Pixelworks™ and Analog Devices Team to Offer State-of-the-Art Interface Solution for Flat Panel Displays

December 2, 1998

— New PW364 ImageProcessor and AD9884 Graphics Digitizer provide feature-rich solution with broad compatibility for next-generation FPDs —

Monterey, Calif., December 2, 1998 — PixelworksÔ , Inc. and Analog Devices, Inc. (NYSE: ADI) are partnering to demonstrate a high-performance interface solution for next-generation flat panel display (FPD) products that provides broad compatibility and unprecedented image quality with lower overall system cost. The two companies are showing the solution publicly for the first time at the Flat Information Displays Conference, opening here today.

The combination of the two components, the PW364 ImageProcessor from Pixelworks and Analog Devices' AD9884 Graphics Digitizer enables a complete standard 15-pin VGA interface input for FPDs with unprecedented integration and image quality. The design supports resolutions up to UXGA with a large number of display features on a reference design board measuring only 4 inches by 6 inches.

The design delivers unsurpassed image quality from the standard 15-pin VGA input, found on all of today's computers, regardless of input source format, without manual user intervention and at a lower cost than alternative approaches. Compatibility with the existing base of computer and video standards will help accelerate adoption of flat panel display technology including LCD monitors, LCD projectors and gas plasma displays.

"The PW364 and the AD9884 individually are the leaders in their respective categories, and together they create the best performing, easiest to integrate interface solution for today's dynamic display environment," said Allen Alley, CEO of Pixelworks. "Legacy compatibility is very important, and the combination of the AD9884 with its high-speed conversion technology and the PW364 with its auto-sync and flexible image processing technology will offer manufacturers the ability to deliver flat panel display products that the market is demanding — today."

"We are pleased that Pixelworks has chosen the AD9884 Graphics Digitizer for its ground breaking reference design," said Doug Bartow, Strategic Marketing Manager for Analog Devices. "The AD9884, like the PW364, has achieved unprecedented levels of integration with the image quality that customers are demanding."

Major FPD manufacturers and OEMs are currently evaluating this reference design. The combination reduces the cost of the display controller to less than $100 and the component count to as few as four chips. Products using this reference design will be introduced in the second quarter of 1999 and are expected to set new standards for FPD image quality and ease of use.

Manufacturers and OEMs who embrace this solution will be able to offer their information technology customers the ability to purchase flat panel products that can easily be used with their existing installed base of computers which utilize the standard 15-pin VGA computer display interface that dominates PCs today. This solution offers IT departments the benefits of flat panel display technology including reduced space, power consumption and eye-strain, coupled with plug-and-play ease of use.

PW364 and AD9884: A Powerful Combination

The Pixelworks PW364 ImageProcessor handles the digital portion of the interface after the AD9884 has converted the incoming analog signal. It provides image resizing to support graphics resolutions from VGA up to UXGA, automatically creating high-quality images. The PW364 also supports multi-standard video interfacing in addition to computer inputs, which converts interlaced video signals such as NTSC to a progressive scan signal suitable for flat panel displays. The PW364 includes frame rate conversion, ensuring that flat panel displays using the PW364 are just as compatible as today's CRT monitors. Pixelworks has also developed a proprietary adaptive image optimization technology that automatically and continually adapts in real time to provide an optimal image. Manual adjustments such as "sync", "phase", "position", "clock" and "tracking" are eliminated. This will make products using this design as easy to connect as today's auto-synch CRT monitors.

The AD9884 chip is an integrated triple 8-bit, 140-MSPS (megasamples per second) analog-to-digital converter (ADC) that consumes less than 700 mW at 3.3-V power supply. It can support display resolutions up to 1280 x 1024 at 75 Hz refresh rate. The AD9884 also includes an internal +1.25-V reference, a phase-locked loop (PLL), and programmable gain and clamp control. With full-power analog bandwidth that is greater than 500 MHz, it has sufficient input bandwidth to accurately acquire and digitize each pixel for crisp image quality. The AD9884 was designed specifically for demanding RGB graphics processing, LCD monitor and projector, plasma display panel and scan converter applications.

About Pixelworks, Inc.
Pixelworks Inc., headquartered in Tualatin, Oregon, is a privately held fabless semiconductor company founded in 1997 by several senior managers from In Focus Systems, Inc (NASDAQ: INFS). The company has core capabilities in the development, marketing, and sales of integrated circuits incorporating image processing, high speed digital design, and mixed signal processing. Pixelworks' mission is to enable broad adoption of flat panel display products through the development and sales of critical integrated circuit components resulting in display products that deliver unsurpassed image quality, automatically, at the lowest cost.

For more information about Pixelworks, call 503-612-6700 or visit the company's Web site at www.pixelworksinc.com

About Analog Devices, Inc.
With fiscal 1997 sales of $1.24 billion, Analog Devices (NYSE: ADI) is a leading manufacturer of precision high-performance integrated circuits used in

analog and digital signal processing applications. Headquartered in Norwood, Massachusetts, the company employs approximately 7,500 people worldwide and has manufacturing facilities in Massachusetts, California, North Carolina, Ireland, the Philippines and Taiwan.

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