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(54) **Method for displaying images on a large-screen organic light-emitting diode display, and display used therefore**

(57) Method for displaying images on a large-screen organic light-emitting diode display, characterized in that use is made of an organic light-emitting diode (OLED) display (100) comprising an array of OLED display tiles (140) that are each formed of an array of smaller OLED display modules (130), each OLED display module (130) comprising a number of OLED pixels, wherein each OLED display module (130) includes an intelligent OLED module processing system (210), whereby, in order to display the images, data concerning the image to be displayed, provided by a general processing unit, in other words a system controller, are transmitted to tile processing systems (220) and from each tile processing system (220) towards the respective modules (130), characterized in that the OLEDs are driven by means of current sources, and in that in each OLED module processing system (210) the voltage across the current source (430) of the worst OLED (420) is compared to a pre-stored minimum threshold voltage value, and if said voltage is lower than the threshold voltage value, an adjustment of the power supply voltage is carried out.

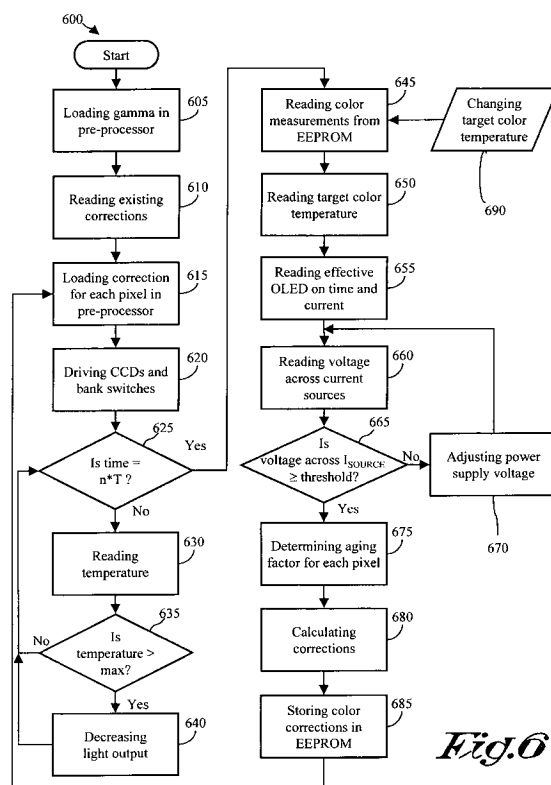


Fig.6



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 07 07 5284

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
Y	US 4 833 542 A (HARA ZENICHIRO [JP] ET AL) 23 May 1989 (1989-05-23) * column 3, lines 19-41 * * column 4, line 18 - column 6, line 47 * * column 7, lines 37-46; figures 3,6-8,11,15 *	1,11,12	INV. G09G3/32
Y	US 5 796 376 A (BANKS ARCHIE A [CA]) 18 August 1998 (1998-08-18) * column 3, line 55 - column 8, line 8; figures 1-3,5,6 *	1,11,12	
Y	EP 1 079 361 A (HARNESS SYST TECH RES LTD [JP]; SUMITOMO WIRING SYSTEMS [JP]; SUMITOMO) 28 February 2001 (2001-02-28) * paragraphs [0152] - [0169]; figures 14-18 *	1,11,12	
Y	WO 02/47310 A (SARNOFF CORP [US]) 13 June 2002 (2002-06-13) * page 14, lines 18-29 *	2-7	TECHNICAL FIELDS SEARCHED (IPC)
Y	EP 1 225 557 A (MATSUSHITA ELECTRIC IND CO LTD [JP]) 24 July 2002 (2002-07-24) * paragraph [0189] *	2-7	G09G
A	US 2002/047550 A1 (TANADA YOSHIFUMI [JP]) 25 April 2002 (2002-04-25) * paragraph [0122] *	1	
A	EP 1 033 765 A2 (PIONEER CORP [JP]) 6 September 2000 (2000-09-06) * paragraphs [0050], [0051] *	1	
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 22 January 2008	Examiner Harke, Michael
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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**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 07 07 5284

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
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22-01-2008

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 4833542	A	23-05-1989	AU 593368 B2	08-02-1990
			AU 7568687 A	25-02-1988
			CA 1290800 C	15-10-1991
			CA 1298607 C2	07-04-1992
			DE 3785972 D1	01-07-1993
			DE 3785972 T2	18-11-1993
			EP 0253379 A2	20-01-1988
			HK 144694 A	30-12-1994
			US 4901155 A	13-02-1990

US 5796376	A	18-08-1998	NONE	

EP 1079361	A	28-02-2001	NONE	

WO 0247310	A	13-06-2002	EP 1332487 A2	06-08-2003
			JP 2004515810 T	27-05-2004

EP 1225557	A	24-07-2002	CN 1377495 A	30-10-2002
			WO 0126085 A1	12-04-2001
			TW 472277 B	11-01-2002
			US 7227519 B1	05-06-2007

US 2002047550	A1	25-04-2002	NONE	

EP 1033765	A2	06-09-2000	DE 60034612 T2	03-01-2008
			JP 3850005 B2	29-11-2006
			JP 2000252550 A	14-09-2000
			US 6836067 B1	28-12-2004

专利名称(译)	用于在大屏幕有机发光二极管显示器上显示图像的方法，以及因此使用的显示器		
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IPC分类号	G09G3/32 H01L51/50 G09F9/30 G09F9/40 G09G3/20 G09G3/30 H01L27/32		
CPC分类号	G09G3/3216 G06F3/1446 G09G3/2014 G09G2300/026 G09G2310/0251 G09G2310/0256 G09G2320/0276 G09G2320/041 G09G2320/043 G09G2320/0626 G09G2320/0666 G09G2330/021 G09G2360/144 G09G2360/147 H01L27/3293		
其他公开文献	EP1814100A2		
外部链接	Espacenet		

摘要(译)

在大屏幕有机发光二极管显示器上显示图像的方法，其特征在于，使用包括每个形成的OLED显示瓦片阵列的有机发光二极管（OLED）显示器（100）。一组较小的OLED显示模块（130），每个OLED显示模块（130）包括多个OLED像素，其中每个OLED显示模块（130）包括智能OLED模块处理系统（210），其中，为了显示图像，由一般处理单元提供的关于要显示的图像的数据，换句话说系统控制器，被发送到图块处理系统（220）并且从每个图块处理系统（220）发送到各个模块（130）。），其特征在于，OLED通过电流源驱动，并且在每个OLED模块处理系统（210）中，将最差OLED（420）的电流源（430）两端的电压与预先存储的电压进行比较。最小阈值电压如果所述电压低于阈值电压值，则执行电源电压的调节。

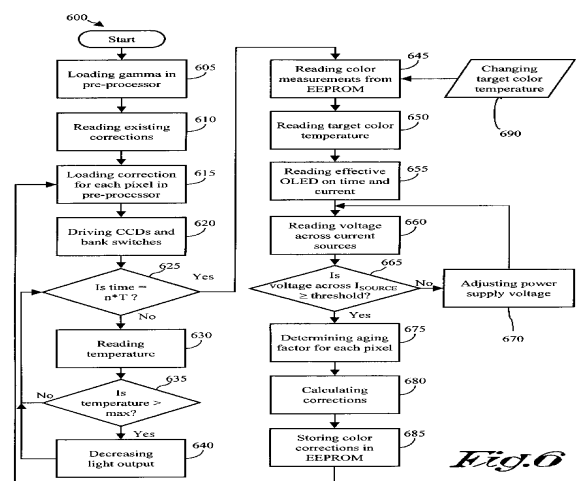


Fig.6