

Avnet Product Brief



ASIC & FPGA Design Services

Client Solutions and Services:

- Technology tradeoffs and solutions
- FPGA turnkey
- Functional block / module designs
- Scan, JTAG, BIST, BISR logic insertion
- Test vector generation, static timing analysis, formal verification
- RTL analysis and synthesis
- Third party IP analysis, integration and verification
- Verification environment development
- Design technology migrations
- Implement C language algorithms
- Physical design
- Floorplanning and placement based timing closure
- Design optimization for area utilization or timing

Technologies:

- Processes covering the full spectrum of geometries, including very deep sub-micron
- Standard Cell, Structured Array, Gate Array, FPGA, Mixed Signal, and Analog
- Supplier or third party integration of cores such as:
Fibre Channel, SCSI, Serial ATA, 10/100/1000 Ethernet MAC & PHY, USB, PCI, PCIX, IEEE 1394 Link & PHY, 802.11, MPEG, JPEG, Sonet PMD, Data Conversion, PLL, DDR controller, PHY, ARM, MIPS, Rapid I/O, PCI Express and XAUI
- Gigabit Serdes, LVDS, LVTTTL, HSTL, SSTL, PCI, PCIX, and PECL I/O's
- Full range of BGA, Flip-chip, and QFP packages

Tools:

- VHDL, Verilog, Perl, TCL, PLI, VERA
- Mentor Fastscan, DFT Advisor, Modelsim
- HSPICE device and board level analysis
- Supplier-specific design systems
- Synopsys DC, Primitime, Formality, VCS
- Synopsys Formality and Primitime integration in design flow
- Synplcity Synplify Pro and Amplify RC
- Synopsys FPGA Compiler Synthesis
- Modelsim mixed-language or VCS simulations, PLI creation
- Design Specifications with Visio, Framemaker, Word, Excel
- LogicVision Test Insertion

The Avnet Design Services (ADS) Design Centers have completed more than 1,000 ASIC and FPGA designs since 1984. ADS has a network of design centers across the United States staffed by a team of experienced design engineers. Each engineer has in-depth knowledge and experience in design at the system level whether your system is a device, board or chassis. Avnet Design Services adopts the proven design flows, design tools, and methodologies of our suppliers to achieve first-pass successes for our customers. For large projects, we are able to distribute our resource load across separate design centers or time zones to improve efficiency.

Avnet Design Services' objective is to provide expert design services to qualify, specify, design, or implement your digital or mixed signal design into a chosen supplier's ASIC or FPGA technology.

Designs:

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| — Computing | — Satellite |
| — Industrial Controls | — Storage |
| — Medical | — Telecom/Networking |
| — Military | — Video |
| — Multimedia | — Wireless |

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