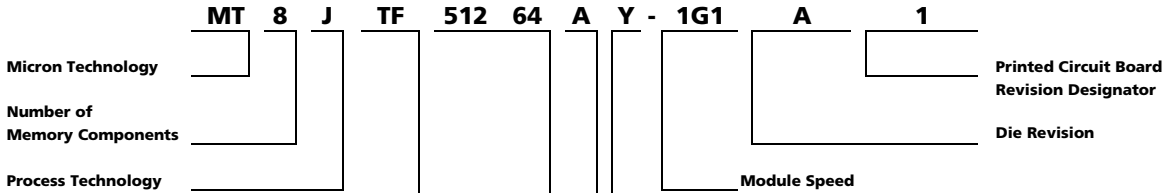


DDR3 Module Part Numbering System

The part numbering system is available at www.micron.com/support/designsupport/documents/png

DDR3 SDRAM modules



Process Technology
J = 1.5V
K = 1.35V

Product Family

TF = FBGA
TS = DDP (dual die in package)
TQ = QDP (quad die in package)
SF = FBGA with Temp Sensor
SS = DDP with Temp Sensor
SQ = QDP with Temp Sensor
BF = VLP (17.9mm) with Temp Sensor
BS = VLP (17.9mm) DDP with Temp Sensor
BQ = VLP (17.9mm) QDP with Temp Sensor
DF = VLP (18.75mm) with Temp Sensor
DS = VLP (18.75mm) DDP with Temp Sensor
DQ = VLP (18.75mm) QDP with Temp Sensor
SZF = FBGA with Temp Sensor and Heat Spreader
SZS = DDP with Temp Sensor and Heat Spreader
SZQ = QDP with Temp Sensor and Heat Spreader
BZF = VLP (17.9mm) with Temp Sensor and Heat Spreader
BZS = VLP (17.9mm) DDP with Temp Sensor and Heat Spreader
BZQ = VLP (17.9mm) QDP with Temp Sensor and Heat Spreader
DZF = VLP (18.75mm) with Temp Sensor and Heat Spreader
DZS = VLP (18.75mm) DDP with Temp Sensor and Heat Spreader
DZQ = VLP (18.75mm) QDP with Temp Sensor and Heat Spreader
CZS = VLP (19.5mm) DDP with Temp Sensor and Heat Spreader
CZQ = VLP (19.5mm) QDP with Temp Sensor and Heat Spreader

Device Number

Depth, Width
Blank = Megabits
G = Gigabits

Module Version

Blank = 240-pin registered DIMM
A = 240-pin unbuffered DIMM
F = 240-pin fully buffered DIMM
H = 204-pin SODIMM
P = Parity
D = 240-pin LR DIMM

DDR3 SDRAM Modules

| Module Speed | Component Speed Grade/ Part Mark | JEDEC Component Speed Grade | Clock Freq. (MHz) | Data Rate (MT/s) | Module Bandwidth | Module Configuration SPD (CL ¹ RCD ² RP) |
|--------------|----------------------------------|-----------------------------|-------------------|------------------|------------------|----------------------------------------------------------------|
| -80B | -25 | DDR3-800 | 400 | 800 | PC3-6400 | 6-6-6 |
| -80C | -25E | DDR3-800 | 400 | 800 | PC3-6400 | 5-5-5 |
| -1G0 | -187 | DDR3-1066 | 533 | 1066 | PC3-8500 | 8-8-8 |
| -1G1 | -187E | DDR3-1066 | 533 | 1066 | PC3-8500 | 7-7-7 |
| -1G2 | -187F | DDR3-1066 | 533 | 1066 | PC3-8500 | 6-6-6 |
| -1G3 | -15 | DDR3-1333 | 667 | 1333 | PC3-10600 | 10-10-10 |
| -1G4 | -15E | DDR3-1333 | 667 | 1333 | PC3-10600 | 9-9-9 |
| -1G5 | -15F | DDR3-1333 | 667 | 1333 | PC3-10600 | 8-8-8 |
| -1G6 | -125 | DDR3-1600 | 800 | 1600 | PC3-12800 | 11-11-11 |
| -1G7 | -125E | DDR3-1600 | 800 | 1600 | PC3-12800 | 10-10-10 |
| -1G8 | -125F | DDR3-1600 | 800 | 1600 | PC3-12800 | 9-9-9 |

