

Overview

AMD FirePro W5100 4GB Graphics



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J3G92AA

INTRODUCTION

The AMD FirePro™ W5100 workstation graphics card delivers impressive performance, superb visual quality, and outstanding multi-display capabilities all in a single-slot, <75W solution. It is an excellent mid-range solution for professionals who work with CAD & Engineering and Media & Entertainment applications.

The AMD FirePro W5100 features four display outputs and AMD Eyefinity technology support, as well as support up to six simultaneous and independent monitors from a single graphics card via DisplayPort Multi-Streaming (see Note 1). Also, the AMD FirePro W5100 is backed by 4GB of ultra-fast GDDR5 memory.

PERFORMANCE AND FEATURES

- AMD Graphics Core Next (GCN) architecture designed to effortlessly balance GPU compute and 3D workloads efficiently
- Segment leading compute architecture yielding up to 1.43 TFLOPS peak single precision
- Optimized and certified for leading workstation ISV applications. The AMD FirePro™ professional graphics family is certified on more than 100 different applications for reliable performance.
- GeometryBoost technology with dual primitive engines
- Four (4) native display DisplayPort 1.2a (with Adaptive-Sync) outputs with 4K resolution support
- Up to six display outputs using DisplayPort 1.2a and MST compliant displays, HBR2 support
- AMD Eyefinity technology (see Note 1) support managing up to 6 displays seamlessly as though they were one display

Overview

- FreeSync display technology enabling GPU control of the display refresh rate for tear-free display updates
- AMD PowerTune and AMD ZeroCore Power technologies that allow for state of the art dynamic power management of the GPU
- 4GB of high speed GDDR5 memory
- PCI Express® 3.0 compliant

COMPATIBILITY

The AMD FirePro W5100 is supported on the following HP Z Workstations:

- Z230 CMT, Z440, Z640, Z840

SERVICE AND SUPPORT

The AMD FirePro W5100 has a one-year limited warranty or the remainder of the warranty of the HP product in which it is installed. Technical support is available seven days a week, 24 hours a day by phone, as well as online support forums. Parts and labor are available on-site within the next business day. Telephone support is available for parts diagnosis and installation. Certain restrictions and exclusions apply.

TECHNICAL SPECIFICATIONS

Form Factor	Full height, single slot (6.75" X 4.376")
Graphics Controller	AMD FirePro W5100 graphics GPU Frequency: 930Mhz GPU: 768 Stream Processors organized into 12 Compute Units Power: <75 Watts Cooling: Active
Bus Type	PCI Express® x16, Generation 3.0
Memory	4GB GDDR5 memory Memory Bandwidth: up to 96 GB/s Memory Width: 128 bit
Connectors	4x Display Port 1.2 connectors with HBR2 and MST support. Factory Configured: No video cable adapter included After market option kit: No video cable adapter included Additional DisplayPort-to-VGA or DisplayPort-to-DVI adapters are available as Factory Configuration or Option Kit accessories.
Maximum Resolution	DisplayPort: - 4096x2160 @24bpp 60Hz Dual Link DVI: - 2560x1600 (requires DP to DL-DVI adapter) Single Link DVI: - 1920x1200 (requires DP to DVI adapter) VGA: - 1920x1200 (requires DP to VGA adapter)

Technical Specifications

Image Quality Features

Advanced support for 8-bit, 10-bit, and 16-bit per RGB color component.
High bandwidth scaler for high quality up and downscaling

Display Output

Max number of monitors supported using DisplayPort 1.2a:

- 4 direct attached monitors
- 6 using DP 1.2a with MST and HBR2 enabled monitors

Monitor chaining from a single DisplayPort (subject to a max of 6 total monitors across all outputs, requires use of DisplayPort enabled monitors supporting MST and HBR2):

- one 4096x2160 display
- two 2560x1600 displays
- four 1920x1200 displays

Shading Architecture

Shader Model 5.0

Supported Graphics APIs

OpenGL 4.4
OpenCL 1.2 and 2.0
DirectX 11.2 / 12
AMD Mantle

Available Graphics Drivers

Windows 8.1 / 8 (64-bit and 32-bit)
Windows® 7 (64-bit and 32-bit)
Linux

HP qualified drivers may be preloaded or available from the HP support Web site:

<http://welcome.hp.com/country/us/en/support.html>

Notes

1. AMD Eyefinity technology supports up to six DisplayPort™ monitors on an enabled graphics card. Supported display quantity, type and resolution vary by model and board design; confirm specifications with manufacturer before purchase. To enable more than two displays, or multiple displays from a single output, additional hardware such as DisplayPort-ready monitors or DisplayPort 1.2 MST-enabled hubs may be required. A maximum of two active adapters is recommended for consumer systems. See www.amd.com/eyefinityfaq for full details.
 2. Configurations of two FirePro W5100 graphics cards in HP Z440 Workstation require the HP Z440 Fan and Front Card Guide Kit, configurable from the factory (CTO PN: G8T99AV) or as an Aftermarket Option (AMO PN: J9P80AA).
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Summary of Changes

Date of change:	Version		Description of change:
	History:		
May 1, 2015	From v1 to v2	Changed	Notes for Technical Specifications section

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