

## DRAM SDR Part Number Decoder

**H** **5** **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

**1) HYNIX MEMEMORY**

**2) PRODUCT FAMILY**

5 : DRAM

**3) PRODUCT MODE**

7 : SDR

**4) POWER SUPPLY**

V : 3.3V / 3.3V  
 Y : 3.0V / 3.0V  
 U : 2.5V / 2.5V  
 S : 1.8V / 1.8V

**5~6) DENSITY & REFRESH**

16 : 16M / 4K REF / 64ms  
 32 : 32M / 4K REF / 64ms  
 64 : 64M / 4K REF / 64ms  
 12 : 128M / 4K REF / 64ms  
 25 : 256M / 8K REF / 64ms  
 51 : 512M / 8K REF / 64ms

**7) ORGANIZATION**

8 : x8  
 6 : x16  
 2 : x32

**8) BANK**

1 : 2 Banks  
 2 : 4 Banks

**9) GENERATION**

M : 1st  
 A : 2nd  
 B : 3rd  
 C : 4th  
 D : 5th  
 E : 6th  
 F : 7th  
 G : 8th  
 H : 9th

**14) POWER CONSUMPTION & TEMPERATURE**

C : Normal Power & Commercial Temp  
 E : Normal Power & Extended Temp  
 M : Low Power & Mobile Temp  
 I : Normal Power & Industrial Temp  
 L : Low Power & Commercial Temp  
 G : Low Power & Extended Temp  
 J : Low Power & Industrial Temp

**12~13) SPEED(tCL-tRCD-**

50 : 200MHz 3-3-3  
 55 : 183MHz 3-3-3  
 60 : 166MHz 3-3-3  
 70 : 143MHz 3-3-3  
 75 : 133MHz 3-3-3  
 7A : 133MHz 2-2-2  
 7B : 133MHz 3-2-2  
 80 : 125MHz 3-3-3  
 A2 : 100MHz 2-2-2  
 A3 : 100MHz 3-3-3

**11) PACKAGE MATERIAL**

A : WAFER  
 L : LEADED  
 P : LEADE FREE  
 R : LEAD & HALOGEN FREE

**10) PACKAGE TYPE**

T : TSOP-II  
 C : PGD1  
 D : PGD2  
 F : FBGA  
 K : KGD  
 W : WAFER

# SDRAM PART NUMBERING

**HY XX X XX XX X X XX X X X - XX X**

**HYNIX MEMORY**

**PRODUCT FAMILY**

57 : SDRAM

**PROCESS & POWER SUPPLY**

V : VDD=3.3V & VDDQ=3.3V  
 Y : VDD=3.0V & VDDQ=3.0V  
 U : VDD=2.5V & VDDQ=2.5V  
 W : VDD=2.5V & VDDQ=1.8V  
 S : VDD=1.8V & VDDQ=1.8V

**DENSITY**

16 : 16M  
 32 : 32M  
 64 : 64M  
 28 : 128M  
 2A : 128M with TCSR  
 56 : 256M  
 5A : 256M with TCSR  
 12 : 512M

**ORGANIZATION**

4 : x4  
 8 : x8  
 16 : x16  
 32 : x32

**# of BANK**

1 : 2Banks  
 2 : 4Banks

**INTERFACE**

0 : LVTTL  
 1 : SSTL\_3

**TEMPERATURE**

Blank : Commercial(0°C~70°C)  
 E : Extended (-25°C~85°C)  
 I : Industrial (-40°C~85°C)

**SPEED**

5 : 200MHz  
 55 : 183MHz  
 6 : 166MHz  
 7 : 143MHz  
 K : PC133, CL2  
 H : PC133, CL3  
 8 : 125MHz  
 P : PC100, CL2  
 S : PC100, CL3  
 10 : 100MHz

**PACKAGE MATERIAL**

BLANK : Normal  
 P : Lead free  
 H : Halogen free  
 R : Lead & Halogen free

**PACKAGE TYPE**

T : TSOP  
 S : Stack Package (Hynix)  
 K : Stack Package (M & T)  
 J : Stack Package (Others)  
 W : KGD

