

Synopsys and Oticon

Delivering the Next Generation in Hearing Aid Technology



“Because we were moving to a new, advanced technology node and time-to-market was critical, we used Synopsys’ tapeout-proven Pilot Design Environment, which includes full implementation, formal checking, and physical verification as well as leverages best-in-class tools. We were extremely satisfied with the results achieved with IC Compiler and Pilot on our complex design.”

Mogens Balsby, Director of IC Design

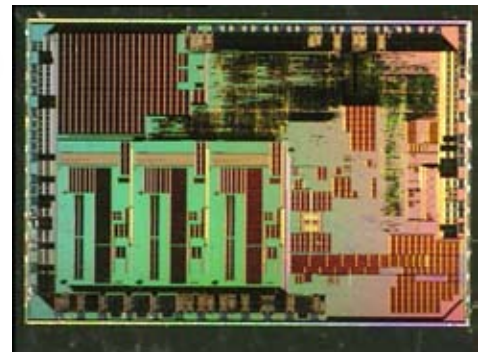
Oticon has been providing hearing-aid solutions for over 100 years. For their next generation hearing aid platform, Oticon sought to maximize battery life and minimize noise to deliver extended ‘on’ time with high fidelity sound. To achieve extreme low-power requirements, Oticon decided to use IC Compiler’s automatic multi-voltage, MTCMOS shutdown, and multi-threshold capabilities. Since this was their first design using these advanced techniques, Oticon turned to Synopsys for help, standardizing on IC Compiler and the Pilot Design Environment.

Synopsys Solution

- Design Compiler® Ultra
- IC Compiler
- PrimeTime®
- StarRCXT™
- Formality®
- Pilot Design Environment

Cooperation Benefits

With the help of Synopsys Professional Services and the Pilot Design Environment, Oticon was up and running with the new flow within two weeks. By using Pilot, Oticon saved months of manpower effort that would have been needed to develop their own flow. Continual Pilot release updates also enabled



Oticon to quickly switch to newer tool versions when needed to take advantage of Galaxy’s low-power capabilities and ultimately achieve first-pass silicon success.

The end result was a successful, on time tape-out that met Oticon’s timing, area and power goals.