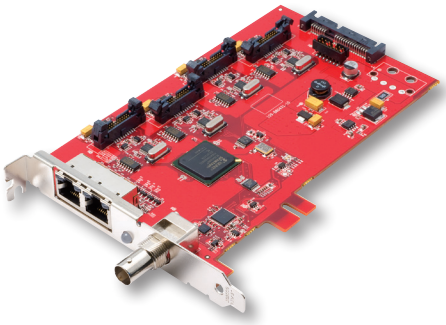
ATI FirePro™ S400

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 high and ultra-high ATI FirePro™ professional 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™ professional graphics 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.[1] The dedicated processor allows up to four attached GPUs to work together to address the users' rendering needs without compromising sync.

ATI FirePro™ S400 Genlock for broadcast, non-linear editing (NLE) and other video workflows	ATI FirePro™ S400 Framelock for simulation, visualization and power walls
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 NLE 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	The ATI FirePro™ S400 delivers Framelocking by combining Output lock (synchronized display output) and 3D swap lock (simultaneous 3D buffer swapping), ensuring the GPUs in connected systems present their outputs in lock-step. The two RJ-45 connectors on the module allow for connection of multiple daisy-chained systems (each with up to four 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™ professional graphics, including 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 and Linux®. The unified driver, which supports all ATI FirePro™ professional graphics, helps reduce the total cost of ownership by simplifying installation, deployment and maintenance.

In addition, ATI FirePro™ professional graphics 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.

AMD
The future is fusion

ATI FirePro™ S400

Synchronization Module

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, helping 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 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

ATI FirePro™ S400 Product Details	
Features	→ Supports up to 4 GPUs per system → Enable three, four or six display configurations with ATI Eyefinity multi-display technology[2] → House sync support for analog (black burst) and digital (SDI, TTL) → Supports either PCI or PCI Express® slots for mechanical mounting
System Requirements	→ One or more supported GPUs → Workstation with available PCI or PCIe slot → 350-Watt power supply or greater (assumes fully loaded system) → 512MB of system memory
Graphics Products Supported	→ ATI FirePro™ V8750, ATI FirePro™ V9800, ATI FirePro™ V8800, ATI FirePro™ V7800
ATI Warranty and Support	→ Three year limited product repair / replacement warranty → Direct toll free phone and email access to dedicated workstation technical support team → Advanced parts replacement option
API and OS Support	→ Framelock supported in OpenGL® → Windows® XP, Windows Vista®, Windows® 7 and Linux® → 32-bit and 64-bit versions of OSes supported

For more information, visit www.amd.com/firepro

Images courtesy of Todd Daniele; PTC; Factory Five; Youngwoong Jang; and Matt Allen at the University of Hertfordshire

[1] ATI FirePro™ V8750, V9800, V8800, V7800 or V8750 graphics required.

[2] ATI Eyefinity technology can support multiple displays using a single enabled ATI FirePro™ professional graphics card; the number of supported displays varies by card model. Microsoft® Windows® 7, Windows Vista®, or Linux® is required in order to support more than 2 displays. Depending on the card model, native DisplayPort™ connectors and/or certified DisplayPort active or passive adapters to convert your monitor's native input to your card's DisplayPort or Mini-DisplayPort connector(s) may be required. See www.amd.com/firepro for details.

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