Title (en)

Liquid crystal display apparatus

Title (de)

Flüssigkristallanzeigevorrichtung

Title (fr)

Dispositif d'affichage à cristaux liquides

Publication

EP 0617399 B1 19980826 (EN)

Application

EP 94104742 A 19940324

Priority

- JP 8926893 A 19930324
- JP 8927593 A 19930324

Abstract (en)

[origin: EP0617399A1] A liquid crystal display apparatus comprises a liquid crystal element adapted to be driven by a plurality of row electrodes and column electrodes in which a plurality of row electrodes are simultaneously selected, a column voltage generating circuit to apply to each of the column electrodes voltages based on orthogonal conversion signals which are obtained by converting, with use of an orthogonal function, picture signals corresponding to the positions of the simultaneously selected row electrodes of the display element, and a row voltage generating circuit to apply voltages based on row electrode selection pattern signals formed with an orthogonal function to the simultaneously selected row electrodes, wherein the row voltage generating circuit comprises a row electrode selection means to address sequentially the each simultaneously selected row electrodes, and a row voltage generating means to apply voltages in response to the corresponding data in the row electrode selection pattern signals to the each row electrodes selected by the row electrode selection means. <IMAGE>

IPC 1-7

G09G 3/36

IPC 8 full level

G09G 3/36 (2006.01)

CPC (source: EP KR)

G09G 3/3625 (2013.01 - EP); **G09G 3/3696** (2013.01 - KR); G09G 2310/0264 (2013.01 - KR)

Cited by

US6054974A; US7176912B2; EP0742469A4; EP1278177A3; EP0720140A3; US5818409A; US6037919A; EP0807921A1; EP0604226A3; US6252572B1; US7420551B2

Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

EP 0617399 A1 19940928; **EP 0617399 B1 19980826**; CN 1093176 A 19941005; DE 69412677 D1 19981001; DE 69412677 T2 19990211; KR 940022149 A 19941020

DOCDB simple family (application)

EP 94104742 A 19940324; CN 94103208 A 19940324; DE 69412677 T 19940324; KR 19940005887 A 19940323