

ABSTRACT

DIGITAL SYMBOL TIMING RECOVERY NETWORK

A receiver for processing a VSB modulated signal containing terrestrial broadcast high definition television information includes an input analog-to-
5 digital converter for producing a digital datastream. A symbol timing recovery and segment sync recovery network develops a properly timed sampling clock for the digital converter . The symbol timing recovery involved a phase detector which responds to an output from a segment sync recovery generator, which in turn responds to an equalized signal from an adaptive
10 channel equalizer . A controlled oscillator generates the sampling clock for the digital converter. A control network shifts the frequency range of the oscillator to maintain desired linear operation to enhance symbol timing acquisition.

Fig. 3