



# ATI FirePro™ S400 Synchronization Module



## Precise Synchronization for Demanding Applications



- *Workstation quality and performance for the highend market*
- *Support up to 4 GPUs per module*
- *Field-upgradeable firmware solution*
- *Optimized for broadcast, video editing, visualization, simulation and rich display applications*

The ATI FirePro™ S400 synchronization module allows ATI FirePro™ 3D workstation graphics cards to be used in demanding applications that require synchronization to external sources (Genlock) or synchronization of 3D rendering of multiple GPUs in different systems (Framelock). The combination of these capabilities with ATI FirePro™ graphics accelerators means that an even wider set of applications can benefit from the award-winning ATI FirePro™ line.

Based on a full hardware-dedicated processor, design, the ATI FirePro™ S400 helps to ensure clock-accurate synchronization in virtually all scenarios.<sup>1</sup> The dedicated processor allows up to four attached GPUs to work in the rendering needs of the user without compromising sync.

### ATI FirePro™ S400 Genlock for broadcast, NLE and other video workflows

The ATI FirePro™ S400 permits Genlocking by delivering Output lock (synchronized display output) that is driven by an external reference signal (typically 'house sync'). This allows the output of attached GPUs to be fed into video-centric devices (e.g. monitors used in broadcast applications, or Non-Linear Editing suites).

The BNC connector on the ATI FirePro™ S400 allows for receiving and synchronizing to virtually any video input source, including:

- PAL & NTSC SD video blackburst
- HDTV tri-level sync
- TTL
- Sync signals on SDI

### ATI FirePro™ S400 Framelock for simulation, visualization and power walls

The ATI FirePro™ S400 delivers Framelock by combining Output lock (synchronized display output) and 3D swap lock (simultaneous 3D buffer swapping), ensuring that the GPUs in connected systems present their output in lock-step.

The two RJ-45 connectors on the module allow for connection of multiple daisy-chained systems (each with up to 4 ATI FirePro™ GPUs inside).

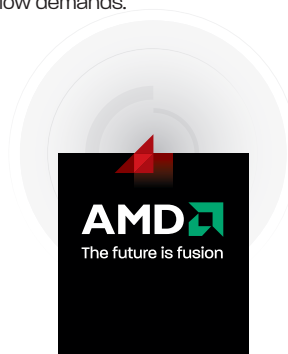
The BNC connector on the module optionally allows systems to be synchronized (Genlocked) to an external signal, a capability essential for use in powerwalls used in live television broadcasts.

### Innovation and Reliability from a Technology Leader

ATI FirePro™ graphics accelerators and the ATI FirePro™ S400 synchronization module, have been engineered to deliver innovation and reliability for a wide range of professional operating environments, including Windows® XP, Windows Vista®, Windows® 7<sup>2</sup> and Linux®. The unified driver, which supports all ATI FirePro™ workstation products, helps reduce the total cost of ownership by simplifying installation, deployment and maintenance.

In addition, ATI FirePro™ products incorporate a unique AutoDetect technology. As users open new 3D applications, or move between them, optimized ATI FirePro™ graphics driver settings are automatically configured for maximum performance, no matter what the user's workflow demands.

<sup>1</sup>ATI FirePro™ V8750 graphics accelerator required.  
<sup>2</sup> Windows® 7 capable PC required





# ATI FirePro™ S400

## Synchronization Module

### Precise synchronization for demanding applications

With a full hardware-dedicated processor design, the ATI FirePro™ S400 Synchronization Module helps to ensure clock-accurate synchronization (Framelock) in virtually all scenarios, ensuring that the GPUs in connected systems present their output in lock-step. It also allows systems to be synchronized (Genlocked) to an external signal, a capability essential for powerwalls and live television broadcasts.

| Features  | Benefits  |
|---|---|
| Support for up to 4 GPUs per module                               | Enable high density of workstation GPUs in a system   |
| Field upgradeable firmware  | Improved functionality can be deployed after initial installation of the module without opening the host computer   |
| Full hardware-based synchronization                               | On board logic is dedicated to Genlock and Framelock functionality, helps to ensure accurate and consistent synchronization for all applications          |
| Support for connecting multiple computers and their GPUs together | Allows for multiple channels of 3D-rendered content to be presented to a user simultaneously and in lock-step   |
| Sync to virtually any video source                                | House sync capability supports PAL & NTSC SD video blackburst, HDTV tri-level, TTL, and even SDI sync.  |
| Serial ATA power connector  | Allows power to be provided by a modern power connector, as the older 4-pin IDE connector is becoming obsolete, particularly in newer OEM chassis designs |

For more information, visit [ati.amd.com/firepro](http://ati.amd.com/firepro)



© Copyright 2009 Advanced Micro Devices, Inc. All rights reserved. AMD, the AMD logo, ATI, the ATI logo, FirePro and combinations thereof are trademarks of Advanced Micro Devices, Inc. Microsoft, Windows and Windows Vista are registered trademarks of Microsoft Corporation in the United States and other jurisdictions. Other names are for informational purposes only and may be trademarks and/or registered trademarks of their respective owners. Images courtesy of Todd Daniele; PTC; Factory Five; Youngwoong Jang; and Matt Allen at the University of Hertfordshire.

| ATI FirePro™ S400 Product Details |  |
|-----------------------------------|--|
| Features                          | <ul style="list-style-type: none"> <li>→ Supports up to 4 GPUs per system</li> <li>→ House sync support for analog (black burst) and digital (SDI, TTL)</li> <li>→ Supports either PCI or PCI Express® slots for mechanical mounting</li> </ul>              |
| System Requirements               | <ul style="list-style-type: none"> <li>→ One or more supported GPUs</li> <li>→ Workstation with available PCI or PCIe slot</li> <li>→ 350-Watt power supply or greater (assumes fully loaded system)</li> <li>→ 512MB of system memory</li> </ul>            |
| Graphics Products Supported       | → ATI FirePro™ V8750   |
| ATI Warranty and Support          | <ul style="list-style-type: none"> <li>→ Three year limited product repair / replacement warranty</li> <li>→ Direct toll free phone and email access to dedicated workstation technical support team</li> <li>→ Advanced parts replacement option</li> </ul> |
| API and OS Support                | <ul style="list-style-type: none"> <li>→ Framelock supported in OpenGL®</li> <li>→ Windows® XP, Windows Vista®, Windows® 7 and Linux®</li> <li>→ 32 bit and 64 bit versions of OSes supported</li> </ul>   |