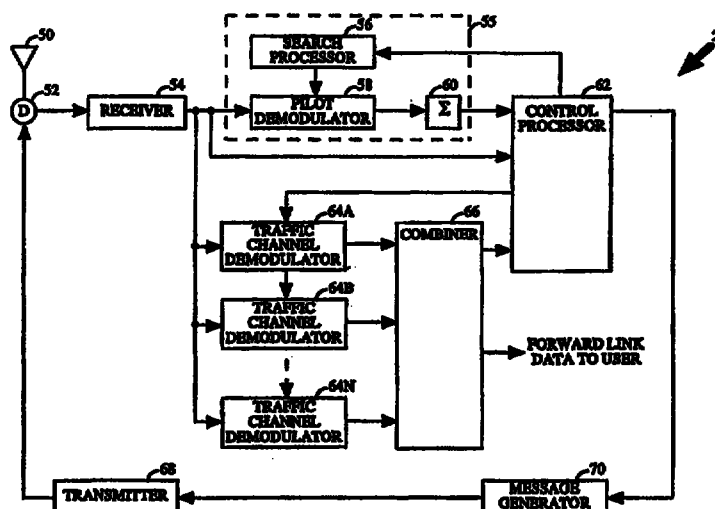




INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : H04J	A2	(11) International Publication Number: WO 98/33288 (43) International Publication Date: 30 July 1998 (30.07.98)
(21) International Application Number: PCT/US98/01058 (22) International Filing Date: 27 January 1998 (27.01.98) (30) Priority Data: 790,497 29 January 1997 (29.01.97) US (71) Applicant: QUALCOMM INCORPORATED [US/US]; 6455 Lusk Boulevard, San Diego, CA 92121 (US). (72) Inventors: PADOVANI, Roberto; 13593 Penfield Point, San Diego, CA 92130 (US). QUICK, Roy, F.; 4502 Del Monte Avenue, San Diego, CA 92107 (US). (74) Agents: OGROD, Gregory, D. et al.; Qualcomm Incorporated, 6455 Lusk Boulevard, San Diego, CA 92121 (US).		(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), 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 <i>Without international search report and to be republished upon receipt of that report.</i>

(54) Title: METHOD AND APPARATUS FOR PERFORMING SOFT HAND-OFF IN A WIRELESS COMMUNICATION SYSTEM

**(57) Abstract**

A method and apparatus for providing soft hand-off in a mobile communication system. In current systems, members of an active set of base stations (4, 4A, 4B, 4C) are determined by comparing measured pilot energy with fixed thresholds. The value of providing a redundant communication link to a mobile station (2) primarily depends on the energy of other signals being provided to the mobile station (2). In the present invention, the signal strength of each signal transmitted by other base stations (4, 4A, 4B, 4C) in communication with a mobile station (2) is considered when determining whether to add a base station to the set of base stations (4, 4A, 4B, 4C) in communication with the remote station. A base station is added only if the signal received from that base station provides sufficient added value to justify the impact on system capacity.