

ABSTRACT OF THE DISCLOSURE

Demodulator for an HDTV Receiver

A receiver for processing a VSB modulated signal containing terrestrial broadcast high definition television information and a pilot component includes a carrier recovery network that produces a demodulated baseband signal. The carrier recovery network additionally responds to a locally generated control signal representing an unwanted phase offset of the pilot signal due to multipath distortion, for example. The control signal is used to compensate for the pilot phase offset before the demodulated signal is equalized. The control signal is produced by correlating received sync values with both a reference sync value and a Hilbert transform of the reference sync value. The output of the carrier recovery network signal is phase compensated twice.

Fig. 3