

# Introducing the AMD M690T Chipset for Embedded Designs

## An excellent companion for low-power AMD64 Embedded processors

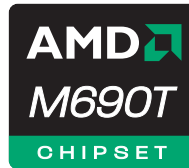
The AMD M690T chipset gives embedded system designers a new option when using the leading-edge embedded processor technology of AMD64. The complete AMD solution offers a stable and reliable commercial embedded computing platform, with superior graphics, enhanced video performance, and numerous display options – key capabilities for next-generation thin-client, point-of-sale, and gaming systems. This enhanced visual capability is also well suited for AMD64 technology-based medical or security imaging and broad-purpose single board computing.

In line with AMD's core embedded processor offerings, the AMD M690T chipset supports a low-power, high performance, small form factor system. This combination of low power/high performance, coupled with the ease of designing systems based on AMD64 and HyperTransport™ technology, can help enable innovative solutions that go to market quicker and offer your end customers ongoing reliability and low total cost of ownership.

### With a wealth of unique features for embedded designs, the AMD M690T chipset:

- Delivers a Microsoft® Windows Vista™ Premium experience, handling the rich Aero user interface and extremely demanding application workloads with ease
- Offers modest power consumption
- Supports a small footprint design
- Features multiple options for 2D, 3D, and motion video acceleration; displays; DVI/HDMI; and Universal Connectivity
- Enables high application performance with HyperTransport technology interface
- Supports the stability and reliability vital to embedded solutions

Learn more about AMD's full range of embedded solutions at [www.amd.com/embedded](http://www.amd.com/embedded).



### Supports the leading-edge technology of these AMD64 Embedded families:

- AMD Athlon™ 64 X2 Dual-Core processors
- AMD Athlon 64 processors
- AMD Turion™ 64 X2 processors
- AMD Turion 64 processors
- Mobile AMD Sempron™ processors

### A great chipset solution for:

- Thin clients
- Point-of-sale (POS) systems
- Gaming machines
- Medical and security imaging
- Single Board Computing (SBC)

## Technology features:

### CPU Interface

- AMD Athlon™ 64 X2 Dual-Core and AMD Athlon 64 processors
- AMD Turion™ 64 X2 Dual-Core and AMD Turion 64 processors
- Mobile AMD Sempron™ processors
- 1GHz HyperTransport™ interface speeds

### PCI Express Interface

- Compliant with the PCI Express® 1.1a specifications
- Up to 4x1 PCI Express general purpose links
- 1x8 PCIe graphics interface

### 2D Acceleration Features

- Highly optimized 128-bit engine, capable of processing multiple pixels per clock
- Supports a maximum resolution of 2560 x 1600
- Game acceleration including support for Microsoft's DirectDraw

### 3D Acceleration Features

- Full DirectX 9.0 support
- 3D texture support, including projective 3D textures
- Anti-aliasing using multi-sampling algorithm with support for 2, 4, and 6 samples
- New generation rendering engine provides outstanding 3D performance
- Support for OpenGL format for Indirect Vertices in Vertex Walker

### Motion Video Acceleration Features

- Enhanced MPEG-2 hardware decode acceleration
- Hardware acceleration for WMV9 playback
- Supports top quality DVD with low CPU usage, SDTV/HDTV television playback with low CPU usage

### Multiple Display Features

- Dual independent displays including two digital outputs
- Resolution, refresh rates, and display data can be completely independent for the two display paths
- Supports both interlaced and non-interlaced displays
- Integrated HD audio controller for HDMI audio data
- Supports additional external digital displays via DVO port

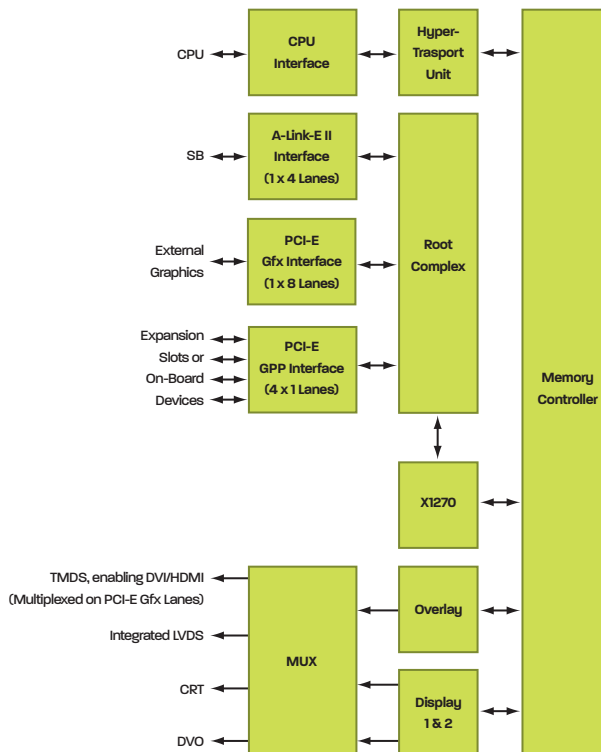
### DVI/HDMI

- Supports a TMDS interface, enabling DVI or HDMI 1.2
- HDCP 1.1 support on data stream with on-chip key storage
- 1650 Mbps/channel with 165 MHz pixel clock rate per link

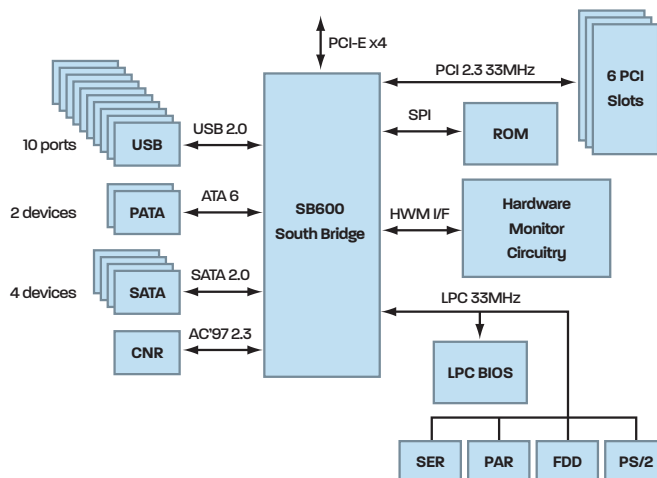
### Universal Connectivity

- 10 USB 2.0 ports
- Supports SATA II 3.0Gbit/s PHY
- 4 ports SATA AHCI controller supports NCQ and slumber modes
- ATA 133 controller support up to UDMA mode 6 with 2 drives (disk or optical)
- TPM 1.1 and 1.2 compliant
- ASF 2.0 support for manageability control
- UAA (Universal audio architecture) support for high-definition audio
- PCI v2.3 (up to 6 slots)
- LPC (Low Pin Count), SPI (New Flash Bus), and SM (System Management) bus management

## AMD M690T



## SB600



### About AMD

AMD (NYSE:AMD) designs and produces innovative microprocessors and low-power processor solutions for the computer, communications, and consumer electronics industries. AMD is dedicated to delivering standards-based, customer-focused solutions for technology users, ranging from enterprises and governments to individual consumers.

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