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(54) **IMAGE SELF CALIBRATION METHOD AND DEVICE FOR LCD DISPLAYS**

(57) The present invention provides an image self-calibration method and device for LCD displays, comprising a front optical sensor and a calibration reference device. The front optical sensor is employed to calibrate the gray scale level and color temperature of the display. The calibration reference device is employed to pre-calibrate the front optical sensor. The present invention has the following advantages. Image pre-calibration

is performed on the installed optical sensor before it leaves a factory, and the calibrated optical sensor directly performs gray scale level and color temperature calibration on the display. The present invention is easy to implement, can effectively inspect and calibrate images on the display, and can save human resources and reduce manufacture and maintenance time.

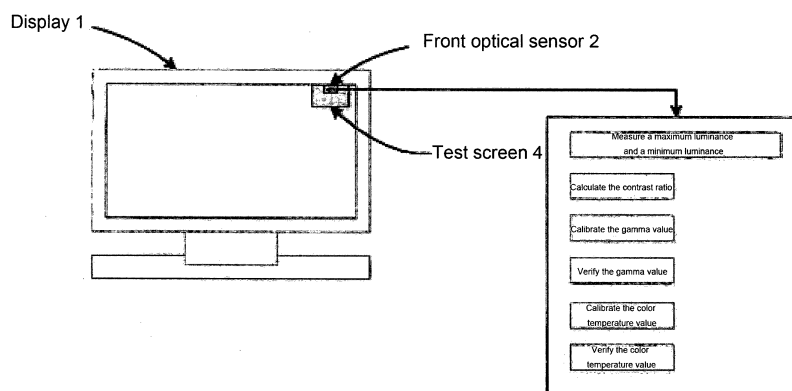


Fig. 2



EUROPEAN SEARCH REPORT

Application Number
EP 15 40 0015

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	US 7 102 648 B1 (HOLUB RICHARD A [US]) 5 September 2006 (2006-09-05) * column 3, lines 31-46; figures 1,2,15,16 * * column 5, lines 9-17; claims 1,7 * * column 20, line 59 - column 21, line 11 *	1-4,9,10	INV. G09G3/00
X	EP 2 213 993 A1 (X RITE EUROPE GMBH [CH]) 4 August 2010 (2010-08-04) * paragraphs [0005], [0010] - [0012], [0015], [0019] - [0032]; figures 1,2,5 * -----	1-4,9,10	
X	US 2008/246871 A1 (KUPPER WALTER [DE] ET AL) 9 October 2008 (2008-10-09) * the whole document * -----	1-4,9,10	
			TECHNICAL FIELDS SEARCHED (IPC)
			G09G
1 The present search report has been drawn up for all claims			
Place of search		Date of completion of the search	Examiner
The Hague		2 February 2016	Vázquez del Real, S
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 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			

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Application Number

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CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing claims for which payment was due.

☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due and for those claims for which claims fees have been paid, namely claim(s):

☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

☐ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.

☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.

☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:

☒ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:

1-4, 9, 10

☐ The present supplementary European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims (Rule 164 (1) EPC).



LACK OF UNITY OF INVENTION
SHEET B

Application Number

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The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1-4, 9, 10

The subject-matter of these claims refers to the calibration of the optical sensor that would be use to calibrate a display during his operational life

2. claims: 5-7

The subject-matter of these claims refers to the gamma calibration of a the display by the optical sensor located in front of the display

3. claim: 8

The subject-matter of these claims refers to the colour temperature calibration of a the display by the optical sensor located in front of the display

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

EP 15 40 0015

5 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.

02-02-2016

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