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Modules

product guide

製品ガイド | 選型手冊 | 产品选型手册

DRAM Module Product Guide

2Q07

Module data sheets are available at www.micron.com/products/modules

DDR3 SDRAM modules*

Density	Description	CS/ Rank ¹	DRAM Components			Base Module Part Number	Speed Mark	CAS Latency	PCB (Height)	Data Rate ²	Sample	Production
			Device #	Device	Package							
204-pin Small-Outline DIMM (SODIMM)												
512MB	SS/SR 64 Meg x 64 1.5V	1	4	64 Meg x 16	FBGA	MT4JTF6464HY	-80BXX -1G1XX	6 7	1.18"	6400 8500	Now Now	2Q07 2Q07
1GB	DS/DR 128 Meg x 64 1.5V	1	8	64 Meg x 16	FBGA	MT8JTF12864HDY	-1G3XX -80BXX -1G1XX	10 6 7	1.18"	10600 6400 8500	3Q07 Now Now	4Q07 2Q07 2Q07
2GB	DS/DR 256 Meg x 64 1.5V	1	16	128 Meg x 8	FBGA	MT16JTF25664HY	-1G3XX -80BXX -1G1XX	10 6 7	1.18"	10600 6400 8500	3Q07 3Q07 3Q07	4Q07 4Q07 4Q07
240-pin Unbuffered DIMM (UDIMM)												
512MB	SS/SR 64 Meg x 64 1.5V	1	4	64 Meg x 16	FBGA	MT4JTF6464AY	-80BXX -1G1XX	6 7	1.18"	6400 8500	Now Now	2Q07 2Q07
1GB	SS/SR 128 Meg x 64 1.5V	1	8	128 Meg x 8	FBGA	MT8JTF12864AY	-1G3XX -80BXX -1G1XX	10 6 7	1.18"	10600 6400 8500	3Q07 Now Now	4Q07 2Q07 2Q07
1GB	SS/SR 256 Meg x 72 1.5V	1	9	128 Meg x 8	FBGA	MT9JTF12872AY	-1G3XX -80BXX -1G1XX	10 6 7	1.18"	10600 6400 8500	3Q07 Now Now	4Q07 2Q07 2Q07
2GB	DS/DR 256 Meg x 64 1.5V	1	16	128 Meg x 8	FBGA	MT16JTF25664AY	-1G3XX -80BXX -1G1XX	10 6 7	1.18"	10600 6400 8500	3Q07 Now Now	4Q07 2Q07 2Q07
2GB	DS/DR 256 Meg x 72 1.5V	1	18	128 Meg x 8	FBGA	MT18JTF25672AY	-1G3XX -80BXX -1G1XX	10 6 7	1.18"	10600 6400 8500	3Q07 Now Now	4Q07 2Q07 2Q07
240-pin Registered DIMM (RDIMM)												
1GB	SS/SR 128 Meg x 72 1.5V ECC Gold, Parity	1	9	128 Meg x 8	FBGA	MT9JTF12872PY	-80BXX -1G1XX -1G3XX	6 7 10	1.18"	6400 8500 10600	Now Now 3Q07	2Q07 2Q07 4Q07
2GB	DS/DR 256 Meg x 72 1.5V ECC Gold, Parity	1	18	128 Meg x 8	FBGA	MT18JTF25672PDY	-80BXX -1G1XX -1G3XX	6 7 10	1.18"	6400 8500 10600	Now Now 3Q07	2Q07 2Q07 4Q07
2GB	DS/SR 256 Meg x 72 1.5V ECC Gold, Parity	1	18	256 Meg x 4	FBGA	MT18JTF25672PY	-80BXX -1G1XX -1G3XX	6 7 10	1.18"	6400 8500 10600	Now Now 3Q07	2Q07 2Q07 4Q07

Notes: *All DDR3 SDRAM modules are available in Pb-free packages only
¹CS/Rank = number of chip selects per bank; ²Data Rate = MB/s on 64-bit data bus
DS = Double-sided; SS = Single-sided; DR = Dual rank; SR = Single rank; XX = Die/PCB rev

Rev. 5/17/2007

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Module data sheets are available at www.micron.com/products/modules

