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(21) International Application Number: PCT/US96/05944 (22) International Filing Date: 29 April 1996 (29.04.96) (30) Priority Data: 08/434,554 4 May 1995 (04.05.95) US (71) Applicant: WAVELINK COMMUNICATIONS [-/-]; c/o Codan Services Ltd., Clarendon House, Church Street, Hamilton HM 11 (BM). (71)(72) Applicants and Inventors: TU, Jerome, C. [US/US]; 2222 Villanova Road, San Jose, CA 95130 (US). GERST, Gregory, J. [US/US]; 122 Tennyson Avenue, Palo Alto, CA 94301 (US). (74) Agents: CASERZA, Steven, F. et al.; Flehr, Hohbach, Test, Albritton & Herbert, Suite 3400, 4 Embarcadero Center, San Francisco, CA 94111-4187 (US).		(81) Designated States: AL, AM, AT, AU, AZ, 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, TR, TT, UA, UG, UZ, VN, ARIPO patent (KE, LS, MW, SD, SZ, UG), 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). Published <i>With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>	
(54) Title: SPREAD SPECTRUM COMMUNICATION NETWORK SIGNAL PROCESSOR			
(57) Abstract			
A base station communicates with a plurality of mobile stations over a cellular network. In one embodiment, the base station includes a receiver configured to receive inbound information from the mobile station and a transmitter configured to transmit outbound information to the mobile station. The base station further has a central processor that includes a signal processor array. The signal processor architecture is designed to increase the throughput and task-based allocation of processing resources. The signal processing array has both series and parallel signal processing elements. A plurality of signal processor elements are disposed in series to form a signal processing string. A plurality of signal processing strings are disposed in parallel. Each of the signal processor strings includes at least two signal processor elements that are each dedicated to performing a specific task. As a result, the parallel processor strings simultaneously process information corresponding to predetermined criteria, such as TDMA time slots, while the series processors sequentially process that information by an efficient task-based pipeline processing. A preferred protocol is Global Systems for Mobile Communication (GSM).			