US 2008/0108310 A1

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

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(21) Appl. No.:   **11/630,391**

(22) PCT Filed: **Jun. 22, 2005**

(86) PCT No.:   **PCT/CA05/00958**

§ 371(c)(1),
(2), (4) Date: **Dec. 22, 2006**

Related U.S. Application Data

(60) Provisional application No. 60/581,356, filed on Jun. 22, 2004. Provisional application No. 60/582,298, filed on Jun. 24, 2004. Provisional application No. 60/601,178, filed on Aug. 13, 2004. Provisional application No. 60/614,621, filed on Sep. 30, 2004. Provisional application No. 60/619,461, filed on Oct. 15, 2004. Provisional application No. 60/642,697, filed on Jan. 10, 2005.
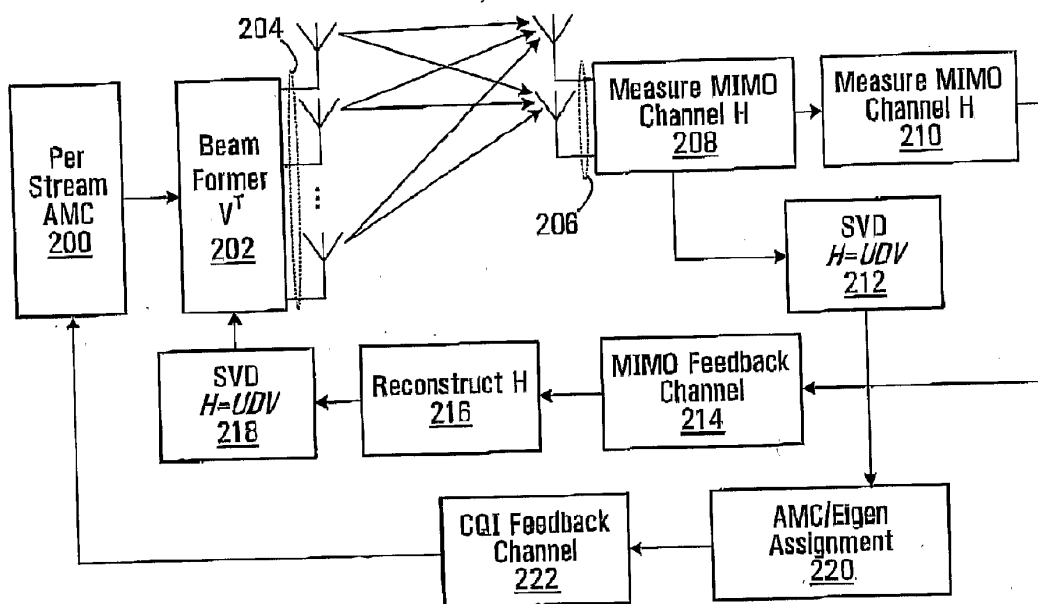
Publication Classification

