

ComLSI

Communications Electronic Systems Integration

TEAM & CAPABILITIES SUMMARY

Analog/Mixed-Signal IC Design, Product Development and
Professional Consultancy Services

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Team

- ❖ 5+, 2 Analog Architects, 1 EDA/Device Physics expert, 1 Physical Layout expert, 1 Senior EE, 2 Graduate students
- ❖ Combined 75 years of experience in VLSI design / manufacture
- ❖ Broad skill base spanning analog, digital, packaging, board and system-level design
- ❖ 40+ issued patents, and numerous journal and conference publications

Chips

- ✦ An integrated, Distributed Voltage Regulator for microcontrollers (80296SB™)
- ✦ 400Kpixel CMOS image sensor for Intel® used in the 971 Decatur™ Camera Kit
- ✦ A Terabits/Second Crossbar Switch and Non-Blocking Router (research)
- ✦ MEMS HV Driver chip (40V Outputs) for Duplexer Arrays (research)
- ✦ **TAPING OUT**: Wideband, 2.5Gbps/30m DVI/LVDS compatible Video Transceiver PHY+PLL in 0.18μm CMOS

Chip Design Flow

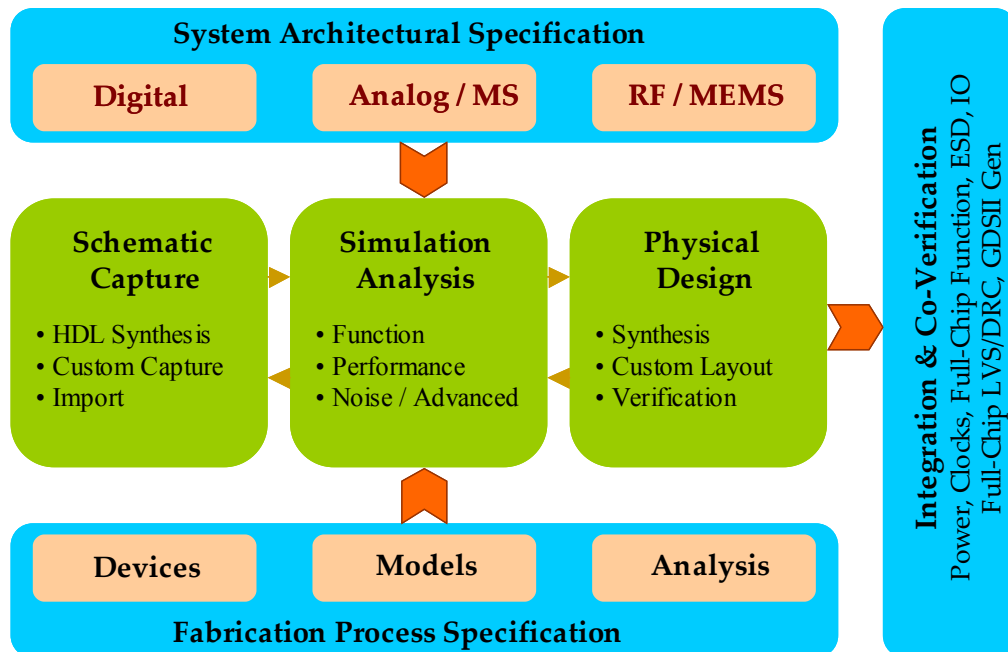


Figure 1: Custom design flow illustration

Tools & Compute Infrastructure

- ❖ Skilled with industry standard EDA tools (Cadence, Mentor Graphics, Synopsys) as well as low-end offerings; currently working with Mentor Graphics suite
- ❖ 4 Linux + 2 Sun Microsystems Servers, assortment of Windows workstations, global compute network (US, UK, India) with secure hardware-based VPN tunnels
- ❖ Customer-dedicated machines + software based customer-login capability

Core Design Expertise

- ✦ Memory (RAM, ROM, NVRAM) designs
- ✦ Integrated & Distributed Voltage Regulation (On-chip, On-package)
- ✦ CMOS mega-pixel Image Sensor architecture & circuits
- ✦ Switched-Cap Circuits (A2D's, D2A's, Filters, Amplifiers)
- ✦ Clock Generation & Distribution (PLL's, DLL's, Clock trees, Grids, Buffers)
- ✦ High-Speed Signaling PHY (LVDS, low-power IO techniques)
- ✦ Power management (Buck/Boost DC-to-DC, transient suppression, decoupling)
- ✦ HV driver design (MEMS, LCD Drive)

Partners / FAB / Customers

- ✦ IC Power (www.ic-pwr.com), design services collaboration
- ✦ Partnership with XFAB, developing relationship with UMC
- ✦ Customers include Intel Corporation, Enpirion (www.enpirion.com), XEMI Inc. (now Vizionware, www.vizionware.com)
- ✦ Customer references upon request.

Company Brief

- ❖ Formed in January 2003 with angel funding, focusing on tools and components for Power Mngmt.
- ❖ Multiple patents pending; licensed IP includes proprietary SCDL and CBDS IO, DVI/HDMI compatible, long-reach, high-speed video transmission PHY; products in the power management area include PowerESL (www.comlsi.com/picosim.ppt) and Active Noise Regulators
- ❖ Offices in Mesa, AZ, Lochore, UK, and Mysore, India
- ❖ More information at www.comlsi.com