DDR2 SDRAM modules*

Density	Description	CS/ Rank ¹	DRAM Components			Base Module Part Number	Speed Mark	CAS Latency	PCB (Height)	Data Rate ²	Sample	Production	
			Device #	Device	Package								
200-pin Small-Outline DIMM (SODIMM)													
256MB	SS/SR	32 Meg x 64 1.8V Gold	1	4	32 Meg x 16	FBGA	MT4HTF3264HY	-40EXX	3	1.18"	3200	Now	Now
								-53EXX	4	1.18"	4200	Now	Now
								-667XX	5	1.18"	5300	Now	Now
512MB	DS/DR	64 Meg x 64 1.8V Gold	1	8	32 Meg x 16	FBGA	MT8HTF6464HDY	-40EXX	3	1.18"	3200	Now	Now
								-53EXX	4	1.18"	4200	Now	Now
								-667XX	5	1.18"	5300	Now	Now
512MB	DS/SR	64 Meg x 64 1.8V Gold	1	8	64 Meg x 8	FBGA	MT8HTF6464HY	-40EXX	3	1.18"	3200	Now	Now
								-53EXX	4	1.18"	4200	Now	Now
								-667XX	5	1.18"	5300	Now	Now
512MB	SS/SR	64 Meg x 64 1.8V Gold	1	4	64 Meg x 16	FBGA	MT4HTF6464HY	-40EXX	3	1.18"	3200	Now	Now
								-53EXX	4	1.18"	4200	Now	Now
								-667XX	5	1.18"	5300	Now	Now
1GB	DS/DR	128 Meg x 64 1.8V Gold	1	16	64 Meg x 8	FBGA	MT16HTF12864HY	-40EXX	3	1.18"	3200	Now	Now
								-53EXX	4	1.18"	4200	Now	Now
								-667XX	5	1.18"	5300	Now	Now
1GB	DS/DR	128 Meg x 64 1.8V Gold	1	8	64 Meg x 16	FBGA	MT8HTF12864HDY	-40EXX	3	1.18"	3200	Now	Now
								-53EXX	4	1.18"	4200	Now	Now
								-667XX	5	1.18"	5300	Now	Now
2GB	DS/DR	256 Meg x 64 1.8V Gold	1	16	128 Meg x 8	FBGA	MT16HTF25664HY	-40EXX	3	1.18"	3200	Now	Now
								-53EXX	4	1.18"	4200	Now	Now
								-667XX	5	1.18"	5300	Now	Now
200-pin Small-Outline Clock DIMM (SOCDIMM)													
512MB	DS/SR	64 Meg x 72 1.8V Gold	1	9	64 Meg x 8	FBGA	MT9HTF6472CHY	-40EXX	3	1.18"	3200	Now	Now
								-53EXX	4	1.18"	4200	Now	Now
								-667XX	5	1.18"	5300	Now	Now
1GB	DS/DR	128 Meg x 72 1.8V Gold	1	9	128 Meg x 8	FBGA	MT9HTF12872CHY	-40EXX	3	1.18"	3200	Now	Now
								-53EXX	4	1.18"	4200	Now	Now
								-667XX	5	1.18"	5300	Now	Now
2GB	DS/DR	256 Meg x 72 1.8V Gold	1	18	128 Meg x 8	FBGA 2COB	MT18HTS25672CHY	-40EXX	3	1.18"	3200	Now	Now
								-53EXX	4	1.18"	4200	Now	Now
								-667XX	5	1.18"	5300	Now	Now
200-pin Small-Outline Clock Registered DIMM (SORDIMM)													
512MB	DS/SR	64 Meg x 72 1.8V Gold	1	9	64 Meg x 8	FBGA	MT9HTF6472RHY	-40EXX	3	1.18"	3200	Now	Now
								-53EXX	4	1.18"	4200	Now	Now
								-667XX	5	1.18"	5300	Now	Now
1GB	DS/DR	128 Meg x 72 1.8V Gold	1	9	128 Meg x 8	FBGA	MT9HTF12872RHY	-40EXX	3	1.18"	3200	Now	Now
								-53EXX	4	1.18"	4200	Now	Now
								-667XX	5	1.18"	5300	Now	Now
2GB	DS/DR	256 Meg x 72 1.8V Gold	1	18	128 Meg x 8	FBGA 2COB	MT18HTS25672RHY	-40EXX	3	1.18"	3200	Now	Now
								-53EXX	4	1.18"	4200	Now	Now
								-667XX	5	1.18"	5300	Now	Now
200-pin Very Low Profile Small-Outline Clock Registered DIMM (VLP SORDIMM)													
512MB	DS/SR	64 Meg x 72 1.8V Gold	1	9	64 Meg x 8	FBGA	MT9HVF6472RHY	-40EXX	3	1.18"	3200	Now	Now
								-53EXX	4	1.18"	4200	Now	Now
								-667XX	5	1.18"	5300	Now	Now
1GB	DS/DR	128 Meg x 72 1.8V Gold	1	9	128 Meg x 8	FBGA	MT9HVF12872RHY	-40EXX	3	1.18"	3200	Now	Now
								-53EXX	4	1.18"	4200	Now	Now
								-667XX	5	1.18"	5300	Now	Now
2GB	DS/DR	256 Meg x 72 1.8V Gold	1	18	128 Meg x 8	FBGA 2COB	MT18HVS25672RHY	-40EXX	3	1.18"	3200	Now	Now
								-53EXX	4	1.18"	4200	Now	Now
								-667XX	5	1.18"	5300	Now	Now

Notes: *All DDR2 SDRAM modules are available in Pb-free packages only
¹CS/Rank = number of chip selects per bank; ²Data Rate = MB/s on 64-bit data bus
DS = Double-sided; SS = Single-sided; DR = Dual rank; SR = Single rank; XX = Die/PCB rev