(51) Int. Cl.
   H04B 1/00   (2006.01)
(52) **U.S. Cl.** **455/69**

(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.
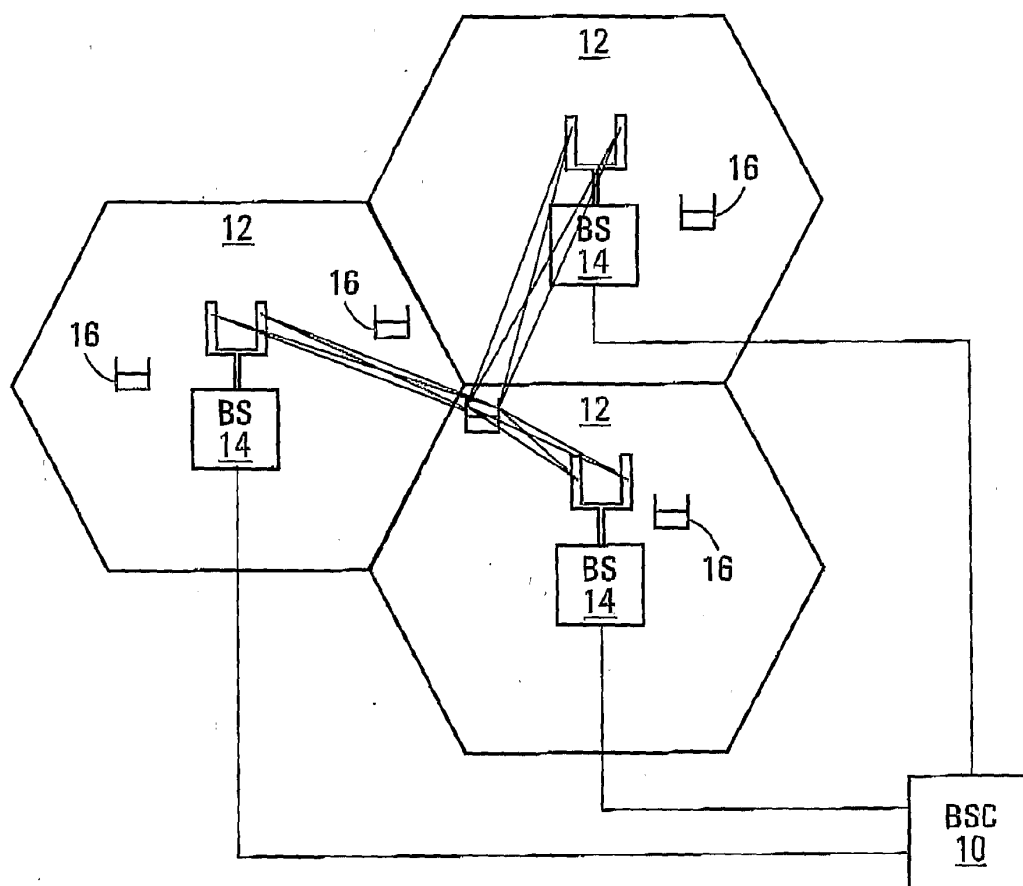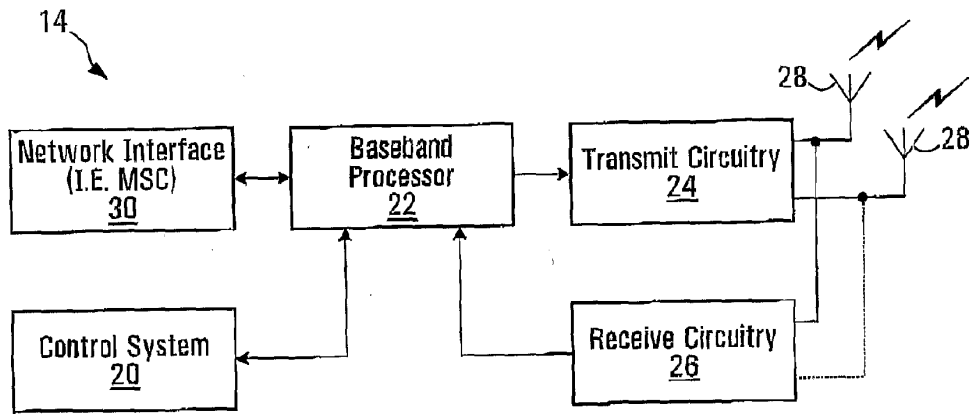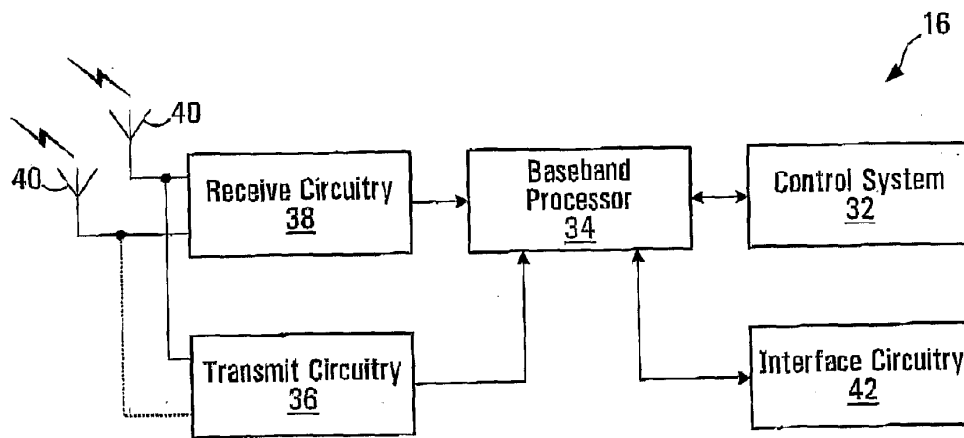
FIG. 1