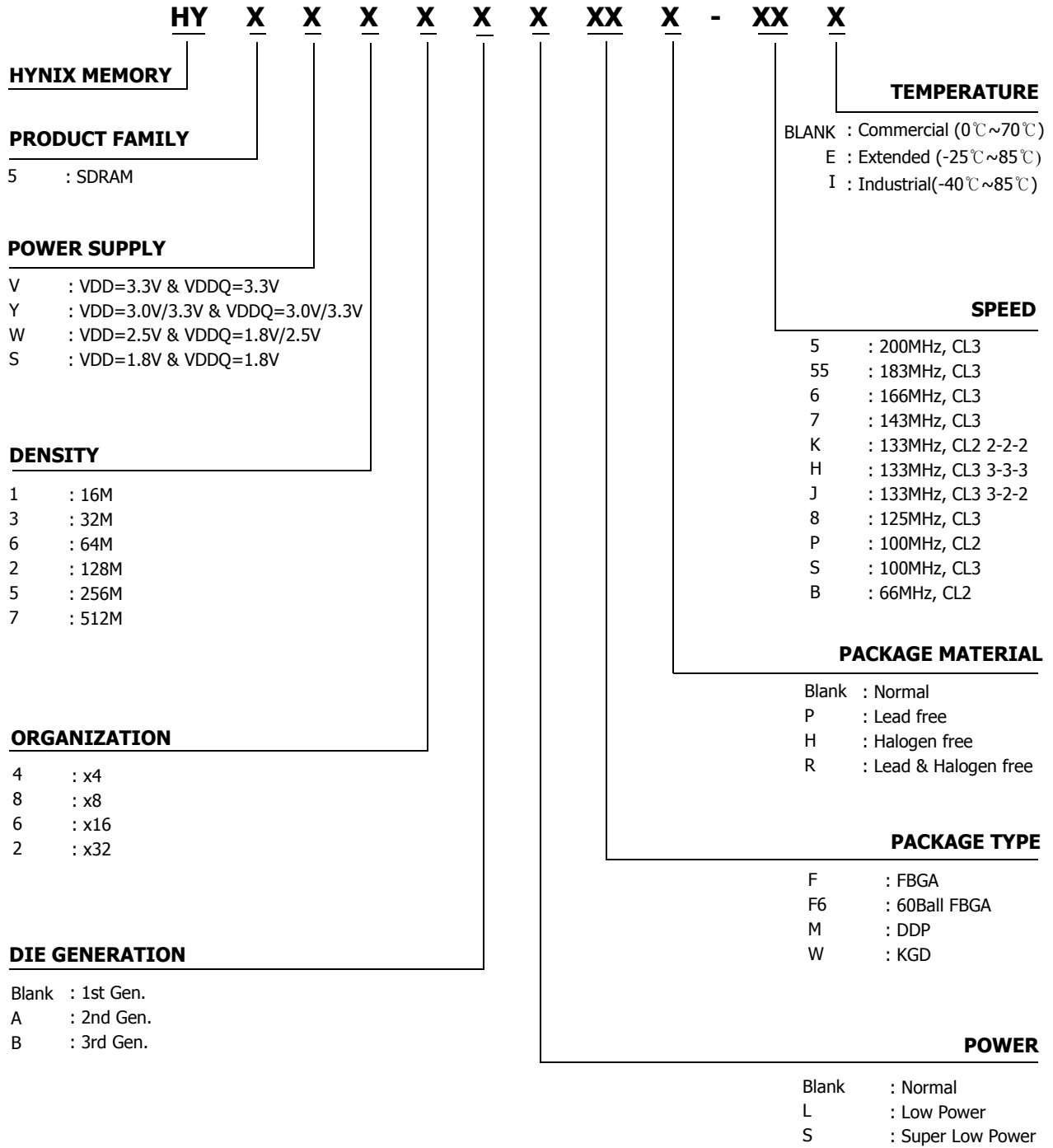
**POWER CONSUMPTION**

BLANK : Normal Power  
 L : Low Power  
 S : Super Low Power

**DIE GENERATION**

Ichon	Cheong-ju
Blank : 1st Gen.	H : 1st Gen.
A : 2nd Gen.	HA : 2nd Gen.
B : 3rd Gen.	HB : 3rd Gen.
C : 4th Gen.	HC : 4th Gen.
D : 5th Gen.	HG : 5th Gen.
E : 6th Gen.	

# SDRAM FBGA PART NUMBERING



♣ All SDRAM FBGA follow above Part Numbering System

**SDR SDRAM PART NUMBERING**

**HY XX X XX XX X X XX X X X - XX X**

**HYNIX MEMORY**

**PRODUCT FAMILY**

57 : SDRAMs

**PROCESS & POWER SUPPLY**

V : VDD=3.3V & VDDQ=2.5V  
 Y : VDD=3.0V & VDDQ=3.0V  
 U : VDD=2.5V & VDDQ=2.5V  
 W : VDD=2.5V & VDDQ=1.8V  
 S : VDD=1.8V & VDDQ=1.8V

**DENSITY & REFRESH**

16 : 16M 2K Refresh  
 32 : 32M 4K Refresh  
 64 : 128M 4K Refresh  
 2A : 128M With TCSR 4K Refresh  
 56 : 256M 8K Refresh  
 12 : 512M 8K Refresh

