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(54) **POWER CONTROL IN COMMUNICATION SYSTEMS**

(75) Inventor: **Arvind Vardarajan Santhanam**, San Diego, CA (US)

(73) Assignee: **QUALCOMM Incorporated**, San Diego, CA (US)

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H04B 7/00 (2006.01)

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(58) **Field of Classification Search** 455/69, 455/522; 370/318
See application file for complete search history.

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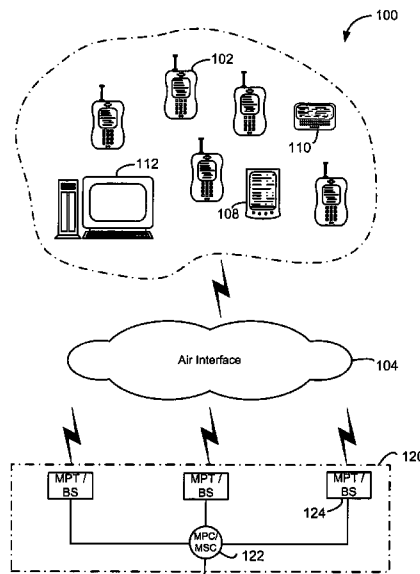
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Primary Examiner—Raymond S Dean
(74) *Attorney, Agent, or Firm*—Raphael Freiwirth

