

PCT

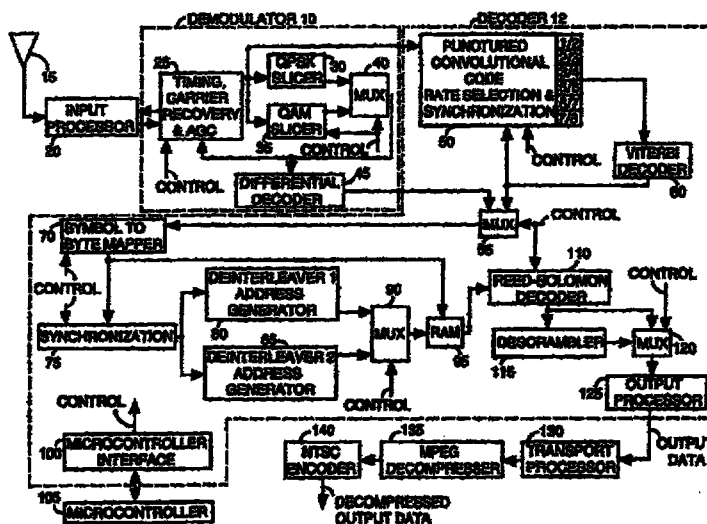
WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : H04L 27/06, 27/22, 27/08, 7/00		A1	(11) International Publication Number: WO 97/03509
			(43) International Publication Date: 30 January 1997 (30.01.97)
(21) International Application Number: PCT/US96/11109		(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).	
(22) International Filing Date: 28 June 1996 (28.06.96)			
(30) Priority Data: 501,361 12 July 1995 (12.07.95) US			
(71) Applicant: THOMSON CONSUMER ELECTRONICS, INC. [US/US]; 10330 North Meridian Street, Indianapolis, IN 46290-1024 (US).			
(72) Inventor: STEWART, John, Sidney; 3655 West 71st Street, Indianapolis, IN 46268 (US).			
(74) Agents: TRIPOLI, Joseph, S. et al.; GE & RCA Licensing Management Operation, Inc., CN 5312, Princeton, NJ 08540 (US).		Published With international search report. With amended claims.	

(54) Title: APPARATUS FOR DEMODULATING AND DECODING VIDEO SIGNALS



(57) Abstract

An adaptive receiver includes an adaptive demodulator (10) and an adaptive decoder (12) for providing demodulated and decoded output data from a video signal encoded for satellite, terrestrial or cable transmission. The demodulator recovers demodulated output data by using an adaptive timing recovery network (25) and an adaptive carrier recovery network (25) that incorporates a selectable slicer network (30, 35, 40). In addition, an Automatic Gain Control network (25) within the demodulator provides a gain control output as a function of a difference between signals produced both prior to and following the slicer. The demodulator may also incorporate a signal quality detector that uses carrier recovery network signals to provide an estimate of the error in the demodulated output data. The decoder produces a Viterbi decoded output from the demodulated output data by using a selectable code rate Viterbi decoder.