NAND Flash Part Numbering System

Micron's part numbering system is available at ***www.micron.com/support/designsupport/documents/png***

MT 29F 2G 08 A A A A A WP - xx xx x ES : A

Micron Technology

Single-Supply Flash
29F = NAND Flash
29E = Enterprise NAND Flash

Density
1G = 1Gb
2G = 2Gb
4G = 4Gb
8G = 8Gb
16G = 16Gb
32G = 32Gb
64G = 64Gb
128G = 128Gb
256G = 256Gb
384G = 384Gb
512G = 512Gb
1T = 1024Gb
1T2 = 1152Gb
1HT = 1536Gb
2T = 2048Gb
3T = 3072Gb
4T = 4096Gb
6T = 6144Gb

Device Width
01 = 1 bit
08 = 8 bits
16 = 16 bits

Level

Mark	Level
A	SLC
C	MLC-2
E	MLC-3

Classification

Mark	Die	nCE	RnB	IO Channels
A	1	0	0	1
B	1	1	1	1
D	2	1	1	1
E	2	2	2	2
F	2	2	2	1
G	3	3	3	3
J	4	2	2	1
K	4	2	2	2
L	4	4	4	4
M	4	4	4	2
Q	8	4	4	4
R	8	2	2	2
T	16	8	4	2
U	8	4	4	2
V	16	8	4	4

Operating Voltage R
A = V_{CC}: 3.3V (2.70–3.60V), V_{CCQ}: 3.3V (2.70–3.60V)
B = 1.8V (1.70–1.95V)
C = V_{CC}: 3.3V (2.70–3.60V), V_{CCQ}: 1.8V (1.70–1.95V)
E = V_{CC}: 3.3V (2.70–3.60V), V_{CCQ}: 3.3V (2.70–3.60V) or 1.8V (1.70–1.95V)
F = V_{CC}: 3.3V (2.50–3.60V), V_{CCQ}: 1.2V (1.14–1.26V)
G = V_{CC}: 3.3V (2.60–3.60V) , V_{CCQ}: 1.8V (1.70–1.95V)
H = V_{CC}: 3.3V (2.50–3.60V), V_{CCQ}: 1.2V (1.14–1.26) or 1.8V (1.70–1.95V)
J = V_{CC}: 3.3V (2.50–3.60V), V_{CCQ}: 1.8V (1.70–1.95V)
K = V_{CC}: 3.3V (2.60–3.60V), V_{CCQ}: 3.3V (2.60–3.60V)
L = V_{CC}: 3.3V (2.60–3.60V), V_{CCQ}: 3.3V (2.60–3.60V) or 1.8V (1.70–1.95V)

Design Revision (shrink)

Production Status
Blank = Production
ES = Engineering Samples
QS = Qualification Samples
MS = Mechanical Sample

Features
E = Internal ECC enabled
M = Media
R = FortisFlash features
S = Security features
X = Product Longevity Program
Z = Polyimide (if applicable)

Operating Temperature Range*
Blank = Commercial (0°C to +70°C)
AAT = Automotive Grade (–40°C to +105°C)
AIT = Automotive Industrial (–40°C to +85°C)
IT = Extended (–40°C to +85°C) (AKA ET)
WT = Wireless Temp (–25°C to +85°C)
*Wafers support only the 0°C to +70°C temperature range

Speed Grade
Blank = Async only
12 = 166 MT/s
10 = 200 MT/s
6 = 333 MT/s
5 = 400 MT/s
37 = 533 MT/s
3 = 667 MT/s

Package Code (dimensions in mm)**
WP = 48-pin TSOP I (CPL version)
WC = 48-pin TSOP I (OCPL version)
C5 = 52-pad VLGA, 14 x 18 x 1.0 (SDP/DDP/QDP)
G1 = 272-ball VBGA, 14 x 18 x 1.0 (SDP, DDP, 3DP, QDP)
G2 = 272-ball TBGA, 14 x 18 x 1.3 (QDP, 8DP)
G6 = 272-ball LBGA, 14 x 18 x 1.5 (16DP)
H1 = 100-ball VBGA, 12 x 18 x 1.0
H2 = 100-ball TBGA, 12 x 18 x 1.2
H3 = 100-ball LBGA, 12 x 18 x 1.4 (8DP)
H4 = 63-ball VFBGA, 9 x 11 x 1.0
HC = 63-ball VFBGA, 10.5 x 13 x 1.0
H6 = 152-ball VBGA, 14 x 18 x 1.0 (SDP, DDP)
H7 = 152-ball TBGA, 14 x 18 x 1.2 (QDP)
H8 = 152-ball LBGA, 14 x 18 x 1.4 (8DP)
H9 = 100-ball LBGA, 12 x 18 x 1.6 (16DP)
J1 = 132-ball VBGA, 12 x 18 x 1.0 (SDP, DDP)
J2 = 132-ball TBGA, 12 x 18 x 1.2 (QDP)
J3 = 132-ball LBGA, 12 x 18 x 1.4 (8DP)
J4 = 132-ball VBGA, 12 x 18 x 1.0 (SDP, DDP)
J5 = 132-ball TBGA, 12 x 18 x 1.2 (QDP)
J6 = 132-ball LBGA, 12 x 18 x 1.4 (8DP)
J7 = 152-ball LBGA, 14 x 18 x 1.5 (16DP)
J9 = 132-ball LBGA, 12mm x 18mm x 1.5mm (16DP)
**Wafers are available for some products, please contact Micron for more information.
All NAND packages are Pb-free.

Interface

Mark	Interface
A	Async only
B	Sync/Async
C	Sync only
D	SPI

Generation Feature Set
A = 1st set of device features
B = 2nd set of device features (rev only if different than 1st set)
C = 3rd set of device features (rev only if different)
D = 4th set of device features (rev only if different)
etc.

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