



US007738583B2

(12) **United States Patent**
Kim

(10) **Patent No.:** **US 7,738,583 B2**
(45) **Date of Patent:** ***Jun. 15, 2010**

(54) **REDUCED FEEDBACK FOR BEAMFORMING
IN A WIRELESS COMMUNICATION**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 772 days.

This patent is subject to a terminal disclaimer.

(21) Appl. No.: **11/168,793**

(22) Filed: **Jun. 28, 2005**

(65) **Prior Publication Data**

US 2006/0239372 A1 Oct. 26, 2006

Related U.S. Application Data

(60) Provisional application No. 60/673,451, filed on Apr. 21, 2005.

(51) **Int. Cl.**
H04B 7/02 (2006.01)

(52) **U.S. Cl.** 375/267; 375/299; 375/260

(58) **Field of Classification Search** 375/260, 375/267, 299

See application file for complete search history.

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Primary Examiner—Shuwang Liu

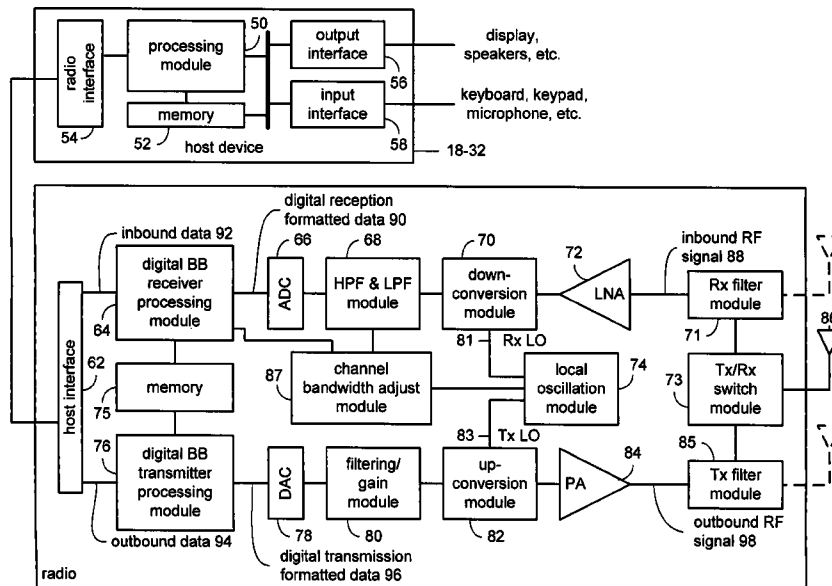
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(57) **ABSTRACT**

A method for reduced feedback for beamforming in a wireless communication begins by receiving a baseband signal. The method continues by digitally beamforming the baseband signal using a unitary matrix having polar coordinates.

