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(54) **CLOSED LOOP MIMO SYSTEMS AND METHODS**

**Related U.S. Application Data**

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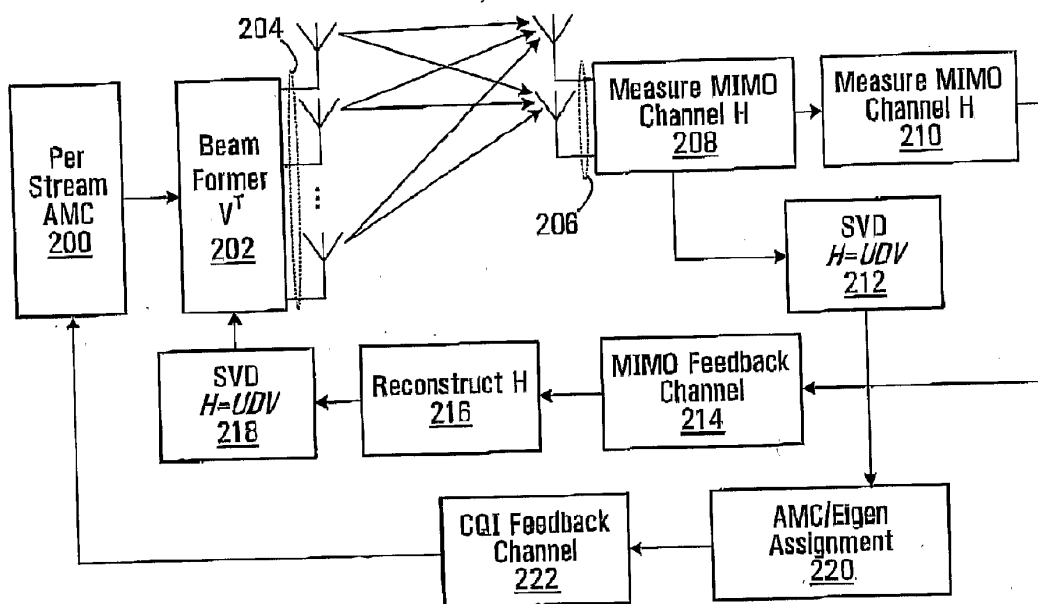
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(57) **ABSTRACT**  
Systems and methods for closed loop MIMO (multiple input and multiple output) wireless communication are provided. Various transmit formats including spatial multiplexing and STTD are defined in which vector or matrix weighting is employed using information fed back from receivers. The feedback information may include channel matrix or SVD-based feedback.



