

ABSTRACT

**"Ripple-Free Phase Detector Using Two Sample-and-Hold
Circuits"**

1 A phase detector comprises a ramp voltage generator for receiving a
2 reference pulse of a constant frequency and an input pulse and producing
3 a ramp voltage proportional to the phase difference between these pulses.
4 A first sample-and-hold circuit samples the ramp voltage in response to a
5 sampling pulse and holds the sampled voltage. To eliminate ripple
6 component, a second sample-and-hold circuit is provided, which is also
7 responsive to the sampling pulse for sampling a voltage from a constant
8 voltage source and holding the sampled voltage. The voltages sampled
9 by the first and second sample-and-hold circuits are input to a subtractor
10 where the voltage difference between the two input voltages is detected.
11 Ripple components generated by the two sample-and-hold circuits are
12 cancelled out by the subtractor.

This Sheet Has Been Replaced

