



PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification⁶:

H04Q 7/38

A2

(11) International Publication Number:

WO 96/16524

(43) International Publication Date:

30 May 1996 (30.05.96)

(21) International Application Number: PCT/US95/15298

(22) International Filing Date: 22 November 1995 (22.11.95)

(30) Priority Data:

344,321

22 November 1994 (22.11.94)

US

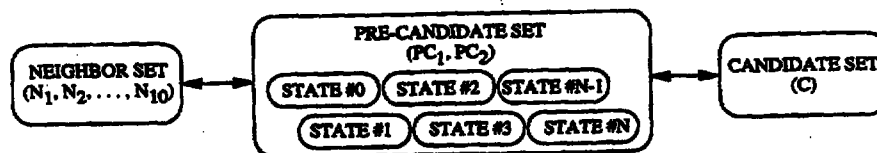
(71) Applicant: QUALCOMM INCORPORATED (US/US); 6455
Lusk Boulevard, San Diego, CA 92121 (US).(72) Inventors: PADOVANI, Roberto; 13593 Penfield Point, San
Diego, CA 92130 (US). HAMDY, Walid; 4949 Sandshore
Court, San Diego, CA 92130 (US). BAR-DAVID, Gil; 6455
Lusk Boulevard, San Diego, CA 92121 (US).(74) Agent: MILLER, Russell, B.; Qualcomm Incorporated, 6455
Lusk Boulevard, San Diego, CA 92121 (US).(31) Designated States: AL, AM, AT, AU, 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, TT, UA, UG, UZ, VN, European
patent (AT, BE, CH, DE, DK, ES, 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), ARIPO patent (KE,
LS, MW, SD, SZ, UG).

Published

Without international search report and to be republished
upon receipt of that report.

RTMP's copy + IPER + Annexes + A2

(54) Title: PILOT SIGNAL SEARCHING TECHNIQUE FOR A CELLULAR COMMUNICATIONS SYSTEM



(57) Abstract

An improved method and system for performing a pilot signal searching operation in anticipation of handoff in mobile station (18) communication between base stations (12, 14). The mobile station (18) maintains a list of Active Set pilot signals transmitted from base stations with which the mobile station is to communicate through, and a list of Neighbor Set pilot signals (N) from base stations within a predetermined proximity of the mobile station (18). The searching operation contemplates comparing pilot signal strength measurements corresponding to each base station entry within the Neighbor Set (N) to a first predetermined level. One or more entries from the Neighbor Set (N) having a base station signal strength measurement greater than the first predetermined level may be placed in the Pre-Candidate Set (PC). The strength of the pilot signals associated with entries in the Pre-Candidate Set (PC) are then further evaluated to determine eligibility within the Candidate Set (C), from which are selected the entries comprising the Active Set.