



- [54] **METHOD AND APPARATUS FOR GROUP ENCODING SIGNALS**
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- [73] Assignee: **Motorola, Inc., Schaumburg, Ill.**
- [21] Appl. No.: **627,872**
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Related U.S. Application Data

- [63] Continuation of Ser. No. 198,750, Feb. 17, 1994, abandoned.
- [51] Int. Cl.⁶ **G01L 5/00**
- [52] U.S. Cl. **704/220; 704/243; 704/211; 704/229; 704/230**
- [58] Field of Search **395/22.21, 2.29, 395/2.59, 28, 32, 34, 38-39**

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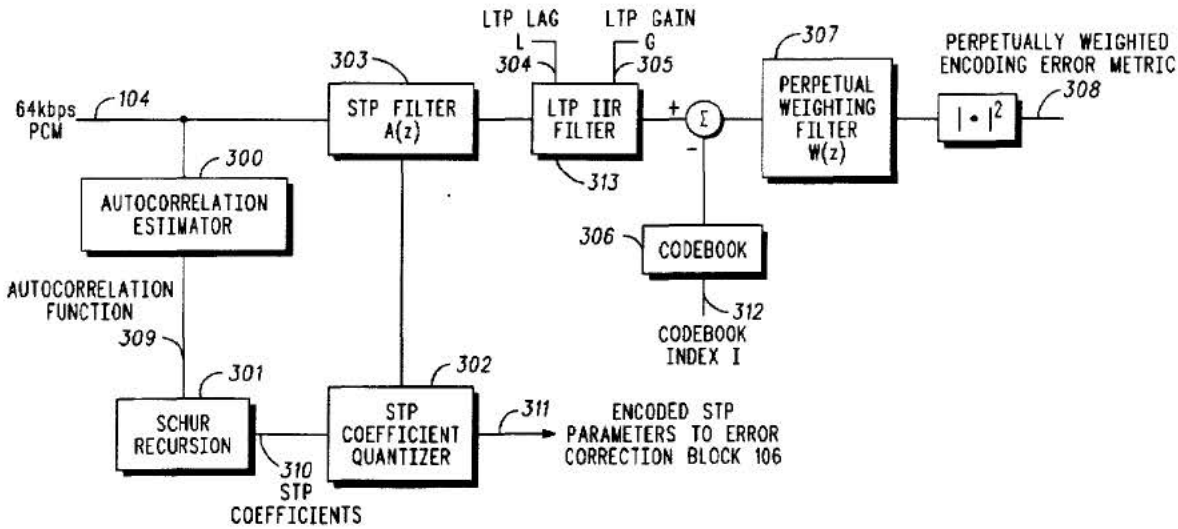
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 Attorney, Agent, or Firm—Richard A. Sonnentag

[57] **ABSTRACT**

A code division multiple access (CDMA) communication system reduces system self-interference and enhances system capacity by making rate selection decisions for individual speech encoders in concert with other speech encoders. The system utilizes perpetually weighted error metrics (401) as input into a rate controller (404) which determines and provides selected rates (402) back to the encoders (105). The system provides optimum voice quality and system capacity in that it allows specific encoders to decrease their rate, which improves capacity, as necessary while allowing other encoders to maintain their rates. This prevents needless degradation in voice quality at those times when system capacity needs to be temporarily increased.

