# Part Number Decoder

## GSI /QQ
## GS P DDD O FF WWW R KK - BBB T C S

**P = Product Line Code (1 digit)**
4 = LLDRAM
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 (0º to 70ºC)
I = Industrial (–40º to 85ºC)
E = Extended (–40º to 125ºC)
M = Military (–55º to 125ºC)

**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 Optionl (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.