



# Part Number Decoder

**GS I /QQ**  
**GS P DDD O FF WWW R KK - BBB T C S**

**P = Product Line Code**  
**(1 digit)**

4 = LLD RAM  
8 = Sync SRAM  
7 = Async SRAM

**DDD = Density / Product Family**  
**(Up to 3 digits)**

0 = 256K  
1 = 1Mb  
2 = 2Mb  
3 = 3Mb  
4 = 4 or 4.5Mb  
6 = 6Mb  
8 = 8 or 9Mb  
16, 17, 18 = 16 or 18Mb  
32, 33, 34 = 32 or 36Mb  
64, 65, 66, 67 = 64 or 72Mb  
128, 129, 130, 131 = 128 or 144Mb  
256, 257, 258 = 256 or 288Mb  
288 = 288Mb  
576 = 576Mb  
300-309 = 1 or 1.125 or 1.25Gb  
310-319 = 2 or 2.25 or 2.5Gb  
320-329 = 4 or 4.5 or 5Gb  
330-339 = 8 or 9 or 10Gb  
340-349 = 16 or 18 or 20Gb

**O = Option**  
**(Up to 1 alpha)**

(Specific meaning varies by product family)  
X = Non-catalog Assembly Option

Note: If "X" is shown in the Option Code field, the Function Code and Speed Bin fields become general purpose alphanumeric custom part number fields.

**FF = Function Code**  
**(Up to 2 alpha)**

**SRAM Codes**

DD = Double Data Rate (DDR)  
DW = Double Late Write  
E = Dual Cycle Deselect (DCD)  
F = Flow Through Only  
H = High Drive Output  
L = Low Drive Output  
LW = Late Write  
Z = No Bus Turnaround

**SigmaQuad/DDR Codes**

D = SigmaQuad/II/II+/IIIe/IVe B4  
DV = SigmaQuad B4 2.5V  
DT = SigmaQuad-II+ B4 ODT  
E = LV (1.2V) and HV (1.5V) HSTL  
H = HV (1.5 V) HSTL  
L = LV (1.2 V) HSTL  
P = POD  
Q = SigmaQuad/II/II+/IIIe/IVe B2  
QV = SigmaQuad B2 2.5V  
QT = SigmaQuad-II+ B2 ODT  
R = SigmaDDR-II B4  
S = SigmaSIO DDR-II  
T = SigmaDDR/II/II+/IIIe/IVe B2  
TT = SigmaDDR-II+ B2 ODT

**LLDRAM Codes**

C = Common I/O  
R = Common I/O B4  
RH = Common I/O B4 HSTL  
S = Separate I/O  
T = Common I/O B2  
TH = Common I/O B2 HSTL

**WWW = I/O Width/Variation**  
**(Up to 3 digits)**

1 = x1  
4 = x4  
8 = x8  
16 = x16  
18, 19 = x18  
20 = x18 or x20  
24 = x24  
32 = x32  
36, 37, 38 = x36  
40 = x36 or x40  
72, 73 = x72

**R = Revision Level**  
**(Up to 1 alpha)**

Blank = Original Mask Set  
A = 2nd Generation  
B = 3rd Generation  
C = 4th Generation

**KK = Package**  
**(Up to 2 alpha)**

B = 14 mm x 22 mm, 119 BGA  
C = 14 mm x 22 mm, 209 FPBGA  
D = 13 mm x 15 mm, 165 FPBGA  
E = 15 mm x 17 mm, 165 FPBGA  
H = 15 mm x 17 mm, 165 FPBGA NSMD  
J = 400 mil SOJ  
K = 14 mm x 22 mm, 260 BGA  
L = 11 mm x 18.5 mm, 144 µBGA  
N = 14 mm x 18.5 mm 180 µBGA  
Q = QFP  
SJ = 300 mil SOJ  
T = TQFP  
TP = TSOP-II  
TS = TSOP-I  
U = 6 mm x 8 mm, 48 FPBGA  
X = 6 mm x 10 mm, 48 FPBGA  
Z = 15 mm x 17 mm, 165 FPBGA (FC)  
GB = Green 14 mm x 22 mm, 119 BGA  
GC = Green 14 mm x 22 mm, 209 FPBGA  
GD = Green 13 mm x 15 mm, 165 FPBGA  
GE = Green 15 mm x 17 mm, 165 FPBGA  
GJ = Green 400 mil SOJ  
GK = Green 14 mm x 22 mm, 260 BGA  
GL = Green 11 mm x 18.5 mm, 144 µBGA  
GN = Green 14 mm x 18.5 mm 180 µBGA  
GQ = Green QFP  
GT = Green TQFP  
GP = Green TSOP-II  
GS = Green TSOP-I  
GU = Green 6 mm x 8 mm, 48 FPBGA  
GX = Green 6 mm x 10 mm, 48 FPBGA  
GZ = Green 15 mm x 17 mm, 165 FPBGA (FC)  
HK = 5/6 RoHS-compliant 260 BGA with Pb-free exterior balls

**BBB = Speed Bin**  
**(Up to 3 digits)**

XX = ns or MHz

**T = Temp Grade**  
**(Up to 1 alpha)**

Blank = Commercial (0° to 70°C)  
I = Industrial (-40° to 85°C)  
E = Extended (-40° to 125°C)  
M = Military (-55° to 125°C)

**C = Customization**

V = Voltage Variation  
X = Non-catalog Post-assembly Option

Note: If "X" is shown in the Customization field, the Speed Bin field may become a general purpose alphanumeric custom part number field.

**S = Shipping Option**  
**(Up to 1 alpha)**

Blank = Bulk  
T = Tape and Reel

**QQ = Qualification Status**  
**(Up to 1 symbol and 2 alpha)**

Blank = Pre-Qual or Qualified  
/ES = Eng Sample\*

\*Note: The /ES mark may appear anywhere on the top surface of the package. The /ES mark supersedes any other qualification status mark that may appear on the device.