(57) **ABSTRACT**

Systems and methods for estimating transmit power in a communication system are disclosed. An estimate of a reverse channel condition is based on a received signal from an access point. A correction factor is determined based on at least one of the number of access points detected, a Rise-over-Thermal (RoT) at the access point, a message error rate, and a message size. Then the correction factor is applied to the transmit power determination.
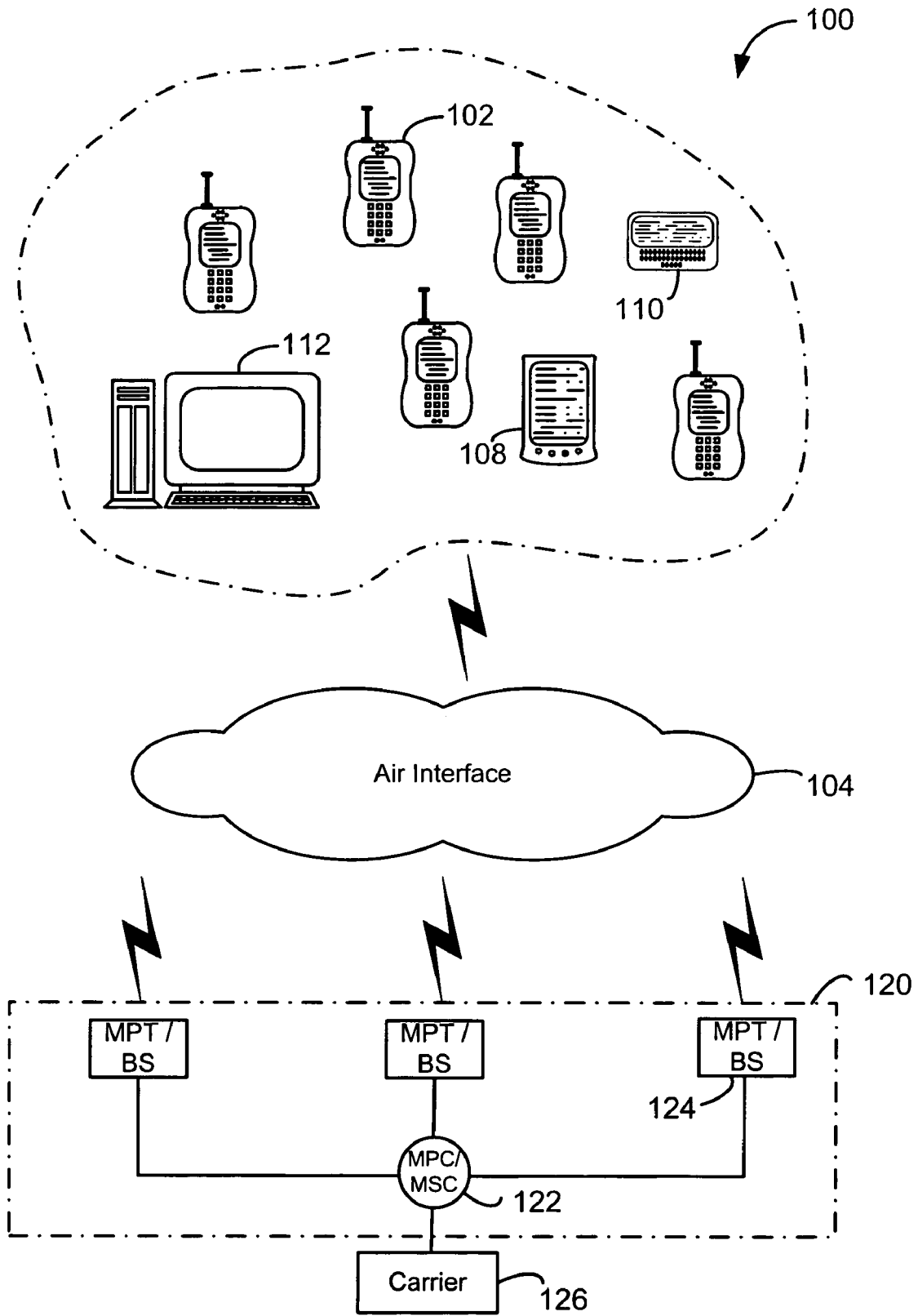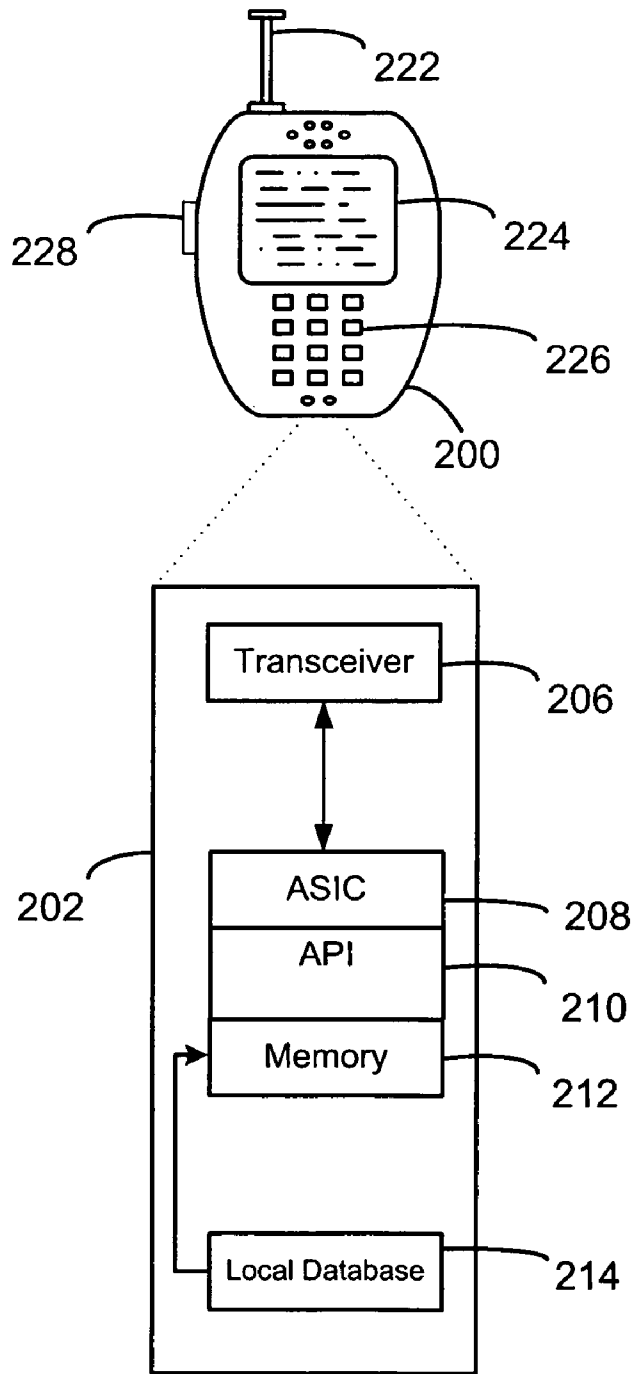
25 Claims, 8 Drawing Sheets