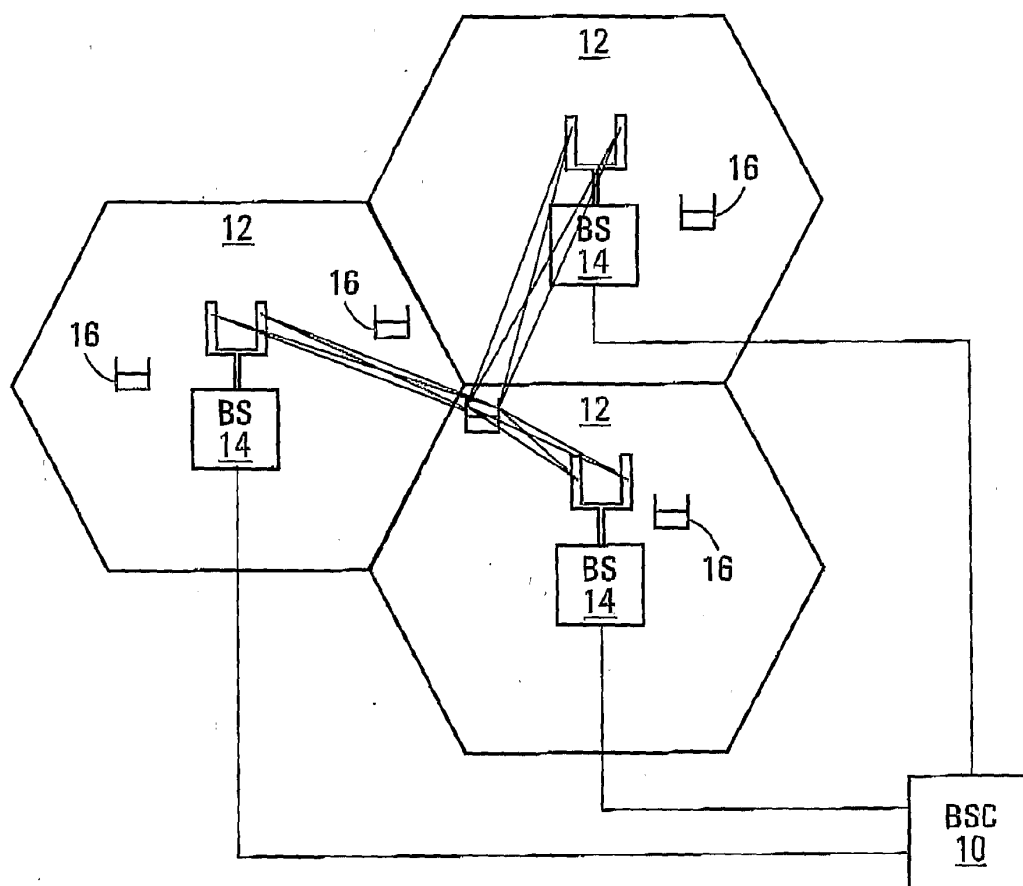


FIG. 1

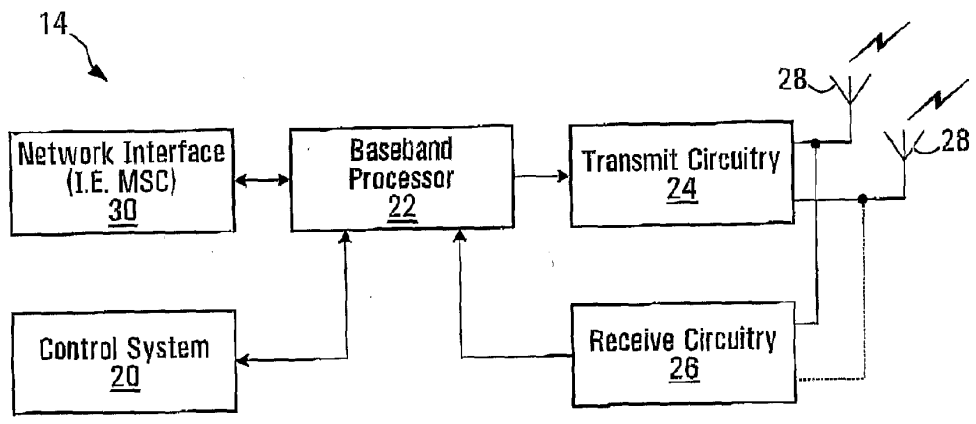


FIG. 2

