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### (54) Method and apparatus for driving a display device with variable reference driving signals

(57) A method and an apparatus capable of increasing the video depths depending on the video content of each line in order to provide a maximum of color gradation for each given scene shall be proposed. For this purpose there is disclosed an apparatus for driving a display device (16) including input means (11) for receiving a digital value as video level for each pixel or cell of a line of the

display device (16), reference signalling means (19) for providing at least one reference driving signal and driving means (15) for generating a driving signal on the basis of the digital value and the at least one reference driving signal. The apparatus further includes adjusting means (18) for adjusting the at least one reference driving signal in dependence of the digital values of at least a part of the line.

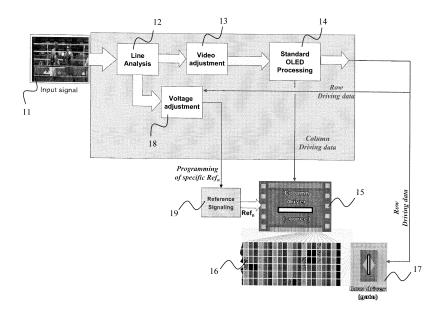


Fig. 7



# **EUROPEAN SEARCH REPORT**

**Application Number** EP 07 11 1198

	DOCUMENTS CONSIDE	RED TO BE RELEVA	ANT		
Category	Citation of document with in of relevant passa			elevant claim	CLASSIFICATION OF THE APPLICATION (IPC)
X Y	US 2002/011979 A1 (NITTA HIROYUKI ET AL) 31 January 2002 (2002-01-31) * figures 1,5,6,13-15,18 * * paragraph [0001] * * paragraph [0052] - paragraph [0088] *				, INV. G09G3/32
X	* paragraph [0027]	SING)	DT 1-:	3,5-7	
Х	EP 1 469 449 A (SON 20 October 2004 (20 * figure 16 * * paragraph [0118]	94-10-20)		3,5-7	
Y	US 2003/122743 A1 ( 3 July 2003 (2003-0 * figures 8,10A * * paragraph [0008] * paragraph [0064]	7-03) *	*	9	TECHNICAL FIELDS SEARCHED (IPC)
	The present search report has b	•			
Place of search  Munich		Date of completion of the 22 January		Gia	ncane, Iacopo
CATEGORY OF CITED DOCUMENTS  X: particularly relevant if taken alone Y: particularly relevant if combined with another document of the same category A: technological background O: non-written disclosure P: intermediate document		E : earlier after the er D : docume L : docume & : membe	T: theory or principle underlying the invention E: earlier patent document, but published on, or after the filing date D: document cited in the application L: document cited for other reasons  &: member of the same patent family, corresponding document		

# ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 07 11 1198

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

22-01-2009

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2002011979 A1	31-01-2002	JP 3651371 B2 JP 2002041004 A KR 20020013714 A TW 559770 B	25-05-200 08-02-200 21-02-200 01-11-200
EP 1622119 A	01-02-2006	CN 1728224 A JP 2006048040 A KR 20060053903 A MX PA05007874 A US 2006022915 A1	01-02-200 16-02-200 22-05-200 10-02-200 02-02-200
EP 1469449 A	20-10-2004	CN 1692396 A WO 2004040542 A1 JP 2004151501 A KR 20050056163 A TW 260577 B US 2005062691 A1	02-11-200 13-05-200 27-05-200 14-06-200 21-08-200 24-03-200
US 2003122743 A1	03-07-2003	CN 1432983 A JP 2003316314 A TW 224350 B	30-07-200 07-11-200 21-11-200

FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82