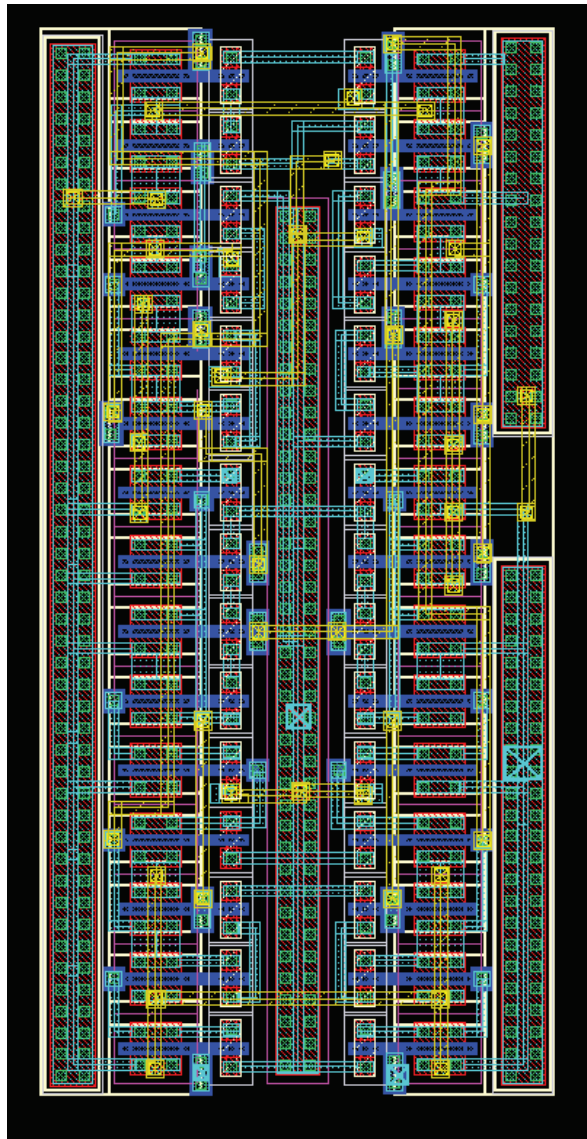


PHASE LOCKED LOOPS



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Phase Locked Loops (PLLs) are vital components of virtually every electronic device that we use on a daily basis. This feedback circuit works to minimize the phase difference between a locally generated signal and a reference input. A PLL comprises three functional blocks—a phase-frequency detector (shown) connected to a charge pump that sets the voltage across a loop filter to control the frequency of a voltage-controlled oscillator. Under the auspices of MOSIS, the designs will be fabricated using the Taiwan Semiconductor Manufacturing Company 180nm process—specifications include a center frequency of 100MHz and a supply of 1.8V.