27 Claims, 5 Drawing Sheets



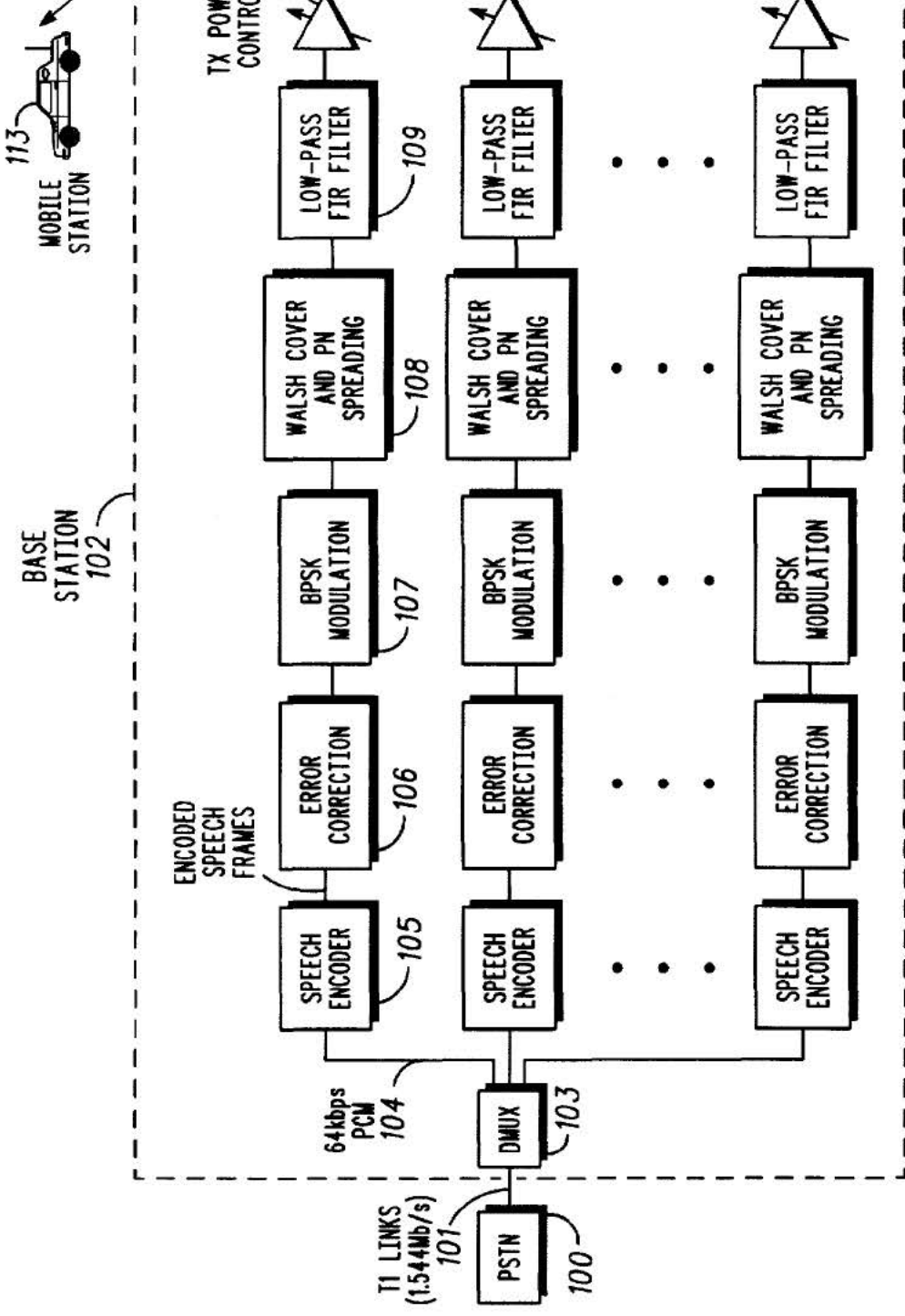


FIG. 1

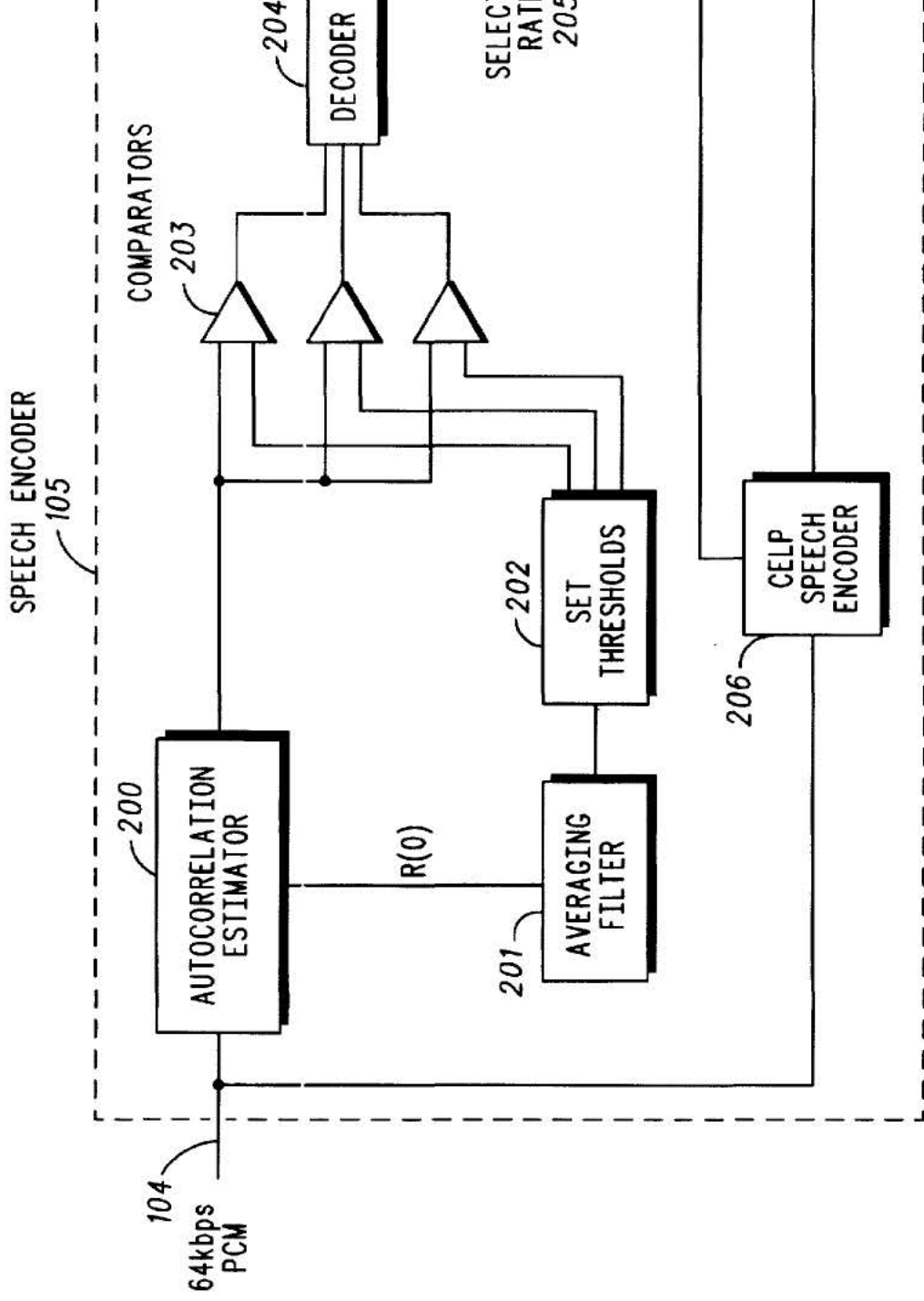


FIG. 2

