

Product Selection Guide of ESMT

DRAM

Updated Date : 9/05/2006

Density	Organization	Description	Refresh	Speed	Package	Part Number(Pb-free)	Sample	MP
4Mb	256Kb*16	EDO DRAM 5V	512	25ns	40L-SOJ	M11B416256A-25JP	Now	Now
		EDO DRAM 5V	512	35ns	44-40L-TSOPII	M11B416256A-35TG	Now	Now
		EDO DRAM 3.3V	512	35ns	40L-SOJ	M11L416256SA-35JP	Now	Now
		EDO DRAM 3.3V	512	35ns	40/44L-TSOPII	M11L416256SA-35TG	Now	Now

SDRAM

Density	Organization	Description	Refresh	Speed	Package	Part Number(Pb-free)	Sample	MP
16Mb	1Mb*16	SDRAM 2.5V	2K	143MHz	50L-TSOPII	M12S16161A-7TG	Now	Now
		SDRAM 2.5V	2K	143MHz	VFBGA	M12S16161A-7BG	Now	Now
		SDRAM 3.3V	2K	143MHz	50L-TSOPII	M12L16161A-7T(I)G	Now	Now
		SDRAM 3.3V	2K	200MHz	50L-TSOPII	M12L16161A-5T(I)G	Now	Now
		SDRAM 3.3V	2K	143MHz	VFBGA	M12L16161A-7B(I)G	Now	Now
64Mb	4Mb*16	SDRAM 2.5V	4K	100MHz	54L-TSOPII	M12S64164A-10TG	Now	Now
		SDRAM 3.3V	4K	143MHz	54L-TSOPII	M12L64164A-7T(I)G	Now	Now
		SDRAM 3.3V	4K	166MHz	54L-TSOPII	M12L64164A-6T(I)G	Now	Now
		SDRAM 3.3V	4K	200MHz	54L-TSOPII	M12L64164A-5TG	Now	Now
	2M*32	SDRAM 2.5V	4K	143MHz	86L-TSOPII	M12S64322A-7TG	Now	Now
		SDRAM 3.3V	4K	166MHz	86L-TSOPII	M12L64322A-6T(I)G	Now	Now
		SDRAM 3.3V	4K	200MHz	86L-TSOPII	M12L64322A-5TG	Now	Now
128Mb	8M*16	SDRAM 2.5V	4K	143MHz	54L-TSOPII	M12S128168A-7TG	Now	Now
		SDRAM 2.5V	4K	166MHz	54L-TSOPII	M12S128168A-6TG	Now	Now
		SDRAM 3.3V	4K	143MHz	54L-TSOPII	M12L128168A-7TG	Now	Now
		SDRAM 3.3V	4K	166MHz	54L-TSOPII	M12L128168A-6TG	Now	Now
	4M*32	SDRAM 2.5V	4K	166MHz	90-FBGA	M12S128324A-6BG	Now	Now
		SDRAM 2.5V	4K	143MHz	86L-TSOPII	M12S128324A-7TG	Now	Now
		SDRAM 2.5V	4K	166MHz	86L-TSOPII	M12S128324A-6TG	Now	Now
		SDRAM 3.3V	4K	143MHz	90-FBGA	M12L128324A-7B(I)G	Now	Now
		SDRAM 3.3V	4K	166MHz	90-FBGA	M12L128324A-6B(I)G	Now	Now
		SDRAM 3.3V	4K	143MHz	86L-TSOPII	M12L128324A-7T(I)G	Now	Now
		SDRAM 3.3V	4K	166MHz	86L-TSOPII	M12L128324A-6T(I)G	Now	Now

DDR SDRAM (Dobule-Data-Rate SDRAM)

