

9801702-3

9801702-3

1PDS

copy.

PCT

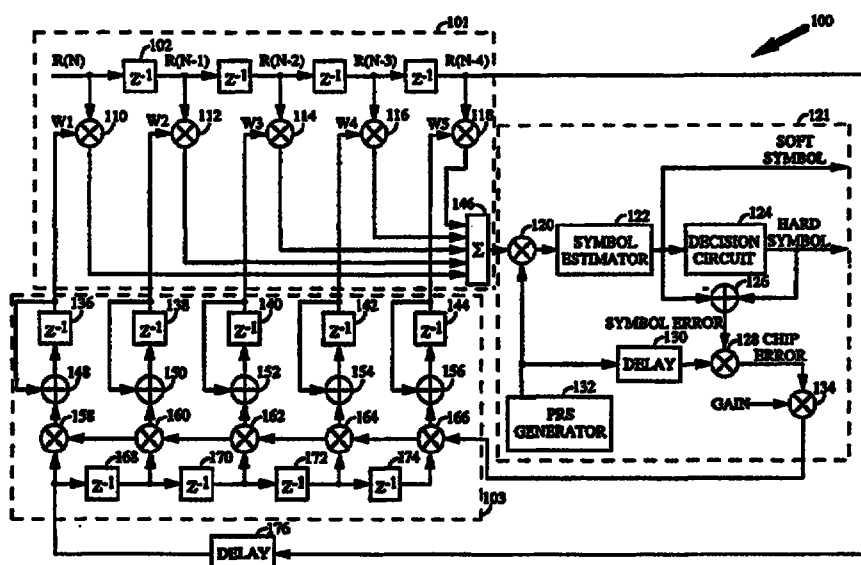
WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : H04B 1/707	A1	(11) International Publication Number: WO 97/05709 (43) International Publication Date: 13 February 1997 (13.02.97)
(21) International Application Number: PCT/US96/12531 (22) International Filing Date: 31 July 1996 (31.07.96) (30) Priority Data: 509,722 31 July 1995 (31.07.95) US (71) Applicant: QUALCOMM INCORPORATED [US/US]; 6455 Lusk Boulevard, San Diego, CA 92121 (US). (72) Inventor: ROSS, Arthur; 2325 Orangewood Avenue, Phoenix, AZ 85020 (US). (74) Agent: MILLER, Russell, B.; Qualcomm Incorporated, 6455 Lusk Boulevard, San Diego, CA 92121 (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, IL, 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.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>	

PCT

(54) Title: ADAPTIVE DESPREADER



(57) Abstract

A method and apparatus for adaptively despreading a direct sequence spread spectrum signal. The direct sequence spread spectrum signal is provided to transversal filter (101). The output of filter (101) is despread by despreader (120) to provide a soft symbol determined by symbol estimator (122). The soft symbol is provided to decision circuit (124) which generates an error corrected version of the soft symbol data, referred to as a hard symbol. The value of the hard symbol is subtracted from the soft symbol by subtractor (126) to generate an error symbol. The error symbol is then used to compute tap values of the transversal filter by means of an LMS algorithm employed by tap adapter (103).