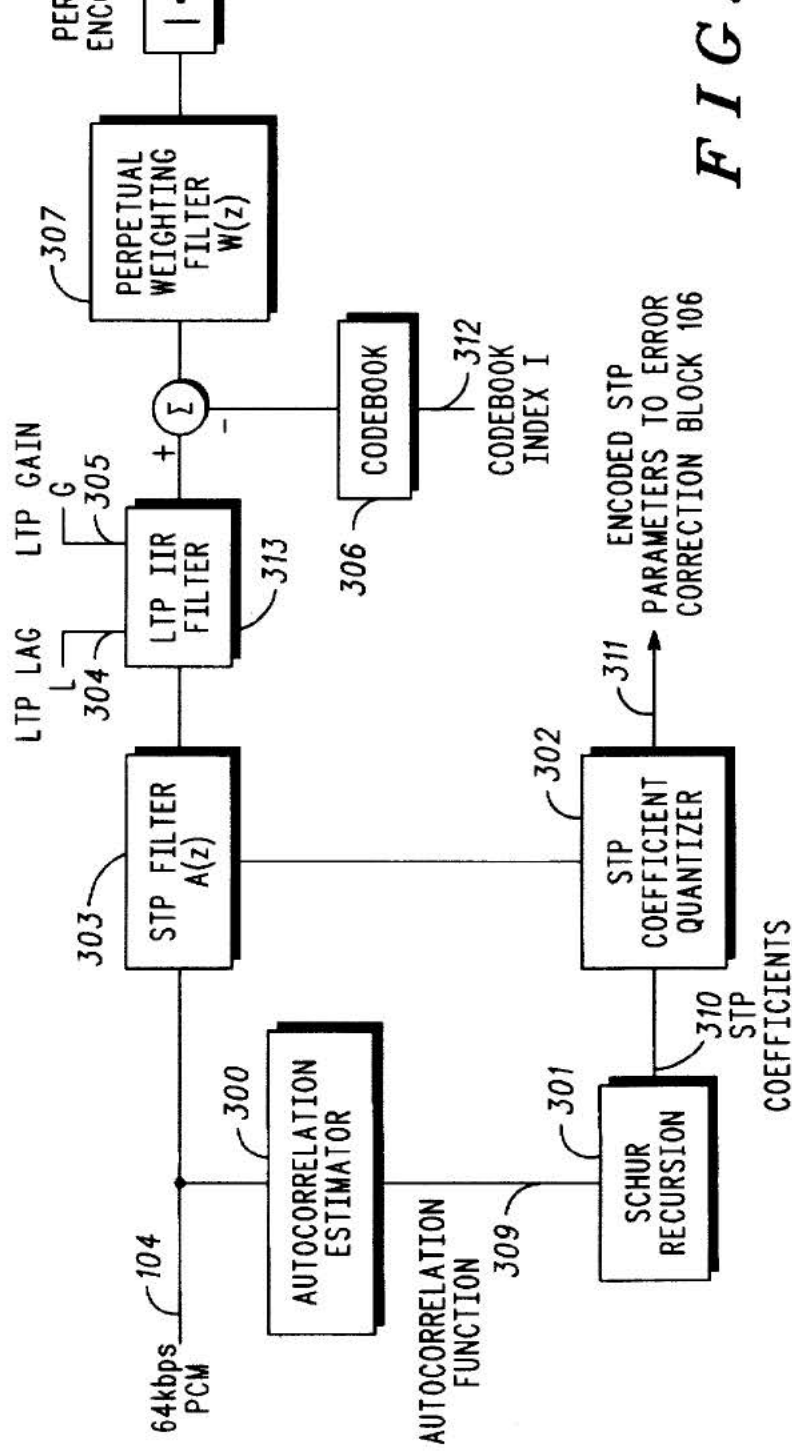


FIG. 1

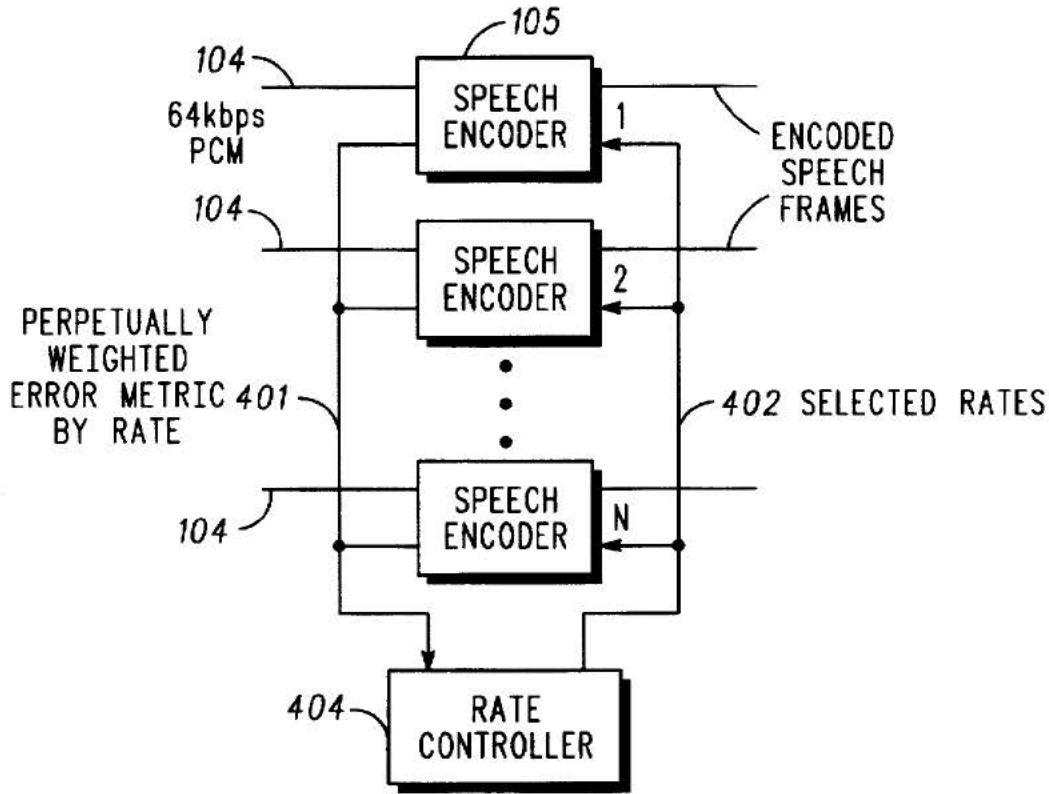


FIG. 4

CANDIDATE RATE

	1/8	1/4	1/2	1/1
1	525	250	150	60
2	400	310	140	40
3	385	300	125	35
•	•	•	•	•
•	•	•	•	•
N	300	280	105	5

SPEECH ENCODER NUMBER

FIG. 5

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