11 Claims, 6 Drawing Sheets



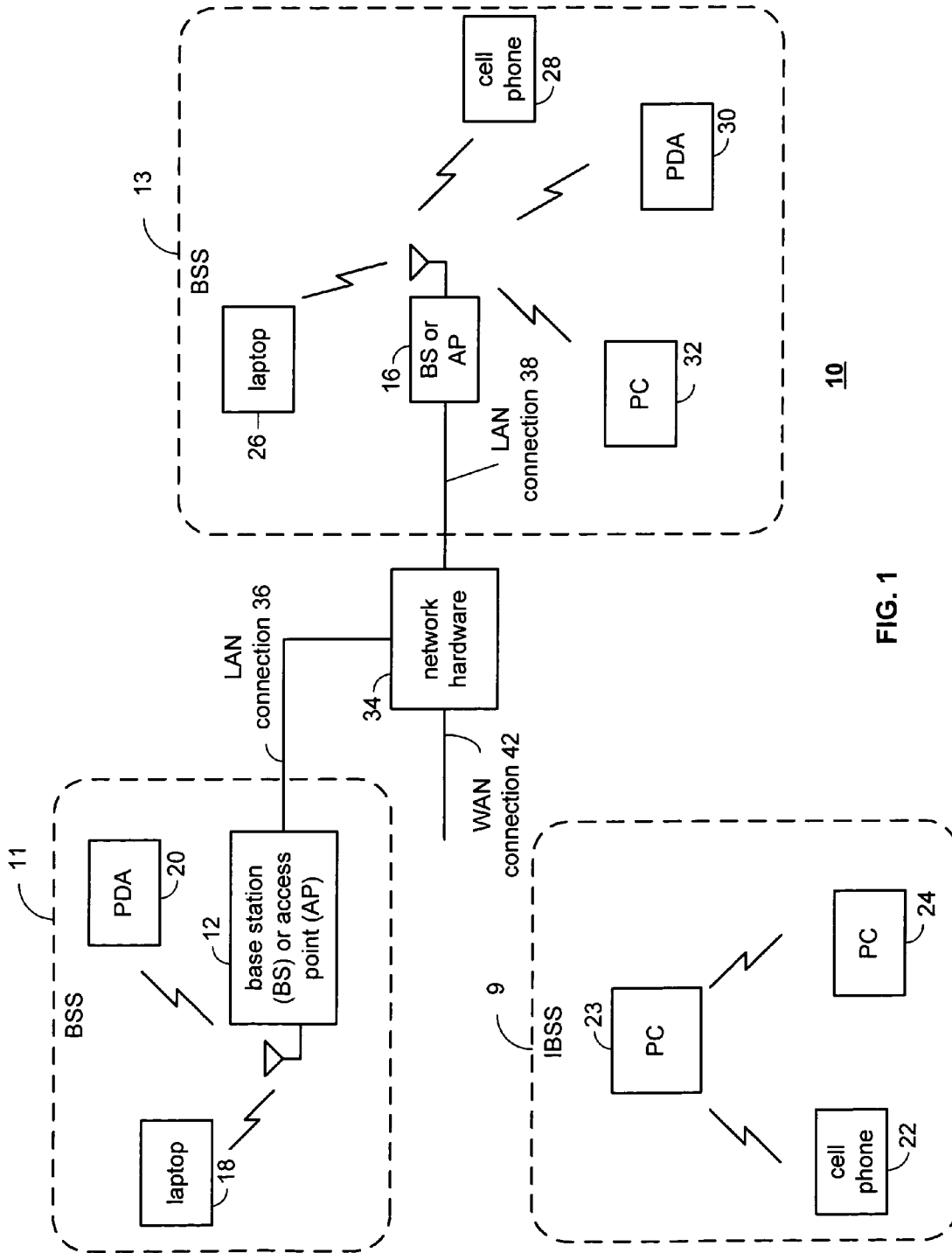


FIG. 1