Density	Organization	Description	Refresh	Speed	Package	Part Number(Pb-free)	Sample	MP
128Mb	8M*16	DDR-SDRAM 2.5V	4K	166MHz	66L-TSOPII	M13S128168A-6TG	Now	Now
		DDR-SDRAM 2.5V	4K	200MHz	66L-TSOPII	M13S128168A-5TG	Now	Now
	4Mx32	DDR-SDRAM 2.5V	4K	166MHz	144-FBGA(12x12mm)	M13S128324-6BG	Now	Now
		DDR-SDRAM 2.5V	4K	200MHz	144-FBGA(12x12mm)	M13S128324-5BG	Now	Now
256Mb	16Mx16	DDR-SDRAM 2.5V	4K	200MHz	66L-TSOPII	M13S128168A-5TG	Now	Now

*Identifier of Pb-free as G or P is shown on outer carton.

**Industrial spec : (I) Operating temperature -40°C ~+85 °C.

Mobile SDRAM

(1)All Mobile functions are included : PASR,TCSR,DS,Deep power down mode.

(2)Max. Icc6 : Self-refresh current with full bank in 70 °C .

Density	Organization	Description	Refresh	Speed	Package & MCP	Part Number(Pb-free)	Sample	MP
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16Mb	1Mx16 Max. Icc6 = 75uA (1.8V)	Mobile SDRAM 2.5V	4K	100Mhz	50L-TSOPII	M52S16161A-10T(I)G	Now	Now
		Mobile SDRAM 2.5V	4K	125Mhz	50L-TSOPII	M52S16161A-8T(I)G	Now	Now
		Mobile SDRAM 1.8V	4K	100Mhz	50L-TSOPII	M52D16161A-10T(I)G	Now	Now
32Mb	2Mx16	Mobile SDRAM 2.5V	4K	100	54L-TSOPII	M52S32162A-10T(I)G	Q4 '06	Q4 '06
		Mobile SDRAM 2.5V	4K	100	54-FBGA	M52S32162A-10B(I)G	Q4 '06	Q4 '06
		Mobile SDRAM 2.5V	4K	133	54L-TSOPII	M52S32162A-7.5T(I)G	Q4 '06	Q4 '06
		Mobile SDRAM 2.5V	4K	133	54-FBGA	M52S32162A-7.5B(I)G	Q4 '06	Q4 '06
		Mobile SDRAM 1.8V	4K	100	54L-TSOPII	M5DS32162A-10T(I)G	Q4 '06	Q4 '06
		Mobile SDRAM 1.8V	4K	100	54-FBGA	M52D32162A-10B(I)G	Q4 '06	Q4 '06
	1Mx32	Mobile SDRAM 2.5V	4K	100	90-FBGA	M52S32321A-10B(I)G	Q4 '06	Q4 '06
		Mobile SDRAM 2.5V	4K	133	90-FBGA	M52S32321A-7.5B(I)G	Q4 '06	Q4 '06
		Mobile SDRAM 1.8V	4K	100	90-FBGA	M52D32321A-10B(I)G	Q4 '06	Q4 '06
		Mobile SDRAM 1.8V	4K	133	90-FBGA	M52D32321A-7.5B(I)G	Q4 '06	Q4 '06
		Mobile SDRAM 2.5V	4K	100	54L-TSOPII	M52S64164A-10T(I)G	Q4 '06	Q4 '06
		Mobile SDRAM 2.5V	4K	100	54-FBGA	M52S64164A-10B(I)G	Q4 '06	Q4 '06
64Mb	4Mx16	Mobile SDRAM 2.5V	4K	133	54L-TSOPII	M52S64164A-7.5T(I)G	Q4 '06	Q4 '06
		Mobile SDRAM 2.5V	4K	133	54-FBGA	M52S64164A-7.5B(I)G	Q4 '06	Q4 '06
		Mobile SDRAM 1.8V	4K	100	54L-TSOPII	M5DS64164A-10T(I)G	Q4 '06	Q4 '06
		Mobile SDRAM 1.8V	4K	100	54-FBGA	M52D64164A-10B(I)G	Q4 '06	Q4 '06
		Mobile SDRAM 1.8V	4K	100	54L-TSOPII	M52D64164A-7.5T(I)G	Q4 '06	Q4 '06
		Mobile SDRAM 1.8V	4K	133	54-FBGA	M52D64164A-7.5B(I)G	Q4 '06	Q4 '06
	2Mx32	Mobile SDRAM 2.5V	4K	100	86L-TSOPII	M52S64322A-10T(I)G	Q4 '06	Q4 '06
		Mobile SDRAM 2.5V	4K	100	90-FBGA	M52S64322A-10B(I)G	Q4 '06	Q4 '06
		Mobile SDRAM 2.5V	4K	133	86L-TSOPII	M52S64322A-7.5T(I)G	Q4 '06	Q4 '06
		Mobile SDRAM 2.5V	4K	133	90-FBGA	M52S64322A-7.5B(I)G	Q4 '06	Q4 '06
		Mobile SDRAM 1.8V	4K	100	86L-TSOPII	M5DS64322A-10T(I)G	Q4 '06	Q4 '06
		Mobile SDRAM 1.8V	4K	100	90-FBGA	M52D64322A-10B(I)G	Q4 '06	Q4 '06
128Mb	8Mx16	Mobile SDRAM 2.5V	4K	143	54L-TSOPII	M52D128168A-10T(I)G	Now	Now
		Mobile SDRAM 2.5V	4K	143	86L-TSOPII	M52D128324A-7T(I)G	Now	Now
		Mobile SDRAM 2.5V	4K	143	90-FBGA	M52D128324A-7B(I)G	Now	Now