Module data sheets are available at www.micron.com/products/modules

DDR2 SDRAM modules* continued

Density	Description	CS/ Rank ¹	DRAM Components			Base Module Part Number	Speed Mark	CAS Latency	PCB (Height)	Data Rate ²	Sample	Production	
			Device #	Device	Package								
240-pin Unbuffered DIMM (UDIMM)													
256MB	SS/SR	32 Meg x 72 1.8V ECC Gold	1	9	32 Meg x 8	FBGA	MT9HTF3272AY	-40EXX	3	1.18"	3200	Now	Now
								-53EXX	4	1.18"	4200	Now	Now
								-667XX	5	1.18"	5300	Now	Now
256MB	SS/SR	32 Meg x 64 1.8V Gold	1	4	32 Meg x 16	FBGA	MT4HTF3264AY	-40EXX	3	1.18"	3200	Now	Now
								-53EXX	4	1.18"	4200	Now	Now
								-667XX	5	1.18"	5300	Now	Now
								-80EXX	5	1.18"	6400	Now	Now
								-800XX	6	1.18"	6400	Now	Now
512MB	SS/SR	64 Meg x 64 1.8V Gold	1	4	64 Meg x 16	FBGA	MT4HTF6464AY	-40EXX	3	1.18"	3200	Now	Now
								-53EXX	4	1.18"	4200	Now	Now
								-667XX	5	1.18"	5300	Now	Now
								-80EXX	5	1.18"	6400	Now	Now
								-800XX	6	1.18"	6400	Now	Now
512MB	SS/SR	64 Meg x 64 1.8V Gold	1	8	64 Meg x 8	FBGA	MT8HTF6464AY	-40EXX	3	1.18"	3200	Now	Now
								-53EXX	4	1.18"	4200	Now	Now
								-667XX	5	1.18"	5300	Now	Now
								-80EXX	5	1.18"	6400	Now	Now
								-800XX	6	1.18"	6400	Now	Now
512MB	SS/SR	64 Meg x 72 1.8V ECC Gold	1	9	64 Meg x 8	FBGA	MT9HTF6472AY	-40EXX	3	1.18"	3200	Now	Now
								-53EXX	4	1.18"	4200	Now	Now
								-667XX	5	1.18"	5300	Now	Now
								-80EXX	5	1.18"	6400	Now	Now
								-800XX	6	1.18"	6400	Now	Now
1GB	DS/DR	128 Meg x 64 1.8V Gold	1	16	64 Meg x 8	FBGA	MT16HTF12864AY	-40EXX	3	1.18"	3200	Now	Now
								-53EXX	4	1.18"	4200	Now	Now
								-667XX	5	1.18"	5300	Now	Now
								-80EXX	5	1.18"	6400	Now	Now
								-800XX	6	1.18"	6400	Now	Now
1GB	DS/DR	128 Meg x 72 1.8V ECC Gold	1	18	64 Meg x 8	FBGA	MT18HTF12872AY	-40EXX	3	1.18"	3200	Now	Now
								-53EXX	4	1.18"	4200	Now	Now
								-667XX	5	1.18"	5300	Now	Now
								-80EXX	5	1.18"	6400	Now	Now
								-800XX	6	1.18"	6400	Now	Now
1GB	SS/SR	128 Meg x 64 1.8V Gold	1	8	128 Meg x 8	FBGA	MT8HTF12864AY	-40EXX	3	1.18"	3200	Now	Now
								-53EXX	4	1.18"	4200	Now	Now
								-667XX	5	1.18"	5300	Now	Now
								-80EXX	5	1.18"	6400	Now	Now
								-800XX	6	1.18"	6400	Now	Now
1GB	SS/SR	256 Meg x 72 1.8V ECC Gold	1	9	128 Meg x 8	FBGA	MT9HTF12872AY	-40EXX	3	1.18"	3200	Now	Now
								-53EXX	4	1.18"	4200	Now	Now
								-667XX	5	1.18"	5300	Now	Now
								-80EXX	5	1.18"	6400	Now	Now
								-800XX	6	1.18"	6400	Now	Now
2GB	DS/DR	256 Meg x 64 1.8V Gold	1	16	128 Meg x 8	FBGA	MT16HTF25664AY	-40EXX	3	1.18"	3200	Now	Now
								-53EXX	4	1.18"	4200	Now	Now
								-667XX	5	1.18"	5300	Now	Now
								-80EXX	5	1.18"	6400	Now	Now
								-800XX	6	1.18"	6400	Now	Now
2GB	DS/DR	256 Meg x 72 1.8V ECC Gold	1	18	128 Meg x 8	FBGA	MT18HTF25672AY	-40EXX	3	1.18"	3200	Now	Now
								-53EXX	4	1.18"	4200	Now	Now
								-667XX	5	1.18"	5300	Now	Now

Notes: *All DDR2 SDRAM modules are available in Pb-free packages only
¹CS/Rank = number of chip selects per bank; ²Data Rate = MB/s on 64-bit data bus
 DS = Double-sided; SS = Single-sided; DR = Dual rank; SR = Single rank; XX = Die/PCB rev



Module data sheets are available at www.micron.com/products/modules

DDR2 SDRAM modules* *continued*

Density	Description	CS/ Rank ¹	DRAM Components			Base Module Part Number	Speed Mark	CAS Latency	PCB (Height)	Data Rate ²	Sample	Production
			Device #	Device	Package							
240-pin Registered DIMM (RDIMM)												
256MB	SS/SR 32 Meg x 72 1.8V ECC Gold	1	9	32 Meg x 8	FBGA	MT9HTF3272Y	-40EXX -53EXX	3 4	1.18"	3200 4200	Now Now	Now Now
512MB	DS/DR 64 Meg x 72 1.8V ECC Gold	1	18	32 Meg x 8	FBGA	MT18HTF6472DY	-40EXX -53EXX	3 4	1.18"	3200 4200	Now Now	Now Now
512MB	SS/SR 64 Meg x 72 1.8V ECC Gold	1	9	64 Meg x 8	FBGA	MT9HTF6472Y	-40EXX -53EXX	3 4	1.18"	3200 4200	Now Now	Now Now
512MB	SS/SR 64 Meg x 72 1.8V ECC Gold, Parity	1	9	64 Meg x 8	FBGA	MT9HTF6472PY	-53EXX -667XX	4 5	1.18"	4200 5300	Now Now	Now Now
1GB	DS/DR 128 Meg x 72 1.8V ECC Gold	1	18	64 Meg x 8	FBGA	MT18HTF12872DY	-40EXX -53EXX	3 4	1.18"	3200 4200	Now Now	Now Now
1GB	DS/DR 128 Meg x 72 1.8V ECC Gold, Parity	1	18	64 Meg x 8	FBGA	MT18HTF12872PDY	-667XX -40EXX	5 3	1.18"	5300 3200	Now Now	Now Now
1GB	DS/SR 128 Meg x 72 1.8V ECC Gold	1	18	128 Meg x 4	FBGA	MT18HTF12872Y	-53EXX -667XX	4 5	1.18"	4200 5300	Now Now	Now Now
1GB	SS/SR 128 Meg x 72 1.8V ECC Gold	1	9	128 Meg x 8	FBGA	MT9HTF12872Y	-40EXX -53EXX	3 4	1.18"	3200 4200	Now Now	Now Now
1GB	SS/SR 128 Meg x 72 1.8V ECC Gold, Parity	1	9	128 Meg x 8	FBGA	MT9HTF12872PY	-53EXX -667XX	4 5	1.18"	4200 5300	Now Now	Now Now
1GB	DS/SR 128 Meg x 72 1.8V ECC Gold, Parity	1	18	128 Meg x 4	FBGA	MT18HTF12872PY	-53EXX -667XX	4 5	1.18"	4200 5300	Now Now	Now Now
2GB	DS/DR 256 Meg x 72 1.8V ECC Gold	1	18	128 Meg x 8	FBGA	MT18HTF25672DY	-40EXX -53EXX	3 4	1.18"	3200 4200	Now Now	Now Now
2GB	DS/DR 256 Meg x 72 1.8V ECC Gold, Parity	1	18	128 Meg x 8	FBGA	MT18HTF25672PDY	-53EXX -667XX	4 5	1.18"	4200 5300	Now Now	Now Now
2GB	DS/SR 256 Meg x 72 1.8V ECC Gold	1	18	256 Meg x 4	FBGA	MT18HTF25672Y	-40EXX -53EXX	3 4	1.18"	3200 4200	Now Now	Now Now
2GB	DS/SR 256 Meg x 72 1.8V ECC Gold, Parity	1	18	256 Meg x 4	FBGA	MT18HTF25672PY	-53EXX -667XX	4 5	1.18"	4200 5300	Now Now	Now Now
2GB	DS/DR 256 Meg x 72 1.8V ECC Gold	1	36	128 Meg x 4	FBGA	MT36HTF25672Y	-40EXX -53EXX	3 4	1.18"	3200 4200	Now Now	Now Now
2GB	DS/DR 256 Meg x 72 1.8V ECC Gold, Parity	1	36	128 Meg x 4	FBGA	MT36HTF25672PY	-53EXX -667XX	4 5	1.18"	4200 5300	Now Now	Now Now
4GB	DS/DR 512 Meg x 72 1.8V ECC Gold	1	36	256 Meg x 4	FBGA	MT36HTF51272Y	-40EXX -53EXX	3 4	1.18"	3200 4200	Now Now	Now Now
4GB	DS/DR 512 Meg x 72 1.8V ECC Gold, Parity	1	36	256 Meg x 4	FBGA	MT36HTF51272PY	-53EXX -667XX	4 5	1.18"	4200 5300	Now Now	Now Now

