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(21) International Application Number: PCT/SE99/00248 (22) International Filing Date: 23 February 1999 (23.02.99) (30) Priority Data: 09/031,635 27 February 1998 (27.02.98) US (71) Applicant: TELEFONAKTIEBOLAGET LM ERICSSON (publ) [SE/SE]; S-126 25 Stockholm (SE). (72) Inventors: FREDRIK, Gunnarsson; Valkebogatan 12, S-582 47 Linköping (SE). FREDRIK, Gustafsson; O.G. Svenssons väg 26, S-590 71 Ljungsbro (SE). JONAS, Blom; Rundels- gatan 5B, S-587 21 Linköping (SE). (74) Agent: ERICSSON RADIO SYSTEMS AB; Common Patent Dept., S-164 80 Stockholm (SE).		(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, 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>Without international search report and to be republished upon receipt of that report.</i>	
(54) Title: METHOD AND SYSTEM FOR QUALITY-BASED POWER CONTROL IN CELLULAR COMMUNICATIONS SYSTEMS			
(57) Abstract <p>A method and system for quality-based transmission power control in a cellular communications system (100) are disclosed, whereby a network operator can specify the transmission quality requirements using a measurement that better reflects the actual quality perceived by the users. All transmitter power levels in the network can be controlled by identical power regulators (200), each of which can adapt to individual traffic situations in order to achieve the specified quality. For example, in a GSM frequency-hopping network, the FER together with the parameters estimated from the current traffic situation (54), are mapped onto a target C/I (56), which in turn, the power control algorithm strives (16) to achieve (58, 60). Consequently, the power regulators can adapt to the traffic situation experienced by each receiver.</p>			