

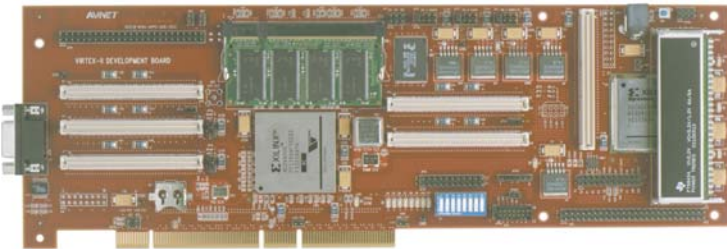
Avnet Design Services

Avnet Design Services, the engineering arm for Avnet Electronics Marketing, has a seventeen-year track record of delivering on ASIC and FPGA design engagements with technical organizations like yours.

The Avnet Design Services Express-Design and Design Center teams have been staffed and trained to meet a wide variety of customer needs, ranging from conversion services for older technologies to program-managed IP development and platform FPGA integration. Our North American design engineering staff is Xilinx certified and ready to handle your most complex and time-sensitive engagements.

“Avnet’s regional FPGA Express design team in Texas helped us through the (design) process. A site trial on this particular product was pending and pressure was high; the Avnet Design Services engineer took a week working with us, but it saved our team an entire month in getting to market. My only complaint is that we didn’t take advantage of this earlier in the design cycle so we could have saved even more time...”

*Brian Hogan
Product Development Manager, Safetran Systems*



Avnet Design Services offers an array of more than 20 Xilinx-specific evaluation and development board platforms for organizations that want to access pre-integrated IP Cores or that need a hardware development target for their own IP.

Offerings include both Avnet Design Services and Avalon Reference Design System™ participant hardware and represent the Virtex™-E/Virtex-II, CoolRunner™/II, and Spartan™-II/III families. A/D, video, memory, high-speed communications daughter boards, and Xilinx and Celoxica demo software are also available.

Xilinx FPGA Design Services

FPGA Design Services

The introduction of new feature-rich, multi-million gate FPGA platforms, coupled with ASIC-like pricing are driving many design teams to consider Xilinx platform FPGAs as the primary, most quickly implemented, and most flexible systems solution for an ever-larger array of new products.

Of course, along with the increased density, sophistication, and availability of intellectual property has come a new set of design challenges. The integration, synthesis, and validation of IP Cores into a platform FPGA often requires a team-based systems design approach. Despite access to new compilers (such as Celoxica’s Handel-C suite), today’s design and simulation tools, prototyping hardware, the selection and licensing of IP Cores for integration, and knowledge of high-speed interfaces and standards are all complicating the engineering process.

In response to this migration in technology, Avnet Design Services has responded with a multi-tiered approach to meeting your design needs. These include:

- **Field Applications Engineers**

Avnet’s Xilinx Field Applications Engineering (FAE) team members must demonstrate and maintain a high level of Xilinx design certification. As such, they are your first (and local) resource for design assistance, verification, tuning, software installation, device selection, and training.

- **FPGA Express Design Services**

Avnet Design Services also maintains Express Design Services - a North American network of quick engagement Applications Engineering specialists that focus on the optimization of existing designs, conversions from older or competitive architectures, and the integration and design of functional blocks of intellectual property that require less than two weeks of engineering effort.

- **Design Center FPGA Services**

With locations in New York, Boston, Chicago, and San Jose, the Avnet Design Services Design Centers have both the resources (people, applications, hardware, and logic libraries) and experience to meet your platform FPGA and IP Core design and integration needs. Design Center engagements are fully program-managed, contract-driven, and can take you all the way from concept to production to anywhere in between.

● Rich Intellectual Property & IP Core Experience

Whether your needs are for the integration of existing IP Cores or the engineering of customized intellectual property, Avnet Design Services is ready to meet the challenge. Our resume of FPGA experience includes PCI/PCI-X, VME, LVDS, RapidIO, Utopia, Power PC, USB1.1/2.0, 10/100/Gbit Ethernet, HyperTransport, and numerous DDR, SDRAM, and high-speed RDRAM (Denali) IP Cores. Avnet Design Services can also speed your mathematically intensive algorithms into production through the use of Celoxica's DK1.1 design suite. Contact your local Avnet Design Services Xilinx FAE for more information.

Available Services:

● IP Core Integration

Avnet Design Services, through its Design Center organization, provides access to IP Cores via Avalon Reference Design System™ participants, Xilinx AllianceCore™ and Xilinx LogiCore™. In cooperation with our suppliers Infineon, Micron, Denali, Xilinx, and Motorola, the Design Centers offer early access programs and engineering design consulting services on newly-released and beta status IP Cores.

Recent additions to the program include the Avnet Design Services/Denali 200MHz RDRAM controller and Avnet Design Services/Xilinx/Motorola RapidIO Virtex-II Development Platform.

If your needs include interfaces to PCI/PCI-X, VME, HyperTransport, GBit Ethernet, DASL or other high-speed protocols or memory interfaces, your solution may be only a phone call away.

Please contact your local Avnet Design Services Xilinx-certified FAE or ASIC/FPGA Business Development Manager for more information.

● Design Optimization

We can help you take your existing designs and optimize them for Xilinx FPGAs and/or CPLDs, improving performance, density, power consumption, and reliability. We have in-depth experience in optimizing both Verilog and VHDL designs utilizing the latest Xilinx Spartan-II/III, Virtex-E/II, and CoolRunner/II devices.

● Technology Migration

Avnet Design Services can port your aging Xilinx HDL and schematic-based designs into newer, faster, and more versatile Spartan and Virtex family devices. Such migrations often save money and improve your access to components. Using our detailed knowledge of product availability and inventory levels can also help determine the right time to switch to a new technology.

● Conversions

In addition to migrating existing Xilinx designs, Avnet Design Services engineers also have the tools and experience to convert Verilog and VHDL design files from competitive FPGA and CPLD architectures. Need to extend bandwidth, add some I/O or memory to your existing design and your current device selections won't let you get there? Avnet Design Services can help.

● Algorithmic Design

Many computer-intensive, mathematically-driven applications are difficult to implement utilizing standard HDL level design techniques. Both the Avnet Design Services Express and Design Center teams maintain a full complement of Celoxica Handel-C DK series design tools and are available to help you speed your algorithmic partitions into production.

Here's what a recent customer said about our Xilinx FPGA Design Service:

"The Avnet Design Services team that was most aligned with our objectives was assigned to our group. We had in-house expertise, but just needed some high-level support to make sure we were on the right track. The Xilinx tools provide various predefined components, and there are certain ways of assembling these to optimize for performance in a particular area. For example, if you are optimizing for speed, you need to do one thing; if you want to optimize for space, you need to do something else. We weren't familiar with it and needed someone to help us through."

Brian Hogan
Product Development Manager, Safetran Systems

Contact Information:

North America
2211 South 47th St.
Phoenix, Arizona 85034
United States
Tel: +1 800 585 1602

Europe
Gruber Str. 60
85586 Poing
Germany
Tel: +49 (0) 8121 777279

Asia
7 Changi South St. 2
#01-00
Singapore, 486415
Tel: +6580 6000

www.ads.avnet.com