SPD = serial presence-detect pin (module only)

CL = CAS latency; ²RCD = active-to-command time; ¹RP = precharge time

Package Codes

| Pb-Free Devices | Package Descriptions |
|-----------------|---------------------------------------------------------------|
| Y | Commercial temp; single- or dual-rank DIMM |
| Z | Halogen-free; commercial temp; single- or dual-rank DIMM |
| DY | Commercial temp; select dual- or quad-rank DIMM |
| DZ | Halogen-free; commercial temp; select dual- or quad-rank DIMM |

Rev. 9/16/2009

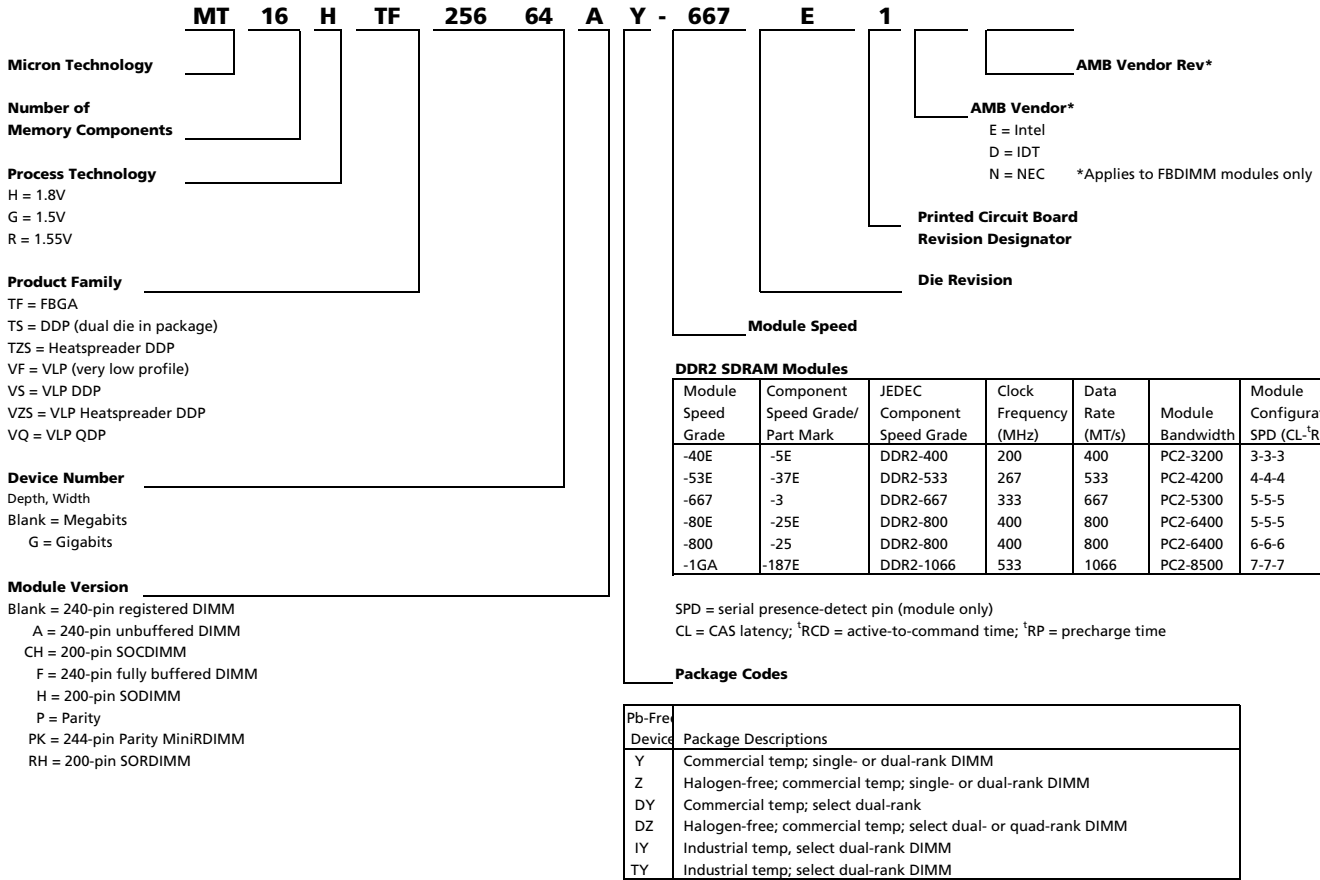
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DDR2 Module Part Numbering System

