

Product Selection Guide of ESMT KGD

SDRAM

Updated Date : April 2008

| Density | Organization | Description | Refresh | Speed (MHz) | Pad coordinates | MP |
|---------|--------------|-------------|---------|-------------|---------------------|-----|
| 16Mb | 1Mb*16 | SDRAM 2.5V | 2K | 143 | 2 Edge pads | Now |
| | | SDRAM 3.3V | 2K | 143/200 | 2 Edge pads | Now |
| 32Mb | 2Mb*16 | SDRAM 3.3V | 2K | 143/166/200 | 2 Edge pads | Now |
| | 1Mb*32 | SDRAM 3.3V | 2K | 143/166/200 | 2 Edge pads | Now |
| 64Mb | 4Mb*16 | SDRAM 2.5V | 4K | 100 | 1 central or 2 edge | Now |
| | | SDRAM 3.3V | 4K | 143/200 | 1 central or 2 edge | Now |
| | | | | 143/166 | 2 Edge pads | Now |
| | 2Mb*32 | SDRAM 2.5V | 4K | 100 | 2 Central pads | Now |
| | | SDRAM 3.3V | 4K | 143/200 | 2 Central pads | Now |
| | | | | 143/166 | 2 Edge pads | Now |
| 128Mb | 8M*16 | SDRAM 2.5V | 4K | 143 | 2 Central pads | Now |
| | | SDRAM 3.3V | 4K | 143/200 | 2 Central pads | Now |
| | 4M*32 | SDRAM 2.5V | 4K | 166 | 4 Edge pads | Now |
| | | SDRAM 3.3V | 4K | 143/166 | 4 Edge pads | Now |

DDR SDRAM (Dobule-Data-Rate SDRAM)

| Density | Organization | Description | Refresh | Speed (MHz) | Pad coordinates | MP |
|---------|--------------|----------------|---------|-------------|-----------------|-------|
| 32Mb | 1Mx32 | DDR-SDRAM 2.5V | 4K | 166/200 | 4 Edge pads | Now |
| 64Mb | 4Mx16 | DDR-SDRAM 2.5V | 4K | 166/200 | 2 Central pads | Now |
| 128Mb | 8M*16 | DDR-SDRAM 2.5V | 4K | 166/200 | 2 Central pads | Now |
| | 4M*32 | DDR-SDRAM 2.5V | 4K | 250 | 4 Edge pads | Now |
| 256Mb | 16Mx16 | DDR-SDRAM 2.5V | 4K | 166/250 | 2 Central pads | Q4'09 |

Mobile SDRAM

(1) All Mobile functions are included : PASR, TCSR, DS, Deep power down mode.
(2) Icc6 : Self-refresh current with full bank in 70 °C.

| Density | Organization | Description | Refresh | Speed (MHz) | ICC6 / ICC7 (uA) | Pad coordinates | MP | |
|---------|-------------------|-------------------|-------------------|-------------|------------------|-----------------|-------------|-----|
| 16Mb | 1Mx16 | Mobile SDRAM 2.5V | 4K | 100/133/166 | 110/10 | 2 Edge pads | Now | |
| | | Mobile SDRAM 1.8V | 4K | 100/133 | 65/10 | 2 Edge pads | Now | |
| 32Mb | 2Mx16 | Mobile SDRAM 2.5V | 4K | 100/133/166 | 200/10 | 2 Edge pads | Now | |
| | 1Mx32 | Mobile SDRAM 1.8V | 4K | 100/133 | 200/10 | 2 Edge pads | Now | |
| 64Mb | | 4Mx16 | Mobile SDRAM 2.5V | 4K | 100/133 | 650/10 | 2 Edge pads | Now |
| | Mobile SDRAM 1.8V | | 4K | 100 | 160/10 | 2 Edge pads | Now | |
| | 2Mx32 | Mobile SDRAM 2.5V | 4K | 100/133 | 650/10 | 2 Edge pads | Now | |
| | | Mobile SDRAM 1.8V | 4K | 100 | 650/10 | 2 Edge pads | Now | |
| | 128Mb | 8Mx16 | Mobile SDRAM 1.8V | 4K | 100/143 | 400/10 | 2 Edge pads | Now |

