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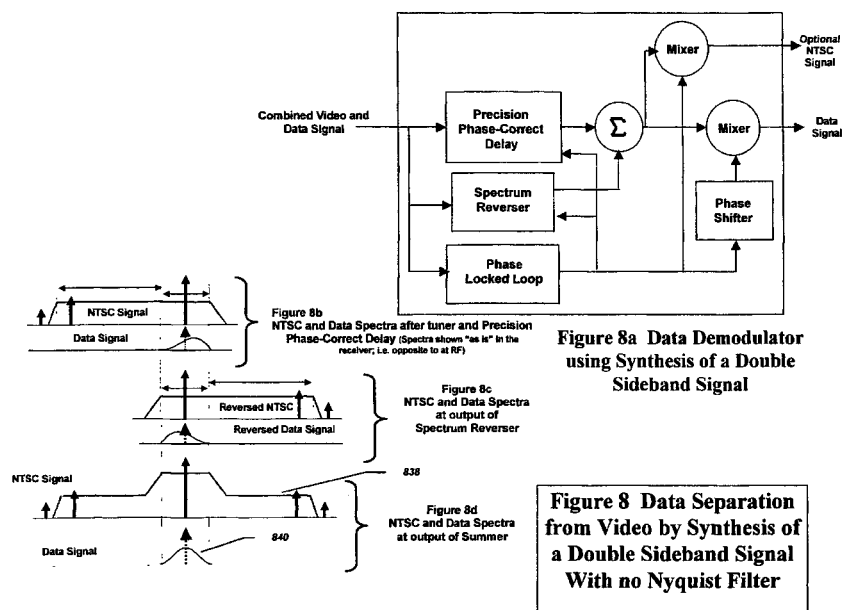
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(54) Title: RECEIVER IMPROVEMENT FOR EXPANDED INFORMATION CAPACITY FOR EXISTING COMMUNICATION TRANSMISSIONS SYSTEMS



(57) Abstract: The present invention improves the performance of data receivers used for demodulating the data signals described in the international application WO 99/55087 by employing a novel method of spectrum processing to synthesize a full double sideband spectrum with the video signal and the data signal in quadrature. The novel techniques of the present invention enable several important advantages including but not limited to signal to noise ratio improvement, relaxation of circuit design constraints, mixed signal integrated circuit implementation, and for higher data rates. The present invention also improves the demodulation of television signals.