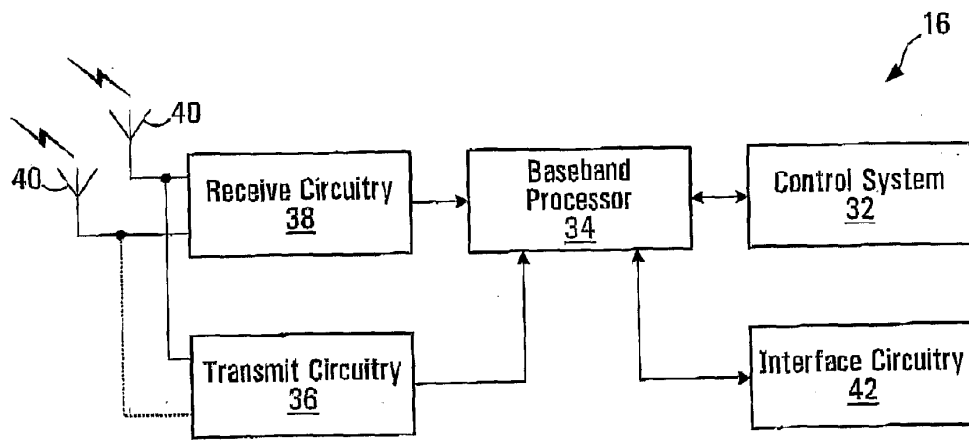


FIG. 3

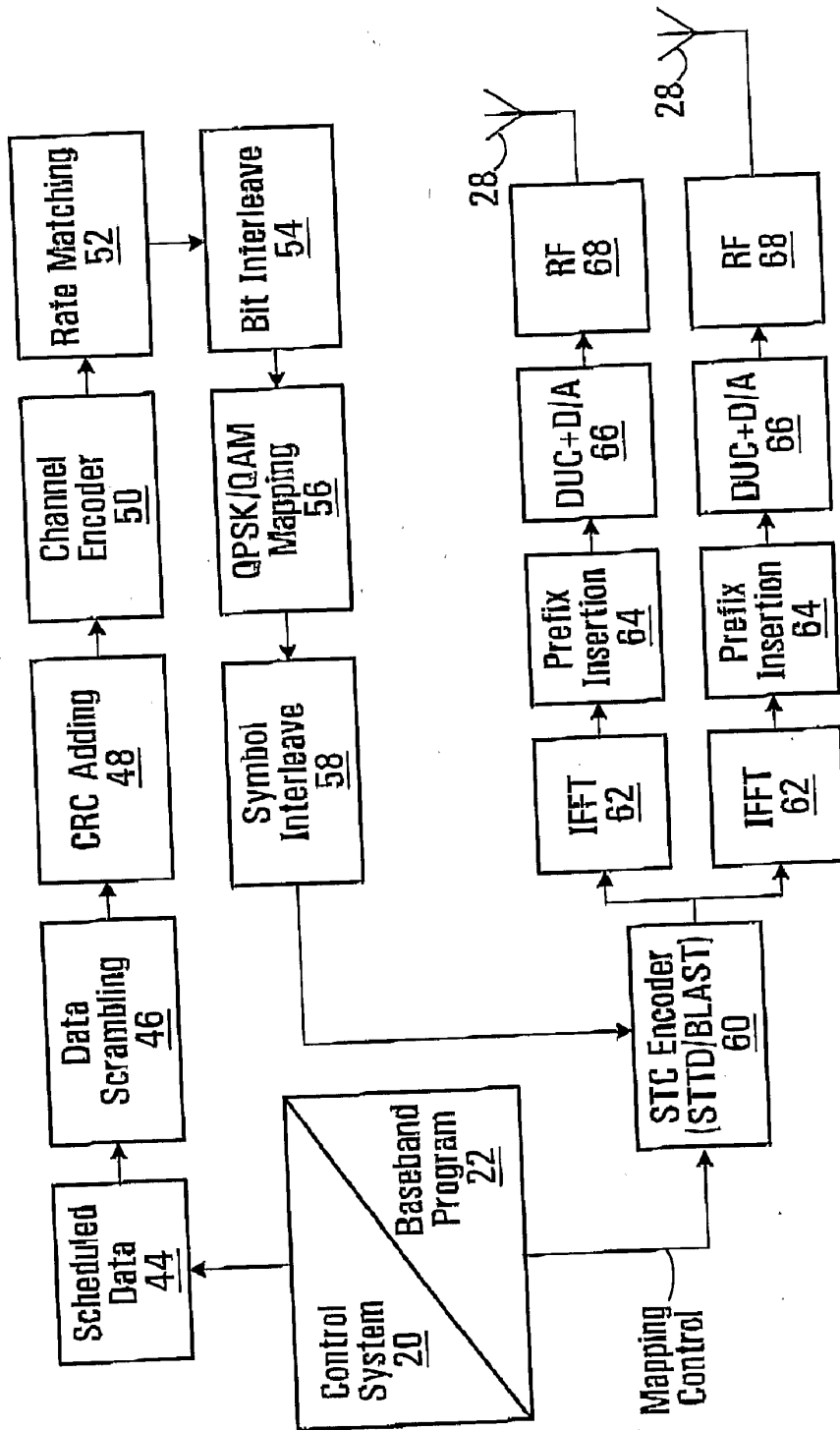


FIG. 4

