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(71) Applicant: **EASTMAN KODAK COMPANY**
Rochester, New York 14650 (US)

(72) Inventors:
- **Stephenson, Stanley Ward**
  Rochester,
  New York 14650-2201 (US)
- **Johnson, David M**
  Rochester,
  New York 14650-2201 (US)
- **Mi, Xiang-Dong**
  Rochester,
  New York 14650-2201 (US)

(74) Representative: **Weber, Etienne Nicolas et al**
Kodak Industrie
Département Brevets - CRT
Zone Industrielle
71102 Chalon sur Saône Cedex (FR)

(54) Unipolar drive chip for cholesteric liquid crystal displays

(57) Apparatus for driving a cholesteric liquid crystal display wherein the display includes cholesteric liquid crystals having a first planar reflective state and a second transparent focal conic state, which is respectively responsive to different applied fields. The apparatus further includes an addressing structure having rows and columns of conductors arranged so that when a column and a row overlap, they define a selectable pixel or segment to be viewable or non-viewable, and a single drive chip responsive to a single input voltage for applying selected voltages to rows and columns of conductors, so that selectable unipolar fields are applied across the cholesteric liquid crystals of the pixels to selectively change the state of the cholesteric liquid crystal.

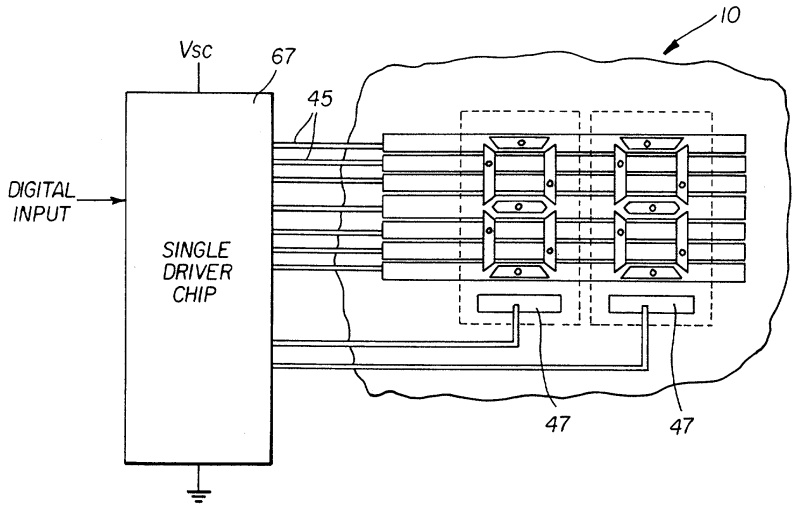

FIG. 4

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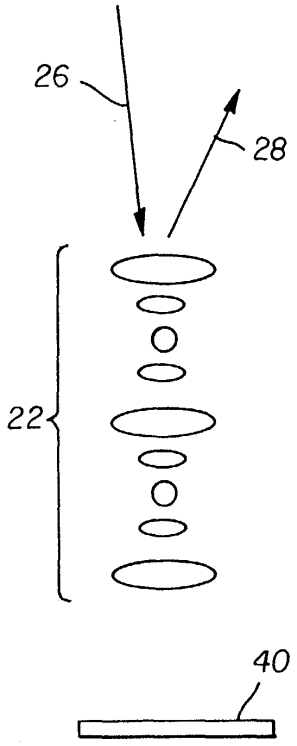

FIG. 5A

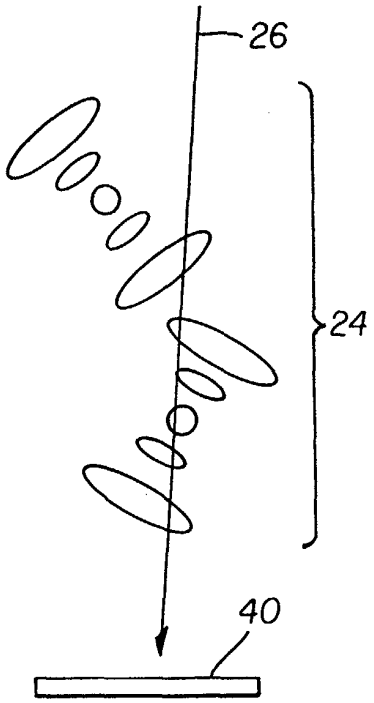

FIG. 5B

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EUROPEAN SEARCH REPORT

Application Number
EP 03 07 5520

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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X	US 5 699 074 A (O'HAGAN TIMOTHY P ET AL) 16 December 1997 (1997-12-16) * column 2, lines 52-67; figures 2,3 * * column 3, lines 34-37 * * column 5, lines 8-50 *	1,2	

TECHNICAL FIELDS SEARCHED (IPC)

G09G

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	2 February 2007	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
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& : member of the same patent family, corresponding document

EPO FORM 1503 03.82 (P04C01)

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ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO. EP 03 07 5520

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02-02-2007

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

专利名称(译)	用于胆甾型液晶显示器的单极驱动芯片		
公开(公告)号	EP1343137A3	公开(公告)日	2007-03-14
申请号	EP2003075520	申请日	2003-02-24
[标]申请(专利权)人(译)	伊斯曼柯达公司		
申请(专利权)人(译)	伊士曼柯达公司		
当前申请(专利权)人(译)	伊士曼柯达公司		
[标]发明人	STEPHENSON STANLEY WARD JOHNSON DAVID M MI XIANG DONG		
发明人	STEPHENSON, STANLEY WARD JOHNSON, DAVID M MI, XIANG-DONG		
IPC分类号	G09G3/36 G09G3/18 G02F1/141 G02F1/133 G02F1/137 G09G3/20		
CPC分类号	G09G3/3692 G09G3/18 G09G3/3629 G09G3/3681 G09G2300/0486		
优先权	10/094070 2002-03-08 US		
其他公开文献	EP1343137A2		
外部链接	Espacenet		

摘要(译)

用于驱动胆甾型液晶显示器的装置，其中显示器包括具有第一平面反射状态和第二透明焦锥状态的胆甾型液晶，其分别响应于不同的施加场。该装置还包括寻址结构，该寻址结构具有行和列的导体，其布置成使得当列和行重叠时，它们限定可选择的像素或片段以便可观看或不可观看，并且单个驱动芯片响应于单个输入电压为了将选定的电压施加到导体的行和列，使得可选的单极场施加在像素的胆甾型液晶上，以选择性地改变胆甾型液晶的状态。

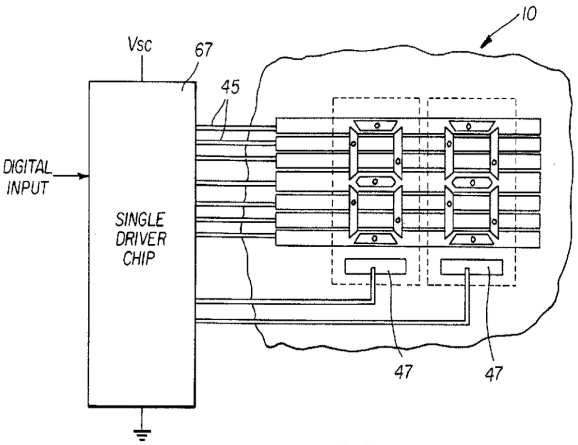

FIG. 4