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**Industrial spec : (I) Operating temperature -40°C ~+85 °C.

Parallel NOR Flash

Density	Organization	Description	Speed	Package	Part Number	Sample	MP
2Mb	256k*8	5V Upper boot	70ns	32-PLCC	F49B002UA-70N	Now	Now
		5V Upper boot	90ns	32-PLCC	F49B002UA-90N	Now	Now
	512K*8	3V bottom boot	70ns	32-PLCC	F49L004BA-70NP	Now	Now
		3V Upper boot	70ns	32-PLCC	F49L004UA-70NP	Now	Now

4Mb		3V , 4k uniform	70ns	32-PLCC	F49L040A-70NP	Now	Now
	256k*16/512k*8	3V bottom boot	70ns	48-TSOP1	F49L400BA-70TG	Now	Now
		3V upper boot	70ns	48-TSOP1	F49L400UA-70TG	Now	Now
8Mb	512Kx16/1Mx8	3V bottom boot	70ns	48-TSOP1	F49L800BA-70TG	Now	Now
		3V upper boot	70ns	48-TSOP1	F49L800UA-70TG	Now	Now
16Mb	1Mx16/2Mx8	3V bottom boot	70ns	48-TSOP1	F49L160BA-70TG	Now	Now
		3V upper boot	70ns	48-TSOP1	F49L160UA-70TG	Now	Now

Serial NOR Flash (SPI flash)

Density	Description	Speed	Package	Part Number	Sample	MP
4Mb	SPI Flash , 3V	50Mhz	8-lead SOIC	F25L004A-50P	Now	Now
	SPI Flash , 3V (Upper Boot)	50Mhz	8-lead SOIC	F25L04UA-50P	Now	Now
	SPI Flash , 3V	75Mhz	8-lead SOIC	F25L004A-75P	Now	Now
	SPI Flash , 3V	100Mhz	8-lead SOIC	F25L004A-100P	Now	Now

Asynchronous High Speed SRAM

Density	Organization	Description	Speed	Package	Part Number(Pb-free)	Sample	MP
1Mb	128K*8	HS-SRAM 3V	10ns	32-SOJ	M21L18128A-10J	Now	Now
	64K*16	HS-SRAM 3V	10ns	44-TSOP	M21L11664A-10T	Now	Now

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**Industrial spec : (I) Operating temperature -40°C ~+85 °C.