240-pin Fully Buffered DIMM (FBDIMM)												
512MB	DS/SR 64 Meg x 72 1.8V Gold	1	9	64 Meg x 8	FBGA	MT9HTF6472FY	-667XXYY	5	1.20"	5300	Now	Now
1GB	DS/SR 128 Meg x 72 1.8V Gold	1	9	128 Meg x 8	FBGA	MT9HTF12872FY	-667XXYY	5	1.20"	5300	Now	Now
1GB	DS/SR 128 Meg x 72 1.8V Gold	1	18	128 Meg x 4	FBGA	MT18HTF12872FY	-667XXYY	5	1.20"	5300	Now	Now
1GB	DS/DR 128 Meg x 72 1.8V Gold	1	18	64 Meg x 8	FBGA	MT18HTF12872FDY	-667XXYY	5	1.20"	5300	Now	Now
2GB	DS/SR 256 Meg x 72 1.8V Gold	1	18	256 Meg x 4	FBGA	MT18HTF25672FY	-667XXYY	5	1.20"	5300	Now	Now
2GB	DS/DR 256 Meg x 72 1.8V Gold	1	18	128 Meg x 8	FBGA	MT18HTF25672FDY	-667XXYY	5	1.20"	5300	Now	Now
2GB	DS/DR 256 Meg x 72 1.8V Gold	1	36	128 Meg x 8	FBGA	MT36HTF25672FY	-667XXYY	5	1.20"	5300	Now	Now
4GB	DS/DR 512 Meg x 72 1.8V Gold	1	36	256 Meg x 4	FBGA	MT36HTF51272FY	-667XXYY	5	1.20"	5300	Now	Now

244-pin Very Low Profile Registered MiniDIMM (VLP Mini-RDIMM)												
512MB	DS/SR 64 Meg x 72 1.8V, Parity	1	9	64 Meg x 8	FBGA	MT9HVF6472PKY	-40EXX -53EXX	3 4	0.72"	3200 4200	Now Now	Now Now
1GB	DS/SR 128 Meg x 72 1.8V, Parity	1	9	128 Meg x 8	FBGA	MT9HVF12872PKY	-667XX -40EXX	5 3	0.72"	5300 3200	Now Now	Now Now
2GB	DS/DR 256 Meg x 72 1.8V Parity	1	18	128 Meg x 8	FBGA 2COB	MT18HVS25672PKY	-53EXX -667XX	4 5	0.72"	4200 5300	Now Now	Now Now

Notes: *All DDR2 SDRAM modules are available in Pb-free packages only
 YY = AMB vendor/AMB vendor revision
¹CS/Rank = number of chip selects per bank; ²Data Rate = MB/s on 64-bit data bus
 DS = Double-sided; SS = Single-sided; DR = Dual rank; SR = Single rank; XX = Die/PCB rev

Module data sheets are available at www.micron.com/products/modules

DDR2 SDRAM modules* continued

Density	Description	CS/ Rank ¹	DRAM Components			Base Module Part Number	Speed Mark	CAS Latency	PCB (Height)	Data Rate ²	Sample	Production
			Device #	Device	Package							
240-pin Very Low Profile Registered DIMM (VLP RDIMM)												
512MB	SS/SR 64 Meg x 72 1.8V	1	9	64 Meg x 8	FBGA	MT9HVF6472Y	-40EXX	3	0.72"	3200	Now	Now
							-53EXX	4	0.72"	4200	Now	Now
512MB	SS/SR 64 Meg x 72 1.8V, Parity	1	9	64 Meg x 8	FBGA	MT9HVF6472PY	-53EXX	4	0.72"	4200	Now	Now
							-667XX	5	0.72"	5300	Now	Now
1GB	DS/DR 128 Meg x 72 1.8V	1	18	128 Meg x 4	FBGA	MT18HVF12872Y	-40EXX	3	0.72"	3200	Now	Now
							-53EXX	4	0.72"	4200	Now	Now
1GB	DS/SR 128 Meg x 72 1.8V, Parity	1	18	128 Meg x 4	FBGA	MT18HVF12872PY	-53EXX	4	0.72"	4200	Now	Now
							-667XX	5	0.72"	5300	Now	Now
2GB	DS/DR 256 Meg x 72 1.8V	1	18	256 Meg x 4	FBGA	MT18HVF25672Y	-40EXX	3	0.72"	3200	Now	Now
							-53EXX	4	0.72"	4200	Now	Now
2GB	DS/DR 256 Meg x 72 1.8V, Parity	1	18	256 Meg x 4	FBGA	MT18HVF25672PY	-53EXX	4	0.72"	4200	Now	Now
							-667XX	5	0.72"	5300	Now	Now

