

Xilinx Ships The Real 64/66 PCI™



Industry's First General Purpose 64-bit, 66 MHz PCI Solution

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The Virtex FPGA family, along with our new PCI cores, meets the demand for uncompromising PCI compliance, flexibility, and performance.

In a move that brings programmable logic to the forefront of high-performance system level integration, Xilinx recently announced the immediate availability of The Real 64/66 PCI™ solution. The Real 64/66 PCI core is the first complete solution that enables you to design fully compliant yet flexible single-chip 64-bit, 66 MHz PCI v2.2 bus interface systems.

The Real 64/66 PCI solution from Xilinx:

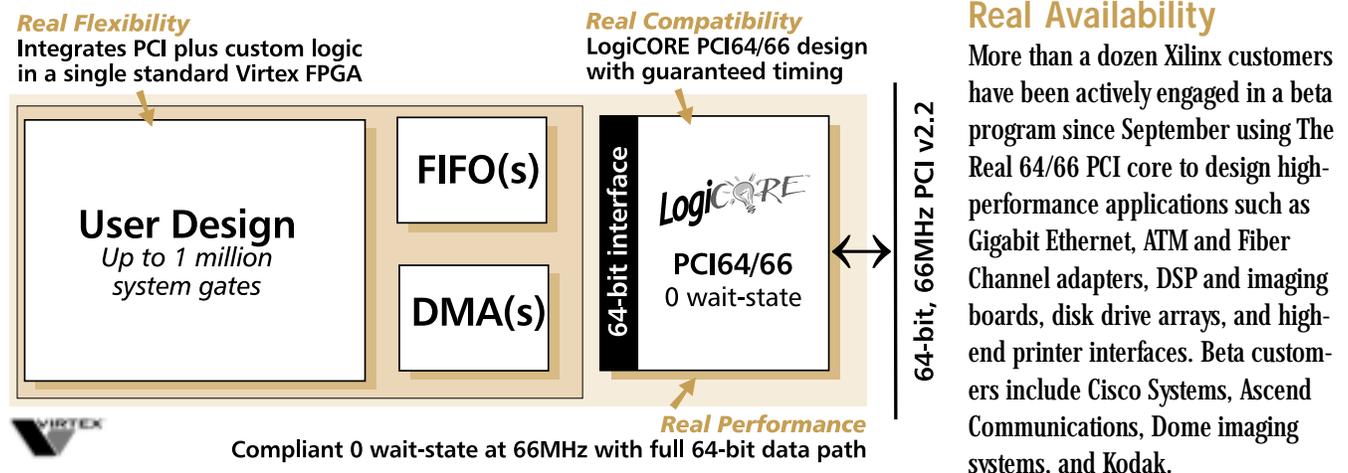
- Is available as a commercial product today.
- Offers full compliance with the v2.2 PCI bus interface specification.
- Provides 64-bit, 66MHz performance throughout the complete design.
- Gives you the flexibility to build a single-chip design using standard FPGAs.

“With the Real-PCI 64/66 products from Xilinx, we were able to implement a fully compliant PCI interface in our new

Mx2/PCI product family plus other functions such as direct memory access (DMA), four dual-port FIFOs, and 200,000 gates of our own unique design in a single device,” said John Beck, principal engineer at DOME imaging systems, Inc., Waltham, Mass. The Dome Mx2/PCI is the first in a new family of high resolution display controllers for the medical imaging market that can handle transfers of over 500 MBytes/second from the host.

“After evaluating different solutions in the market, we found that only Xilinx could meet the demanding requirements for full 66 MHz PCI compliance,” Beck said.

“The Real 64/66 PCI represents the first time that an FPGA supplier has delivered a general purpose solution before manufacturers of standard chip-sets,” said Wim Roelandts, Xilinx president and CEO. “This is a significant milestone that underscores the inherent benefits of standard FPGAs produced with the most advanced silicon processes. More important, The Real 64/66 PCI solution allows designers to integrate very high-performance, high-density 66MHz PCI systems tailored to their specific needs.”



