



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶: H04Q 7/30	A2	(11) International Publication Number: WO 98/56200 (43) International Publication Date: 10 December 1998 (10.12.98)												
(21) International Application Number: PCT/US98/10932 (22) International Filing Date: 5 June 1998 (05.06.98) (30) Priority Data: <table border="0"> <tr> <td>08/870,867</td> <td>6 June 1997 (06.06.97)</td> <td>US</td> </tr> <tr> <td>60/069,607</td> <td>15 December 1997 (15.12.97)</td> <td>US</td> </tr> <tr> <td>97/04676-7</td> <td>15 December 1997 (15.12.97)</td> <td>SE</td> </tr> <tr> <td>09/057,793</td> <td>9 April 1998 (09.04.98)</td> <td>US</td> </tr> </table> (71) Applicant: TELEFONAKTIEBOLAGET LM ERICSSON [SE/SE]; S-126 25 Stockholm (SE). (72) Inventors: BUTOVITSCH, Peter; Tranebergsvagen 39, S-161 32 Bromma (SE). SANDIN, Tomas; Heleneborgs- gatan 24C, S-117 32 Stockholm (SE). PERSSON, Magnus; Kruthornsvagen 40, S-191 52 Sollentuna (SE). KNUTSSON, Jens; Belestigen 5, S-182 64 Djursholm (SE). (74) Agents: GRUDZIECKI, Ronald, L. et al.; Burns, Doane, Swecker & Mathis, L.L.P., P.O. Box 1404, Alexandria, VA 22313-1404 (US).		08/870,867	6 June 1997 (06.06.97)	US	60/069,607	15 December 1997 (15.12.97)	US	97/04676-7	15 December 1997 (15.12.97)	SE	09/057,793	9 April 1998 (09.04.98)	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, 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, ML, MR, NE, SN, TD, TG). Published <i>Without international search report and to be republished upon receipt of that report.</i>
08/870,867	6 June 1997 (06.06.97)	US												
60/069,607	15 December 1997 (15.12.97)	US												
97/04676-7	15 December 1997 (15.12.97)	SE												
09/057,793	9 April 1998 (09.04.98)	US												
(54) Title: MODIFIED DOWNLINK POWER CONTROL DURING MACRODIVERSITY (57) Abstract The power levels of signals transmitted by base stations in a communication are controlled. Power level control commands are transmitted from a remote station to base stations from which the remote station receives signals to control the power levels of the signals transmitted by the base stations. A determination is made whether the remote station simultaneously receives a first signal from a first base station and at least one second signal from at least one second base station that include substantially identical message information. The first and second base stations transmit first and second reports of power levels of the first and second signals, respectively, to the controller. The controller compares the first and second reports and transmits first and second commands for adjusting the power levels of the first and second signals to the first and second base stations, respectively. The power level control commands are transmitted from the remote station to the base stations less frequently during macrodiversity to reduce the signalling requirements between the controller and the base stations. Also, the step size of the adjustment of the power levels of the first and second signals by the controller is reduced during macrodiversity to reduce the signalling requirements. This power control method is particularly beneficial for a CDMA system.														