244-pin Registered MiniDIMM (Mini-RDIMM)												
256MB	SS/SR 32 Meg x 72 1.8V ECC Gold, Parity	1	5	32 Meg x 16	FBGA	MT5HTF3272PKY	-40EXX	3	1.20"	3200	Now	Now
							-53EXX	4	1.20"	4200	Now	Now
							-667XX	5	1.20"	5300	Now	Now
512MB	SS/SR 64 Meg x 72 1.8V ECC Gold, Parity	1	5	64 Meg x 16	FBGA	MT5HTF6472PKY	-40EXX	3	1.20"	3200	Now	Now
							-53EXX	4	1.20"	4200	Now	Now
							-667XX	5	1.20"	5300	Now	Now
512MB	DS/SR 64 Meg x 72 1.8V ECC Gold	1	9	64 Meg x 8	FBGA	MT9HTF6472KY	-40EXX	3	1.20"	3200	Now	Now
							-53EXX	4	1.20"	4200	Now	Now
							-667XX	5	1.20"	5300	Now	Now
512MB	DS/SR 64 Meg x 72 1.8V ECC Gold, Parity	1	9	64 Meg x 8	FBGA	MT9HTF6472PKY	-40EXX	3	1.20"	3200	Now	Now
							-53EXX	4	1.20"	4200	Now	Now
							-667XX	5	1.20"	5300	Now	Now
1GB	DS/SR 128 Meg x 72 1.8V ECC Gold, Parity	1	9	128 Meg x 8	FBGA	MT9HTF12872PKY	-40EXX	3	1.20"	3200	Now	Now
							-53EXX	4	1.20"	4200	Now	Now
							-667XX	5	1.20"	5300	Now	Now
2GB	DS/DR 256 Meg x 72 1.8V ECC Gold, Parity	1	18	256 Meg x 8	FBGA 2COB	MT18HTS25672PKY-	-53EXX	4	1.20"	4200	Now	Now
							-667XX	5	1.20"	5300	Now	Now

Notes: *All DDR2 SDRAM modules are available in Pb-free packages only
 YY = AMB vendor/AMB vendor revision
¹CS/Rank = number of chip selects per bank; ²Data Rate = MB/s on 64-bit data bus
 DS = Double-sided; SS = Single-sided; DR = Dual rank; SR = Single rank; XX = Die/PCB rev

Module data sheets are available at www.micron.com/products/modules

DDR SDRAM modules*

Density	Description	CS/ Rank ¹	DRAM Components			Base Module Part Number	Speed Mark	CAS Latency	PCB (Height)	Data Rate ²	Sample	Production
			Device #	Device	Package							
200-pin Small Outline DIMM (SODIMM)												
256MB	SS/SR 32 Meg x 64 2.5V Gold 2.6V Gold	1	4	32 Meg x 16	TSOP	MT4VDDT3264H	-335XX -40BXX	2.5 3	1.25"	2700 3200	Now Now	Now Now
256MB	DS/SR 32 Meg x 72 2.5V Gold 2.6V Gold	1	5	32 Meg x 16	TSOP	MT5VDDT3272H	-335XX -40BXX	2.5 3	1.25"	2700 3200	Now Now	Now Now
512MB	DS/DR 64 Meg x 64 2.5V Gold 2.6V Gold	1	8	32 Meg x 16	TSOP	MT8VDDT6464HD	-335XX -40BXX	2.5 3	1.25"	2700 3200	Now Now	Now Now
512MB	DS/SR 64 Meg x 72 2.5V Gold 2.6V Gold	1	9	64 Meg x 8	TSOP	MT9VDDT6472H	-335XX -40BXX	2.5 3	1.25"	2700 3200	Now Now	Now Now
1GB	DS/DR 128 Meg x 64 2.5V Gold 2.6V Gold	1	16	64 Meg x 8	FBGA	MT16VDDF12864H	-335XX -40BXX	2.5 3	1.25"	2700 3200	Now Now	Now Now
1GB	DS/DR 128 Meg x 72 2.5V Gold 2.6V Gold	1	18	64 Meg x 8	FBGA	MT18VDDF12872H	-335XX -40BXX	2.5 3	1.25"	2700 3200	Now Now	Now Now
184-pin Unbuffered DIMM (UDIMM)												
256MB	SS/SR 32 Meg x 64 2.5V Gold 2.6V Gold	1	4	32 Meg x 16	TSOP	MT4VDDT3264A	-335XX -40BXX	3.5 3	1.25"	2700 3200	Now Now	Now Now
256MB	SS/SR 32 Meg x 72 2.5V ECC Gold 2.6V ECC Gold	1	5	32 Meg x 16	TSOP	MT5VDDT3272A	-335XX -40BXX	2.5 3	1.25"	2700 3200	Now Now	Now Now
512MB	SS/SR 64 Meg x 64 2.5V Gold 2.6V Gold	1	8	64 Meg x 8	TSOP	MT8VDDT6464A	-335XX -40BXX	2.5 3	1.25"	2700 3200	Now Now	Now Now
512MB	SS/SR 64 Meg x 72 2.5V ECC Gold 2.6V ECC Gold	1	9	64 Meg x 8	TSOP	MT9VDDT6472A	-335XX -40BXX	2.5 3	1.25"	2700 3200	Now Now	Now Now
1GB	DS/DR 128 Meg x 64 2.5V Gold 2.6V Gold	1	16	64 Meg x 8	TSOP	MT16VDDT12864A	-335XX -40BXX	2.5 3	1.25"	2700 3200	Now Now	Now Now
1GB	DS/DR 128 Meg x 72 2.5V ECC Gold 2.6V ECC Gold	1	18	64 Meg x 8	TSOP	MT18VDDT12872A	-335XX -40BXX	2.5 3	1.25"	2700 3200	Now Now	Now Now
184-pin Registered DIMM (RDIMM)												
256MB	SS/SR 32 Meg x 72 2.5V ECC Gold 2.6V ECC Gold	1	9	32 Meg x 8	FBGA	MT9VDDF3272	-335XX -40BXX	2.5 3	1.125"	2700 3200	Now Now	Now Now
512MB	SS/SR 64 Meg x 72 2.5V ECC Gold 2.6V ECC Gold	1	9	64 Meg x 8	FBGA	MT9VDDF6472	-335XX -40BXX	2.5 3	1.125"	2700 3200	Now Now	Now Now
512MB	DS/DR 64 Meg x 72 2.5V ECC Gold 2.6V ECC Gold	1	18	32 Meg x 8	FBGA	MT18VDDF6472D	-335XX -40BXX	2.5 3	1.125"	2700 3200	Now Now	Now Now
1GB	DS/SR 128 Meg x 72 2.5V ECC Gold 2.6V ECC Gold	1	18	128 Meg x 4	FBGA	MT18VDDF12872	-335XX -40BXX	2.5 3	1.125"	2700 3200	Now Now	Now Now
1GB	DS/DR 128 Meg x 72 2.5V ECC Gold 2.6V ECC Gold	1	18	64 Meg x 8	FBGA	MT18VDDF12872D	-335XX -40BXX	2.5 3	1.125"	2700 3200	Now Now	Now Now
2GB	DS/DR 256 Meg x 72 2.5V ECC Gold 2.6V ECC Gold	1	36	128 Meg x 4	FBGA	MT36VDDF25672	-335XX -40BXX	2.5 3	1.20"	2700 3200	Now Now	Now Now
4GB	DS/DR 512 Meg x 72 2.5V ECC Gold	1	36	256 Meg x 4	Stacked TSOP	MT36VDDT51272	-265XX -335XX	2.5 2.5	1.20"	2100 2700	Now Now	Now Now
184-pin Very Low Profile Registered DIMM (VLP RDIMM)												
512MB	SS/SR 64 Meg x 72 2.5V ECC Gold	1	9	64 Meg x 8	FBGA	MT9VDVF6472	-335XX -40BXX	2.5 3	0.72"	2700 3200	Now Now	Now Now
1GB	DS/SR 128 Meg x 72 2.5V ECC Gold	1	18	128 Meg x 4	FBGA	MT18VDVF12872	-335XX -40BXX	2.5 3	0.72"	2700 3200	Now Now	Now Now
1GB	DS/DR 128 Meg x 72 2.5V ECC Gold	1	18	64 Meg x 8	FBGA	MT18VDVF12872D	-335XX -40BXX	2.5 3	0.72"	2700 3200	Now Now	Now Now

