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Kim et al.

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(54) **CONTROLLING DATA TRANSMISSION RATE ON THE REVERSE LINK FOR EACH MOBILE STATION IN A DEDICATED MANNER**

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(73) Assignee: **LG Electronics Inc.**, Seoul (KR)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 962 days.

(21) Appl. No.: **10/071,243**

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Assistant Examiner—Robert W. Wilson

(65) **Prior Publication Data**

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(74) *Attorney, Agent, or Firm*—Fleshner & Kim, LLP

(30) **Foreign Application Priority Data**

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Jul. 10, 2001	(KR)	10-2001-0041363
Sep. 18, 2001	(KR)	10-2001-0057600

(57) **ABSTRACT**

The data transmission rate on the reverse link in a mobile communications system is controlled by determining an interference level at a base station due to signals from all mobile stations served by the base station, and determining a transmission energy level required for each mobile station. The interference level is compared with the transmission energy level to obtain a comparison result for each mobile station, and each mobile adjusts its data transmission rate based upon the comparison result, which is sent via a common channel on a forward link to each mobile station in a dedicated manner. Thereafter, packet data is transmitted on the reverse link in accordance with the adjusting so that data throughput can be maximized.

(51) **Int. Cl.**
H04Q 7/00 (2006.01)

(52) **U.S. Cl.** **370/329; 370/332; 455/68; 455/69**

(58) **Field of Classification Search** None
See application file for complete search history.

