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(54) **A column driver for LCD using frame duty cycle control**

(57) A driver for a liquid crystal display has fixed pre-set drive voltage levels and means for varying an ON:

OFF ratio over a number of cycles, whereby effectively to present variable driving voltage levels for driving a liquid crystal display.

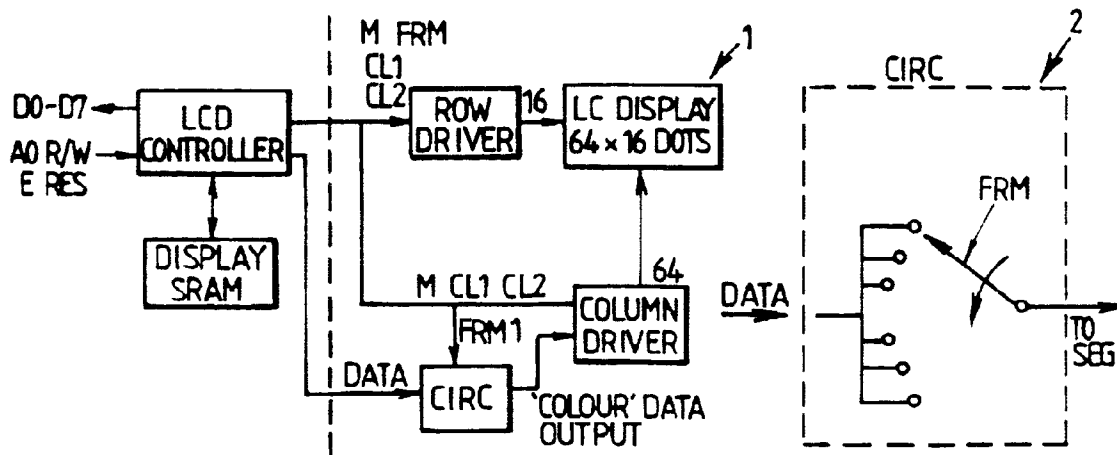


FIG. 2



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 96 30 8500

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
X	EP 0 193 728 A (ASCII CORP ;NIPPON MUSICAL INSTRUMENTS MFG (JP))	1,2,4,5,7-9	G09G3/36 G09G3/20
Y	* abstract * * page 3, line 1 - line 14 * * page 8, line 12 - line 33 * * page 9, line 7 - line 33 * * claim 1 * * figures 3,5,6,11 *	6	
X	US 5 053 764 A (BARBIER BRUNO ET AL) * abstract * * figures 1,13 *	1-3	
Y	US 5 196 839 A (JOHARY ARUN ET AL) * column 5, line 62 - column 6, line 6 * * figure 5 *	6	
			TECHNICAL FIELDS SEARCHED (Int.Cl.6)
			G09G
The present search report has been drawn up for all claims			
Place of search		Date of completion of the search	Examiner
THE HAGUE		8 December 1997	Cochonneau, O
CATEGORY OF CITED DOCUMENTS		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	
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			

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