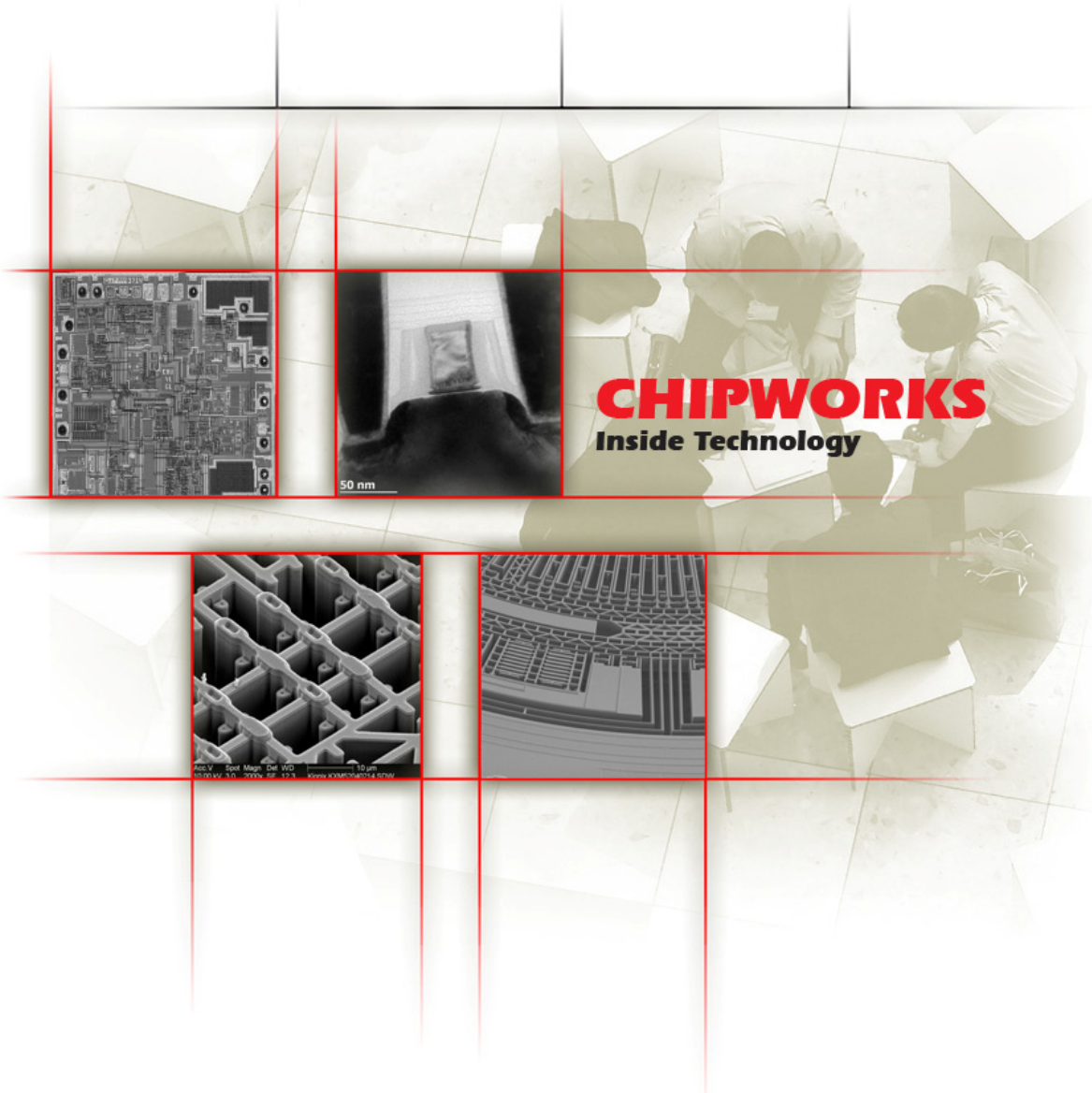


CMOS Image Sensor Start-Up Cuts Six Months Off Design Time



Situation

A fabless technology expert, whose CMOS image sensors are widely used in camera phones, ranks roughly tenth in a crowded, competitive market. As a start-up, its intent was to stun competitors and steal market share virtually overnight. Unfortunately, it did not have the clout needed to secure space with large foundries.

Forced to devise ground-breaking components within the capabilities of smaller, niche foundries, the start-up needed design insights on commercially-available image sensors.

“We needed to speed up our learning curve by discovering how established players met performance and cost standards,” said the company’s Vice President Product Management.

Competitive Technical Intelligence

Leapfrog
the competition



Cut design costs



Speed time to market



Assess ability to win
in new markets



De-risk product
development

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Approach

The start-up, seeking to build a reference library of best practices, identified Chipworks as the logical partner because of its knowledge of CMOS image sensor technology and the CMOS market. It approached Chipworks, seeking reports on CMOS image sensors, specifically on commercially successful devices that had been fabricated on specialized foundry lines.

“While the client was extremely reserved about its product roadmap, it was evident that the information they sought would cut costs and help them launch products faster,” said Gary Tomkins, Vice President Technical Intelligence at Chipworks. *“Based on their comments, we knew our reports would provide the needed insight into competing products, manufacturing processes, and technology roadmaps.”*

Solution

Chipworks supplied the start-up with both circuit analysis reports and process analysis reports on the image sensors of two of the world’s leading companies. The reports provided details showing exactly how the parts were manufactured, including specific information on the design of the image sensors’ data paths. Using the information from the reports, the start-up adapted industry best practices to its own standards and manufacturing capabilities, and rapidly introduced new high performance CMOS image sensors to the Asian market.

Results

The Chipworks reports helped the start-up slice six months off its development time. Within six months of receiving the reports, the client had designed, fabricated, and won its first camera phone socket – a record time even for established companies.

“We went from a start-up with no revenue to a major socket win – within six months. Chipworks was a key part of this success,” said the Vice President Product Management.

For less than three percent of the development budget for the new product, the company de-risked the entire development effort. The R&D savings alone were eight times the company’s investment in Chipworks. And by getting to market early, the company generated revenue over 1000 times its Chipworks investment in just two years. At \$6M per month in revenue, this faster time-to-market ensured quick payback on the company’s investment.

The company continues to use Chipworks reports to benchmark its products against competitive parts, and aid in making the right product roadmap decisions.

“The technical intelligence we get from Chipworks helps us maintain a competitive edge, and leapfrog new technologies as they arise,” said the Vice President Product Management. *“Chipworks is an essential part of our ‘best practices’ approach to business.”*

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