9705D28-0

RTMP COPY

PCT WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 6: H04B 7/005 — A1

(11) International Publication Number: WO 96/31014

(43) International Publication Date: 3 October 1996 (03.10.96)

(21) International Application Number: PCT/US96/04325

(22) International Filing Date: 29 March 1996 (29.03.96)

(30) Priority Data:
414,633 — 31 March 1995 (31.03.95) — US

(71) Applicant: QUALCOMM INCORPORATED [US/US]; 6455 Lusk Boulevard, San Diego, CA 92121 (US).

(72) Inventors: TIEDEMANN, Edward, G., Jr.; 4350 Bromfield Avenue, San Diego, CA 92122 (US). ODENWALDER, Joseph, P.; 14967 Rancho Real, Del Mar, CA 92014 (US). WHEATLEY, Charles, E., III; 2208 Caminito Del Barco, Del Mar, CA 92014 (US). PADOVANI, Roberto; 13593 Penfield Point, San Diego, CA 92130 (US).

(74) Agent: MILLER, Russell, B.; Qualcomm Incorporated, 6455 Lusk Boulevard, San Diego, CA 92121 (US).

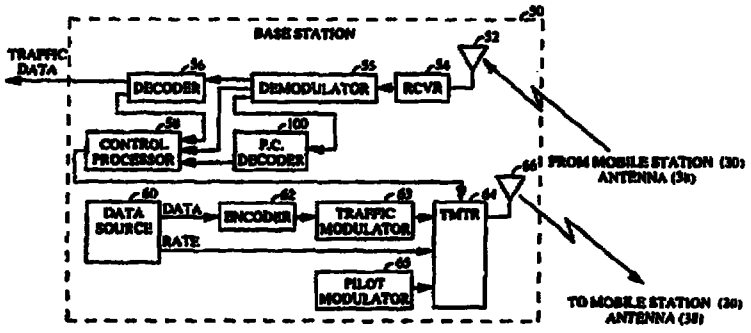
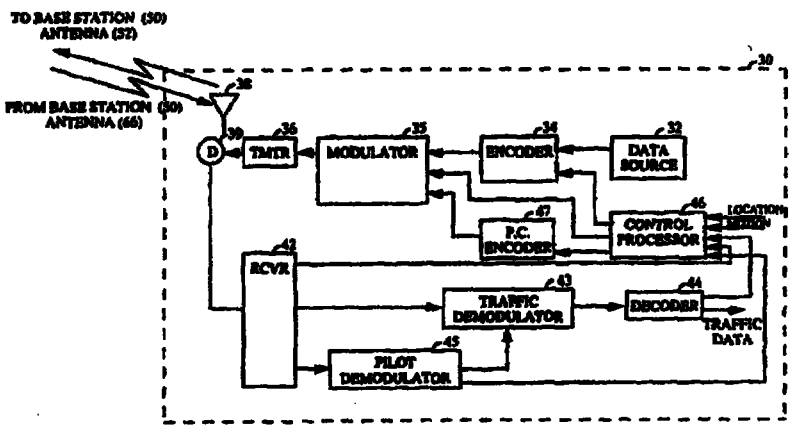
(81) Designated States: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, ARIPO patent (KE, LS, MW, SD, SZ, UG), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).

Published

With international search report.

Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

(54) Title: METHOD AND APPARATUS FOR PERFORMING POWER CONTROL IN A MOBILE COMMUNICATION SYSTEM

(57) Abstract

A method and apparatus for controlling transmission power in a mobile communication system is disclosed. The method disclosed provides for a closed-loop power control method. A mobile station (30) provides information on the quality of the signal received from the base station (50), and the base station (50) responds by adjusting the power allocated to that user in a shared base station signal. The transmission power is adjusted initially by a large increment and then ramped down at an increasingly decreasing rate. The mobile station (30) also provides information to the base station (50) as to its relative velocity and the base station (50) adjusts its transmission power in accordance with this velocity information.