Notes: *All DDR SDRAM modules are available in lead-solder or Pb-free packages; highlighted parts are not recommended for new designs
¹CS/Rank = number of chip selects per bank; ²Data Rate = MB/s on 64-bit data bus
DS = Double-sided; SS = Single-sided; DR = Dual rank; SR = Single rank; XX = Die/PCB rev



Module data sheets are available at www.micron.com/products/modules

SDR SDRAM modules*

Density	Description	CS/ Rank ³	DRAM Components			Base Module Part Number	Speed Mark	CAS Latency	PCB (Height)	Clock Speed ⁴	Sample	Production
			Device #	Device	Package							
100-pin DIMM												
128MB	DS/DR 32 Meg x 32 3.3V Gold	1	4	16 Meg x 16	TSOP	MT4LSDT3232U	-8XX	-	1.00"	125	Now	Now
256MB	DS/DR 64 Meg x 32 3.3V Gold	1	8	32 Meg x 8	TSOP	MT8LSDT6432U	-8XX	-	1.15"	125	Now	Now
144-pin Single Outline DIMM (SODIMM)												
128MB	DS/SR 16 Meg x 64 3.3V Gold	2	4	16 Meg x 16	TSOP	MT4LSDT1664H	-133XX -13EXX	3 2	1.0"	133	Now	Now
256MB	DS/DR 32 Meg x 64 3.3V Gold	2	8	16 Meg x 16	TSOP	MT8LSDT3264H	-133XX -13EXX	3 2	1.25"	133	Now	Now
512MB	DS/DR 64 Meg x 64 3.3V Gold	2	16	32 Meg x 8	FBGA	MT16LSDF6464H	-133XX -13EXX	3 2	1.25"	133	Now	Now
168-pin Unbuffered DIMM (UDIMM)												
128MB	SS/SR 16 Meg x 72 3.3V ECC Gold	2	9	16 Meg x 8	TSOP	MT9LSDT1672A	-133XX -13EXX	3 2	1.125"	133	Now	Now
256MB	SS/SR 16 Meg x 64 3.3V Gold	2	4	16 Meg x 16	TSOP	MT4LSDT1664A	-133XX	3	1.0"	133	Now	Now
	DS/DR 32 Meg x 64 3.3V Gold	2	8	32 Meg x 8	TSOP	MT8LSDT3264A	-133XX -13EXX	3 2	1.125"	133	Now	Now
	DS/DR 32 Meg x 72 3.3V ECC Gold	2	9	32 Meg x 8	TSOP	MT9LSDT3272A	-133XX -13EXX	3 2	1.125"	133	Now	Now
512MB	DS/DR 64 Meg x 64 3.3V Gold	2	16	32 Meg x 8	TSOP	MT16LSDT6464A	-133XX -13EXX	3 2	1.125"	133	Now	Now
	DS/DR 64 Meg x 72 3.3V ECC Gold	2	18	32 Meg x 8	TSOP	MT18LSDT6472A	-133XX -13EXX	3 2	1.125"	133	Now	Now
1GB	SS/SR 128 Meg x 64 3.3V Gold	2	16	64 Meg x 8	TSOP	MT16LSDT12864A	-133XX -13EXX	3 2	1.125"	133	Now	Now
	SS/SR 128 Meg x 72 3.3V ECC Gold	2	18	64 Meg x 8	TSOP	MT18LSDT12872A	-133XX -13EXX	3 2	1.125"	133	Now	Now
168-pin Registered DIMM (RDIMM)												
128MB	SS/SR 16 Meg x 72 3.3V ECC Gold	2	9	16 Meg x 8	TSOP	MT9LSDT1672	-133XX -13EXX	3 2	1.125"	133	Now	Now
256MB	DS/DR 32 Meg x 72 3.3V ECC Gold	2	9	32 Meg x 8	TSOP	MT9LSDT3272	-133XX -13EXX	3 2	1.70"	133	Now	Now
	SS/SR 32 Meg x 72 3.3V ECC Gold	2	18	16 Meg x 8	TSOP	MT18LSDT3272	-133XX -13EXX	3 2	1.125"	133	Now	Now
512MB	DS/SR 64 Meg x 72 3.3V ECC Gold	2	18	64 Meg x 4	TSOP/FBGA	MT18LSD(F)T6472	-133XX -13EXX	3 2	1.70"/1.20"	133	Now	Now
	DS/DR 128 Meg x 72 3.3V ECC Gold	2	18	128 Meg x 4	TSOP	MT18LSDT12872	-133XX -13EXX	3 2	1.70"	133	Now	Now
1GB	DS/DR 128 Meg x 72 3.3V ECC Gold	2	36	64 Meg x 4	TSOP/FBGA	MT36LSD(F)T12872	-133XX -13EXX	3 2	1.70"	133	Now	Now
	SS/SR 256 Meg x 72 3.3V ECC Gold	2	36	128 Meg x 4	TSOP	MT36LSDT25672	-133XX -13EXX	3 2	1.375"	133	Now	Now