14

| Network Interface (I.E. MSC) 30 | ⟷ | Baseband Processor 22 | → | Transmit Circuitry 24 |

28

28

| Control System 20 | | Receive Circuitry 26 |

FIG. 2

16

40

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| Receive Circuitry 38 | → | Baseband Processor 34 | ⟷ | Control System 32 |

| Transmit Circuitry 36 | | Interface Circuitry 42 |

FIG. 3

FIG. 4

FIG. 5

DOCKET ALARM
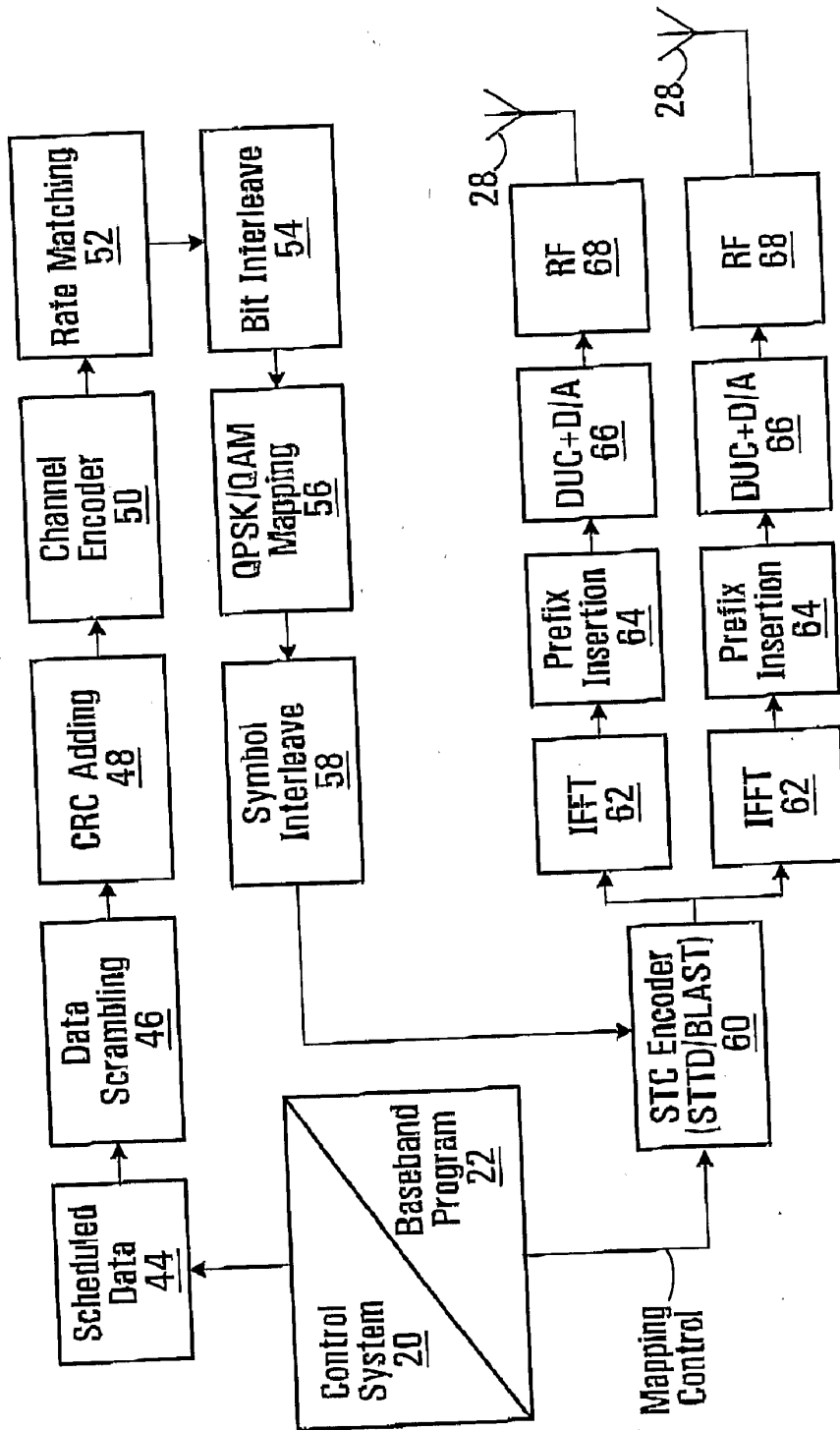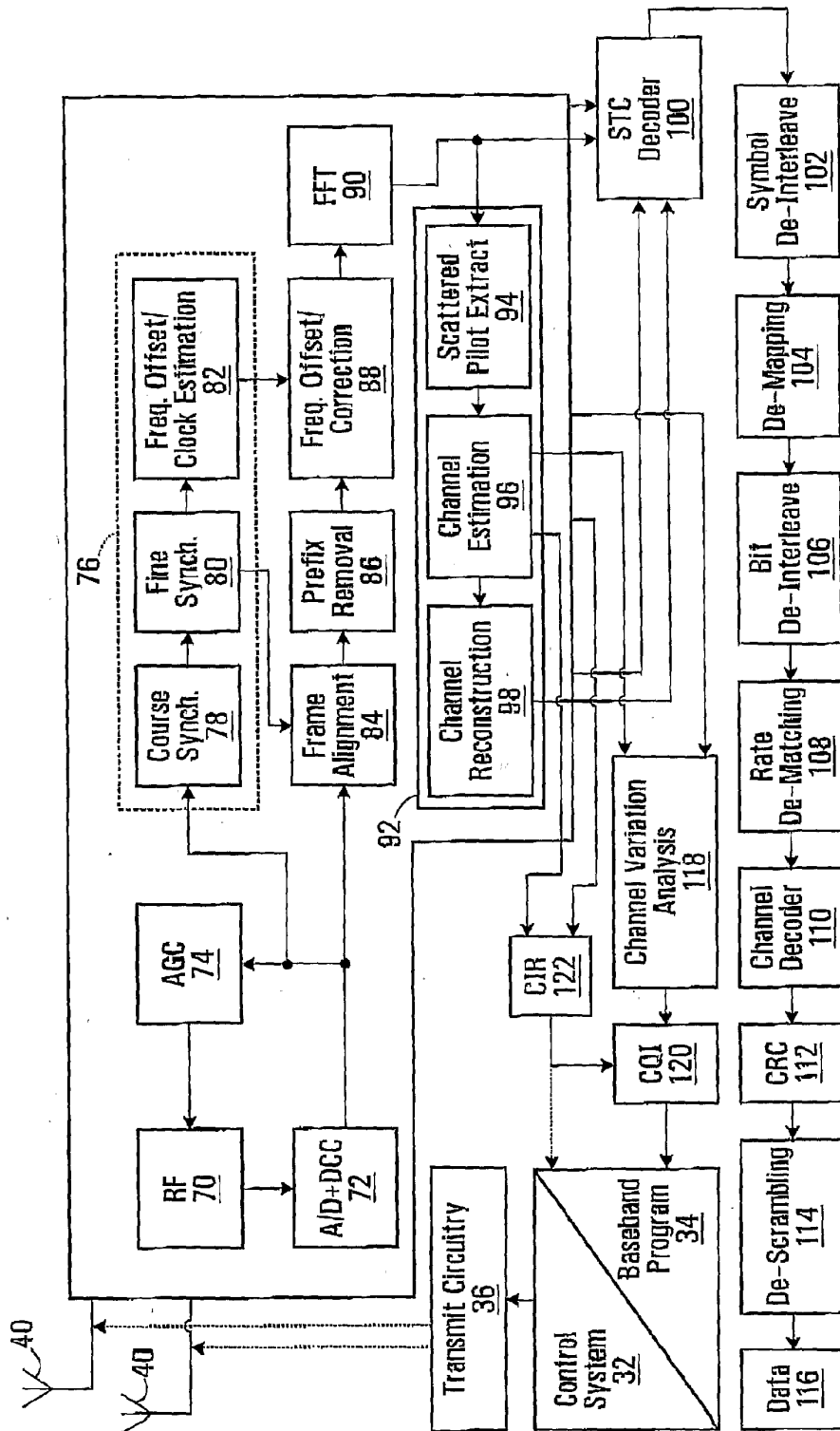
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