

AMD Socket S1 Processor COM Express Reference Design

DEVELOPED TO GET YOUR EMBEDDED SOLUTION TO MARKET FAST,
WHILE REDUCING COSTS AND RISK.



Product overview

The AMD Socket S1 Processor COM Express Reference Design offers a complete solution design to help you speed time from concept to product, while helping minimize your costs and risk. It also offers a robust roadmap so you can quickly respond to a wide range of market demands, spanning from low power consumption to high-performance, enterprise-class processors.

By including schematics and layout source files, this Reference Design makes it easy to get to market with embedded solutions based on AMD Turion™ 64 X2 Dual-Core Mobile Technology or the Mobile AMD Sempron™ processor, along with the AMD M690T/SB600 chipset and other special features. This combination is very well suited to applications requiring high quality integrated graphics or high I/O throughput.

Speed your time to market

Now, your engineering team can spend more time focusing on features that will make your solution truly exceptional. AMD developed this Reference Design to shorten design cycles and help you move your solution to market fast. An example layout simplifies the routing of complex and small form factor designs. Plus, AMD's systems engineering teams thoroughly reviewed the schematic and layout.

This Reference Design can help you:

- Minimize cost, production time, and risk
- Utilize an industry-standard form factor
- Benefit from complete schematics, layout, and bill of materials (BOM)
- Enhance product success by allowing designers to focus on your unique product requirements

Co-developed with an industry-leading partner

AMD has partnered with an industry-leading single board computer (SBC) vendor to take the reference design to production.

That means you can realize benefits such as:

- Assurance of a mass production-ready schematic, layout, and BOM
- Option to purchase a completed product based on the reference design
- An experienced design source to implement customizations for your specific product requirements

Application markets

COM Express is a rapidly growing standard form factor in a variety of markets. The Reference Design provides an advanced starting point to help you address these markets, including:

- Embedded controllers
- Industrial computing products
- Point of sale
- Educational applications
- Information appliances
- Kiosks
- Digital advertising

Accelerate your time to market with a complete reference design solution from AMD.

PRIMARY PRODUCT FEATURES

AMD Socket S1 Processor (35W max) supporting:

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

AMD M690T/SB600 Chipset

Analog VGA interface (up to 2048x1536@32bpp)
24-bit dual-channel LVDS display interface
TV Out: Composite Video, S-Video, or Component Video (YPbPr)
8 USB 2.0 ports
4 SATA II Ports (3Gbps) w/ RAID 0, 1, 10
AC '97 interface
LPC Bus interface
32-bit PCI interface (33MHz)
ATA-133 E-IDE port
3 PCI Express® GPP lanes
8 PCI Express® PEG/GPP lanes
Optional DVI or HDMI (w/ HD Audio) interface*

Memory Devices

One 200-pin SODIMM memory slot for DDR2 SDRAM
One LPC boot ROM

Peripherals

Broadcom BCM5789 1Gb Ethernet

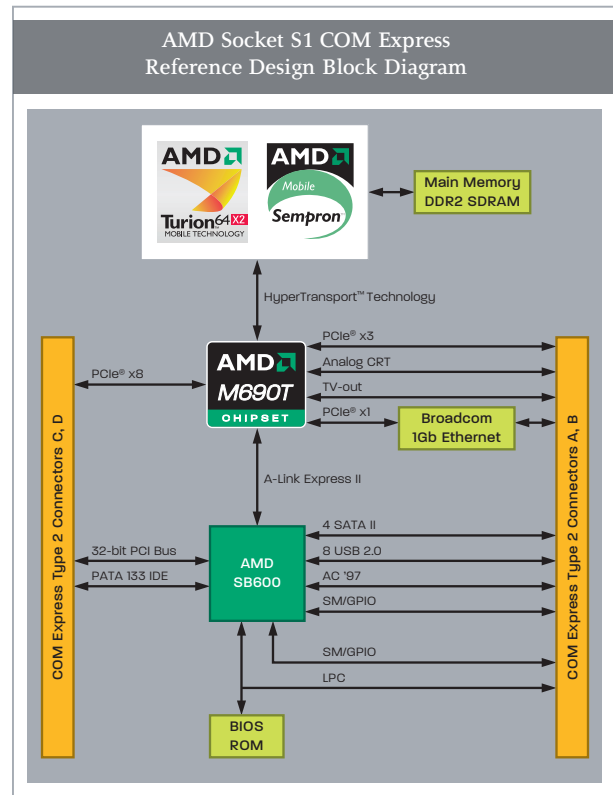
Other

Includes option for HD audio support
AMD HDT Debug Port

* Integrated DVI/HDMI function is a multiplexed with the PCIe® x8 port on PEG pins.

Product Support

This complete solution includes schematics, layout, and full documentation. Full integration with AMD technologies, low-power requirements, and design flexibility help reduce costly time-to-market and enable more effective, efficient embedded designs.



For more information, please visit www.amd.com/embedded

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.

Technical support

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