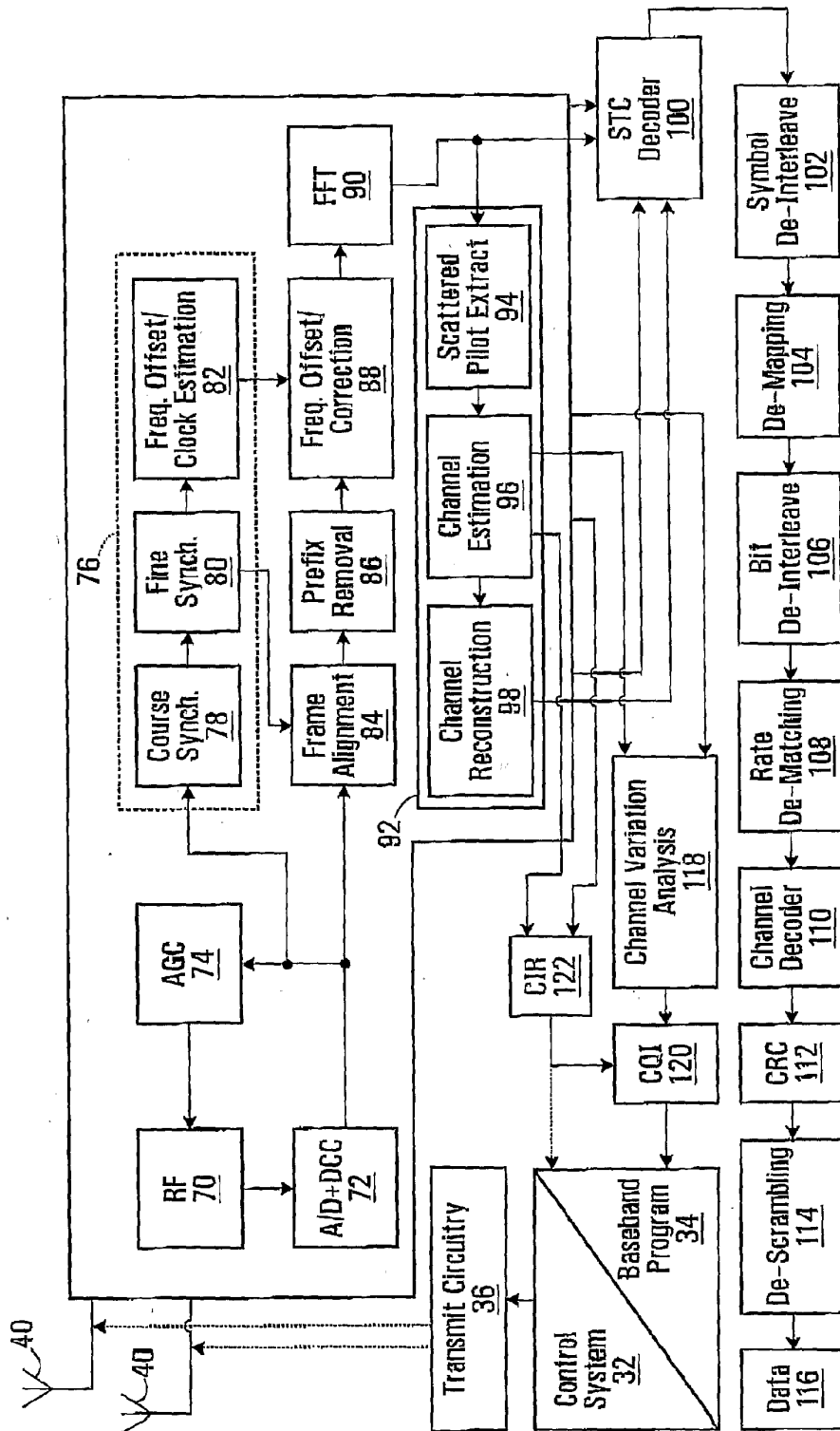


FIG. 5

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