4705469-6
IPOS

PCT WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 6 : H04N 5/913 — A2

(11) International Publication Number: **WO 96/36174**

(43) International Publication Date: 14 November 1996 (14.11.96)

(21) International Application Number: PCT/US96/06138

(22) International Filing Date: 1 May 1996 (01.05.96)

(30) Priority Data:
08/438,155 9 May 1995 (09.05.95) US

(71) Applicant: MACROVISION CORPORATION [US/US]; 1341 Orleans Drive, Sunnyvale, CA 94089 (US).

(72) Inventors: QUAN, Ronald; 10910 Wunderlich Drive, Cupertino, CA 95014 (US). RYAN, John, O.; 22015 Creekside Court, Cupertino, CA 95014 (US).

(74) Agent: BRILL, Gerow, D.; Macrovision Corporation, 1341 Orleans Drive, Sunnyvale, CA 94089 (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
Without international search report and to be republished upon receipt of that report.

REPLACED SHEETS SG
☐ Description : paged ..... to paged .....
☑ Claim(s) : paged ..... 40,43,45-46,51-52 to paged .....
☐ Drawing(s) : paged ..... to paged .....
☐ Abstract : paged ..... to paged .....
DATE OF RECEIPT .....

(54) Title: METHOD AND APPARATUS FOR DEFEATING EFFECTS OF COLOR BURST MODIFICATIONS TO A VIDEO SIGNAL

(57) Abstract

In the known color stripe process for preventing recording of video signals, the color burst present on each line of active video is modified so that any subsequent video tape recording of the video signal shows variations in the color fidelity that appear as undesirable bands or stripes of color error. This color stripe process is defeated first by determining the location of the video lines including the color stripe process, either by prior experimentation or by on-line detection. Then some or all of the lines including the modified color bursts are modified so as to render the overall video signal recordable. The modification is accomplished in a number of ways, including phase shifting the color stripe burst into the correct phase, replacing some of the color stripe bursts or a portion of particular color stripe bursts so that they are no longer effective, and mixing the color stripe burst with color stripe signals of the correct phase so as to eliminate most or all of the phase error present. The modified color bursts are defeated, in other versions, by modifying the horizontal sync pulse signals immediately preceding the modified color bursts so that the modified color bursts are not detected by a VCR and hence have no effect.

