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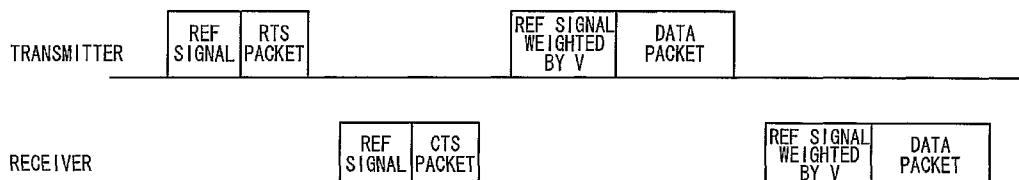
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(54) Title: SYSTEM, METHOD, APPARATUS, AND COMPUTER PROGRAM FOR WIRELESS COMMUNICATION



(57) Abstract: The disclosed invention enhances transmission efficiency by decreasing regions of reference signals which are attached to transmit packets from a transmitter during bidirectional SVD-MIMO communication. The transmitter transmits user data following a reference signal. At the other end, the receiver acquires a channel matrix, based on the reference signal attached preceding the user data, receives the user data, while weighting the data with receive weights derived from the channel matrix, adaptively estimates the channel matrix H as long as the user data is being received, and obtains transmit weights V' for transmitting user data in the reverse direction from an adaptively estimated channel matrix H'.

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