

SCOPE

CHART YOUR COURSE



LOOKING AHEAD

To ISSCC 2007

The premier annual conference for chip designs is undoubtedly the International Solid-State Circuits Conference (Feb 11 to 15) in San Francisco. The conference includes full-day courses, forums, and tutorials as well as 182 full-length papers and many short papers. This year's theme recognizes that we are approaching diminishing returns in process scaling and highlights the close relationship that must exist among process engineers, device designers, circuit designers, and chip architects to achieve improvements in density, performance, and efficiency with advanced processes. Papers will span the full range from laboratory-research projects to chips just going into production.

LOOKING BACK

TO THE FIRST THOUGHTS OF DESKTOP COMPUTING

A low-priced, general-purpose computer featuring external programming is designed for problems too small for giant systems but too tedious for calculators. Compact, the system occupies less than half the surface of a desk. The key feature of the Burroughs Electro-Data E101 is an external pin-board program containing instructions to the computer, which may be changed quickly for different applications. Permanent program storage is provided by paper template overlays, which may be filed for future use. A 100- or 220-word internal magnetic-drum memory stores numeric information, with a word length of 12 decimal digits plus sign. Computational speeds are 20 additions or subtractions and four multiplications or divisions per second.

—*Electrical Design News*,
January 1957

LOOKING AROUND

Is everyone going to CES?

You might think so, from the way the analysts are focusing on consumer electronics as the main driver for growth in electronics. But, as all those executives head hungrily to Las Vegas, it's worth remembering that growth in the consumer-electronics market comes with a whole list of conditions. It depends on consumers—especially in the United States—continuing to spend, even in the face of economic slowdown and rising mortgage defaults. It depends on Chinese manufacturers continuing to control costs, even in the face of labor shortages, growing social unrest, and upward pressure on the Chinese currency. And it depends on having well-executed designs and finding an audience—no longer a sure thing in light of recent horror stories from Sony, Nintendo, and Microsoft, to name a few. But we confidently march forward.