b>	MODULE TAPE & REEL	P
	MODULE Other Packing	M

## 17~18. Customer "Customer List Reference"