**ORGANIZATION**

4 : x4  
 8 : x8  
 16 : x16  
 32 : x32

**# Of Bank**

1 : 2Banks  
 2 : 4Banks

**INTERFACE**

0 : LVTTL  
 1 : SSTL\_3

**Temperature**

I : Industrial Temperature  
 E : Extended Temperature

**SPEED**

5 : 200MHz  
 55 : 183MHz  
 6 : 166MHz  
 7 : 143MHz  
 K : PC133, CL2  
 H : PC133, CL3  
 8 : 125MHz  
 P : PC100, CL2  
 S : PC100, CL3  
 10 : 100MHz

**PACKAGE MATERIAL**

Blank : Normal  
 P : Pb free  
 H : Halogen free  
 R : Pb & Halogen free

**PACKAGE TYPE**

T : TSOP  
 S : Stack PKG.(Hynix)  
 K : Stack PKG.(M&T)  
 J : Stack PKG.(Others)

**POWER**

Blank : Normal  
 L : Low Power  
 S : Super Low Power

**DIE GENERATION**

**Ichon**

Blank : 1st Gen.  
 A : 2nd Gen.  
 B : 3rd Gen.  
 C : 4th Gen.

**Cheong-ju**

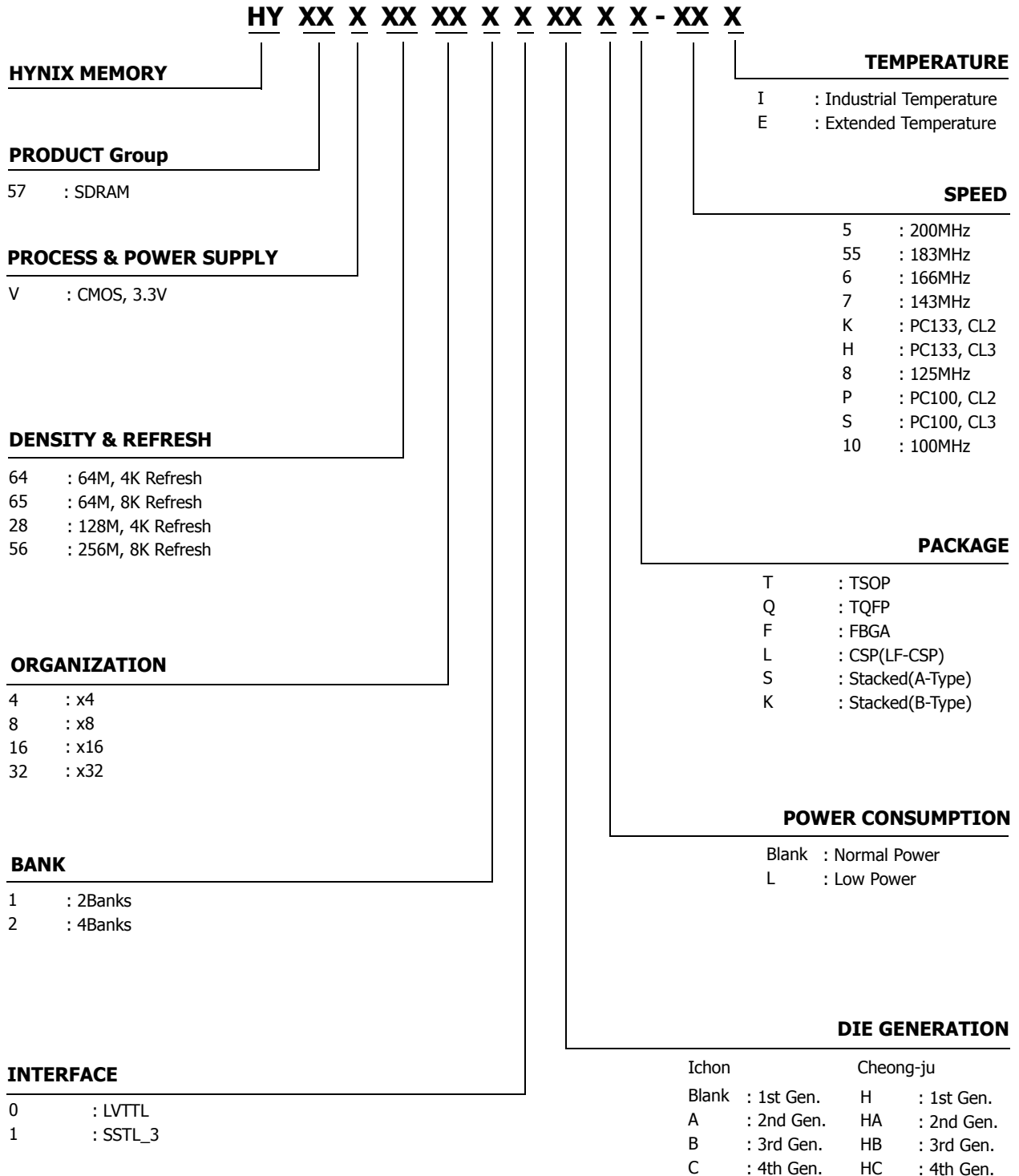
H : 1st Gen.  
 HA : 2nd Gen.  
 HB : 3rd Gen.  
 HC : 4th Gen.

