Application Specific Integrated Circuit (ASIC)

Deep Submicron Process

Product Brief

Cobham.com/HiRel

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The most important thing we build is trust

FEATURES

- Wide ranging standard-cell libraries provide multiple options for optimizing performance or power
  - Mainstream libraries balance performance, power and area (PPA)
  - Low power libraries contain cells for clock gating, power gating and multiple power domains
  - High performance library cells enhance speed
- Standard-cell libraries offer both regular voltage threshold (RVT) and low voltage threshold (LVT) transistors
- Standard-cell libraries offer both high performance architectures and high density architectures for design optimization
- Standard-cell libraries offer poly-based cells to modulate the effective channel length of logic transistors to optimize performance or power
- Standard-cell libraries allow adaptive body biasing by applying a voltage under the ultra-thin buried oxide (BOX) to modify Vt for both LVT and RVT transistors
  - Forward Body Bias (FBB) lowers threshold voltage
  - Reverse Body Bias (RBB) raises threshold voltage
- Silicon proven IP: PLL, Process Dependent
- RadHard SRAM compiler
- Package Options: UT7152FC flip-chip LGA

OPERATIONAL ENVIRONMENT

- Temperature Range: -55°C to +125°C
- Total Dose: 300 krad(Si)
- SEL Immune: <60 MeV-cm^2/mg

APPLICATIONS

- System on Chip (SoC) ASICs
- Wireless
- Set top boxes

INTRODUCTION

Through Cobham's state-of-the-art IC design partners, we are proud to offer deep submicron IC designs. Cobham works with our design partners to assure designs are completed to our rigorous standards of radiation designed architecture and QML quality levels. Our design partners bring their experience in deep submicron technologies to assure the highest probability of first-pass design success.

Because of this partnership solution, Cobham can select the specific deep submicron process that meets your unique needs, whether it is security, radiation hardness or product quality driving your application requirements.