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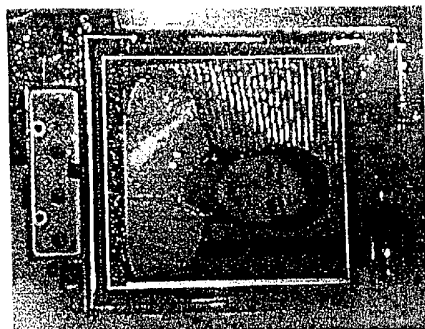
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- (71) Applicants: LEE, Jin, H. [KR/CA]; Canada Interworld Telecommunications Inc., 303-1281 W. Georgia St., Vancouver, British Columbia V6E 3J5 (CA). CANADA INTERWORLD TELECOMMUNICATIONS INC. [CA/CA]; 303-1281 W. Georgia St., Vancouver, British Columbia V6E 3J5 (CA).

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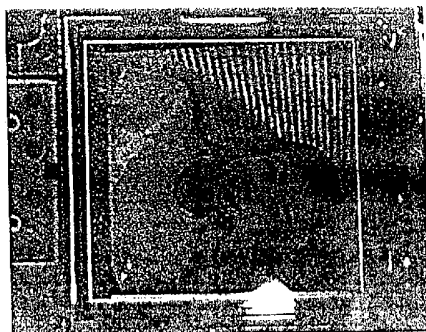
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[Continued on next page]

(54) Title: METHOD FOR DOUBLING RESOLUTION LCD DISPLAY USING LINE DOUBLING AND NON-LINEAR INTERPOLATION CURVE



a) 160 by 160 image displayed on 162 by 174 TFT LCD using conventional method



b) 320 by 320 image displayed on 162 by 174 TFT LCD using SDT

(57) Abstract: A method for scaling a low resolution display size to multiple of two is presented. The system consists of a signal processor including a simple motion detector, controller, image processing module with interpolation processor and data compression codec (decoder and encoder). The scaling method involves converting pixel data from red, green, blue (RGB) color format to YcbCr color format, and interpolating the pixel data based on a look-up table, to obtain pixel data having larger pixel resolution. Therefore efficiency of frame buffer usage is increased and data traffic and power consumption are reduced. The method is used for doubling resolution of LCD used in cellular phone, personal digital assistant (PDA) and laptop or desktop computer.



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A. CLASSIFICATION OF SUBJECT MATTER IPC ^B : G06T 3/40 (2006.01) 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) IPC ^B : G06T, G09G		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched ----		
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) EPODOC, PAJ, WPI, TXT		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 803 841 A2 (CANON KK) 29 October 1997 (29.10.1997) <i>the whole document, especially abstract, figures 5 and associated descriptions.</i>	1, 2, 5
Y	--	3, 4
X	EP 0 895 187 A2 (HEWLETT-PACKARD COMPANY) 3 February 1999 (03.02.1999) <i>the whole document, especially abstract, figure 1, paragraphs [0008] [0010], claims 1-3.</i>	1, 2
Y	--	3, 4
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> See patent family annex.		
* Special categories of cited documents: "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family		
Date of the actual completion of the international search 26 April 2006 (26.04.2006)		Date of mailing of the international search report 10 May 2006 (10.05.2006)
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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.
Y	EP 1 289 304 A2 (MATSUSHITA ELECTRIC IND. CO. LTD.) 5 March 2003 (05.03.2003) <i>abstract, figure 1 and associated description.</i>	3, 4
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A	JP 2000-092485 A (CANON KK) 31 March 2000 (31.03.2000) <i>abstract, figure 1.</i>	1-5

INTERNATIONAL SEARCH REPORT

Information on patent family members

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