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40 Claims, 8 Drawing Sheets

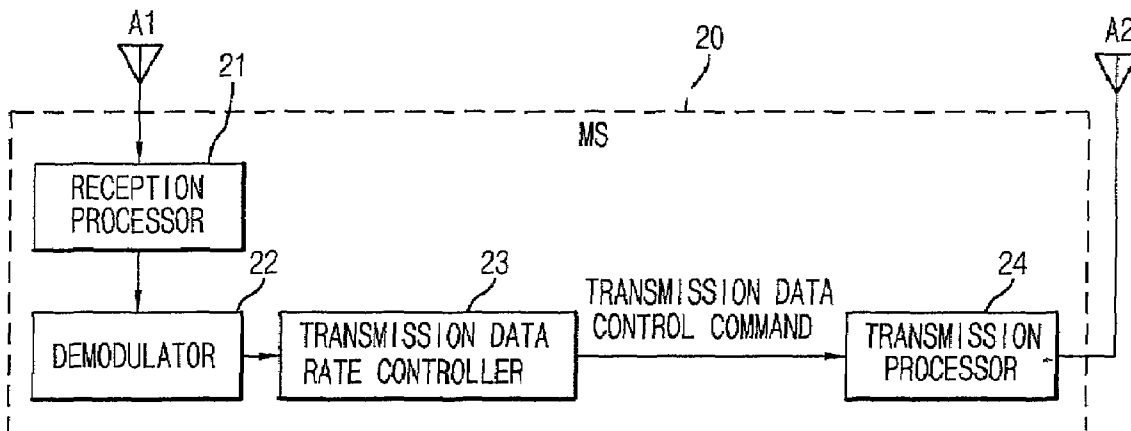


FIG. 1
PRIOR ART

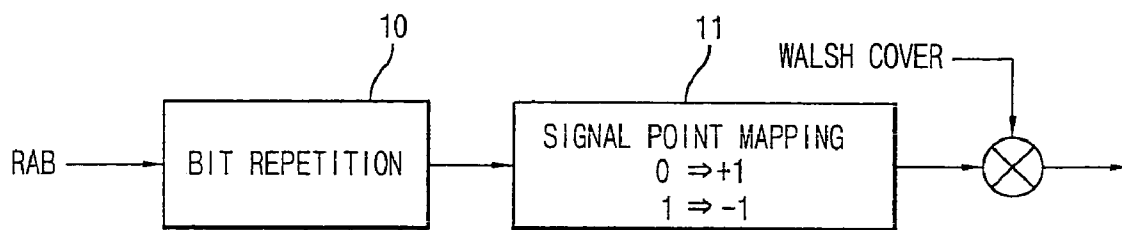


FIG. 2

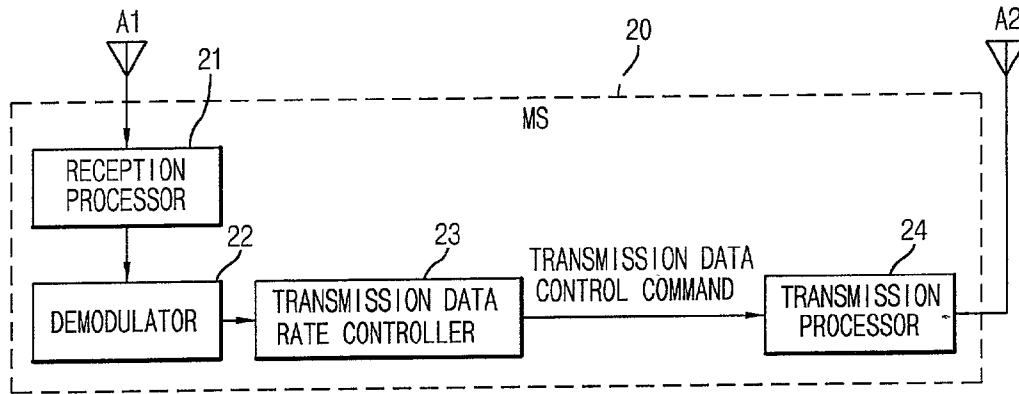


