

Title (en)
DRIVING METHOD AND APPARATUS FOR LIQUID CRYSTAL DISPLAY DEVICE

Publication
EP 0478382 A3 19930324 (EN)

Application
EP 91308885 A 19910927

Priority
JP 25998890 A 19900927

Abstract (en)
[origin: EP0478382A2] Scanning electrodes (L) constituting a ferroelectric liquid crystal panel (20) are divided into a plurality of scanning electrode groups, and a selective voltage (VCA) is applied sequentially to the scanning electrodes constituting the scanning electrode group over two group fields. In a first group field, a signal voltage (VSC) for changing picture elements on the selected scanning electrode from the bright display state to the dark display state, or a signal voltage (VSE) for not changing the bright and dark display states is applied to the signal electrodes. In a second group field, a signal voltage (VSD) for changing the picture elements on the selected scanning electrode from the dark display state to the bright display state, or a signal voltage (VSE) for not changing the bright and dark display states is applied to the signal electrodes. Uniting the two group fields together, changes in display state of the picture elements constituting the scanning electrode group are responded. Thereby, as long as the display state of the picture elements is not changed, the change in effective voltage waveform applied to the picture element can be kept smaller than the change in effective voltage waveform due to switching of the driving voltage combination corresponding to the two group fields. <IMAGE>

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G09G 3/36

IPC 8 full level
G02F 1/133 (2006.01); **G09G 3/36** (2006.01)

CPC (source: EP KR)
G09G 3/36 (2013.01 - KR); **G09G 3/3629** (2013.01 - EP); **G09G 3/3644** (2013.01 - EP); **G09G 3/3681** (2013.01 - EP);
G09G 2310/04 (2013.01 - EP); **G09G 2310/06** (2013.01 - EP); **G09G 2320/0247** (2013.01 - EP)

Citation (search report)
• [A] EP 0281160 A1 19880907 - CANON KK [JP]
• [A] EP 0256879 A2 19880224 - CANON KK [JP]
• [AD] EP 0306822 A2 19890315 - SHARP KK [JP]

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EP0592801A1; US6075508A; EP0596607A1; US5477235A; US7106284B2; EP0591683A1; US6157359A; EP1296311A3; US6937218B2

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