

**APPARATUS AND METHOD FOR ENABLING
ELEMENTS OF A PHASE LOCKED LOOP**

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Abstract of the Disclosure

10 An apparatus and method enables elements of a phase
locked loop (PLL) (300). The PLL 300 includes a plurality of
elements (202, 203, 204, 205). Each element produces an output
signal (207, 208, 209, 116 or 117). Each element has a response time
15 $t_3 - t_2$ defined by the difference in time between a first time t_2 at
which the element is enabled and a second time t_3 , occurring after
the first time t_2 , at which the output signal of the element reaches
a steady state condition. A voltage controlled oscillator (204) of the
plurality of elements, having a first response time $t_3 - t_2$ is enabled
20 at the first time t_2 responsive to a first control signal (302). A loop
divider (205) of the plurality of elements, having a second response
time less than the first response time $t_3 - t_2$, is enabled responsive to
the first response time $t_3 - t_2$ and a second control signal (303). The
present invention advantageously provides fast lock time for the
PLL (300).