Notes: *All SDR SDRAM modules are available in **lead-solder** or **Pb-free** packages; **highlighted parts are not recommended for new designs**

³CS/Rank = number of chip selects per bank; ⁴Clock Speed = MHz

DS = Double-sided; SS = Single-sided; DR = Dual rank; SR = Single rank; (A) = SPD version, unbuffered; no A = Registered version for x72 DIMMs

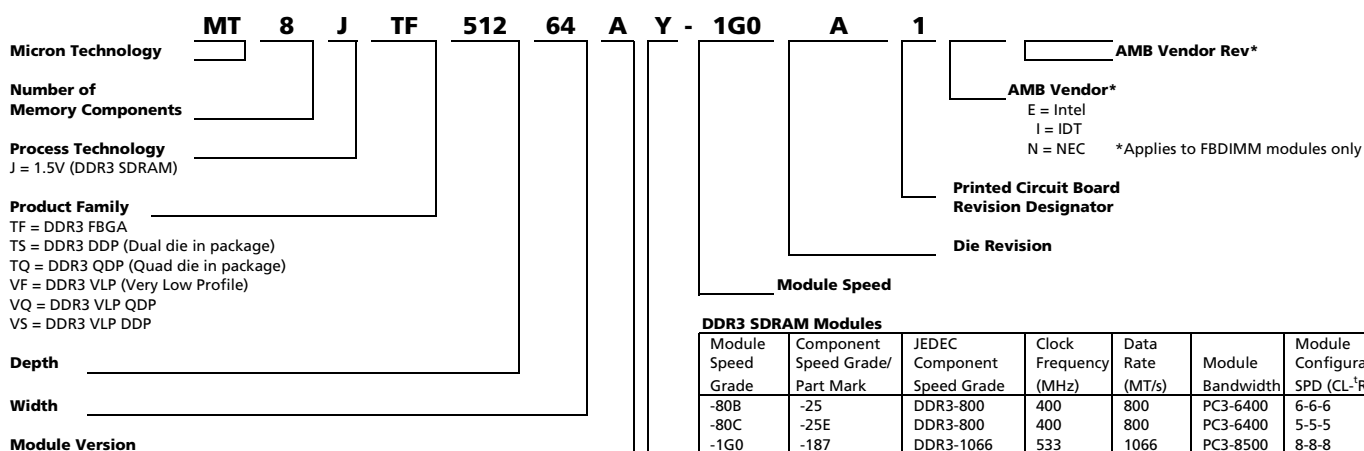
144- and 168-pin DIMMs adhere to Intel's 4-clock SDRAM module specs (133 MHz uses -75); for 100-pin DIMMs, 100 MHz uses -10 components; adheres to JEDEC standard

For more information about nonstandard products, contact Micron's Crucial Specialty Products Group (www.crucial.com/spg).

DDR3 Module Part Numbering System

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

DDR3 SDRAM modules



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

DDR3 SDRAM 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 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