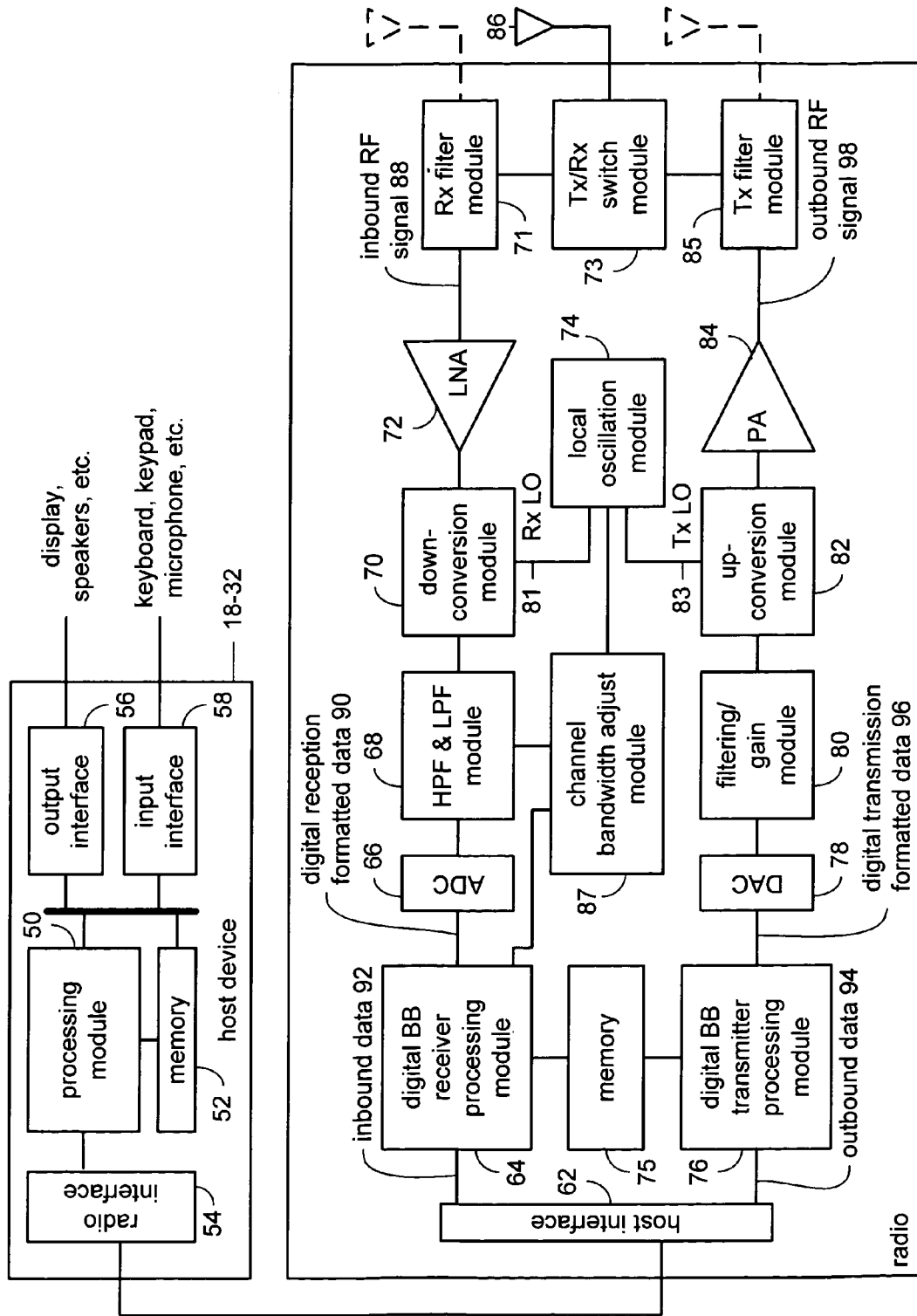
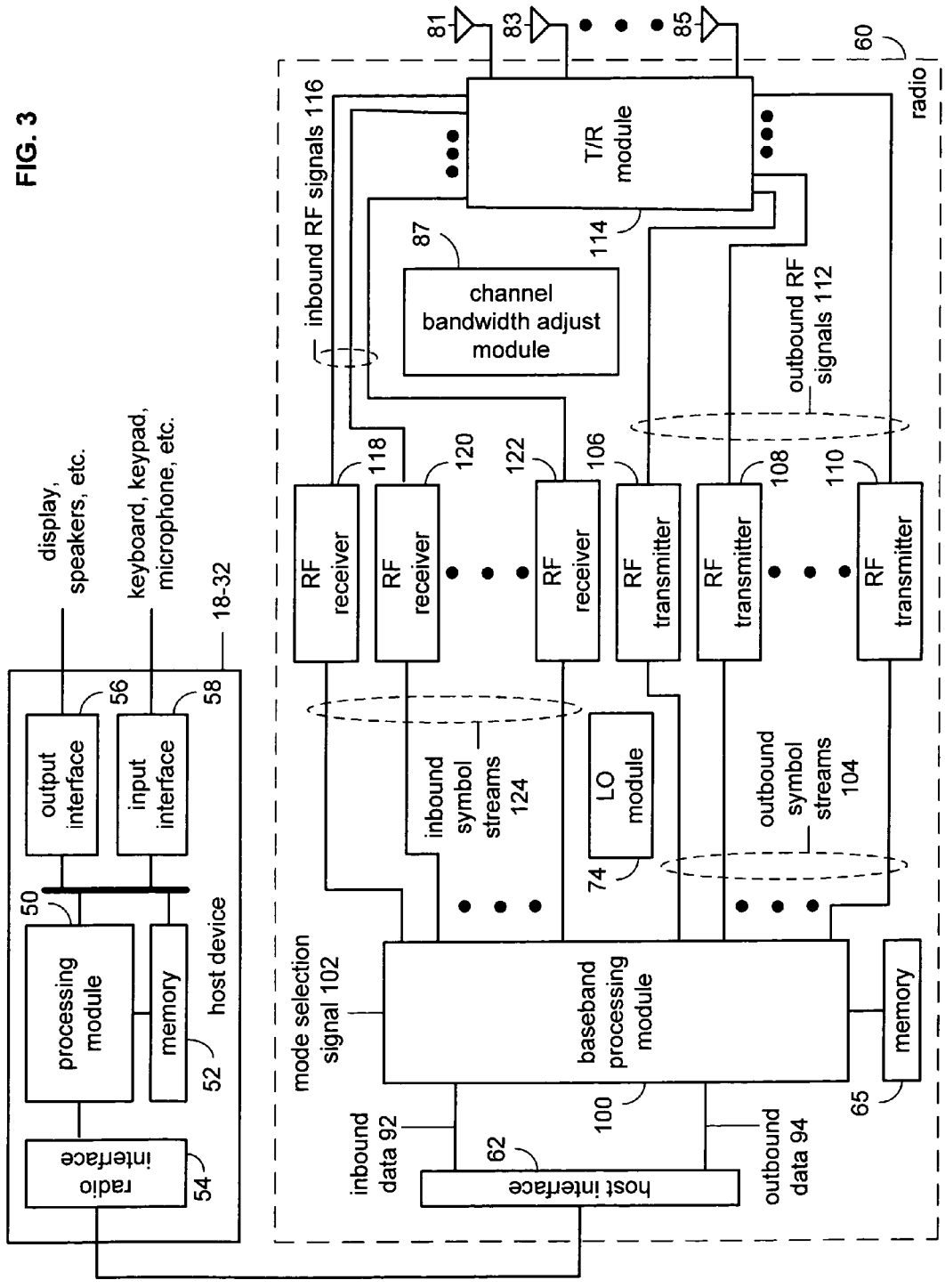


