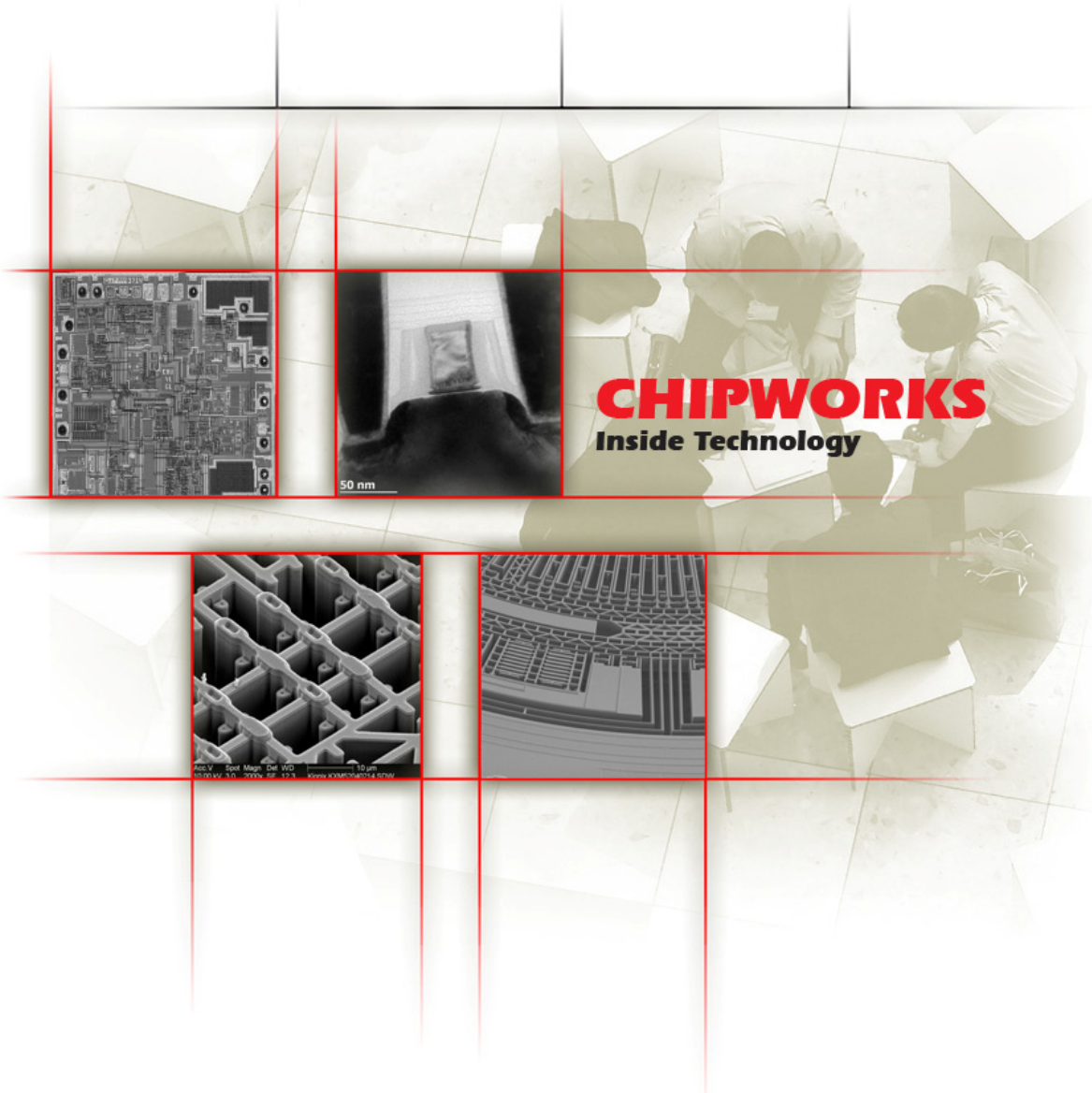


Leading Global Electronics Company Cuts Product Cost by 20%



Situation

A global leader in the development and manufacture of electronic products held a significant lead in the market for optical chipsets used in optical readers for a wide range of consumer, business, and industrial applications. Unexpectedly, a small upstart chip manufacturer produced and sold similar high performance chips for significantly less than the market leader by eliminating the bipolar transistors in an innovative full CMOS design implementation. Overnight, the global leader faced severe competitive pricing pressure, and found its customers jumping ship, and its market share dwindling.