100

102

110

112

108

Air Interface — 104

120

MPT / BS   MPT / BS   MPT / BS

124

MPC/ MSC — 122

Carrier — 126

Fig. 1

Fig. 2

Fig. 3

410 — Estimating a reverse channel condition based on a received signal from an access point

420 — Determining a correction factor

430 — Applying the correction factor to the transmit power estimation

440 — Using Rise-over-Thermal at Access Point

450 — Using Message Size

460 — Using a Target Message Error Rate

470 — >1 Pilot Signal In Active Set

Yes

472 — Using demodulation of pilot signal of associated access point

474 — Adding a predetermined gain

476 — Using a calculated value based on sum of pilot signals and associated pilot signal
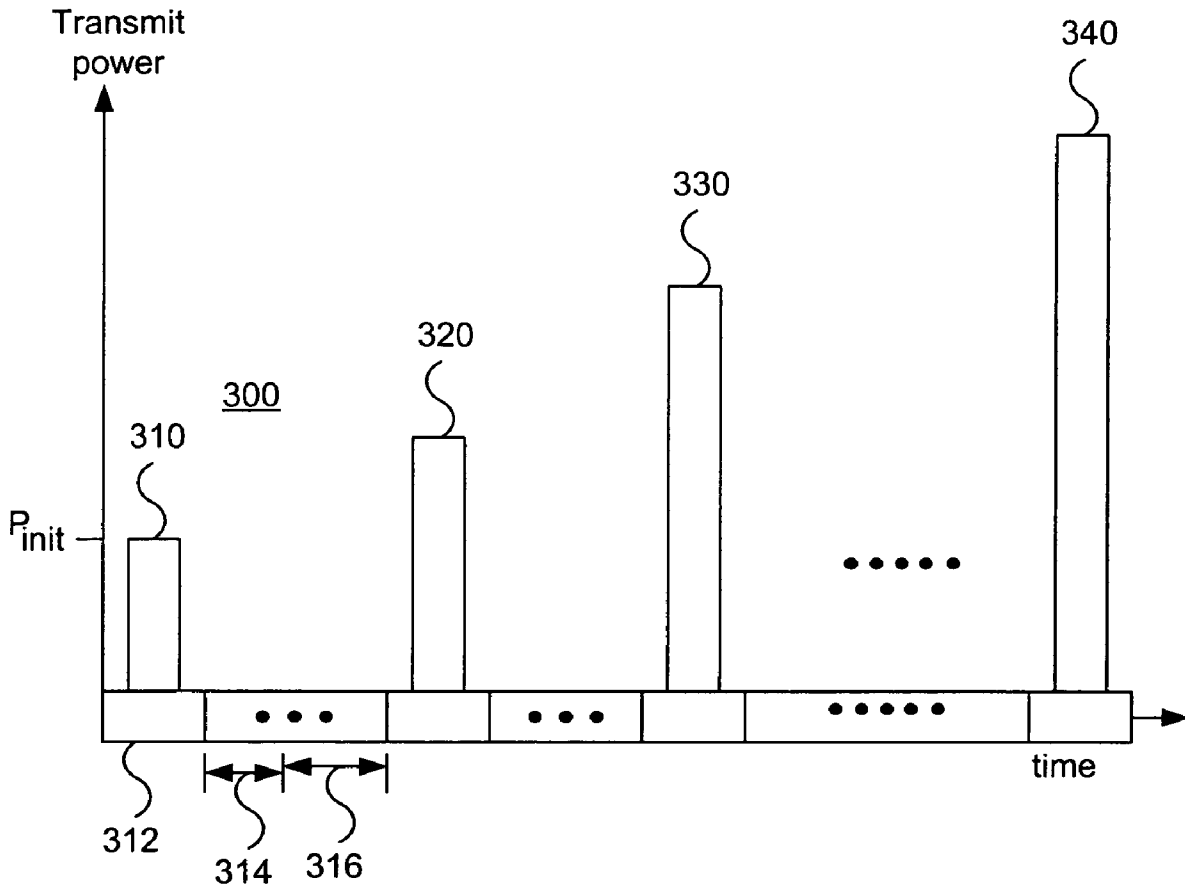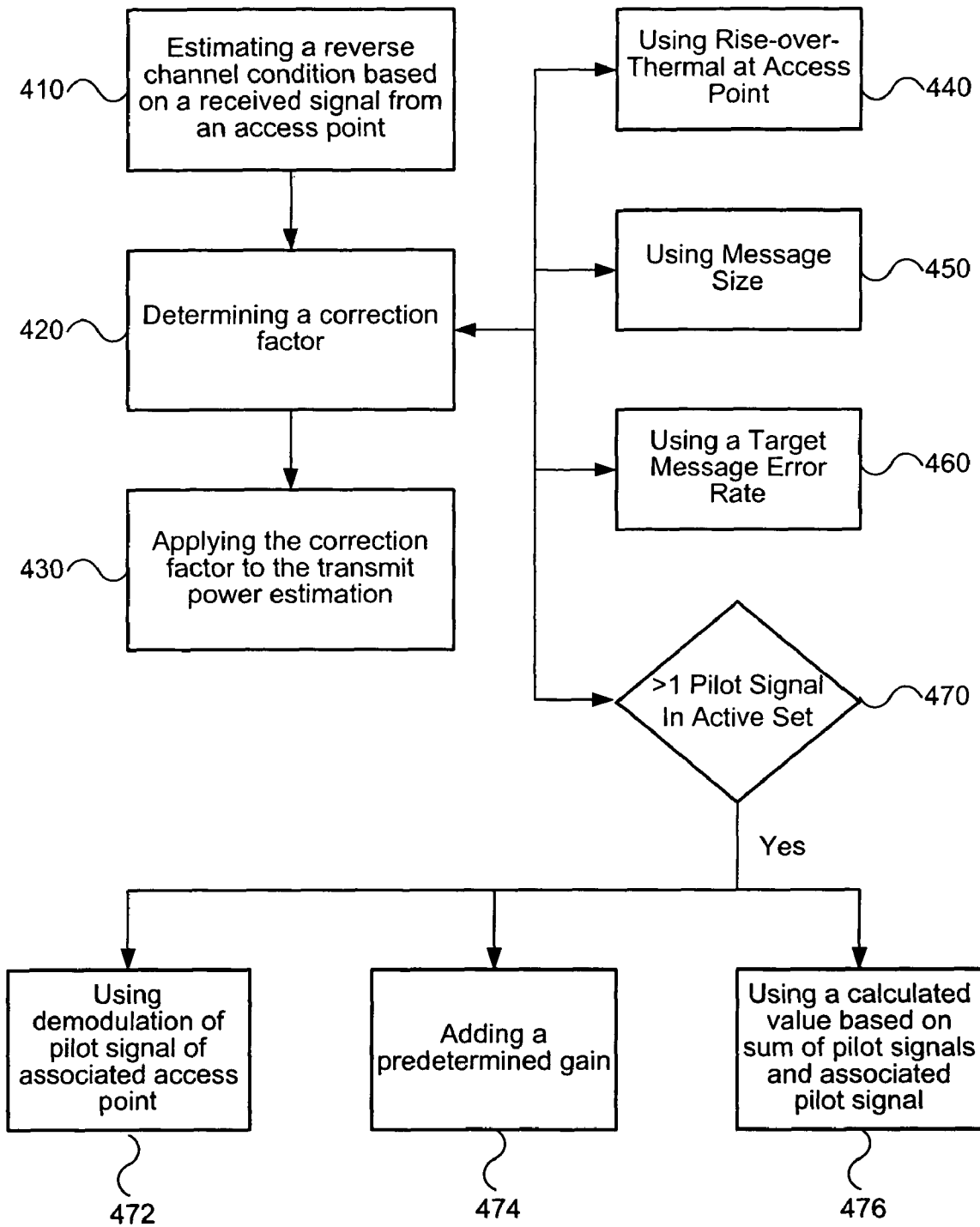
Fig. 4

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