The part numbering system is available at www.micron.com/support/designsupport/documents/png

DDR2 SDRAM modules



Rev. 8/6/09

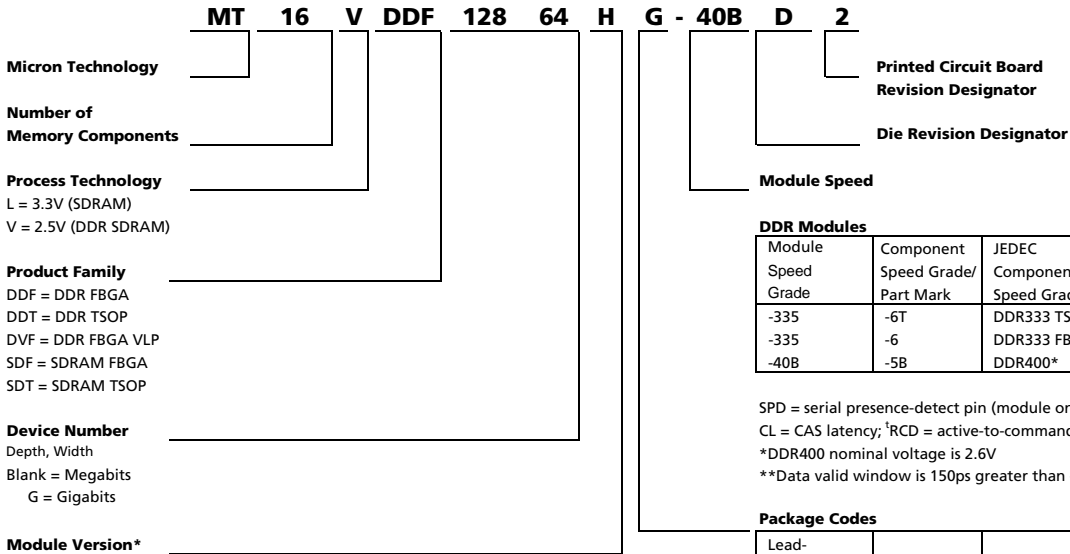
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DDR/SDRAM Module Part Numbering System

The part numbering system is available at www.micron.com/support/designsupport/documents/png

DDR/SDRAM modules



DDR Modules

| Module Speed Grade | Component Speed Grade/ Part Mark | JEDEC Component Speed Grade | Clock Frequency (MHz) | Data Rate (MT/s) | Module Bandwidth | Module Configuration SPD (CL ¹ -RCD ¹ - ¹ RP) |
|--------------------|----------------------------------|-----------------------------|-----------------------|------------------|------------------|--------------------------------------------------------------------------------|
| -335 | -6T | DDR333 TSOP | 167 | 333 | PC2700 | 2.5-3-3 |
| -335 | -6 | DDR333 FBGA | 167 | 333 | PC2700 | 2.5-3-3** |
| -40B | -5B | DDR400* | 200 | 400 | PC3200 | 3-3-3 |

SPD = serial presence-detect pin (module only)

CL = CAS latency; ¹RCD = active-to-command time; ¹RP = precharge time

*DDR400 nominal voltage is 2.6V

**Data valid window is 150ps greater than -6T

Package Codes

| Lead-Plated Devices | Pb-Free Devices | Package Descriptions |
|---------------------|-----------------|--------------------------------------------|
| G | Y | Commercial temp; single- or dual-rank DIMM |
| DG | DY | Commercial temp; select dual-rank |
| I | IY | Industrial temp DIMM |
| T | TY | Industrial temp; select dual-rank DIMM |

SDR Modules

| Module Speed | Allowable Component Speed | CL ¹ -RCD ¹ - ¹ RP |
|--------------|---------------------------|-----------------------------------------------------|
| -133 | -75, -7E | 3-3-3 |
| -13E | -7E | 2-2-2 |

DDR Modules

| Module Speed | Allowable Component Speed |
|--------------|---------------------------|
| -335 | -6, -6T, -5B |
| -40B | -5B |

Rev. 2/27/2009

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