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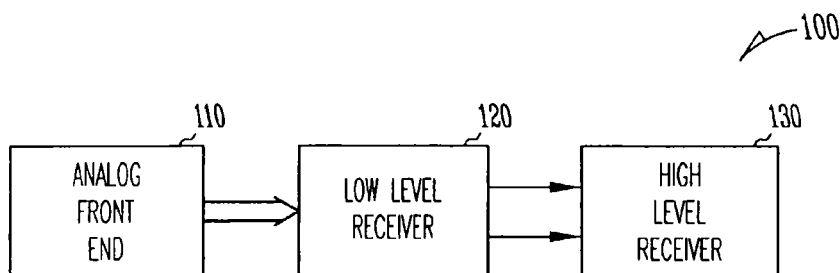
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ACTION

(54) Title: METHOD AND WCDMA FOR MULTIRATE PHYSICAL CHANNEL RECEPTION



(57) Abstract: A spread-spectrum receiver has a high-rate path to receive multi-rate channels and a low-rate path to receive fixed-rate channels. In a wideband code division multiple access (WCDMA) embodiment, the high-rate path despreads multi-rate physical channels having a variable spreading factor and the low-rate path despreads physical channels having a fixed spreading factor. The high-rate path may have high-rate rake fingers to despread multipath components of the multi-rate channels. Each multi-rate channel may have a different spreading code allowing for multicode reception. The high-rate path may also include a high-rate rake with finger engines implemented in hardware to multiply symbols with a channel estimation, and a combiner to combine the multipath components. The low-rate path may include low-rate fingers to despread multipath components of the fixed-rate channels and a processor to generate a channel estimation and coherently combine symbols from the low rate fingers with the channel estimation.

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