

Xilinx PLDs: On the Go and On the Road

The broad adoption of high-volume solutions in CY06 results in record growth.



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In 2006 Xilinx experienced phenomenal success in the consumer and automotive segments, with a record 40% growth. Our success in these highly competitive markets can be attributed to broad customer adoption of our Spartan™ FPGAs, CoolRunner™ CPLDs, and Xilinx® Automotive (XA) product lines in high-volume applications.

We began our market diversification efforts in the late 1990s, when close to 80% of PLD revenues were generated from the communications sector. We set our sights on the consumer market with the introduction of Spartan Generation FPGAs (1998) and CoolRunner CPLDs (1999).

At the time, FPGAs in high-volume applications were a very rare commodity. This was a market typically served by standard, fixed-function semiconductor devices such as ASSPs and ASICs. FPGAs and CPLDs were considered too expensive in comparison to ASSPs and ASICs on a cost-per-unit basis to have an impact in the cost-sensitive consumer marketplace.

Xilinx believed otherwise. We exploited Moore's Law and increasingly finer semiconductor manufacturing process geometries to dramatically drive down our per-unit cost. At the same time, global competition quickened the pace at which new products hit the market, so the con-

cept of time to market became increasingly important to consumer product manufacturers. As a result, product developers focused on a business dynamic that saw the majority of their profit and market share being made in a short period of time at and shortly after product launch. The inherent flexibility of our FPGAs and CPLDs provided an added time-to-market advantage over the long development time of ASICs and ASSPs.

As advanced process technology continues to drive down the cost of PLDs, we are becoming more and more competitive in high-volume consumer applications, especially in digital displays and consumer handsets. In the last quarter of CY 2006, we shipped more than one million devices in a single month to one of our top handset manufacturers.

In 2004, we continued our diversification efforts by pursuing the automotive market. We introduced the industry's first PLD line specifically developed to meet the stringent requirements of the automotive industry – the Xilinx Automotive (XA) family. Since that time, we have continued to make inroads in the automotive market. In 2006, a leading luxury vehicle debuted with 18 devices that enable infotainment and driver-assistance functions.

Today, Xilinx high-volume products represent 35% of the company's overall revenues, a compound annual growth rate of 38%.

The Year 2007 and Beyond

Xilinx pioneered the industry's transformation towards a focus on vertical markets and engaging with customers at the system architecture level. Today, this transformation helps us address our customers' complex design challenges by providing them

with innovative, flexible, and compelling solutions that help them achieve their objectives of cost management, time to market, and leadership.

Industry analysts project further growth for the PLD industry in both the consumer electronics and automotive markets. New requirements across the consumer and automotive electronic industry are also forcing the need for flexible architectures that can cope with not only current applications but future and possible unknown features. According to iSuppli, the market for PLDs and ASICs in consumer electronics will grow to more than \$5.3 billion by 2010.

To further accelerate the adoption of PLD designs in the consumer marketplace, we must now compete on more than just cost – our customers are demanding more application-specific solutions. In the face of rapidly changing consumer product requirements, we need to deliver a more complete solution. Xilinx has responded by offering domain-optimized PLDs along with high-value hard and soft IP cores and market-specific development platforms to bring a much more value-added and customer-specific set of solutions.

Xilinx continues to win designs in a myriad of emerging applications and markets. Our PLDs can be found in a variety of consumer electronic and automotive applications, including digital displays, mobile phones, PDAs, rear-seat entertainment, and satellite navigation systems. As it did in 2006, the consumer and automotive segments promise further growth for Xilinx in 2007 as these high-volume application design wins move into production. ●●●