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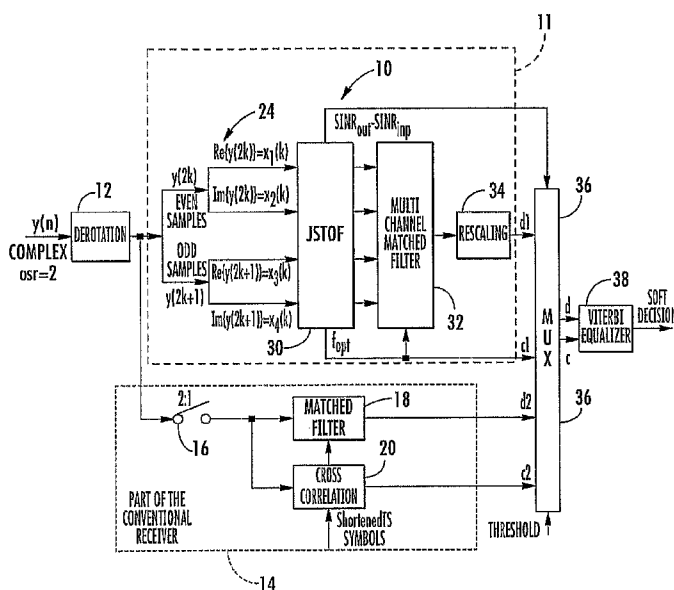
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(54) Title: JOINT SPACE-TIME OPTIMUM FILTERS (JSTOF) WITH AT LEAST ONE ANTENNA, AT LEAST ONE CHANNEL, AND JOINT FILTER WEIGHT AND CIR ESTIMATION



(57) Abstract: A mobile wireless communications device may include a portable housing, at least one virtual antenna carried by the portable housing, and a space-time filter circuit carried by the portable housing for filtering a communications signal received by the at least one virtual antenna by jointly estimating space-time filter weights and at least one channel impulse response (CIR). The mobile wireless communications device may further include a matched filter circuit carried by the portable housing downstream from the space-time filter circuit and having a filter response that is provided by a channel impulse response estimation from the space-time filter circuit.

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