The Rise of BCD Technology in Power ICs
Where and Why

ABSTRACT

Our report delivers a definitive and up-to-date view of high growth power management IC market opportunities and drivers. It focuses on BCD (Bipolar/CMOS/DMOS) technology as one of the key enablers of this growth. Additionally, this report delivers insights into the opportunities and trends of BCD technology relative to alternative approaches.

There is currently a renewed interest in BCD-based PMICs among IC vendors and foundries due to specific market requirements and technology node migration. However, competitive cost-performance dynamics among competing solutions, as well as segment size and growth trends by product and application types, are less understood. A key reason is that traditional segmentation of this complex analog market is both obsolete and misleading.

Our approach utilizes one of our core capabilities by providing a detailed bottom-up product and application analysis of leading PMIC vendors. This analysis identifies and validates mainstream segments, their drivers, and revenue potential. We are aware that such an in-depth understanding has not been publicly available—although it is a necessity for effective investment and strategy decisions.

Contents of this report are presented in eight Sections. Sections 1 and 2 consist of the Introduction and Key Findings, respectively.

Section 3 delivers a big picture view of broader power management market landscape trends in terms of market size, growth, segments, and vendor market shares.

Section 4 captures the highly fragmented PMIC implementation approaches and solutions along three major dimensions: technology segmentation, product segmentation, and key product attributes. Product segmentation focuses on PMIC integration aspects in terms of functional content and the integration of power stages.

Section 5 addresses end-equipment application trends and drivers. It focuses on applications that are the primary users and beneficiaries of various segments of BCD process technologies.

Section 6 addresses process technology trends in PMICs with a focus on BCD technology. Here, we introduce our PMIC Technology Cube model and scope technology segmentation strategies.

Section 7 summarizes BCD PMIC market and application trends, while Section 8 provides analyses of 19 analog vendors. Detailed analyses are provided for 11 leading vendors representing nearly 60 percent of total analog market in 2008.

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