

(19) United States

(12) Patent Application Publication (10) Pub. No.: US 2006/0092054 A1 Li et al.

May 4, 2006 (43) **Pub. Date:**

(54) RECURSIVE REDUCTION OF CHANNEL STATE FEEDBACK

(22) Filed: Sep. 8, 2004

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10/937,097

(51) Int. Cl. H03M 7/40

(2006.01)

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(57)

ABSTRACT

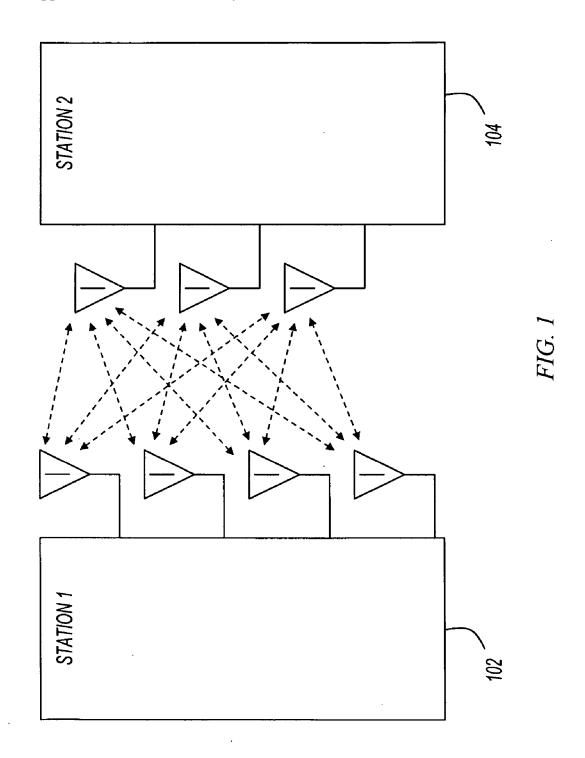
Publication Classification

(21) Appl. No.:

Feedback bandwidth may be reduced in a closed loop MIMO system by Householder transformations and vector quantization using codebooks.

310 ESTIMATE CHANNEL STATE INFORMATION FROM RECEIVED SIGNALS 320 DETERMINE A BEAMFORMING MATRIX FROM THE CHANNEL STATE INFORMATION 330 QUANTIZE A COLUMN OF A BEAMFORMING MATRIX USING A CODEBOOK PERFORM A HOUSEHOLDER REFLECTION 340 ON THE BEAMFORMING MATRIX TO REDUCE THE DIMENSIONALITY OF THE BEAMFORMING MATRIX RECURSIVELY REPEAT THE QUANTIZING 350 AND PERFORMING OF HOUSEHOLDER REFLECTION 360 TRANSMIT QUANTIZED COLUMN VECTORS





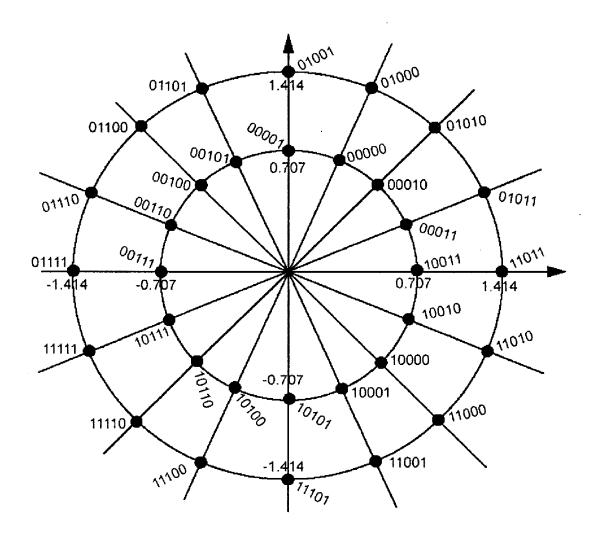
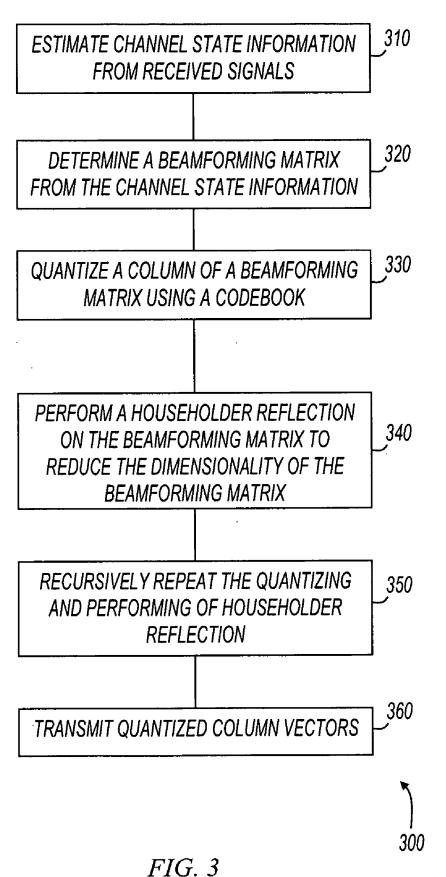
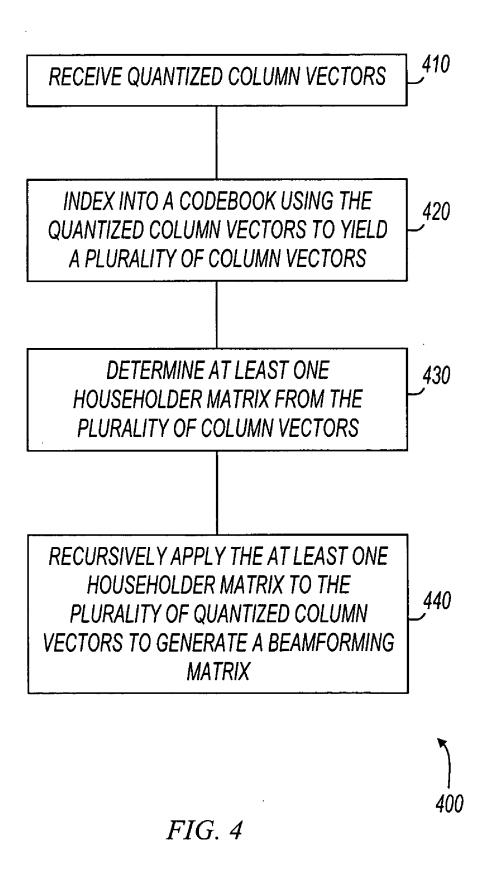


FIG. 2





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