

# ASICs

## HIGH DENSITY, OPTIMIZED POWER AND PERFORMANCE

BAE Systems offers application-specific integrated circuit (ASIC) services with multiple product technologies to address a myriad of customer needs.

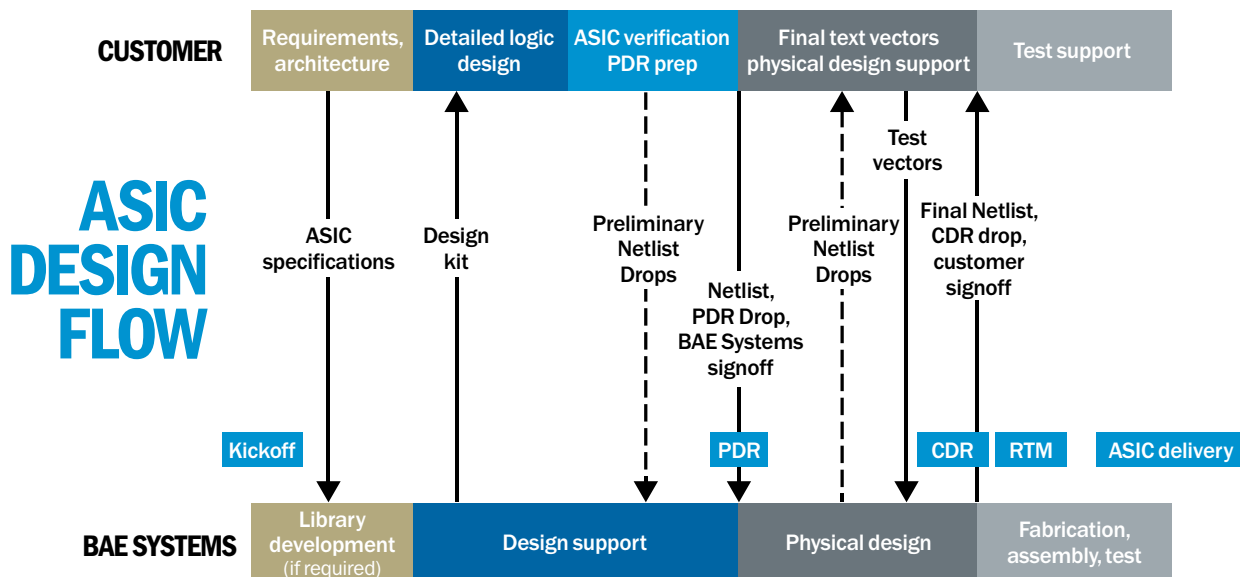
**Our ASIC technologies are compatible with a wide variety of commercially available design tools and feature radiation-hardened, low-power, and high-reliability circuit libraries.**

An expanding set of synthesizable, reusable cores is available to increase design productivity and lower risk. We also offer ASIC design services for customers who prefer or need to outsource ASIC development.

From requirements definition through more traditional RTL (Register Transfer Logic) or netlist handoff, we offer broad and flexible set of entry options and engagement models to access the technology.

Our state-of-the-art design flow incorporates the latest tools and features from Synopsys®, with improved focus on physically knowledgeable synthesis, placement based power optimization, clock tree synthesis, and signal integrity.

Our broad spectrum of space-qualified packaging solutions include flipchip, wirebond, ceramic leadless chip carrier, ceramic quad flat pack, ceramic column grid array, and plastic ball grid array.



## RADIATION-HARDENED ELECTRONICS

BAE Systems provides a trusted supply chain from initial design and fabrication through space qualified assembly, test and screening of prototypes and final flight deliveries.

- The 45nm RH45 standard cell ASIC technology supports high density designs in excess of 200M gates. This technology has been developed with state-of-the-art intellectual property licensed from Freescale Semiconductor Limited. The combination of a proven System on Chip (SoC) 45nm ASIC library coupled with enhancements for radiation effects mitigation and long mission life reliability enables large reductions in system size, weight and power (SWaP). The library includes features such as 5Gb/s serializer/deserializer (SERDES), phase-locked loop (PLLs), single and dual port memory compilers, etc.
- The 250nm R25 standard cell ASIC technology provides proven performance, Technology Readiness Level 9 ASIC solutions to users with radiation requirements. With thousands of ASICs on orbit and compact packaging options, R25 delivers excellent value for a wide variety of ASIC needs.

Please consult our product catalog and datasheets via the product literature link at left or contact a representative of BAE Systems for more information.

## FLEXIBLE ENGAGEMENT MODELS, STATE OF THE ART DEEP SUBMICRON DESIGN FLOW...

## ASIC ENTRY POINT / TECHNOLOGY ACCESS

### ENTRY OPTIONS

- Requirements/Specification
- RTL (Verilog/VHDL)
- Netlist (Verilog/VHDL)
- Floorplan
- GDSII Graphics

### DESIGN APPROACHES

- Full Custom
- Semi-Custom
- Standard Cell
- Structured ASIC

### DESIGN MITIGATION

- Legacy Design Re-hosting
- FPGA to ASIC
- Technology Transfers
- Commercial to Space

### SPECIFICATION