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This rich PCI heritage has given Xilinx experience with PCI that is unmatched in the industry. It has allowed us to develop the design and verification processes necessary to build and support high-quality PCI products.

The Dome Mx2/PCI from Dome imaging systems.

Real Compliance

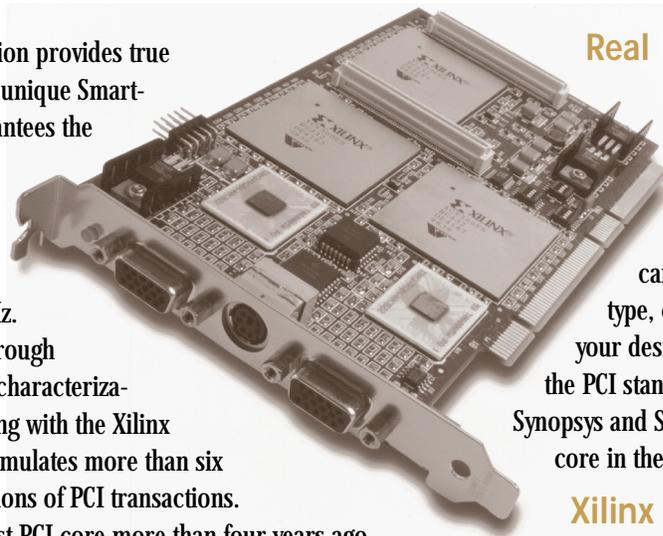
The Real 64/66 PCI solution provides true compliance by using our unique Smart-IP® technology that guarantees the critical minimum, maximum, and hold timing required for a true zero wait-state burst operation at 66 MHz. Compliance is verified through hardware testing, device characterization, and regression testing with the Xilinx internal test bench that simulates more than six million unique combinations of PCI transactions.

“Xilinx released its first PCI core more than four years ago, and our PCI products to date have been used in more than 1,000 customer designs,” said Rich Sevcik, senior vice president of software, cores and support at Xilinx. “This rich PCI heritage has given Xilinx experience with PCI that is unmatched in the industry. It has allowed us to develop the design and verification processes necessary to build and support high-quality PCI products. The Real 64/66 PCI core, which can be downloaded from the Xilinx website, reinforces our on-going Silicon Xpresso initiative to use the Internet to increase designers’ productivity.”

Real Performance

The Virtex FPGAs are manufactured on a state-of-the-art 0.22µ process that meets all timing requirements for 64-bit, 66-MHz performance, up to the theoretical maximum throughput of 528 Mbytes per second.

The Real 64/66 PCI solution is fully verified by Xilinx for the Virtex XCV300-6 BG432 and XCV1000-6 FG680 devices, which offer densities of 300,000 and one million system gates, respectively.



Real Flexibility

Implemented in Xilinx standard Virtex FPGAs, The Real 64/66 PCI solution allows you to benefit from the real flexibility provided only by standard, off-the-shelf FPGAs. For example, you can choose Virtex device size and package type, customize the PCI feature set, and adapt your design, as needed, to meet future changes in the PCI standard or new PCI requirements. Both Synopsys and Synplicity support The Real 64/66 PCI core in their design flows.

Xilinx PCI Training

To further complete the Xilinx PCI solution, Xilinx will offer a two-day PCI course, beginning in May, for customers who are planning PCI systems. The course will give an introduction to the PCI standard, cover configuration and integration of Xilinx PCI cores, system integration, verification and debugging. In addition to Xilinx classes, PCI design services are available from a number of partners in the worldwide Xilinx XPERTS design consulting program.

Real-PCI Design Kits

Xilinx is developing a complete PCI64 Design Kit (just like the one currently available for our 32-bit PCI products). The kit will include Real-PCI designs, reference designs, a prototyping board, and software driver development tools. The PCI64 Design Kit will be available by the Summer of 1999.

Pricing

The Real 64/66 PCI core for the Virtex XCV300 BG432 device is available now from Xilinx. The Real 64/66 PCI product is priced at \$14,995. To order The Real 64/66 PCI see www.xilinx.com/pci. ☒