

DRAM Selection Guide

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1. DDR3 SDRAM

Density	Organization (word x bit)	Internal Banks	Grade (CL-tRCD-tRP)	Part Number	Class	Supply Voltage	Refresh Cycles	Rev.	Package	Product Status	Remark												
4Gbit	1024M x 4	8	DDR3-1600K(11-11-11)	EDJ4204BASE	GN-F DJ-F AE-F	1.5+/-0.075	8K/64ms	A	78-FBGA	MP													
			DDR3-1333H(9-9-9) DDR3-1066F(7-7-7)																				
	512M x 8	8	DDR3-1333H(9-9-9)	EDJ4204EASE	DJ-F AE-F	1.35+0.1-0.067	8K/64ms	A	78-FBGA	ES													
			DDR3-1066F(7-7-7)																				
2Gbit	512M x 4	8	DDR3-1600K(11-11-11)	EDJ2104BCSE	GN-F DJ-F AE-F	1.5+/-0.075	8K/64ms	C	78-FBGA	Ask													
			DDR3-1333H(9-9-9) DDR3-1066F(7-7-7)																				
			256M x 8									8	DDR3-1866L(12-12-12)	EDJ2108DEBG	JQ-F GN-F DJ-F	1.5+/-0.075	8K/64ms	E	78-FBGA	UD			
													DDR3-1600K(11-11-11) DDR3-1333H(9-9-9)										
	128M x 16	8	DDR3-1600K(11-11-11)	EDJ2108EEBG	GN-F DJ-F	1.35+0.1-0.067	8K/64ms	E	78-FBGA	Ask													
			DDR3-1333H(9-9-9)																				
	1Gbit	128M x 8	8	DDR3-1600K(11-11-11)	EDJ2108BCSE	GN-F DJ-F AE-F	1.5+/-0.075	8K/64ms	C	78-FBGA	Ask												
				DDR3-1333H(9-9-9) DDR3-1066F(7-7-7)																			
				64M x 16									8	DDR3-1866L(12-12-12)	EDJ2116DEBG	JQ-F GN-F DJ-F	1.5+/-0.075	8K/64ms	E	96-FBGA	Ask		
														DDR3-1600K(11-11-11) DDR3-1333H(9-9-9)									
		1Gbit	64M x 16	8	DDR3-1600K(11-11-11)	EDJ2116EEBG	GN-F DJ-F	1.35+0.1-0.067	8K/64ms	E	96-FBGA	Ask											
					DDR3-1333H(9-9-9)																		
1Gbit					128M x 8									8	DDR3-1600K(11-11-11)	EDJ1108DJBG	GN-F DJ-F	1.5+/-0.075	8K/64ms	J	78-FBGA	MP	
															DDR3-1333H(9-9-9)								
1Gbit	64M x 16	8	DDR3-1600K(11-11-11)	EDJ1116DJBG	GN-F DJ-F	1.5+/-0.075	8K/64ms	J	96-FBGA	MP													
			DDR3-1333H(9-9-9)																				

UD: Under Development
 ES: Engineering Sample
 MP: Mass Production Ask: Contact Elpida sales to check the production status
 -E: Lead Free (RoHS Compliant) / -F: Lead Free (RoHS Compliant) & Halogen Free

2. DDR3 SDRAM Module 240-pin Unbuffered DIMM

Density	Organization (word x bit)	Module Ranks	Grade (CL-tRCD-tRP)	Part Number	Class	Supply Voltage	Refresh Cycles	Height (mm / inch)	Component Device	No. of Components	Product Status	Remark
4GB	512M x 64	2	PC3-12800(11-11-11) PC3-10600(9-9-9)	EBJ41UF8BCF0	GN-F DJ-F	1.5+/-0.075V	8K/64ms	30.0/1.18	2Gbit(x8)	16	Ask	
2GB	256M x 64	1	PC3-12800(11-11-11) PC3-10600(9-9-9)	EBJ20UF8BCF0	GN-F DJ-F	1.5+/-0.075V	8K/64ms	30.0/1.18	2Gbit(x8)	8	Ask	

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3. DDR3 SDRAM Module 240-pin SO DIMM