FIG. 3

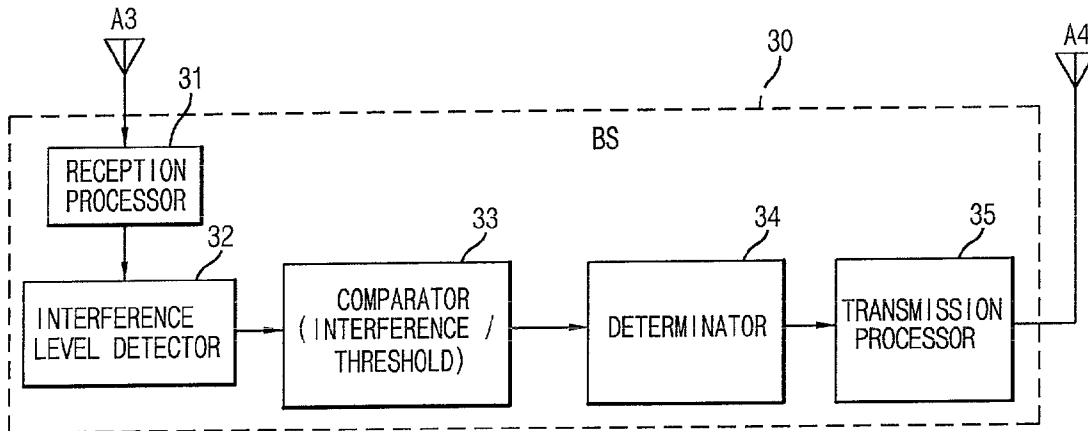


FIG. 4

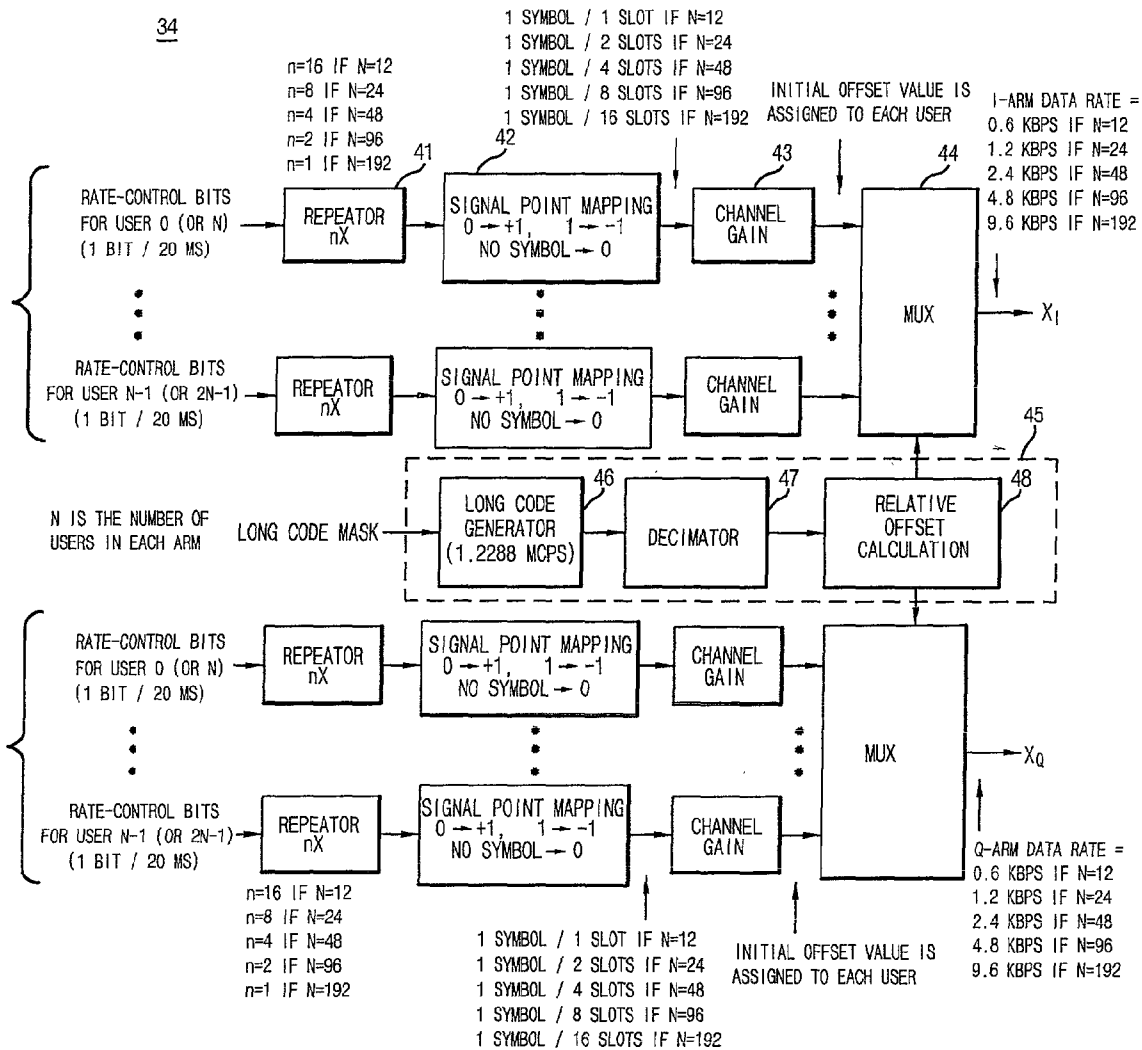
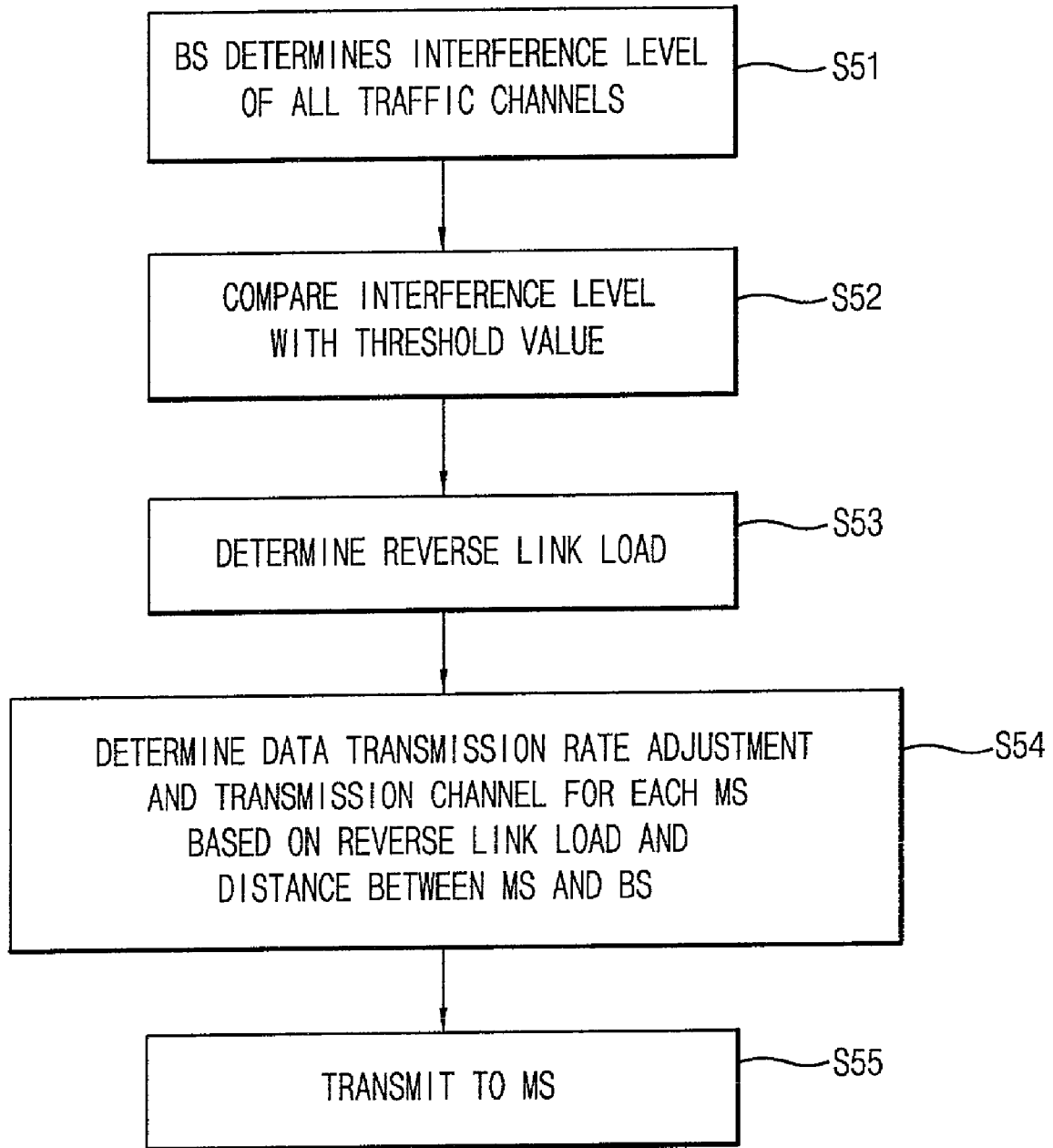


FIG. 5



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