200002346-5
IPOS reference

PCT WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 6 : H04N 5/44 — A1

(11) International Publication Number: **WO 99/23821**

(43) International Publication Date: 14 May 1999 (14.05.99)

(21) International Application Number: PCT/US98/21796

(22) International Filing Date: 15 October 1998 (15.10.98)

(30) Priority Data:

9723052.8	31 October 1997 (31.10.97)	GB
09/139,706	26 August 1998 (26.08.98)	US

(71) Applicant: THOMSON CONSUMER ELECTRONICS, INC. [US/US]; 10330 North Meridian Street, Indianapolis, IN 46290–1024 (US).

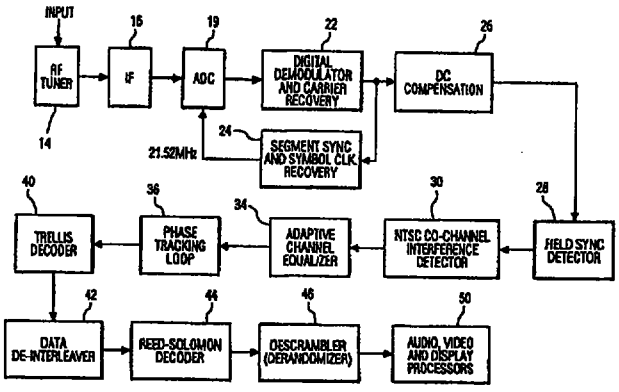
(72) Inventor: WANG, Tian, Jun; 9460 Benchmark Drive #F, Indianapolis, IN 46240 (US).

(74) Agents: TRIPOLI, Joseph, S. et al.; GE & RCA Licensing Management Operation, Inc., P.O. Box 5312, Princeton, NJ 08540 (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, GD, GE, GH, GM, HR, 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, GW, ML, MR, NE, SN, TD, TG).

Published
With international search report.

(54) Title: NETWORK FOR ELIMINATING DC OFFSET IN A RECEIVED HDTV SIGNAL



(57) Abstract

A receiver for processing a VSB modulated signal containing terrestrial broadcast high definition television information and a pilot component includes an input analog–to–digital converter (19) for producing a datastream which is oversampled at twice the received symbol rate, and a digital demodulator (22) with a data reduction network in a phase control loop. A segment sync detector (24) uses an abbreviated correlation reference pattern to recover a twice symbol rate sampling clock for the digital converter (19). A DC offset associated with the pilot component is removed (26) from the demodulated signal before it is applied to an NTSC interference detection network (30). The interference detection network (30) includes a comb filter network responsive to a twice symbol rate sampled data datastream, and exhibits a sample delay dimensioned to avoid aliasing in the combed frequency spectrum, thereby increasing the effectiveness of NTSC co–channel interference detection.