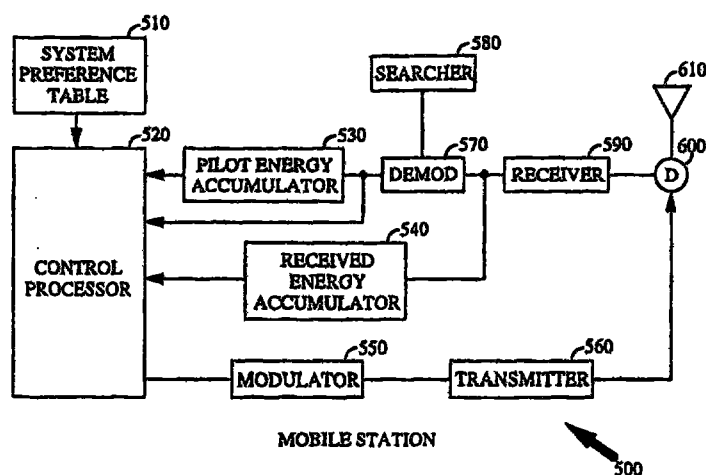




## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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| (21) International Application Number: PCT/US97/23650<br>(22) International Filing Date: 19 December 1997 (19.12.97)<br>(30) Priority Data:<br>784,280                      15 January 1997 (15.01.97)                      US<br>(71) Applicant: QUALCOMM INCORPORATED [US/US]; 6455 Lusk Boulevard, San Diego, CA 92121 (US).<br>(72) Inventors: TIEDEMANN, Edward, G., Jr.; 4350 Bromfield Avenue, San Diego, CA 92122 (US). CHEN, Tao; 8826 La Cartera Street, San Diego, CA 92129-3309 (US). WHEATLEY, Charles, E., III; 2208 Caminito Del Barco, Del Mar, CA 92014 (US).<br>(74) Agents: MILLER, Russell, B. 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).<br><br><b>Published</b><br><i>Without international search report and to be republished upon receipt of that report.</i> |                                                                                                                           |

(54) Title: METHOD AND APPARATUS FOR PERFORMING MOBILE ASSISTED HARD HANDOFF BETWEEN COMMUNICATION SYSTEMS



## (57) Abstract

A method and apparatus for performing inter-system hard handoff between communication systems (S1, S2) or inter-frequency hard handoff within a CDMA communication system is disclosed. The purpose of this invention is to reduce the probability of dropped calls during intersystem hard handoff. In the event that a hard handoff attempt is unsuccessful, the mobile station (18) will return to the original system (S1) with information which the communication system of the present invention uses to assist in the performance of future handoff attempts. Alternatively, with no handoff attempt made, the mobile station (18) monitors the destination system (S2), then returns to the original system (S1) with information used to assist in subsequent handoff attempts. The information returned from monitoring a CDMA system consists of results of a search for one or more pilots given at offsets in a specific list provided to the mobile station (18) by the base station (B1-B5) or a set of offsets based upon a predetermined search algorithm.