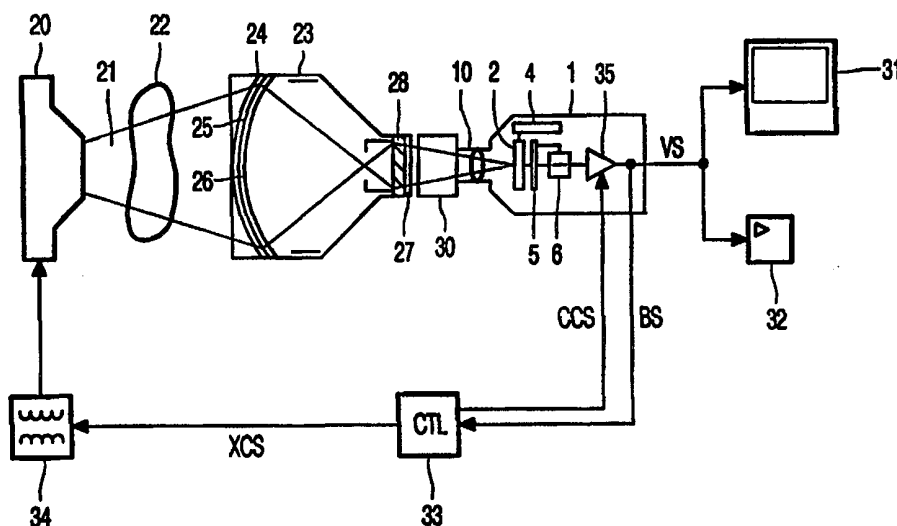




INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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(21) International Application Number: PCT/IB99/00373 (22) International Filing Date: 4 March 1999 (04.03.99) (30) Priority Data: 98200886.4 19 March 1998 (19.03.98) EP (71) Applicant: KONINKLIJKE PHILIPS ELECTRONICS N.V. [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL). (71) Applicant (for SE only): PHILIPS AB [SE/SE]; Kottbygatan 7, Kista, S-164 85 Stockholm (SE). (72) Inventor: NEDERPELT, Christianus, G., L., M.; Prof. Holst- laan 6, NL-5656 AA Eindhoven (NL). (74) Agent: COHEN, Julius, S.; Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).		(81) Designated States: JP, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). 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> (88) Date of publication of the international search report: 16 December 1999 (16.12.99)

(54) Title: IMAGE PICK-UP APPARATUS INCLUDING A CORRECTION UNIT

**(57) Abstract**

The image pick-up apparatus (1) is provided with an image sensor (2) which includes a plurality of photoelectric elements which convert radiation into electrical charges. A control system (4) is arranged to read out separately electrical charges representing brightness values of the image and electrical charges representing smear. The read-out unit is arranged to derive a correction signal (SC) from the electrical charges representing smear and to derive a primary image signal (PS) from the electrical charges representing brightness values of the image. The correction unit derives a corrected image signal (VS) from the primary image signal and the correction signal. The control system (4) is especially arranged to derive the correction signal from the largest electrical charges from among the electrical charges representing smear, so that only a comparatively small number of electrical charges need be read out so as to obtain the correction signal. Preferably, the electrical charges are read out while radiation is incident on the image sensor so that only a very short period of time is required to read out the image sensor and to derive the corrected image signal.

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/IB 99/00373

A. CLASSIFICATION OF SUBJECT MATTER

IPC6: H04N 5/325, H04N 3/14

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC6: H04N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

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C. DOCUMENTS CONSIDERED TO BE RELEVANT

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X	US 4567524 A (PETER A. LEVINE), 28 January 1986 (28.01.86), column 2, line 44 - line 53, figure 3, abstract --	1,3-6
A	WO 9723090 A2 (PHILIPS ELECTRONICS N.V.), 26 June 1997 (26.06.97), page 7 - page 8, figure 1 --	5-6
A	EP 0398228 A2 (SANYO ELECTRIC CO., LTD.), 22 November 1990 (22.11.90), see whole document --	1-6
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Date of the actual completion of the international search

28 October 1999

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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28/09/99

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