

ViaSat fabless semiconductor design center executes ASIC, FPGA, and digital design projects. Partnerships with Xilinx and Altera further enhance our digital design capabilities, and we offer several flexible approaches throughout the design project value chain.



Our design center developments include leading edge, multi-million gate ASICs. Our SPICA ASIC is the heart of a modem that supports the ground equipment for IPSTAR, the world's largest commercial broadband satellite when launched in 2005.

The SkyPHY ASIC is the industry's first fully operational Adaptive Coding and Modulation DVB-S2 ASIC, and transformed DVB (Digital Video Broadcasting) technology. The ability of the SkyPHY ASIC to operate at extreme temperatures also makes it valuable for U.S. Department of Defense satellite applications.

Flexible engagement models to support your design needs:

#### **Specification/Requirement Hand-Off**

We create the architecture or you provide one to us. This approach includes concept stage to ASIC design, including the hardware evaluation platform.

#### **FPGA ≠ ASIC Conversion**

Our ASIC group targets the FPGA design to an ASIC process and delivers a working ASIC.

#### **ASIC Vendor Interface**

Our ASIC group acts as a project manager on your behalf, and as a vendor interface. We oversee the successful execution and completion of your ASIC project.

We can act as a consultant or perform trade studies that determine the best option based on cost, schedule, and resource availability. This alternative includes an analysis of additional options such as Custom ASIC, COTS ASIC, Structured ASIC, and FPGA.

Our team has experience with NEC, Fujitsu, IBM and Honeywell processes and has worked with ASIC technologies from 45 nm to 150 nm. The center is equipped with the latest test tools from leading EDA companies such as Synopsys, Cadence, and Mentor Graphics to support every segment of the ASIC design value chain. Our simulation farm has Linux-based servers allocated exclusively for ASIC programs.

We support you with design architects, along with engineers for design, verification, and back-end support. Our engineers have wide-ranging experience in ASIC design for the following applications:

- » High-speed demodulators
- » DVB-S2 and DVB-S standards
- » FECs (RS, BCH, LDPC, TPC...)
- » MIPS
- » ARM
- » PPC
- » Alpha
- » 802.11



#### **CONTACT**

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