

## Built-in Duty Cycle Corrector using Coded Phase Blending Scheme for DDR/DDR2 Synchronous DRAM Application

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This paper describes DLL with built-in DCC capability using a newly proposed coded phase blending scheme. The proposed scheme dramatically improves the DCC range and also enhances the total DLL performance. The DLL has been designed and fabricated within 1G-bit DDR synchronous DRAM using 0.11 $\mu$ m process and the measurement data show that it has unlimited DCC range, faster turn-on speed and smaller jitter compared with our previous work.