



Processing Challenges for Emerging Memory Technology
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As conventional memory faces scaling challenges, new memory architectures and devices emerged. Flash memory has switched from lateral to vertical scaling while other new memory technologies such as STT-MRAM, RRAM and PCRAM, are aggressively pursuing for new opportunities in the memory market. But these advanced memories face some interesting challenges of their own. STT-MRAM and PCRAM, use materials that have not been used before in the high volume manufacturing process. These materials provide new challenges for the processing tools when scaling these memory technologies to dimensions that are economically attractive. Memory manufacturers are still finding ways to scale these new technologies to dimensions that are economically attractive, while at the same time, solving some of the materials and integration challenges. In this presentation, we will review a number of the top challenges being seen in the advanced memory space and will discuss some potential solutions that are already being explored.

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