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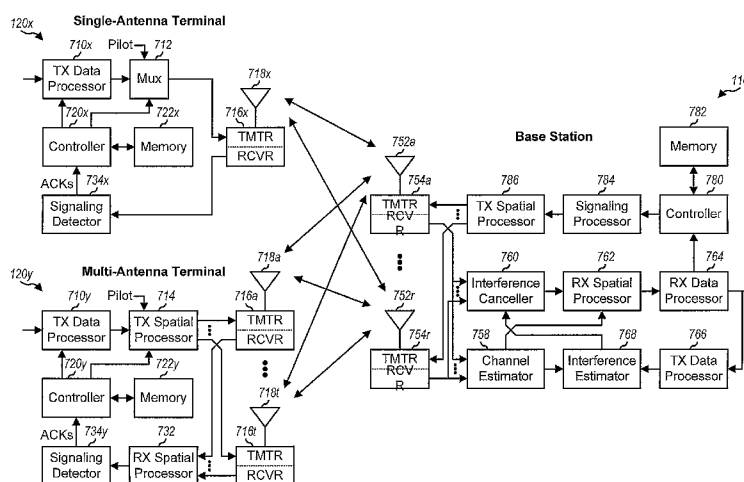
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- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

[Continued on next page]

(54) Title: RECEPTION OF H-ARQ TRANSMISSIONS WITH INTERFERENCE CANCELLATION IN A QUASI-ORTHOGONAL COMMUNICATION SYSTEM



(57) Abstract: To receive packets with interference cancellation, block transmissions for the packets are received on time-frequency blocks used by these packets. Receiver spatial processing is performed on input symbols to obtain detected symbols. Each packet is demodulated and decoded based on all detected symbols obtained for all block transmissions received for the packet. For each packet that is decoded correctly, the transmission for the packet is terminated, the interference due to the packet is estimated, and the estimated interference is subtracted from the input symbols for all time-frequency blocks used by the packet. Receiver spatial processing is performed on the interference-canceled symbols to obtain new detected symbols for all time-frequency blocks used by all correctly decoded packets. Each packet decoded in error and overlapping at least partially with any correctly decoded packet may be demodulated and decoded based on all detected symbols available for that packet.

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