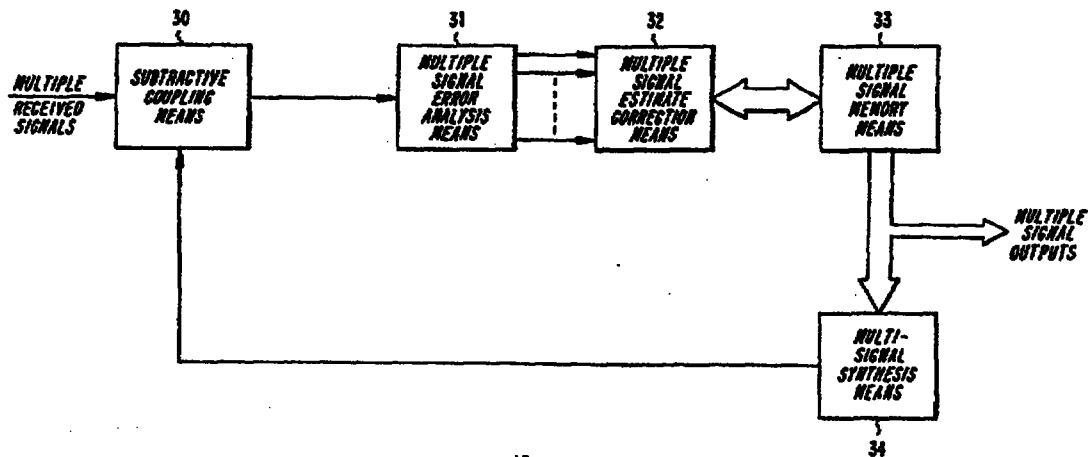


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(54) Title: **MULTICHANNEL RECEIVER USING ANALYSIS BY SYNTHESIS**

(57) Abstract

A method and apparatus for employing negative feedback in a signal processing system to improve the range of signal levels that can be processed is disclosed. First, a feedback signal is subtracted from an input signal to form a difference signal. The difference signal is then analyzed to resolve the difference signal into a number of constituent error components of reduced bandwidth. The error components are then used to refine estimation of corresponding reduced bandwidth constituents of the input signal. The estimates are then used to produce the feedback signals.