



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : H04Q 7/38, 7/36		A1	(11) International Publication Number: WO 99/27747
			(43) International Publication Date: 3 June 1999 (03.06.99)
(21) International Application Number: PCT/US98/25219 (22) International Filing Date: 25 November 1998 (25.11.98) (30) Priority Data: 08/979,292 26 November 1997 (26.11.97) US (71) Applicant: QUALCOMM INCORPORATED [US/US]; 6455 Lusk Boulevard, San Diego, CA 92121 (US). (72) Inventor: BAKER, Kenneth, R.; 4735 Kirkwood Street, Boulder, CO 80301 (US). (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, HR, 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, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i> <i>Before the expiration of the time limit for amending the</i> <i>claims and to be republished in the event of the receipt of</i> <i>amendments.</i>	

(54) Title: METHOD AND APPARATUS FOR PERFORMING HANDOFF IN A CDMA SYSTEM THROUGH THE USE OF REPEATERS

(57) Abstract

A method and apparatus for providing handoff between two communication systems. The systems can be CDMA systems operating at different frequencies or systems employing different technologies. In the first system, a base station (4) is configured to provide communications to two or more sectors, with at least one sector assigned to a corresponding repeater (8) which provides coverage overlapping that of both systems. As the remote station (6) moves into the coverage area of the repeater (8), the pilot signal of the repeater (8) is identified, measured and sent to the first system. If the measured pilot signal is above a predetermined add threshold, the repeater (8) is added to the active set of the remote station. The first system can handoff the remote station (6) to the second system: (1) upon initiation of a soft handoff by the base station of the first system; (2)

if the pilot signal strength of the repeater (8), as measured by the remote station (6), exceeds a predetermined handoff threshold; (3) if the base station (4) of the first system is dropped from the active set of the remote station (6); (4) if the repeater of the first system is dropped from the active set of the remote station (6); or (5) if the base station (4) and repeater (8) of the first system are dropped from the active set of the remote station (6).

