



## M9-CSP64 (MOBILITY™ RADEON™ 9000) Product Snapshot

**MOBILITY™ RADEON™ 9000 offers the embedded market the fastest-performing 3D graphics supporting cinematic-quality video, and features that dramatically enhance all aspects of the visual experience in every application.**

### Package Specifications

- **Package, Size:** 650 BGA, 31mm x 31mm

### Graphics Processor Specifications

- **Process technology, Core Voltage:** 0.15um, 1.5V
- **Graphics Clock:** 250 MHz

### Memory Specifications

- **Memory Type:** Samsung 4MBx32 DDR SDRAM
- **I/O Type, VDDC:** SSTL-2, 2.5V
- **Memory Clock, Max Memory Path:** 200MHz clock, 128 bit width
- **Maximum Memory Configuration:** 64MB Embedded memory (no external memory allowed)

### Bus Specifications

- **AGP bus support/ PCI bus support::** AGP 2X (3.3V), 4X (1.5V)/ PCI 2.2

### Outputs

- **CRT1 (Primary):** Triple 10-bit palette DAC, 400 MHz
- **CRT1 (Secondary):** Triple 10-bit palette DAC
- **Integrated LVDS:**
  - Dual Channel LVDS up to 85 MHz per channel
  - Supports 18 bit and 24 bit modes for both single and dual channel LVDS.
  - TFT Panel support
- **Integrated TV encoder:** Shares the Secondary DAC
- **Integrated TMDS:** 165 MHz, DVI, DFP and VESA P&D interface
- **Support for External TMDS/24bit TTL**
- **Supported Display Combinations:** LVDS + DVI + CRT, LVDS + CRT + TV, LVDS + TV + DVI

### Resolution Support

- **Max 2D/3D resolution:** 2048x1536
- **Max color depth:** 16.7M Colors
- **LVDS, TMDS, TV-out:** 2048x1536, 1600x1200, 1024x768

### Driver Support

- Win 98/ME/2000/XP/NT, Linux, QNX v6.2.1 Patch B (Please see your technical contact for additional OS support)



## M9-CSP64 (MOBILITY™ RADEON™ 9000) (Continued)

Power Consumption			
Test	Mode	Average Power (W)	
		LVDS Panel Only	LVDS Panel + CRT + TV
Static Windows	1024x768x32 bpp 75 Hz AGP 4x	1.76	2.35
Bus Graph Winmark 99		2.40	3.00
Quake 3		4.54	5.31
3DMark 2001SE – Demo		7.01	7.90
Test	Mode	Maximum Power (W)	
		LVDS Panel Only	LVDS Panel + CRT + TV
Bus Graph Winmark 99	1024x768x32 bpp 75 Hz AGP 4x	6.74	7.09
Quake 3		7.03	8.21
3DMark 2001SE – Demo		8.79	9.46

### MOBILITY™ RADEON™ 9000 Drivers

Please visit the following web site to obtain the appropriate software drivers:

<http://www.ati.com/products/embedded/sw.html>

### Block Diagram

