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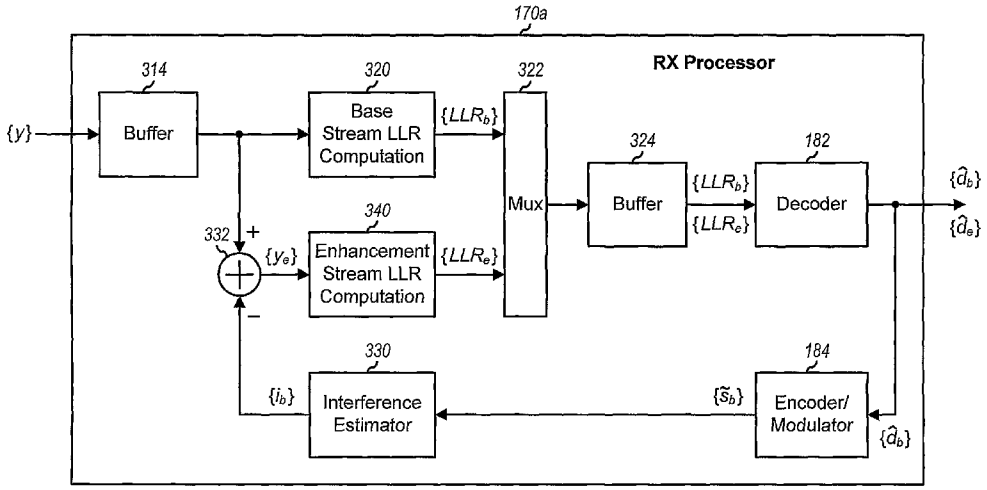
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(54) Title: DATA DETECTION FOR A HIERARCHICAL CODED DATA TRANSMISSION



(57) Abstract: Techniques for performing data detection for a hierarchical coded data transmission are described. In one data detection scheme, log-likelihood ratios (LLRs) for code bits of a first data stream are initially derived based on received symbols for the data transmission. The LLRs for the first data stream are decoded to obtain decoded data, which is re-encoded and remodulated to obtain remodulated symbols. Interference due to the first data stream is estimated based on the remodulated symbols. LLRs for code bits of a second data stream are derived based on the LLRs for the code bits of the first data stream and the estimated interference. The LLRs for the first data stream may be derived from the received symbols in real-time without buffering the received symbols. The LLRs for the second data stream may be derived after the first data stream has been decoded.

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