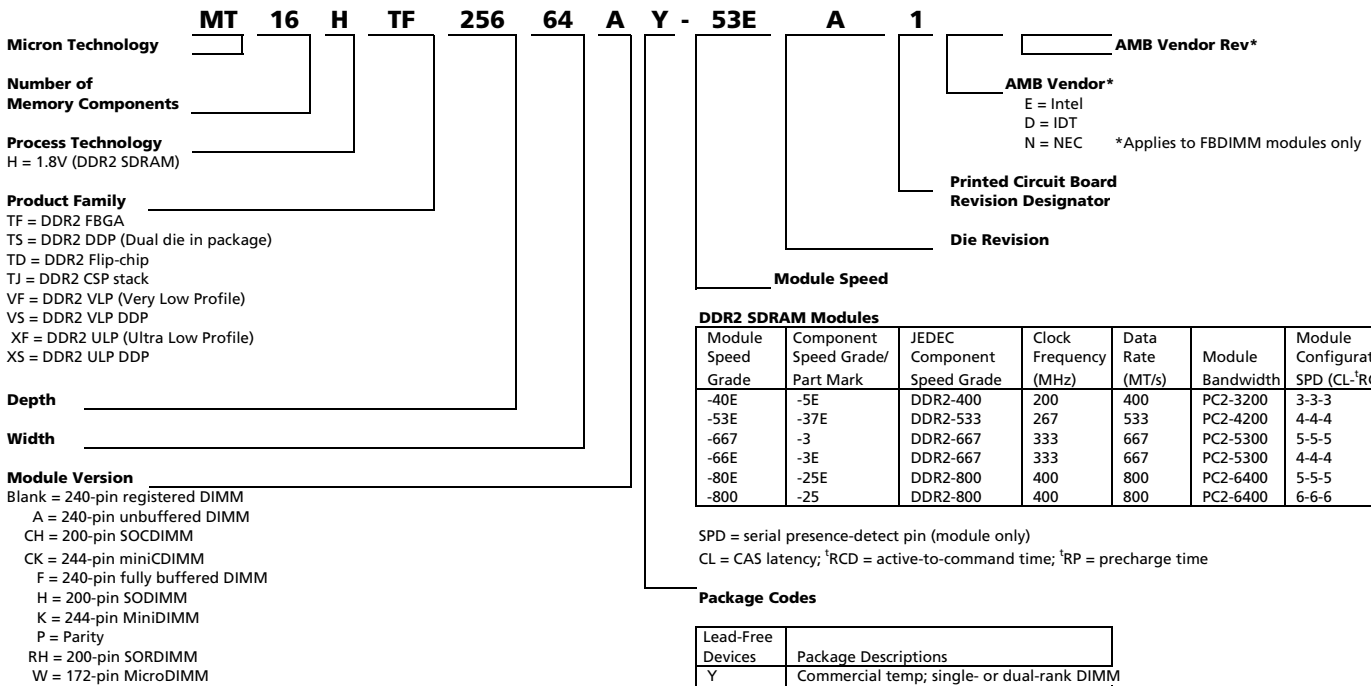
Package Codes

Lead-Free Devices	Package Descriptions
Y	Commercial temp; single- or dual-rank DIMM
DY	Commercial temp; select dual-rank
IY	Industrial temp, select dual-rank DIMM
TY	Industrial temp; single- or dual-rank DIMM

DDR2 Module Part Numbering System

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

DDR2 SDRAM modules



Rev. 03/01/07

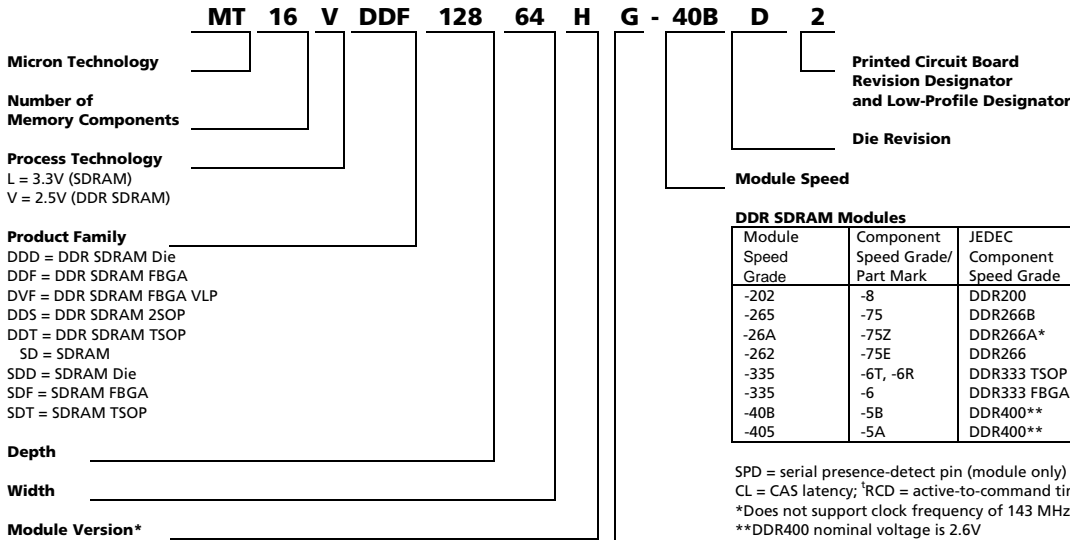
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DDR/SDR Module Part Numbering System

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DDR/SDR SDRAM modules



DDR SDRAM 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 RP)
-202	-8	DDR200	100	200	PC1600	2-2-2
-265	-75	DDR266B	133	266	PC2100	2.5-3-3
-26A	-75Z	DDR266A*	133	266	PC2100	2-3-3
-262	-75E	DDR266	133	266	PC2100	2-2-2
-335	-6T, -6R	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
-405	-5A	DDR400**	200	400	PC3200	2.5-3-3

SPD = serial presence-detect pin (module only)
 CL = CAS latency; ¹RCD = active-to-command time; ¹RP = precharge time
 *Does not support clock frequency of 143 MHz
 **DDR400 nominal voltage is 2.6V
 ***Data valid window is 150ps greater than -6T

Package Codes

Lead-Plated Devices	Lead-Free Devices	Green	Package Descriptions
G	Y	Z	Commercial temp; single- or dual-rank DIMM
DG	DY	DZ	Commercial temp; select dual-rank
I	IY	IZ	Industrial temp; select dual-rank DIMM
T	TY	TZ	Industrial temp; single- or dual-rank DIMM

Blank = 168-pin/184-pin/240-pin registered DIMM
 A = 168-pin/184-pin/240-pin unbuffered DIMM
 C = Reserved
 H = 144-pin/200-pin SODIMM
 J = 200-pin registered DIMM
 LA = Low-voltage, 168-pin/184-pin unbuffered DIMM
 LH = Low-voltage, 144-pin SODIMM
 M = 208-pin registered DIMM, SPD1
 M2 = 208-pin registered DIMM, SPD2
 N = 208-pin registered PDIMM, SPD1
 N2 = 208-pin registered PDIMM, SPD2
 PH = 144-pin/200-pin unbuffered SODIMM with PLLs
 RH = 144-pin/200-pin registered SODIMM
 U = 100-pin unbuffered DIMM
 W = MicroDIMM 144-pin SDR/172-pin DDR
 *All SDRAM and DDR SDRAM DIMMs have serial-presence detect.

SDR SDRAM Modules

Module Speed	Allowable Component Speed
-133	-75, -7E
-13E	-7E

DDR SDRAM Modules

Module Speed	Allowable Component Speed
-202	-75, -75Z, -6T
-265	-75, -75Z, -6T
-26A	-75Z, -6T
-262	-75E
-335	-6, -6T
-40B	-5B
-405	-5A