FIG. 2



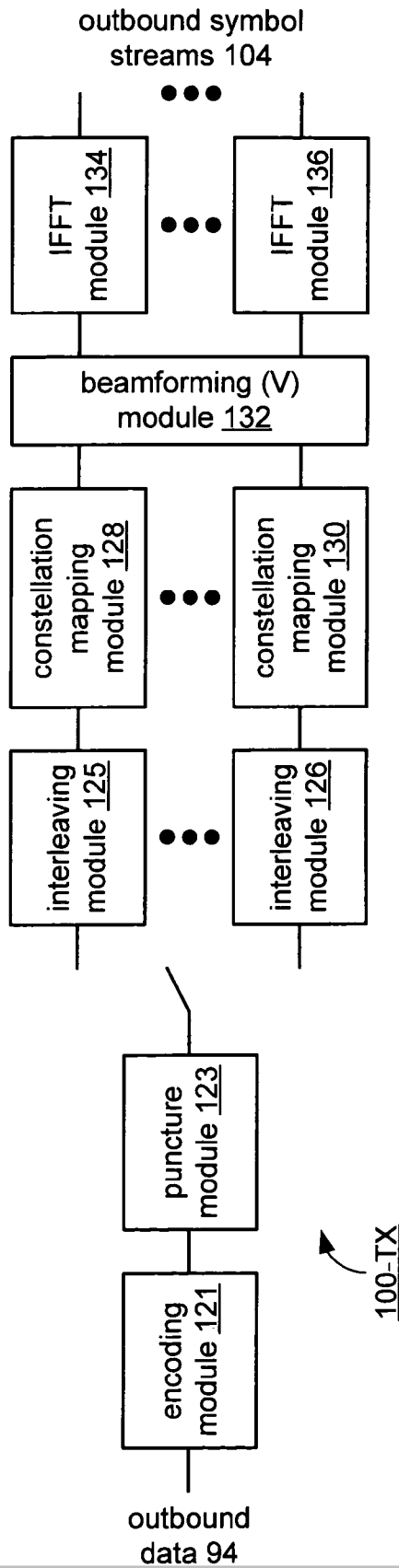


FIG. 4

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