“Losing even one percent market share in this business means tens of millions of dollars of lost revenue,” says the market leader’s Senior R&D Manager. *“We were facing a crisis!”*

Competitive Technical Intelligence

Leapfrog
the competition



Cut design costs



Speed time to market



Assess ability to win
in new markets



De-risk product
development

Global Headquarters
3685 Richmond Road, Suite 500
Ottawa, ON K2H 5B7
Canada
Tel: +1 613.829.0414

Japan
Tel: +81.3.3511.7750

Korea
Tel & Fax: +82.31.782.8204

Taiwan
Tel: +886.9.3790.1032

Israel
Tel: +972.9.7666170 x102

Poland
Tel: +48.22.310.1250
Tel: +48.22.310.1251



www.chipworks.com

Approach

Confronted with a serious competitive threat, the company turned to its R&D team, seeking a more competitive and less expensive design using all CMOS. Their response – it had never been done before and they didn't know how the competitors did it. To help his designers learn from industry best practices, the project's Senior R&D Manager sought out Chipworks' unparalleled Reverse Engineering expertise.

"I knew there was a practical solution, but time was of the essence," said the Senior R&D Manager. *"We needed expert, in-depth technical analysis."*

Solution

Chipworks was tasked to reverse engineer the analog front end of the optical processor chip and deliver a full circuit analysis report. The report included hundreds of detailed hierarchical schematics that were essentially a design blueprint. This massive undertaking was completed in only 120 days.

Using the information in the Chipworks' report, the global leader was able to understand the competitor's design concepts, adapt these concepts to its own design, and quickly bring a new high performance and low cost full CMOS solution to market. The information in the circuit analysis report eliminated the need for the company to start at first principles and cut months off the design process. *"Learning from proven industry best practices helped our client to reduce the number of design iterations required to develop this revolutionary new chip,"* said Gary Tomkins, Chipworks VP Technical Intelligence. *"By allocating less than 5% of the new product's development budget to benchmarking, they de-risked the entire effort."*

Coincidentally, after seeing the completed report at an industry event, the Senior R&D Manager of the smaller, competing firm commented, *"The report generated by Chipworks was far superior to our own internal design documents."*

Results

The global leader used the report to reduce development costs and speed a new solution to market. Within 18 months of new product launch, it regained its market share — worth hundreds of millions of dollars.

"The Chipworks report gave us benchmarks that helped accelerate our design, resulting in a product launch that was on time and budget," said the Senior R&D Manager. *We could not have done it without them."*

"By taking cost out of the design phase, our work more than paid for itself," said Gary Tomkins, VP Technical Intelligence. *"Even better, the faster development time enabled our client to regain lost market share. And that revenue was 800 times its investment with Chipworks."*

Competitive Technical Intelligence

Leapfrog
the competition



Cut design costs



Speed time to market



Assess ability to win
in new markets



De-risk product
development

Global Headquarters
3685 Richmond Road, Suite 500
Ottawa, ON K2H 5B7
Canada
Tel: +1 613.829.0414

Japan
Tel: +81.3.3511.7750

Korea
Tel & Fax: +82.31.782.8204

Taiwan
Tel: +886.9.3790.1032

Israel
Tel: +972.9.7666170 x102

Poland
Tel: +48.22.310.1250
Tel: +48.22.310.1251