\* Applicable Part List(Examples of x4 Model)

-64M G HY57V64420HGT(Cheong-ju)  
 -256M 1st HY57V5620T(Ichon)  
           2nd HY57V56420AT(Ichon)  
 -128M 3rd HY57V28420AT(Ichon)  
           C HY57V28420CT(Choeng-ju)

# 2001 Part Number Decoder

## New SDRAM PART NUMBERING



## 2001 Part Number Decoder

# SDRAM PART NUMBERING(Ichon)

**HY XX X XXX XX X X X XX XX - XXX X**

### HYNIX I-Site

Memory Product

### PRODUCT Group

57 : SDRAM  
5D : DDR SDRAM

### PROCESS & POWER SUPPLY

V : CMOS, 3.3V  
U : CMOS, 2.5V

### DENSITY & REFRESH

4 : 4M, 1K Refresh  
16 : 16M, 4K Refresh  
64 : 64M, 8K Refresh  
65 : 64M, 4K Refresh  
129 : 128M, 4K Refresh  
257 : 256M, 8K Refresh

### DATA WIDTH

40 : x4  
80 : x8  
16 : x16  
32 : x32

### BANK

1 : 2Bank  
2 : 4Bank

### INTERFACE

0 : LVTTL  
1 : SSTL  
2 : SSTL\_2

### TEMPERATURE

I : Industrial Temperature  
E : Extended Temperature

### SPEED

5 : 5ns(200MHz)  
55 : 5.5ns(183MHz)  
6 : 6ns(166MHz)  
7 : 7ns(143MHz)  
75 : 7.5ns(133MHz)  
8 : 8ns(125MHz)  
10P : 10ns(100MHz) CL2&3  
10S : 10ns(100MHz) CL3  
10 : 10ns(100MHz)  
12 : 12ns(83MHz)  
15 : 15ns(66MHz)

### PACKAGE

TC : 400mil TSOPII  
JQ : 100Pin-TQFP

### POWER CONSUMPTION

Blank : Normal Power  
L : Low Power

### DIE GENERATION

Blank : 1st Gen.  
A : 2nd Gen.  
B : 3rd Gen.  
C : 4th Gen.  
D : 5th Gen.

## 2001 Part Number Decoder

# SDRAM PART NUMBERING(Cheong Ju)

**GM 72 X XX XX X X X X X - XXX**

### HYNIX C-Site

Memory Product

### PRODUCT GROUP

SDRAM

### PROCESS & POWER SUPPLY

V : CMOS, 3.3V

### DENSITY & REFRESH

16 : 16M, 4K Refresh  
 17 : 16M, 2K Refresh  
 28 : 128M, 4K Refresh  
 64 : 64M, 16K Refresh  
 65 : 64M, 8K Refresh  
 66 : 64M, 4K Refresh

### ORGANIZATION

4 : x4  
 8 : x8  
 16 : x16  
 32 : x32

### BANK

1 : 1Bank  
 2 : 2Bank  
 4 : 4Bank  
 8 : 8Bank

### INTERFACE

1 : LVTTL

### SPEED

6 : 166MHz  
 65 : 153MHz  
 7 : 143MHz  
 75 : 133MHz  
 8 : 125MHz  
 7K : PC100 2-2-2^  
 7J : PC100 3-2-2^^  
 10K : PC66\*  
 10J : PC66\*\*  
 12 : 83MHz  
 15 : 66MHz

### PACKAGE

T : TSOP(Normal)  
 R : TSOP(Reverse)  
 I : BLP  
 S : Stack

### POWER CONSUMPTION

Blank : Normal Power  
 L : Low Power

### REVISION NO.

Blank : Original  
 A : First  
 B : Second  
 C : Third

### Note)

^ : 7K means to meet tCK=10ns, CL=2, tAC=6ns

^^: 7J means to meet tCK=10ns, CL=3, tAC=6ns

\* : 10K means to meet tCK=15ns, CL=2, tAC=9ns

\*\* : 10J means to meet tCK=10ns, CL=3, tAC=9.5ns