Mobile DDR

| Density | Organization | Description | Refresh | Speed (MHz) | ICC6 / ICC7 (uA) | Pad coordinates | MP |
|---------|--------------|-------------------|---------|-------------|------------------|-----------------|-------|
| 32Mb | 1Mx32 | Mobile SDRAM 2.5V | 4K | 133/166 | TBD | 2 Edge pads | Q1'10 |
| | | Mobile SDRAM 1.8V | 4K | 133/166/200 | TBD | 2 Edge pads | Q1'10 |
| 64Mb | 2Mx32 | Mobile SDRAM 2.5V | 4K | 133/166 | TBD | 2 Edge pads | Q2'10 |
| | | Mobile SDRAM 1.8V | 4K | 133/166 | TBD | 2 Edge pads | Q2'10 |
| 128Mb | 8Mx16 | Mobile SDRAM 2.5V | 4K | 100/133 | 300/10 | 2 Edge pads | Now |
| | | Mobile SDRAM 1.8V | 4K | 100/133 | 300/10 | 2 Edge pads | Now |

Parallel NOR Flash

| Density | Organization | Description | Speed (ns) | cycling | Pad coordinates | MP |
|---------|--------------|-----------------------|------------|---------|-----------------|-------|
| 8Mb | 512Kx16/1Mx8 | 2.7~3.6V bottom boot | 70 | 100k | 2 Edge pads | Now |
| | | 2.7~3.6V upper boot | 70 | 100k | 2 Edge pads | Now |
| 16Mb | 1Mx16/2Mx8 | 2.7~3.6V bottom boot | 70 | 100k | 2 Edge pads | Now |
| | | 2.7~3.6V upper boot | 70 | 100k | 2 Edge pads | Now |
| 32Mb | 2Mx16/4Mx8 | 2.7~3.6V bottom boot | 70 | 100k | 2 Edge pads | Now |
| | | 1.65~1.95V upper boot | 70 | 100k | 2 Edge pads | Q4'09 |

Serial NOR Flash

| Density | Description | Speed (MHz) | cycling | Pad coordinates | MP |
|---------|-------------------|-------------|---------|-----------------|-------|
| 4Mb | Upper boot | 50 | 100k | 2 Edge pads | Now |
| | Bottom boot | 50 | 100k | 2 Edge pads | Now |
| | 4k uniform sector | 50/100 | 100k | 2 Edge pads | Now |
| 8Mb | 4k uniform sector | 50/100 | 100k | 2 Edge pads | Now |
| 16Mb | 4k uniform sector | 50/100 | 100k | 2 Edge pads | Now |
| 32Mb | 4k uniform sector | 50/100 | 100k | 2 Edge pads | Q2'09 |
| 64Mb | 4k uniform sector | 50/100 | 100k | 2 Edge pads | Q2'10 |

PSRAM

(1) Icc and I_{SB1} : Typical value

| Density | Organization | Description | Speed (ns) | Icc @1MHz (mA) | I _{SB1} (uA) | Pad coordinates | MP |
|---------|--------------|------------------------|------------|----------------|-----------------------|-----------------|-------|
| 2Mb | 256K*8 | PSRAM 3V | 55/70 | 1 | 9 | 2 Edge pads | Now |
| | 128K*16 | PSRAM 3V | 55/70 | 1 | 9 | 2 Edge pads | Now |
| 4Mb | 512K*8 | PSRAM 3V | 55/70 | 1 | 17 | 2 Edge pads | Now |
| | 256K*16 | PSRAM 3V | 55/70 | 1 | 17 | 2 Edge pads | Now |
| | 256K*16 | PSRAM 1.8V | 55/70 | TBD | TBD | 2 Edge pads | Q2'09 |
| 8Mb | 512K*16 | PSRAM 3V | 55/70 | 2 | 35 | 2 Edge pads | Now |
| | 512K*16 | PSRAM 1.8V | 55/70 | 3 | 32 | 2 Edge pads | Now |
| | 512K*16 | PSRAM 1.8V ADMU | 55/70 | 3 | 32 | 2 Edge pads | Now |
| 16Mb | 1M*16 | PSRAM 3V | 70 | 3 | 55 | 2 Edge pads | Now |
| | 1M*16 | PSRAM 1.8V | 70 | 3 | 55 | 2 Edge pads | Now |
| | 1M*16 | PSRAM 1.8V ADMU | 70 | 3 | 55 | 2 Edge pads | Now |
| 32Mb | 2M*16 | PSRAM 1.8V | 70 | 3 | 40 | 2 Edge pads | Q3'09 |
| | 2M*16 | PSRAM 1.8V Burst/ADMUX | 70 | 3 | 40 | 2 Edge pads | Q3'09 |