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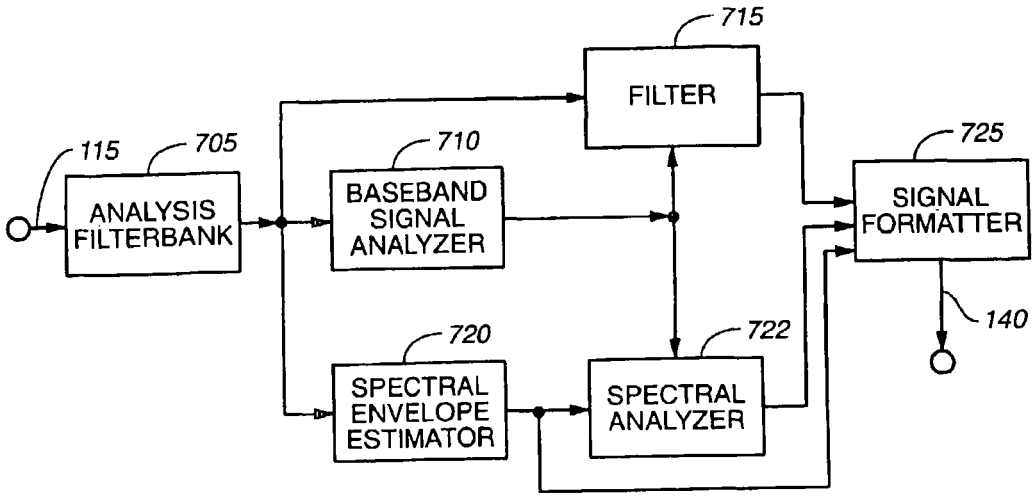
(54) Title: RECONSTRUCTION OF THE SPECTRUM OF AN AUDIOSIGNAL WITH INCOMPLETE SPECTRUM BASED ON FREQUENCY TRANSLATION



(57) Abstract: An audio signal is conveyed more efficiently by transmitting or recording a baseband of the signal with an estimated spectral envelope and a noise-blending parameter derived from a measure of the signal's noise-like quality. The signal is reconstructed by translating spectral components of the baseband signal to frequencies outside the baseband, adjusting phase of the regenerated components to maintain phase coherency, adjusting spectral shape according to the estimated spectral envelope, and adding noise according to the noise-blending parameter. Preferably, the transmitted or recorded signal also includes an estimated temporal envelope that is used to adjust the temporal shape of the reconstructed signal.

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