Density	Organization (word x bit)	Module Ranks	Grade (CL-tRCD-tRP)	Part Number	Class	Supply Voltage	Refresh Cycles	Height (mm / inch)	Component Device	No. of Components	Product Status	Remark
8GB	1024M x 64	2	PC3-12800(11-11-11) PC3-10600(9-9-9)	EBJ81UG8BAS0	GN-F DJ-F	1.5+/-0.075V	8K/64ms	30.0/1.18	4Gbit(x8)	16	MP	
4GB	512M x 64	2	PC3-12800(11-11-11) PC3-10600(9-9-9)	EBJ41UF8BCS0	GN-F DJ-F	1.5+/-0.075V	8K/64ms	30.0/1.18	2Gbit(x8)	16	Ask	
									4Gbit(x8)	16	MP	
2GB	256M x 64	1	PC3-12800(11-11-11) PC3-10600(9-9-9)	EBJ20UF8BCS0	GN-F DJ-F	1.5+/-0.075V	8K/64ms	30.0/1.18	2Gbit(x8)	8	Ask	

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4. DDR2 SDRAM

Density	Organization (word x bit)	Internal Banks	Grade (CL-tRCD-tRP)	Part Number	Class	Supply Voltage	Refresh Cycles	Rev.	Package	Product Status	Remark
1Gbit	128M x 8	8	DDR2-800(5-5-5)	EDJ1108AJBG	8E-F	1.8+/-0.1	8K/64ms	J	60-FBGA	MP	
	64M x 16	8	DDR2-800(5-5-5)	EDJ1116AJBG	8E-F	1.8+/-0.1	8K/64ms	J	60-FBGA	MP	

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5. DDR2 Mobile RAM™ - Barechip

Density	Organization (word x bit)	Internal Banks	Grade	Part Number	Class	Supply Voltage	Refresh Cycles	Rev.	Package	Product Status	Remark						
4Gbit	128M x 16	4	S4B-1066	ECB440ABACN	-	VDD1=1.8V VDD2=1.2V	8K/64ms	A	Barechip	ES							
			S4B-800							ES							
	64M x 32	4	S4B-1066							ECB240ABBCN		-	VDD1=1.8V VDD2=1.2V	8K/64ms	B	Barechip	Ask
			S4B-800														Ask
1Gbit	64M x 16	4	S4B-1066	ECB130ABBCN	-	VDD1=1.8V VDD2=1.2V	8K/64ms	B	Barechip	Ask							
			S4B-800							Ask							
	32M x 32	4	S4B-1066							ECB130ABBCN		-	VDD1=1.8V VDD2=1.2V	8K/64ms	B	Barechip	Ask
			S4B-800														Ask

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6. DDR Mobile RAM™ - Barechip

Density	Organization (word x bit)	Internal Banks	Grade	Part Number	Class	Supply Voltage	Refresh Cycles	Rev.	Package	Product Status	Remark
2Gbit	128M x 16	4	200MHz	ECM220ACBCN	50	1.8+/-0.1V	8K/64ms	B	Barechip	MP	
	64M x 32	4	200MHz							MP	
1Gbit	64M x 16	4	200MHz	ECK100ACDCN	50	1.8+/-0.1V	8K/64ms	D	Barechip	MP	
	64M x 32	4	200MHz							MP	

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7. XDR™ DRAM

Density	Organization (word x bit)	Internal Banks	Grade	Part Number	Class	Supply Voltage	Refresh Cycles	Rev.	Package	Product Status	Remark
1Gb	64M x 16	8	4.0D 3.2C	EDX1016BASE	4DA2-F 3CA2-F	1.5V+/-0.075V	16ms	A	104-FBGA	Ask	
	32M x 32	8	3.2C	EDX1032BASE	3CA2-F				A	150-FBGA	Ask

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8. GDDR5 SGRAM

Density	Organization (word x bit)	Internal Banks	Data rate	Part Number	Class	Supply Voltage	Refresh Cycles	Rev.	Package	Product Status	Remark
2Gb	64M x 32	16	6.0	EDW2032BBBG	60-F	1.5V+/-0.045V	8K/32ms	B	170-FBGA	UD	
			5.0		50-F					ES	
1Gb	32M x 32	16	6.0	EDW1032BBBG	60-F	1.5V+/-0.045V	8K/32ms	B	170-FBGA	ES	
			5.0		50-F					MP	
			4.0		40-F					MP	

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[Product applications]

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[Product usage]

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- 1) Usage in liquids, including water, oils, chemicals and organic solvents.
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- 3) Usage involving exposure to significant amounts of corrosive gas, including sea air, CL₂, H₂S, NH₃, SO₂, and NO_x.
- 4) Usage in environments with static electricity, or strong electromagnetic waves or radiation.
- 5) Usage in places where dew forms.
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- 7) Usage near heating elements, igniters, or flammable items.

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