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# Graphics DRAM – A New Competitive Landscape

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## **Introduction**

The market for graphics DRAM is currently in a stage of massive changes. In 2008, the market was well structured with only three of the main DRAM suppliers engaged in this market segment, namely Samsung, Hynix and Qimonda with a combined market share of greater than 90%. However, Qimonda's insolvency in January 2009 has disrupted this oligopoly. In May, Micron announced its intention to enter the Graphics DRAM market, followed by Elpida in August. Both companies managed to acquire know-how from the leftover Qimonda assets. Nevertheless, it will be a challenge for both newcomers to establish themselves in the graphics DRAM market.

This report analyzes the current status of the graphics DRAM market and provides an outlook for the following years. In the first section, the market for GPUs and related graphics card platforms which is dominated by AMD and nVidia is discussed. An overview of the characteristics of different application segments as well as the current platforms of the two market leaders is provided. The major part of this report analyses the market for graphics DRAM till 2012. This will include a detailed assessment of the memory I/Os and densities needed with forecasts for bit growth rates and memory speed requirements. An ASP and revenue forecast will be presented as well. The last section focuses on the competitive situation in the graphics DRAM market. A thorough analysis of the competitive landscape and the competitiveness of the four players is provided. This discussion will be based on the market picture gained in the first two sections and the expected product portfolio and technology roadmaps of the various suppliers. Finally the rise and fall of Qimonda's graphics business is analyzed.

## About the Author

*Dominik Fischer* is Senior Market Analyst for DRAM. Dominik's experience spans the research of **novel materials** and **semiconductor processes** at IBM, Infineon and Qimonda to the marketing for DRAM products. In his previous position, Dominik was Product Marketing Manager responsible for product strategy, portfolio management, pricing and roadmap definition for **consumer and graphics DRAM** at Qimonda AG.

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